

Low Voltage

Acti9

the efficiency you deserve

Catalogue
2013



Schneider
Electric



Acti 9 offer presentation

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5 generations

of industry experience and 21 new patents make Acti 9 the new reference in low voltage modular systems

> Acti 9

"In short, I optimize my own energy."



The new core modular system that makes your power distribution installation safer, simpler and more efficient



High quality modular system without compromise

We leveraged five generations of low voltage expertise to design a precision, high quality modular system without compromise. The Acti 9 offers the fastest and most flexible installation experience, and completely eliminates safety concerns during maintenance and operation. Engineered to adapt to the most challenging networks and environments while remaining cost-effective over time, it is the most flexible, coordinated, comprehensive and innovative range of low voltage modular systems available.



The Acti 9 gives you safety, simplicity and efficiency for the lifespan of your installation



Acti 9: The 5th generation of modular systems

Acti 9

The safest, simplest and most efficient system for power distribution solutions

Protection Systems

- > Miniature circuit-breaker
- > Residual current circuit breaker
- > Vigi module
- > Surge arrester
- > Electrical and mechanical auxiliaries



Safer

VisiSafe and Class2 give complete safety for the life or your installation



More Efficient

VisiTrip, Super immunization & automatic reclosers increase continuity of service, enhance reliability

Control Systems

- > Contactors
- > Impulse relays
- > RCA remote controls
- > ARA automatic reclosers
- > Reflex iC60
- > Acti 9 Smartlink

Installation Systems

- > Multiclip
- > Distribloc
- > Comb busbar



Simpler and Smarter

- Two certifications for one product, 100% MCB & RCD coordination, easy ordering & design
- Fully BMS compatible, up to 50% less wiring, control mode flexibility adapts to changes, 100% recyclable

Safe

Safest operation guaranteed even in the most demanding Safe environments

100%

safe for installers and users in the most severe environments



The best choice for industrial and tertiary buildings



Designed for safety, even in the most demanding environments

Safety matters most, and the Acti 9 system gives you, your customers, and their installations the highest level of protection available. It guarantees 100% safe operation and maintenance for you and your customers; its international certifications and numerous protection innovations mean the Acti 9 system exceeds even the most demanding requirements to give you total safety during maintenance, for the lifetime of your installation.

Guarantees total safety during maintenance

VisiSafe

VisiSafe guarantees the downstream circuit is always safe, regardless of overvoltage conditions, wear or operator experience, even in the most demanding environments.

- The green strip indicates the safe position of contacts.
- Highest Impulse voltage withstand: $U_{imp} = 6 \text{ kV}$
- Guarantees heightened equipment service life despite overvoltage conditions.
- Highest pollution resistance among modular devices: Pollution degree: level 3
- Promises a true “all-terrain” product ideally suited for all environments, even those with dust and conductive pollution.
- Leading edge insulation voltage: 500 V
- Complete safety for operators maneuvering the operating handle of the modular switchgear.

Only Available from
Schneider Electric



"I have no worries about the safety of the electrical installation, the buildings and everyone inside."

Promises absolute protection against electric shocks



Only Available from
Schneider Electric

Class 2 Front Face

The Acti 9 is the only device available with this level of safety. Clearances between breaker surfaces and internal parts are over double the industry standard. It guarantees risk-free handling during the life of the installation, regardless of environment or operator experience.

100%
preventative
maintenance

Protects the load and guarantees long service life



Fast Closing Mechanism

Fast closure of all Acti 9 RCBs and MCCBs limits wear and reduces voltage drops, helping to prevent premature equipment ageing and overheating.

Allows heavy-duty, reliable tightening



Twice the terminal tightening torque for more robust connections.

0
downtime

Provides zero-risk lockdown to guarantee protection and safety



Integrated Padlocking

Available for Acti 9 remote control devices, the rugged, integrated padlock allows complete lockdown for guaranteed protection and safety. It prevents toggle device movement and inadvertent or unauthorized access, so you can ensure employee or contractor safety at all times.

Safe and secure connections



Provides secure connections with quick, ergonomic and safe IP20B terminals shutters.

Efficient

The system that streamlines
Efficient your operations workflow



Designed to minimize downtime and avoid nuisance trips

With features like VisiTrip, which greatly reduces diagnostic and repair time, and super immunization of the RCDs to guarantee the highest continuity of service available, the Acti 9 system allows easier building management, eliminates downtime and makes your business even more competitive, limiting intervention costs on distant infrastructure sites.

"When I install the Acti 9 I know I don't have to come back to the job."

18mm 1P+N residual current circuit breaker



Only Available from
Schneider Electric

Half the width of the former product
More space saved for the enclosure and low cost
Top and bottom electrical feeding

30%

of switchboards are modified at design, cabling or commissioning stages, increasing project start-up times

Reflex iC60: The "all in one concept" integrated control circuit-breaker of the Acti 9 system



Only Available from
Schneider Electric

The Reflex iC60 combines an MCB with an internal actuator. Designed to evolve and adapt with the dynamic requirements of tertiary and industrial lighting control applications, it easily communicates with PLCs and BMS systems without the need for add-ons, retrofits or extras. Everything you need is included.

Evolves with changing site requirements



Multiclip distribution system allows you to quickly add outgoing and balance phases. Multiclip offers screwless, safe connections.

Adapts to your installation



Double DIN rail locker allows circuit changeouts without removing the comb. It adapts to new requirements and simplifies switchboard evolution.

Comes with tailored accessories



The Acti 9 system includes a comprehensive list of accessories: easily-installed padlock system, splitter block, rotary handle mount for switchboard doors, screw shields, sealable terminal shields, plug-in base, interpole barrier, clip-on markers.

Simple and Smart |

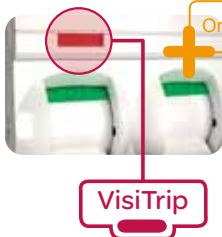


The right solution for every application

The Acti 9 simplifies final distribution operations in buildings and industrial facilities, giving you the right solution with the right technical characteristics, for every application. As new installation standards emerge or building requirements are modified, the Acti 9 system can easily scale to meet your needs. It's a flexible, open system with all-in-one, integrated components that can communicate with any Building Management System.

"Everything is simple with Acti 9. Whatever the application,
I have no second thoughts."

Less downtime, more continuity of service



Only Available from Schneider Electric

VisiTrip minimizes downtime and reduces repair times. Identify faults in one glance, and easily see the operating status of your network. VisiTrip indicates only the faulty outgoer, allowing fast diagnosis, resolution and re-closing loads for easier building management and reduced downtime.

100%

coordination
between MCB
and actuator

No need for onsite intervention



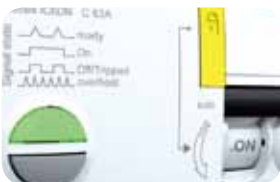
The Acti 9 introduces a new automatic recloser auxiliary (ARA iC60) designed to limit the cost of intervention on far away infrastructure sites. No need to have permanent on-site teams responding to transient faults, limiting distant site intervention costs.

Conforms to any BMS



Reflex iC60 has integrated signal auxiliaries for complete simplicity. Its control mode flexibility easily adapts to changes in your installation, optimizing design time for lighting and building control.

Provides greater readability



Ergonomic interface with specific color coding for locking padlocking devices. N indication for easy readability and speed of servicing.

15%

time saved on
design and
installation

Guarantees 100% coordination



100% coordination between RCDs and MCBs means no more searching through technical guides or coordination tables. Plus, in the Reflex iC60 the MCB and internal actuator are a unique "all in one" concept fully covered by the manufacturer warranty.

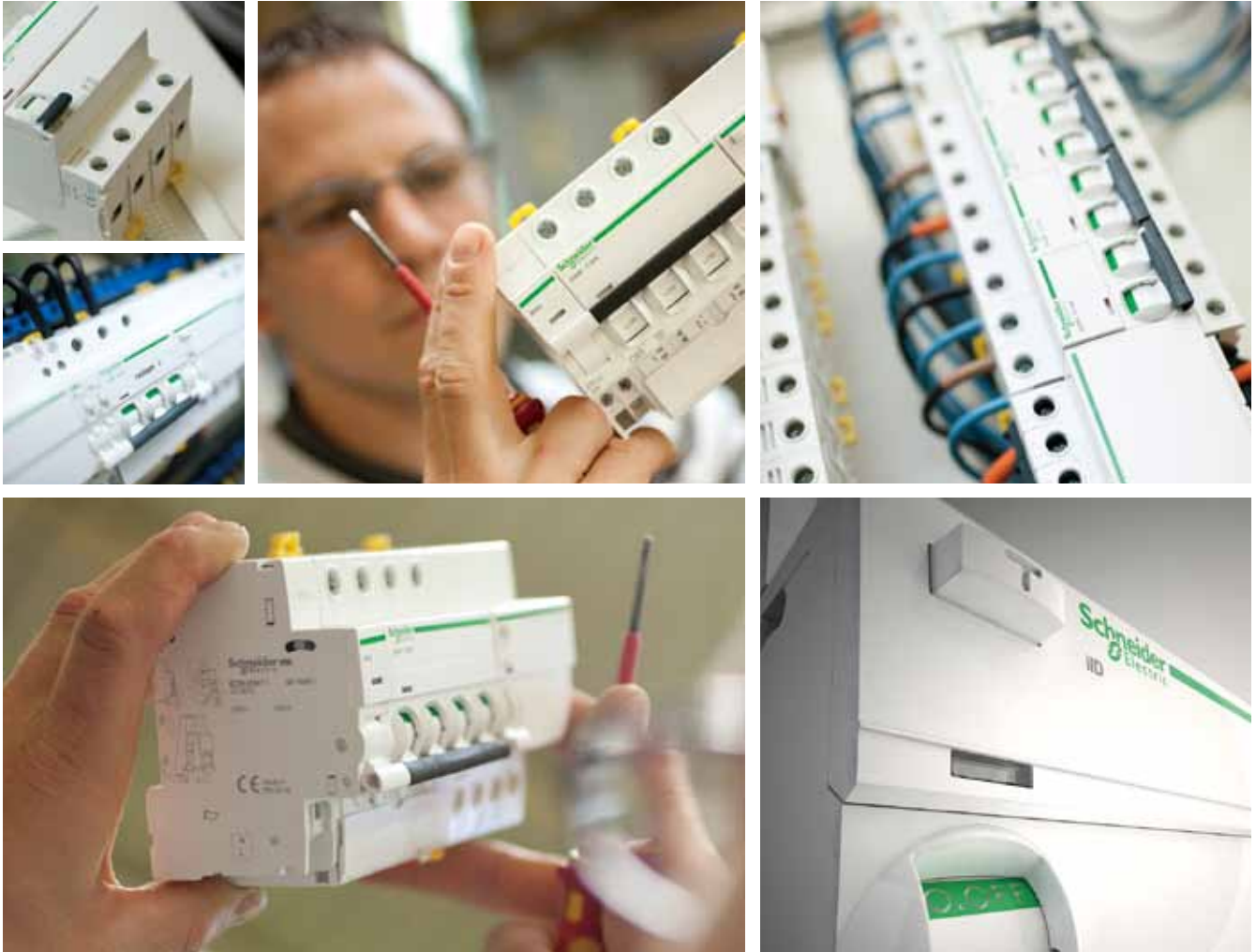
Supports intuitive ordering and design



Meaningful part numbers mean no mistakes and no doubts when ordering or designing. Get the product type, poles and rating in one glance.

A9XXX225 = 2P, 25A

Attractive and environmentally friendly



Advanced ergonomics and attention to all detail



Acti 9 lets you touch and feel the difference

The Acti 9 is designed to be noticed. We incorporated clean lines with distinctive, gently rounded shapes to give the Acti 9 its faultless appearance. It immediately suggests well-designed and user-friendly aesthetics and particular attention to detail. Clarity of identified circuits and elegant appearance will have your customers impressed with their outstanding installations.

High quality, subtle and precise

Even holding the Acti 9 in your hand, the Acti 9 feels high quality. Contacts close quickly and precisely, with no hint of dubious noise. The solid fit of its components and its smooth surfaces mean you can feel the difference even before you use it.

"You can tell it's a high quality product
when you hold it in your hands."



A better use of energy, from start to finish

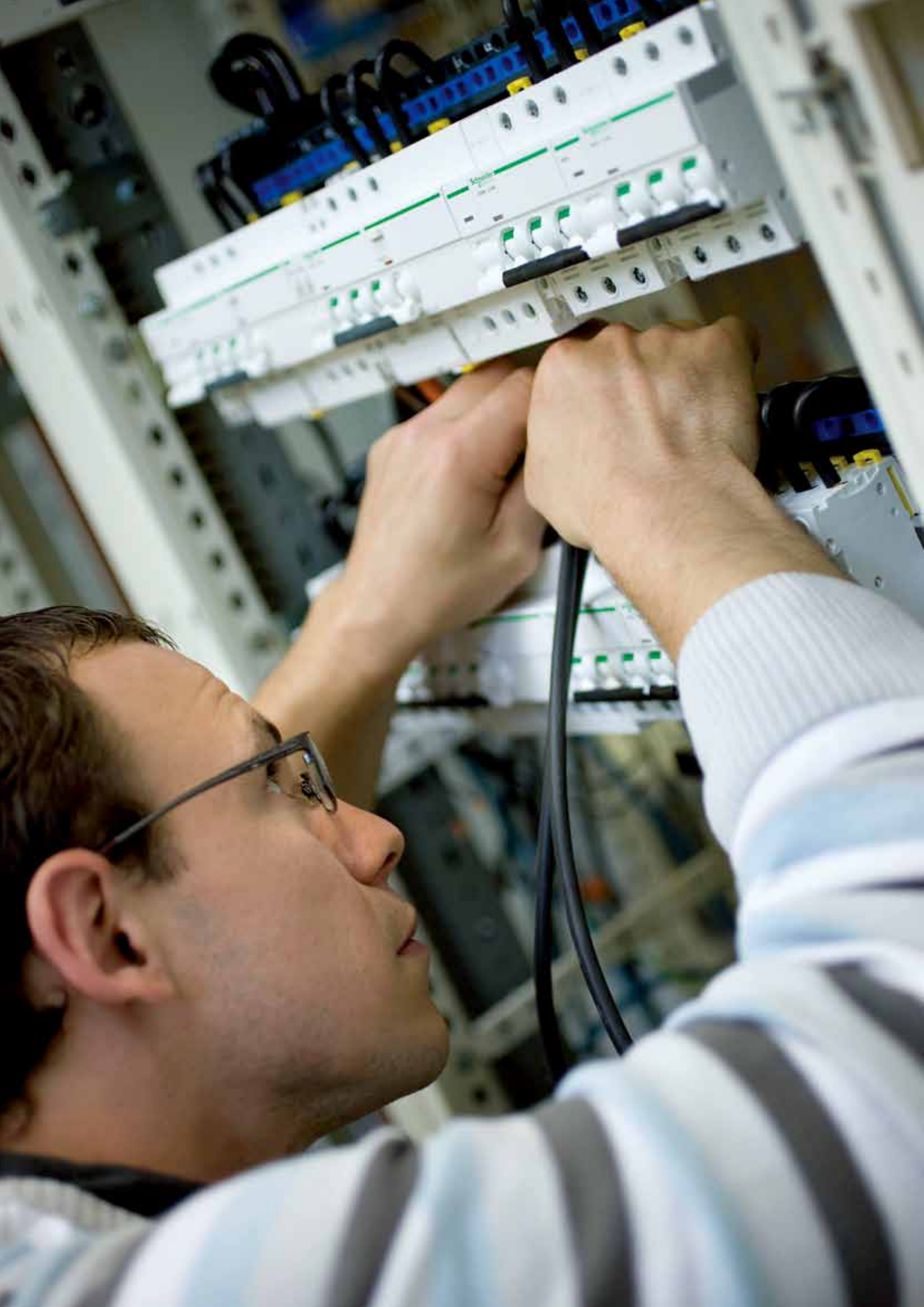
The Acti 9 helps you meet developing energy efficiency and environmental certifications or requirements, now and in the future. It minimizes impact from the design stage, through the installation's lifetime of use, and eventual recycling. Through both design and technology, the Acti 9 provides you with the key combination of less impact and more efficiency that is necessary for the environment today.

100%

100% recyclable
and recoverable
materials
100% RoHS
compliant
100% REACH

20%

savings in
energy losses



Description

Range	Family	Code	Internal code	Poles	Code	Rating (A)	Code
Acti 9 (A9)	iC65 / iDPNK2	F		0	0	1	01
	iDPN / iDPNa-K	P		1P	1	1.6	72
	iC65N-K	K		2P	2	2	02
	iID	R		3P	3	2.5	73
	Vigi iC65	V		4P	4	4	04
	Vigi iDPN	Y		1P+N	6	6	06
	iDPN Vigi	D				6.3	76
	Control	C				10	10
	Auxiliaries and accessories	A				12.5	82
	C65-DC*	N				16	16
	C120/Vigi C120*	N				20	20
	C65-DC/C120 Auxiliaries*	N				25	25
	PC module socket *	A				32	32
						40	40
						50	50
						63	63
						80	80
						100	91

* The latter five number of C65-DC, C120, Vigi C120, PC module socket and auxiliaries are coded independently.

A				M	
• ARA	188			• MINp	214
• Acti 9 Smartlink	199			• MN (C65-DC/C120)	114
				• MN (C60)	120
C				• MN (NG125)	125
• C60H	56			• MNs (C65-DC/C120)	114
• C60N	54			• MNs (C60)	120
• C65H-DC	48			• MV(C65-DC/C120)	115
• C65L-DC	51			• MV(C60)	121
• C65N-DC	46			• MX/MX+OF (C65-DC/C120)	115
• C120H	68			• MX/MX+OF (C60)	121
• C120L	70			• MX+OF (NG125)	125
				• MXV	126
D				• Multiclip	224
• Distribloc	220				
				N	
i				• NG125H	72
• iACTc	160			• NG125L	74
• iACTs	160				
• iACT24	161			O	
• iATL4	175			• OF (C65-DC/C120)	115
• iATL24	176			• OF (C60)	119
• iATLc+c	174			• OF+SD/OF (C65-DC/C120)	115
• iATLc+s	174			• OF+SD/OF (C60)	119
• iATLz	175			• OF+SD24 (C65-DC/C60/C120)	115
• iC60L MA	41			• OF+SD/OF+OF (NG125)	125
• iC65H	34			• OF/SD+OF (iC65/iDPN/iID)	109
• iC65L	38				
• iC65N	30			P	
• iC65N-K	44			• PC	78
• iCT	152			• Pragma	228
• iDPNa	58			• Pragma C	231
• iDPNa-K	66				
• iDPNa Vigi	92			R	
• iDPNa Vigi+	94			• RCA	183
• iDPNH	62			• Reflex iC60	193
• iDPNK2	64			• RTA	212
• iDPNN	60			• RTB	212
• iDPNN Vigi+	96			• RTC	212
• iID	103			• RTH	212
• iINT125	76			• RTL	212
• iMN	108			• RTMF	212
• iMNs	108				
• iMNV	108			S	
• iMSU	108			• SD (C65-DC/C120)	115
• iMX	109			• SD (C60)	119
• iMX+OF	109			• SDV	126
• iOF	109				
• iOF+SD24	109			V	
• iPR	136			• Vigi C120	98
• iPR-DC	148			• Vigi iC65	84
• iPT	144			• Vigi iDPN	89
• iSD	109			• Vigi NG125	100
• iST	140				
• iTL	166				
• iTLc	171				
• iTLm	171				
• iTLs	171				
• IC2000	213				
• IH, IHH	204				
• IHP	207				
• ITM	208				

00000					
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04041	Distribloc(Bottom feeding) 63A 4P	220	14000		
04045	Distribloc 125A 4P.....	222	14880	iDPN Comb busbar 1P+N 13x18mm ..	216
13000			14881	iC65 Comb busbar 1P 12x18mm..	218
13678	Pragma C flush mounted enclosure TYA-08	232	14882	iC65 Comb busbar 2P 12x18mm..	218
13678W	Pragma C flush mounted enclosure TYA-08-W	232	14883	iC65 Comb busbar 3P 12x18mm..	218
13679	Pragma C flush mounted enclosure TYA-12	232	14884	iC65 Comb busbar 4P 12x18mm..	218
13679W	Pragma C flush mounted enclosure TYA-12-W	232	14885	Insulated connector.....	217
13680	Pragma C flush mounted enclosure TYA-16	232	14886	1P+N/1P/2P Side plate	217
13680W	Pragma C flush mounted enclosure TYA-16-W	232	14887	3P/4P Side plate	219
13681	Pragma C flush mounted enclosure TYA-20	232	14888	1P/2P/3P/4P Tooth cover end-piece...	219
13681W	Pragma C flush mounted enclosure TYA-20 -W	232	14890	iDPN Comb busbar 1P+N 24x18mm ..	216
13684	Pragma C flush mounted enclosure TYA-24	232	14891	iC65 Comb busbar 1P 24x18mm..	218
13684W	Pragma C flush mounted enclosure TYA-24-W	232	14892	iC65 Comb busbar 2P 24x18mm..	218
13685	Pragma C flush mounted enclosure TYA-36	232	14893	iC65 Comb busbar 3P 24x18mm..	218
13685W	Pragma C flush mounted enclosure TYA-36-W	232	14894	iC65 Comb busbar 4P 24x18mm..	218
13686	Pragma C flush mounted enclosure TYA-08T	232	15000		
13686W	Pragma C flush mounted enclosure TYA-08T-W	232	15270	ITM multifunction time switches	208
13687	Pragma C flush mounted enclosure TYA-12T	232	15281	CELL FOR LIGHT SENSITIVE SWITCH...	213
13687W	Pragma C flush mounted enclosure TYA-12T-W	232	15331	IHH 7D 18MM	204
13688	Pragma C flush mounted enclosure TYA-16T	232	15335	IH 24H WITHOUT RESERVE 1C	204
13688W	Pragma C flush mounted enclosure TYA-16T-W	232	15336	IH 24H MEM 1C 16A.....	204
13689	Pragma C flush mounted enclosure TYA-20T	232	15337	IH 24H MEM 2C 10A.....	206
13689W	Pragma C flush mounted enclosure TYA-20T-W	232	16000		
13690	Pragma C flush mounted enclosure TYA-24T	232	16065	RTA time delay relays	212
13690W	Pragma C flush mounted enclosure TYA-24T-W	232	16066	RTB time delay relays	212
13694	Pragma C flush mounted enclosure TYA-36T	232	16067	RTC time delay relays	212
13694W	Pragma C flush mounted enclosure TYA-36T-W	232	16068	RTH time delay relays	212
13695	Pragma C surfaced mounted enclosureTYM-08	232	16069	RTL time delay relays	212
13696	Pragma C surfaced mounted enclosureTYM-12	232	16070	RTMF time delay relays	212
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13706	Pragma C surfaced mounted enclosureTYM-12T	232	18709	NG125H 1P C32A.....	72
13711	Pragma C surfaced mounted enclosureTYM-16T	232	18710	NG125H 1P C40A.....	72
13715	Pragma C surfaced mounted enclosureTYM-20T	232	18711	NG125H 1P C50A.....	72
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			18713	NG125H 1P C80A.....	72
			18714	NG125H 2P C10A.....	72
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			18716	NG125H 2P C20A.....	72
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			18719	NG125H 2P C40A.....	72
			18720	NG125H 2P C50A.....	72
			18721	NG125H 2P C63A.....	72
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			18723	NG125H 3P C10A.....	72
			18724	NG125H 3P C16A.....	72
			18725	NG125H 3P C20A.....	72
			18726	NG125H 3P C25A.....	72
			18727	NG125H 3P C32A.....	72
			18728	NG125H 3P C40A.....	72
			18729	NG125H 3P C50A.....	72
			18730	NG125H 3P C63A.....	72
			18731	NG125H 3P C80A.....	72
			18732	NG125H 4P C10A.....	72
			18733	NG125H 4P C16A.....	72
			18734	NG125H 4P C20A.....	72
			18735	NG125H 4P C25A.....	72
			18736	NG125H 4P C32A.....	72
			18737	NG125H 4P C40A.....	72
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			18783	NG125L 1P C50A.....	74
			18784	NG125L 1P C63A.....	74
			18785	NG125L 1P C80A.....	74
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			18793	NG125L 2P C40A.....	74
			18794	NG125L 2P C50A.....	74
			18795	NG125L 2P C63A.....	74
			18796	NG125L 2P C80A.....	74
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			18802	NG125L 3P C25A.....	74
			18803	NG125L 3P C32A.....	74
			18804	NG125L 3P C40A.....	74
			18805	NG125L 3P C50A.....	74
			18806	NG125L 3P C63A.....	74
			18807	NG125L 3P C80A.....	74
			18810	NG125L 4P C10A.....	74
			18811	NG125L 4P C16A.....	74
			18812	NG125L 4P C20A.....	74
			18813	NG125L 4P C25A.....	74
			18814	NG125L 4P C32A.....	74
			18815	NG125L 4P C40A.....	74
			18816	NG125L 4P C50A.....	74
			18817	NG125L 4P C63A.....	74
			18818	NG125L 4P C80A.....	74
			18830	NG125L 1P D10A.....	74
			18831	NG125L 1P D16A.....	74
			18832	NG125L 1P D20A.....	74
			18833	NG125L 1P D25A.....	74
			18834	NG125L 1P D32A.....	74
			18835	NG125L 1P D40A.....	74
			18836	NG125L 1P D50A.....	74
			18837	NG125L 1P D63A.....	74
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			18839	NG125L 2P D10A.....	74
			18840	NG125L 2P D16A.....	74
			18841	NG125L 2P D20A.....	74
			18842	NG125L 2P D25A.....	74
			18843	NG125L 2P D32A.....	74
			18844	NG125L 2P D40A.....	74
			18845	NG125L 2P D50A.....	74
			18846	NG125L 2P D63A.....	74
			18847	NG125L 2P D80A.....	74
			18848	NG125L 3P D10A.....	74
			18849	NG125L 3P D16A.....	74
			18850	NG125L 3P D20A.....	74
			18851	NG125L 3P D25A.....	74
			18852	NG125L 3P D32A.....	74
			18853	NG125L 3P D40A.....	74
			18854	NG125L 3P D50A.....	74
			18855	NG125L 3P D63A.....	74
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			19000	Vigi NG125 2P 63A 30mA.....	100
			19001	Vigi NG125 2P 63A 300mA.....	100
			19002	Vigi NG125 3P 63A 30mA.....	100
			19003	Vigi NG125 3P 63A 300mA.....	100
			19004	Vigi NG125 4P 63A 30mA.....	100
			19005	Vigi NG125 4P 63A 300mA.....	100
			19030	Vigi NG125 2P 63A 300mA ⁵	100
			19032	Vigi NG125 3P 63A 300mA ⁵	100
			19034	Vigi NG125 4P 63A 300mA ⁵	100
			19036	Vigi NG125 3P 63A 300...3000mA.....	100
			19037	Vigi NG125 4P 63A 300...3000mA.....	100

19058	SDV 250V AC(0.1...2A) NO	126	91000				220~240V 40A	164
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19060	MXV 110...240V AC 110V DC	126					220~240V 40A	164
19064	MX+OF 230...415V AC 110...130V DC	125	A9			A9C21862	Manual control iCT 2P 2NO	
19065	MX+OF 48...130V AC 48V DC	125	A9917132	MV(C65-DC/C120).....	115		220~240V 63A	164
19066	MX+OF 24V AC 24V DC	125	A9A			A9C21864	Manual control iCT 4P 4NO	
19067	MN 230...240V AC	125	A9A15096	OF iSW	76		220~240V 63A	164
19071	OF+OF 220...240V AC(6A)	125	A9A16412	PC module socket 2P 10A	78	A9C22712	iCT 2P 2NO 230~240V 16A	164
19072	OF+SD 220...240V AC(6A)	125	A9A16414	PC module socket 2P+E 10A	78	A9C22715	iCT 2P 1NO1NC 230~240V 16A	164
19088	Extended standard	134	A9A16415	PC module socket 2P+E 16A	78	A9C22818	iCT 4P 2NO2NC 220~240V 16A	164
19089	Extended safety red handle yellow		A9A16416	PC module socket 3P+E 16A	78	A9C30011	iTL16A 1P 1NO 12VAC 6VDC	170
	background	134	A9A16417	PC module socket 3P+E 25A	78	A9C30012	iTL16A 2P 2NO 12VAC 6VDC	170
19090	Padlocking accessory (set of 4 parts) ..	134	A9A16418	PC module socket 3P+E 32A	78	A9C30015	iTLI 16A 1NO 1NC 12VAC	
19091	Insulated sub-distribution terminal		A9A26476	iMX 100~415V	109		50~60Hz 6VDC Impulse relays.....	170
	(set of 4 parts)	134	A9A26477	iMX 48V	109	A9C30111	iTL16A 1P 1NO 24VAC 12VDC ..	170
19096	Insulated sub-distribution terminal		A9A26478	iMX 12~24V	109	A9C30112	iTL16A 2P 2NO 24VAC 12VDC ..	170
	(set of 3 parts)	134	A9A26897	iOF+SD24	109	A9C30211	iTL16A 1P 1NO 48VAC 24VDC ..	170
19350	NG125H 1P D10A	72	A9A26927	iOF	109	A9C30212	iTL16A 2P 2NO 48VAC 24VDC ..	170
19351	NG125H 1P D16A	72	A9A26929	iSD	109	A9C30311	iTL16A 1P 1NO 130VAC 48VDC	170
19352	NG125H 1P D20A	72	A9A26946	OF/SD+OF	109	A9C30312	iTLI 16A 2P 2NO 130VAC 48VDC	170
19353	NG125H 1P D25A	72	A9A26947	iMX+OF 100~415V	109	A9C30315	iTLI 16A 1NO 1NC 130VAC	
19354	NG125H 1P D32A	72	A9A26948	iMX+OF 48V	109		50~60Hz 48VDC Impulse relays... 170	
19355	NG125H 1P D40A	72	A9A26949	iMX+OF 12~24V	109	A9C30811	iTL16A 1P 1NO 230...240VAC	
19356	NG125H 1P D50A	72	A9A26960	iMN 220~240V	108		110VDC	170
19357	NG125H 1P D63A	72	A9A26961	iMN 48V	108	A9C30812	iTL16A 2P 2NO 230...240VAC	
19358	NG125H 1P D80A	72	A9A26963	iMNs 220~240V	108		110VDC	170
19359	NG125H 2P D10A	72	A9A26970	Padlocking device (set of 10)	128	A9C30831	iTL 32A 1NO 230...240VAC	
19360	NG125H 2P D16A	72	A9A26974	iMNV(For 4P MCB)	108		50~60Hz 110VDC Impulse relays. 170	
19361	NG125H 2P D20A	72	A9A26979	iMSU 275V	108	A9C32016	iETL16A 1 O-C 1NO 12VAC 50~60Hz	
19362	NG125H 2P D25A	72	A9A26980	iMNV(用于1P+N/2P MCB)	108		6VDC Impulse relays extension... 170	
19363	NG125H 2P D32A	72	A9A27003	Plug-in base	128	A9C32116	iETL16A 1 O-C 1NO 24VAC 50~60Hz	
19364	NG125H 2P D40A	72	A9A27005	Black handle	128		12VDC Impulse relays extension.. 170	
19365	NG125H 2P D50A	72	A9A27006	Red handle	128	A9C32216	iETL16A 1 O-C 1NO 48VAC 50~60Hz	
19366	NG125H 2P D63A	72	A9A27008	Adapter mechanism without handle ...	128		24VDC Impulse relays extension... 170	
19367	NG125H 2P D80A	72	A9A27062	9mm Spacer	162	A9C32316	iETL16A 1 O-C 1NO 130VAC 50~60Hz	
19368	NG125H 3P D10A	72					48VDC Impulse relays extension.. 170	
19369	NG125H 3P D16A	72	A9C			A9C32811	iTLs 16A 1NO 230...240VAC 50~60Hz	
19370	NG125H 3P D20A	72	A9C15409	iATLc+s 24~240 VAC Centralized			110VDC Impulse relays with remote	
19371	NG125H 3P D25A	72		control+Indication auxiliaries.....	174	A9C32816	iETL16A 1 O-C 1NO 230...240VAC	
19372	NG125H 3P D32A	72	A9C15410	iATLc+c 24~240 VAC			50~60Hz 110VDC	
19373	NG125H 3P D40A	72		Multi-level centralized control.....	174	A9C32836	Impulse relays extension	170
19374	NG125H 3P D50A	72	A9C15412	iATL4 230VAC 50~60Hz			iETL 32A 1 O-C 1NO 230...240VAC	
19375	NG125H 3P D63A	72		Step by step control	175		50~60Hz 110VDC	
19376	NG125H 3P D80A	72	A9C15413	iATLz 130~240 VAC Control by		A9C33111	Impulse relays extension	170
19377	NG125H 4P D10A	72		illuminated push-buttons	175		iTLc 16A 1NO 24VAC 50~60Hz	
19378	NG125H 4P D16A	72	A9C15424	iATL24 24V DC	176		Impulse relays with centralized	
19379	NG125H 4P D20A	72	A9C15415	Yellow clips	162	A9C33211	control	171
19380	NG125H 4P D25A	72	A9C15914	iACTs 1NO+1NC	160		iTLc 16A 1NO 48VAC 50~60Hz	
19381	NG125H 4P D32A	72	A9C15924	iACT24	161	A9C33211	Impulse relays with centralized	
19382	NG125H 4P D40A	72	A9C18308	iACTc 230...240VAC	160		control	171
19383	NG125H 4P D50A	72	A9C18309	iACTc 24...48VAC	160	A9C33811	iTLc 16A 1NO 230...240VAC	
19384	NG125H 4P D63A	72	A9C20132	iCT 2P 2NO 24V 25A	164		50~60Hz Impulse relays with	
19385	NG125H 4P D80A	72	A9C20134	iCT 4P 4NO 24V 25A	164		centralized control	171
			A9C20137	iCT 4P 4NC 24V 25A	164	A9C34811	iTLm 16A 1NO 230...240VAC	
26000			A9C20731	iCT 1P 1NO 230~240V 25A	164		50~60Hz Impulse relay with latched	
26476	MX 110...415V AC 110...130V DC(C60)....	121	A9C20732	iCT 2P 2NO 230~240V 25A	164		order.....	171
26477	MX 48V AC/DC(C60)	121	A9C20736	iCT 2P 2NC 230~240V 25A	164	A9C52210	Reflex iC60N 2P C10A	193
26478	MX 12/24V AC/DC (C60)	121	A9C20833	iCT 3P 3NO 220~240V 25A	164	A9C52216	Reflex iC60N 2P C16A	193
26924	OF (1NO-NC) (C60)	119	A9C20834	iCT 4P 4NO 220~240V 25A	164	A9C52225	Reflex iC60N 2P C25A	193
26927	SD (C60)	119	A9C20837	iCT 4P 4NC 220~240V 25A	164	A9C52240	Reflex iC60N 2P C40A	193
26929	OF+SD / OF(C60)	119	A9C20838	iCT 4P 2NO2NC 220~240V 25A	164	A9C52263	Reflex iC60N 2P C63A	193
26946	MX+OF 110...415V AC 110...130V DC(C60) ..	121	A9C20842	iCT 2P 2NO 220~240V 40A	164	A9C52310	Reflex iC60N 3P C10A	193
26947	MX+OF 48V AC/DC(C60)	121	A9C20843	iCT 3P 3NO 220~240V 40A	164	A9C52316	Reflex iC60N 3P C16A	193
26948	MX+OF 12/24V AC/DC(C60)	121	A9C20844	iCT 4P 4NO 220~240V 40A	164	A9C52325	Reflex iC60N 3P C25A	193
26960	MN 220...240V AC(C60)	120	A9C20847	iCT 4P 4NC 220~240V 40A	164	A9C52340	Reflex iC60N 3P C40A	193
26961	MN 48V AC/DC(C60)	120	A9C20862	iCT 2P 2NO 220~240V 63A	164	A9C52363	Reflex iC60N 3P C63A	193
26963	MN 220...240V AC(C60)	120	A9C20863	iCT 3P 3NO 220~240V 63A	164	A9C52410	Reflex iC60N 4P C10A	193
26970	Padlocking device (C65-DC/C60/C120)	132	A9C20864	iCT 4P 4NO 220~240V 63A	164	A9C52416	Reflex iC60N 4P C16A	193
26996	Pividable mounting plate	132	A9C20867	iCT 4P 4NC 220~240V 63A	164	A9C52425	Reflex iC60N 4P C25A	193
			A9C20868	iCT 4P 2NO2NC 220~240V 63A	164	A9C52440	Reflex iC60N 4P C40A	193
27000			A9C20869	iCT 4P 3NO1NC 220~240V 63A	164	A9C52463	Reflex iC60N 4P C63A	193
27046	Rotation of the handle base	132	A9C20882	iCT 2P 2NO 230~240V 100A	164	A9C62210	Reflex iC60N 2P C10A(with Ti24).....	193
27047	The forward extended rotary handle ...	132	A9C20884	iCT 4P 4NO 230~240V 100A	164	A9C62216	Reflex iC60N 2P C16A(with Ti24).....	193
27048	Forward or lateral operation rotating		A9C21732	Manual control iCT 2P 2NO		A9C62225	Reflex iC60N 2P C25A(with Ti24).....	193
	handle	132		230~240V 25A	164	A9C62240	Reflex iC60N 2P C40A(with Ti24).....	193
27062	Spacer	132	A9C21834	Manual control iCT 4P 4NO		A9C62263	Reflex iC60N 2P C63A(with Ti24).....	193
27145	Padlock accessory (C120)	132		220~240V 25A	164	A9C62310	Reflex iC60N 3P C10A(with Ti24).....	193
			A9C21842	Manual control iCT 2P 2NO		A9C62316	Reflex iC60N 3P C16A(with Ti24).....	193

A9C62325	Reflex iC60N 3P C25A(with Ti24).....	193	A9F17216	iC65N 2P B16A.....	30	A9F18450	iC65N 4P C50A.....	31
A9C62340	Reflex iC60N 3P C40A(with Ti24).....	193	A9F17220	iC65N 2P B20A.....	30	A9F18463	iC65N 4P C63A.....	31
A9C62363	Reflex iC60N 3P C63A(with Ti24).....	193	A9F17225	iC65N 2P B25A.....	30	A9F18610	iDPNK2 10A.....	64
A9C62410	Reflex iC60N 4P C10A(with Ti24).....	193	A9F17232	iC65N 2P B32A.....	30	A9F18616	iDPNK2 16A.....	64
A9C62416	Reflex iC60N 4P C16A(with Ti24).....	193	A9F17240	iC65N 2P B40A.....	30	A9F18620	iDPNK2 20A.....	64
A9C62425	Reflex iC60N 4P C25A(with Ti24).....	193	A9F17250	iC65N 2P B50A.....	30	A9F18625	iDPNK2 25A.....	64
A9C62440	Reflex iC60N 4P C40A(with Ti24).....	193	A9F17263	iC65N 2P B63A.....	30	A9F18632	iDPNK2 32A.....	64
A9C62463	Reflex iC60N 4P C63A(with Ti24).....	193	A9F17301	iC65N 3P B1A.....	31	A9F18640	iDPNK2 40A.....	64
A9C63210	Reflex iC60N 2P D10A(with Ti24).....	193	A9F17302	iC65N 3P B2A.....	31	A9F18650	iDPNK2 50A.....	64
A9C63216	Reflex iC60N 2P D16A(with Ti24).....	193	A9F17303	iC65N 3P B3A.....	31	A9F18663	iDPNK2 63A.....	64
A9C63225	Reflex iC60N 2P D25A(with Ti24).....	193	A9F17304	iC65N 3P B4A.....	31	A9F19101	iC65N 1P D1A.....	30
A9C63310	Reflex iC60N 3P D10A(with Ti24).....	193	A9F17306	iC65N 3P B6A.....	31	A9F19102	iC65N 1P D2A.....	30
A9C63316	Reflex iC60N 3P D16A(with Ti24).....	193	A9F17310	iC65N 3P B10A.....	31	A9F19104	iC65N 1P D4A.....	30
A9C63325	Reflex iC60N 3P D25A(with Ti24).....	193	A9F17316	iC65N 3P B16A.....	31	A9F19106	iC65N 1P D6A.....	30
A9C63410	Reflex iC60N 4P D10A(with Ti24).....	193	A9F17320	iC65N 3P B20A.....	31	A9F19110	iC65N 1P D10A.....	30
A9C63416	Reflex iC60N 4P D16A(with Ti24).....	193	A9F17325	iC65N 3P B25A.....	31	A9F19116	iC65N 1P D16A.....	30
A9C63425	Reflex iC60N 4P D25A(with Ti24).....	193	A9F17332	iC65N 3P B32A.....	31	A9F19120	iC65N 1P D20A.....	30
A9C65210	Reflex iC60H 2P C10A(with Ti24).....	193	A9F17340	iC65N 3P B40A.....	31	A9F19125	iC65N 1P D25A.....	30
A9C65216	Reflex iC60H 2P C16A(with Ti24).....	193	A9F17350	iC65N 3P B50A.....	31	A9F19132	iC65N 1P D32A.....	30
A9C65225	Reflex iC60H 2P C25A(with Ti24).....	193	A9F17363	iC65N 3P B63A.....	31	A9F19140	iC65N 1P D40A.....	30
A9C65240	Reflex iC60H 2P C40A(with Ti24).....	193	A9F17401	iC65N 4P B1A.....	31	A9F19150	iC65N 1P D50A.....	30
A9C65310	Reflex iC60H 3P C10A(with Ti24).....	193	A9F17402	iC65N 4P B2A.....	31	A9F19163	iC65N 1P D63A.....	30
A9C65316	Reflex iC60H 3P C16A(with Ti24).....	193	A9F17403	iC65N 4P B3A.....	31	A9F19201	iC65N 2P D1A.....	30
A9C65325	Reflex iC60H 3P C25A(with Ti24).....	193	A9F17404	iC65N 4P B4A.....	31	A9F19202	iC65N 2P D2A.....	30
A9C65340	Reflex iC60H 3P C40A(with Ti24).....	193	A9F17406	iC65N 4P B6A.....	31	A9F19204	iC65N 2P D4A.....	30
A9C65410	Reflex iC60H 4P C10A(with Ti24).....	193	A9F17410	iC65N 4P B10A.....	31	A9F19206	iC65N 2P D6A.....	30
A9C65416	Reflex iC60H 4P C16A(with Ti24).....	193	A9F17416	iC65N 4P B16A.....	31	A9F19210	iC65N 2P D10A.....	30
A9C65425	Reflex iC60H 4P C25A(with Ti24).....	193	A9F17420	iC65N 4P B20A.....	31	A9F19216	iC65N 2P D16A.....	30
A9C65440	Reflex iC60H 4P C40A(with Ti24).....	193	A9F17425	iC65N 4P B25A.....	31	A9F19220	iC65N 2P D20A.....	30
A9C66210	Reflex iC60H 2P D10A(with Ti24).....	193	A9F17432	iC65N 4P B32A.....	31	A9F19225	iC65N 2P D25A.....	30
A9C66216	Reflex iC60H 2P D16A(with Ti24).....	193	A9F17440	iC65N 4P B40A.....	31	A9F19232	iC65N 2P D32A.....	30
A9C66225	Reflex iC60H 2P D25A(with Ti24).....	193	A9F17450	iC65N 4P B50A.....	31	A9F19240	iC65N 2P D40A.....	30
A9C66310	Reflex iC60H 3P D10A(with Ti24).....	193	A9F17463	iC65N 4P B63A.....	31	A9F19250	iC65N 2P D50A.....	30
A9C66316	Reflex iC60H 3P D16A(with Ti24).....	193	A9F18101	iC65N 1P C1A.....	30	A9F19263	iC65N 2P D63A.....	30
A9C66325	Reflex iC60H 3P D25A(with Ti24).....	193	A9F18102	iC65N 1P C2A.....	30	A9F19301	iC65N 3P D1A.....	31
A9C66410	Reflex iC60H 4P D10A(with Ti24).....	193	A9F18104	iC65N 1P C4A.....	30	A9F19302	iC65N 3P D2A.....	31
A9C66416	Reflex iC60H 4P D16A(with Ti24).....	193	A9F18106	iC65N 1P C6A.....	30	A9F19304	iC65N 3P D4A.....	31
A9C66425	Reflex iC60H 4P D25A(with Ti24).....	193	A9F18110	iC65N 1P C10A.....	30	A9F19306	iC65N 3P D6A.....	31
A9C70112	RCA (iC65 1P, 2P).....	183	A9F18116	iC65N 1P C16A.....	30	A9F19310	iC65N 3P D10A.....	31
A9C70114	RCA (iC65 3P, 4P).....	183	A9F18120	iC65N 1P C20A.....	30	A9F19316	iC65N 3P D16A.....	31
A9C70122	RCA (iC65 1P, 2P with Ti24).....	183	A9F18125	iC65N 1P C25A.....	30	A9F19320	iC65N 3P D20A.....	31
A9C70124	RCA (iC65 3P, 4P with Ti24).....	183	A9F18132	iC65N 1P C32A.....	30	A9F19325	iC65N 3P D25A.....	31
A9C70132	ARA (1P, 2P iC65).....	188	A9F18140	iC65N 1P C40A.....	30	A9F19332	iC65N 3P D32A.....	31
A9C70134	ARA (3P,4P iC65).....	188	A9F18150	iC65N 1P C50A.....	30	A9F19340	iC65N 3P D40A.....	31
A9C70332	ARA (2P iID 4Program).....	188	A9F18163	iC65N 1P C63A.....	30	A9F19350	iC65N 3P D50A.....	31
A9C70334	ARA (4P iID 4Program).....	188	A9F18201	iC65N 2P C1A.....	30	A9F19363	iC65N 3P D63A.....	31
A9D			A9F18202	iC65N 2P C2A.....	30	A9F19401	iC65N 4P D1A.....	31
A9D90606	iDPNa Vigi 6A.....	92	A9F18204	iC65N 2P C4A.....	30	A9F19402	iC65N 4P D2A.....	31
A9D90632	iDPNa Vigi 32A.....	92	A9F18206	iC65N 2P C6A.....	30	A9F19404	iC65N 4P D4A.....	31
A9D91610	iDPNa Vigi+ 10A.....	94	A9F18210	iC65N 2P C10A.....	30	A9F19406	iC65N 4P D6A.....	31
A9D91616	iDPNa Vigi+ 16A.....	94	A9F18216	iC65N 2P C16A.....	30	A9F19410	iC65N 4P D10A.....	31
A9D91620	iDPNa Vigi+ 20A.....	94	A9F18220	iC65N 2P C20A.....	30	A9F19416	iC65N 4P D16A.....	31
A9D91625	iDPNa Vigi+ 25A.....	94	A9F18225	iC65N 2P C25A.....	30	A9F19420	iC65N 4P D20A.....	31
A9D95610	iDPNN Vigi+ 10A.....	96	A9F18232	iC65N 2P C32A.....	30	A9F19425	iC65N 4P D25A.....	31
A9D95616	iDPNN Vigi+ 16A.....	96	A9F18240	iC65N 2P C40A.....	30	A9F19432	iC65N 4P D32A.....	31
A9D95620	iDPNN Vigi+ 20A.....	96	A9F18250	iC65N 2P C50A.....	30	A9F19440	iC65N 4P D40A.....	31
A9D95625	iDPNN Vigi+ 25A.....	96	A9F18263	iC65N 2P C63A.....	30	A9F19450	iC65N 4P D50A.....	31
A9F			A9F18301	iC65N 3P C1A.....	31	A9F19463	iC65N 4P D63A.....	31
A9F17101	iC65N 1P B1A.....	30	A9F18302	iC65N 3P C2A.....	31	A9F27101	iC65H 1P B1A.....	34
A9F17102	iC65N 1P B2A.....	30	A9F18304	iC65N 3P C4A.....	31	A9F27102	iC65H 1P B2A.....	34
A9F17103	iC65N 1P B3A.....	30	A9F18306	iC65N 3P C6A.....	31	A9F27103	iC65H 1P B3A.....	34
A9F17104	iC65N 1P B4A.....	30	A9F18310	iC65N 3P C10A.....	31	A9F27104	iC65H 1P B4A.....	34
A9F17106	iC65N 1P B6A.....	30	A9F18316	iC65N 3P C16A.....	31	A9F27106	iC65H 1P B6A.....	34
A9F17110	iC65N 1P B10A.....	30	A9F18320	iC65N 3P C20A.....	31	A9F27110	iC65H 1P B10A.....	34
A9F17116	iC65N 1P B16A.....	30	A9F18325	iC65N 3P C25A.....	31	A9F27116	iC65H 1P B16A.....	34
A9F17120	iC65N 1P B20A.....	30	A9F18332	iC65N 3P C32A.....	31	A9F27120	iC65H 1P B20A.....	34
A9F17125	iC65N 1P B25A.....	30	A9F18340	iC65N 3P C40A.....	31	A9F27125	iC65H 1P B25A.....	34
A9F17132	iC65N 1P B32A.....	30	A9F18350	iC65N 3P C50A.....	31	A9F27132	iC65H 1P B32A.....	34
A9F17140	iC65N 1P B40A.....	30	A9F18363	iC65N 3P C63A.....	31	A9F27140	iC65H 1P B40A.....	34
A9F17150	iC65N 1P B50A.....	30	A9F18401	iC65N 4P C1A.....	31	A9F27150	iC65H 1P B50A.....	34
A9F17163	iC65N 1P B63A.....	30	A9F18402	iC65N 4P C2A.....	31	A9F27163	iC65H 1P B63A.....	34
A9F17201	iC65N 2P B1A.....	30	A9F18404	iC65N 4P C4A.....	31	A9F27201	iC65H 2P B1A.....	34
A9F17202	iC65N 2P B2A.....	30	A9F18406	iC65N 4P C6A.....	31	A9F27202	iC65H 2P B2A.....	34
A9F17203	iC65N 2P B3A.....	30	A9F18410	iC65N 4P C10A.....	31	A9F27203	iC65H 2P B3A.....	34
A9F17204	iC65N 2P B4A.....	30	A9F18416	iC65N 4P C16A.....	31	A9F27204	iC65H 2P B4A.....	34
A9F17206	iC65N 2P B6A.....	30	A9F18420	iC65N 4P C20A.....	31	A9F27206	iC65H 2P B6A.....	34
A9F17210	iC65N 2P B10A.....	30	A9F18425	iC65N 4P C25A.....	31	A9F27210	iC65H 2P B10A.....	34
			A9F18432	iC65N 4P C32A.....	31	A9F27216	iC65H 2P B16A.....	34
			A9F18440	iC65N 4P C40A.....	31	A9F27220	iC65H 2P B20A.....	34

A9F27225	iC65H 2P B25A.....	34	A9F29101	iC65H 1P D1A.....	34	A9F38325	iC65L 3P C25A.....	39
A9F27232	iC65H 2P B32A.....	34	A9F29102	iC65H 1P D2A.....	34	A9F38332	iC65L 3P C32A.....	39
A9F27240	iC65H 2P B40A.....	34	A9F29104	iC65H 1P D4A.....	34	A9F38340	iC65L 3P C40A.....	39
A9F27250	iC65H 2P B50A.....	34	A9F29106	iC65H 1P D6A.....	34	A9F38350	iC65L 3P C50A.....	39
A9F27263	iC65H 2P B63A.....	34	A9F29110	iC65H 1P D10A.....	34	A9F38363	iC65L 3P C63A.....	39
A9F27301	iC65H 3P B1A.....	35	A9F29116	iC65H 1P D16A.....	34	A9F38401	iC65L 4P C1A.....	39
A9F27302	iC65H 3P B2A.....	35	A9F29120	iC65H 1P D20A.....	34	A9F38402	iC65L 4P C2A.....	39
A9F27303	iC65H 3P B3A.....	35	A9F29125	iC65H 1P D25A.....	34	A9F38404	iC65L 4P C4A.....	39
A9F27304	iC65H 3P B4A.....	35	A9F29132	iC65H 1P D32A.....	34	A9F38406	iC65L 4P C6A.....	39
A9F27306	iC65H 3P B6A.....	35	A9F29140	iC65H 1P D40A.....	34	A9F38410	iC65L 4P C10A.....	39
A9F27310	iC65H 3P B10A.....	35	A9F29150	iC65H 1P D50A.....	34	A9F38416	iC65L 4P C16A.....	39
A9F27316	iC65H 3P B16A.....	35	A9F29163	iC65H 1P D63A.....	34	A9F38420	iC65L 4P C20A.....	39
A9F27320	iC65H 3P B20A.....	35	A9F29201	iC65H 2P D1A.....	34	A9F38425	iC65L 4P C25A.....	39
A9F27325	iC65H 3P B25A.....	35	A9F29202	iC65H 2P D2A.....	34	A9F38432	iC65L 4P C32A.....	39
A9F27332	iC65H 3P B32A.....	35	A9F29204	iC65H 2P D4A.....	34	A9F38440	iC65L 4P C40A.....	39
A9F27340	iC65H 3P B40A.....	35	A9F29206	iC65H 2P D6A.....	34	A9F38450	iC65L 4P C50A.....	39
A9F27350	iC65H 3P B50A.....	35	A9F29210	iC65H 2P D10A.....	34	A9F38463	iC65L 4P C63A.....	39
A9F27363	iC65H 3P B63A.....	35	A9F29216	iC65H 2P D16A.....	34	A9F39101	iC65L 1P D1A.....	38
A9F27401	iC65H 4P B1A.....	35	A9F29220	iC65H 2P D20A.....	34	A9F39102	iC65L 1P D2A.....	38
A9F27402	iC65H 4P B2A.....	35	A9F29225	iC65H 2P D25A.....	34	A9F39104	iC65L 1P D4A.....	38
A9F27403	iC65H 4P B3A.....	35	A9F29232	iC65H 2P D32A.....	34	A9F39106	iC65L 1P D6A.....	38
A9F27404	iC65H 4P B4A.....	35	A9F29240	iC65H 2P D40A.....	34	A9F39110	iC65L 1P D10A.....	38
A9F27406	iC65H 4P B6A.....	35	A9F29250	iC65H 2P D50A.....	34	A9F39116	iC65L 1P D16A.....	38
A9F27410	iC65H 4P B10A.....	35	A9F29263	iC65H 2P D63A.....	34	A9F39120	iC65L 1P D20A.....	38
A9F27416	iC65H 4P B16A.....	35	A9F29301	iC65H 3P D1A.....	35	A9F39125	iC65L 1P D25A.....	38
A9F27420	iC65H 4P B20A.....	35	A9F29302	iC65H 3P D2A.....	35	A9F39132	iC65L 1P D32A.....	38
A9F27425	iC65H 4P B25A.....	35	A9F29304	iC65H 3P D4A.....	35	A9F39140	iC65L 1P D40A.....	38
A9F27432	iC65H 4P B32A.....	35	A9F29306	iC65H 3P D6A.....	35	A9F39150	iC65L 1P D50A.....	38
A9F27440	iC65H 4P B40A.....	35	A9F29310	iC65H 3P D10A.....	35	A9F39163	iC65L 1P D63A.....	38
A9F27450	iC65H 4P B50A.....	35	A9F29316	iC65H 3P D16A.....	35	A9F39201	iC65L 2P D1A.....	38
A9F27463	iC65H 4P B63A.....	35	A9F29320	iC65H 3P D20A.....	35	A9F39202	iC65L 2P D2A.....	38
A9F28101	iC65H 1P C1A.....	34	A9F29325	iC65H 3P D25A.....	35	A9F39204	iC65L 2P D4A.....	38
A9F28102	iC65H 1P C2A.....	34	A9F29332	iC65H 3P D32A.....	35	A9F39206	iC65L 2P D6A.....	38
A9F28104	iC65H 1P C4A.....	34	A9F29340	iC65H 3P D40A.....	35	A9F39210	iC65L 2P D10A.....	38
A9F28106	iC65H 1P C6A.....	34	A9F29350	iC65H 3P D50A.....	35	A9F39216	iC65L 2P D16A.....	38
A9F28110	iC65H 1P C10A.....	34	A9F29363	iC65H 3P D63A.....	35	A9F39220	iC65L 2P D20A.....	38
A9F28116	iC65H 1P C16A.....	34	A9F29401	iC65H 4P D1A.....	35	A9F39225	iC65L 2P D25A.....	38
A9F28120	iC65H 1P C20A.....	34	A9F29402	iC65H 4P D2A.....	35	A9F39232	iC65L 2P D32A.....	38
A9F28125	iC65H 1P C25A.....	34	A9F29404	iC65H 4P D4A.....	35	A9F39240	iC65L 2P D40A.....	38
A9F28132	iC65H 1P C32A.....	34	A9F29406	iC65H 4P D6A.....	35	A9F39250	iC65L 2P D50A.....	38
A9F28140	iC65H 1P C40A.....	34	A9F29410	iC65H 4P D10A.....	35	A9F39263	iC65L 2P D63A.....	38
A9F28150	iC65H 1P C50A.....	34	A9F29416	iC65H 4P D16A.....	35	A9F39301	iC65L 3P D1A.....	39
A9F28163	iC65H 1P C63A.....	34	A9F29420	iC65H 4P D20A.....	35	A9F39302	iC65L 3P D2A.....	39
A9F28201	iC65H 2P C1A.....	34	A9F29425	iC65H 4P D25A.....	35	A9F39304	iC65L 3P D4A.....	39
A9F28202	iC65H 2P C2A.....	34	A9F29432	iC65H 4P D32A.....	35	A9F39306	iC65L 3P D6A.....	39
A9F28204	iC65H 2P C4A.....	34	A9F29440	iC65H 4P D40A.....	35	A9F39310	iC65L 3P D10A.....	39
A9F28206	iC65H 2P C6A.....	34	A9F29450	iC65H 4P D50A.....	35	A9F39316	iC65L 3P D16A.....	39
A9F28210	iC65H 2P C10A.....	34	A9F29463	iC65H 4P D63A.....	35	A9F39320	iC65L 3P D20A.....	39
A9F28216	iC65H 2P C16A.....	34	A9F38101	iC65L 1P C1A.....	38	A9F39325	iC65L 3P D25A.....	39
A9F28220	iC65H 2P C20A.....	34	A9F38102	iC65L 1P C2A.....	38	A9F39332	iC65L 3P D32A.....	39
A9F28225	iC65H 2P C25A.....	34	A9F38104	iC65L 1P C4A.....	38	A9F39340	iC65L 3P D40A.....	39
A9F28232	iC65H 2P C32A.....	34	A9F38106	iC65L 1P C6A.....	38	A9F39350	iC65L 3P D50A.....	39
A9F28240	iC65H 2P C40A.....	34	A9F38110	iC65L 1P C10A.....	38	A9F39363	iC65L 3P D63A.....	39
A9F28250	iC65H 2P C50A.....	34	A9F38116	iC65L 1P C16A.....	38	A9F39401	iC65L 4P D1A.....	39
A9F28263	iC65H 2P C63A.....	34	A9F38120	iC65L 1P C20A.....	38	A9F39402	iC65L 4P D2A.....	39
A9F28301	iC65H 3P C1A.....	35	A9F38125	iC65L 1P C25A.....	38	A9F39404	iC65L 4P D4A.....	39
A9F28302	iC65H 3P C2A.....	35	A9F38132	iC65L 1P C32A.....	38	A9F39406	iC65L 4P D6A.....	39
A9F28304	iC65H 3P C4A.....	35	A9F38140	iC65L 1P C40A.....	38	A9F39410	iC65L 4P D10A.....	39
A9F28306	iC65H 3P C6A.....	35	A9F38150	iC65L 1P C50A.....	38	A9F39416	iC65L 4P D16A.....	39
A9F28310	iC65H 3P C10A.....	35	A9F38163	iC65L 1P C63A.....	38	A9F39420	iC65L 4P D20A.....	39
A9F28316	iC65H 3P C16A.....	35	A9F38201	iC65L 2P C1A.....	38	A9F39425	iC65L 4P D25A.....	39
A9F28320	iC65H 3P C20A.....	35	A9F38202	iC65L 2P C2A.....	38	A9F39432	iC65L 4P D32A.....	39
A9F28325	iC65H 3P C25A.....	35	A9F38204	iC65L 2P C4A.....	38	A9F39440	iC65L 4P D40A.....	39
A9F28332	iC65H 3P C32A.....	35	A9F38206	iC65L 2P C6A.....	38	A9F39450	iC65L 4P D50A.....	39
A9F28340	iC65H 3P C40A.....	35	A9F38210	iC65L 2P C10A.....	38	A9F39463	iC65L 4P D63A.....	39
A9F28350	iC65H 3P C50A.....	35	A9F38216	iC65L 2P C16A.....	38	A9F90204	iC60LMA 2P 4A.....	41
A9F28363	iC65H 3P C63A.....	35	A9F38220	iC65L 2P C20A.....	38	A9F90210	iC60LMA 2P 10A.....	41
A9F28401	iC65H 4P C1A.....	35	A9F38225	iC65L 2P C25A.....	38	A9F90216	iC60LMA 2P 16A.....	41
A9F28402	iC65H 4P C2A.....	35	A9F38232	iC65L 2P C32A.....	38	A9F90225	iC60LMA 2P 25A.....	41
A9F28404	iC65H 4P C4A.....	35	A9F38240	iC65L 2P C40A.....	38	A9F90240	iC60LMA 2P 40A.....	41
A9F28406	iC65H 4P C6A.....	35	A9F38250	iC65L 2P C50A.....	38	A9F90272	iC60LMA 2P 1.6A.....	41
A9F28410	iC65H 4P C10A.....	35	A9F38263	iC65L 2P C63A.....	38	A9F90273	iC60LMA 2P 2.5A.....	41
A9F28416	iC65H 4P C16A.....	35	A9F38301	iC65L 3P C1A.....	39	A9F90276	iC60LMA 2P 6.3A.....	41
A9F28420	iC65H 4P C20A.....	35	A9F38302	iC65L 3P C2A.....	39	A9F90282	iC60LMA 2P 12.5A.....	41
A9F28425	iC65H 4P C25A.....	35	A9F38304	iC65L 3P C4A.....	39	A9F90304	iC60LMA 3P 4A.....	41
A9F28432	iC65H 4P C32A.....	35	A9F38306	iC65L 3P C6A.....	39	A9F90310	iC60LMA 3P 10A.....	41
A9F28440	iC65H 4P C40A.....	35	A9F38310	iC65L 3P C10A.....	39	A9F90316	iC60LMA 3P 16A.....	41
A9F28450	iC65H 4P C50A.....	35	A9F38316	iC65L 3P C16A.....	39	A9F90325	iC60LMA 3P 25A.....	41
A9F28463	iC65H 4P C63A.....	35	A9F38320	iC65L 3P C20A.....	39	A9F90340	iC60LMA 3P 40A.....	41

A9F90372	iC60LMA 3P 1.6A.....	41	A9L916826	iPR 20 1P+N.....	136	A9N19803	C120H 4P C63A.....	68
A9F90373	iC60LMA 3P 2.5A.....	41	A9L916827	iPR 20 2P.....	136	A9N19804	C120H 1P D63A.....	68
A9F90376	iC60LMA 3P 6.3A.....	41	A9L916828	iPR 20 3P.....	136	A9N19805	C120H 2P D63A.....	68
A9F90382	iC60LMA 3P 12.5A.....	41	A9L916830	iPR 20 3P+N.....	136	A9N19806	C120H 3P D63A.....	68
A9K			A9L916831	iPR 20 4P.....	136	A9N19807	C120H 4P D63A.....	68
A9K58106	iC65N-K 1P C6A.....	44	A9L916832	iPR 10 1P.....	136	A9N19808	C120H 1P C80A.....	68
A9K58110	iC65N-K 1P C10A.....	44	A9L916834	iPR 10 1P+N.....	136	A9N19809	C120H 2P C80A.....	68
A9K58116	iC65N-K 1P C16A.....	44	A9L916835	iPR 10 2P.....	136	A9N19810	C120H 3P C80A.....	68
A9K58120	iC65N-K 1P C20A.....	44	A9L916836	iPR 10 3P.....	136	A9N19811	C120H 4P C80A.....	68
A9K58125	iC65N-K 1P C25A.....	44	A9L916838	iPR 10 3P+N.....	136	A9N19812	C120H 1P D80A.....	68
A9K58132	iC65N-K 1P C32A.....	44	A9L916839	iPR 10 4P.....	136	A9N19813	C120H 2P D80A.....	68
A9K58206	iC65N-K 2P C6A.....	44	A9L916840	iD65-340.....	138	A9N19814	C120H 3P D80A.....	68
A9K58210	iC65N-K 2P C10A.....	44	A9L916842	iDGn.....	138	A9N19815	C120H 4P D80A.....	68
A9K58216	iC65N-K 2P C16A.....	44	A9L916843	iD40-340.....	138	A9N19816	C120H 1P C100A.....	68
A9K58220	iC65N-K 2P C20A.....	44	A9L916844	iPR 20r 1P.....	136	A9N19817	C120H 2P C100A.....	68
A9K58225	iC65N-K 2P C25A.....	44	A9L916846	iD20-340.....	138	A9N19818	C120H 3P C100A.....	68
A9K58232	iC65N-K 2P C32A.....	44	A9L916847	iPR 20r 2P.....	136	A9N19819	C120H 4P C100A.....	68
A9K58306	iC65N-K 3P C6A.....	44	A9L916848	iPR 20r 3P.....	136	A9N19820	C120H 1P D100A.....	68
A9K58310	iC65N-K 3P C10A.....	44	A9L916849	iD10-340.....	138	A9N19821	C120H 2P D100A.....	68
A9K58316	iC65N-K 3P C16A.....	44	A9L916850	iPR 20r 3P+N.....	136	A9N19822	C120H 3P D100A.....	68
A9K58320	iC65N-K 3P C20A.....	44	A9L916851	iPR 20r 4P.....	136	A9N19823	C120H 4P D100A.....	68
A9K58325	iC65N-K 3P C25A.....	44	A9L916862	iD80-340.....	138	A9N19824	C120H 1P C125A.....	68
A9K58332	iC65N-K 3P C32A.....	44	A9L916863	iDGn-80.....	138	A9N19825	C120H 2P C125A.....	68
A9K58406	iC65N-K 4P C6A.....	44	A9L916864	iPR 80r 1P NPE.....	136	A9N19826	C120H 3P C125A.....	68
A9K58410	iC65N-K 4P C10A.....	44	A9L916865	iPR 80r 1P.....	136	A9N19827	C120H 4P C125A.....	68
A9K58416	iC65N-K 4P C16A.....	44	A9L916867	iD120-340.....	138	A9N19828	C120H 1P D125A.....	68
A9K58420	iC65N-K 4P C20A.....	44	A9L916870	iPR 120r 1P.....	136	A9N19829	C120H 2P D125A.....	68
A9K58425	iC65N-K 4P C25A.....	44	A9L916871	iPT 40r 3P+N.....	144	A9N19830	C120H 3P D125A.....	68
A9K58432	iC65N-K 4P C32A.....	44	A9L916872	iPT 40 3P+N.....	144	A9N19831	C120H 4P D125A.....	68
A9L			A9L916873	iPT 40 1P+N.....	144	A9N19832	C120L 1P C63A.....	70
A9L16434	iPR-DC 2P+1.....	148	A9L916874	iPT 20r 3P+N.....	144	A9N19833	C120L 2P C63A.....	70
A9L16436	iPR-DC 3P.....	148	A9L916875	iPT 20 3P+N.....	144	A9N19834	C120L 3P C63A.....	70
A9L16683	iPR-DC Replaceable D40-340.....	149	A9L916876	iPT 20 1P+N.....	144	A9N19835	C120L 4P C63A.....	70
A9L16690	iPR-DC Replaceable Cneutral.....	149	A9L916885	iD40-385.....	145	A9N19836	C120L 1P D63A.....	70
A9L16692	iPR-DC Replaceable D40-460.....	149	A9L916886	iD20-385.....	145	A9N19837	C120L 2P D63A.....	70
A9L916600	iST 65 1P.....	140	A9L916887	iDGn PT.....	145	A9N19838	C120L 3P D63A.....	70
A9L916603	iST 65 2P.....	140	A9N			A9N19839	C120L 4P D63A.....	70
A9L916604	iST 65 3P.....	140	A9N15009	iINT 32A 1P.....	76	A9N19840	C120L 1P D80A.....	70
A9L916605	iST 65r 3P+N.....	140	A9N15010	iINT 32A 2P.....	76	A9N19841	C120L 2P C80A.....	70
A9L916606	iST 65 3P+N.....	140	A9N15011	iINT 32A 3P.....	76	A9N19842	C120L 3P C80A.....	70
A9L916607	iST 65r 4P.....	140	A9N15012	iINT 32A 4P.....	76	A9N19843	C120L 4P C80A.....	70
A9L916608	iST 65 4P.....	140	A9N15013	iINT 63A 1P.....	76	A9N19844	C120L 1P D80A.....	70
A9L916609	iST 40 1P.....	140	A9N15014	iINT 63A 2P.....	76	A9N19845	C120L 2P D80A.....	70
A9L916611	iST 40 1P+N.....	140	A9N15015	iINT 63A 3P.....	76	A9N19846	C120L 3P D80A.....	70
A9L916612	iST 40 2P.....	140	A9N15016	iINT 63A 4P.....	76	A9N19847	C120L 4P D80A.....	70
A9L916613	iST 40 3P.....	140	A9N15017	iINT 80A 1P.....	76	A9N19848	C120L 1P C100A.....	70
A9L916614	iST 40r 3P+N.....	140	A9N15018	iINT 80A 2P.....	76	A9N19849	C120L 2P C100A.....	70
A9L916615	iST 40 3P+N.....	140	A9N15019	iINT 40A 4P.....	76	A9N19850	C120L 3P C100A.....	70
A9L916616	iST 40r 4P.....	140	A9N15020	iINT 40A 2P.....	76	A9N19851	C120L 4P C100A.....	70
A9L916617	iST 40 4P.....	140	A9N15021	iINT 80A 3P.....	76	A9N19852	C120L 1P D100A.....	70
A9L916618	iST 20 1P.....	140	A9N15022	iINT 80A 4P.....	76	A9N19853	C120L 2P D100A.....	70
A9L916620	iST 20 1P+N.....	140	A9N15023	iINT 40A 3P.....	76	A9N19854	C120L 3P D100A.....	70
A9L916621	iST 20 2P.....	140	A9N15024	iINT 40A 1P.....	76	A9N19855	C120L 4P D100A.....	70
A9L916622	iST 20 3P.....	140	A9N15057	iINT 125A 1P.....	76	A9N19856	C120L 1P C125A.....	70
A9L916623	iST 20 3P+N.....	140	A9N15058	iINT 125A 2P.....	76	A9N19857	C120L 2P C125A.....	70
A9L916624	iST 20 4P.....	140	A9N15059	iINT 125A 3P.....	76	A9N19858	C120L 3P C125A.....	70
A9L916625	iST 20r 3P+N.....	140	A9N15060	iINT 125A 4P.....	76	A9N19859	C120L 4P C125A.....	70
A9L916800	iPR 65r 1P.....	136	A9N15090	iINT 100A 1P.....	76	A9N19860	C120L 1P D125A.....	70
A9L916802	iPR 65r 1P+N.....	136	A9N15091	iINT 100A 2P.....	76	A9N19861	C120L 2P D125A.....	70
A9L916803	iPR 65r 2P.....	136	A9N15092	iINT 100A 3P.....	76	A9N19862	C120L 3P D125A.....	70
A9L916804	iPR 65r 3P.....	136	A9N15093	iINT 100A 4P.....	76	A9N19863	C120L 4P D125A.....	70
A9L916806	iPR 65r 3P+N.....	136	A9N18544	Vigi C120 2P 300mA ⁵	98	A9N22000	C65H-DC 1P B1A.....	48
A9L916807	iPR 65r 4P.....	136	A9N18546	Vigi C120 3P 300mA ⁵	98	A9N22001	C65H-DC 1P B2A.....	48
A9L916808	iPR 40r 1P.....	136	A9N18548	Vigi C120 4P 300mA ⁵	98	A9N22002	C65H-DC 1P B3A.....	48
A9L916809	iPR 40 1P.....	136	A9N18563	Vigi C120 2P 30mA.....	98	A9N22003	C65H-DC 1P B4A.....	48
A9L916812	iPR 40r 1P+N.....	136	A9N18564	Vigi C120 2P 300mA.....	98	A9N22004	C65H-DC 1P B6A.....	48
A9L916813	iPR 40 1P+N.....	136	A9N18566	Vigi C120 3P 30mA.....	98	A9N22005	C65H-DC 1P B10A.....	48
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						A9N22024	C65H-DC 2P B6A.....	48

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A9N22026	C65H-DC 2P B16A	48	A9N22428	C65N-DC 2P C32A	46	A9V50263	Vigi iC65 ELE G 2P 63A 30mA AC	86
A9N22027	C65H-DC 2P B20A	48	A9N22429	C65N-DC 2P C40A	46	A9V52225	Vigi iC65 ELM 2P 25A 30mA AC	86
A9N22028	C65H-DC 2P B25A	48	A9N22430	C65N-DC 2P C50A	46	A9V52240	Vigi iC65 ELM 2P 40A 30mA AC	86
A9N22029	C65H-DC 2P B32A	48	A9N22431	C65N-DC 2P C63A	46	A9V52263	Vigi iC65 ELM 2P 63A 30mA AC	86
A9N22030	C65H-DC 2P B40A	48	A9N26476	MX 110...415V AC 110...130V DC (C65-DC/C120)	115	A9V52325	Vigi iC65 ELM 3P 25A 30mA AC	86
A9N22031	C65H-DC 2P B50A	48	A9N26477	MX 48V AC/DC(C65-DC/C120)	115	A9V52340	Vigi iC65 ELM 3P 40A 30mA AC	86
A9N22032	C65H-DC 2P B63A	48	A9N26478	MX 12/24V AC/DC(C65-DC/C120)	115	A9V52363	Vigi iC65 ELM 3P 63A 30mA AC	86
A9N22050	C65H-DC 1P C1A	48	A9N26899	OF+SD/24(C65-DC/C120)	116	A9V52425	Vigi iC65 ELM 4P 25A 30mA AC	86
A9N22051	C65H-DC 1P C2A	48	A9N26924	OF (1N0-NC)(C65-DC/C120)	116	A9V52440	Vigi iC65 ELM 4P 40A 30mA AC	86
A9N22052	C65H-DC 1P C3A	48	A9N26927	SD(C65-DC/C120)	116	A9V52463	Vigi iC65 ELM 4P 63A 30mA AC	86
A9N22053	C65H-DC 1P C4A	48	A9N26929	OF+SD / OF(C65-DC/C120)	116	A9V53240	Vigi iC65 ELE 2P 40A 30mA AC	84
A9N22054	C65H-DC 1P C6A	48	A9N26946	MX+OF 110...415V AC 110...130V DC (C65-DC/C120)	115	A9V53263	Vigi iC65 ELE 2P 63A 30mA AC	84
A9N22055	C65H-DC 1P C10A	48	A9N26947	MX+OF 48V AC/DC (C65-DC/C120)	115	A9V53340	Vigi iC65 ELE 3P 40A 30mA AC	84
A9N22056	C65H-DC 1P C16A	48	A9N26948	MX+OF 12/24V AC/DC (C65-DC/C120)	115	A9V53363	Vigi iC65 ELE 3P 63A 30mA AC	84
A9N22057	C65H-DC 1P C20A	48	A9N26960	MN 220...240V AC(C65-DC/C120)	114	A9V53440	Vigi iC65 ELE 4P 40A 30mA AC	84
A9N22058	C65H-DC 1P C25A	48	A9N26961	MN 48V AC/DC(C65-DC/C120)	114	A9V57263	Vigi iC65 ELE 2P 63A 30mA A	85
A9N22059	C65H-DC 1P C32A	48	A9N26963	MN 220...240V AC (C65-DC/C120)	114	A9V57340	Vigi iC65 ELE 3P 40A 30mA A	85
A9N22060	C65H-DC 1P C40A	48				A9V57363	Vigi iC65 ELE 3P 63A 30mA A	85
A9N22061	C65H-DC 1P C50A	48				A9V57440	Vigi iC65 ELE 4P 40A 30mA A	85
A9N22062	C65H-DC 1P C63A	48				A9V57463	Vigi iC65 ELE 4P 63A 30mA A	85
A9N22070	C65H-DC 2P C1A	48				A9V57640	Vigi iC65 ELE 1P+N 40A 30mA A	85
A9N22071	C65H-DC 2P C2A	48				A9V57663	Vigi iC65 ELE 1P+N 63A 30mA A	85
A9N22072	C65H-DC 2P C3A	48				A9V62263	Vigi iC65 ELM 2P 63A 100mA AC	86
A9N22073	C65H-DC 2P C4A	48				A9V62363	Vigi iC65 ELM 3P 63A 100mA AC	86
A9N22074	C65H-DC 2P C6A	48				A9V62463	Vigi iC65 ELM 4P 63A 100mA AC	86
A9N22075	C65H-DC 2P C10A	48				A9V63240	Vigi iC65 ELE 2P 40A 100mA AC	84
A9N22076	C65H-DC 2P C16A	48				A9V63263	Vigi iC65 ELE 2P 63A 100mA AC	84
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A9N22101	C65L-DC 1P C2A	51				A9V82263	Vigi iC65 ELM 2P 63A 300mA AC	86
A9N22102	C65L-DC 1P C3A	51				A9V82363	Vigi iC65 ELM 3P 63A 300mA AC	86
A9N22103	C65L-DC 1P C4A	51				A9V82463	Vigi iC65 ELM 4P 63A 300mA AC	86
A9N22104	C65L-DC 1P C6A	51				A9V83240	Vigi iC65 ELE 2P 40A 300mA AC	84
A9N22105	C65L-DC 1P C10A	51				A9V83263	Vigi iC65 ELE 2P 63A 300mA AC	84
A9N22106	C65L-DC 1P C16A	51				A9V83340	Vigi iC65 ELE 3P 40A 300mA AC	84
A9N22107	C65L-DC 1P C20A	51				A9V83363	Vigi iC65 ELE 3P 63A 300mA AC	84
A9N22108	C65L-DC 1P C25A	51				A9V83440	Vigi iC65 ELE 4P 40A 300mA AC	84
A9N22109	C65L-DC 1P C32A	51				A9V83463	Vigi iC65 ELE 4P 63A 300mA AC	84
A9N22110	C65L-DC 1P C40A	51				A9V92263	Vigi iC65 ELM 2P 63A	86
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A9N22112	C65L-DC 1P C63A	51				A9V92363	Vigi iC65 ELM 3P 63A	86
A9N22120	C65L-DC 2P C1A	51					300mA-S AC	86
A9N22121	C65L-DC 2P C2A	51				A9V92463	Vigi iC65 ELM 4P 63A	86
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A9N22124	C65L-DC 2P C6A	51					300mA-S AC	84
A9N22125	C65L-DC 2P C10A	51				A9V93263	Vigi iC65 ELE 2P 63A	84
A9N22126	C65L-DC 2P C16A	51					300mA-S AC	84
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A9N22128	C65L-DC 2P C25A	51					300mA-S AC	84
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MGN60647	C60H 4P C1A56
MGN60648	C60H 4P C2A56

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MGN60656	C60H 4P C32A56
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MGN60864	C60N 1P C3A54
MGN60865	C60N 1P C4A54
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MGN60908	C60N 4P C20A54
MGN60909	C60N 4P C25A54
MGN60910	C60N 4P C32A54
MGN60911	C60N 4P C40A54
MGN60912	C60N 4P C50A54
MGN60913	C60N 4P C63A54

Type	iC65N	iC65N-K	iC65H	iC65L	iC60L MA #
					
Standard	IEC/EN60898-1 GB10963.1	IEC/EN60898-1 GB10963.1	IEC/EN60898-1 GB10963.1	IEC/EN60947-2 GB14048.2	IEC/EN60947-2 GB14048.2
Product certification	CCC,CE	CCC,CE	CCC,CE	CCC,CE	CCC,CE
Electrical characteristics					
Number of poles	1P,2P,3P,4P	1P,2P,3P,4P	1P,2P,3P,4P	1P,2P,3P,4P	2P,3P
Ratings (A)	1~63	6~32	1~63	1~63	1.6~40
Rated voltage (V) Ue	230/400	230/400	230/400	230/400	230/400
Insulation voltage (V) Ui	500	500	500	500	500
Maximum operational voltage(V) Umax	440	440	440	440	440
Minimum operational voltage(V) Umin	12	12	12	12	12
Frequency(Hz)	50/60	50/60	50/60	50/60	50/60
Impulse voltage (kV) Uimp	6	4	6	6	6
Rated breaking capacity Icn , 230V/400V (IEC/EN 60898)	6kA	6kA	10kA	-	-
Breaking capacity (Icu) , 230V/400V (IEC/EN 60947-2)	-	-	-	15kA	15kA
Service breaking capacity (Ics), 230V/400V (IEC/EN 60947-2)	-	-	-	100%Icu (1~4A); 50%Icu (6~63A)	50%Icu
Overvoltage category	IV	III	IV	IV	IV
Pollution degree	3	3	3	3	3
Magnetic tripping	B (3In~5In)	-	●	-	-
	C (5In~10In)	●	●	●	-
	D (10In~14In)	●	●	●	-
	MA(12In±20%)	-	-	-	●
Add-on residual current devices	●	-	●	●	-
Accessories, auxiliaries	●	-	●	●	●
Insulation classes	II	II	II	II	II
Mechanical characteristics					
Mechanical endurance	20000	20000	20000	20000	20000
Electrical endurance	10000	10000	10000	10000	10000
Degree of protection	Device only	IP20	IP20	IP20	IP20
	Device in modular enclosure	IP40	IP40	IP40	IP40
Reference temperature	30°C	30°C	30°C	50°C	50°C
Additional characteristics					
Terminal type	tunnel	tunnel	tunnel	tunnel	tunnel
Maximum connection capacity	≤25A	25	25	25	25
	>25A	35	25	35	35
Terminal maximum tightening torque	≤25A	5.1	5.1	5.1	-
	>25A	5.6	5.1	5.6	-
Visi-Safe	●	-	●	●	●
Visi-Trip	●	-	●	●	●
Connection	top/bottom	top/bottom	top/bottom	top/bottom	top/bottom

PS: # import product.

	C65N-DC	C65H-DC	C65L-DC	C60N #	C60H #
					
	IEC60947-2 GB 14048.2	IEC60947-2 GB 14048.2	IEC60947-2 GB 14048.2	IEC60947-2 GB 14048.2	IEC60947-2 GB 14048.2
	CCC,CE	CCC,CE	CCC,CE	CCC,CE and multi-country classification societies*	CCC,CE and multi-country classification societies*
	1P,2P	1P,2P	1P,2P	1P,2P,3P,4P	1P,2P,3P,4P
	1~63	1~63	1~63	1~63	1~40
	1P 60VDC 2P 125VDC	1P 125VDC 2P 250VDC	1P 110/220VDC 2P 220/440VDC	240/415	240/415
	-	-	-	500	500
	125	250	500	440	440
	12	12	12	-	-
	-	-	-	50/60	50/60
	6	5	6	6	6
	-	-	-	-	-
	6kA	10kA	20kA	10kA	15kA
	100%Icu	75%Icu	75%Icu	75%Icu	50%Icu
	IV	IV	IV	IV	IV
	3	3	3	3	3
	-	●	-	-	-
	●	●	●	●	●
	-	-	-	●	●
	-	-	-	-	-
	-	-	-	-	-
	●	●	●	●	●
	-	-	-	-	-
	20000	20000	20000	20000	20000
	10000	10000	10000	10000	10000
	-	-	-	IP20	IP20
	-	-	-	IP40	IP40
	40°C	40°C	25°C	50°C	50°C
	tunnel	tunnel	tunnel	tunnel	tunnel
	25 (≤32A)	25 (≤32A)	25	25	25
	35 (>32A)	35 (>32A)	35	35	35
	5.1	5.1	5.1	-	-
	5.6	5.6	5.6	-	-
	●	●	●	●	●
	-	-	-	-	-
	Please notice polarity	Please notice polarity	Please notice polarity	top/bottom	top/bottom

* C60 C60 obtained ABS / BV/DNV / GL/ LR / RINA / RS / CCS / KR.

PS: # import product.

Type	iDPNa	iDPNN	iDPNH	iDPNK2
				
Standard	IEC/EN60898-1 GB10963.1	IEC/EN60898-1 GB10963.1	IEC/EN60898-1 GB10963.1	IEC/EN60898-1 GB10963.1
Product certification	CCC,CE	CCC,CE	CCC,CE	CCC,CE
Electrical characteristics				
Number of poles	1P+N	1P+N	1P+N	1P+N
Ratings (A)	6~40	2~40	2~40	10~63
Rated voltage (V) Ue	230	230	230	230
Insulation voltage(V) Ui	400	400	400	500
Maximum operational voltage(V) Umax	230	230	230	230
Minimum operational voltage(V) Umin	-	-	-	-
Frequency(Hz)	50/60	50/60	50/60	50/60
Impulse voltage (kV) Uimp	4	4	4	6
Rated breaking capacity Icn, 230V/400V (IEC/EN 60898)	4.5kA	6kA	10kA	6kA
Breaking capacity (Icu), 230V/400V (IEC/EN 60947-2)	-	-	-	-
Service breaking capacity (Ics), 230V/400V (IEC/EN 60947-2)	-	-	-	-
Overvoltage category	II	II	II	IV
Pollution degree	2	2	2	3
Magnetic tripping	B (3In~5In)	-	-	-
	C (5In~10In)	●	●	●
	D (10In~14In)	-	-	-
	MA(12In±20%)	-	-	-
Add-on residual current devices	●	●	●	●
Accessories, auxiliaries	●	●	●	●
Insulation classes	II	II	II	II
Mechanical characteristics				
Mechanical endurance	20000	20000	20000	20000
Electrical endurance	20000(≤20A) 10000(>20A)	20000(≤20A) 10000(>20A)	20000(≤20A) 10000(>20A)	10000
Degree of protection	Device only	IP20	IP20	IP20
	Device in modular enclosure	IP40	IP40	IP40
Reference temperature	30°C	30°C	30°C	30°C
Additional characteristics				
Terminal type	tunnel	tunnel	tunnel	tunnel
Maximum connection capacity	≤25A	16	16	25
	>25A	16	16	35
Terminal maximum tightening torque	≤25A	3.5	3.5	5.1
	>25A	3.5	3.5	5.6
Visi-Safe	●	●	●	●
Visi-Trip	●	●	●	●
Connection	top/bottom	top/bottom	top/bottom	top/bottom

	iDPNa-K	C120H	C120L	NG125H #	NG125L #
					
	IEC/EN60898-1 GB10963.1	IEC/EN60898-1 GB10963.1	IEC/EN60898-1 GB10963.1	IEC60947-2 GB14048.2	IEC60947-2 GB14048.2
	CCC,CE	CCC,CE	CCC,CE	CCC,CE and multi-country classification societies *	CCC,CE and multi-country classification societies *
	1P+N	1P,2P,3P,4P	1P,2P,3P,4P	1P,2P,3P,4P	1P,2P,3P,4P
	6~32	63~125	63~125	10~80	10~80
	230	230/400	230/400	240/415	240/415
	400	500	500	690	690
	230	440	440	500	500
	-	-	-	-	-
	50/60	50/60	50/60	50/60	50/60
	4	6	6	8	8
	4.5kA	10kA	15kA	-	-
	-	-	-	36kA	50kA
	-	-	-	75% Icu	75% Icu
	II	IV	IV	IV	IV
	2	3	3	3	3
	-	●	-	-	-
	●	●	●	●	●
	-	●	●	●	●
	-	-	-	-	-
	-	●	●	●	●
	-	●	●	●	●
	II	II	II	II	II
	20000	20000	20000	20000	20000
	20000(≤20A) 10000(>20A)	10000(63A) 5000(>63A)	10000(63A) 5000(>63A)	10000 (≤63A) 5000 (≥63A)	10000 (≤63A) 5000 (≥63A)
	IP20	IP20	IP20	IP20B	IP20B
	IP40	IP40	IP40	IP40D	IP40D
	30°C	30°C	30°C	40°C	40°C
	tunnel	tunnel	tunnel	tunnel	tunnel
	16	35	35	50(<80)	50(<80)
	16	50	50	70(80)	70(80)
	3.5	-	-	-	-
	3.5	-	-	-	-
	●	●	●	●	●
	-	-	-	●	●
	top/bottom			top/bottom	top/bottom

NG125 obtained ABS / BV/DNV / GL / LR / RINA / RS / KR.

PS: # import product.



Country approval pictograms

GB10963.1
IEC/EN 60898-1

iC65N circuit breakers are multi-standard circuit breakers which combine the following functions:

- circuit protection against short-circuit currents,
- circuit protection against overload currents,
- suitable for industrial isolation.
- fault tripping indication by a red mechanical indicator in circuit breaker front face.



Alternating current (AC) 50/60 Hz

Breaking capacity (Icn) according to GB10963/IEC 60898-1

	Voltage (Ue)
Ph/Ph (2/3/4P)	400 V
Ph/N (1P)	230 V
Rating (In) 1 to 63 A	6000 A

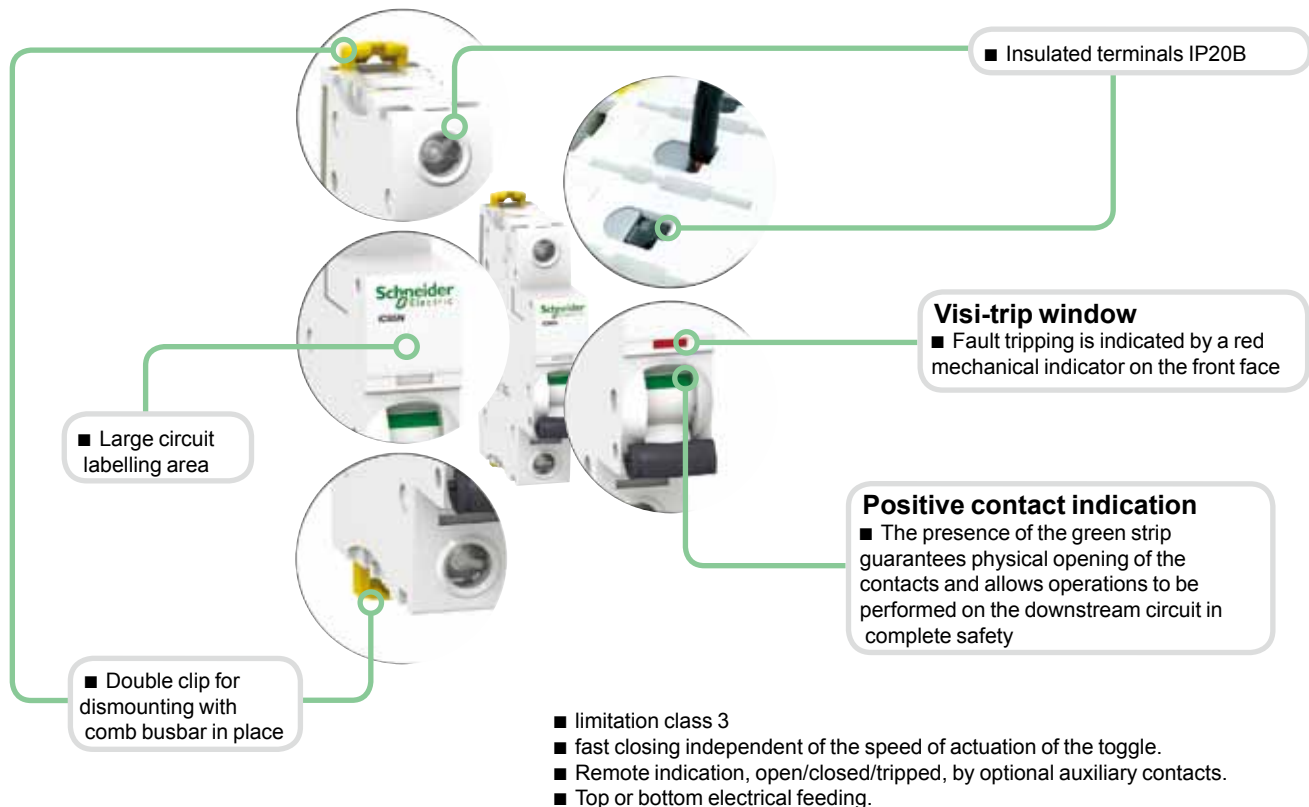
Breaking capacity (Icu) according to IEC 60947-2

	Voltage (Ue)					Service breaking capacity (Ics)
	12 to 133 V	220 to 240 V	380 to 415 V	440 V		
Ph/Ph (2P, 3P, 4P)	12 to 133 V	220 to 240 V	380 to 415 V	440 V		
Ph/N (1P)	12 to 60 V	100 to 133 V	220 to 240 V	-		
Rating (In) 1 to 4 A	50 kA	50 kA	50 kA	25 kA		100% Icu
6 to 63 A	36 kA	20 kA	10 kA	6 kA		75% Icu

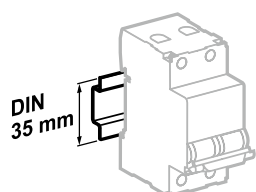
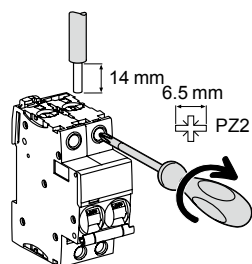
Catalogue numbers

iC65N circuit breaker

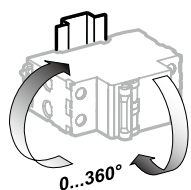
Type	1P			2P		
Rating (In)	Curve			Curve		
	B	C	D	B	C	D
1 A	A9F17101	A9F18101	A9F19101	A9F17201	A9F18201	A9F19201
2 A	A9F17102	A9F18102	A9F19102	A9F17202	A9F18202	A9F19202
3 A	A9F17103	—	—	A9F17203	—	—
4 A	A9F17104	A9F18104	A9F19104	A9F17204	A9F18204	A9F19204
6 A	A9F17106	A9F18106	A9F19106	A9F17206	A9F18206	A9F19206
10 A	A9F17110	A9F18110	A9F19110	A9F17210	A9F18210	A9F19210
16 A	A9F17116	A9F18116	A9F19116	A9F17216	A9F18216	A9F19216
20 A	A9F17120	A9F18120	A9F19120	A9F17220	A9F18220	A9F19220
25 A	A9F17125	A9F18125	A9F19125	A9F17225	A9F18225	A9F19225
32 A	A9F17132	A9F18132	A9F19132	A9F17232	A9F18232	A9F19232
40 A	A9F17140	A9F18140	A9F19140	A9F17240	A9F18240	A9F19240
50 A	A9F17150	A9F18150	A9F19150	A9F17250	A9F18250	A9F19250
63 A	A9F17163	A9F18163	A9F19163	A9F17263	A9F18263	A9F19263
Width in 9 mm modules	2			4		



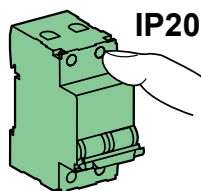
3P				4P			
Curve				Curve			
B				B			
C				C			
D				D			
A9F17301	A9F18301	A9F19301		A9F17401	A9F18401	A9F19401	
A9F17302	A9F18302	A9F19302		A9F17402	A9F18402	A9F19402	
A9F17303	—	—		A9F17403	—	—	
A9F17304	A9F18304	A9F19304		A9F17404	A9F18404	A9F19404	
A9F17306	A9F18306	A9F19306		A9F17406	A9F18406	A9F19406	
A9F17310	A9F18310	A9F19310		A9F17410	A9F18410	A9F19410	
A9F17316	A9F18316	A9F19316		A9F17416	A9F18416	A9F19416	
A9F17320	A9F18320	A9F19320		A9F17420	A9F18420	A9F19420	
A9F17325	A9F18325	A9F19325		A9F17425	A9F18425	A9F19425	
A9F17332	A9F18332	A9F19332		A9F17432	A9F18432	A9F19432	
A9F17340	A9F18340	A9F19340		A9F17440	A9F18440	A9F19440	
A9F17350	A9F18350	A9F19350		A9F17450	A9F18450	A9F19450	
A9F17363	A9F18363	A9F19363		A9F17463	A9F18463	A9F19463	
6				8			



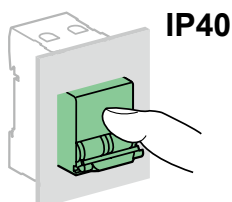
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
1 to 25 A: M5	2.5 Nm	5.1 Nm	2 Nm		
32 to 63 A: M6.5	3.5 Nm	5.6 Nm	3.5 Nm	1 to 35 mm ²	1 to 25 mm ²

Technical data

Main characteristics

According to IEC 60947-2

Insulation voltage (Ui)		500 V AC
Pollution degree		3
Rated impulse withstand voltage (Uimp)		6 kV
Thermal tripping	Reference temperature	30 °C
Magnetic tripping	B curve	(3 to 5) In
	C curve	(5 to 10) In
	D curve	(10 to 14) In

Utilization category	A
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According to IEC 60898-1

Limitation class	3
Rated making and breaking capacity of an individual pole (Icn1)	Icn1 = Icn (6000 A)

Additional characteristics

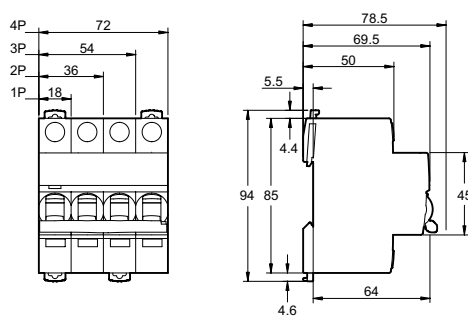
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation classe II
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)		IV
Operating temperature		-35 °C to +70 °C
Storage temperature		-40 °C to +85 °C
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity 95 % to 55°C)

iC65N circuit breakers (curve B, C, D)

Weight (g)

Circuit-breaker	
Type	iC65N
1P	125
2P	250
3P	375
4P	500

Dimensions (mm)





Country approval pictograms



GB10963.1
IEC/EN 60898-1

iC65H circuit breakers are multi-standard circuit breakers which combine the following functions:

- circuit protection against short-circuit currents,
- circuit protection against overload currents,
- suitable for industrial isolation.
- fault tripping indication by a red mechanical indicator in circuit breaker front face.

Alternating current (AC) 50/60 Hz

Breaking capacity (Icn) according to GB 10963/IEC 60898-1

Ph/Ph	Voltage (Ue)
Ph/Ph	400 V
Ph/N	230 V

Rating (In) 1 to 63 A 10000 A

Breaking capacity (Icu) according to IEC 60947-2

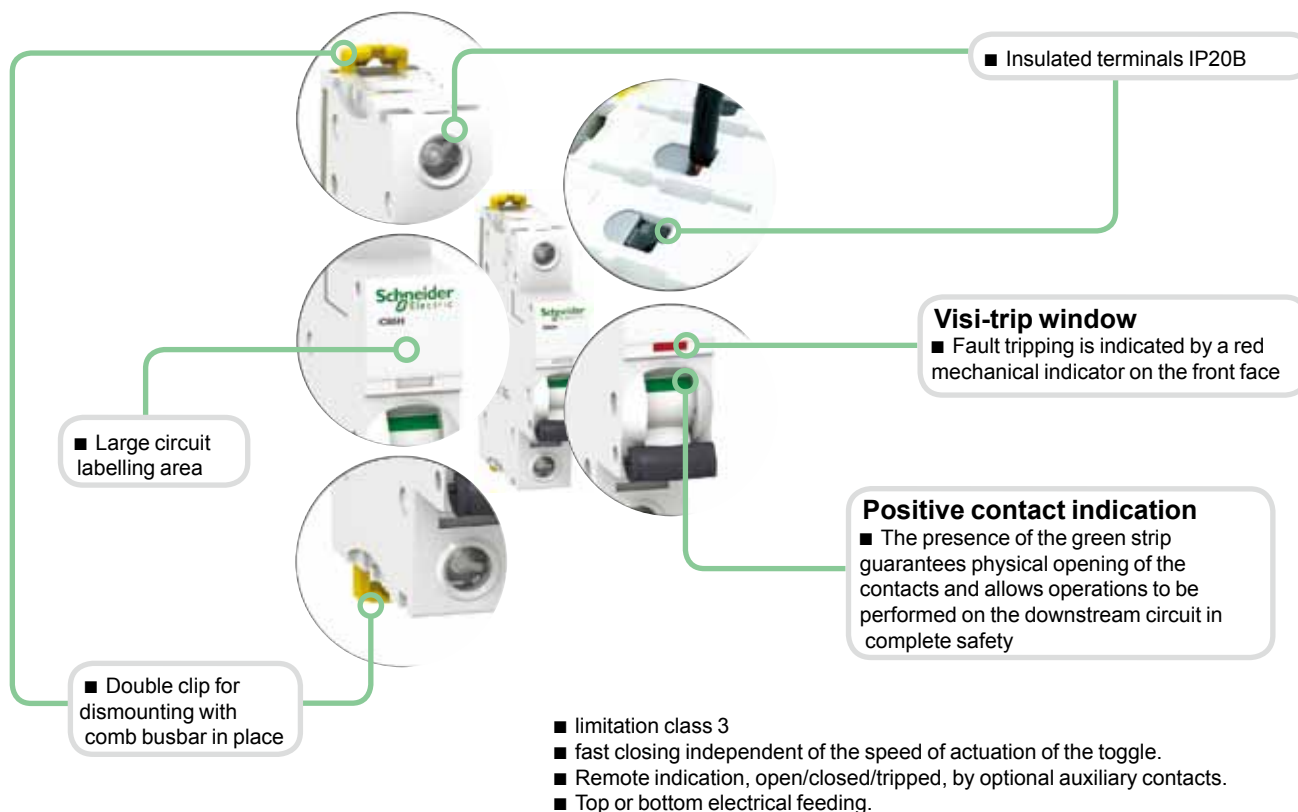
Ph/Ph (2P, 3P, 4P)	Voltage (Ue)				Service breaking capacity (Ics)
	12 to 133 V	220 to 240 V	380 to 415 V	440 V	
Ph/N (1P)	12 to 60 V	100 to 133 V	220 to 240 V	-	
Rating (In) 1 to 4 A	70 kA	70 kA	70 kA	50 kA	100% Icu
6 to 40 A	42 kA	30 kA	15 kA	10 kA	50% Icu
50/63 A	42 kA	-	15 kA	10 kA	50 % Icu

Catalogue numbers

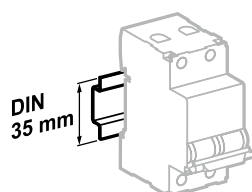
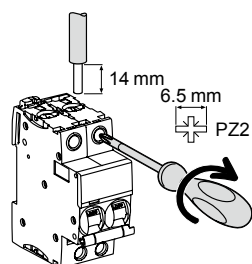
iC65H circuit breaker

Rating (In)	1P			2P		
						
	Curve B	C	D	Curve B	C	D
1 A	A9F27101	A9F28101	A9F29101	A9F27201	A9F28201	A9F29201
2 A	A9F27102	A9F28102	A9F29102	A9F27202	A9F28202	A9F29202
3 A	A9F27103	-	-	A9F27203	-	-
4 A	A9F27104	A9F28104	A9F29104	A9F27204	A9F28204	A9F29204
6 A	A9F27106	A9F28106	A9F29106	A9F27206	A9F28206	A9F29206
10 A	A9F27110	A9F28110	A9F29110	A9F27210	A9F28210	A9F29210
16 A	A9F27116	A9F28116	A9F29116	A9F27216	A9F28216	A9F29216
20 A	A9F27120	A9F28120	A9F29120	A9F27220	A9F28220	A9F29220
25 A	A9F27125	A9F28125	A9F29125	A9F27225	A9F28225	A9F29225
32 A	A9F27132	A9F28132	A9F29132	A9F27232	A9F28232	A9F29232
40 A	A9F27140	A9F28140	A9F29140	A9F27240	A9F28240	A9F29240
50 A	A9F27150	A9F28150	A9F29150	A9F27250	A9F28250	A9F29250
63 A	A9F27163	A9F28163	A9F29163	A9F27263	A9F28263	A9F29263
Width in 9 mm modules	2			4		

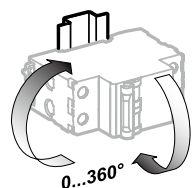
iC65H circuit breakers (curve B, C, D)



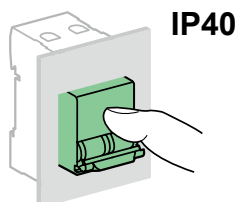
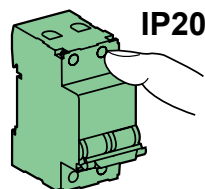
3P				4P			
Curve				Curve			
B				B			
C				C			
D				D			
A9F27301	A9F28301	A9F29301		A9F27401	A9F28401	A9F29401	
A9F27302	A9F28302	A9F29302		A9F27402	A9F28402	A9F29402	
A9F27303	—	—		A9F27403	—	—	
A9F27304	A9F28304	A9F29304		A9F27404	A9F28404	A9F29404	
A9F27306	A9F28306	A9F29306		A9F27406	A9F28406	A9F29406	
A9F27310	A9F28310	A9F29310		A9F27410	A9F28410	A9F29410	
A9F27316	A9F28316	A9F29316		A9F27416	A9F28416	A9F29416	
A9F27320	A9F28320	A9F29320		A9F27420	A9F28420	A9F29420	
A9F27325	A9F28325	A9F29325		A9F27425	A9F28425	A9F29425	
A9F27332	A9F28332	A9F29332		A9F27432	A9F28432	A9F29432	
A9F27340	A9F28340	A9F29340		A9F27440	A9F28440	A9F29440	
A9F27350	A9F28350	A9F29350		A9F27450	A9F28450	A9F29450	
A9F27363	A9F28363	A9F29363		A9F27463	A9F28463	A9F29463	
6				8			



Clip on DIN rail 35 mm.



Indifferent position of installation.



Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
1 to 25 A: M5	2.5 Nm	5.1 Nm	2 Nm		
32 to 63 A: M6.5	3.5 Nm	5.6 Nm	3.5 Nm	1 to 35 mm ²	1 to 25 mm ²

Technical data

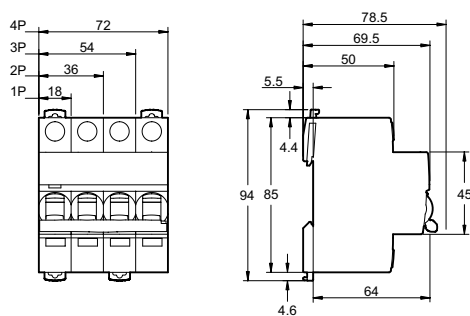
Main characteristics		
According to IEC 60947-2		
Insulation voltage (U _i)		500 V AC
Pollution degree		3
Rated impulse withstand voltage (U _{imp})		6 kV
Thermal tripping	Reference temperature	30 °C
Magnetic tripping	B curve	(3 to 5) I _n
	C curve	(5 to 10) I _n
	D curve	(10 to 14) I _n
Utilization category		A
According to IEC 60898-1		
Limitation class		3
Rated making and breaking capacity of an individual pole (I _{cn1})		I _{cn1} = I _{cn} (10000 A)
Additional characteristics		
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation classe II
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)		IV
Operating temperature		-35 °C to +70 °C
Storage temperature		-40 °C to +85 °C
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity 95 % to 55 °C)

iC65H circuit breakers (curve B, C, D)

Weight (g)

Circuit-breaker	
Type	iC65H
1P	125
2P	250
3P	375
4P	500

Dimensions (mm)





Country approval pictograms

GB14048.2
IEC/EN 60947-2

iC65L circuit breakers are multi-standard circuit breakers which combine the following functions:

- circuit protection against short-circuit currents,
- circuit protection against overload currents,
- suitable for industrial isolation.
- fault tripping indication by a red mechanical indicator in circuit breaker front face.



Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) according to IEC 60947-2

	Voltage (Ue)					Service breaking capacity (Ics)
	Ph/Ph (2P, 3P, 4P)	12 to 133 V	220 to 240 V	380 to 415 V	440 V	
Ph/N (1P)	12 to 60 V	100 to 133 V	220 to 240 V	-	-	
Rating (In)	1 to 4 A	100 kA	100 kA	100 kA	70 kA	100% Icu
	6 to 25 A	70 kA	-	25 kA	20 kA	50% Icu ⁽¹⁾
	32 / 40 A	70 kA	-	20 kA	15 kA	50% Icu
	50 / 63 A	70 kA	-	15 kA	10 kA	50% Icu

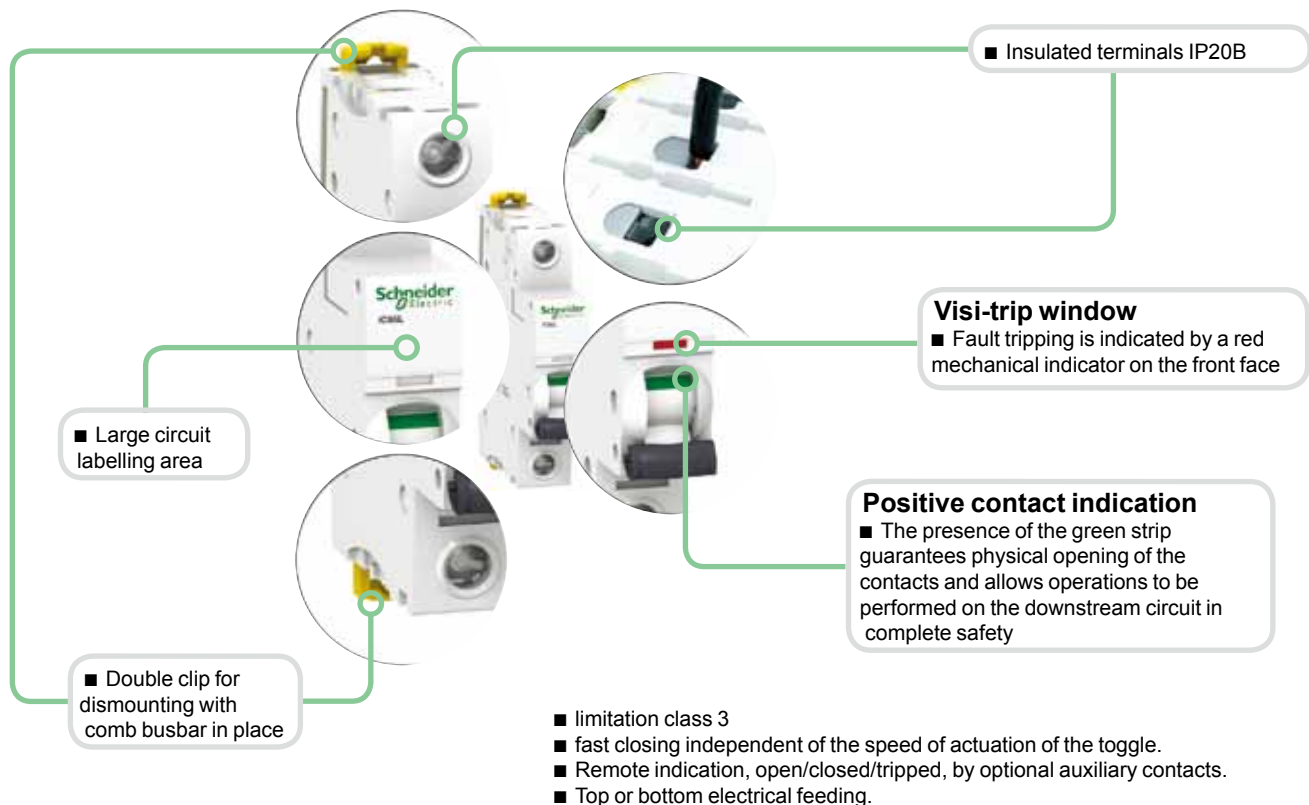
Catalogue numbers

iC65L circuit breaker

	1P		2P	
				
Rating (In)	Curve C		Curve C	
	D		D	
1 A	A9F38101	A9F39101	A9F38201	A9F39201
2 A	A9F38102	A9F39102	A9F38202	A9F39202
4 A	A9F38104	A9F39104	A9F38204	A9F39204
6 A	A9F38106	A9F39106	A9F38206	A9F39206
10 A	A9F38110	A9F39110	A9F38210	A9F39210
16 A	A9F38116	A9F39116	A9F38216	A9F39216
20 A	A9F38120	A9F39120	A9F38220	A9F39220
25 A	A9F38125	A9F39125	A9F38225	A9F39225
32 A	A9F38132	A9F39132	A9F38232	A9F39232
40 A	A9F38140	A9F39140	A9F38240	A9F39240
50 A	A9F38150	A9F39150	A9F38250	A9F39250
63 A	A9F38163	A9F39163	A9F38263	A9F39263
Width in 9 mm modules	2		4	

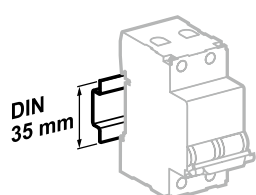
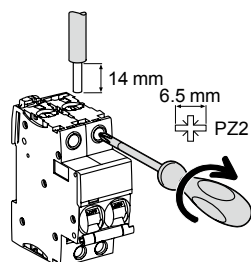
(1) 100 % of Icu for ratings 6 to 25 A under Ue 100 to 133 V AC Ph/Ph and Ue 12 to 60 V AC Ph/N.

iC65L circuit breakers (curve C, D)

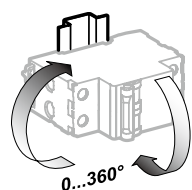


3P		4P	
Curve C	D	Curve C	D
A9F38301	A9F39301	A9F38401	A9F39401
A9F38302	A9F39302	A9F38402	A9F39402
A9F38304	A9F39304	A9F38404	A9F39404
A9F38306	A9F39306	A9F38406	A9F39406
A9F38310	A9F39310	A9F38410	A9F39410
A9F38316	A9F39316	A9F38416	A9F39416
A9F38320	A9F39320	A9F38420	A9F39420
A9F38325	A9F39325	A9F38425	A9F39425
A9F38332	A9F39332	A9F38432	A9F39432
A9F38340	A9F39340	A9F38440	A9F39440
A9F38350	A9F39350	A9F38450	A9F39450
A9F38363	A9F39363	A9F38463	A9F39463
6		8	

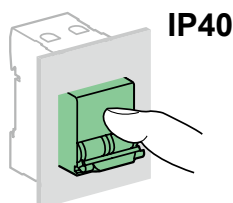
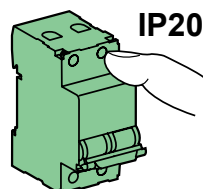
iC65L circuit breakers (curve C, D)



Clip on DIN rail 35 mm.



Indifferent position of installation.



Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
1 to 25 A: M5	2.5 Nm	5.1 Nm	2 Nm		
32 to 63 A: M6.5	3.5 Nm	5.6 Nm	3.5 Nm		

Technical data

Main characteristics

According to IEC 60947-2

Insulation voltage (Ui)	500 V AC
Pollution degree	3
Rated impulse withstand voltage (Uimp)	6 kV
Thermal tripping	Reference temperature
Magnetic tripping	C curve
	D curve
Utilization category	A

According to IEC 60898-1

Limitation class	3
Rated making and breaking capacity of an individual pole (Icn1)	Icn1 = Icn (15000 A)

Additional characteristics

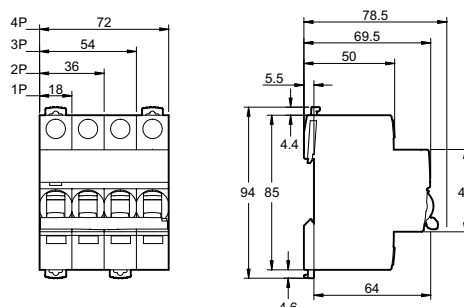
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation classe II
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)	IV	
Operating temperature	-35°C to +70°C	
Storage temperature	-40°C to +85°C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity 95 % to 55°C)	

Weight (g)

Circuit-breaker

Type	iC65L
1P	125
2P	250
3P	375
4P	500

Dimensions (mm)





Country approval pictograms



GB14048.2
IEC/EN 60947-2

iC60L MA circuit breakers combine the following functions:

- circuit protection against short-circuit currents,
- suitability for industrial isolation,
- fault tripping indication by a red mechanical indicator in circuit breaker front face,
- to be associated with overload protection for motor.

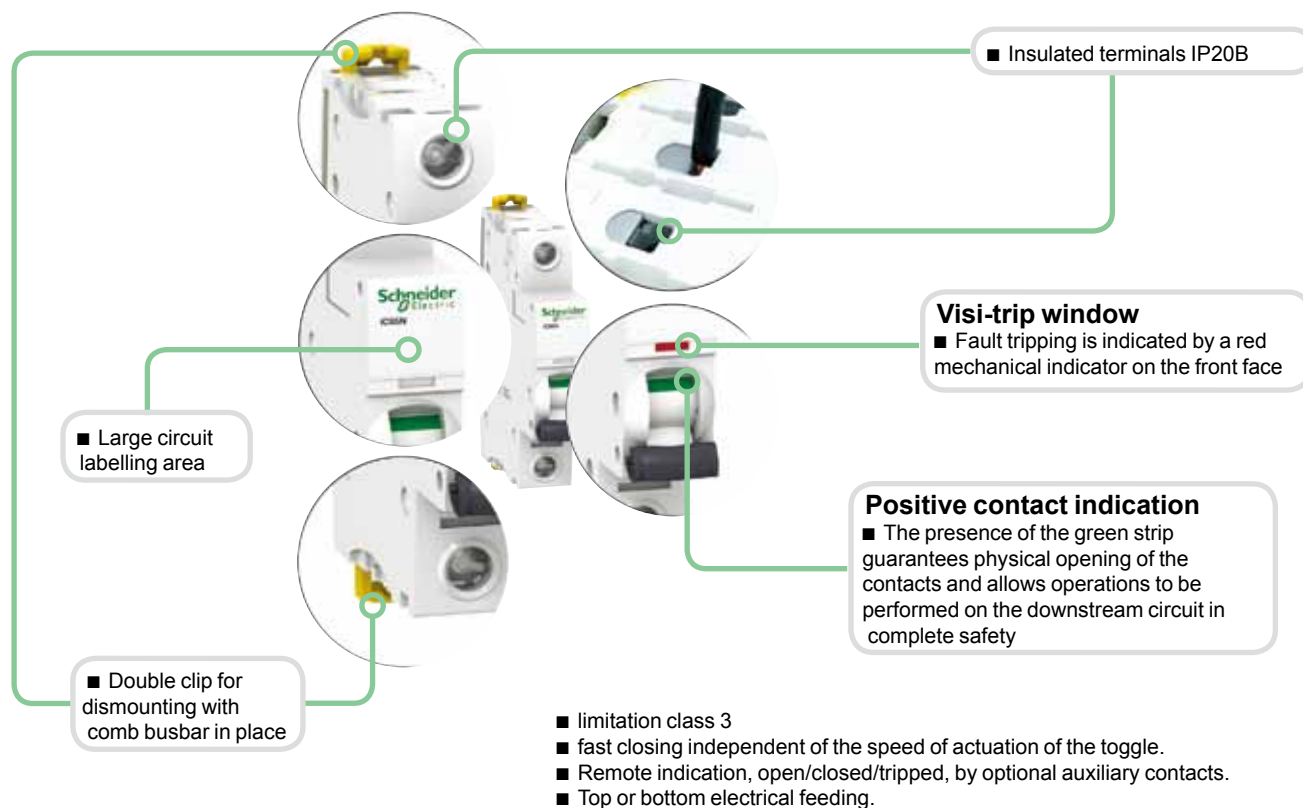
Alternating current (AC) 50/60 Hz

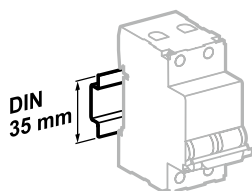
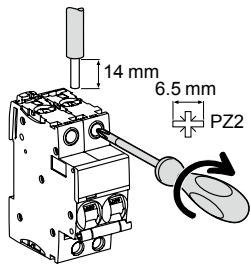
Breaking capacity (Icu) according to IEC 60947-2					Service breaking capacity (Ics)
		Voltage (Ue)			
Ph/Ph (2P, 3P)		220 to 240 V	380 to 415 V	440 V	
Rating (In)	1.6 to 4 A	100 kA	100 kA	50 kA	50% Icu
	6.3 to 25 A	50 kA	25 kA	20 kA	50% Icu
	40 A	36 kA	20 kA	15 kA	50% Icu

Catalogue numbers

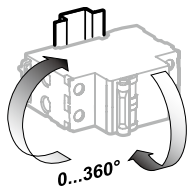
iC60L MA instantaneous trip circuit breaker

	2P	3P
Rating (In)	Curve MA	Curve MA
1.6 A	A9F90272	A9F90372
2.5 A	A9F90273	A9F90373
4 A	A9F90204	A9F90304
6.3 A	A9F90276	A9F90376
10 A	A9F90210	A9F90310
12.5 A	A9F90282	A9F90382
16 A	A9F90216	A9F90316
25 A	A9F90225	A9F90325
40 A	A9F90240	A9F90340
Width in 9 mm modules	4	6

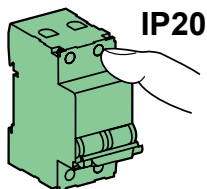




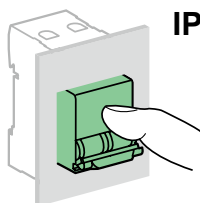
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Connection

Rating	Rated tightening torque	Copper cables	
		Rigid	Flexible or ferrule
1.6 to 25 A	2 Nm		
40 A	3.5 Nm	1 to 35 mm ²	1 to 25 mm ²

Technical data

Main characteristics

According to IEC 60947-2

Insulation voltage (Ui)	500 V AC
Pollution degree	3
Rated impulse withstand voltage (Uimp)	6 kV
Magnetic tripping MA curve	12In ± 20%
Utilization category	A

Additional characteristics

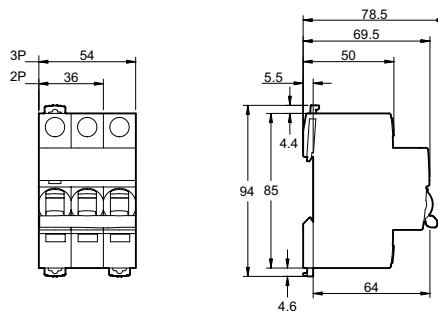
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation classe II
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)	IV	
Operating temperature	-35°C to +70°C	
Storage temperature	-40°C to +85°C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity 95 % to 55°C)	

Weight (g)

Circuit-breaker

Type	iC60L MA
2P	250
3P	375

Dimensions (mm)





Country approval pictograms



GB10963.1
IEC/EN 60898-1

iC65N-K circuit breakers combine the following functions:

- circuit protection against short-circuit currents,
- circuit protection against overload currents,
- suitable for industrial isolation.

iC65N-K circuit breakers can not be assembled with add-on residual current devices and electrical accessories.

iC65N-K circuit breakers 50/60 Hz

Breaking capacity (Icn) according to IEC/EN 60898-1

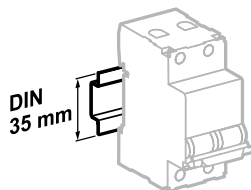
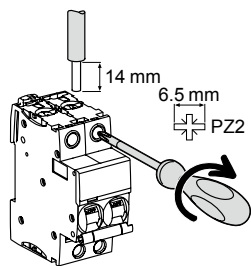
Ph/Ph	400 V
Ph/N	230 V
Rating (In)	6 to 32 A
	6000 A

Catalogue numbers

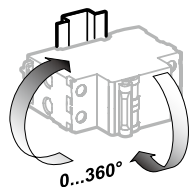
iC65N-K circuit breakers

	1P	2P	3P	4P
Rating (In)	Curve C	Curve C	Curve C	Curve C
6 A	A9K58106	A9K58206	A9K58306	A9K58406
10 A	A9K58110	A9K58210	A9K58310	A9K58410
16 A	A9K58116	A9K58216	A9K58316	A9K58416
20 A	A9K58120	A9K58220	A9K58320	A9K58420
25 A	A9K58125	A9K58225	A9K58325	A9K58425
32 A	A9K58132	A9K58232	A9K58332	A9K58432
Width in 9 mm modules	2	4	6	8

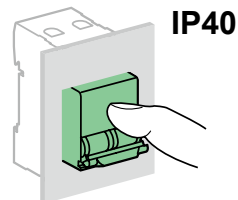
iC65N-K circuit breakers (curve C)



Clip on DIN rail 35 mm.



Indifferent position of installation.



Degree of protection: IP40

Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
M5	2.5 Nm	5.1 Nm	2 Nm	1 to 25 mm ²	1 to 16 mm ²

Technical data

Main characteristics

According to IEC 60898-1

Insulation voltage (Ui)	500 V AC
Pollution degree	3
Rated impulse withstand voltage (Uimp)	4 kV
Thermal tripping	Reference temperature
Magnetic tripping	C curve
Limitation class	3
Rated making and breaking capacity of an individual pole (Icn1)	Icn1 = Icn (6000 A)
Utilization category	A

Additional characteristics

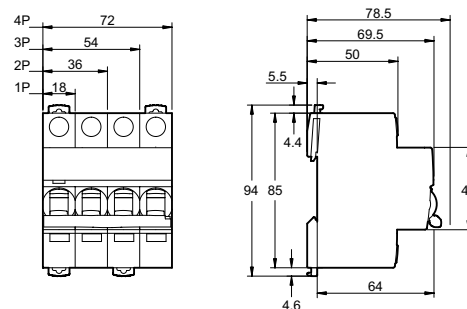
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation classe II
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)	III	
Operating temperature	-25°C to +60°C	
Storage temperature	-40°C to +85°C	

Weight (g)

Circuit-breaker

Type	iC65N-K
1P	100
2P	200
3P	300
4P	400

Dimensions (mm)



C65N-DC
(curve C)



GB 14048.2
IEC 60947-2

C65N-DC combines the following functions:

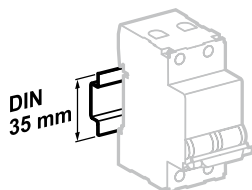
- Protection of circuits against short-circuit currents
- Protection of circuits against overload currents
- Control
- isolation
- IEC CB Report

C65N-DC circuit breaker			
Breaking capacity (Icu) according to IEC 60947-2			Service breaking capacity (Ics)
		Voltage (Ue)	
2P		125 V DC	
1P		60 V DC	100% Icu
Rating (In)	1~63 A	6 kA	

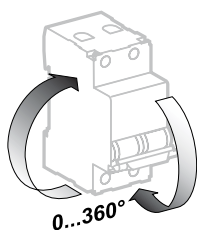
Catalogue numbers

C65N-DC circuit breaker		
	1P	2P
Rating (In)	Curve C	Curve C
1 A	A9N22400	A9N22420
2 A	A9N22401	A9N22421
4 A	A9N22402	A9N22422
6 A	A9N22403	A9N22423
10 A	A9N22404	A9N22424
16 A	A9N22405	A9N22425
20 A	A9N22406	A9N22426
25 A	A9N22407	A9N22427
32 A	A9N22408	A9N22428
40 A	A9N22409	A9N22429
50 A	A9N22410	A9N22430
63 A	A9N22411	A9N22431
Width in 9mm modules	2	4

C65N-DC (curve C)



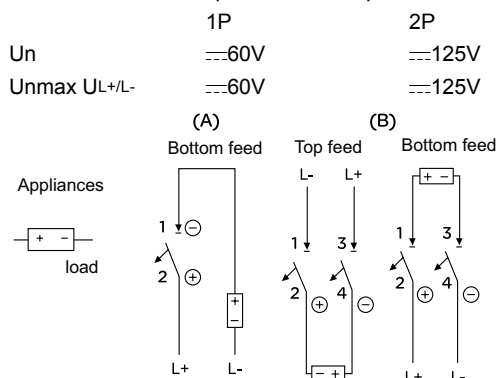
Clip on DIN rail 35 mm.



Indifferent position of installation.

C65N-DC connection examples

It is essential that the polarities be respected in relation to the power supply



Notes: (1) L+ Power supply positive, L- Power supply negative
(2) ⊕ C65N-DC positive, ⊖ C65N-DC negative

Connection

Rating	Screw	Cables	Rated tightening torque	Maximum tightening torque	Standard tightening torque
1~25A	M5	1~25mm ²	2.5Nm	5.1Nm	2Nm
32A	M6.5	1~25mm ²	3.5Nm	5.6Nm	3.5Nm
40~63A	M6.5	1~35mm ²	3.5Nm	5.6Nm	3.5Nm

Technical data

Main characteristics

According to IEC 60947-2

Impulse withstand voltage U _{imp}	6 kV
Limitation class	3
Tripping characteristics (I _t)	8.5I _n ±20%
Fast closing	■
Isolation indication	green label on the handle secure safety isolation

Additional characteristics

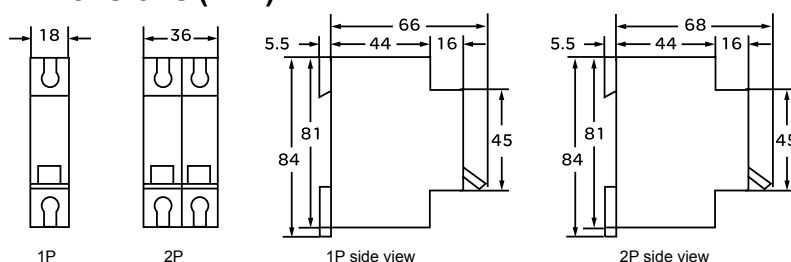
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Environment	operating temperature	-25°C~ +70°C
	storage temperature	-40°C~ +85°C
Tropicalisation	treatment 2 (relative humidity: 95% at 55°C)	
Module structure	can be fixed easily to DIN track	

Weight (g)

Circuit breaker

Type	C65N-DC
1P	110
2P	220

Dimensions (mm)



C65H-DC
(curve B, C)



GB 14048.2
IEC 60947-2

C65H-DC combines the following functions:

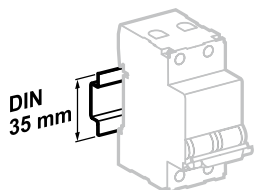
- Protection of circuits against short-circuit currents
- Protection of circuits against overload currents
- Control
- isolation
- IEC CB Report

C65H-DC circuit breaker			
Breaking capacity (Icu) according to IEC 60947-2		Voltage (Ue)	Service breaking capacity (Ics)
2P		250 V DC	
1P		125 V DC	
Rating (In)	1~63 A	10 kA	75% Icu

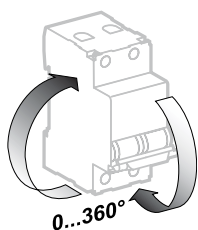
Catalogue numbers

C65H-DC circuit breaker				
	1P		2P	
Rating (In)	Curve		Curve	
	B	C	B	C
1 A	A9N22000	A9N22050	A9N22020	A9N22070
2 A	A9N22001	A9N22051	A9N22021	A9N22071
3 A	A9N22002	A9N22052	A9N22022	A9N22072
4 A	A9N22003	A9N22053	A9N22023	A9N22073
6 A	A9N22004	A9N22054	A9N22024	A9N22074
10 A	A9N22005	A9N22055	A9N22025	A9N22075
16 A	A9N22006	A9N22056	A9N22026	A9N22076
20 A	A9N22007	A9N22057	A9N22027	A9N22077
25 A	A9N22008	A9N22058	A9N22028	A9N22078
32 A	A9N22009	A9N22059	A9N22029	A9N22079
40 A	A9N22010	A9N22060	A9N22030	A9N22080
50 A	A9N22011	A9N22061	A9N22031	A9N22081
63 A	A9N22012	A9N22062	A9N22032	A9N22082
Width in 9mm modules	2		4	

C65H-DC (curve B, C)



Clip on DIN rail 35 mm.



Indifferent position of installation.

Connection

Rating	Screw	Cables	Rated tightening torque	Maximum tightening torque	Standard tightening torque
1~25A	M5	1~25mm ²	2.5Nm	5.1Nm	2Nm
32A	M6.5	1~25mm ²	3.5Nm	5.6Nm	3.5Nm
40~63A	M6.5	1~35mm ²	3.5Nm	5.6Nm	3.5Nm

Technical data

Main characteristics

According to IEC 60947-2

Impulse withstand voltage U _{imp}	5 kV
Limitation class	3
Tripping characteristics (li)	B
Fast closing	■
Isolation indication	green label on the handle secure safety isolation

Additional characteristics

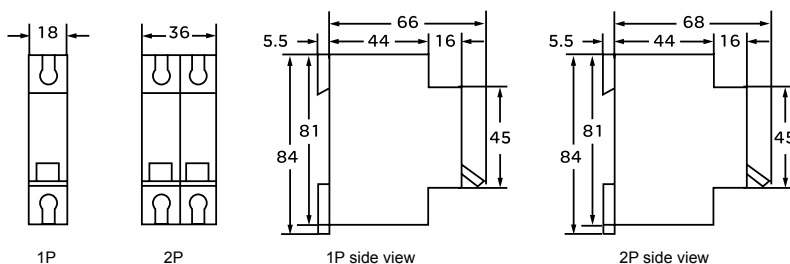
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Environment	operating temperature	-25°C~ +70°C
	storage temperature	-40°C~ +85°C
Tropicalisation	treatment 2 (relative humidity: 95% at 55°C)	
Vibration resistance (IEC 60068 2.6)	x, y, z directions at 5g (g=9.81m/s ²) displacement ±15mm at 9~150Hz	
Impact resistance specification (IEC 60068 2.27)	half sinusoidal wave 30g last for 11ms	
Module structure	can be fixed easily to DIN track	

Weight (g)

Circuit breaker

Type	C65H-DC
1P	110
2P	220

Dimensions (mm)

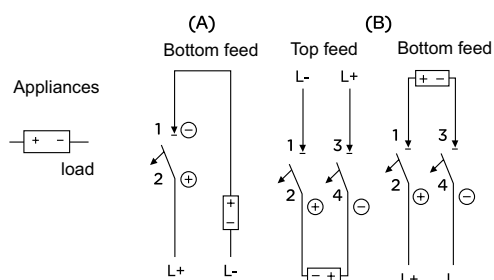


C65H-DC (curve B, C)

C65H-DC connection examples

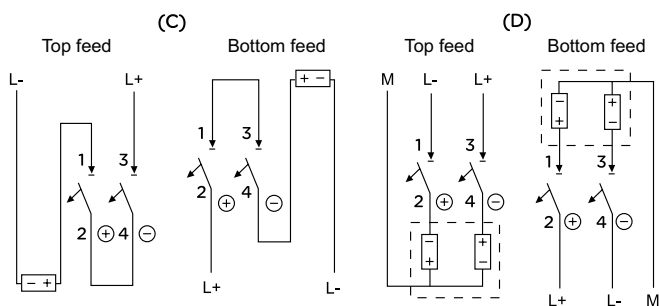
It is essential that the polarities be respected in relation to the power supply

	1P	2P
Un	---125V	---250V
Unmax UL+/L-	---125V	---250V
Unmax UL/±	---125V	---250V



It is essential that the polarities be respected in relation to the power supply

	2P	2P
Un	---250V	---250V
Unmax UL+/L-	---250V	---250V
Unmax UL/±	---250V	---125V



Notes: (1) L+ Power supply positive, L- Power supply negative
(2) ⊕ C65H-DC positive, ⊖ C65H-DC negative
(3) DC power supplies generally use negative "L-" as ground,
Two polarities system use natural "M" as ground

C65L-DC (curve C)



Country approval pictograms



GB 14048.2
IEC 60947-2

C65L-DC combines the following functions:

- Protection of circuits against short-circuit currents
- Protection of circuits against overload currents
- Control
- isolation
- IEC CB Report

C65L-DC circuit breaker

Breaking capacity (Icu) according to IEC 60947-2

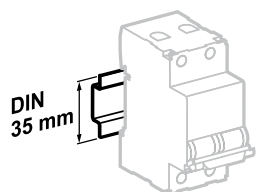
	Voltage (Ue)			Service breaking capacity (Ics)
	220 V DC	440 V DC	500 V DC	
2P	220 V DC	440 V DC	500 V DC	75% Icu
1P	110 V DC	220 V DC	250 V DC	
Rating (In)	1~63 A	20 kA	10 kA	6 kA

Catalogue numbers

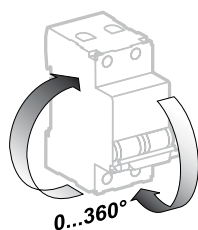
C65L-DC circuit breaker

	1P	2P
Rating (In)	Curve C	Curve C
1 A	A9N22100	A9N22120
2 A	A9N22101	A9N22121
3 A	A9N22102	A9N22122
4 A	A9N22103	A9N22123
6 A	A9N22104	A9N22124
10 A	A9N22105	A9N22125
16 A	A9N22106	A9N22126
20 A	A9N22107	A9N22127
25 A	A9N22108	A9N22128
32 A	A9N22109	A9N22129
40 A	A9N22110	A9N22130
50 A	A9N22111	A9N22131
63 A	A9N22112	A9N22132
Width in 9mm modules	2	4

C65L-DC (curve C)



Clip on DIN rail 35 mm.



Indifferent position of installation.

Connection

Rating	Screw	Cables	Rated tightening torque	Maximum tightening torque	Standard tightening torque
1~25A	M5	1~25mm ²	2.5Nm	5.1Nm	2Nm
32~63A	M6.5	1~35mm ²	3.5Nm	5.6Nm	3.5Nm

Technical data

Main characteristics

According to IEC 60947-2

Maximum working voltage	500 V DC
Impulse withstand voltage Uimp	6 kV
Limitation class	3
Tripping characteristics (Ii)	8.5In ±20%
Fast closing	■
Isolation indication	green label on the handle secure safety isolation

Additional characteristics

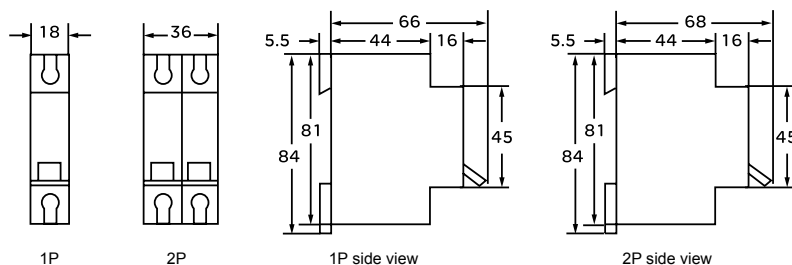
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Environment	operating temperature	-25°C~ +70°C
	storage temperature	-40°C~ +85°C
Tropicalisation	treatment 2 (relative humidity: 95% at 55°C)	
Vibration resistance (IEC 60068 2.6)	x, y, z directions at 5g (g=9.81m/s ²) displacement ±15mm at 9~150Hz	
Impact resistance specification (IEC 60068 2.27)	half sinusoidal wave 30g last for 11ms	
Module structure	can be fixed easily to DIN track	

Weight (g)

Circuit breaker

Type	C65L-DC
1P	110
2P	220

Dimensions (mm)

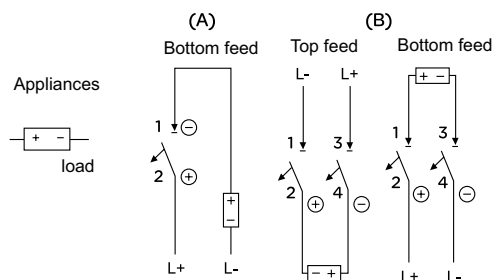


C65L-DC (curve C)

C65L-DC connection examples

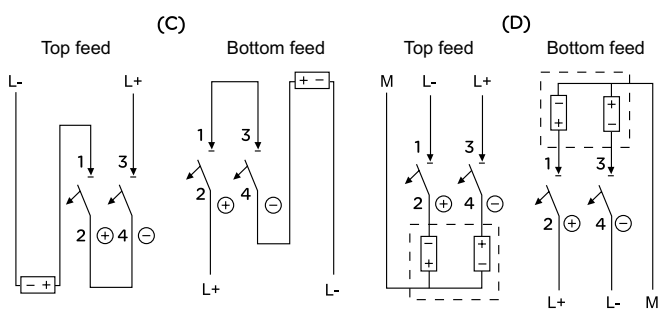
It is essential that the polarities be respected in relation to the power supply

	1P	2P
Icu	20kA / 10kA	20kA / 10kA
Un	---110V / 220V	---220V / 440V
Unmax UL+/L-	---110V / 220V	---220V / 440V
Unmax UL/±	---110V / 220V	---220V / 440V



It is essential that the polarities be respected in relation to the power supply

	2P	2P
Icu	20kA / 10kA	20kA / 10kA
Un	---220V / 440V	---220V / 440V
Unmax UL+/L-	---220V / 440V	---220V / 440V
Unmax UL/±	---220V / 440V	---220V / 220V



Notes: (1) L+ Power supply positive, L-Power supply negative
(2) ⊕ C65L-DC positive, ⊖ C65L-DC negative
(3) DC power supplies generally use negative "L-" as ground,
Two polarities system use natural "M" as ground

Marine C60N circuit breakers (curve C, D)



meanwhile, C60N has worldwide classification society:



GB 14048.2
IEC 60947-2

C60N circuit breakers are circuit breakers which combine the following functions:

- circuit protection against short-circuit currents
- circuit protection against overload currents
- control
- suitable for industrial isolation



Alternating current(AC)50/60Hz

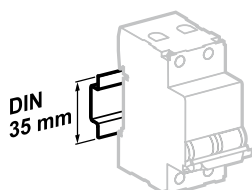
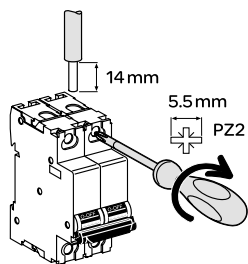
Breaking capacity (Icu) according to IEC 60947-2

Ph/Ph (2P, 3P, 4P) Ph/N (1P) Rating (In) 1 ~ 63A	Voltage (Ue)				Service breaking capacity (Ics) 75% Icu
	240V	415V	-	440V	
	-	240V	415V	-	
	20 kA	10 kA	3 kA	6 kA	

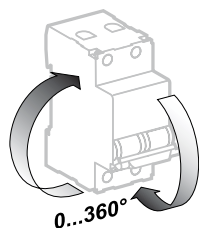
Catalogue numbers

C60N circuit breakers								
	1P		2P		3P		4P	
Rating (In)	Curve		Curve		Curve		Curve	
	C	D	C	D	C	D	C	D
1 A	MGN60862	MGN60506	MGN60875	MGN60518	MGN60888	MGN60530	MGN60901	MGN60543
2 A	MGN60863	MGN60507	MGN60876	MGN60519	MGN60889	MGN60531	MGN60902	MGN60544
3 A	MGN60864	MGN60508	MGN60877	MGN60520	MGN60890	MGN60532	MGN60903	MGN60545
4 A	MGN60865	MGN60509	MGN60878	MGN60521	MGN60891	MGN60533	MGN60904	MGN60546
6 A	MGN60866	MGN60510	MGN60879	MGN60522	MGN60892	MGN60534	MGN60905	MGN60547
10 A	MGN60867	MGN60511	MGN60880	MGN60523	MGN60893	MGN60535	MGN60906	MGN60548
16 A	MGN60868	MGN60512	MGN60881	MGN60524	MGN60894	MGN60536	MGN60907	MGN60549
20 A	MGN60869	MGN60513	MGN60882	MGN60525	MGN60895	MGN60537	MGN60908	MGN60550
25 A	MGN60870	MGN60514	MGN60883	MGN60526	MGN60896	MGN60538	MGN60909	MGN60551
32 A	MGN60871	MGN60515	MGN60884	MGN60527	MGN60897	MGN60539	MGN60910	MGN60552
40 A	MGN60872	-	MGN60885	-	MGN60898	-	MGN60911	MGN60553
50 A	MGN60873	-	MGN60886	-	MGN60899	-	MGN60912	-
63 A	MGN60874	-	MGN60887	-	MGN60900	-	MGN60913	-
Width in 9 mm modules	2		4		6		8	

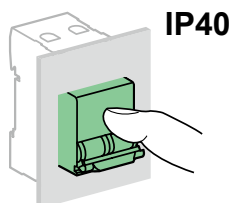
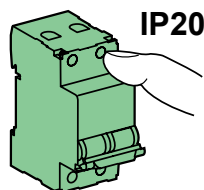
Marine C60N circuit breakers (curve C, D)



Clip on DIN rail 35 mm.



Indifferent position of installation.



Connection

Rating	Rated tightening torque	Copper cables	
		Rigid	Flexible or ferrule
1~25 A	2 Nm	1~25 mm ²	1~25 mm ²
32~63 A	3.5 Nm	1.5~35 mm ²	1.5~35 mm ²

Technical data

Main characteristics

According to IEC 60947-2

Insulation voltage (Ui)	500 V AC
Pollution degree	3
Rated impulse withstand voltage (Uimp)	6 kV
Magnetic tripping	C D
	8.5 In ± 20% 12 In ± 20%

Additional characteristics

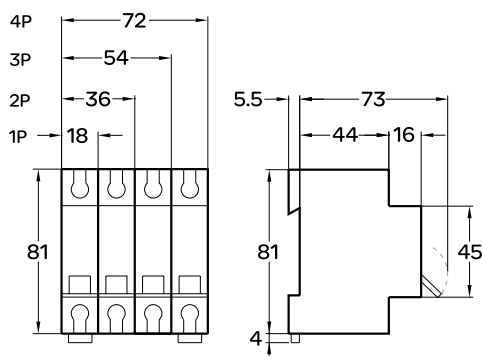
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Degree of protection	Device only	IP20
	Device in modular enclosure	IP40
Operating temperature	-30°C ~ +70°C	
Storage temperature	-40°C ~ +80°C	

Weight (g)

Circuit breaker

Type	C60N
1P	120
2P	240
3P	360
4P	480

Dimension (mm)





meanwhile, C60H has worldwide classification society:



GB 14048.2
IEC 60947-2

C60H circuit breakers are circuit breakers which combine the following functions:

- circuit protection against short-circuit currents
- circuit protection against overload currents
- control
- suitable for industrial isolation



Alternating current(AC)50/60Hz

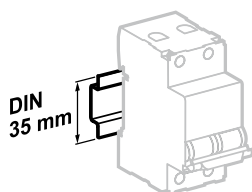
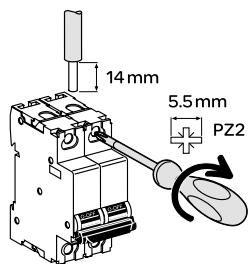
Breaking capacity (Icu) according to IEC 60947-2

Ph/Ph (2P, 3P, 4P)	Voltage (Ue)				Service breaking capacity (Ics)
	240V	415V	-	440V	
Ph/N (1P)	-	240V	415V	-	
Rating (In) 1~40A	30 kA	15 kA	4 kA	10 kA	50% Icu

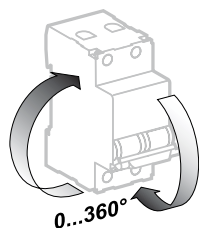
Catalogue numbers

C60H Circuit breakers

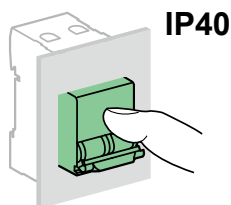
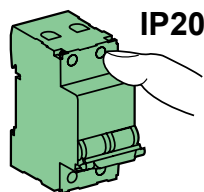
	1P		2P		3P		4P	
Rating (In)	Curve		Curve		Curve		Curve	
	C	D	C	D	C	D	C	D
1 A	MGN60608	MGN25080	MGN60621	MGN25108	MGN60634	MGN25124	MGN60647	MGN25138
2 A	MGN60609	MGN25081	MGN60622	MGN25111	MGN60635	MGN25125	MGN60648	MGN25139
3 A	MGN60610	MGN25082	MGN60623	MGN25112	MGN60636	MGN25126	MGN60649	MGN25140
4 A	MGN60611	MGN25083	MGN60624	MGN25113	MGN60637	MGN25127	MGN60650	MGN25141
6 A	MGN60612	MGN25084	MGN60625	MGN25114	MGN60638	MGN25128	MGN60651	MGN25142
10 A	MGN60613	MGN25085	MGN60626	MGN25115	MGN60639	MGN25129	MGN60652	MGN25143
16 A	MGN60614	MGN25086	MGN60627	MGN25117	MGN60640	MGN25131	MGN60653	MGN25145
20 A	MGN60615	MGN25087	MGN60628	MGN25118	MGN60641	MGN25132	MGN60654	MGN25146
25 A	MGN60616	MGN25088	MGN60629	MGN25119	MGN60642	MGN25133	MGN60655	MGN25147
32 A	MGN60617	MGN25089	MGN60630	MGN25120	MGN60643	MGN25134	MGN60656	MGN25148
40 A	MGN60618	MGN25090	MGN60631	MGN25121	MGN60644	MGN25135	MGN60657	MGN25149
Width in 9 mm modules	2		4		6		8	



Clip on DIN rail 35 mm.



Indifferent position of installation.



Connection

Rating	Rated tightening torque	Copper cables	
		Rigid	Flexible or ferrule
1~25 A	2 Nm	1~25 mm ²	1~25 mm ²
32~63 A	3.5 Nm	1.5~35 mm ²	1.5~35 mm ²

Technical data

Main characteristics

According to IEC 60947-2

Insulation voltage (Ui)	500 V AC
Pollution degree	3
Rated impulse withstand voltage (Uimp)	6 kV
Magnetic tripping	C D
	8.5 In ± 20% 12 In ± 20%

Additional characteristics

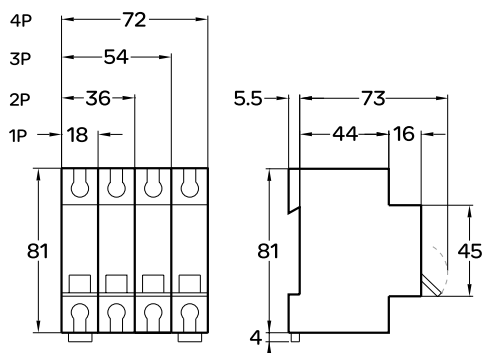
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Degree of protection	Device only	IP20
	Device in modular enclosure	IP40
Operating temperature		-30°C ~ +70°C
Storage temperature		-40°C ~ +80°C

Weight (g)

Circuit breaker

Type	C60H
1P	120
2P	240
3P	360
4P	480

Dimension (mm)





Country approval pictograms



GB10963.1
IEC/EN 60898-1

iDPNa circuit breakers are used in circuit protection against short-circuit, overload currents and control, it could cut down line and neutral but neutral have no protection function.

- circuit protection against short-circuit currents
- circuit protection against overload current
- suitable for industrial isolation
- positive contact indication
- fault tripping is indicated by a red mechanical indicator on the front face

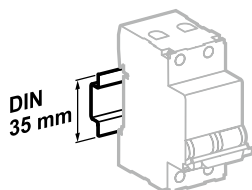
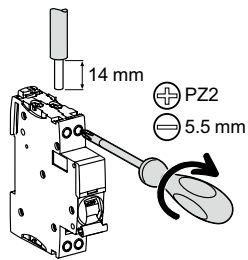
Alternating current (AC) 50/60 Hz

Breaking capacity (Icn) according to GB10963/IEC 60898-1

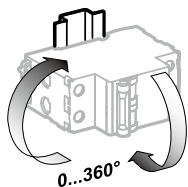
	Voltage (Ue)
Ph/N (1P+N)	230 V
Rating (In) 6 to 40 A	4500 A

Catalogue numbers

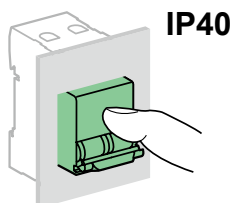
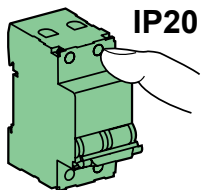
iDPNa circuit breaker	
Type	1P+N
Rating (In)	Curve C
6 A	A9P08606
10 A	A9P08610
16 A	A9P08616
20 A	A9P08620
25 A	A9P08625
32 A	A9P08632
40 A	A9P08640
Width in 9 mm modules	2



Clip on DIN rail 35 mm.



Indifferent position of installation.



Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
M4.2	2 Nm	3.5 Nm	1.2 Nm	1 to 16 mm ²	1 to 16 mm ²

Technical data

Main characteristics

According to IEC 60947-2

Insulation voltage (Ui)	400 V AC
Pollution degree	3
Rated impulse withstand voltage (Uimp)	4 kV
Thermal tripping	Reference temperature
Magnetic tripping	C curve
Utilization category	A

According to IEC 60898-1

Utilization category	3
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Additional characteristics

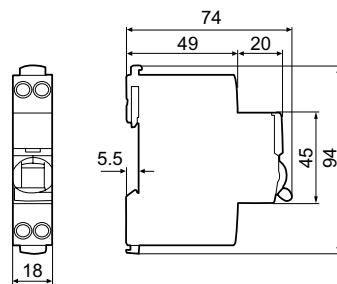
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Endurance (O-C)	Electrical	> 20 A: 10,000 cycles; ≤ 20 A: 20,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)	II	
Operating temperature	-25 °C to +60 °C	
Storage temperature	-40 °C to +80 °C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity 95 % to 55 °C)	

Weight (g)

Circuit-breaker

Type	iDPNa
1P+N	122

Dimensions (mm)





Country approval pictograms



GB10963.1
IEC/EN 60898-1

iDPNN circuit breakers are used in circuit protection against short-circuit, overload current and control. It could cut down line and neutral but neutral have no protection function.

- circuit protection against overload current
- circuit protection against short-circuit current
- suitable for industrial isolation
- positive contact indication
- fault tripping is indicated by a red mechanical indicator on the front face

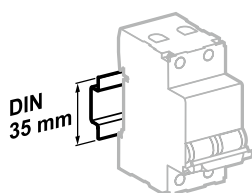
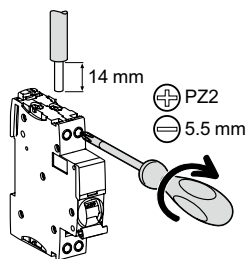
Alternating current (AC) 50/60 Hz

Breaking capacity (Icn) according to GB10963/IEC 60898-1

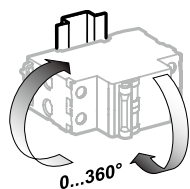
	Voltage (Ue)
Ph/N (1P+N)	230 V
Rating (In) 2 to 40 A	6000 A

Catalogue numbers

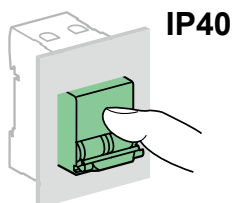
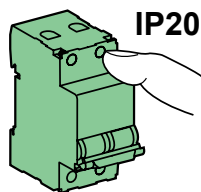
iDPNN circuit breaker	
Type	1P+N
Rating (In)	Curve C
2 A	A9P18602
6 A	A9P18606
10 A	A9P18610
16 A	A9P18616
20 A	A9P18620
25 A	A9P18625
32 A	A9P18632
40 A	A9P18640
Width in 9 mm modules	2



Clip on DIN rail 35 mm.



Indifferent position of installation.



Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
M4.2	2 Nm	3.5 Nm	1.2 Nm	1 to 16 mm ²	1 to 16 mm ²

Technical data

Main characteristics

According to IEC 60947-2

Insulation voltage (Ui)	400 V AC
Pollution degree	3
Rated impulse withstand voltage (Uimp)	4 kV
Thermal tripping	Reference temperature
Magnetic tripping	C curve
Utilization category	A

According to IEC 60898-1

Utilization category	3
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Additional characteristics

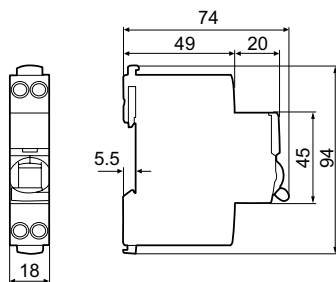
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation classe II
Endurance (O-C)	Electrical	> 20 A: 10,000 cycles; ≤ 20 A: 20,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)	II	
Operating temperature	-25° C to +60° C	
Storage temperature	-40° C to +80° C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity 95 % to 55°C)	

Weight (g)

Circuit-breaker

Type	iDPNN
1P+N	122

Dimensions (mm)





Country approval pictograms



GB10963.1
IEC/EN 60898-1

iDPNH circuit breakers are used in circuit protection against short-circuit, overload current and control. It could cut down line and neutral but neutral have no protection function.

- circuit protection against overload current
- circuit protection against short-circuit current
- suitable for industrial isolation
- positive contact indication
- fault tripping is indicated by a red mechanical indicator on the front face

Alternating current (AC) 50/60 Hz

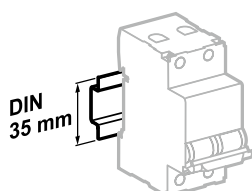
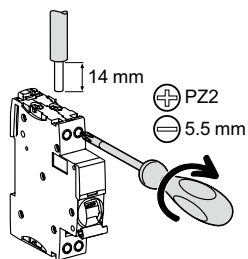
Breaking capacity (Icn) according to GB10963/IEC 60898-1

	Voltage (Ue)
Ph/N (1P+N)	230 V
Rating (In) 2 to 40 A	10000 A

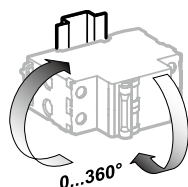
Catalogue numbers

iDPNH circuit breaker

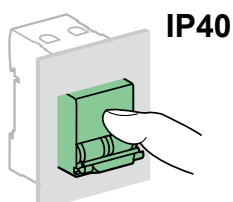
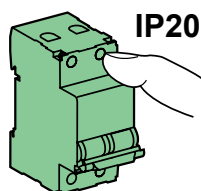
Type	1P+N
Rating (In)	Curve C
2 A	A9P28602
6 A	A9P28606
10 A	A9P28610
16 A	A9P28616
20 A	A9P28620
25 A	A9P28625
32 A	A9P28632
40 A	A9P28640
Width in 9 mm modules	2



Clip on DIN rail 35 mm.



Indifferent position of installation.



Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
M4.2	2 Nm	3.5 Nm	1.2 Nm	1 to 16 mm ²	1 to 16 mm ²

Technical data

Main characteristics

According to IEC 60947-2

Insulation voltage (Ui)	400 V AC
Pollution degree	3
Rated impulse withstand voltage (Uimp)	4 kV
Thermal tripping	Reference temperature
Magnetic tripping	C curve
Utilization category	A

According to IEC 60898-1

Utilization category	3
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Additional characteristics

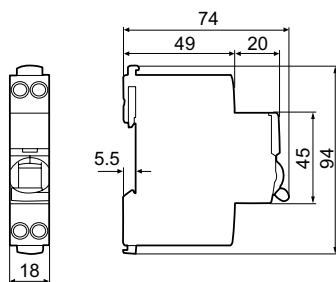
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation classe II
Endurance (O-C)	Electrical	> 20 A: 10,000 cycles; ≤ 20 A: 20,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)	II	
Operating temperature	-25° C to +60° C	
Storage temperature	-40° C to +80° C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity 95 % to 55°C)	

Weight (g)

Circuit-breaker

Type	iDPNH
1P+N	122

Dimensions (mm)



iDPNK2 circuit breakers
(curve C)



Country approval pictograms



GB10963.1
IEC/EN 60898-1

iDPNK2 circuit breakers are used in circuit protection against short-circuit, overload current and control. It could cut down line and neutral but neutral have no protection function.

- circuit protection against overload current
- circuit protection against short-circuit current
- suitable for industrial isolation
- positive contact indication
- fault tripping is indicated by a red mechanical indicator on the front face

Alternating current (AC) 50/60 Hz

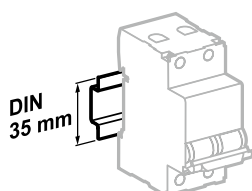
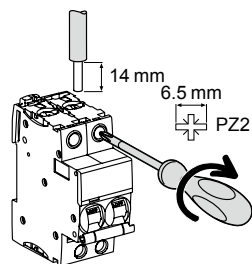
Breaking capacity (Icn) according to GB10963/IEC 60898-1

	Voltage (Ue)
Ph/N (1P+N)	230 V
Rating (In) 10 to 63 A	6000 A

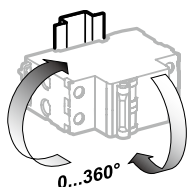
Catalogue numbers

iDPNK2 circuit breaker	
Type	1P+N
Rating (In)	Curve C
10 A	A9F18610
16 A	A9F18616
20 A	A9F18620
25 A	A9F18625
32 A	A9F18632
40 A	A9F18640
50 A	A9F18650
63 A	A9F18663
Width in 9 mm modules	4

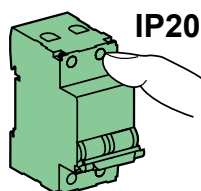
iDPNK2 circuit breakers (curve C)



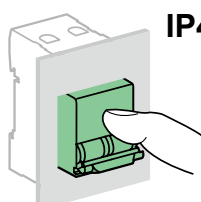
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
10 to 25 A: M5	2.5 Nm	5.1 Nm	2 Nm		
32 to 63 A: M6.5	3.5 Nm	5.6 Nm	3.5 Nm	1 to 25 mm ²	1 to 16 mm ²
				1 to 35 mm ²	1 to 25 mm ²

Technical data

Main characteristics

According to IEC 60947-2

Insulation voltage (Ui)	500 V AC
Pollution degree	3
Rated impulse withstand voltage (Uimp)	6 kV
Thermal tripping	Reference temperature
Magnetic tripping	C curve
Utilization category	A

According to IEC 60898-1

Utilization category	3
Rated making and breaking capacity of an individual pole (Icn)	Icn1 = Icn (6000 A)

Additional characteristics

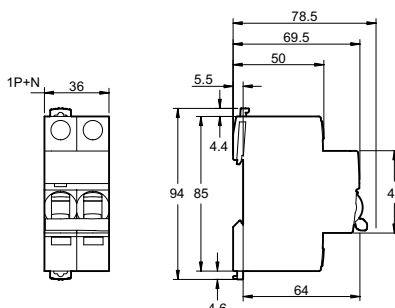
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)		IV
Operating temperature		-35°C to +70°C
Storage temperature		-40°C to +85°C
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity 95 % to 55°C)

Weight (g)

Circuit-breaker

Type	iDPNK2
1P+N	250

Dimensions (mm)





Country approval pictograms



GB10963.1
IEC/EN 60898-1

iDPNa-K circuit breakers are used in circuit protection against short-circuit, overload current and control. It could cut down line and neutral but neutral have no protection function.

- circuit protection against overload current
- circuit protection against short-circuit current
- suitable for industrial isolation
- positive contact indication

iDPNa-K circuit breaker can not be combined with residual current devices and electrical accessories.

Alternating current (AC) 50/60 Hz

Breaking capacity (Icn) according to GB10963/IEC 60898-1

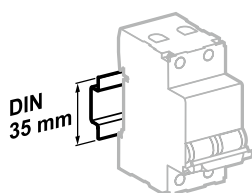
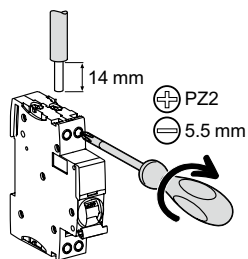
	Voltage (Ue)
Ph/N (1P+N)	230 V
Rating (In) 6 to 32 A	4500 A

Catalogue numbers

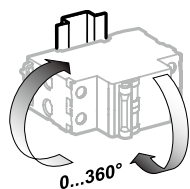
iDPNa-K circuit breaker

Type	1P+N
Rating (In)	Curve C
6 A	A9P58606
10 A	A9P58610
16 A	A9P58616
20 A	A9P58620
25 A	A9P58625
32 A	A9P58632
Width in 9 mm modules	2

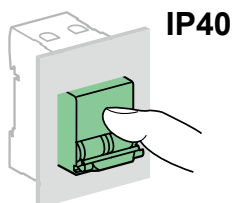
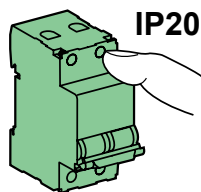
iDPNa-K circuit breakers (curve C)



Clip on DIN rail 35 mm.



Indifferent position of installation.



Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
6 to 32 A: M4.2	2 Nm	3.5 Nm	1.2 Nm	1 to 16 mm ²	1 to 16 mm ²

Technical data

Main characteristics

According to IEC 60947-2

Insulation voltage (Ui)	400 V AC
Pollution degree	3
Rated impulse withstand voltage (Uimp)	4 kV
Thermal tripping	Reference temperature
Magnetic tripping	C curve
Utilization category	A

According to IEC 60898-1

Utilization category	3
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Additional characteristics

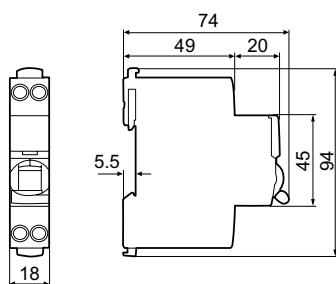
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation classe II
Endurance (O-C)	Electrical	> 20 A: 10,000 cycles; ≤ 20 A: 20,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)		II
Operating temperature		-25°C to +60°C
Storage temperature		-40°C to +80°C
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity 95 % to 55°C)

Weight (g)

Circuit-breaker

Type	iDPNa-K
1P+N	122

Dimensions (mm)



C120H circuit breakers (curves B, C, D)



Country approval pictograms



GB10963
IEC 60898

C120H circuit breakers are multistandard circuit breakers that combine the following functions:

- Protection of cables against overloads and short-circuits in final distribution
- Manual control and isolation
- Earth leakage protection when combined with a Vigi C120 module without temperature derating: compliance with EN 61009
- Remote tripping, indication, by adding auxiliaries common to the entire C65 range.

Alternating current (AC) 50/60 Hz

Breaking capacity I_{cn} (to GB10963/IEC60898-1)

		Voltage (Ue)			
Ph/Ph(2P,3P,4P)		400V			
Ph/Ph(1P)		230V			
Rating (In)	63A~125A	10,000A			
Breaking capacity Icu (to IEC60947-2)					
		Voltage (Ue)			
Ph/Ph(2P,3P,4P)		230~240V	400~415V	-	440V
Ph/N(1P)		130V	230~240V	400~415V	-
Rating (In)	63A~125A	20kA	10kA	3 ⁽¹⁾	6kA
					75%Icu

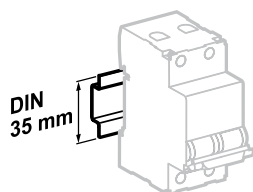
(1) One-pole breaking capacity in IT isolated neutral system (double fault).

Catalogue numbers

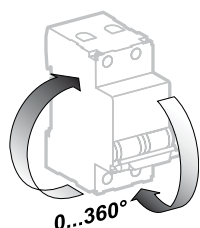
C120H circuit breaker

	1P			2P			3P			4P		
Rating (I_n)	Curve			Curve			Curve			Curve		
	B	C	D	B	C	D	B	C	D	B	C	D
63 A	—	A9N19800	A9N19804	—	A9N19801	A9N19805	—	A9N19802	A9N19806	—	A9N19803	A9N19807
80 A	—	A9N19808	A9N19812	—	A9N19809	A9N19813	—	A9N19810	A9N19814	—	A9N19811	A9N19815
100 A	—	A9N19816	A9N19820	—	A9N19817	A9N19821	A9N19558	A9N19818	A9N19822	—	A9N19819	A9N19823
125 A	—	A9N19824	A9N19828	A9N19560	A9N19825	A9N19829	A9N19559	A9N19826	A9N19830	—	A9N19827	A9N19831
Width in 9 mm modules	3			6			9			12		

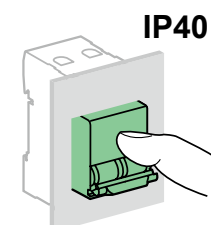
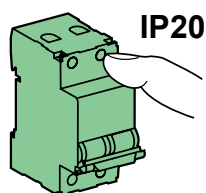
C120H circuit breakers (curves B, C, D)



Clip on DIN rail 35 mm.



Indifferent position of installation.



Connection

Flexible or ferrule	Rigid	Tightening torque
1.5~35 mm ²	1~50 mm ²	3.5 Nm

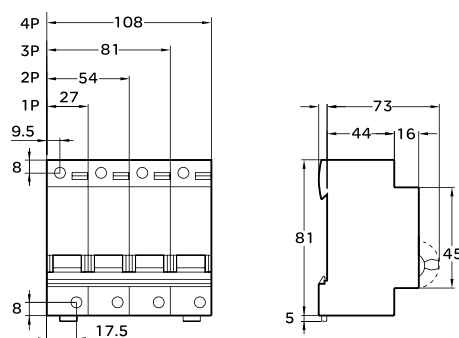
Technical data

Main characteristics			
Voltage rating U _e max.		440V AC	
Insulation voltage (U _i)		500 V	
Rated impulse withstand voltage (U _{imp})		6 kV	
Limitation class		3	
Endurance (O-C)	Electrical	63A	10000 cycles (O-F)
		80...125A	5000 cycles (O-F)
		Mechanical	20000 cycles
Degree of pollution		level 3 for used in an industrial enviroment	
Degree of protection	open or surface mounted device	IP20	
	in a Pragma or Prisma enclosure	IP40	
Positive break indication		■	
Fast open function		■	
Thermal tripping	Reference temperature	30°C	
Magnetic tripping	Curve B (100~125A)	3~5I _n	
	Curve C	5~10I _n	
	Curve D	10~14I _n	

Weight (g)

Circuit breaker	
Type	C120H
1P	205
2P	410
3P	615
4P	820

Dimensions (mm)



C120L circuit breakers (curves C, D)



Country approval pictograms



GB10963
IEC 60898

C120L circuit breakers are multistandard circuit breakers that combine the following functions:

- Protection of cables against overloads and short-circuits in final distribution
- Manual control and isolation
- Earth leakage protection when combined with a Vigi C120 module without temperature derating: compliance with EN 61009
- Remote tripping, indication, by adding auxiliaries common to the entire C65 range.

Alternating current (AC) 50/60 Hz

Breaking capacity I_{cn} (to GB10963/IEC60898-1)

		Voltage (Ue)			
Ph/Ph(2P,3P,4P)		400V			
Ph/Ph(1P)		230V			
Rating (In)	63A~125A	15,000A			
Breaking capacity Icu (to IEC60947-2)					
		Voltage (Ue)			
Ph/Ph(2P,3P,4P)		230~240V	400~415V	-	440V
Ph/N(1P)		130V	230~240V	400~415V	-
Rating (In)	63A~125A	30kA	15kA	4.5 ⁽¹⁾	10kA
					50%Icu

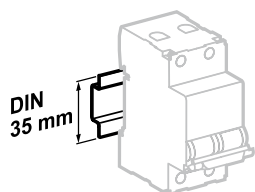
(1) One-pole breaking capacity in IT isolated neutral system (double fault).

Catalogue numbers

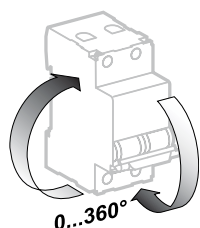
C120L circuit breaker

	1P		2P		3P		4P	
Rating (In)	Curve C D		Curve C D		Curve C D		Curve C D	
63 A	A9N19832	A9N19836	A9N19833	A9N19837	A9N19834	A9N19838	A9N19835	A9N19839
80 A	A9N19840	A9N19844	A9N19841	A9N19845	A9N19842	A9N19846	A9N19843	A9N19847
100 A	A9N19848	A9N19852	A9N19849	A9N19853	A9N19850	A9N19854	A9N19851	A9N19855
125 A	A9N19856	A9N19860	A9N19857	A9N19861	A9N19858	A9N19862	A9N19859	A9N19863
Width in 9 mm modules	3		6		9		12	

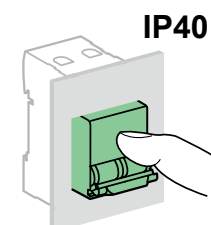
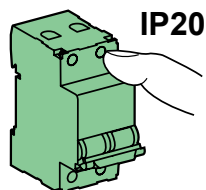
C120L circuit breakers (curves C, D)



Clip on DIN rail 35 mm.



Indifferent position of installation.



Connection

Flexible or ferrule	Rigid	Tightening torque
1.5~35 mm ²	1~50 mm ²	3.5 Nm

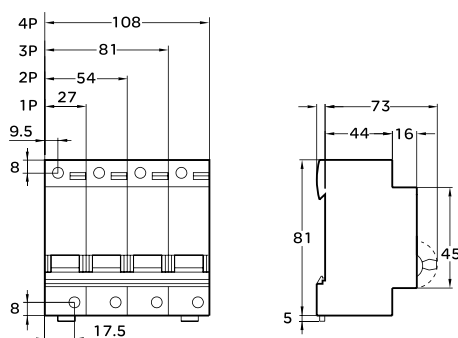
Technical data

Main characteristics			
Voltage rating U _e max.		440V AC	
Insulation voltage (U _i)		500 V	
Rated impulse withstand voltage (U _{imp})		6 kV	
Limitation class		3	
Endurance (O-C)	Electrical	63A	10000 cycles (O-F)
		80...125A	5000 cycles (O-F)
		Mechanical	20000 cycles
Degree of pollution		level 3 for used in an industrial enviroment	
Degree of protection	open or surface mounted device	IP20	
	in a Pragma or Prisma enclosure	IP40	
Positive break indication		■	
Fast open function		■	
Thermal tripping	Reference temperature	30°C	
Magnetic tripping	Curve C	5~10I _n	
	Curve D	10~14I _n	

Weight (g)

Circuit breaker	
Type	C120L
1P	205
2P	410
3P	615
4P	820

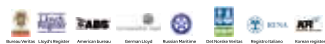
Dimensions (mm)



NG125H circuit breakers (curves C, D)



meanwhile, NG125H has worldwide classification society



GB 14048.2
IEC 60947-2

This circuit-breaker is specially designed for functions requiring a high breaking capacity(up to 36 kA) :

- Protection and control of high breaking load situation
- Isolation
- The actual position indication of contactor
- Used in the following situation:
 - Distribution enclosure main incoming
 - Directly protect the load of high-power distribution enclosure
 - Outgoing switch of high-power distribution enclosure
 - Other maximum short-circuit current situation

Alternating current (AC) 50/60 Hz

Breaking capacity Icu (to IEC 60947-2)			Service breaking capacity (Ics)
	Voltage (Ue)		
Ph/Ph (2P, 3P, 4P)	380～415 V	-	
Ph/N (1P)	220～240 V	380～415 V	
Rating (In) 10～80 A	36 kA	9 kA ⁽¹⁾	
			75%Icu

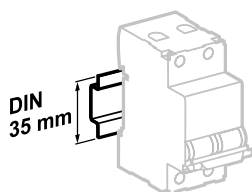
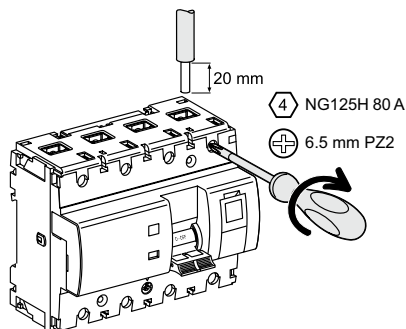
(1) One-pole breaking capacity in IT isolated neutral system (double fault).

Catalogue numbers

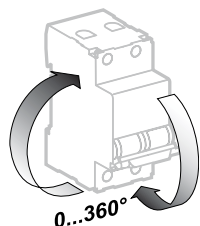
NG125H circuit breaker

	1P		2P		3P		4P	
Rating (In)	Curve		Curve		Curve		Curve	
	C	D	C	D	C	D	C	D
10 A	18705	19350	18714	19359	18723	19368	18732	19377
16 A	18706	19351	18715	19360	18724	19369	18733	19378
20 A	18707	19352	18716	19361	18725	19370	18734	19379
25 A	18708	19353	18717	19362	18726	19371	18735	19380
32 A	18709	19354	18718	19363	18727	19372	18736	19381
40 A	18710	19355	18719	19364	18728	19373	18737	19382
50 A	18711	19356	18720	19365	18729	19374	18738	19383
63 A	18712	19357	18721	19366	18730	19375	18739	19384
80 A	18713	19358	18722	19367	18731	19376	18740	19385
Width in 9 mm modules	3		6		9		12	

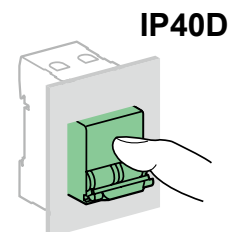
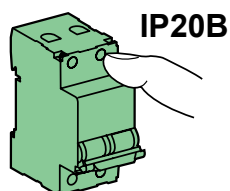
NG125H circuit breakers (curves C, D)



Clip on DIN rail 35 mm.



Indifferent position of installation.



Connection

Rating	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
10~63A	3.5 Nm		
80A	6 Nm	1.5~50 mm ²	1~35 mm ²
		16~70 mm ²	10~50 mm ²

Technical data

Main characteristics

Insulation voltage (Ui)		690V AC
Pollution degree		3
Rated impulse withstand voltage (Uimp)		8kV
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Thermal tripping	Reference temperature	40°C
Magnetic tripping	C curve	8 In ± 20%
	D curve	12 In ± 20%
Utilization category		A
3-position toggle		open- tripped-closed
Built-in padlocking facility		3P, 4P
Fault break indication		fault display is red on front face
		position of toggle: tripped
Test button to check proper operation of the tripping mechanism		■
Fast closing		■

Other characteristics

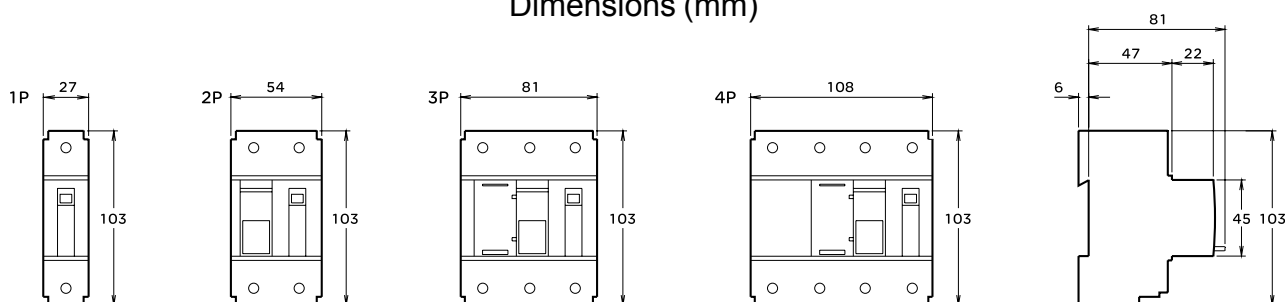
Degree of protection	Device only	IP20B
	Device in modular enclosure	IP40D
Service temperature	-30°C~+70°C	
Storage temperature	-40°C~+80°C	
Tropicalization (IEC 60068-1)	Treatment2 (relative humidity 95 % at 55° C)	
Connection	Upstream or downstream	

Weight (g)

Circuit-breaker

Type	NG125H
1P	240
2P	480
3P	720
4P	960

Dimensions (mm)



NG125L circuit breakers (curves C, D)



meanwhile, NG125L has worldwide classification society



GB 14048.2
IEC 60947-2

This circuit-breaker is specially designed for functions requiring a high breaking capacity(up to 50 kA) :

- Protection and control of high breaking load situation
- Isolation
- The actual position indication of contactor
- Used in the following situation:
 - Distribution enclosure main incoming
 - Directly protect the load of high-power distribution enclosure
 - Outgoing switch of high-power distribution enclosure
 - Other maximum short-circuit current situation

Alternating current (AC) 50/60 Hz

Breaking capacity Icu (to IEC 60947-2)				Service breaking capacity (Ics)
Voltage (Ue)				
Ph/Ph (2P, 3P, 4P)		380～415 V	-	75%Icu
Ph/N (1P)		220～240 V	380～415 V	
Rating (In)	10～80 A	50 kA	12.5 kA ⁽¹⁾	

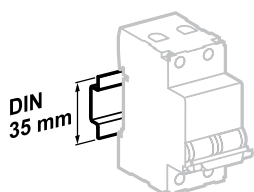
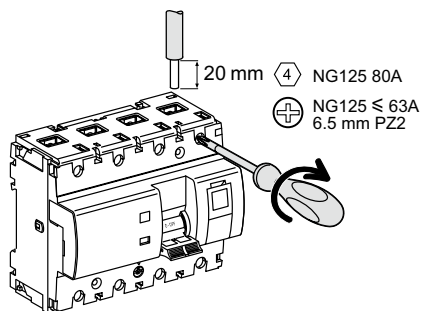
(1) One-pole breaking capacity in IT isolated neutral system (double fault).

Catalogue numbers

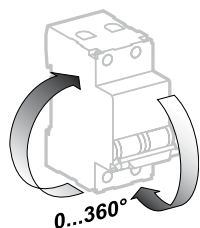
NG125L circuit breaker

	1P		2P		3P		4P	
Rating (In)	Curve		Curve		Curve		Curve	
	C	D	C	D	C	D	C	D
10 A	18777	18830	18788	18839	18799	18848	18810	18857
16 A	18778	18831	18789	18840	18800	18849	18811	18858
20 A	18779	18832	18790	18841	18801	18850	18812	18859
25 A	18780	18833	18791	18842	18802	18851	18813	18860
32 A	18781	18834	18792	18843	18803	18852	18814	18861
40 A	18782	18835	18793	18844	18804	18853	18815	18862
50 A	18783	18836	18794	18845	18805	18854	18816	18863
63 A	18784	18837	18795	18846	18806	18855	18817	18864
80 A	18785	18838	18796	18847	18807	18856	18818	18865
Width in 9 mm modules	3		6		9		12	

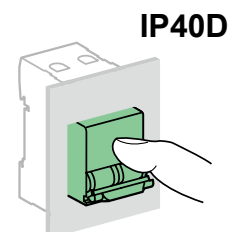
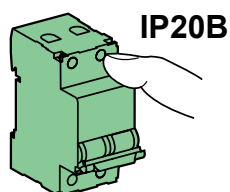
NG125L circuit breakers (curves C, D)



Clip on DIN rail 35 mm.



Indifferent position of installation.



Connection

Rating	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
10~63A	3.5 Nm		
80A	6 Nm	1.5~50 mm ²	1~35 mm ²
		16~70 mm ²	10~50 mm ²

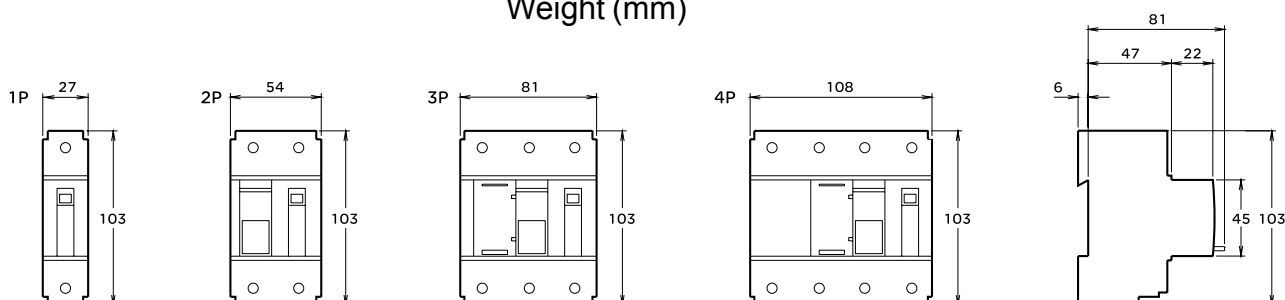
Technical data

Main characteristics		
Insulation voltage (Ui)		690V AC
Pollution degree		3
Rated impulse withstand voltage (Uimp)		8kV
Thermal tripping	Reference temperature	40°C
Magnetic tripping	C curve	8 In ± 20%
	D curve	12 In ± 20%
Utilization category		A
3-position toggle		open- tripped-closed
Built-in padlocking facility		3P, 4P
Fault break indication		fault display is red on front face position of toggle: tripped
Test button to check proper operation of the tripping mechanism		■
Fast closing		■
Other characteristics		
Degree of protection (IEC 60529)	Device only	IP20B
	Device in modular enclosure	IP40D
Endurance (0-C)	Electrical	≤ 63A: 10,000 cycles ≥ 63A: 5,000 cycles
	Mechanical	20,000 cycles
Service temperature		-30°C~+70°C
Storage temperature		-40°C~+70°C
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity 95 % at 55° C)
Connection		Upstream or downstream

Weight (g)

Circuit-breaker	
Type	NG125L
1P	240
2P	480
3P	720
4P	960

Weight (mm)





Country approval pictograms

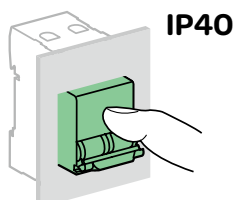
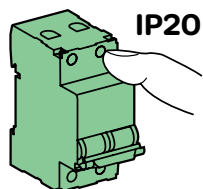
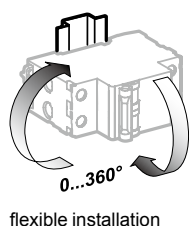
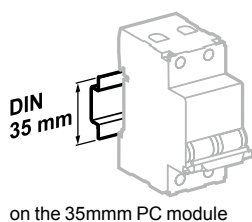
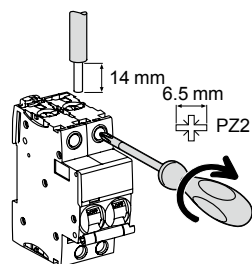


GB14048.3
IEC 60947-3

- iINT switch combine the following functions:
- Control: opening and closing of on-load circuit
 - Isolation
 - Electrical auxiliary: Acti 9 standard auxiliary iOF(A9A26924), indication of switch opening and closing position
 - Mechanical accessory: Acti 9 standard accessory (A9A27005, A9A27006, A9A27008, A9A27003, A9A26970)

Reference

iINT125 switch disconnecter				
	1P	2P	3P	4P
Ratings (In)				
32	A9S68132	A9S68232	A9S68332	A9S68432
40	A9S68140	A9S68240	A9S68340	A9S68440
63	A9S68163	A9S68263	A9S68363	A9S68463
80	A9S68180	A9S68280	A9S68380	A9S68480
100	A9S68191	A9S68291	A9S68391	A9S68491
125	A9S68192	A9S68292	A9S68392	A9S68492
width(in a 9 mm mod.)	2	4	6	8
Frequency	50/60 Hz			



Connection

Dimension	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
32~63 A: M6.5	3.5 Nm	5.6 Nm	3.5 Nm		
80~125 A: M7	3.5 Nm	6 Nm	3.5 Nm		

Technical data

Main characteristics

IEC 60947-3

Insulation voltage(Ui)	1P: 250V, 2P/3P/4P: 500 V AC	
Pollution degree	3	
Rated impulse withstand voltage(Uimp)	6 kV	
Rated short time withstand current (Icw)	32~63 A	1260 A, 1s
	80~125 A	1500A, 1s
Utilization category	AC 22A	
Rated limit short circuit current (Isc)	32~63 A	6 kA
	80~125 A	10 kA
Rated making capacity (Icm)	32~63 A	4.2 kA
	80~125 A	5 kA

Additional characteristics

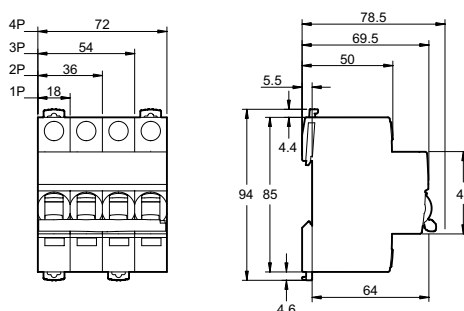
Pollution degree (IEC 60529)	Device only		IP20
	Device in modular enclosure		IP40
Endurance(O-C)	Electrical	32 A	15,000 cycles
		40 A	15,000 cycles
		63 A	15,000 cycles
		80 A	10,000 cycles
		100 A	10,000 cycles
		125 A	2,500 cycles
	Mechanical	20,000 cycles	
	Operating temperature		
Storage temperature			-40 °C~+85 °C
Tropicalization			Treatment 2 (relative humidity 95%at 55 °C)

Weight (g)

Circuit-breaker

Type	iINT125
1P	85
2P	155
3P	254
4P	337

Dimensions(mm)





Country approval pictograms



GB2099.1
GB 1002
GB1003

- To provide a reliable terminal power supply
- Complete product range
- DIN installation
- Widely used in final low voltage system, from terminal distribution systems to OEM customers

Catalogue numbers

PC Module Socket				
Type	Rated voltage (V)	Rating (A)	Width (in mod. of 9mm)	Reference
2P	250	10	5	A9A16412
2P+E	250	10	5	A9A16414
		16	5	A9A16415
3P+E	440	16	6	A9A16416
		25	8	A9A16417
		32	8	A9A16418

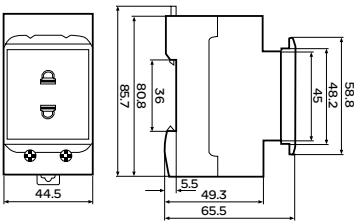
Connection

Cables	Screw	Rated tightening torque	Maximum tightening torque	Standard tightening torque
1~25mm ²	M4	2.5Nm	3Nm	1.2Nm

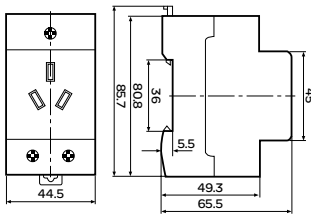
Technical data

Main characteristics	
Rated voltage	250 / 440 V AC
Rating	10, 16, 25, 32 A
Number of poles	2P, 2P+E, 3P+E

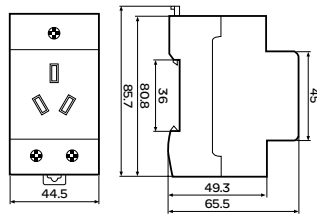
Dimensions (mm)



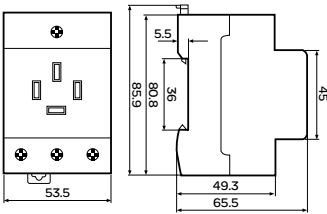
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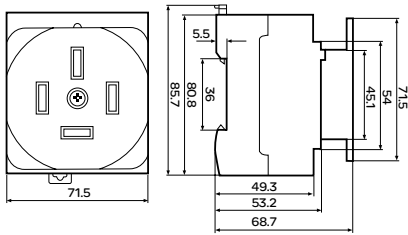
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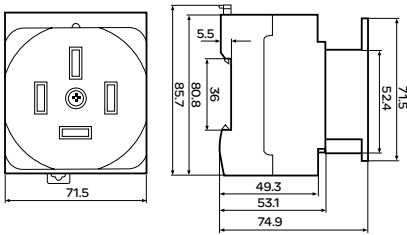
A9A16415



A9A16416



A9A16417



A9A16418

Choice of sensitivity

The choice of sensitivity of an earth leakage protection device depends both on the type of circuit to be protected and the type of protection to be provided.

- Protection from electric shock by direct contact
- Protection from electric shock by indirect contact
- Protection from fire due to current leakage

It is strangely suggested that residual current devices be used according to different earth leakage risk levels.

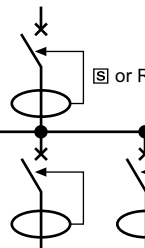
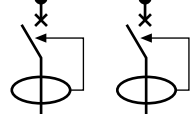
The choice of residual current device and sensitivity depend on different applications.

Type of protection	Obligations		Recommended by Schneider Electric	Sensitivity (IΔn)		
	National standard <i>To be filled in according to the country standard</i>	International standard IEC 60364		30 mA (*)	100 mA to 3000 mA (depending on the earthing system)	300 mA (or 500 mA)
Protection from electric shock by direct contact						
	<i>To be filled in according to the country standard</i>	Power supply for ■ General-purpose power sockets, up to 20 A ■ Appliances in the vicinity of a bathtub, shower, pond or swimming pool ■ Portable appliances for outdoor use, up to 32 A ■ Lighting for exhibition stands and shows ■ Outdoor lighting	■ Lighting in the home	Setup in final distribution switchboard ■ Residual current device protecting a circuit ■ Residual current circuit breaker protecting a group of circuits		
Protection from electric shock by indirect contact						
	<i>To be filled in according to the country standard</i>	The entire power distribution system, except for devices: ■ With class II insulation ■ Operating at Safety Extra Low Voltage (class III) <i>To be modified according to national obligations (above)</i>	—		Setup in final distribution switchboard ■ Residual current circuit breaker or device, on incoming feeder Setup in subdistribution board or main switchboard ■ Residual current device protecting a circuit ■ Residual current device or circuit breaker protecting a group of circuits ■ On incoming feeder: residual current circuit breaker or device	
Protection from fire due to current leakage						
	<i>To be filled in according to the country standard</i>	■ High-risk premises: □ explosion (BE3) □ fire (BE2) ■ Agricultural and horticultural buildings	■ Dilapidated buildings or electrical installations		Setup in final distribution switchboard ■ Residual current circuit breaker or device, on incoming feeder Setup in subdistribution board or main switchboard ■ Residual current device protecting each circuit to a high-risk zone ■ Residual current device or circuit breaker protecting a group of circuits ■ On incoming feeder: residual current circuit breaker or device	
		■ Equipment for fairs, exhibitions and shows	■ Humid atmospheres: agricultural buildings, public swimming pools			
		■ Temporary outdoor recreational installations	■ Presence of chemical agents			
		<i>To be modified according to national obligations (above)</i>				

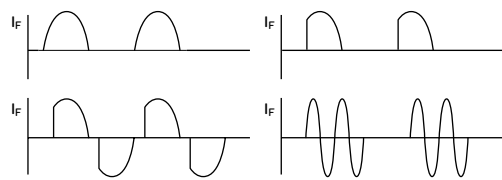
(*) The 10 mA sensitivity is useful for certain very specific applications, where there is a risk that someone could sustain a non-dangerous current (10 to 30 mA) without being able to get free. Example: healthcare equipment for hospital beds. Generally, devices with this very high sensitivity are liable to cause frequent tripping, due to the natural leakage currents of the installation.

Discrimination

Residual current devices of average sensitivity (100 mA and more) are available in a selective (S) and delayed (R) version. This option ensures that, in the event of an earth fault downstream of the installation, only the defective part is switched off. The table below shows (in green) which upstream/downstream equipment combinations provide this discrimination.

Sensitivity (mA) - Downstream		Sensitivity (mA) - Upstream													
		Instantaneous						Selective S					Delayed R		
		30	100	300	500	1000	3000	100	300	500	1000	3000	1000	3000	
	Instantaneous	30	-	-	-	-	-								
		100	-	-	-	-	-	-							
		300	-	-	-	-	-	-	-	-					
		500	-	-	-	-	-	-	-	-	-		-		
		1000	-	-	-	-	-	-	-	-	-		-		
		3000	-	-	-	-	-	-	-	-	-	-	-	-	
	Selective S	100	-	-	-	-	-	-	-	-	-	-			
		300	-	-	-	-	-	-	-	-	-	-	-		
		500	-	-	-	-	-	-	-	-	-	-	-		
		1000	-	-	-	-	-	-	-	-	-	-	-		
		3000	-	-	-	-	-	-	-	-	-	-	-	-	
	Delayed R	1000	-	-	-	-	-	-	-	-	-	-	-	-	
		3000	-	-	-	-	-	-	-	-	-	-	-	-	

Choice of residual current type (AC&A)

	AC residual current devices	A residual current devices
Type	ELE/ELM	ELE
Sensitivity	A sudden or slowly increasing sine wave residual current	A sudden or slowly increasing sine wave residual current and ensures tripping with a pulsed DC current
Wave shape of residual current		
Price	moderate	higher 20% than AC type
Character	ensures tripping with a pulsed DC current is not detected	complex in structure and process advanced in integrated circuit combine all functions of AC type
Environment	no or less electric load	computer(computer room, office room), PLC, office equipment, UPS, special medical equipment
Special demand	none	TN system install RCD in I&II medical places, choose A or B type RCD (GB16985.24-710.413.1.3)

Selection guide

Type			Add-on residual current devices		
			Vigi iC65	Vigi iDPN	Vigi C120 #
					
Standards			IEC/EN61009-1, GB16917	IEC/EN61009-1, GB16917	IEC/EN61009-1, GB16917
Product certification			CCC, CE	CCC	CCC,CE
Number of poles	1P+N		■	■	-
	2P		■	-	■
	3P		■	-	■
	4P		■	-	■
Type	AC		■	■	■
	A		■	■	-
Protection type of residual current	ELE		■	■	-
	ELM		■	■	■
Voltage (V)	Ue		230/400	230	230/400
Impulse voltage (kV)	Uimp		6	4	6
Insulation voltage (V)	Ui		500	400	500
Current rating (A)	In		≤25, ≤40, ≤63	≤25, ≤40	≤125
Frequency (Hz)			50	50	50/60
Rated breaking capacity (A)	Icn		-	-	-
Rated residual breaking and making capacity (A)	(IΔm)		-	-	-
Curve			-	-	-
Sensitivity (mA)	(IΔn)	10	-	■	-
		30	■	■	■
		100	■	-	-
		300	■	-	■
		100 S	■	-	-
		300 S	■	-	■
		500	-	-	■
		300...3000	-	-	-
Operating temperature (°C)			-25°C~+60°C	-25°C~+60°C	-5°C~+60°C

Residual current devices		Residual current circuit breakers			
Vigi NG125 [#]	iDPNa Vigi	iDPNa Vigi+	iDPNN Vigi+	iID [#]	
					
IEC60947-2, GB14048.2	IEC/EN61009-1, GB16917	IEC/EN61009-1, GB16917	IEC/EN61009-1, GB16917	IEC/EN 61008-1, GB16916	
CCC, CE	CCC	CCC	CCC	CCC, CE	
-	■	■	■	-	
■	-	-	-	■	
■	-	-	-	-	
■	-	-	-	■	
■	■	■	■	■	
■	-	-	-	-	
-	■	■	■	-	
■	-	-	-	■	
240/415	230	230	230	230/400	
8	4	4	4	6	
690	400	400	400	500	
≤63	6, 32	10~25	10~25	25~100	
50/60	50	50	50	50	
-	4500	4500	6000	-	
-	-	-	-	1500	
-	C	C	C	-	
-	-	-	-	■	
■	■	■	■	■	
-	-	-	-	■	
■	-	-	-	■	
-	-	-	-	-	
■	-	-	-	-	
-	-	-	-	-	
■	-	-	-	-	
-5°C~+60°C	-25°C~+60°C	-25°C~+55°C	-25°C~+55°C	-25°C~+60°C	



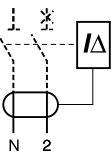
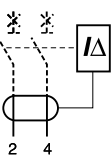
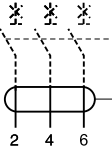
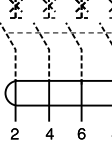
Country approval pictograms

GB 16917
IEC/EN 61009-1



- Combined with iC65 circuit breaker, the Vigi iC65 provide:
 - protection of persons against electric shock by direct contact (≤ 30 mA),
 - protection of persons against electric shock by indirect contact (≥ 100 mA),
 - protection of installations against the risk of fire (300 mA).
- "G": over-voltage protection, $280 \pm 5\%$ V AC.
- Connection: Bottom outlet

Catalogue numbers

Vigi iC65 ELE add-on residual current devices (AC type)								
Type	AC 						Width in 9 mm modules	
Product	Vigi iC65							
1P+N	Sensitivity	30 mA	100 mA	300 mA	100 mA 	300 mA 		
	Rating	≤ 40 A	A9V53640	-	-	-	-	4
		≤ 63 A	A9V53663	-	-	-	-	4
2P	Sensitivity	30 mA	100 mA	300 mA	100 mA 	300 mA 		
	Rating	40 A	A9V53240	A9V63240	A9V83240	-	A9V93240	4
		40 A (G)	A9V50240	-	-	-	-	4
		63 A	A9V53263	A9V63263	A9V83263	A9V73263	A9V93263	4
		63 A (G)	A9V50263	-	-	-	-	4
3P	Sensitivity	30 mA	100 mA	300 mA	100 mA 	300 mA 		
	Rating	40 A	A9V53340	A9V63340	A9V83340	-	A9V93340	7
		63 A	A9V53363	A9V63363	A9V83363	A9V73363	A9V93363	7
4P	Sensitivity	30 mA	100 mA	300 mA	100 mA 	300 mA 		
	Rating	40 A	A9V53440	A9V63440	A9V83440	-	A9V93440	7
		63 A	A9V53463	A9V63463	A9V83463	A9V73463	A9V93463	7
Voltage rating (Ue)		230 - 240 V, 400 - 415 V						
Operating frequency		50 Hz						



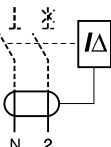
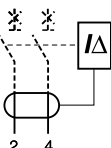
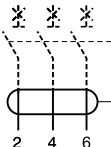
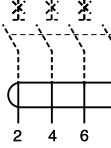
Country approval pictograms



GB 16917
IEC/EN 61009-1

- Combined with iC65 circuit breaker, the Vigi iC65 provide:
 - protection of persons against electric shock by direct contact (≤ 30 mA),
 - protection of installations against the risk of fault (the fault includes pulsating DC component)
 - Connection: Bottom outlet

Catalogue numbers

Vigi iC65 ELE add-on residual current devices (A type)			
Type	A 		Width in 9 mm modules
Product	Vigi iC65		
1P+N	Sensitivity	30 mA	
	Rating	≤ 40 A	A9V57640
		≤ 63 A	A9V57663
2P	Sensitivity	30 mA	
	Rating	40 A	A9V57240
		63 A	A9V57263
3P	Sensitivity	30 mA	
	Rating	40 A	A9V57340
		63 A	A9V57363
4P	Sensitivity	30 mA	
	Rating	40 A	A9V57440
		63 A	A9V57463
Voltage rating (Ue)		230 - 240 V, 400 - 415 V	
Operating frequency		50 Hz	



Country approval pictograms

GB 16917
IEC/EN 61009-1

- Combined with iC65 circuit breaker, the Vigi iC65 provide:
 - protection of persons against electric shock by direct contact (≤ 30 mA),
 - protection of persons against electric shock by indirect contact (≥ 100 mA),
 - protection of installations against the risk of fire (300 mA).
 - connection: Bottom outlet and Bottom feeding



Catalogue numbers

Vigi iC65 ELM add-on residual current devices (AC type)						
Type	AC					Width in 9 mm modules
Product	Vigi iC65					
2P	Sensitivity	30 mA	100 mA	300 mA	300 mA	
	Rating	25 A	A9V52225	-	-	3
		40 A	A9V52240	-	-	4
		63 A	A9V52263	A9V62263	A9V82263	A9V92263
3P	Sensitivity	30 mA	100 mA	300 mA	300 mA	
	Rating	25 A	A9V52325	-	-	6
		40 A	A9V52340	-	-	7
		63 A	A9V52363	A9V62363	A9V82363	A9V92363
4P	Sensitivity	30 mA	100 mA	300 mA	300 mA	
	Rating	25 A	A9V52425	-	-	6
		40 A	A9V52440	-	-	7
		63 A	A9V52463	A9V62463	A9V82463	A9V92463
Voltage rating (Ue)		230 - 240 V, 400 - 415 V				
Operating frequency		50 Hz				

Vigi iC65 add-on residual current devices (AC, A types)

Technical data

Main characteristics

According to IEC 60947-2

Insulation voltage (U_i) 500 V AC

Pollution degree 3

Rated impulse withstand voltage (U_{imp}) 6 kV

According to IEC/EN 61009-1

Surge current withstand (8/20 μs) without tripping AC and A types (no selective ) 250 Å

AC, A types (selective ) 3 kÅ

Avoid installation risk on circuit-breakers of rating over itself ■

Additional characteristics

Degree of protection Device only IP20

Device in modular enclosure IP40
Insulation classe II

Operating temperature AC type -25 °C to +60 °C

A type -25 °C to +60 °C

Storage temperature -40 °C to +80 °C

Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
					
M6.5	3.5 Nm	5.6 Nm	3.5 Nm	1~35 mm ²	1~25 mm ²

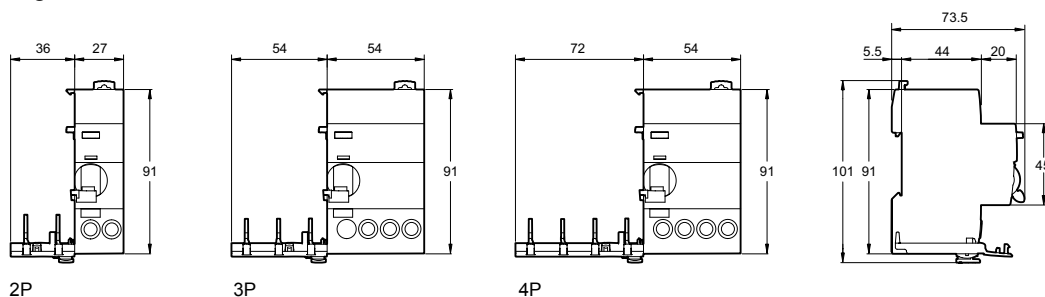
Weight (g)

Add-on residual current devices

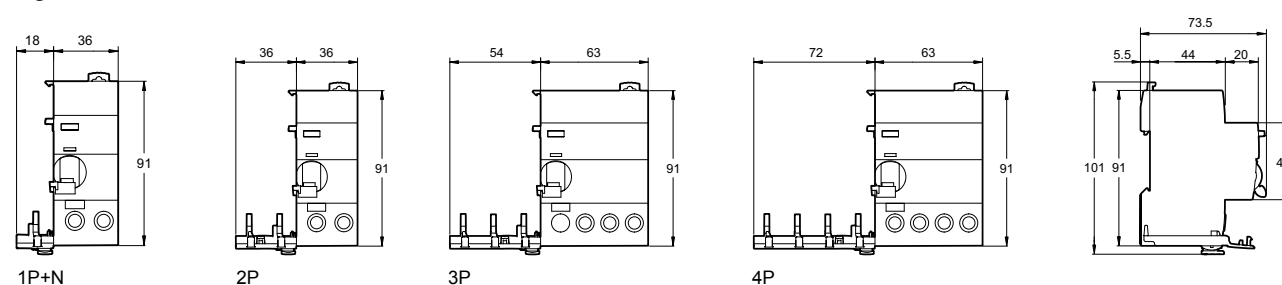
Type	Vigi iC65 ELE	Vigi iC65 ELM	
	40A / 63 A	25 A	40A / 63 A
1P+N	146	-	-
2P	134	114	135 to 165
3P	194	168	190 to 225
4P	216	184	215 to 245

Dimensions (mm)

Vigi iC65 25 A



Vigi iC65 40 and 63 A

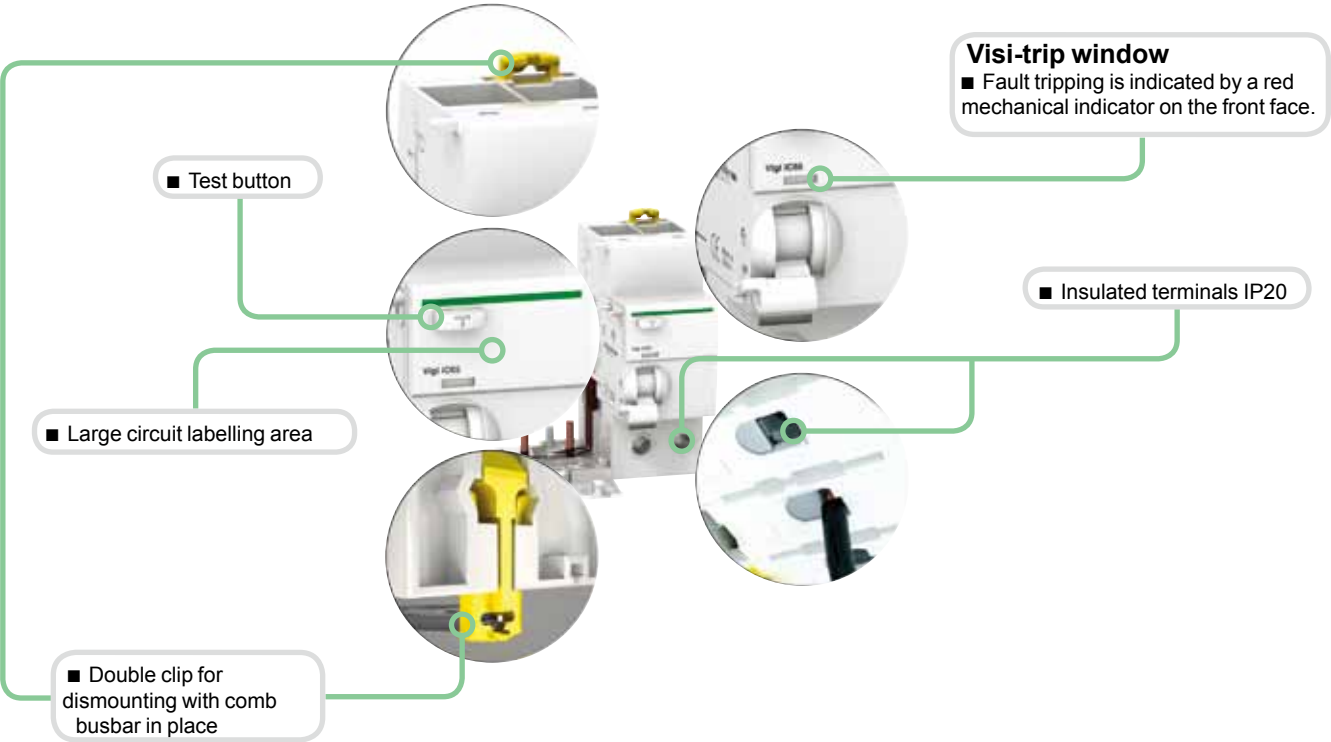


Vigi iC65 add-on residual current
devices (AC, A types)



Association iC65 + Vigi iC65

	Vigi iC65 25 A (ELM)	Vigi iC65 40 A	Vigi iC65 63 A
iC65 ≤ 25 A	■	■	■
iC65 ≤ 40 A	NO	■	■
iC65 ≤ 63 A	NO	NO	■





Country approval pictograms

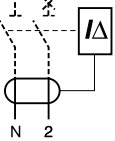


GB 16917
IEC/EN 61009-1

Combined with iDPN circuit breaker, the Vigi iDPN provides:

- protection of persons against electric shock by direct contact (10-30 mA)
- Protection from electric shock by indirect contact
- fast closing
- indication of leakage fault
- "G": over-voltage protection, 280±5% VAC
- A class Ensure tripping with a DC component current Vigi module for which tripping is ensured by sinusoidal AC currents as well as by pulsed DC currents whether they are quickly applied or rise slowly
- Connection: Bottom outlet

Catalogue numbers

Vigi iDPN ELE add-on residual current devices							
Type			AC 		A 		Width in 9 mm modules
Product			Vigi iDPN				
1P+N		Sensitivity	30 mA	10 mA	30 mA	2	
	Rating	≤25 A	A9Y53625	A9Y47625	A9Y57625		
		≤25 A (G)	-	-	A9Y50625		
		≤40 A	A9Y53640	A9Y47640	A9Y57640		
		≤40 A (G)	A9Y50640	-	-		
Voltage rating (Ue)			230 V				
Operating frequency			50 Hz				



Country approval pictograms

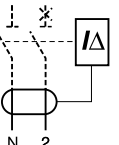


GB 16917
IEC/EN 61009-1

Combined with iDPN MCB, have high anti-interference ability, tripping no need auxiliary power supply.

- protection of persons against electric shock by direct contact
- protection of persons against electric shock by indirect contact
- protection of installations against the risk of fire
- fast closing
- indication of leakage fault
- connection: Bottom outlet and Bottom feeding

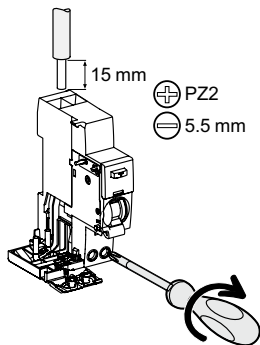
Catalogue numbers

Vigi iDPN ELM add-on residual current devices					
Type			AC 	A 	Width in 9 mm modules
Product			Vigi iDPN		
1P+N		Sensitivity	30 mA	30 mA	
	Rating	≤25 A	A9Y52625	A9Y56625	2
			≤40 A	A9Y52640	
Voltage rating (Ue)			230 V		
Operating frequency			50 Hz		

Vigi iDPN add-on residual current devices (AC, A types)

Technical data

Main characteristics		
According to IEC 60947-2		
Insulation voltage (Ui)		400 V AC
Pollution degree		2
Rated impulse withstand voltage (Uimp)		4 kV
Additional characteristics		
Degree of protection	Device only	IP20
	Device in modular enclosure	IP40 Insulation classe II
Manual control (handle providing two reset modes)	Either with a single action or separately	MCB over load/short current/fault tripping RCD fault tripping
Operating temperature		-25°C~+60°C
Storage temperature		-40°C~+80°C
Tropicalization		Treatment 2 (relative humidity 95 % to 55°C)



Connection

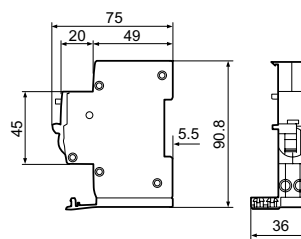
Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
M4.2	2 Nm	3.5 Nm	1.2 Nm	1~16 mm ²	1~10 mm ²

* In ≤25A residual current operated accessories with an error distribution design, can prevent it and rated current is greater than 25A iDPN assembly.

Weight (g)

Add-on residual current devices		
Type	Vigi iDPN ELE	Vigi iDPN ELM
1P+N	81	92~100

Dimensions (mm)



iDPNa Vigi residual current device
(C types, AC, ELE)



Country approval pictograms

GB16917.1
IEC 61009-1

The iDPNa Vigi self-contained residual current device carries out complete protection of final circuits (overcurrents and insulation faults):

- over load
- short-circuit
- isolation
- protection of persons against indirect contact (30 mA)
- additional protection of persons against direct contact (30 mA)
- protection for electrical installations against insulation faults.
- connection: Top feeding

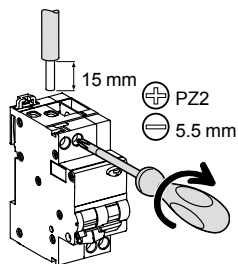
- fast closing
- indication of fault tripping



Catalogue numbers

iDPNa Vigi				
		AC		Width in 9 mm modules
1P+N C curve		Rated residual current	30 mA	
	Rating	6 A	A9D90606	4
		32 A	A9D90632	
Voltage rating (Ue)			230 V AC	
Operating frequency			50 Hz	

iDPNa Vigi residual current device (C types, AC, ELE)



Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Copper cables	
				Rigid	Flexible or ferrule
M4.2	2 Nm	3.5 Nm	1.2 Nm	1 to 16 mm ²	1 to 10 mm ²

Technical data

Main characteristics

According to GB16917.1 / IEC 61009-1

Rated residual current	30 mA
Setting temperature	30°C
Tripping curve	C type, (5 to 10) In
Rated breaking capacity (Icn)	4,500 A

Additional characteristics

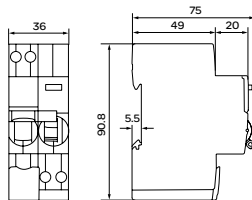
Degree of protection	Device only		IP20
	Device in modular enclosure		IP40
Endurance (O-C)	Electrical	6 A	20,000 cycles
		32 A	10,000 cycles
	Mechanical		20,000 cycles
Insulation voltage (Ui)			400 V
Rated impulse withstand voltage (Uimp)			4 kV
Operating temperature			-25°C to +60°C
Storage temperature			-40°C to +80°C
Surge current withstand (8/20 μs) without tripping			250 Å
Limitation class			3
Insulation classe			2
Tropicalization			Treatment 2 (relative humidity 95 % to 55°C)

Weight (g)

Add-on residual current devices

Type	iDPNa Vigi
1P+N	203

Dimensions (mm)



iDPNa Vigi+ residual current device
(C types, AC, ELE)



Country approval pictograms

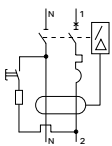
GB16917.1
IEC 61009-1

The iDPNa Vigi+ self-contained residual current device carries out complete protection of final circuits (overcurrents and insulation faults):

- over load
- short-circuit
- isolation
- protection of persons against indirect contact (30 mA)
- additional protection of persons against direct contact (30 mA)
- protection for electrical installations against insulation faults.
- connection: top and bottom feeding

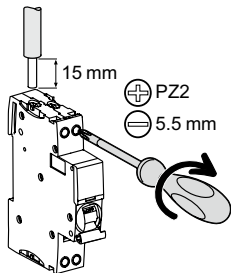
■ fast closing

Catalogue numbers

iDPNa Vigi+				AC 	Width in 9 mm modules
1P+N C curve		Rated residual current	30 mA		
	Rating	10 A	A9D91610		2
		16 A	A9D91616		
		20 A	A9D91620		
		25 A	A9D91625		
Voltage rating (Ue)			230 V AC		
Operating frequency			50 Hz		



iDPNa Vigi+ residual current device (C types, AC, ELE)



Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Connection
				Rigid
Up M4.2	2.5 Nm	3 Nm	1.8 Nm	Up ≤ 16 mm ²
Down M4	2 Nm	3 Nm	1.2 Nm	Down ≤ 10 mm ²

Note:

a) The power must be cut off before installing the products.

b) Neutral wiring should be connected before phase wiring in case of bottom feeding.

Technical data

Main characteristics

According to GB16917.1 / IEC 61009-1

Rated residual current	30 mA
Setting temperature	30°C
Tripping curve	C type, (5 to 10) I _n
Rated breaking capacity (I _{cn})	4,500 A

Additional characteristics

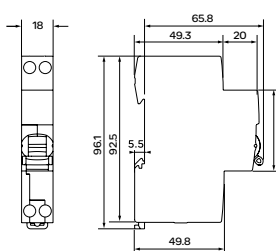
Degree of protection	Device only	IP20
	Device in modular enclosure	IP40
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Insulation voltage (Ui)		400 V
Rated impulse withstand voltage (Uimp)		4 kV
Operating temperature		-25°C to +55°C
Storage temperature		-30°C to +70°C
Surge current withstand (8/20 μs) without tripping		250 Å
Limitation class		3
Insulation classe		2
Tropicalization		Treatment 2 (relative humidity 95 % to 55°C)

Weight (g)

Add-on residual current devices

Type	iDPNa Vigi+
1P+N	136

Dimensions (mm)



iDPNN Vigi+ residual current device
(C types, AC, ELE)



Country approval pictograms

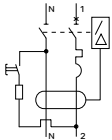
GB16917.1
IEC 61009-1

The iDPNN Vigi+ self-contained residual current device carries out complete protection of final circuits (overcurrents and insulation faults):

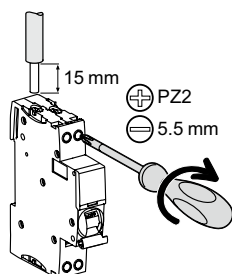
- over load
- short-circuit
- isolation
- protection of persons against indirect contact (30 mA)
- additional protection of persons against direct contact (30 mA)
- protection for electrical installations against insulation faults.
- connection: top and bottom feeding

■ fast closing

Catalogue numbers

iDPNN Vigi+				
		AC 		Width in 9 mm modules
1P+N	C curve	Rated residual current	30 mA	
	Rating	10 A	A9D95610	2
		16 A	A9D95616	
		20 A	A9D95620	
		25 A	A9D95625	
Voltage rating (Ue)		230 V AC		
Operating frequency		50 Hz		





Connection

Rating	Rated tightening torque	Maximum tightening torque	Standard tightening torque	Connection
				Rigid
Up M4.2	2.5 Nm	3 Nm	1.8 Nm	Up ≤ 16 mm ²
Down M4	2 Nm	3 Nm	1.2 Nm	Down ≤ 10 mm ²

Note:

- a) The power must be cut off before installing the products.
b) Neutral wiring should be connected before phase wiring in case of bottom feeding.

Technical data

Main characteristics

According to GB16917.1 / IEC 61009-1

Rated residual current	30 mA
Setting temperature	30°C
Tripping curve	C type, (5 to 10) I _n
Rated breaking capacity (I _{cn})	6,000 A

Additional characteristics

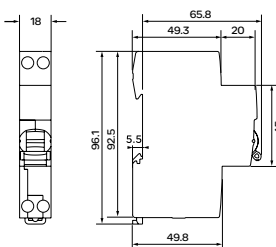
Degree of protection	Device only	IP20
	Device in modular enclosure	IP40
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Insulation voltage (Ui)	400 V	
Rated impulse withstand voltage (Uimp)	4 kV	
Operating temperature	-25°C to +55°C	
Storage temperature	-30°C to +70°C	
Surge current withstand (8/20 μs) without tripping	250 Å	
Limitation class	3	
Insulation classe	2	
Tropicalization	Treatment 2 (relative humidity 95 % to 55°C)	

Weight (g)

Add-on residual current devices

Type	iDPNN Vigi+
1P+N	136

Dimensions (mm)



Vigi C120 add-on residual current devices

30~500 mA type AC 

300mA  type AC(selective ) 



Country approval pictograms



GB 16917
IEC/EN61009-1

When a Vigi C120 device is combined with a C120 circuit breaker, it provides the following functions:

- protection of persons against electric shock by direct contact (30 mA)
- protection of persons against electric shock by indirect contact (u 300 mA)
- protection of installations against firehazards (300 mA to 1000 mA)
- The C120 residual current device complies with standard EN 61009: no heat derating of the circuit breaker

AC class

Vigi module for which tripping is ensured by sinusoidal AC currents whether they are quickly applied or rise slowly.

Instantaneous

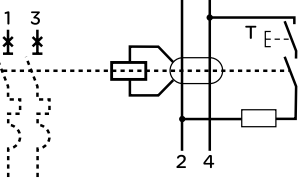
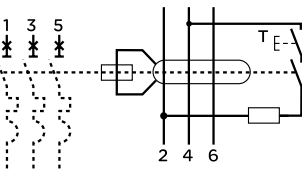
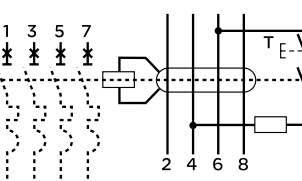
It ensures instantaneous tripping (not time-delayed).

Selective ()

Selective () Vigi modules allow for total vertical discrimination if:

- upstream devices are  or delayed
- downstream devices are instantaneous and their sensitivity is less than $I_{\Delta n}/2$ of the upstream device.

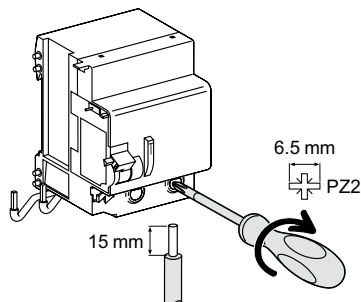
Catalogue numbers

Vigi C120							
Type product	AC 						Width in 9mm modules
2P	Sensitivity	30	300	300 	500		
	Rating	A9N18563	A9N18564	A9N18544	-		7
3P	Sensitivity	30	300	300 	500		
	Rating	A9N18566	A9N18567	A9N18546	A9N18568		10
4P	Sensitivity	30	300	300 	500		
	Rating	A9N18569	A9N18570	A9N18548	A9N18571		10
Voltage rating (Ue)	230-240V, 400-415V						
Operating frequency	50/60Hz						

Vigi C120 add-on residual current devices

30~500 mA type AC 

300mA  type AC(selective ) 



Connection

Rating	Sensitivity	Tightening torque	Copper cables	
			Rigid	Flexible or with ferrule
				
Vigi C120	30...500mA	3.5 Nm	1~50 mm ²	1~35 mm ²

Technical data

Main characteristics

According to IEC 60947-2

Impulse current withstand (8/20ms) without tripping	Type AC	instantaneous	250 Å
		selective	3kÅ
Raing	≤125A		
Insulation voltage (Ui)	500V AC		
Degree of pollution	3		
Rated impulse withstand voltage (Uimp)	6kA		

Additional characteristics

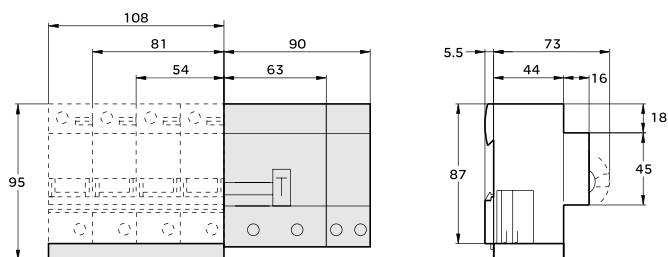
Degree of protection	Device only	IP20
(IEC 60529)	Device in a modular enclosure	IP40 Insulation class II
Operating temperature	-5~+60°C	
Storage temperature	-40~+85°C	
fault indication	a red trip on the resetting handle	
resetting the Vigi module, at user's convenience	■	

Weight (g)

Add-on residual current devices

Type	Vigi C120
2P	325
3P	500
4P	580

Dimensions (mm)





Country approval pictograms



GB 14048.2
IEC 60947-2

it completes the NG125 circuit-breakers to provide:

- protection of persons again indirect contact
- protection of electrical installations against insulation faults
- protection of installations against fire hazards
- 300 allows selection protection
- 300...3000 mA (300, 500, 1000, 3000 mA) adjustable Vigi accessory:
 - Its scope of application is extensive and flexible.
 - Can be realized alarm without trip.

AC class

Vigi module for which tripping is ensured by sinusoidal AC currents whether they are quickly applied or rise slowly.

A class

Ensure tripping with a DC component current Vigi module for which tripping is ensured by sinusoidal AC currents as well as by pulsed DC currents whether they are quickly applied or rise slowly.

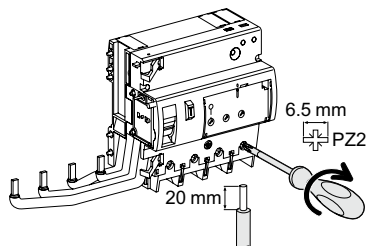
Selective and D

Selective and D Vigi modules allow for total vertical discrimination if:

- downstream devices are instantaneous and their sensitivity is less than $I_{\Delta n}/2$ of the upstream device.
- and if the non-response time of the upstream device is ≥ 1.2 times the opening time of the downstream device.

Catalogue numbers

Vigi NG125						
Type product		AC		A		Width in 9mm modules
2P	Sensitivity	30	300	300	300...3000I/S/D	
	Rating $\leq 63A$	19000	19001	19030	-	5
3P	Sensitivity	30	300	300	300...3000I/S/D	
	Rating $\leq 63A$	19002	19003	19032	-	9
		-	-	-	19036	11
4P	Sensitivity	30	300	300	300...3000I/S/D	
	Rating $\leq 63A$	19004	19005	19034	-	9
		-	-	-	19037	11



Connection

Rating	Tightening torque	Copper cables		
		Rigid	Flexible or with ferrule	Screw clamp terminal
				
63A	3.5 Nm	1.5~50 mm ²	1~35 mm ²	■

Technical data

Main characteristics

According to IEC 60947-2

Earth fault display	on the front face of the Vigi by reset handle	
Voltage rating	230~415V AC	
Frequency	50/60 Hz	
Rated impulse withstand voltage (Uimp)	8 kV	
Insulation voltage (Ui)	690 V	
Impulse current withstand (8/20µs) without tripping	selective $I_{\Delta n}$ and adjustable	5 kA
	instantaneous	3 kA
Raing	≤ 63A	
Degree of protection (IEC 60529)	Device only	IP20
	Device in a modular enclosure	IP40
Operating temperature	AC type	-5°C~+60°C
	A type and  type	-25°C~+60°C
Storage temperature	-40°C~+85°C	

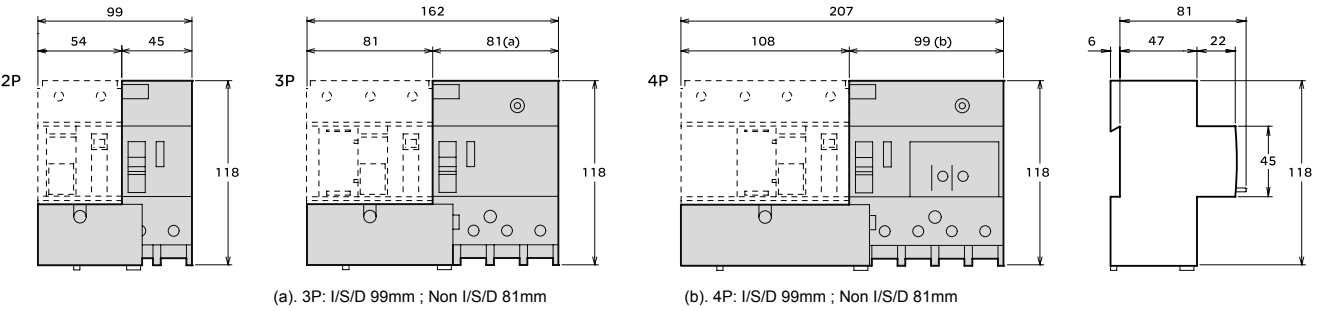
Additional characteristics

$I_{\Delta n}$ sensitivity adjustable by index	300, 500, 1000, 3000 mA	
adjustable tripping time	instantaneous	■
	selective	60 ms
	delayed	150 ms
Leakage current indication on 3P and 4P	on the front face by LED remotely, by 250 V-1A(low level) potential-free NO contact, connected by 2x1.5mm ² , plate terminal threshold setting by potentiometer from 10 to 50% of $I_{\Delta n}$	
Disconnection essential for dielectric testing by built-in pushbutton	■	
Auxiliaries plugged onto Vigi I/S/D	remote tripping by MXV remote indication of earth fault trip by SDV switch	

Weight (g)

Add-on residual current devices			
Type	5 mod	9 mod	11 mod
2P	250	-	-
3P	-	410	750
4P	-	450	800

Dimensions (mm)





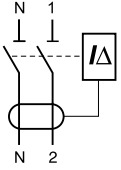
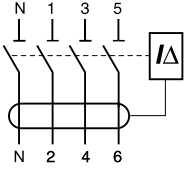
Country approval pictograms

GB 16916
IEC/EN 61008-1

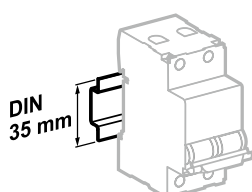
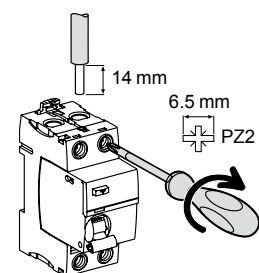
- The iID residual current circuit breakers provide:
 - protection of persons against electric shock by direct contact (≤ 30 mA),
 - protection of persons against electric shock by indirect contact (≥ 100 mA),
 - protection of installations against the risk of fire (300 mA).



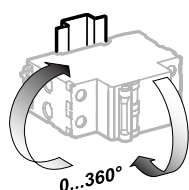
Catalogue numbers

iID residual current circuit breakers							
Type	AC 						Width in 9 mm module
Product	iID						
2P		Sensitivity	10 mA	30 mA	100 mA	300 mA	
	Rating	25 A	A9R42225	A9R52225	-	-	4
		40 A	-	A9R52240	A9R62240	A9R82240	
		63 A	-	A9R52263	A9R62263	A9R82263	
		80 A	-	A9R52280	-	A9R82280	
		100 A	-	A9R52291	-	A9R82291	
4P		Sensitivity	10 mA	30 mA	100 mA	300 mA	
	Rating	25 A	-	A9R52425	-	-	8
		40 A	-	A9R52440	A9R62440	A9R82440	
		63 A	-	A9R52463	A9R62463	A9R82463	
		80 A	-	A9R52480	-	A9R82480	
		100 A	-	A9R52491	-	A9R82491	

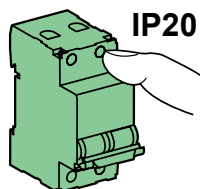
iID residual current circuit breaker (AC type)



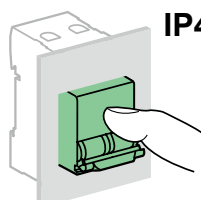
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Connection

Type	Rated tightening torque	Copper cables	
		Rigid	Flexible or ferrule
iID	3.5 Nm	1 to 35 mm ²	1 to 25 mm ²

Technical data

Main characteristics

According to IEC 60947

Rated voltage (U _e)	2P	230~240 V
	4P	400~415 V
Operation frequency		50 Hz
Insulation voltage (U _i)		500 V
Pollution degree		3
Rated impulse withstand voltage (U _{imp})		6 kV

According to IEC/EN 61008-1

Making and breaking capacity (I _m /I _{Δm})		1500 A
Surge current withstand (8/20 μs) without tripping	AC type (no selective S)	250 Å
	AC type (selective S)	3 kÅ

Additional characteristics

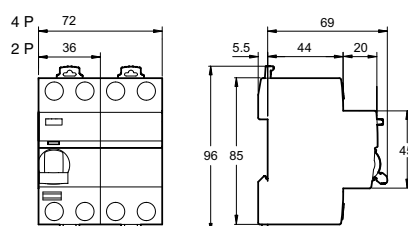
Short circuit (I _{nc} /I _{Δc})	match with iC65N/H/L	same as iC65
	match with fuse	10,000 A
Degree of protection	Device only	IP20
	Device in modular enclosure	IP40 Insulation classe II
Endurance (O-C)	Electrical (AC1)	16 to 63 A 15,000 cycles
		80 to 100 A 10,000 cycles
	Mechanical	20,000 cycles
Operating temperature	AC type	-25°C to +60°C
Storage temperature		-40°C to +85°C

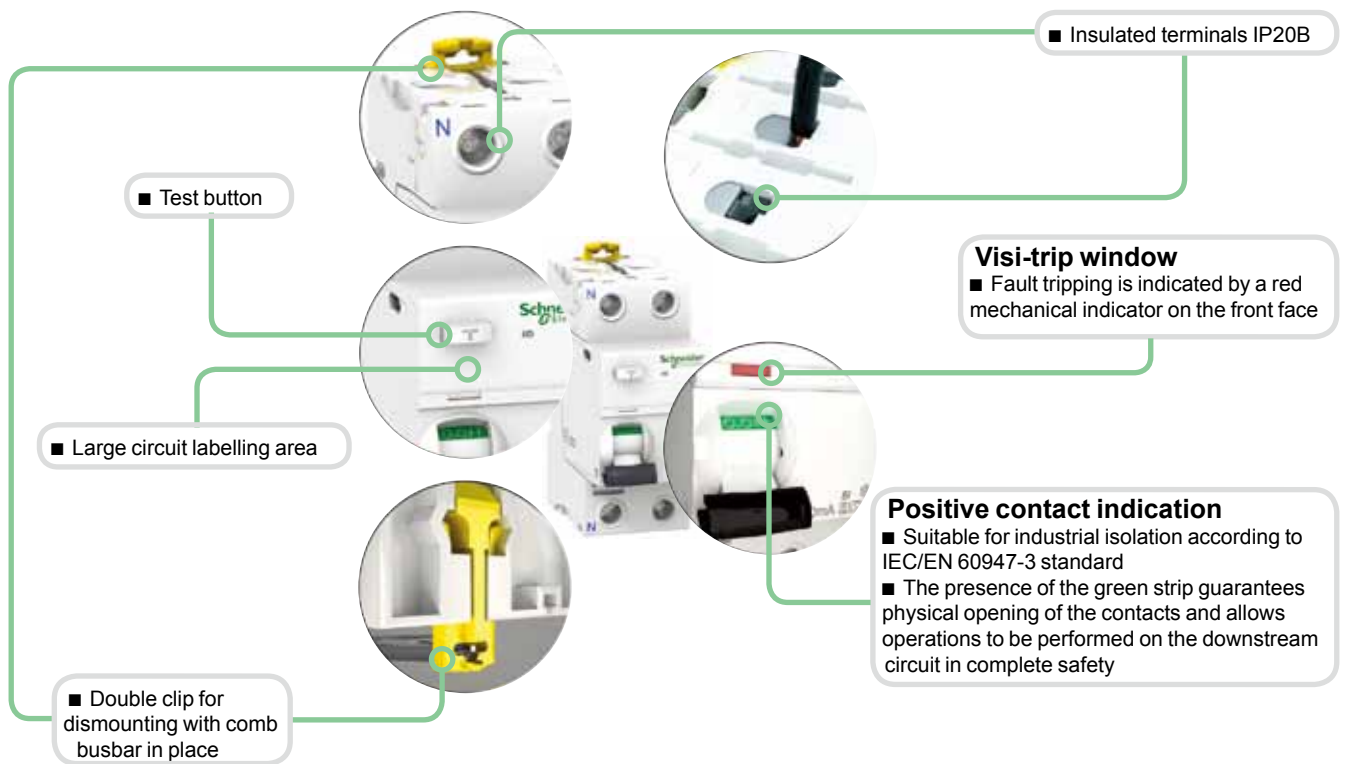
Weight (g)

Residual current circuit breakers

Type	iID
2P	210
4P	370

Dimensions (mm)





Vigi iC65

- 1 Vigi iC65 add-on residual current device

Electrical auxiliaries

Tripping devices

- 2 iMN undervoltage release
- 3 Shunt release iMX, iMX+OF
- 4 iMNs delayed undervoltage release
- 5 iMSU overvoltage release
- 6 iMNV OV and UV release *

Indication

- 7 iSD fault indicating contact
- 8 iOF open/close auxiliary contact
- 9 OF/SD+OF auxiliary contact (OF+SD or OF+OF combination switch)
- 10 iOF+SD24: open/close contact OF and default indicating contact SD with Ti24 interface

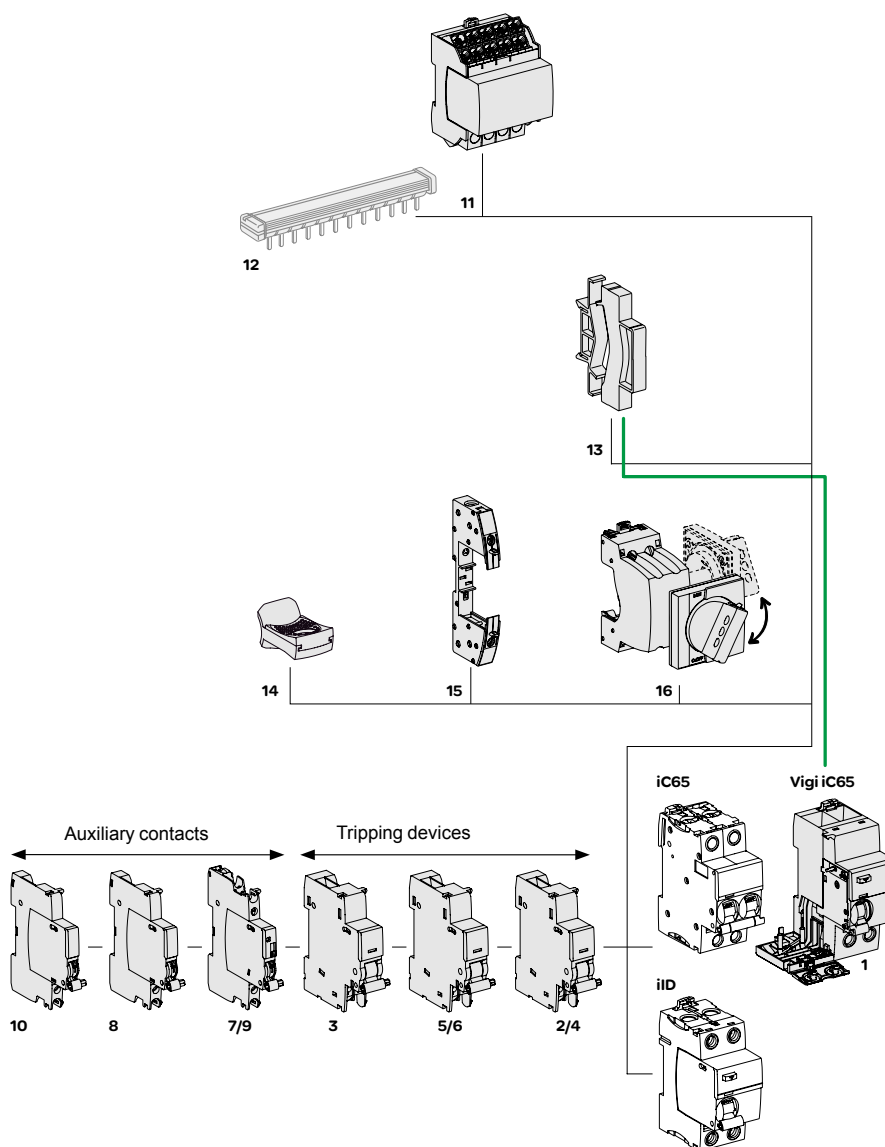
Connection

- 11 Splitter blocks Distribloc
- 12 Comb busbar

Mounting accessories

- 13 9 mm spacer
- 14 Padlocking device
- 15 Plug-in base
- 16 Rotary handle
 - with handle black
 - with handle red
 - Adapter mechanism without handle

*iMNV can't assembly iLD.



Tripping devices must be mounted first.



Respect specified position for SD functions.



Country approval pictograms

■ The electrical auxiliaries are combined with iC65 circuit breakers, iID residual current circuit breakers, RCA remote controls and ARA automatic reclosers; they enable tripping or remote indication of their position (open/closed/tripped) upon a fault.

■ They are fastened by clips (without tools) to the left side of the breaker.

■ The OF/SD+OF auxiliary is a 2-in-1 product: via a mechanical selector switch, it provides two contacts, OF+SD or OF+OF.

■ The iOF+SD24 auxiliary can report open/closed (OF) status information and intentional or fault tripping of the associated device (SD) to the Acti 9 Smartlink or a programmable logic controller via the Ti24 interface (24 V DC).

IEC/EN 60947-1

■ Tripping auxiliaries:

- iMN: undervoltage release
- iMNs: delayed undervoltage release
- iMSU: overvoltage release
- iMNV: 过欠压脱扣单元
- iMX: shunt release
- iMX+OF: shunt release with open/close contact.

IEC/EN 60947-5-1

■ Indication auxiliaries:

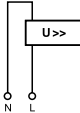
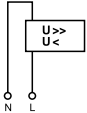
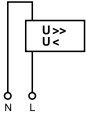
- iOF: open/close contact
- iSD: fault indicating contact
- OF/SD+OF: open/close contact and switchable OF or SD contact.

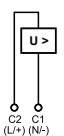
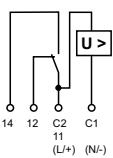
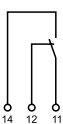
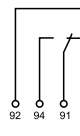
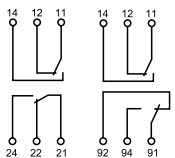
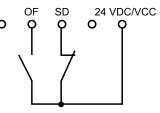
IEC/EN 60947-5-4

■ Indication auxiliaries:

- iOF+SD24: open/close contact OF and default indicating contact SD with Ti24 interface.



Tripping						
Auxiliaries	iMN		iMNs	iMSU	iMNV	
Type	Undervoltage release			Overvoltage release	Overvoltage release	
	Instantaneous		Delayed			
						
Function	Trips the device with which it is combined when its input voltage decreases (between 70 % and 35 % U_n). Prevents device closing again until its input voltage is restored		Not tripping on transient voltage dip (up to 0.2 s)	- Switches off the power supply by opening the breaker with which it is combined, in the event that the phase/neutral voltage is exceeded (loss of neutral). For a four-phase network, use three iMSU tripping auxiliaries - Tripping voltage: 280 V AC $\pm 5\%$	- Trips the device with which it is combined when its input voltage decreases (between 55V and 160V) and increases. Prevents device closing again until its input voltage is restored - Tripping overvoltage: 280V$\pm 5\%$ - Tripping undervoltage: 55~160V	
Wiring diagrams						
Use	- Emergency stoppage by normally closed push button - Ensures the safety of power supply circuits for several machines by preventing "uncontrolled" restarting			- Protection of equipment against overvoltages on the electrical network (neutral conductor break) - Voltage monitoring between phase and neutral conductors	Comply with JGJ16-2008, and ensure the electricity security of home	
Catalogue numbers	A9A26960	A9A26961	A9A26963	A9A26979	A9A26980 (for 1P+N/2P MCB)	A9A26974 (for 4P MCB)
Technical specifications						
Rated voltage (Ue)	V AC	220...240	48	220...240	230	230V
	V DC	—	48	—	—	—
Operating frequency	Hz	50/60		50/60	50/60	50Hz
Red mechanical indicator	On front face		On front face	On front face	On front face	
Test function	—		—	—	—	
Width in 9 mm modules	2		2	2	2	
Operating current	—		—	—	—	
Number of contacts	—		—	—	—	
Operating temperature	°C	-35...+70	-35...+70	-35...+70	-25...+55	
Storage temperature	°C	-40...+85	-40...+85	-40...+85	-40...+85	
Meet the standard	CE		CE	CE	CE	

						Indication			
iMX			iMX+OF			iOF	iSD	OF/SD+OF	iOF+SD24
Shunt release			Open/close auxiliary contact			Open/close auxiliary contact	Fault indicating contact	Double open/close or fault indicating contact	Double open/close and fault indicating contact
									
■ Trips the breaker when powered			■ Includes an open/close contact (OF) to indicate the "open" or "closed" position of the breaker			■ Changeover contact indicates "open" or "closed" position of the breaker	■ Changeover contact indicates position of the breaker; upon: □ electrical fault □ action on tripping auxiliary ■ Same indication as VISI-TRIP	■ The iOF/SD+OF auxiliary is a 2-in-1 product: via a mechanical selector switch, it provides two contacts, OF+SD or OF+OF	■ Double changeover contact which can report the signalling information of the associated device to the Acti 9 Smartlink or a programmable logic controller: □ electrical fault □ actuation of the tripping auxiliary □ "open" or "closed" position of the associated device
									
■ Emergency stoppage by normally open push button			■ Emergency stoppage by normally open push button ■ Remote indication of the position of the associated breaker			■ Remote indication of the position of the associated breaker	■ Remote indication of tripping upon a fault of the associated breaker	■ Remote indication of position and/or tripping upon a fault of the associated breaker	■ Remote indication of position and tripping upon a fault of the associated breaker
A9A26476	A9A26477	A9A26478	A9A26946	A9A26947	A9A26948	A9A26924	A9A26927	A9A26929	A9A26897
100...415	48	12...24	100...415	48	12...24	240...415	240...415	240...415	-
110...130	48	12...24	110...130	48	12...24	24...130	24...130	24...130	24
50/60			50/60			50/60	50/60	50/60	-
On front face			On front face			-	On front face	On front face	On front face
-			-			On toggle	On toggle	On toggle	On toggle
2			2			1	1	1	1
-			12...24 V DC	10mA mini, 6A maxi		24 V DC	10mA mini, 6A maxi		2 mA mini, 50 mA maxi
			48 V DC	2 A		48 V DC	2 A		-
			≤ 130 V DC	1 A		60 V DC	1.5 A		-
						130 V DC	1 A		-
			≤ 240 V AC	6 A		240 V AC	6 A		-
			415 V AC	3 A		415 V AC	3 A		-
-			1 NO/NC			1 NO/NC	1 NO/NC	1 NO/NC + 1 NO/NC	1 NO/NC
-35...+70			-35...+70			-35...+70	-35...+70	-35...+70	-25...+70
-40...+85			-40...+85			-40...+85	-40...+85	-40...+85	-40...+85
CE			CCC, CE			CCC, CE	CCC, CE	CCC, CE	CCC, CE

Combination table

Electrical auxiliaries			Remote control	Devices	
Indication auxiliaries			Tripping auxiliaries	ARA automatic recloser or RCA remote control	
Position Left	Right	Max quantity			
					
1 (OF/SD+OF or iOF+SD24 or iSD)	+ 1 OF/SD+OF	+ 1 (iMN, iMNs, iMX or iMX+OF or iMSU or iMNV)	–		
1 iOF	+ 1 (iSD or iOF or OF/SD+OF)	+ 2 (iMN, iMNs, iMX or iMX+OF or iMSU or iMNV)			
–	+ 1 iOF+SD24	+ 2 (iMN, iMNs, iMX or iMX+OF or iMSU or iMNV)			
–	+ –	+ 3x iMSU			
iSD	+ iSD	+ 1 (iMN, iMNs, iMX or iMX+OF or iMSU or iMNV)		iC65	Vigi iC65
					–
–	+ 1 (iSD or iOF or OF/SD+OF or iOF+SD24)	+ 1 (iMN, iMNs, iMX or iMX+OF or iMSU or iMNV)			
1 iOF	+ 1 (iSD or iOF or OF/SD+OF)	+ –			
					
			ARA		–
–	+ 1 (iSD or iOF or OF/SD+OF or iOF+SD24)	+ 1 (iMX or iMN or iMSU or iMNV)			
1 iOF	+ 1 (iSD or iOF or OF/SD+OF)	+ –			
			RCA	iC65	Vigi iC65

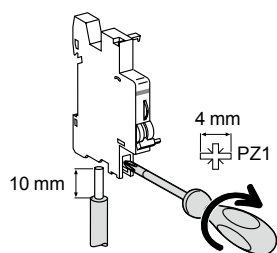
Other possible associations: see technical pages.

*iMNV can't assembly iID.



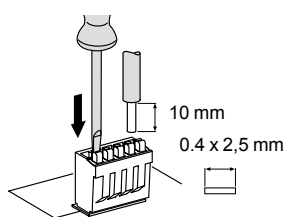
Tripping devices must be mounted first.
Respect specified position for SD functions.

Connection



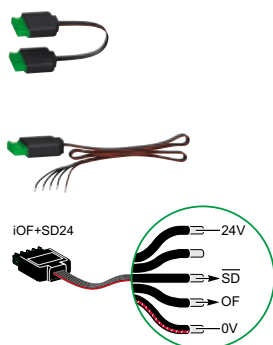
Type	Tightening torque	Copper cables		Multi-cables terminal	
		Rigid	Flexible	Rigid	With ferrule
Indication auxiliaries	1 Nm	1~4 mm ²	0.5~2.5 mm ²	2 x 2.5 mm ²	2 x 1.5 mm ²
Tripping auxiliaries	1 Nm	1~6 mm ²	0.5~4 mm ²	2 x 2.5 mm ²	2 x 2.5 mm ²

Ti24 connector connection



Type	Rated tightening torque	Catalogue number	Copper cables	
			Rigid	Flexible
Ti24 interface	Spring-loaded terminals	A9XC2412	1 x 0.5~1.5 mm ²	1 x 0.5~1.5 mm ²

Ti24 prefabricated cables connection

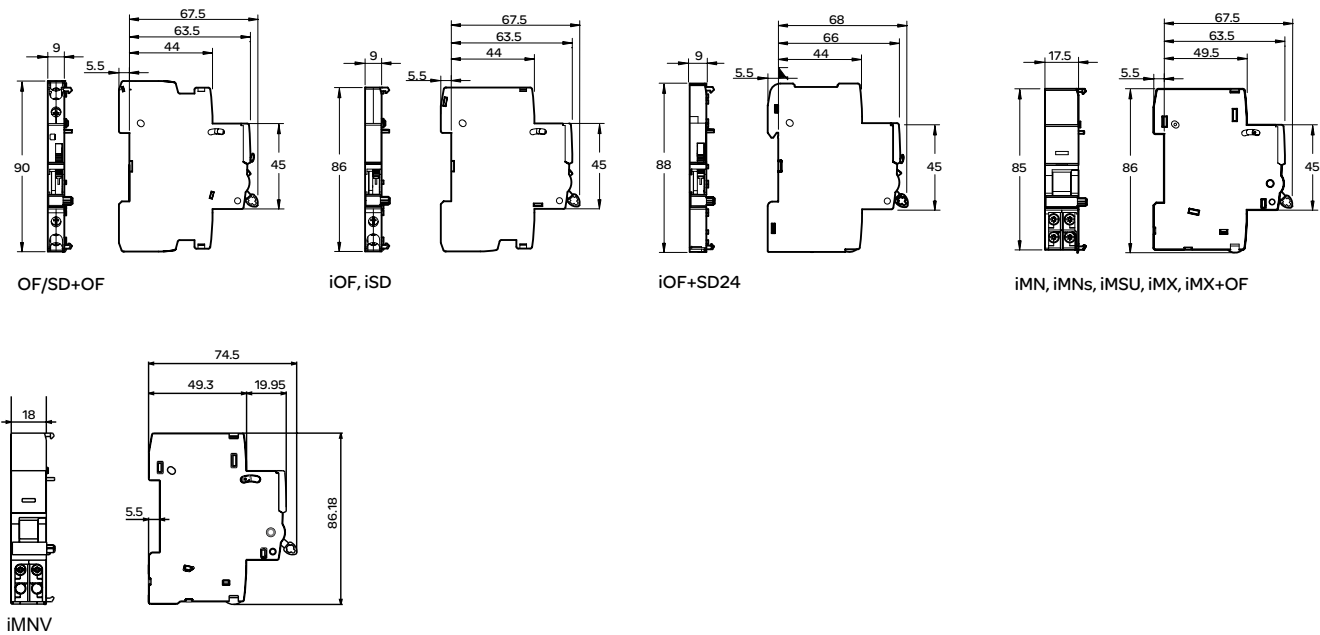


Type	Catalogue numbers	Length
Connection for Acti 9 Smartlink		
6 short prefabricated	A9XCAS06	100 mm
6 medium-sized prefabricated	A9XCAM06	160 mm
6 long prefabricated	A9XCAL06	870 mm
Connection for PLC type terminals		
6 long prefabricated on a single side	A9XCAU06	870 mm

Weight (g)

Electrical auxiliaries	
Type	
iMN	69
iMNs	72
iMNV	75
iMSU	68
iMX	64
iMX+OF	68
iOF	32
iSD	33
OF/SD+OF	43
iOF+SD24	25

Dimensions (mm)





Country approval pictograms

- The electrical auxiliaries provide the remote tripping or position (open/closed/tripped) indication functions of these devices in the event of a fault.
- They clip on (no tool required) to the left-hand side of the associated device.
- The OF+SD/OF auxiliary is a two-in-one product: a mechanical selector switch is used to select one of two contacts: OF+SD or OF+OF.
- The OF+SD24 auxiliary can report open/closed (OF) status information and intentional or fault tripping of the associated device (SD) to the Acti 9 Smartlink or a programmable logic controller via the TI24 interface (24 V DC).

IEC/EN 60947-1

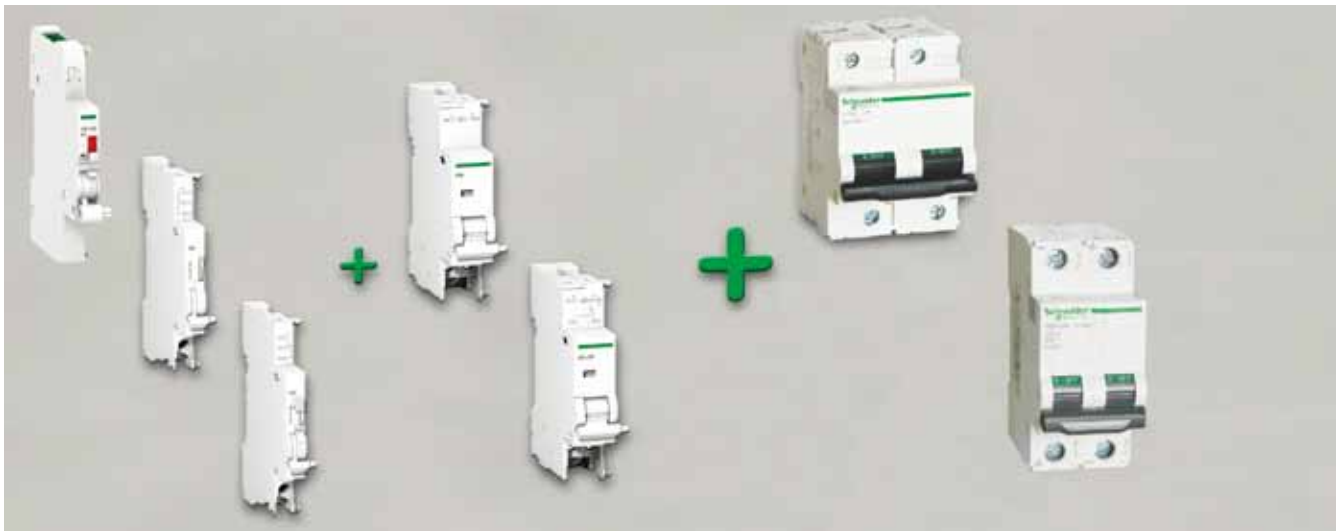
- Tripping auxiliaries:
 - MN: undervoltage release
 - MN $\overline{\text{I}}$: delayed undervoltage release
 - MX: shunt release
 - MX+OF: shunt release with open/closed contact
 - MV: over voltage release

IEC/EN 60947-5-1

- Indication auxiliaries:
 - OF: open/closed contact
 - SD: fault indicating contact
 - OF+SD/OF: choice of open/closed contact and OF or SD contact via the selector switch

IEC/EN 60947-5-4

- Indication auxiliaries:
 - OF+SD24: pen/close contact OF and cfault indicating contact SD with TI24 interface



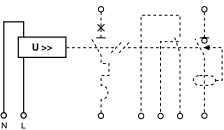
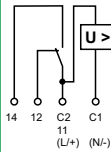
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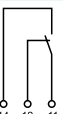
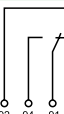
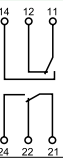
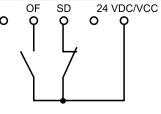
Electrical auxiliaries						Devices	
Indication auxiliaries				Tripping auxiliaries			
Left			Right				
1 most	OF+SD/OF, OF+SD24	+	1 most	OF+SD/OF	+	1 most	MN, MN $\overline{\text{I}}$, MX, MX+OF, MV
or							
1 most	OF	+	1 most	OF+SD/OF, SD, OF	+	2 most	MN, MN $\overline{\text{I}}$, MX, MX+OF, MV
or							
–	None		1 most	OF+SD24		2 most	MN, MN $\overline{\text{I}}$, MX, MX+OF, MV
or							
–	None		–	None		3 most	MV
						C65-DC, C120	



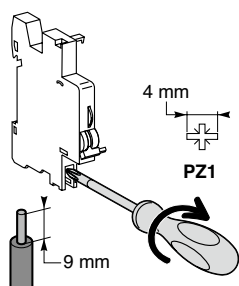
Tripping devices must be installed first.
If two tripping devices are used: the MN undervoltage release must be installed first
Indication auxiliaries: install the SD auxiliary first

		Tripping	
Auxiliaries	MN		MN ^S
Type	Undervoltage release		
	Instantaneous	Delayed	
			
Function	■ Causes the device with which it is associated to trip when its input voltage decreases (between 70 % and 35 % of Un). Prevents the device from closing until its input voltage has been restored ■ No tripping in the event of transient voltage dips (up to 0.2 s)		
Wiring diagrams			
Utilization	■ Emergency stop via a normally-closed pushbutton ■ Ensures the safety of the power supply circuits of several machines by preventing accidental startups		
Catalogue numbers	A9N26960	A9N26961	A9N26963
C65-DC	—	■	—
C120	■	■	■
Technical specifications			
Rated voltage (Ue)	V AC	220…240	48
	V DC	—	48
Tripping power	Attraction power (W or VA) / Voltage V	3.5 (220…240 V AC); 1.6 (48 V AC); 1.1 (48V DC)	3.6 (220 V AC)
Operating frequency	Hz	50/60	50/60
Mechanical state indicator light, red	On front face		On front face
Width in 9 mm modules	2		2
Operating current	—		—
Number of contacts	—		—
Operating temperature	°C	-25…+50	-25…+50
Storage temperature	°C	-40…+85	-40…+85
Meet the standard	CE		CE

MV	MX	MX+OF				
Over voltage release	Shunt release	With Open/Close auxiliary contact				
						
■ Switches off the power supply by opening the breaker with which it is combined, in the event that the phase/neutral voltage is exceeded (loss of neutral). For a four-phase network, use three MX tripping auxiliaries. Tripping voltage: 280 ± 5% V AC	■ Trips the associated device when it is powered on	■ Includes an open/close contact (OF) to indicate the “open” or “closed” position of the breaker				
						
■ Switches off the power supply by opening the breaker with which it is combined, in the event that the phase/neutral voltage is exceeded (loss of neutral). For a four-phase network, use three MX tripping auxiliaries. Tripping voltage: 280 ± 5% V AC	■ Emergency stop via a normally-open pushbutton.	■ Emergency stop via a normally-open pushbutton ■ Remote indication of the position of the associated device				
A9917132	A9N26476	A9N26477	A9N26478	A9N26946	A9N26947	A9N26948
–	■	■	■	■	■	■
■	■	■	■	■	■	■
230	100…415	48	12…24	100…415	48	12…24
–	110…130	48	12…24	110…130	48	12…24
128 (230 V AC)	400 (415 V AC); 130 (230V AC); 35 (110 V AC); 45 (110 V DC); 32 (48V AC/DC); 135 (24 V AC/DC); 30 (12 V AC/DC)			400 (415 V AC); 130 (230V AC); 35 (110 V AC); 45 (110 V DC); 32 (48V AC/DC); 135 (24 V AC/DC); 30 (12 V AC/DC)		
50/60	50/60			50/60		
On front face	On front face			On front face		
2	2			2		
–	–			3 A / 415 V AC 6 A / ≤ 240 V AC		
–	–			1 NO/NC		
-25…+50	-25…+50			-25…+50		
-40…+85	-40…+85			-40…+85		
CE	CE			CCC, CE		

Indication				
Auxiliaries	OF	SD	OF+SD/OF	OF+SD24
Type	Open/closed auxiliary contact	Fault indicating contact	Double open/closed or fault indicating contact	Double open/close and fault indicating contact
				
Function	Changeover contact indicating the "open" or "closed" position of the associated device	- Changeover contact indicating the position of the associated device in the event of: - electrical fault - action on the tripping auxiliary	The OF+SD/OF auxiliary is a two-in-one product: choice of OF + SD or OF + OF contact via the selector switch	- Double changeover contact which can report the signalling information of the associated device to the Acti 9 Smartlink or a programmable logic controller: - electrical fault - actuation of the tripping auxiliary "Open" or "Closed" position of the associated device
Wiring diagrams			 	
Utilization	Remote indication of the position of the associated device	Remote fault tripping indication of the associated device	Remote position and/or fault tripping indication of the associated device	Remote indication of position and tripping upon a fault of the associated breaker
Catalogue numbers	A9N26924	A9N26927	A9N26929	A9N26899
C65-DC	■	■	■	■
C120	■	■	■	■
Technical specifications				
Rated voltage (Ue)	V AC	24...415	24...415	24...415
	V DC	24...130	24...130	24...130
Operating frequency	Hz	50/60	50/60	50/60
Mechanical state indicator	—	On front face	On front face	On front face
Test function	On front face	On front face	On front face	On front face
Width in 9 mm modules	1	1	1	1
Operating current	3 A / 415 V AC 6 A / ≤ 240 V AC			2 mA mini, 50 mA maxi
Number of contacts	1 NO/NC	1 NO/NC	1 NO/NC + 1 NO/NC	1 NO + 1 NC
Operating temperature	°C	-25...+50	-25...+50	-25...+70
Storage temperature	°C	-40...+85	-40...+85	-40...+85
Meet the standard	CCC, CE	CCC, CE	CCC, CE	CCC, CE

Connection



Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
Indication and tripping auxiliaries	1 Nm	0.5~2.5 mm ²	2 x 1.5 mm ²



Country approval pictograms

■ The electrical auxiliaries provide the remote tripping or position (open/closed/tripped) indication functions of these devices in the event of a fault.

■ They clip on (no tool required) to the left-hand side of the associated device.

■ The OF+SD/OF auxiliary is a two-in-one product: a mechanical selector switch is used to select one of two contacts: OF+SD or OF+OF.

■ The OF+SD24 auxiliary can report open/closed (OF) status information and intentional or fault tripping of the associated device (SD) to the Acti 9 Smartlink or a programmable logic controller via the TI24 interface (24 V DC).

IEC/EN 60947-1

■ Tripping auxiliaries:

- MN: undervoltage release
- MN^Δ: delayed undervoltage release
- MX: shunt release
- MX+OF: shunt release with open/closed contact
- MV: over voltage release

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■ Indication auxiliaries:

- OF: open/closed contact
- SD: fault indicating contact
- OF+SD/OF: choice of open/closed contact and OF or SD contact via the selector switch

IEC/EN 60947-5-4

■ Indication auxiliaries:

- OF+SD24: pen/close contact OF and cfault indicating contact SD with TI24 interface

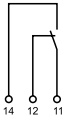
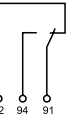
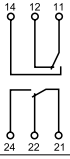
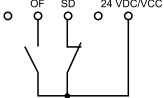


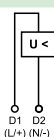
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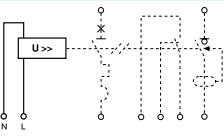
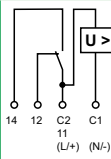
Electrical auxiliaries						Devices	
Indication auxiliaries						Tripping auxiliaries	
Left			Right				
1 most	OF+SD/OF, OF+SD24	+	1 most	OF+SD/OF	+	1 most	MN, MN ^Δ , MX, MX+OF, MV
or							
1 most	OF	+	1 most	OF+SD/OF, SD, OF	+	2 most	MN, MN ^Δ , MX, MX+OF, MV
or							
–	None		1 most	OF+SD24		2 most	MN, MN ^Δ , MX, MX+OF, MV
or							
–	None		–	None		3 most	MV
						C60	



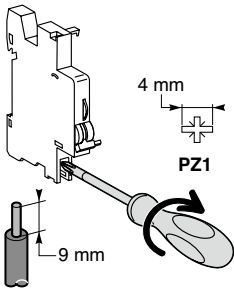
Tripping devices must be installed first.
If two tripping devices are used: the MN undervoltage release must be installed first
Indication auxiliaries: install the SD auxiliary first

Indication				
Auxiliaries	OF	SD	OF+SD/OF	OF+SD24
Type	Open/closed auxiliary contact	Fault indicating contact	Double open/closed or fault indicating contact	Double open/close and fault indicating contact
				
Function	Changeover contact indicating the "open" or "closed" position of the associated device	- Changeover contact indicating the position of the associated device in the event of: - electrical fault - action on the tripping auxiliary	The OF+SD/OF auxiliary is a two-in-one product: choice of OF + SD or OF + OF contact via the selector switch	- Double changeover contact which can report the signalling information of the associated device to the Acti 9 Smartlink or a programmable logic controller: - electrical fault - actuation of the tripping auxiliary "Open" or "Closed" position of the associated device
Wiring diagrams			 	
Utilization	Remote indication of the position of the associated device	Remote fault tripping indication of the associated device	Remote position and/or fault tripping indication of the associated device	Remote indication of position and tripping upon a fault of the associated breaker
Catalogue numbers	26924	26927	26929	A9N26899
C60	■	■	■	■
Technical specifications				
Rated voltage (Ue)	V AC	24...415	24...415	24...415
	V DC	24...130	24...130	24...130
Operating frequency	Hz	50/60	50/60	50/60
Mechanical state indicator	—	On front face	On front face	On front face
Test function	On front face	On front face	On front face	On front face
Width in 9 mm modules	1	1	1	1
Operating current	3 A/415 V AC 6 A / ≤ 240 V AC			2 mA mini, 50 mA maxi
Number of contacts	1 NO/NC	1 NO/NC	1 NO/NC + 1 NO/NC	1 NO + 1 NC
Operating temperature	°C	-25...+50	-25...+50	-25...+70
Storage temperature	°C	-40...+85	-40...+85	-40...+85
Meet the standard	CCC, CE	CCC, CE	CCC, CE	CCC, CE

Tripping			
Auxiliaries	MN		MN ^S
Type	Undervoltage release		
	Instantaneous		Delayed
			
Function	■ Causes the device with which it is associated to trip when its input voltage decreases (between 70 % and 35 % of U _n). Prevents the device from closing until its input voltage has been restored		
			■ No tripping in the event of transient voltage dips (up to 0.2 s)
Wiring diagrams			
Utilization	■ Emergency stop via a normally-closed pushbutton ■ Ensures the safety of the power supply circuits of several machines by preventing accidental startups		
Catalogue numbers	26960	26961	26963
C60	■	■	■
Technical specifications			
Rated voltage (U _e)	V AC	220…240	48
	V DC	—	48
Tripping power	Attraction power (W or VA) / Voltage V	3.5 (220…240 V AC); 1.6 (48 V AC); 1.1 (48V DC)	3.6 (220 V AC)
Operating frequency	Hz	50/60	50/60
Mechanical state indicator light, red	On front face		On front face
Width in 9 mm modules	2		2
Operating current	—		—
Number of contacts	—		—
Operating temperature	°C	-25…+50	-25…+50
Storage temperature	°C	-40…+85	-40…+85
Meet the standard	CE		CE

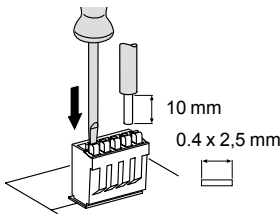
MV	MX	MX+OF				
Over voltage release	Shunt release	With Open/Close auxiliary contact				
						
■ Switches off the power supply by opening the breaker with which it is combined, in the event that the phase/neutral voltage is exceeded (loss of neutral). For a four-phase network, use three MX tripping auxiliaries. Tripping voltage: 280 ± 5% V AC	■ Trips the associated device when it is powered on	■ Includes an open/close contact (OF) to indicate the “open” or “closed” position of the breaker				
						
■ Switches off the power supply by opening the breaker with which it is combined, in the event that the phase/neutral voltage is exceeded (loss of neutral). For a four-phase network, use three MX tripping auxiliaries. Tripping voltage: 280 ± 5% V AC	■ Emergency stop via a normally-open pushbutton.	■ Emergency stop via a normally-open pushbutton ■ Remote indication of the position of the associated device				
917132	26476	26477	26478	26946	26947	26948
■	■	■	■	■	■	■
230	100…415	48	12…24	100…415	48	12…24
–	110…130	48	12…24	110…130	48	12…24
128 (230 V AC)	400 (415 V AC); 130 (230V AC); 35 (110 V AC); 45 (110 V DC); 32 (48V AC/DC); 135 (24 V AC/DC); 30 (12 V AC/DC)			400 (415 V AC); 130 (230V AC); 35 (110 V AC); 45 (110 V DC); 32 (48V AC/DC); 135 (24 V AC/DC); 30 (12 V AC/DC)		
50/60	50/60			50/60		
On front face	On front face			On front face		
2	2			2		
–	–			3 A / 415 V AC 6 A / ≤ 240 V AC		
–	–			1 NO/NC		
-25…+50	-25…+50			-25…+50		
-40…+85	-40…+85			-40…+85		
CE	CE			CCC, CE		

Connection



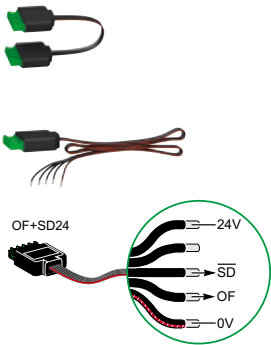
Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
Indication and tripping auxiliaries	1 Nm	0.5~2.5 mm ²	2 x 1.5 mm ²

Ti24 connector connection



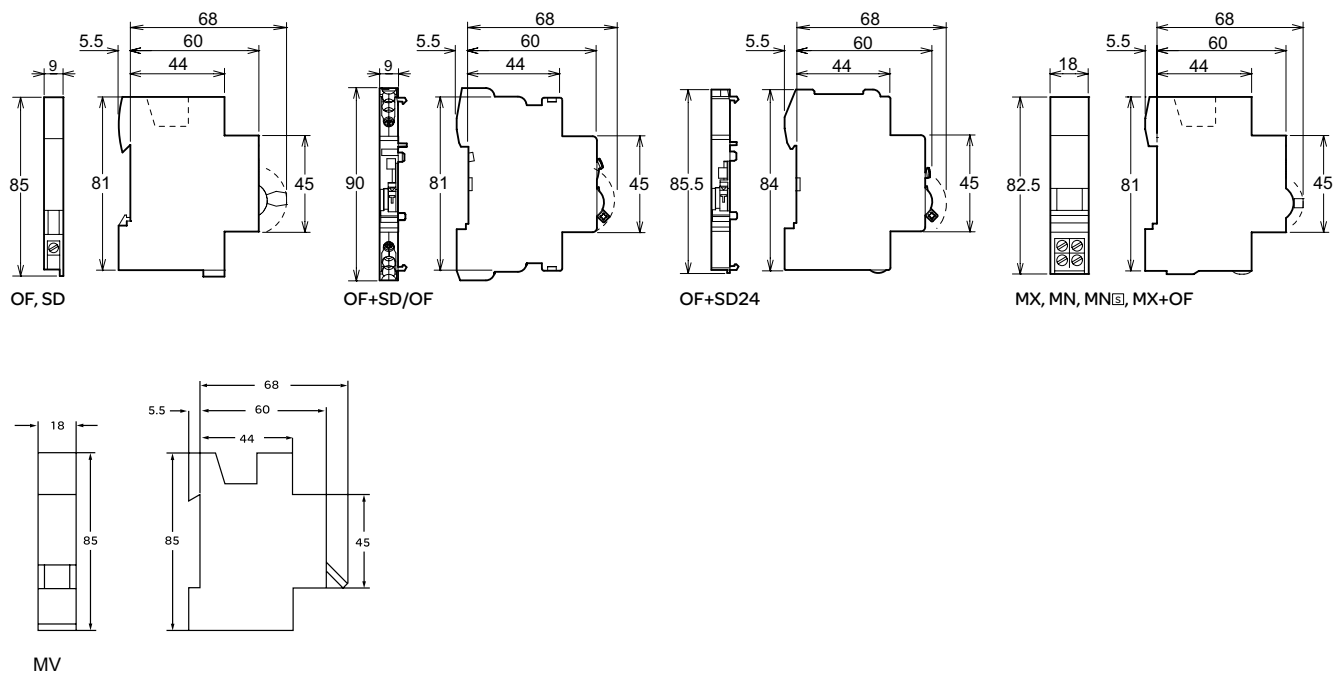
Type	Wiring terminal	Catalogue numbers	Copper cables	
			Rigid	Flexible
Ti24 interface	Spring compression terminals	A9XC2412	1 x 0.5~1.5 mm ²	1 x 0.5~1.5 mm ²

Ti24 prefabricated cables connection



Type	Catalogue numbers	Length
Connection for Acti9 Smartlink		
6 short prefabricated	A9XCAS06	100 mm
6 medium-sized prefabricated	A9XCAM06	160 mm
6 long prefabricated	A9XCAL06	870 mm
Connection for PLC type terminals		
6 long prefabricated on a single side	A9XCAU06	870 mm

Dimensions (mm)



Electrical auxiliaries

NG125 devices and for Vigti NG125 add-on
residual current devices



Country approval pictograms

- The electrical auxiliaries are combined with NG125 circuit breakers and NG125 switchdisconnectors; they provide the remote tripping or position (open/closed/tripped) indication functions of these devices in the event of a fault.
- They clip on (no tool required) to the left-hand side of the associated device.

IEC/EN 60947-2

- Tripping auxiliaries:
 - MN: undervoltage release
 - MX+OF: shunt release with open/closed contact
 - MXV: shunt release for Vigti add-on residual current device

IEC/EN 60947-5-1
GB14048.5

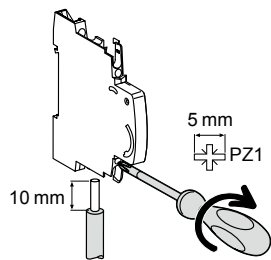
- Indication contacts:
 - OF+OF: open/closed contact
 - OF+SD: fault indicating contact
 - MX+OF: shunt release with open/closed contact
 - SDV: fault indicating contact for Vigti add-on residual current device.



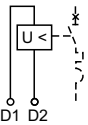
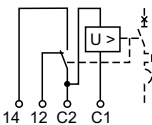
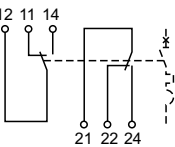
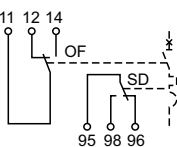
Combination table

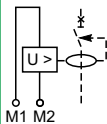
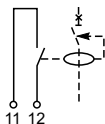
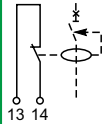
Electrical auxiliaries		Device
Indication auxiliaries	Tripping auxiliaries	 NG125
	Max. quantity	
2 (OF+OF or OF+SD)	+ 1 (MX+OF or MN)	

Connection



Type	Tightening torque	Copper cables		Multi-cable terminal	
		Rigid	Flexible or with ferrule	Flexible or rigid cables	Cables with ferrule
Indication contacts	1 N.m				
Tripping auxiliaries	1 N.m	0.5 ~ 2.5 mm ²	0.5 ~ 1.5 mm ²	2 x 2.5 mm ²	2 x 1.5 mm ²

		Tripping			Signalisation	
Auxiliaries		MN	MX+OF		OF+OF	OF+SD
Type		Undervoltage release Instantaneous	Shunt release With open/closed auxiliary contact		Auxiliary contact	Fault indicating contact
						
Function						
		Causes tripping of the device with which it is combined when its input voltage decreases (between 70% and 35% of U_n). Prevents closing of the device until its input voltage has been restored	- Causes tripping of the associated device when powered - Includes an open/closed contact (OF) to indicate the "open" or "closed" position of the associated device		Double changeover contact indicating "open" or "closed" position of the associated device	- Double changeover contact indicating: - the position of the associated device in the event of: - electrical fault - actuation of the tripping auxiliary - the "open" or "closed" position of the associated device
Wiring diagrams						
						
Utilization						
		- Emergency stop by normally-closed pushbutton - Ensures safety of the power supply circuits for several machines by preventing untimely restarting	Provided with a self-interrupting contact		Remote indication of the position of the associated device	Remote indication of tripping upon a fault of the associated device
Catalogue numbers		19067	19064	19065	19066	19071
						19072
Technical specifications						
Rated voltage (U_e)	V AC	220...240	230...415	48...130	24	220...240
	V DC	—	110...130	48	24	—
Operating frequency	Hz	50/60	50/60			50/60
Mechanical state indicator light, red		On front face	On front face			—
Width in 9 mm modules		2	2		1	1
Current rating		—	≥ 240 V AC	3 A	240 V AC	6 A
			< 240 V AC	6 A	415 V AC	3 A
			130 V CC	1 A		
			≤ 48 V CC	2 A		
			≤ 24 V CC	6 A		
Number of contacts		—	1 NO/NC		2 NO/NC	2 NO/NC
Operating temperature	°C	-25...+60	-25...+60		-25...+60	-25...+60
Storage temperature	°C	-40...+85	-40...+85		-40...+85	-40...+85
Meet the standard		CE	CCC, CE		CCC, CE	CCC, CE

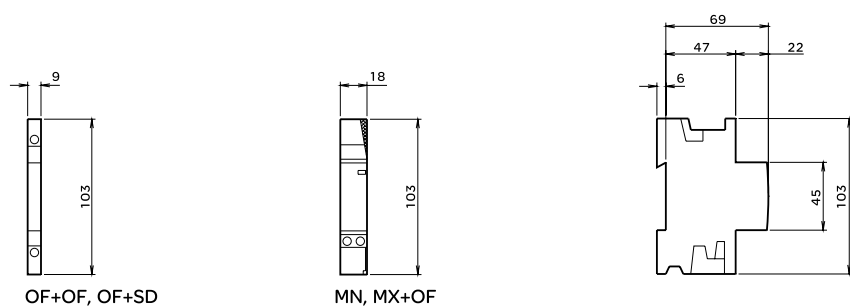
		Indication	
Auxiliaries		MXV	SDV
Type		Shunt release	Vigi fault indicating contact
			
Function		■ At power up, actuates tripping of a circuit breaker or residual current circuit breaker ■ It is provided with a self-interrupting contact	■ Normally-closed or normally-open contact indicating tripping upon an earth fault (including tripped by MXV)
Wiring diagrams			 
Utilization		■ Adaptable to 125 A Vigi add-on residual current device, all types, and to 63 A Vigi add-on residual current device, adjustable ■ Impulse withstand voltage: 6 kV ■ High-impedance input: use an iACTp if the leakage current in the control unit exceeds 1 mA (e.g. illuminated pushbutton)	■ Adaptable to 125 A Vigi add-on residual current device, all types, and to 63 A Vigi add-on residual current device, adjustable
Catalogue numbers		19060	19058 19059
Suitable for the following devices:			
I/S/D Vigì NG125		■	■
Technical specifications			
Rated voltage (Ue)	V AC	110...240	250
	V DC	110	—
Operating frequency	Hz	50/60	50/60
Number of contacts		—	1 NO 1 NC
Current rating		—	0.1 ~ 1 A (AC14)
Operating temperature	°C	-25...+60	-25...+60
Storage temperature	°C	-40...+85	-40...+85
Meet the standard		CCC, CE	CCC, CE

Technical data

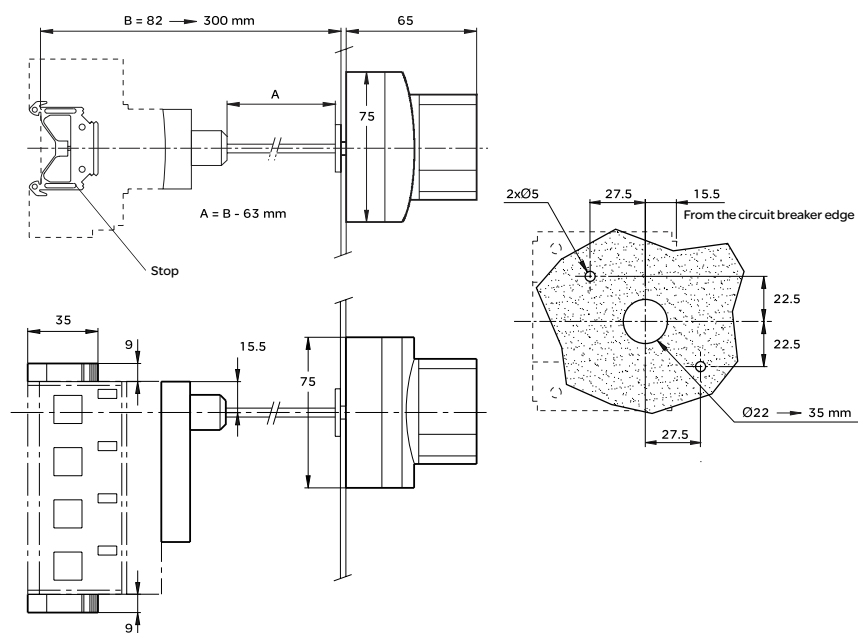
According to IEC 60947

Insulation voltage (Ui)	500 V
Rated impulse withstand voltage (Uimp)	6 kV
Pollution level	3
Electrical life (AC 15)	10,000 次

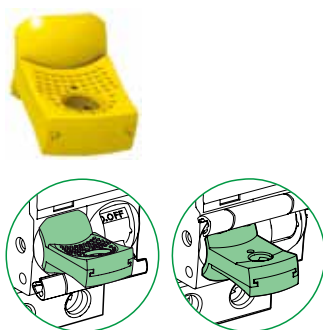
Dimensions (mm)



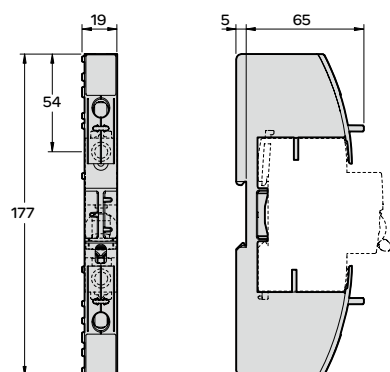
NG125 electrical auxiliaries



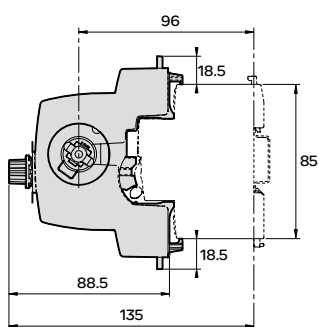
NG125 extension handle

Mounting					
Accessories	Rotary handle			Plug-in base	Padlocking device
					
Function	Front or side-mounted control ■ Degree of protection: IP55 rotary handle ■ Installation: □ the control mechanism is mounted on the device □ the rotary handle is fixed to the front or side of the enclosure ■ Front-mounted (on door or faceplate) ■ Prevents the door from opening when the circuit breaker is in the ON position (can be deactivated) ■ Can be padlocked when the device is in the "open" position (can be padlocked with the device in the "closed" position subject to adaptation) ■ Can be locked by padlock of (dia. 5 to 8 mm), not supplied with the device			Allows a breaker to be removed or replaced quickly, without handling the connections ■ Degree of protection: IP20 ■ Consists of: □ a base to be fastened on a rail (or panel) □ 2 "blades" to be fastened in the device's terminals ■ Connection: tunnel terminals for cable up to 35 mm² rigid, 25 mm² flexible, ■ Installation: □ in universal enclosure □ on horizontal rail ■ Height: 178 mm ■ Not compatible with Vigti iC65 and auxiliaries ■ Can be locked by padlock of (dia. 6 mm), not supplied with the device	Used to padlock breaker in open or closed position ■ Padlock diameter: 3 to 6 mm ■ Sealable (max. diameter: 1.2 mm) ■ Locking in ON position does not prevent tripping of the breaker in the event of faults ■ Suitable for IEC/EN 60947-2 compliant disconnection
Catalogue numbers	A9A27005 black handle	A9A27006 red handle	A9A27008 no handle	A9A27003 (1 pole)	A9A26970
Set of	1	1	1	1	10
Used for					
iC65	■ 2P, 3P, 4P			■	■
iC65 + Vigti iC65	■ 2P, 3P, 4P			–	■
iID	–			■ ≤63 A	■

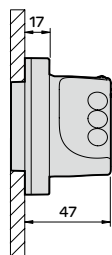
Dimension (mm)



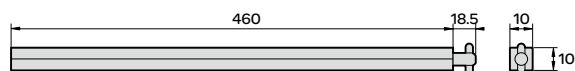
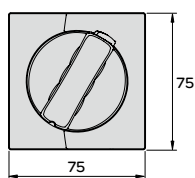
Plug-in base



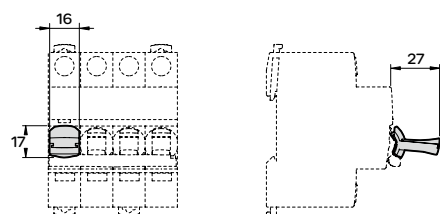
Adapter mechanism without handle



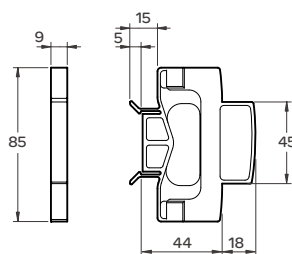
Rotary handle



Rotary handle

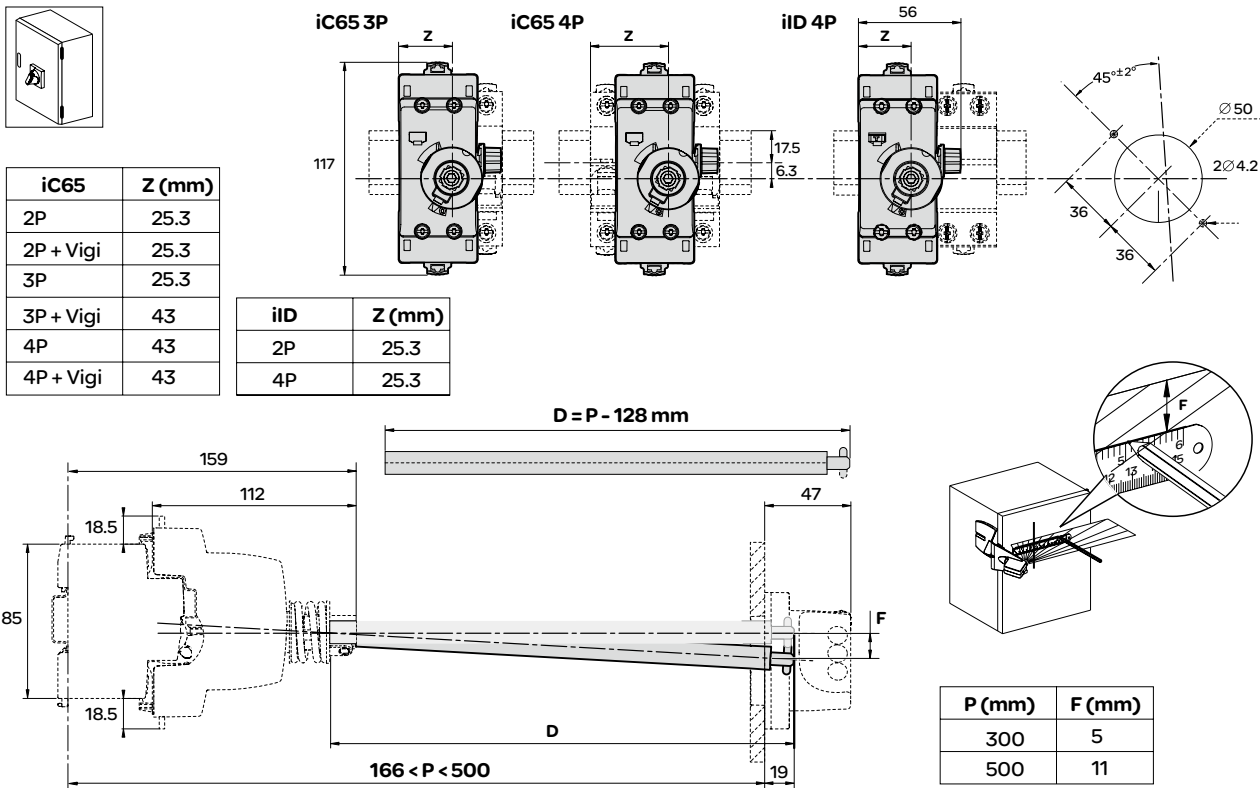


Padlocking device



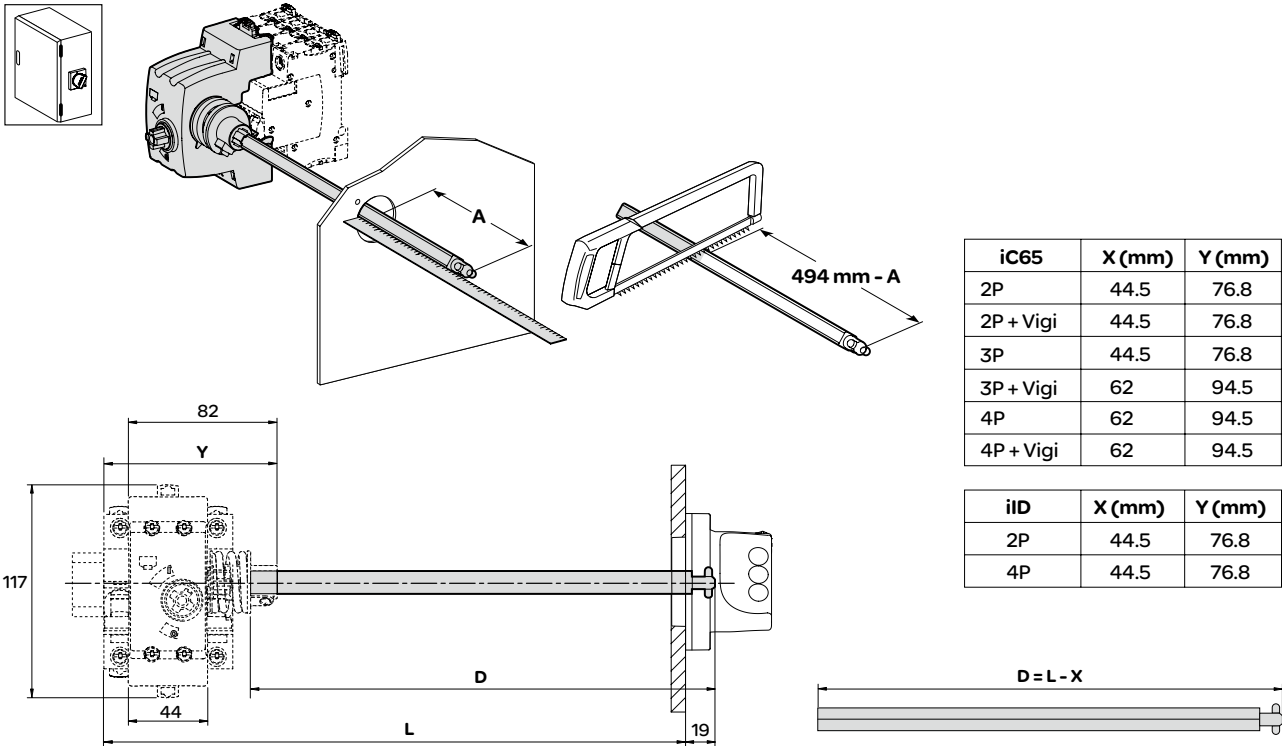
Spacer

Installation of rotary handle



Rotary handle : Front installation

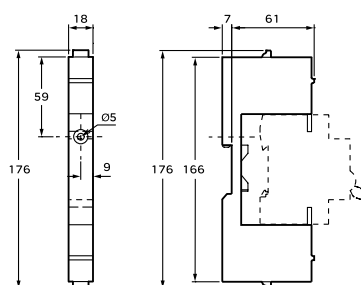
Installation of rotary handle



Rotary handle : Side installation

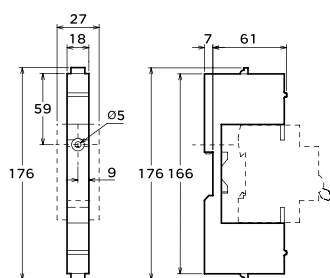
Mounting							
Accessories	Rotary handle			dividable mounting plate ≤ 63A	Padlocking device		Spacer
							
Function	● front or lateral control of 2, 3 and 4-pole circuit-breakers ● degree of protection: IP54, IK10 ● installation: ○ circuit-breaker switching sub-assembly cat. no.27046 is fixed onto the circuit-breaker ○ disconnectable handle: cat. no.27047 is mounted on the front face on the mobile panel or the enclosure door ○ fixed handle: cat. no.27048 is fixed onto the enclosure's lateral side ● a complete rotary handle is made up of a circuit-breaker switching sub-assembly cat. no. 27046, handle cat. no.27047 or handle cat. no.27048.			● allows isolation with positive break indication ● can be locked using a padlock with a max.Ø of 8mm, which is not supplied ● mounting possibilities: ○ in a vertical or horizontal position ○ centre distance between two rows: min. of 200 mm ○ in Prisma enclosure or cabinet ○ only on single circuit-breaker(without earth leakage module or auxiliary) ○ connection: tunnel terminals for cable of up to 35 mm²	● allows the device to be locked in the "open" or "closed" position (using padlock with max. of Ø8 mm, not supplied)		Spacer can be used for ● aligning devices ● completing rows ● separating devices in case of excessive overheating
Catalogue numbers	27046 circuit-breaker switching sub-assembly(fixed onto circuit-breaker)	27047 extended, disconnectable handle (mounted onto mobile panel or door)	27048 front or lateral fixed handle (mounted onto panel)	26996	26970	27145	27062 width: 9mm
Set of	1	1	1	1	2	4	1
Used for							
C65N-DC	● 2P			●	●	-	●
C65H-DC	● 2P			●	●	-	●
C65L-DC	● 2P			●	●	-	●
C60	● 2P, 3P, 4P			●	●	-	●
C120	● 2P, 3P, 4P			●	-	●	●

Dimensions (mm)

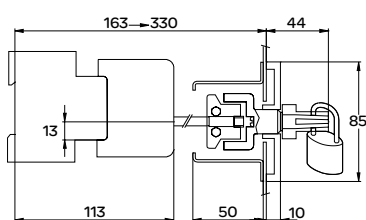


dividable mounting plate

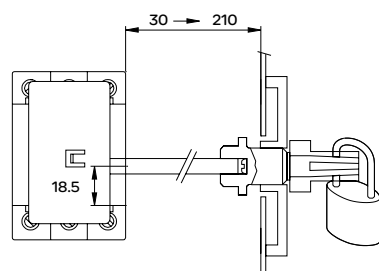
C120 63A Mounted

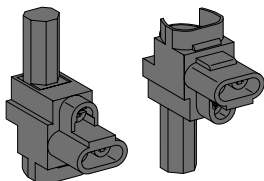


Front assembly dimension of rotary handle

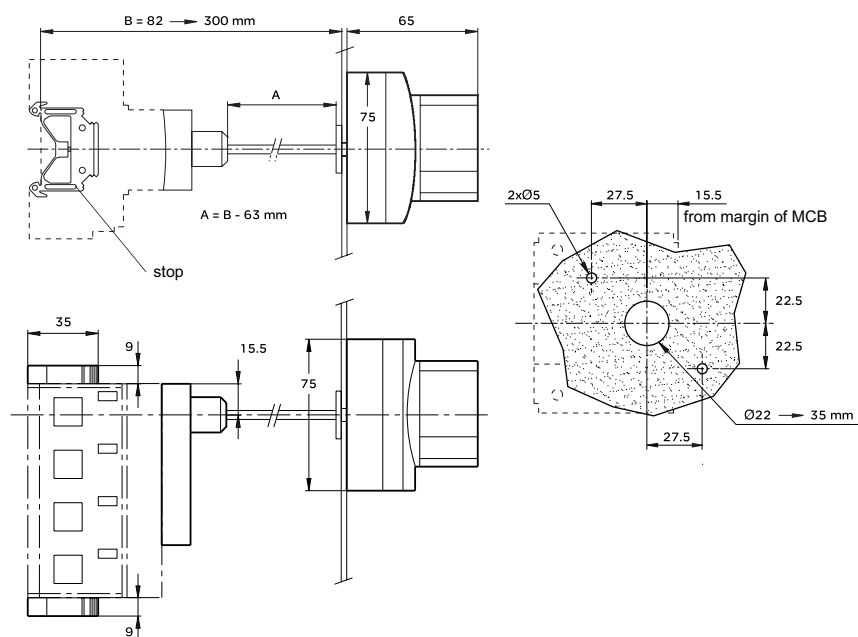


Right assembly dimension of rotary handle



Mounting					
Accessories	Rotary handle		Padlocking device	绝缘分线终端	
					
Function	● Degree of protection: rotary button IP55 ● Front installation ● Prevents door opening when the circuit breaker is in position O ● Keeps disconnection ● Padlocking possible when the device is in position O ● Padlock diameter: 3 to 6 mm		● In position I or O of NG125 1P or 2P circuit breakers ● In position I or O NG125 3P or 4P circuit breakers or switches ● Padlock: dia. 5 to 8 mm (not supplied) Note: NG125 3P/4P circuit breakers and switches are provided with padlocking in position O (disconnected) as original equipment	For 3 copper cables ● Flexible up to 10 mm² ● Rigid up to 16 mm²	
Catalogue numbers	19088 Extended standard black	19089 Extended safety	19090	19091	19096
Set of	1	1	4	4	3
Used for					
NG125	● 3P, 4P		●	●	

Dimensions (mm)



NG125 rotary handle



1P+N



3P+N

Maximum discharge current (I _{max}) / Standard discharge current (I _n)	Protection type	Type					
	Incoming	1P	1P+N	2P	3P	3P+N	4P
120 kA / 60 kA	iPR120r	A9L916870	-	A9L916870 x2	A9L916870 x3	-	A9L916870 x4
80 kA / 40 kA	iPR80r	A9L916865	A9L916865 + A9L916864	A9L916865 x2	A9L916865 x3	A9L916865 x3 + A9L916864	A9L916865 x4
65 kA / 35 kA	iPR65r	A9L916800	-	-	-	-	-
		-	A9L916802	-	-	-	-
		-	-	A9L916803	-	-	-
		-	-	-	A9L916804	-	-
		-	-	-	-	A9L916806	-
		-	-	-	-	-	A9L916807
40 kA / 20 kA	iPR40r/40	A9L916808/ A9L916809	-	-	-	-	-
		-	A9L916812/ A9L916813	-	-	-	-
		-	-	A9L916814/ A9L916815	-	-	-
		-	-	-	A9L916816/ A9L916817	-	-
		-	-	-	-	A9L916820/ A9L916821	-
		-	-	-	-	-	A9L916822/ A9L916823
20 kA / 10 kA	iPR20r/20	A9L916844/ A9L916824	-	-	-	-	-
		-	A9L916825/ A9L916826	-	-	-	-
		-	-	A9L916847/ A9L916827	-	-	-
		-	-	-	A9L916848/ A9L916828	-	-
		-	-	-	-	A9L916850/ A9L916830	-
		-	-	-	-	-	A9L916851/ A9L916831
10 kA / 5 kA	iPR10	A9L916832	-	-	-	-	-
		-	A9L916834	-	-	-	-
		-	-	A9L916835	-	-	-
		-	-	-	A9L916836	-	-
		-	-	-	-	A9L916838	-
		-	-	-	-	-	A9L916839

	Earthing system	Surge arresster name	Width (in mod. of 9mm)	Up - (kV)			Un - (V)	Uc - (V)		
				CM*		DM*		CM		DM*
				L/t	N/t	L/N		L/t	N/t	L/N
iPR120r										
	TT & TN	iPR120r 1P	4 (A9L916870)	2.1	2.1	-	230/400	340	340	-
iPR80r										
	TT & TN	iPR80r 1P	4	≤ 2.0	-	-	230	340	-	340
	TT & TN-S	iPR80r 1P+iPR80 Gn	6	≤ 2.7	≤ 1.0	≤ 2.0		440	260	340
	TN-C	iPR80r 1P x 2	8	≤ 2.0	≤ 2.0	-	230/400	340	340	-
	TN-C	iPR80r 1P x 3	12	≤ 2.0	-	-		340	-	-
	TT & TN-S	iPR80r 1P x 3 + iPR80 Gn	14	≤ 2.7	≤ 1.0	≤ 2.0		440	260	340
	TN-C	iPR80r 1P x 4	16	≤ 2.0	≤ 2.0	≤ 2.0		340	340	-
iPR65r										
	TT & TN	iPR65r 1P	2	≤ 2.0	-	-	230	340	-	340
	TT & TN-S	iPR65r 1P+N	4	≤ 2.1	≤ 1.0	≤ 2.0		440	260	340
	TN-C	iPR65r 2P		≤ 2.0	≤ 2.0	-	230/400	340	340	-
	TN-C	iPR65r 3P	6	≤ 2.0	-	-		340	-	-
	TT & TN-S	iPR65r 3P+N	8	≤ 2.1	≤ 1.0	≤ 2.0		440	260	340
	TN-C	iPR65r 4P		≤ 2.0	≤ 2.0	-		340	340	-
iPR40r/40										
	TT & TN	iPR40r/40 1P	2	≤ 1.5	-	-	230	340	-	340
	TT & TN-S	iPR40r/40 1P+N	4	≤ 1.6	≤ 1.0	≤ 1.5		440	260	340
	TN-C	iPR40r/40 2P		≤ 1.5	≤ 1.5	-	230/400	340	340	-
	TN-C	iPR40r/40 3P	6	≤ 1.5	-	-		340	-	-
	TT & TN-S	iPR40r/40 3P+N	8	≤ 1.6	≤ 1.0	≤ 1.5		440	260	340
	TN-C	iPR40r/40 4P		≤ 1.5	≤ 1.5	-		340	340	-
iPR20r/20										
	TT & TN	iPR20r/20 1P	2	≤ 1.2	-	-	230	340	-	340
	TT & TN-S	iPR20r/20 1P+N	4	≤ 1.3	≤ 1.0	≤ 1.2		440	260	340
	TN-C	iPR20r/20 2P		≤ 1.2	≤ 1.2	-	230/400	340	340	-
	TN- C	iPR20r/20 3P	6	≤ 1.2	-	-		340	-	-
	TT & TN-S	iPR20r/20 3P+N	8	≤ 1.3	≤ 1.5	≤ 1.2		440	260	340
	TN-C	iPR20r/20 4P		≤ 1.2	≤ 1.2	-		340	340	-
iPR10										
	TT & TN	iPR10 1P	2	≤ 1.0	-	-	230	340	-	340
	TT & TN-S	iPR10 1P+N	4	≤ 1.1	≤ 1.0	≤ 1.0		440	260	340
	TN-C	iPR10 2P		≤ 1.0	≤ 1.0	-	230/400	340	340	-
	TN-C	iPR10 3P	6	≤ 1.0	-	-		340	-	-
	TT & TN-S	iPR10 3P+N	8	≤ 1.1	≤ 1.0	≤ 1.0		440	260	340
	TN-C	iPR10 4P		≤ 1.2	≤ 1.0	-		340	340	-

* CM: common mode (phase to earth and neutral to earth). * DM: differential mode (phase to neutral).



1P+N



3P+N

New pluggable surge arrester has higher standard discharge current and operating voltage and can be applied in TN-C, TN-S and TT system. It has shorter response time and better voltage protection level.

Maximum continuous operating voltage U_c lies on:

- Earth system
- Protection type: common mode (L/PE)/differential mode (L/N)

Application

- Inlet protection

iPR 120r/iPR 80r is used in protection of the main inlet cabinet

- Secondary protection

iPR 65r/iPR 40 is used in secondary protection of the load and in cascading with the inlet surge arresters

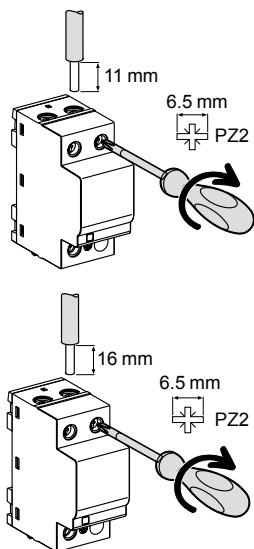
- Third class protection

iPR 20/iPR 10 is used in third class protection of the equipment and in cooperation with prepositive protection

Surge arrester / circuit breaker association

Type of surge arrester	Type of circuit breaker
iPR120r	C120H 80A / NG125H 80A
iPR80r	C120H 63A / NG125H 63A
iPR65r	iC65H 50A / NG125 50A
iPR40r/40	iC65H 40A / NG125 40A
iPR20r/20	iC65N 25A / C65H 25A
iPR10	iC65N 20A / C65N 20A

Type	Name	Un (V)	Uc (V)			Up (kV)	Width (mod of 9mm)	Reference
			L-N	L-PE	N-PE			
Replaceable	iD120-340	230	340	340		2.1	4	A9L916867
	iD80-340	230	340	440		2.0	4	A9L916862
	iD80Gn	230			260	1.5	2	A9L916863
	iD65-340	230	340	440		2.0/2.1	2	A9L916840
	iDGn	230			260	1.5	2	A9L916842
	iD40-340	230/400	340	440		1.5	2	A9L916843
	iD20-340	230/400	340	440		1.2	2	A9L916846
	iD10-340	230/400	340	440		1.0	2	A9L916849



Connection

Type		Tightening torque	Copper cables	
			Rigid	Flexible or ferrule
iPR10 / 20	Ph / N	3.5 Nm	16 mm ² maximum	10 mm ² maximum
	⏏	3.5 Nm	25 mm ² maximum	16 mm ² maximum
iPR40 / 65 / 80 / 120	Ph / N	3.5 Nm	25 mm ² maximum	16 mm ² maximum
	⏏	3.5 Nm	50 mm ² maximum	35 mm ² maximum

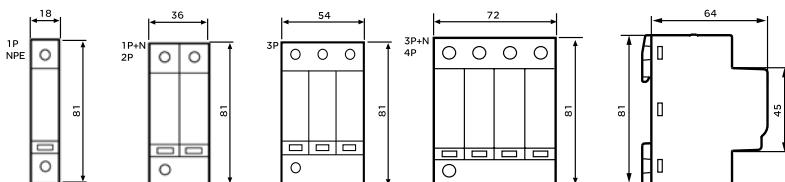
Technical data

Operating frequency	50/60 Hz
Permanent operating current (I _c)	1P/2P/3P/4P: < 800 μA 1P+N/3P+N/N-PE: 0 μA
Response time	< 25 ns
Operating condition indication: by mechanical indicator	White in operation Red end of life
Operating temperature	-20°C to +60°C
Storage temperature	-40°C to +70°C
Connection	Phase cable Flexible: 2.5 ... 25 mm ² Rigid: 2.5 ... 35 mm ² Earthing cable I _{max} ≥ 80kA: ≥ 25mm ² I _{max} ≤ 65kA: ≥ 16mm ²
Screw	Standard torque (Nm) 3.5 Maximum torque (Nm) 5
Protection degree	Cable terminal IP20 Front panel IP40
Remote indicator	11 common contact, 12 break contact, 14 make contact Maximum switch current: 2 A Operating voltage: AC 250V, DC 220V Switch consumption: 62.5 VA
Standard	IEC61643-11/class II test and GB18802.1

Weight (g)

Surge arresters	
Type	iPR
1P	142
1P+N	234
2P	275
3P	402
3P+N	496
4P	532

Dimensions (mm)



New settled surge arrester has higher standard discharge current and operating voltage and can be applied in TN-C, TN-S and TT system. It has shorter response time and better voltage protection level. Electronic alarm is adopted innovatively.

Application

-Inlet protection

iST 65r is recommended for high risk occasions

iST 40 is recommended for low risk occasions

-Secondary protection

iST 20 is used in secondary protection of the load and in cascading with the inlet surge arresters

-Neutral-to-earth protection

iST G is used in protection of the neutral cables to earth cables



1P+N



3P+N

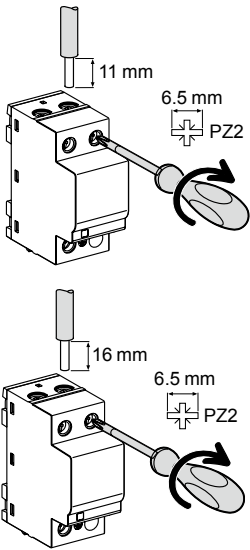
Maximum discharge current (I _{max}) / Standard discharge current (I _n)	Protection type	Type					
65kA/(35/40kA)	Incoming	1P	1P+N	2P	3P	3P+N	4P
		iST65	A9L916600	-	-	-	-
		iST65	-	A9L916603	-	-	-
		iST65	-	-	A9L916604	-	-
		iST65r/65	-	-	-	A9L916605/ A9L916606	-
		iST65r/65	-	-	-	-	A9L916607/ A9L916608
40 kA / 20 kA		iST40	A9L916609	-	-	-	-
		iST40	-	A9L916611	-	-	-
		iST40	-	-	A9L916612	-	-
		iST40	-	-	A9L916613	-	-
		iST40r/40	-	-	-	A9L916614/ A9L916615	-
		iST40r/40	-	-	-	-	A9L916616/ A9L916617
20 kA / 10 kA		iST20	A9L916618	-	-	-	-
		iST20	-	A9L916620	-	-	-
		iST20	-	-	A9L916621	-	-
		iST20	-	-	A9L916622	-	-
		iST20r/20	-	-	-	A9L916623/ A9L916625	-
		iST20	-	-	-	-	A9L916624

Surge arrester / circuit breaker association

Type of surge arrester	Type of circuit breaker
iST65r/65	iC65H 50A / NG125 50A
iST40r/40	iC65H 40A / NG125 40A
iST20r/20	iC65N 25A / C65H 25A

	Earthing system	Surge arresster name	Width (in mod. of 9mm)	Up - (kV)			Un - (V)	Uc - (V)		
				CM*		DM*		CM*		DM*
				L/t	N/t	L/N		L/t	N/t	L/N
iST65r/65										
	TT & TN	iST65 1P	2	≤ 1.8	-	≤ 1.8	230	340	-	340
	TN-C	iST65 2P	4	≤ 1.8	≤ 1.8	≤ 1.8		340	340	-
	TN-C	iST65 3P	6	≤ 1.8	-	≤ 1.8	230/400	340	-	-
	TT & TN-S	iST65r/65 3P+N	8	≤ 1.9	≤ 1.0	≤ 1.8		440	260	340
	TN-C	iST65r/65 4P		≤ 1.8	≤ 1.8	≤ 1.8		340	340	-
iST40r/40										
	TT & TN	iST40 1P	2	≤ 1.5	-	≤ 1.5	230	340	-	340
	TT & TN-S	iST40 1P+N	4	≤ 1.7	≤ 1.0	≤ 1.5		440	260	340
	TN-C	iST40 2P		≤ 1.5	≤ 1.5	≤ 1.5		340	340	-
	TN-C	iST40 3P	6	≤ 1.5	-	≤ 1.5	230/400	340	-	-
	TT & TN-S	iST40r/40 3P+N	8	≤ 1.7	≤ 1.0	≤ 1.5		440	260	340
	TN-C	iST40r/40 4P		≤ 1.5	≤ 1.5	≤ 1.5		340	340	-
iST20										
	TT & TN	iST20 1P	2	≤ 1.2	-	≤ 1.2	230	340	-	340
	TT & TN-S	iST20 1P+N	4	≤ 1.3	≤ 1.0	≤ 1.2		440	260	340
	TN-C	iST20 2P		≤ 1.2	≤ 1.2	≤ 1.2		340	340	-
	TN- C	iST20 3P	6	≤ 1.2	-	≤ 1.2	230/400	340	-	-
	TT & TN-S	iST20r/20 3P+N	8	≤ 1.3	≤ 1.0	≤ 1.2		440	260	340
	TN-C	iST20 4P		≤ 1.2	≤ 1.2	≤ 1.2		340	340	-

* CM: common mode (phase to earth and neutral to earth). * DM: differential mode (phase to neutral).



Connection

Type		Tightening torque	Copper cables	
			Rigid	Flexible or ferrule
iST 20 / 40 / 65	Ph / N	3.5 Nm		
	⏚	3.5 Nm	2.5~35 mm ² ≥ 16 mm ²	2.5~25 mm ² ≥ 16 mm ²

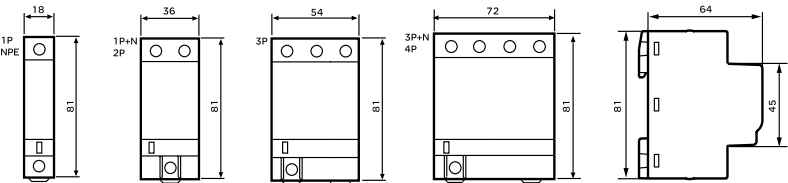
Technical data

Operating frequency		50/60 Hz
Permanent operating current (Ic)		1P/2P/3P/4P: < 800 μA
		1P+N/3P+N/N-PE: 0 μA
Response time		< 25 ns
Operating condition indication: by mechanical indicator	Green	in operation
	Red	end of life
Remote indication		Remote indicator contact, NC 250 V / 0.25 A
Operating temperature		-20°C to +60°C
Storage temperature		-40°C to +70°C
Connection	Phase cable	Flexible: 2.5 ... 25 mm ² Rigid: 2.5 ... 35 mm ²
	Earthing cable	Flexible or rigid: ≥ 16 mm ²
Screw	Standard torque (Nm)	3.5
	Maximum torque (Nm)	5
Protection degree		Cable terminal IP20
		Front panel IP40
Standard		IEC61643-11/class II test and GB18802.1

Weight (g)

Surge arresters	
Type	iST
1P	131
1P+N	216
2P	257
3P	407
3P+N	456
4P	498

Dimensions (mm)



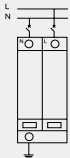
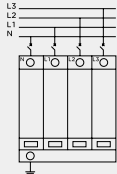
iPT pluggable surge arrester is designed wholly for corresponding power-supply with higher maximum continuous operating voltage (385V) and more ideal voltage protection level, and can protect the corresponding power-supply roundly with more stable operation condition.



1P+N



3P+N

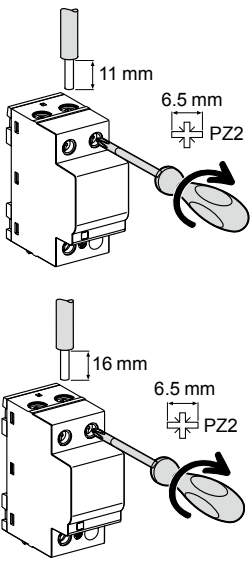
Maximum discharge current (Imax) / Standard discharge current (In)	Protection type	Type	
			
40 kA / 15 kA	Incoming	1P+N	3P+N
	iPT40	A9L916873	-
	iPT40r/40	-	A9L916871 / A9L916872
20 kA / 5 kA	iPT20	A9L916876	-
	iPT20r/20	-	A9L916874 / A9L916875

Surge arrester / circuit breaker association	
Type of surge arrester	Type of circuit breaker
iPT40r/40	iC65H 40A / NG125 40A
iPT20r/20	iC65N 25A / C65H 25A

	Earthing system	Surge arrester name	Width (in mod. of 9mm)	Up - (kV)			Un - (V)	Uc - (V)		
				CM*		DM*		CM*		DM*
				L/⊥	N/⊥	L/N		L/⊥	N/⊥	L/N
IPT40										
	TT & TN-S	iPT40 1P+N	4	≤ 1.8	≤ 1.0	≤ 1.6	230	-	260	385
	TT & TN-S	iPT40r/40 3P+N	8	≤ 1.8	≤ 1.0	≤ 1.6	230/400	-	260	385
IPT20										
	TT & TN-S	iPT20 1P+N	4	≤ 1.6	≤ 1.0	≤ 1.5	230	-	260	385
	TT & TN-S	iPT20r/20 3P+N	8	≤ 1.6	≤ 1.0	≤ 1.5	230/400	-	260	385

* CM: common mode (phase to earth and neutral to earth). * DM: differential mode.

Type	Name	Un (V)	Uc (V)		Up (kV)	Width (mod of 9mm)	Reference
			L-N	N-PE			
Replaceable	D40-385	230/400	385	-	1.6	2	A9L916885
	D20-385	230/400	385	-	1.5	2	A9L916886
	DGn	230	-	260	1.5	2	A9L916887



Connection

Type		Tightening torque	Copper cables	
			Rigid	Flexible or ferrule
iPT 20 / 40	Ph / N	3.5 Nm		
	⏏	3.5 Nm	2.5~35 mm ² ≥ 16 mm ²	2.5~25 mm ² ≥ 16 mm ²

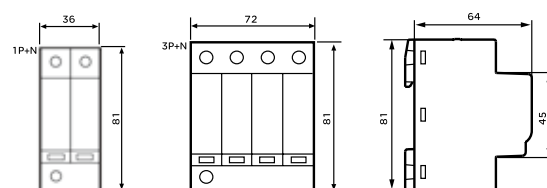
Technical data

Operating frequency		50/60 Hz
Operating voltage		230/400 V AC
Permanent operating current (Ic)		1P+N/3P+N/N-PE: 0 μA
Screw	Standard torque (Nm)	3.5
	Maximum torque (Nm)	5
Response time		< 25 ns
Operating temperature		-20°C to +60°C
Storage temperature		-40°C to +70°C
Connection		Flexible: 2.5 ... 25 mm ²
		Rigid: 2.5 ... 35 mm ²
Protection class		IP20
Standard		GB 18802.1 and YD1235.1

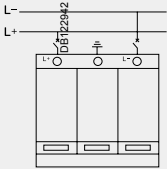
Weight (g)

Surge arresters	
Type	iPT
1P+N	235
3P+N	492

Dimensions (mm)

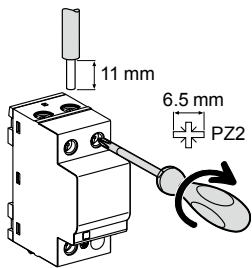


PR-DC protects PV and also has potential application in other DC system

Protection type	Type	
		
Incoming	2P+1	3P
iPR-DC	A9L16434	-
	-	A9L16436

	Earthing system	Surge arrester name	Width (in mod. of 9mm)	Up - (kV)	U _{OCSTC} - (V)	Uc - (V)		
						L+/L-	L+/PE	L-/PE
iPR-DC								
	TN	iPR-DC 2P+1	6	≤ 2.8	600	840	600	600
	TN-C	iPR-DC 3P	6	≤ 3.9	1000	1230	1230	1230

Type	Name	Up (kV)	Uc (V)			U _{OCSTC} (V)	Width (mod of 9mm)	Reference
			L+/L-	L+/PE	L-/PE			
Replaceable	D40-340	1.4	340	340	340	600	2	A9L16683
	D40-460	1.9	460	460	460	1000	2	A9L16692
	Cneutral	1.4	260	260	260	600	2	A9L16690



Connection

Type		Tightening torque	Copper cables	
			Rigid	Flexible or ferrule
iPR-DC	Ph / N	3.5 Nm	2.5~35 mm ²	2.5~25 mm ²
	⏏	3.5 Nm	≥ 16 mm ²	≥ 16 mm ²

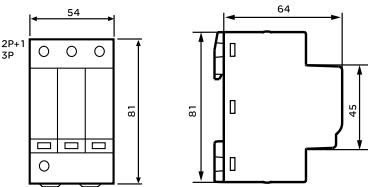
Technical data

Operating frequency		50/60 Hz
Maximum discharge current (I _{max}) (8/20μs)		40 kA
Standard discharge current (I _n) (8/20μs)		15 kA
Maximum continuous operating voltage (U _c)		840 VDC / 1230 VDC
Standard open-circuit voltage (U _{OCSTC})		600 V / 1000 V
Operation state indication	White	in operation
	Red	end of life
Operating temperature		-20°C to +60°C
Storage temperature		-40°C to +70°C
Connection		Flexible: 2.5 ... 25 mm ²
		Rigid: 2.5 ... 35 mm ²
Screw	Standard torque (Nm)	3.5
	Maximum torque (Nm)	5
Remote indicator contact		yes
Protection degree		IP20
Standard		GB18802.1

Weight (g)

Surge arresters	
Type	iPR-DC
2P+1	300
3P	350

Dimensions (mm)



The choice of back-up circuit breaker II type



Any questions, please contact us: 4008101315

(1) All MCB are C curve.

Attention:

- The breaking capacity of circuit breaker must be higher than the maximum short-circuit current, and the circuit breaker can withstand the impact of lightning under normal circumstances.
- This selection table has been through comprehensive experimental validation.
- It can be monitored if the circuit breaker installed with relative accessories.
- Each pole of SPD must be protected by circuit breaker. e.g.:1P+N SPD should be installed with a 2P circuit breaker.



Country approval pictograms

EN 61095
IEC 1095
GB17885

The breadth of the iCT contactor range satisfies most application cases.
iCT contactors can be combined with auxiliary control, protection and indication functions.

iCT contactors are available in two versions:

- Contactors without manually-operated
- Contactors with manually-operated.

Contactors

iCT 2P



manual control

iCT 4P



- iCT contactors can be used to remote control applications in alternative networks:
 - lighting, heating, ventilation, roller blinds, sanitary hot water
 - mechanical ventilation systems, etc



Indication iACTs

- This auxiliary allows indication or control of the "open" or "closed" position of the contactor power contacts



Dual control iACTc

- Used to control a contactor in impulse-type mode or to combine latched or impulse-type control orders



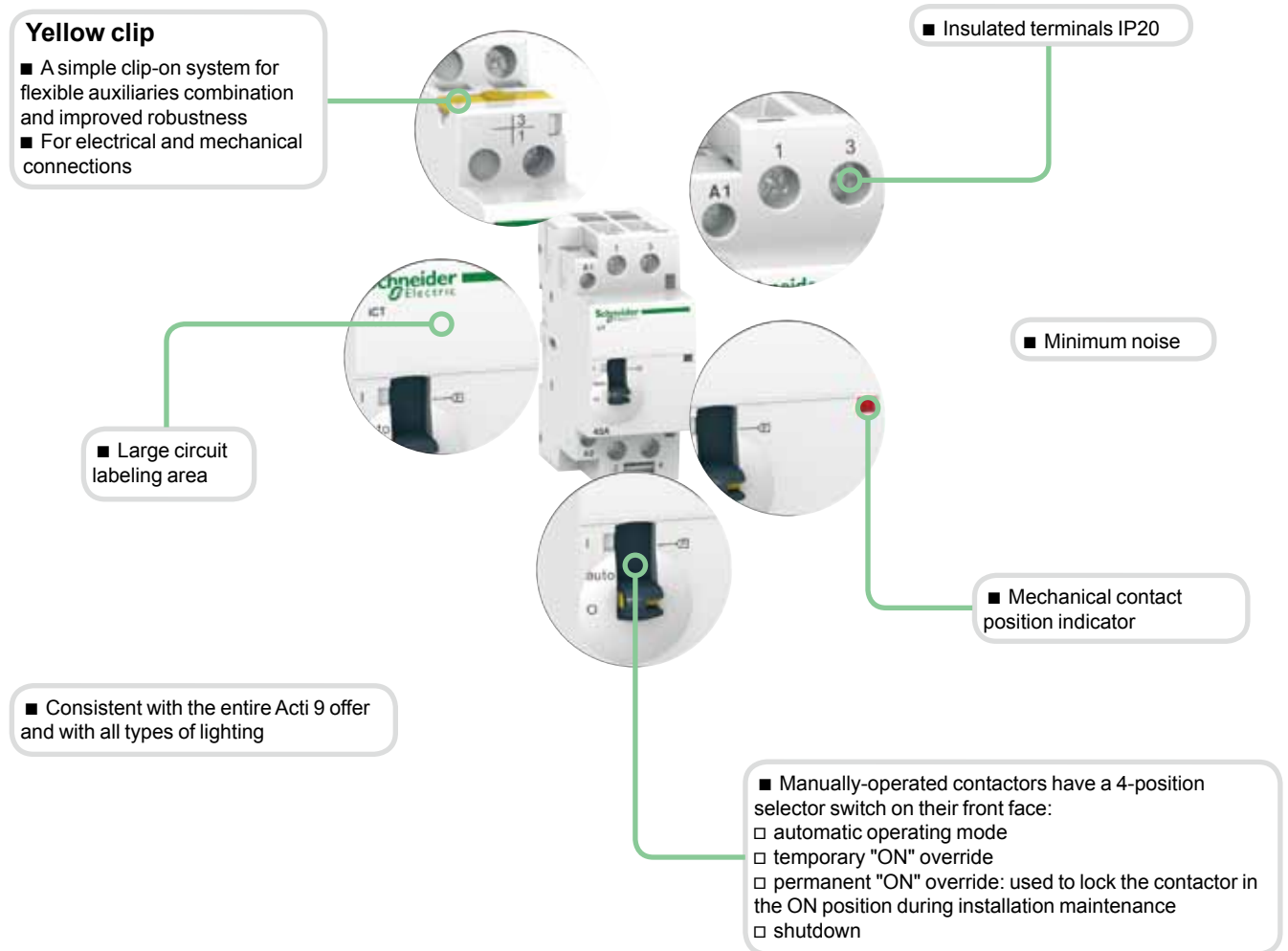
Control and indication 24 V DC iACT24

- Allows control and indication of a 230 Vac contactor from the Acti 9 Smartlink or by a PLC, by 24 V DC signals
- Also allows control by a maintained signal

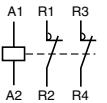
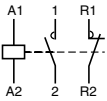
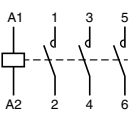
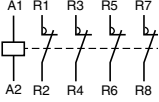
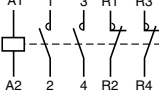
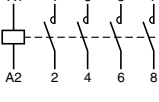
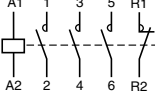
Contactors

Contactors auxiliaries

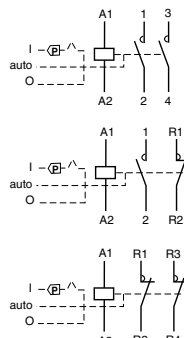
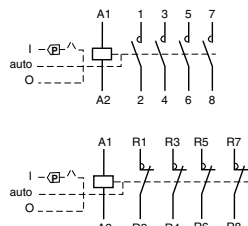
		Choice of 50 Hz contactors					Manually-operated contactors		
Type		Contactor							
Rating	A	16	25	40	63	100	25	40	63
Auxiliaries							Contactors that can be equipped with auxiliaries		
iACTs indication auxiliary		■	■				■		
iACTc control auxiliary	By yellow clips		■				■		
iACT24 control auxiliary	By yellow clips		■ (For Contactor 230 V -50Hz)				■ (For Contactor 230 V -50Hz)		



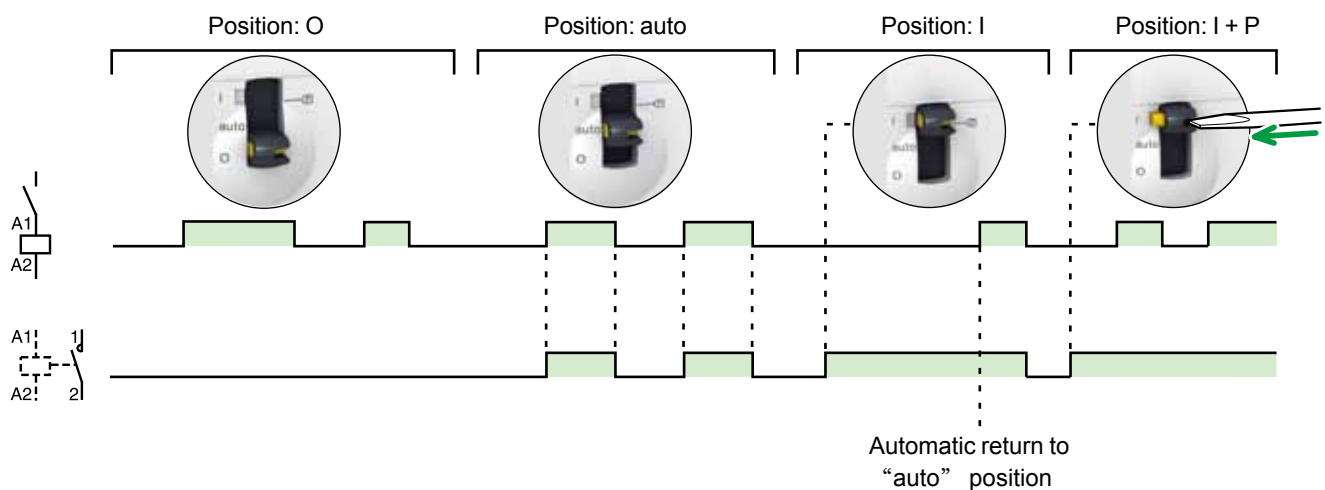
Catalogue numbers

iCT contactors - 50 Hz						
Type						Width in 9mm modules
	Rating (In)		Control voltage (V AC) (50 Hz)	contact		
	AC7a	AC7b				
	25 A	8.5 A	230...240	1NO	A9C20731	2
2P						
	16 A	6 A	230...240	2NO	A9C22712	2
			230...240	1NO+1NC	A9C22715	2
	25 A	8.5 A	24	2NO	A9C20132	2
			230...240	2NO	A9C20732	2
			230...240	2NC	A9C20736	2
	40 A	15 A	220...240	2NO	A9C20842	4
	63 A	20 A	220...240	2NO	A9C20862	4
	100 A	-	220...240	2NO	A9C20882	6
3P						
	25 A	8.5 A	220...240	3NO	A9C20833	4
	40 A	15 A	220...240	3NO	A9C20843	6
	63 A	20 A	220...240	3NO	A9C20863	6
4P						
	16 A	6 A	220...240	2NO+2NC	A9C22818	4
	25 A	8.5 A	24	4NO	A9C20134	4
			220...240	4NO	A9C20834	4
			24	4NC	A9C20137	4
			220...240	4NC	A9C20837	4
	40 A	15 A	220...240	2NO+2NC	A9C20838	4
			220...240	4NO	A9C20844	6
			220...240	4NC	A9C20847	6
	63 A	20 A	220...240	4NO	A9C20864	6
			220...240	4NC	A9C20867	6
			220...240	2NO+2NC	A9C20868	6
			220...240	3NO+1NC	A9C20869	6
			220...240	4NO	A9C20884	12
	100 A	-	220...240	4NO	A9C20884	12

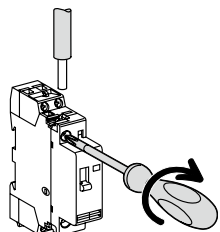
Catalogue numbers

iCT manual control contactor 50 Hz						
Type						Width in 9mm modules
2P 	Rating (In)	Control voltage (V AC) (50 Hz)	Contact			
	AC7a	AC7b				
	25 A	8.5 A	230...240	2NO	A9C21732	2
	40 A	15 A	220...240	2NO	A9C21842	4
	63 A	20 A	220...240	2NO	A9C21862	4
4P 	25 A	8.5 A	220...240	4NO	A9C21834	4
	40 A	15 A	220...240	4NO	A9C21844	6
	63 A	20 A	220...240	4NO	A9C21864	6

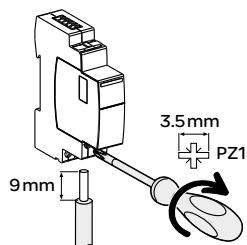
Operation (Manual control contactor)



Connection

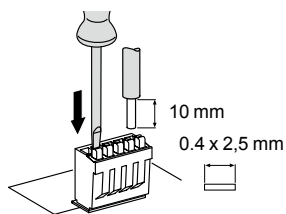


Type	Rating	Length tripping	Circuit	Tightening torque	Copper cables	
					Rigid	Flexible or ferrule
iCT	PZ1: 4 mm	16 - 100 A	Control	0.8 Nm		
	PZ2: 6 mm	40 A - 63 A	Power	3.5 Nm		
iACTs, iACTc	PZ1: 4 mm	-	-	0.8 Nm	1.5~2.5 mm: 2 x 1.5 mm ²	1.5~2.5 mm: 2 x 2.5 mm ²



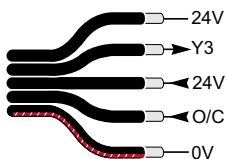
Type	Terminals	Tightening torque	Copper cables		
			Rigid	Flexible	Flexible or ferrule
iACT24	Power supply (N/P)	1 Nm			
	Input (Y1/Y2)				

Ti24 connector connection

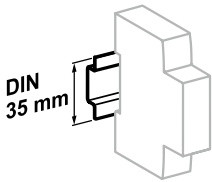


Type	Terminals	Catalogue numbers	Copper cables	
			Rigid	Flexible
Ti24 Interface	Spring compression terminals	A9XC2412		

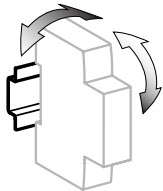
Ti24 prefabricated cables connection



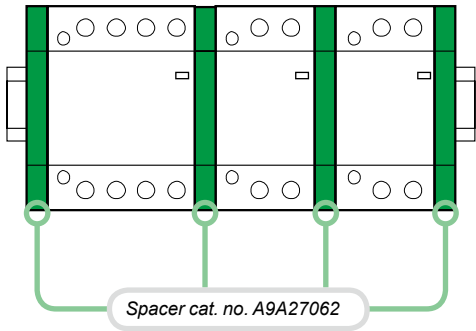
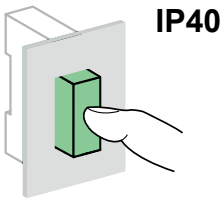
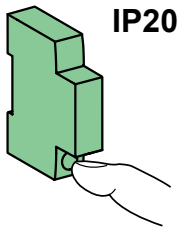
Type	Catalogue numbers	Length
Connection for Acti 9 Smartlink		
6 short prefabricated	A9XCAS06	100 mm
6 medium-sized prefabricated	A9XCAM06	160 mm
6 long prefabricated	A9XCAL06	870 mm
Connection for PLC type terminals		
6 long prefabricated on a single side	A9XCAU06	870 mm



Clip on DIN rail 35 mm.



±30° vertical



Technical data

Power circuit		
Voltage rating (Ue)	1P, 2P	250 V AC
	3P, 4P	400 V AC
Frequency	50 Hz / 60 Hz	
Endurance (O-C)		
Electrical	100,000 cycles	
Maximum number of switching operation a day	100	
Additional characteristics		
Insulation voltage (Ui)	500 V AC	
Pollution degree	2	
Rated impulse withstand voltage (Uimp)	2.5 kV (4 kV for 12/24/48 V AC)	
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Operating temperature	-5°C to +60°C ⁽¹⁾	
Storage temperature	-40°C to +70°C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity 95 % at 55°C)	
ELSV compliance (Extra Low Safety Voltage) for 12/24/48 V AC versions		
The product control conforms to the SELV (safety extra low voltage) requirements		

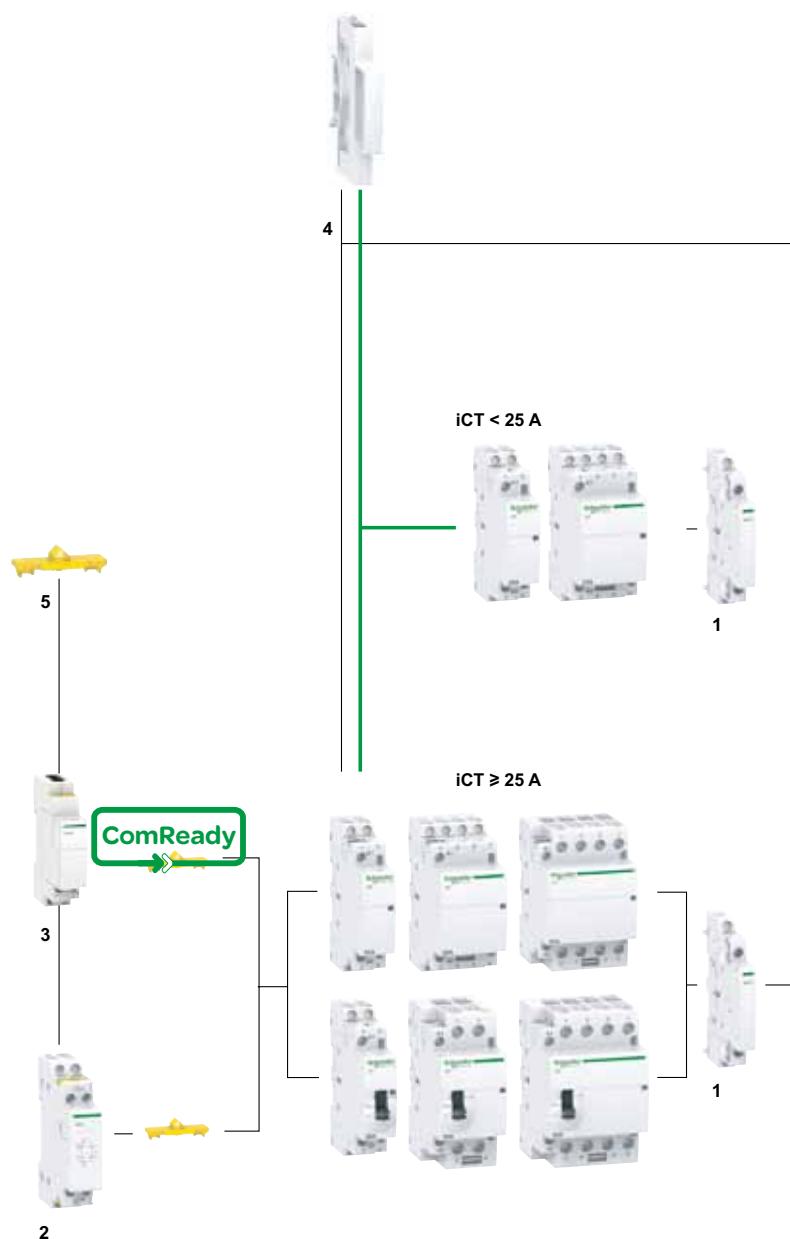
(1) In the case of contactor mounting in a enclosure for which the interior temperature is in range between 50°C and 60°C, it is necessary to use a spacer, cat. no. A9A27062, between each contactor

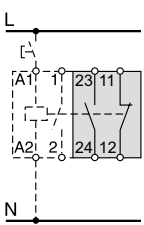
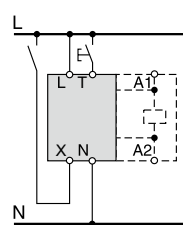
Auxiliaries

Indication			
1	iACTs	1NO + 1NC	A9C15914
Double control inputs			
2	iACTc	230 V AC	A9C18308
		24 V AC	A9C18309
Control and Indication			
3	iACT24	230V AC	A9C15924

Mounting accessories

4	9 mm spacer	A9A27062
5	Yellow clips	A9C15415



	Indication	Control		
附件	iACTs	iACTc		
Type	Indication	Impulse/latched control		
				
Function	■ This auxiliary allows indication of the "open" or "closed" position of the contactor power contacts	■ This auxiliary, combined with contactors, enables them to be controlled by 2 order types: □ impulse order for local control (input T) □ latched order for centralised control (input X) □ the last order received takes priority		
Wiring diagrams				
Mounting	■ Mounted to the right of iCT	■ Mounted to the left of iCT by yellow clips⁽¹⁾		
Use	—	■ Mains power outages: □ < 1 s: keeps its initial status □ ≥5 s: reset □ put back into operation by manual operation on input X or T. ■ Minimum impulse duration: 250 ms		
Catalogue numbers	A9C15914	A9C18308A9C18309		
Technical specifications				
Control voltage (Ue)	V AC	24...240	230...240	24...48
	V DC	24...130	—	—
Operating frequency	Hz	50	50	—
Width in 9 mm modules		1	2	—
Auxiliary contact (breaking capacity)		■ Min: 10mA 24 V DC/AC - cosφ=1 ■ Max: □ 5A 240 V DC - cosφ=1 □ 1A 130 VDC	—	—
Number of contacts		1NO + 1NC	—	—
Operating temperature	°C	-5°C~+50°C	—	—
Storage temperature	°C	-40°C~+70°C	—	—

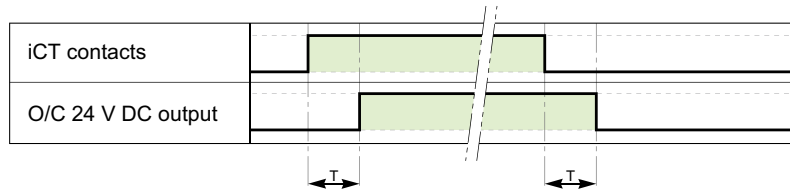
Control and indication		
Auxiliary	iACT24	
Type	Control and indication 24 V DC	
With Ti24 connector		
 ComReady		
Function	■ This auxiliary allows a contactor to be interfaced with the Acti 9 Smartlink interface or a programmable logic controller (PLC) in 24 V DC (control, O/C indication) ■ 230 V AC control	
Wiring diagrams		
Mounting	■ To the left of the iCT contactor using the yellow clips. ■ When an iACT24 is used, the A1/A2 terminals of the contactors should not be wired. Only the yellow clips integral with the iACT24 should be used for connection to the coil.	
Utilization	■ 230 V AC interface: □ Y1: enabling of 24 V DC control (Y1 = 1) or inhibition of 24 V DC control (Y1 = 0). □ Y2: 230 V pulse control ■ "Ti24" 24 V DC interface: □ Y3: 24 V DC control of iCT closing on rising edge and opening on falling edge □ reading of the contactor status (opened or closed) from the position of the integrated O/C auxiliary contact □ monitoring of connection of the "Ti24" terminal block by the upstream system (PLC, supervision system) via the 24 V terminal (in the centre of the Ti24 terminal block)	
Catalogue numbers	A9C15924	
Technical specifications		
Control voltage (Ue)	V AC	230, +10 %, -15 % (Y2)
	V DC	24, ± 20 % (Y3)
Control voltage frequency	Hz	50
Insulation voltage (Ui)	V AC	250
Rated impulse withstand voltage (Uimp)	kV	8 (OVC IV)
Pollution degree		3
Degree of protection		IP20B device only IP40 device in modular enclosure
Width in 9 mm modules		2
Auxiliary contact (O/C) Ti24		24 V DC protected output, min. 2 mA, max. 100 mA
Contact		1 O/C operating category AC 14
Operating temperature	°C	-25°C~+60°C
Storage temperature	°C	-40°C~+80°C
Consumption		< 1 W
Standard		IEC/EN 60947-5-1

	Security	
Accessories	Yellow clips	Spacer
		
Function	■ Ensure the mechanical and/or electrical link between contactors and their auxiliaries. ■ Required to reduce temperature rise of modular devices installed side by side. ■ Recommended to separate electronic devices (thermostat, programmable clock, etc.) from electromechanical devices (relays, contactors).	
Use	■ Bag of 10 ■ Bag of 5	
Catalogue numbers	A9C15415	A9A27062
Technical specifications		
Width in 9 mm modules	–	1



Operation of the iACT24

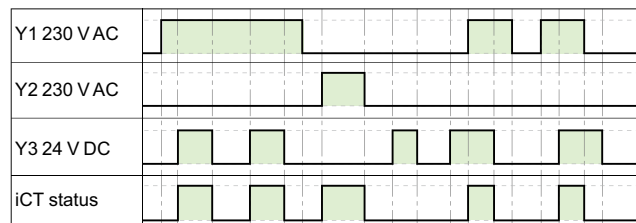
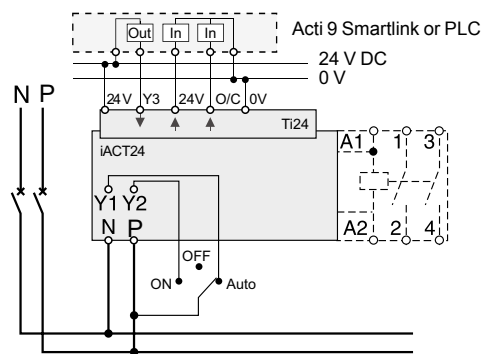
O/C 24 V DC output



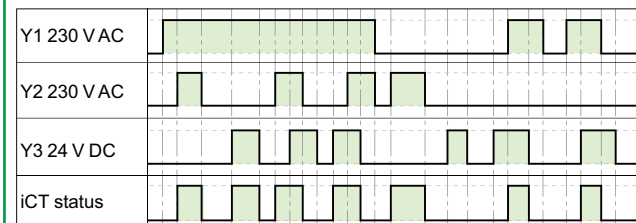
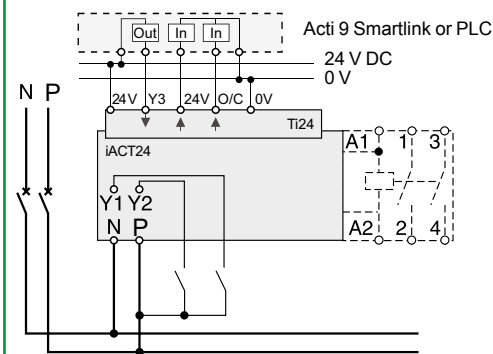
Parameter		Min	Max
T	Time delay between iACT24 closing and indication	100 ms	200 ms

Wiring with exclusive selector

230 V AC control (Y1 = 0) / 24 V DC control (Y1 = 1)



Wiring for non-exclusive 230 V AC and 24 V DC controls



Consumption

iCT contactors - 50 Hz

Type

1P	Rating (In)		Control voltage (V AC) (50 Hz)	Consumption		Max. power	
	AC7a	AC7b		Holding	Inrush		
	25 A	8.5 A	230...240	2.7 VA	9.2 VA	1.2 W	A9C20731
2P							
	16 A	6 A	230...240	2.7 VA	9.2 VA	1.2 W	A9C22712
			230...240	2.7 VA	9.2 VA	1.2 W	A9C22715
	25 A	8.5 A	24	3.8 VA	15 VA	1.3 W	A9C20132
			230...240	2.7 VA	9.2 VA	1.2 W	A9C20732
			230...240	2.7 VA	9.2 VA	1.2 W	A9C20736
			230...240	2.7 VA	9.2 VA	1.2 W	A9C20736
	40 A	15 A	220...240	4.6 VA	34 VA	1.6 W	A9C20842
	63 A	20 A	220...240	4.6 VA	34 VA	1.6 W	A9C20862
	100 A	-	220...240	6.5 VA	53 VA	2.1 W	A9C20882
3P							
	25 A	8.5 A	220...240	4.6 VA	34 VA	1.6 W	A9C20833
	40 A	15 A	220...240	6.5 VA	53 VA	2.1 W	A9C20843
	63 A	20 A	220...240	6.5 VA	53 VA	2.1 W	A9C20863
4P							
	16 A	6 A	220...240	4.6 VA	34 VA	1.6 W	A9C22818
	25 A	8.5 A	24	4.6 VA	34 VA	1.6 W	A9C20134
			220...240	4.6 VA	34 VA	1.6 W	A9C20834
			24	4.6 VA	34 VA	1.6 W	A9C20137
			220...240	4.6 VA	34 VA	1.6 W	A9C20837
			220...240	4.6 VA	34 VA	1.6 W	A9C20838
			220...240	4.6 VA	34 VA	1.6 W	A9C20838
	40 A	15 A	220...240	6.5 VA	53 VA	2.1 W	A9C20844
			220...240	6.5 VA	53 VA	2.1 W	A9C20847
	63 A	20 A	220...240	6.5 VA	53 VA	2.1 W	A9C20864
			220...240	6.5 VA	53 VA	2.1 W	A9C20867
			220...240	6.5 VA	53 VA	2.1 W	A9C20868
			220...240	6.5 VA	53 VA	2.1 W	A9C20869
	100 A	-	220...240	13 VA	106 VA	4.2 W	A9C20884

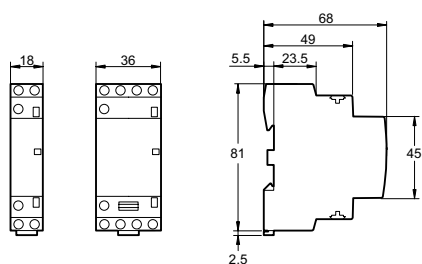
Consumption

iCT manual control contactor 50 Hz

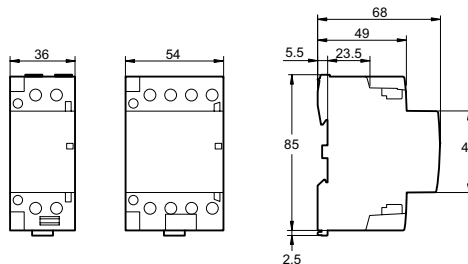
Type

2P	Rating (In)		Control voltage (V AC) (50 Hz)	Consumption		Max. power	
	AC7a	AC7b		Holding	Inrush		
	25 A	8.5 A	230...240	2.7 VA	9.2 VA	1.2 W	A9C21732
	40 A	15 A	220...240	4.6 VA	34 VA	1.6 W	A9C21842
	63 A	20 A	220...240	4.6 VA	34 VA	1.6 W	A9C21862
4P							
	25 A	8.5 A	220...240	4.6 VA	34 VA	1.6 W	A9C21834
	40 A	15 A	220...240	6.5 VA	53 VA	2.1 W	A9C21844
	63 A	20 A	220...240	6.5 VA	53 VA	2.1 W	A9C21864

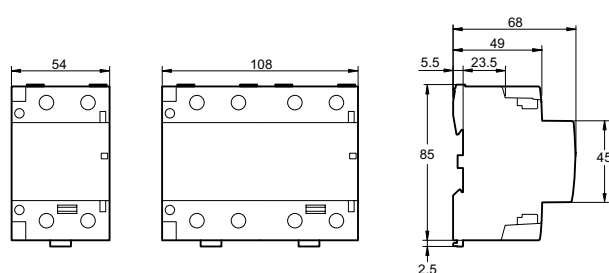
Dimensions (mm)



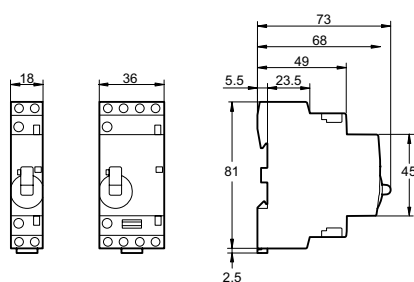
iCT 16/25 A



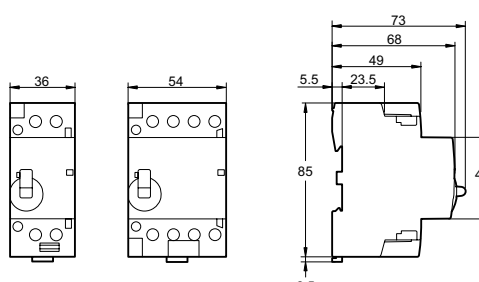
iCT 40/63 A



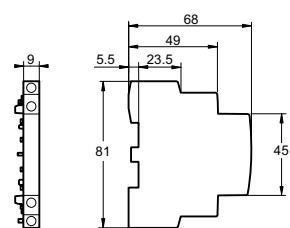
iCT 100 A



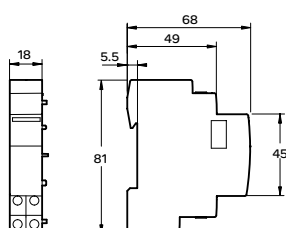
iCT manual control contactor 25 A



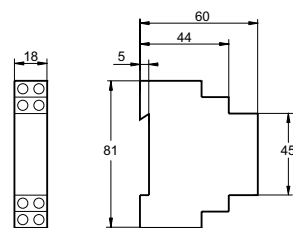
iCT manual control contactor 40/63 A



iACTs



iACT24



iACTc



Country approval pictograms

EN 60669-2-2

iTLs: IEC/EN 60947-5-1



Impulse relays



iTL 2P 16 A and iTL 4P 16 A

- The impulse relays are used to control, by means of pushbuttons, lighting circuits consisting of:
 - incandescent lamps, low-voltage halogen lamps, etc. (resistive loads)
 - fluorescent lamps, discharge lamps, etc. (inductive loads)



Remote indication



iTLs

- Allows remote indication of its operating state (open/closed)



Centralised control



iTLc

- Allows centralised control of a group of TLc impulse relays, whilst at the same time retaining local impulse-type control



Latched control



iTLm

- Operated by latched orders from a changeover contact (switch, time switch, thermostat). Manual control does not work

▲ Impulse relays

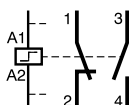
Impulse relays are used:

- Closing of the impulse relay pole(s) is triggered by an impulse on the coil.
- Having two stable mechanical positions, the pole(s) will be opened by the next impulse. Each impulse received by the coil reverses the position of the pole(s).
- Can be controlled by an unlimited number of pushbuttons.
- Zero energy consumption.



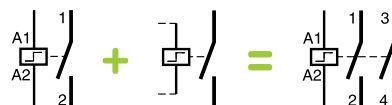
Changeover contact iTLi

- This impulse relay has a changeover contact



Extensions iETL

- Used to increase the number of impulse relay poles
- Can be installed on the iTL and iTLs



Centralised control + indication iATLc+s

- Used for centralised control, thanks to a "pilot line", of a group of impulse relays controlling separate circuit, while at the same time maintaining local individual control of each impulse relay
- Remote indication of the mechanical status of each relay



Multi-level centralised control iATLc+c

- Allows centralised control of a group of iTLc or "iTL + ATLc" impulse relays

ComReady



Control and indication 24 V DC iATL24

- Allows control and indication of a 230 V AC impulse relay from the Acti9 Smartlink or by a PLC, by 24 V DC signals
- Also allows control by a pulsed signal



Control iATLz

- Must be used when installing several illuminated PBs in parallel to control an impulse relay (prevents operating malfunctions)



Step by step control iATL4

- Allows step-by-step control of two circuits via a single pushbutton

Auxiliaries

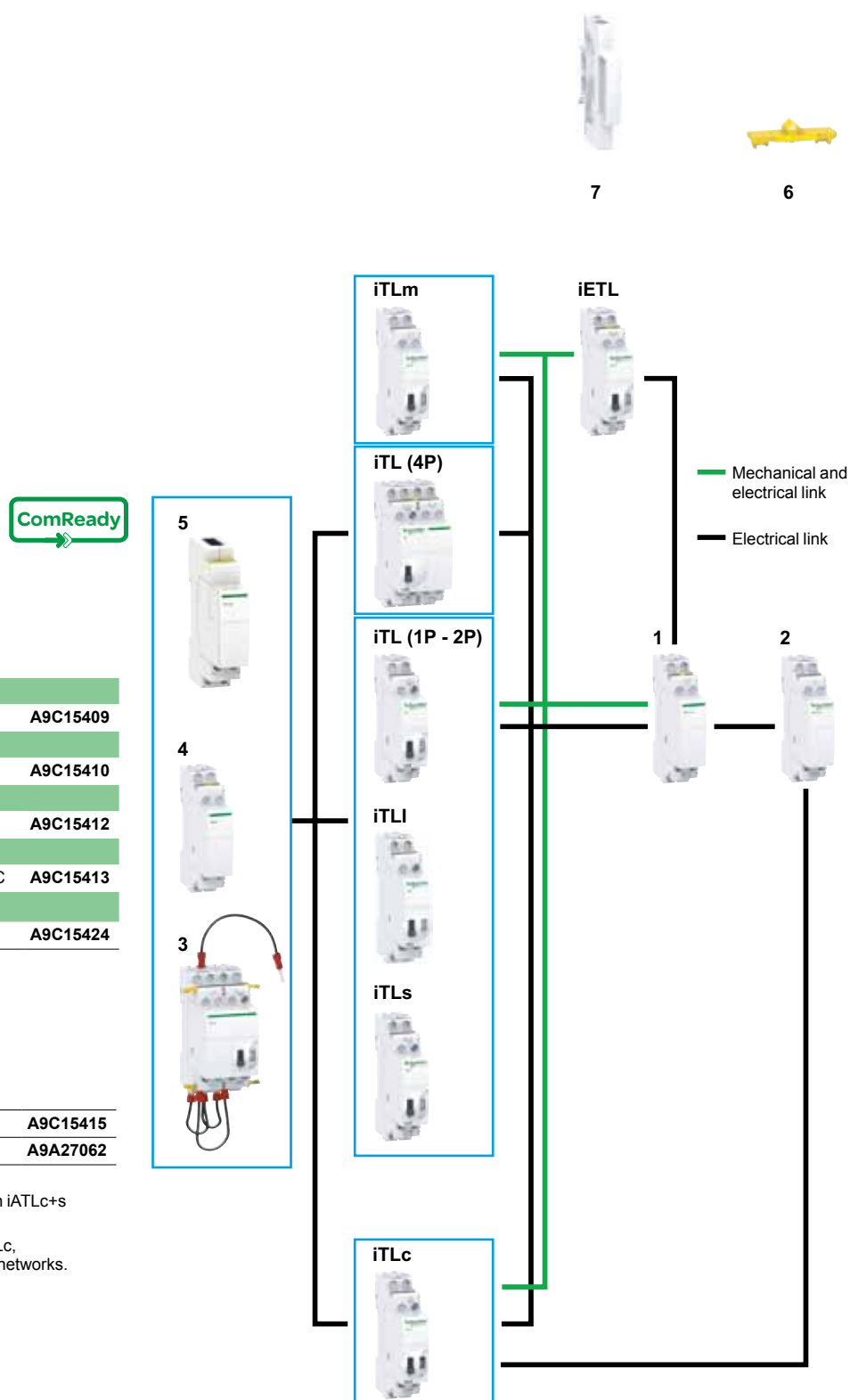
Centralised control + indication			
1	iATLc+s ⁽²⁾	24...240 V AC	A9C15409
Multi-level centralised control			
2	iATLc+c ^{(1), (2)}	24...240 V AC	A9C15410
Step by step control			
3	iATL4	230 V AC	A9C15412
Control by illuminated push-buttons			
4	iATLz	130...240 V AC	A9C15413
控制和指示			
5	iATL24	230VAC	A9C15424

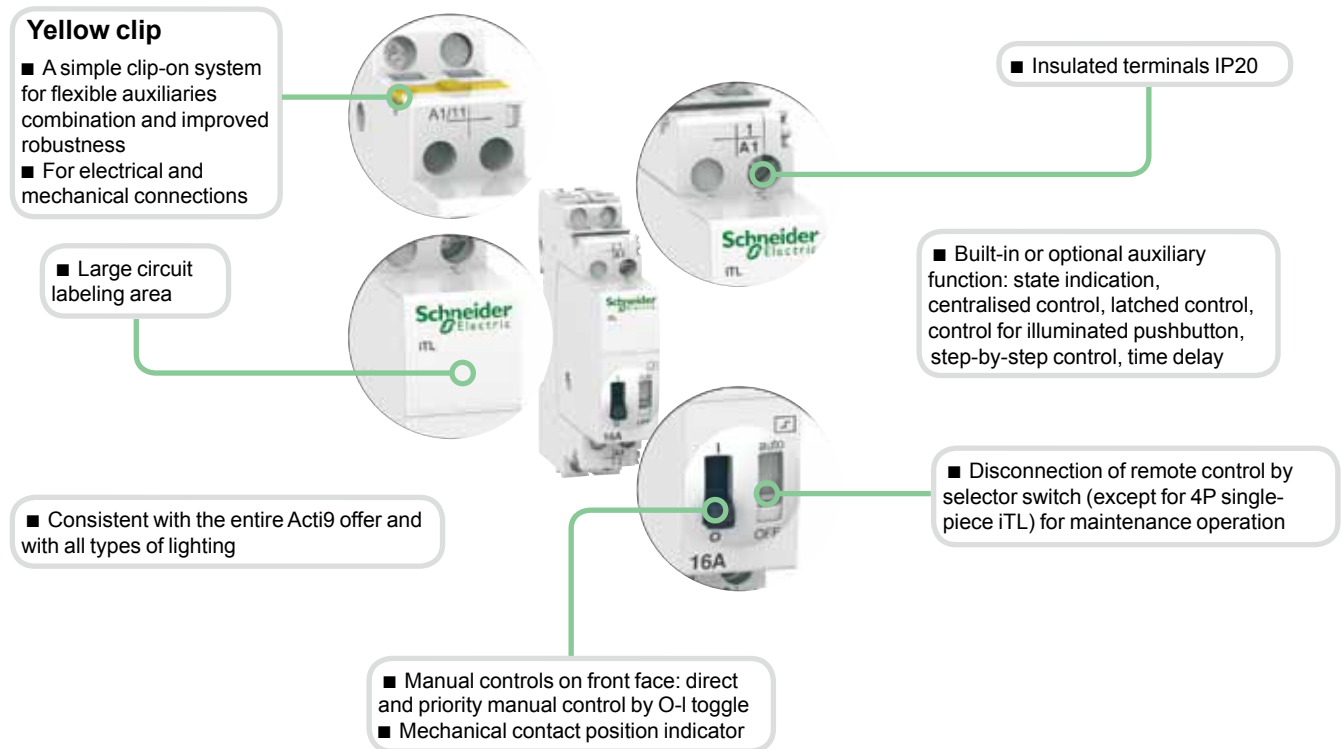
Mounting accessories

6	Yellow clips	A9C15415
7	9 mm spacer	A9A27062

(1) Connection by traditional cabling.
The iATLc+c must be mounted to the right of an iATLc+s or an iATLc.

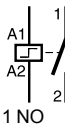
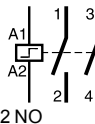
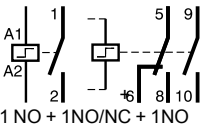
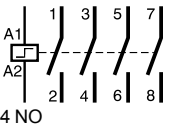
(2) The centralised control functions (iTLc, iATLc, iATLc+s, iATLc+c) only operate on AC voltage networks.



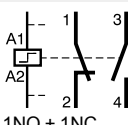


		Choice impulse relays auxiliaries													
Type		Standard iTL						Changeover iTLI		iTLC centralised control			iTLM control on latched order		iTLS remote indication
Rating	A	16					32	16		16			16		16
Control voltage	V AC	230/240	130	48	24	12	230/240	130	12	230/240	48	24	230/240	230/240	
	V DC	110	48	24	12	6	110	48	6	-			110		110
Auxiliaries															
Extension															
iETL		■	■	■	■	■	■	■	■	■	■	■	■	■	
Centralised control + indication															
iATLC+s		■	■	■	■	-	■	■	-	-	-	-	-	■	
Multi-level centralised control															
iATLC+c		■	■	■	■	-	■	■	-	■	■	■	-	■	
Control for illuminated Pushbutton															
iATLz		■	■	-	-	-	■	■	-	■	■	-	-	■	
Step by step control															
iATL4		■	-	-	-	-	■	-	-	■	-	-	-	■	
控制和指示															
iATL24		■	-	-	-	-	■	-	-	■	-	-	-	■	

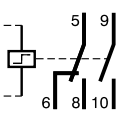
Catalogue numbers

iTL impulse relays						
Type			1P	2P	3P	4P
						
			1 NO	2 NO	1 NO + 1 NO/NC + 1 NO	4 NO
Rating (In)	Control voltage (Uc)					
	(V AC)	(V DC)				
16 A	12	6	A9C30011	A9C30012	A9C30011 + A9C32016	A9C30012 + A9C32016
	24	12	A9C30111	A9C30112	A9C30111 + A9C32116	A9C30112 + A9C32116
	48	24	A9C30211	A9C30212	A9C30211 + A9C32216	A9C30212 + A9C32216
	130	48	A9C30311	A9C30312	A9C30311 + A9C32316	A9C30312 + A9C32316
	230...240	110	A9C30811	A9C30812	A9C30811 + A9C32816	A9C30812 + A9C32816
	Width in 9 mm modules		2	2	4	4
32 A	230...240	110	A9C30831	A9C30831 + A9C32836	A9C30831 + 2 x A9C32836	A9C30831 + 3 x A9C32836
	Width in 9 mm modules		2	4	6	8

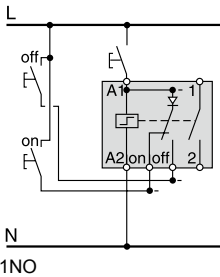
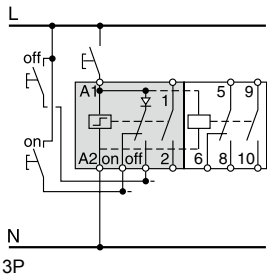
iTLI impulse relays

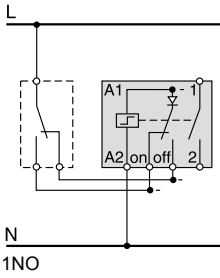
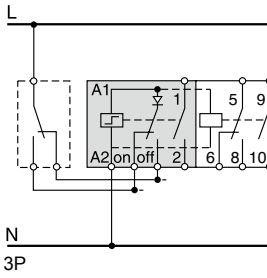
Type			1P
			
			1 NO + 1 NC
Rating (In)	Control voltage (Uc)		
	(V AC)	(V DC)	
16 A	12	6	A9C30015
	130	48	A9C30315
Width in 9 mm modules			2

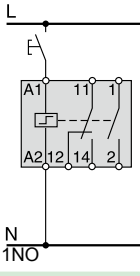
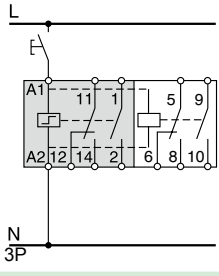
iETL extensions for iTL and iTLI

Type					Width in 9 mm modules
1P	Rating (In)	Control voltage (Uc)			
		(V AC)	(V DC)		
	32 A	230...240	110	A9C32836	2
1 NO					
2P	Rating (In)	Control voltage (Uc)			
		(V AC)	(V DC)		
	16 A	12	6	A9C32016	2
		24	12	A9C32116	2
		48	24	A9C32216	2
		130	48	A9C32316	2
		230...240	110	A9C32816	2
1 NO/NC + 1 NO					

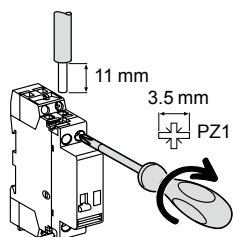
Catalogue numbers (cont.)

iTLc impulse relay with centralised control			
Type		1P	3P
			
Rating (In)	Control voltage (Uc) (V AC)		
16 A	24	A9C33111	A9C33111 + A9C32116
	48	A9C33211	A9C33211 + A9C32216
	230...240	A9C33811	A9C33811 + A9C32816
Width in 9 mm modules		2	4

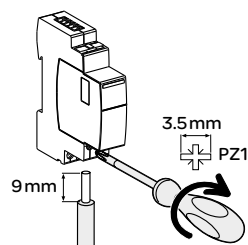
iTLm impulse relay with latched control			
Type		1P	3P
			
Rating (In)	Control voltage (Uc) (V AC)		
16 A	230...240	A9C34811	A9C34811 + A9C32116
Width in 9 mm modules		2	4

iTLs impulse relay with remote indication			
Type		1P	3P
			
Rating (In)	Control voltage (Uc) (V AC) (V DC)		
16 A	230...240	110	A9C32811
Width in 9 mm modules		2	4

Connection

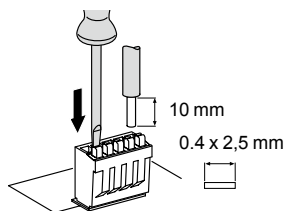


Type	Rating	Circuit	Tightening torque	Copper cables	
				Rigid	Flexible or ferrule
iTL, iTLi, iTLc, iTLm, iTLs, iETL	16 A	Control	1 Nm		
		Current		0.5~4 mm ² 1.5~4 mm ²	1~4 mm ² 1.5~4 mm ²
iTL, iETL	32 A	Control	1.2 Nm	0.5~4 mm ²	1~4 mm ²
		Current		1.5~10 mm ²	1.5~10 mm ²
iATLc+s, iATLc+c, iATL4, iATLz			1 Nm	0.5~4 mm ²	1~4 mm ²



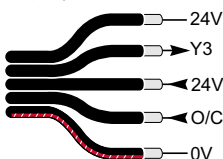
Type	Terminals	Tightening torque	Copper cables		
			Rigid	Flexible	Flexible or ferrule
iATL24	Power supply (N/P)	1 Nm			
	Input (Y1/Y2)				
			0.5~10 mm ² : 2 x 0.5 ~ 2 x 2.5 mm ²	0.5~6 mm ² : 2 x 0.5 ~ 2 x 2.5 mm ²	0.5~4 mm ² : 2 x 0.5 ~ 2 x 2.5 mm ²

Ti24 connector connection



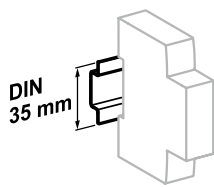
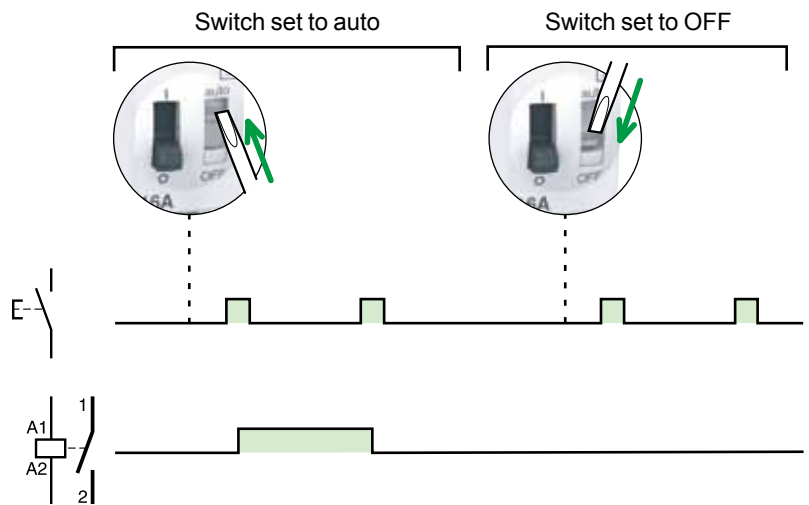
Type	Terminals	Catalogue numbers	Copper cables	
			Rigid	Flexible
Ti24 Interface	Spring compression terminals	A9XC2412	 1 x 0.5~1.5 mm ²	 1 x 0.5~1.5 mm ²

Ti24 prefabricated cables connection

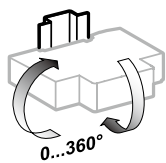


Type	Catalogue numbers	Length
Connection for Acti 9 Smartlink		
6 short prefabricated	A9XCAS06	100 mm
6 medium-sized prefabricated	A9XCAM06	160 mm
6 long prefabricated	A9XCAL06	870 mm
Connection for PLC type terminals		
6 long prefabricated on a single side	A9XCAU06	870 mm

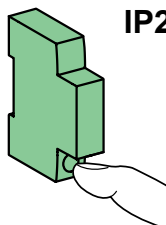
Operation



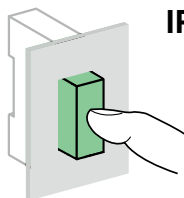
Clip on DIN rail 35 mm.



Indifferent position of installation.



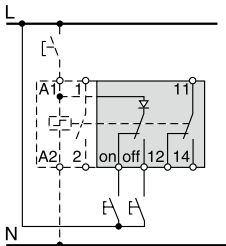
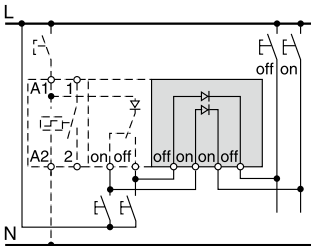
IP20

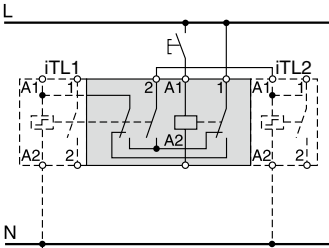
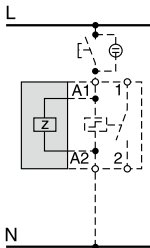


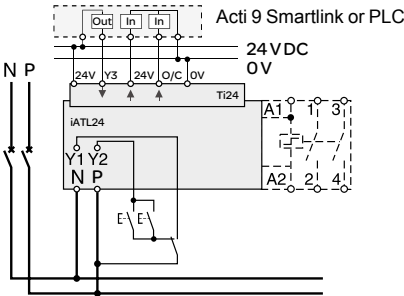
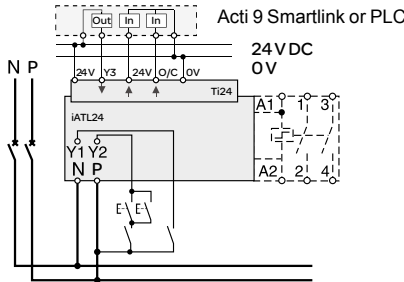
IP40

Technical data

Control circuit		
	iTL and iTLI 16 A iTLc, iTLm, iTLs, iETL 16 A	iTL 32 A, iETL 32 A
Dissipated power (during the impulse)	1, 2, 3P: 19 VA	19 VA
	4P: 38 VA	
Illuminated PB control	Max. current 3 mA (if > use an ATLz)	
Operating threshold	Min. 85 % of Un in conformance with EN/IEC 60669-2-2	
Duration of the control order	50 ms to 1 s (200 ms recommended)	
Response time	50 ms	
Power circuit		
Voltage rating (Ue)	1P, 2P	24...250 V AC
	3P, 4P	24...415 V AC
Frequency	50 Hz or 60 Hz	
Maximum number of operations per minute	5	
Maximum number of switching operation a day	100	
Additional characteristics to IEC/EN 60947-3		
Insulation voltage (Ui)	440 V AC	
Pollution degree	3	
Rated impulse withstand voltage (Uimp)	6 kV	
Endurance (O-C)		
Electrical to IEC/EN 60947-3	200,000 cycles (AC21)	50,000 cycles (AC21)
	100,000 cycles (AC22)	20,000 cycles (AC22)
Overvoltage category	IV	
Other characteristics		
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation class II
Operating temperature	-20°C to +50°C	
Storage temperature	-40°C to +70°C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity 95 % at 55°C)	

Auxiliaries		Control	Control
		iATLc+s	iATLc+c
Type		Centralised control + indication	Multi-level centralised control
			
Function		■ Used for centralised control, thanks to a "pilot line", of a group of impulse relays controlling separate networks, while at the same time maintaining local individual control of each impulse relay ■ And for remote indication of the mechanical status of each relay	■ Used to control the centralised controls of a number of impulse relay groups, while at the same time maintaining local individual control and centralised control by level
Wiring diagrams			 ■ Each group, made up of iTLc or (iTL or iTLI or iTLs) + iATLc+s, must only contain a single iATLc+c ■ Maximum number of impulse relays that can be controlled: □ 230 V AC: 24 □ 130 V AC: 12 □ 48 V AC: 5
Mounting		■ Mounted to the right of iTL by yellow clips	■ Without mechanical link with impulse relays and auxiliaries
Catalogue numbers		A9C15409	A9C15410
Technical specifications			
Control voltage (Ue)	V AC	24...240	24...240
	V DC	—	—
Width in 9 mm modules		2	2
Auxiliary contact (breaking capacity)		■ Minimum: 10 mA at 24 V AC/DC ■ Maximum (IEC 60947-5-1): □ 12...240 V AC 6 A □ 12...24 V DC 6 A □ 15...240 V AC 2 A □ 13...24 V DC 2 A	—
Number of contacts		—	—
Operating temperature	°C	-20°C to +50°C	-20°C to +50°C
	°C	-40°C to +70°C	-40°C to +70°C

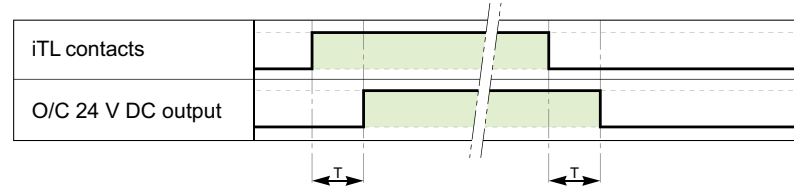
iATL4	iATLz
Step by step control	Control by illuminated push-buttons
	
Allows the step by step sequence over 2 circuits	Used to control impulse relays by illuminated push-buttons, without operating risks
	
- The cycle is as follows: 1st impulse - iTL 1 closed, iTL 2 open 2nd impulse - iTL 1 open, iTL 2 closed 3rd impulse - iTL 1 and 2 closed 4th impulse - iTL 1 and 2 open 5th impulse - iTL 1 closed, iTL 2 open, etc	Provide an iATLz when the current drawn up by the illuminated push-buttons is higher than 3 mA (this current is sufficient to keep the coils energised). Above this value, fit one extra iATLz per 3 mA. For example: for 7 mA, fit 2 iATLz
Assembled between 2 impulse relays: according to the auxiliarisation table by yellow clips	Mounted to the left of iTL by yellow clips
A9C15412	A9C15413
230	130...240
—	—
4	2
—	—
—	—
-20°C to +50°C	-20°C to +50°C
-40°C to +70°C	-40°C to +70°C

Control and indication		
Auxiliaire	iATL24	
Type	Control and indication 24 V DC	
	With Ti24 connector	
	 ComReady	
Function	■ This auxiliary allows a impulse relay to be interfaced with the Acti 9 Smartlink interface or a programmable logic controller (PLC) in 24 V DC (control, O/C indication) ■ 230 V AC control	
Wiring diagrams	 Wiring with exclusive selector 230 V AC and 24 V DC controls  Wiring for non-exclusive 230 V AC and 24 V DC controls	
Mounting	■ To the left of the iTL impulse relay using the yellow clips. ■ When an iATL24 is used, the A1/A2 terminals of the impulse relay should not be wired. Only the yellow clips integral with the iATL24 should be used for connection to the coil.	
Utilization	■ 230 V AC interface: ☐ Y1: enabling of 24 V DC control (Y1 = 1) or inhibition of 24 V DC control (Y1 = 0). ☐ Y2: 230 V pulse control ■ "Ti24" 24 V DC interface: ☐ Y3: 24 V DC control of iTL closing on rising edge and opening on falling edge ☐ reading of the impulse relay status (opened or closed) from the position of the integrated O/C auxiliary contact ☐ monitoring of connection of the "Ti24" terminal block by the upstream system (PLC, supervision system) via the 24 V terminal (in the centre of the Ti24 terminal block)	
Catalogue numbers	A9C15424	
Technical specifications		
Control voltage (Ue)	V AC	230, +10 %, -15 % (Y2)
	V DC	24, ± 20 % (Y3)
Control voltage frequency	Hz	50/60
Insulation voltage (Ui)	V AC	250
Rated impulse withstand voltage (Uimp)	kV	8 (OVC IV)
Pollution degree		3
Degree of protection		IP20B device only
		IP40 device in modular enclosure
Width in 9 mm modules		2
Auxiliary contact (O/C) Ti24		24 V DC protected output, min. 2 mA, max. 100 mA
Contact		1 O/C operating category AC 14
Operating temperature	°C	-25°C~+60°C
Storage temperature	°C	-40°C~+80°C
Consumption		< 1 W
Standard		IEC/EN 60947-5-1



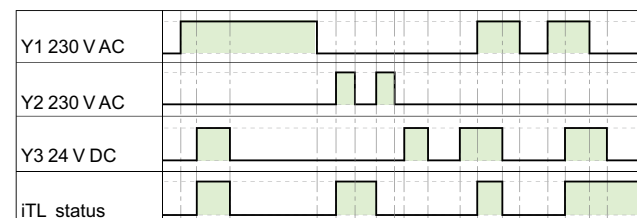
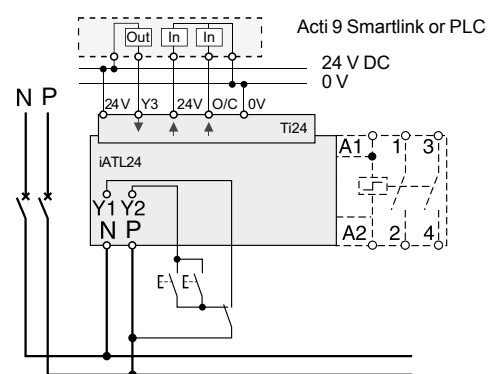
Operation of the iATL24

O/C 24 V DC output

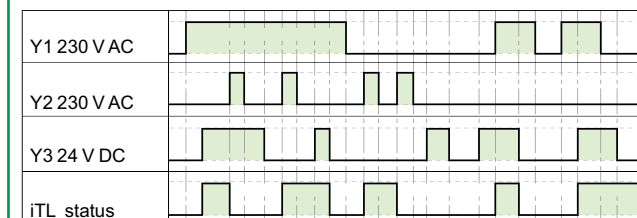
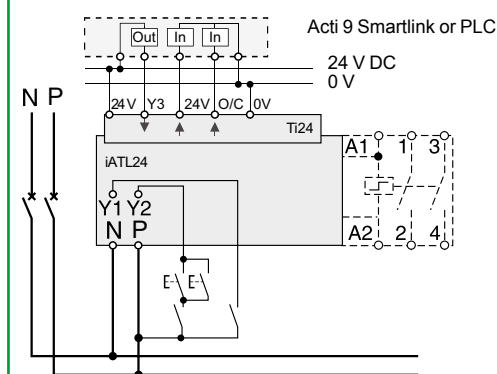


Parameter	Min	Max
T	100 ms	200 ms

Wiring with exclusive selector 230 V AC and 24 V DC controls

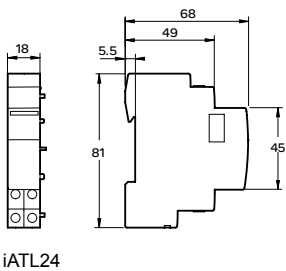
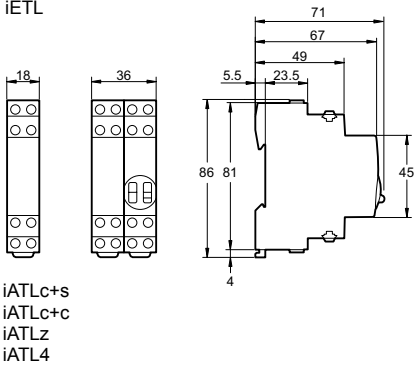
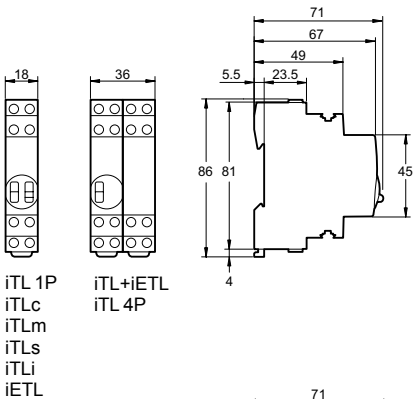


Wiring for non-exclusive 230 V AC and 24 V DC controls



	Security	
Accessories	Yellow clips	Spacer
		
Function	■ Ensure the mechanical and/or electrical link between contactors and their auxiliaries. ■ Bag of 10	■ Required to reduce temperature rise of modular devices installed side by side. ■ Recommended to separate electronic devices (thermostat, programmable clock, etc.) from electromechanical devices (relays, contactors). ■ Bag of 5
Catalogue numbers	A9C15415	A9A27062
Technical specifications		
Width in 9 mm modules	—	1

Dimensions (mm)



General comment

Modular contactors and impulse relays do not use the same technologies. Their rating is determined according to different standards and does not correspond to the rated current of the circuit.

For example, for a given rating, an impulse relay is more efficient than a modular contactor for the control of light fittings with a strong inrush current, or with a low power factor (non-compensated inductive circuit).

Relay rating

■ The table below shows the maximum number of light fittings for each relay, according to the type, power and configuration of a given lamp. As an indication, the total acceptable power is also mentioned.

■ These values are given for a 230 V circuit with 2 active conductors (single-phase phase/neutral or two-phase phase/phase). For 110 V circuits, divide the values in the table by 2.

■ To obtain the equivalent values for the entire 230 V three-phase circuit, multiply the number of lamps and the maximum power output:

□ by $\sqrt{3}$ (1.73) for circuits with 230 V between phases without neutral;

□ by $\sqrt{3}$ for circuits with 230 V between phase and neutral or 400 V between phases.

Note: The power ratings of the lamps most commonly used are shown in bold.
For powers not mentioned, use a proportional rule with the nearest values.

Choice table

Products			iTL impulse relays				iCT contactors					
Type of lamp	Unit power and capacitance of power factor correction capacitor		Maximum number of light fittings for a single-phase circuit and maximum power output per circuit									
			16 A		32 A		16 A		25 A		40 A	
Basic incandescent lamps, LV halogen lamps, replacement mercury vapour lamps (without ballast)												
	40 W		40	1500 W	106	4000 W	38	1550 W	57	2300 W	115	4600 W
	60 W		25	to	66	to	30	to	45	to	85	to
	75 W		20	1600 W	53	4200 W	25	2000 W	38	2850 W	70	5250 W
	100 W		16		42		19		28		50	
	150 W		10		28		12		18		35	
	200 W		8		21		10		14		26	
	300 W		5	1500 W	13	4000 W	7	2100 W	10	3000 W	18	5500 W
	500 W		3		8		4		6		10	to
	1000 W		1		4		2		3		6	6000 W
1500 W		1		2		1		2		4		
ELV 12 or 24 V halogen lamps												
With ferromagnetic transformer	20 W		70	1350 W	180	3600 W	15	300 W	23	450 W	42	850 W
	50 W		28	to	74	to	10	to	15	to	27	to
	75 W		19	1450 W	50	3750 W	8	600 W	12	900 W	23	1950 W
	100 W		14		37		6		8		18	
With electronic transformer	20 W		60	1200 W	160	3200 W	62	1250 W	90	1850 W	182	3650 W
	50 W		25	to	65	to	25	to	39	to	76	to
	75 W		18	1400 W	44	3350 W	20	1600 W	28	2250 W	53	4200 W
	100 W		14		33		16		22		42	
Fluorescent tubes with starter and ferromagnetic ballast												
1 tube without compensation ⁽¹⁾	15 W		83	1250 W	213	3200 W	22	330 W	30	450 W	70	1050 W
	18 W		70	to	186	to	22	to	30	to	70	to
	20 W		62	1300 W	160	3350 W	22	850 W	30	1200 W	70	2400 W
	36 W		35		93		20		28		60	
	40 W		31		81		20		28		60	
	58 W		21		55		13		17		35	
	65 W		20		50		13		17		35	
	80 W		16		41		10		15		30	
	115 W		11		29		7		10		20	
1 tube with parallel compensation ⁽²⁾	15 W	5 µF	60	900 W	160	2400 W	15	200 W	20	300 W	40	600 W
	18 W	5 µF	50		133		15	to	20	to	40	to
	20 W	5 µF	45		120		15	800 W	20	1200 W	40	2400 W
	36 W	5 µF	25		66		15		20		40	
	40 W	5 µF	22		60		15		20		40	
	58 W	7 µF	16		42		10		15		30	
	65 W	7 µF	13		37		10		15		30	
	80 W	7 µF	11		30		10		15		30	
	115 W	16 µF	7		20		5		7		14	
2 or 4 tubes with series compensation	2 x 18 W		56	2000 W	148	5300 W	30	1100 W	46	1650 W	80	2900 W
	4 x 18 W		28		74		16	to	24	to	44	to
	2 x 36 W		28		74		16	1500 W	24	2400 W	44	3800 W
	2 x 58 W		17		45		10		16		27	
	2 x 65 W		15		40		10		16		27	
	2 x 80 W		12		33		9		13		22	
	2 x 115 W		8		23		6		10		16	

Choice table (cont.)

Products			iTl impulse relays				iCT contactors					
Type of lamp	Unit power and capacitance of power factor correction capacitor		Maximum number of light fittings for a single-phase circuit and maximum power output per circuit									
			16 A		32 A		16 A		25 A		40 A	
Fluorescent tubes with electronic ballast												
1 or 2 tubes	18 W		80	1450 W	212	3800 W	74	1300 W	111	2000 W	222	4000 W
	36 W		40	to	106	to	38	to	58	to	117	to
	58 W		26	1550 W	69	4000 W	25	1400 W	37	2200 W	74	4400 W
	2 x 18 W		40		106		36		55		111	
	2 x 36 W		20		53		20		30		60	
	2 x 58 W		13		34		12		19		38	
Compact fluorescent lamps												
With external electronic ballast	5 W		240	1200 W	630	3150 W	210	1050 W	330	1650 W	670	3350 W
	7 W		171	to	457	to	150	to	222	to	478	to
	9 W		138	1450 W	366	3800 W	122	1300 W	194	2000 W	383	4000 W
	11 W		118		318		104		163		327	
	18 W		77		202		66		105		216	
	26 W		55		146		50		76		153	
With integral electronic ballast (replacement for incandescent lamps)	5 W		170	850 W	390	1950 W	160	800 W	230	1150 W	470	2350 W
	7 W		121	to	285	to	114	to	164	to	335	to
	9 W		100	1050 W	233	2400 W	94	900 W	133	1300 W	266	2600 W
	11 W		86		200		78		109		222	
	18 W		55		127		48		69		138	
	26 W		40		92		34		50		100	
High-pressure mercury vapour lamps with ferromagnetic ballast without ignitor												
Replacement high-pressure sodium vapour lamps with ferromagnetic ballast with integral ignitor ⁽³⁾												
Without compensation ⁽¹⁾	50 W		Not tested, infrequent use				15	750 W	20	1000 W	34	1700 W
	80 W						10	to	15	to	27	to
	125 / 110 W ⁽³⁾						8	1000 W	10	1600 W	20	2800 W
	250 / 220 W ⁽³⁾						4		6		10	
	400 / 350 W ⁽³⁾						2		4		6	
	700 W						1		2		4	
With parallel compensation ⁽²⁾	50 W	7 µF					10	500 W	15	750 W	28	1400 W
	80 W	8 µF					9	to	13	to	25	to
	125 / 110 W ⁽³⁾	10 µF					9	1400 W	10	1600 W	20	3500 W
	250 / 220 W ⁽³⁾	18 µF					4		6		11	
	400 / 350 W ⁽³⁾	25 µF					3		4		8	
	700 W	40 µF					2		2		5	
	1000 W	60 µF					0		1		3	
Low-pressure sodium vapour lamps with ferromagnetic ballast with external ignitor												
Without compensation ⁽¹⁾	35 W		Not tested, infrequent use				5	270 W	9	320 W	14	500 W
	55 W						5	to	9	to	14	to
	90 W						3	360 W	6	720 W	9	1100 W
	135 W						2		4		6	
	180 W						2		4		6	
With parallel compensation ⁽²⁾	35 W	20 µF	38	1350 W	102	3600 W	3	100 W	5	175 W	10	350 W
	55 W	20 µF	24		63		3	to	5	to	10	to
	90 W	26 µF	15		40		2	180 W	4	360 W	8	720 W
	135 W	40 µF	10		26		1		2		5	
	180 W	45 µF	7		18		1		2		4	

Choice table (cont.)

Products		iTL impulse relays				iCT contactors						
Type of lamp	Unit power and capacitance of power factor correction capacitor	Maximum number of light fittings for a single-phase circuit and maximum power output per circuit										
		16 A		32 A		16 A		25 A		40 A		
High-pressure sodium vapour lamps												
Metal-iodide lamps												
With ferromagnetic ballast with external ignitor, without compensation ⁽¹⁾	35 W	Not tested, infrequent use				16	600 W	24	850 W	42	1450 W	
	70 W					8		12	to	20	to	
	150 W					4		7	1200 W	13	2000 W	
	250 W					2		4		8		
	400 W					1		3		5		
	1000 W					0		1		2		
With ferromagnetic ballast with external ignitor and parallel compensation ⁽²⁾	35 W	6 µF	34	1200 W	88	3100 W	12	450 W	18	650 W	31	1100 W
	70 W	12 µF	17	to	45	to	6	to	9	to	16	to
	150 W	20 µF	8	1350 W	22	3400 W	4	1000 W	6	2000 W	10	4000 W
	250 W	32 µF	5		13		3		4		7	
	400 W	45 µF	3		8		2		3		5	
	1000 W	60 µF	1		3		1		2		3	
	2000 W	85 µF	0		1		0		1		2	
With electronic ballast	35 W		38	1350 W	87	3100 W	24	850 W	38	1350 W	68	2400 W
	70 W		29	to	77	to	18	to	29	to	51	to
	150 W		14	2200 W	33	5000 W	9	1350 W	14	2200 W	26	4000 W

(1) Circuits with non-compensated ferromagnetic ballasts consume twice as much current for a given lamp power output. This explains the small number of lamps in this configuration.

(2) The total capacitance of the power factor correction capacitors in parallel in a circuit limits the number of lamps that can be controlled by a contactor. The total downstream capacitance of a modular contactor of rating 16, 25, 40 or 63 A should not exceed 75, 100, 200 or 300 µF respectively. Allow for these limits to calculate the maximum acceptable number of lamps if the capacitance values are different from those in the table.

(3) High-pressure mercury vapour lamps without ignitor, of power 125, 250 and 400 W, are gradually being replaced by high-pressure sodium vapour lamps with integral ignitor, and respective power of 110, 220 and 350 W.

Heating application

■ Impulse relay rating to be chosen according to the power to be controlled.

230 V heating

Type	Maximum power for a given rating iTL impulse relays	
Single-phase circuit	16 A	32 A
Heating (AC1)	3.6 kW	7.2 kW

■ Contactor rating to be chosen according to the power to be controlled and the number of operations a day.

230 V heating

Type of heating application	Maximum power for a given rating iCT contactors	
Number of operations / day	25 A	40 A
25	5.4 kW	8.6 kW
50	5.4 kW	8.6 kW
75	4.6 kW	7.4 kW
100	4 kW	6 kW
250	2.5 kW	3.8 kW
500	1.7 kW	2.7 kW

400 V heating

25	16 kW	26 kW
50	16 kW	26 kW
75	14 kW	22 kW
100	11 kW	17 kW
250	5 kW	8 kW
500	3.5 kW	6 kW

Small motor application

■ Contactor rating to be chosen according to the power to be controlled.

Asynchronous single-phase motor with capacitor

Small motor application type	Maximum power for a given rating iCT contactors	
Voltage	25 A	40 A
230 V	1.4	2.5

Asynchronous three-phase motor

400 V	4	7.5
-------	---	-----

Universal motor

230 V	0.9	1.4
-------	-----	-----

Load type characteristics

■ IEC 61095 standard is applied to civil contactors and for similar purposes. Different from IEC 60947.4 standard (for industrial applications), it also provides a number of special requirements for personnel and installations.

Application	Industry: IEC 60947.4	Civil: IEC 61095
Motor	AC3	AC7b
Heating	AC1	AC7a
Illumination	AC5a and b	AC5a and b



Country approval pictograms

ComReady



Without Ti24 interface



With Ti24 interface

The RCA remote control system allows:

- Remote electrical control (opening and closing) of circuit breakers with or without Vigi add-on RCD, with or without auxiliary.
- Circuit-breaker resetting after tripping, in accordance with safety principles and the regulations in force.
- Local control by operating handle.
- Circuit placing in safety configuration by padlocking.

2 choices of operation after tripping:

- A: Enabling of remote circuit-breaker resetting;
- B: Inhibition of remote resetting.

The version with Ti24 interface allows:

- Direct interfacing of remote control with a programmable logic controller (PLC), a supervision system and any other communication device, having inputs/outputs in 24 V DC (control, OF and SD indications).
- Fast, reliable connection of the remote control to the Acti 9 Smartlink thanks to the prefabricated cables.
- Remote indication by "OF" potential-free contact.
- Provision of 2 operating modes, "1" and "3".

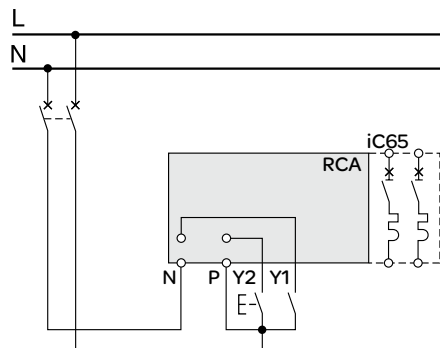
Catalogue numbers

RCA remote control			
Type	Width in 9 mm modules		
For circuit breakers 1P, 1P+N, 2P	Voltage		
Without Ti24 interface	230 V AC, 50 Hz	A9C70112	7
With Ti24 interface	230 V AC, 50 Hz	A9C70122	7
For 3P, 4P circuit breakers	Voltage		
Without Ti24 interface	230 V AC, 50 Hz	A9C70114	7
With Ti24 interface	230 V AC, 50 Hz	A9C70124	7

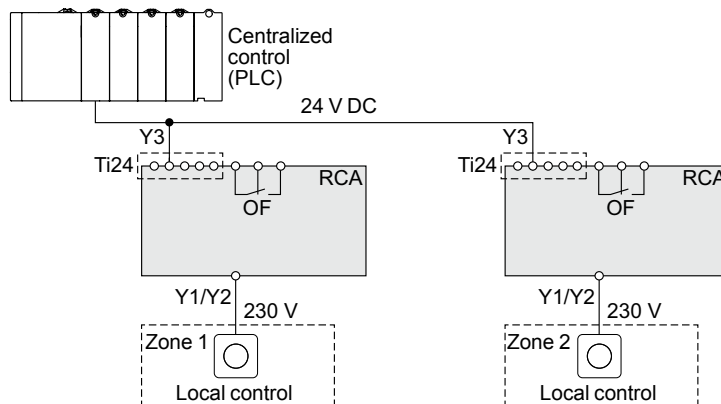
Legend	
Type	Application
OFF	All remote control inhibited
auto	Resetting after circuit-breaker tripping authorized
B	Resetting after circuit-breaker tripping impossible
Green indicator lamp	Remote control possible
Orange indicator lamp	Remote control impossible
1 (Ti24)	Mode 1
3 (Ti24)	Mode 3
Y1	Latched order local control
Y2	Impulse-type or latched order local control (depending on mode)
Y3	Latched order centralized control

Standard RCA

■ The orders received on terminals Y1 and Y2 are taken into account progressively in their order of arrival.



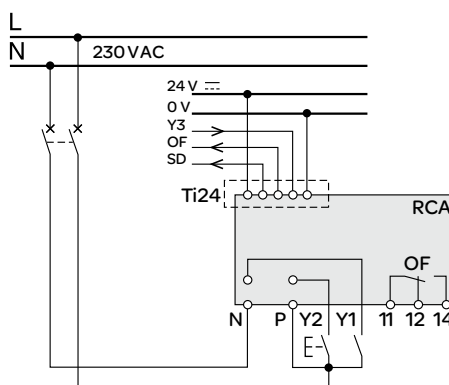
RCA Ti24



Mode 1: Locally or centrally controlled circuit-breaker opening/closing

- The orders come from various control points, and they are taken into account in their order of arrival
- Y1: Latched order local control
- Y2: Impulse-type local control
- Y3: Latched order centralized control

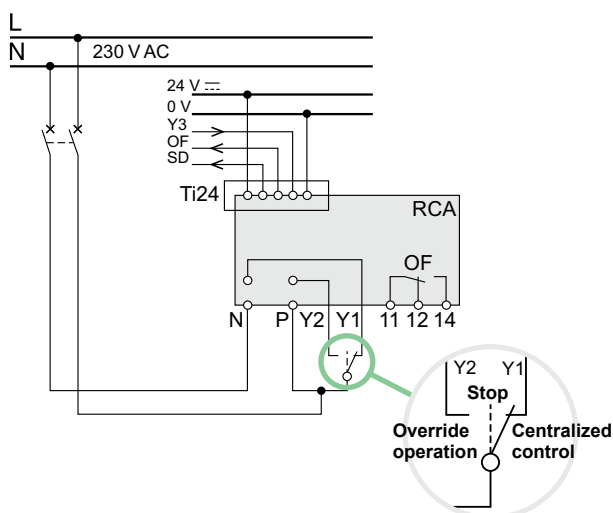
RCA Ti24 mode 1

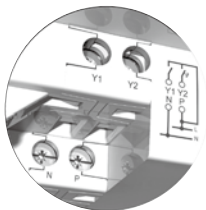
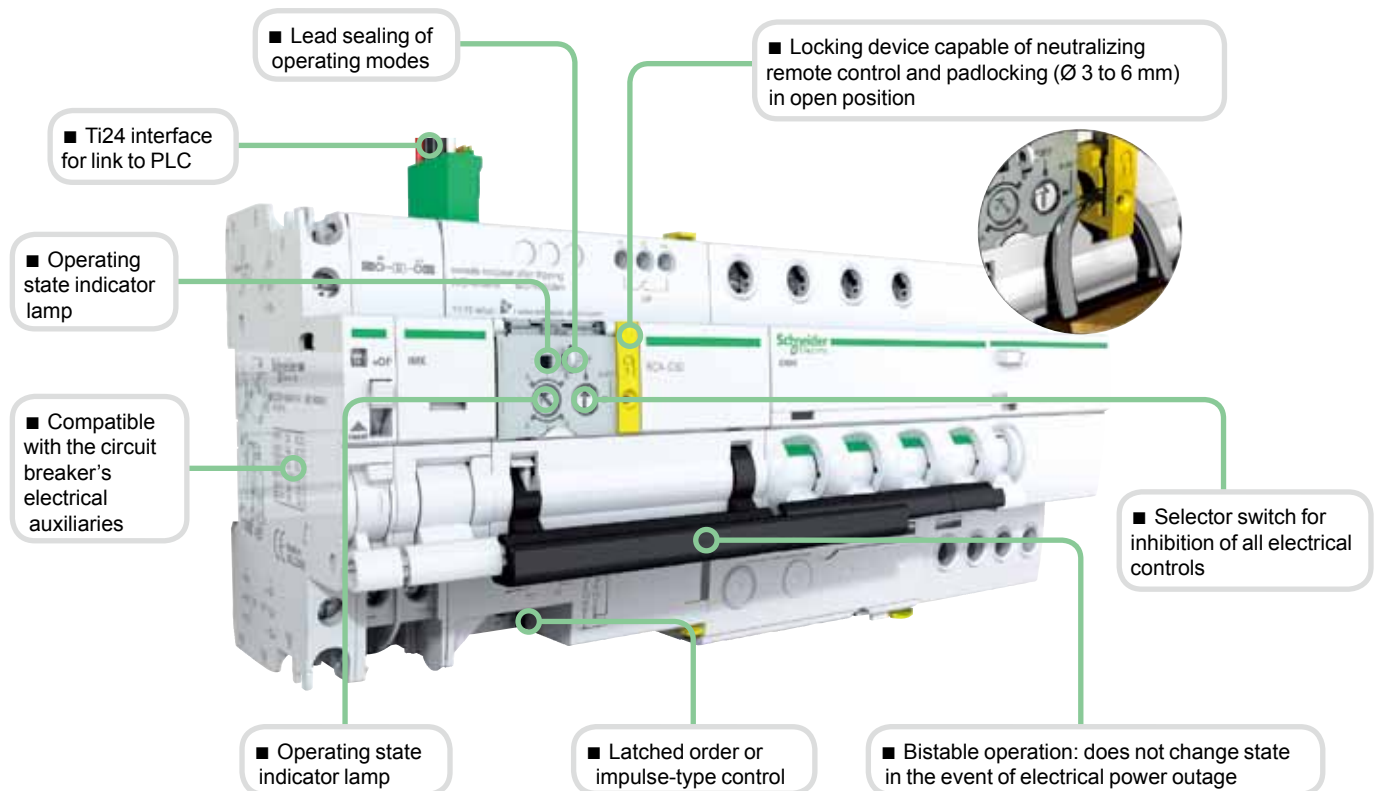


Mode 3: Centrally controlled opening/closing + local override

- 3 positions allowing a choice between override and centralized control:
- Y1: Latched order local control
- Y2: Latched order local control
- Y3: Latched order centralized control

RCA Ti24 mode 3





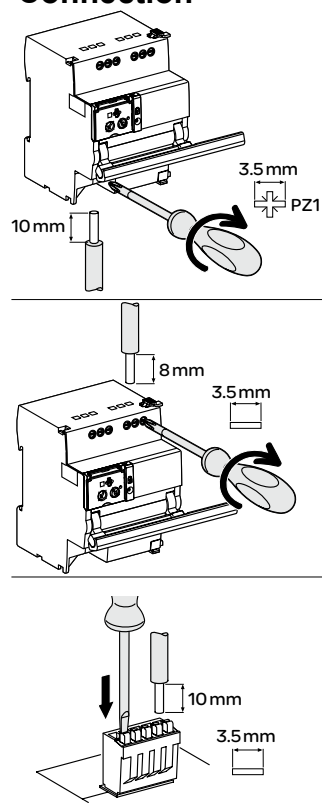
Legend

Type	Application
+24 V DC	V DC power supply
Y3	Latched order centralized control
SD	Circuit-breaker tripping information
OF	Control circuit state information (open/closed)
0 V	V DC power supply
Y1	Latched order local control
Y2	Impulse-type or latched order local control (depending on mode)
N	230 V AC, 50 Hz power supply
P	
OF	Circuit-breaker state indication contact (open/closed)

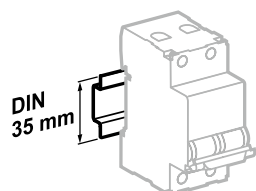
11 12 14

Indication auxiliaries	Tripping auxiliaries	RCA remote control	iC65 circuit breaker	Vigi iC65
3	2			
No	1 (iSD or iOF or OF/SD+OF or iOF+SD24)			
1 iOF	1 (iSD or iOF or OF/SD+OF)			
	No	RCA	iC65	Vigi iC65

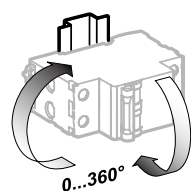
Connection



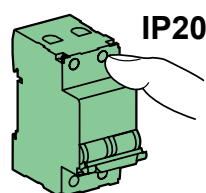
		Without accessories		
Terminal	Tightening torque	Copper cables		
		Rigid	Flexible	Flexible with ferrule
Power supply (N/P) Inputs (Y1/Y2)	1 Nm	0.5 to 10 mm ² 2 x 0.5 to 2 x 2.5 mm ²	0.5 to 6 mm ² 2 x 0.5 to 2 x 2.5 mm ²	0.5 to 4 mm ² 2 x 0.5 to 2 x 2.5 mm ²
Outputs (OF)	0.7 Nm	0.5 to 10 mm ² 2 x 0.5 to 2 x 1.5 mm ²	0.5 to 2.5 mm ² 2 x 0.5 to 2 x 1.5 mm ²	0.5 to 1.5 mm ² 2 x 0.5 to 2 x 1.5 mm ²
Ti24 interface	Spring-loaded terminals	0.5 to 1.5 mm ²	0.5 to 1.5 mm ²	—



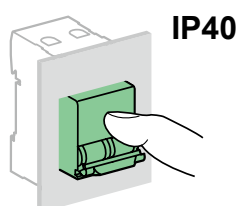
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Technical data

Control circuit		
Supply voltage (Ue) (N/P)		230 V AC, 50 Hz
Control voltage (Uc)	Type 1 inputs (Y1/Y2)	230 V AC (as per IEC 61131-2)
Min. duration of control order (Y2)		≥ 200 ms
Response time (Y2)		< 500 ms
Consumption		≤ 1 W
Thermal self-protection with automatic Reset against overheating of the control circuit due to an abnormal number of operations		
Endurance (O-C) (RCA combined with a circuit breaker)		
Electrical/Mechanical		10,000 cycles
Indication / Remote control		
Potential free changeover contact output (OF)	Min.	24 V AC/DC, 10 mA
	Max.	230 V AC, 1 A
Input (Y1/Y2)	230 V AC	5 mA
Ti24 interface (as per IEC 61131)		
Type 1 input (Y3)	24 V DC	5.5 mA
Output (OF and SD)	24 V DC	In max.: 100 mA
Additional characteristics		
Degree of protection (IEC 60529)	Device only	IP20
	Device in a modular enclosure	IP40 Insulation class II
Insulation voltage (Ui)		400 V
Degree of pollution (IEC 60947)		3
Rated impulse withstand voltage (Uimp)		6 kV
Operating temperature		-25°C to +60°C
Storage temperature		-40°C to +70°C
Tropicalization		Treatment 2 (relative humidity of 93 % at +40°C)

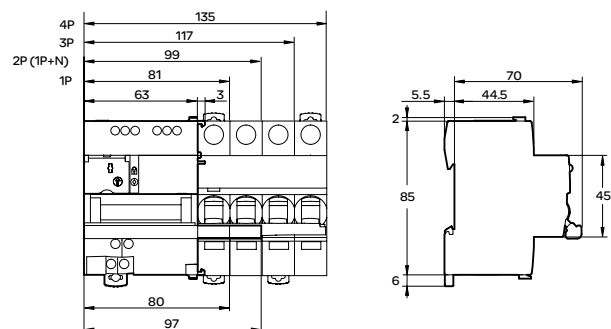
RCA remote controls

For iC65 circuit breakers

Weight (g)

Remote controls	
Type	RCA
For 1P, 1P+N, 2P circuit breakers	400
For 3P, 3P+N, 4P circuit breakers	430

Dimensions (mm)



ARA automatic reclosers

For iC65 circuit breakers and iID residual current circuit breakers



Country approval pictograms



The ARA reclosing auxiliary can:

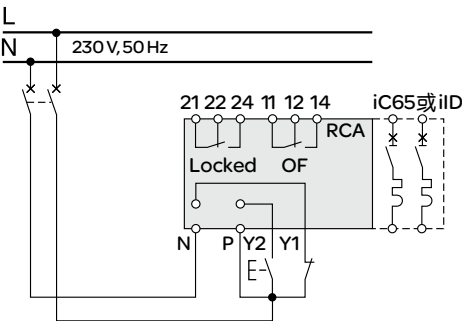
- Perform automatic reclosing of the associated protection device, after tripping.
- Limit the cost of intervention on far away infrastructure sites.
- The operator can choose predefined reclosing program which allows the safety and availability of facilities to be reconciled taking into account the facility's environment.
- The circuit is placed in safety configuration by the padlocking device.

Catalogue numbers

ARA iC65				
For iC65 circuit breaker				Width in 9 mm modules
1P, 2P	Number of programs	Voltage		
	4	230 V AC, 50 Hz	A9C70132	7
3P, 4P	Number of programs	Voltage		
	4	230 V AC, 50 Hz	A9C70134	7
ARA iID				
For residual current circuit breaker				Width in 9 mm modules
2P	Number of programs	Voltage		
	4	230 V AC, 50 Hz	A9C70332	7
4P	Number of programs	Voltage		
	4	230 V AC, 50 Hz	A9C70334	7

(ARA iID coming soon)

Diagram



Legend	
Type	Application
1 2 3 4	Choice of program
Y1	"Remote" inhibition of automatic reclosing
Y2	Remote control of final reclosing
N	230 V power supply
P	
Locked	Automatic recloser inhibition indication contact
OF	Indicates the state of the circuit breaker or residual current circuit breaker (opened or closed)
Indicator lamp	Flashing green
	Flashing red
	Fixed red
	橙灯闪烁

ARA automatic reclosers

For iC65 circuit breakers and iID residual current circuit breakers

Operating principle

The ARA automatic recloser makes a number of attempts at reclosing depending on the program chosen by the user.

The program includes the following settings:

- A time delay before reclosing (TA).
- A reinitialization time delay (TB).
- A maximum number of reclosing attempts.

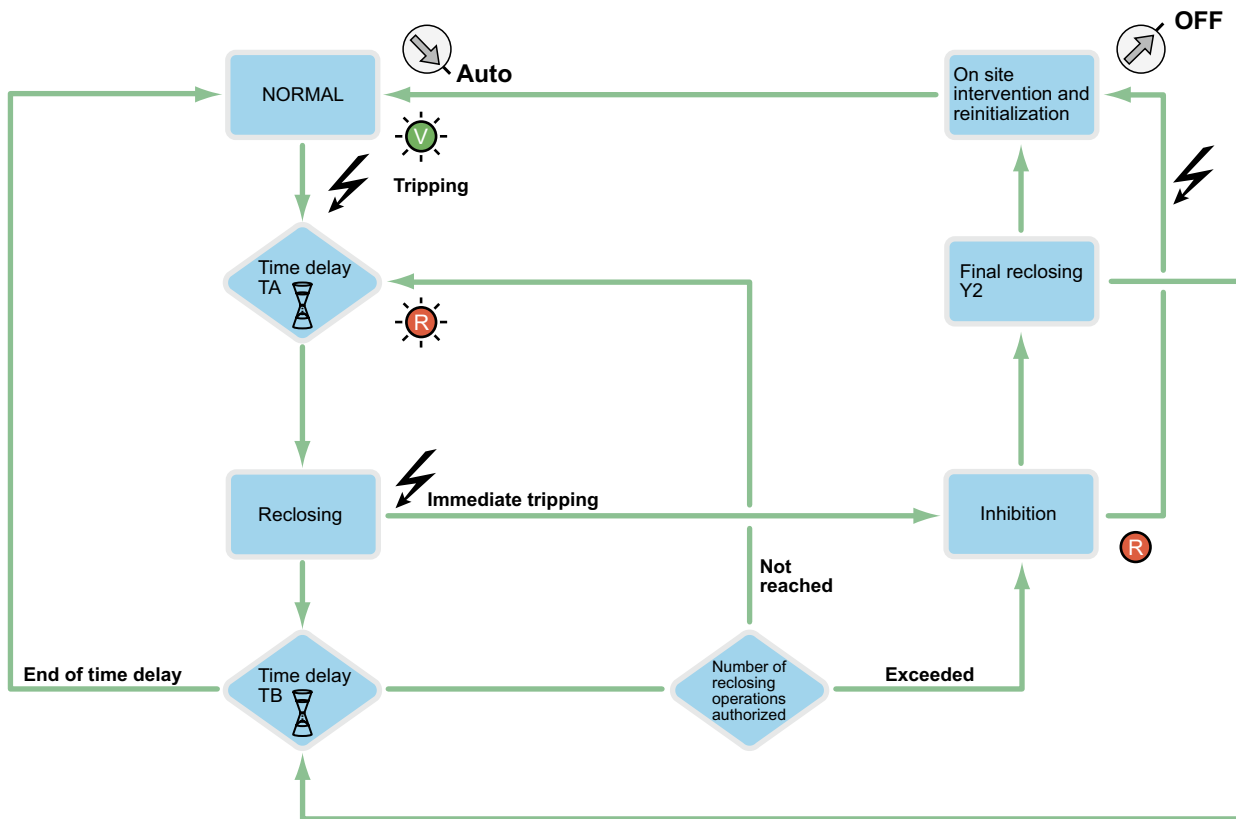
If, following these attempts, the fault is still present, the device places itself in waiting for manual reclosing, or final remote reclosing (Y2).

			Number of reclosing attempts	Delay before reclosing	Check time	Final reclosing Y2
	iC65	iID		TA	TB	
	1P, 2P: A9C70132 3P, 4P: A9C70134	2P: A9C70332 4P: A9C70334				
Program	—	4 Program				
	●	●	1	60 s	6 min.	Once after inhibition
	●	●	3	60 s 3 min. 3 min.	2 min. 6 min. 6 min.	
	●	—	5	60 s 3 min. 3 min. 3 min.	2 min. 6 min. 6 min. 6 min.	
	●	—	5	60 s 3 min. 4 min. 5 min. 6 min.	2 min. 6 min. 8 min. 10 min. 12 min.	
	—	●	5	60 s 4 min. 10 min. 1 h 6 h	2 min. 3 min. 6 min. 10 min. 10 min.	Once per cycle
	—	●	15	20 s 40 s 3 min. 3 min. ...	30 min. 30 min.	

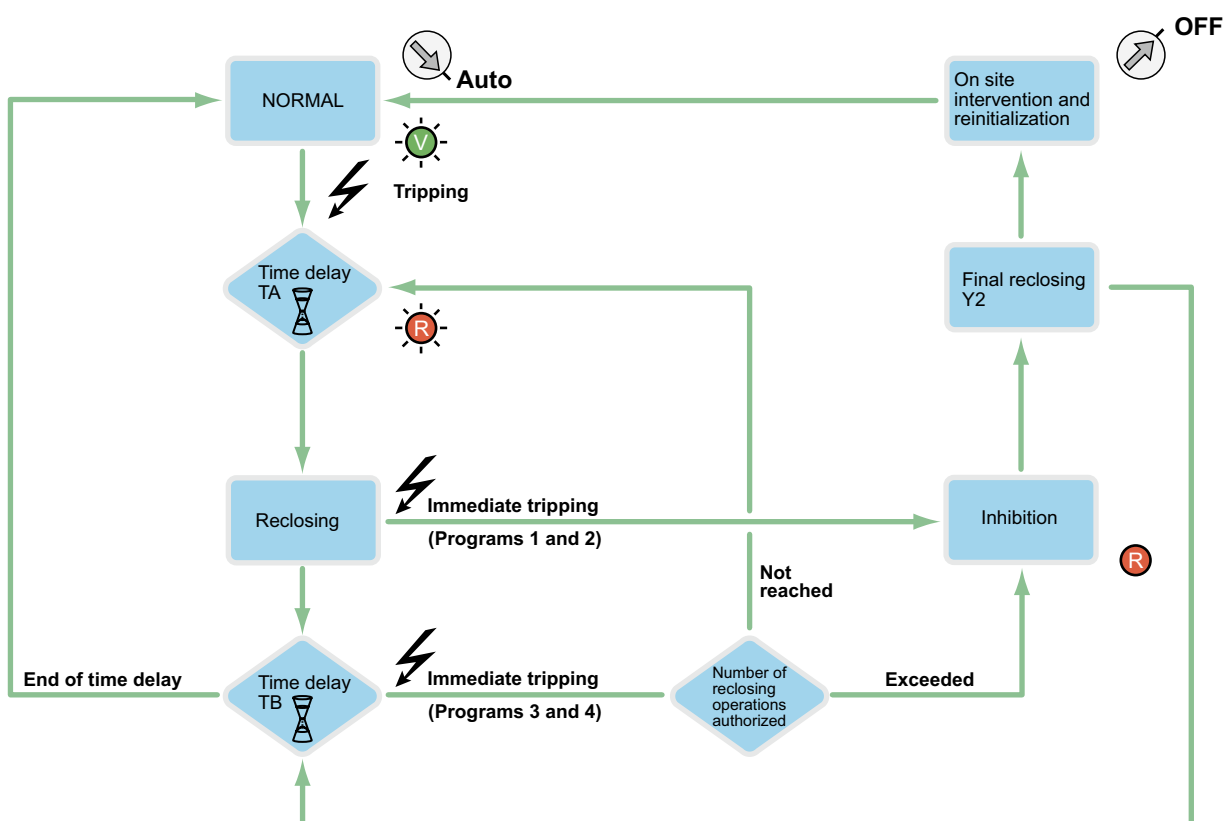
ARA automatic reclosers

For iC65 circuit breakers and iID residual current circuit breakers

ARA iC65

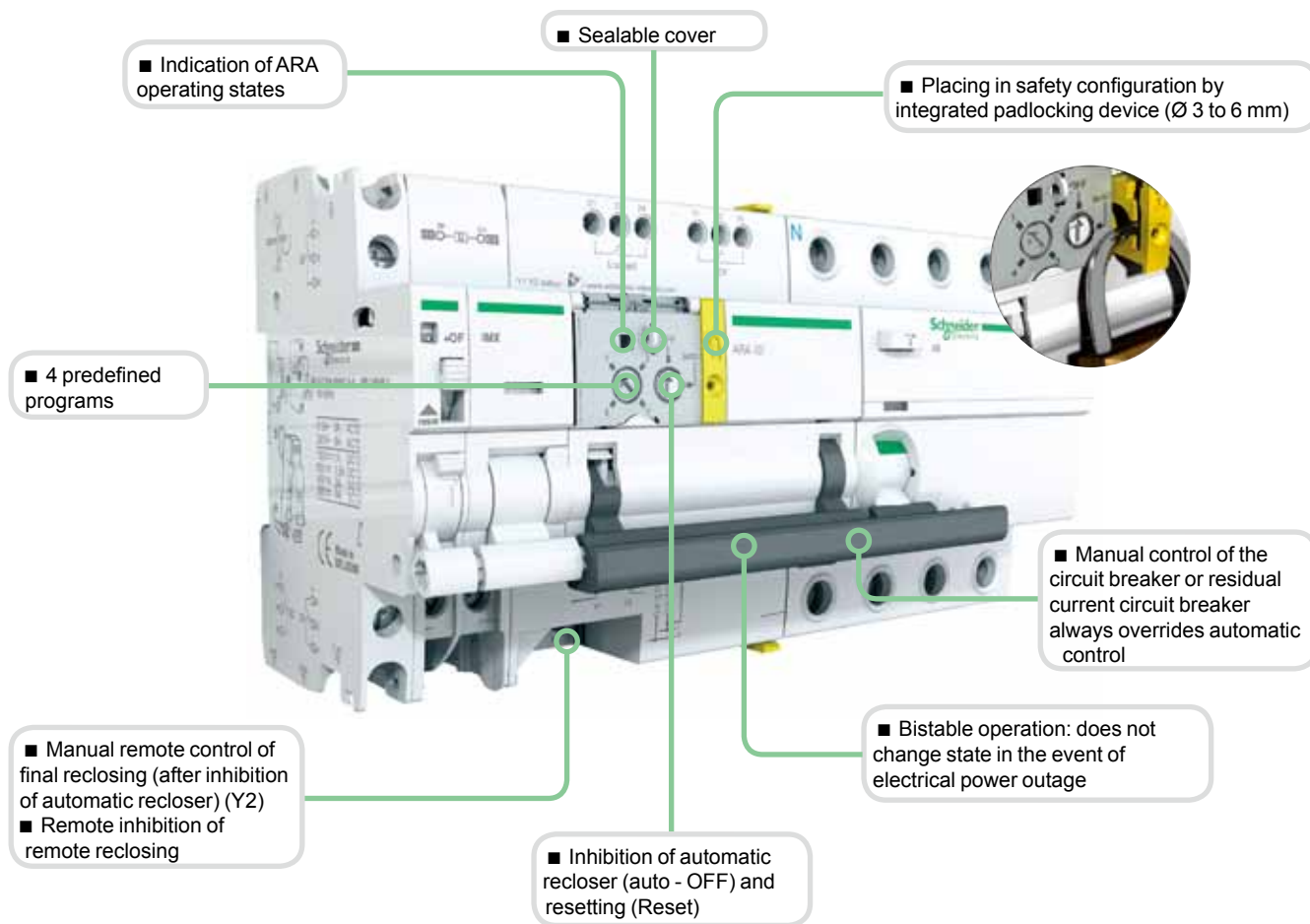


ARA iID



ARA automatic reclosers

For iC65 circuit breakers and iLD residual current circuit breakers

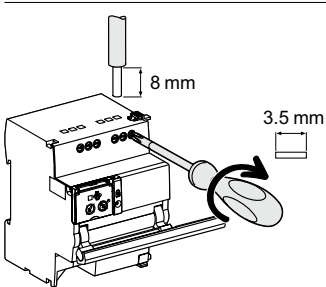
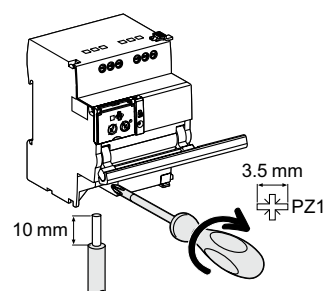


Indication auxiliaries		Tripping auxiliaries	ARA remote control	iC65 or iLD device	Vigi iC65 add-on RCD
No	1 (iSD or iOF or OF/SD+OF or iOF+SD24)	1 (iMX or iMN or IMSU or iMNV) max.	 ARA	 iC65	 Vigi iC65
1 iOF	1 (iSD or iOF or OF/SD+OF)	No		 iLD	

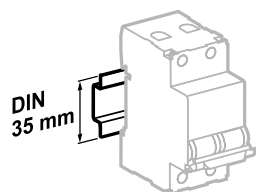
ARA automatic reclosers

For iC65 circuit breakers and iID residual current circuit breakers

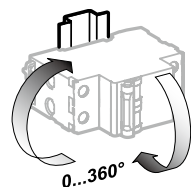
Connection



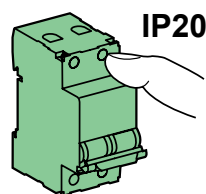
		Without accessories		
Terminal	Tightening torque	Copper cables		
		Rigid	Flexible	Flexible with ferrule
Power supply (N/P) Inputs (Y1/Y2)	1 Nm	 0.5 to 10 mm ² 2 x 0.5 to 2 x 2.5 mm ²	 0.5 to 6 mm ² 2 x 0.5 to 2 x 2.5 mm ²	 0.5 to 4 mm ² 2 x 0.5 to 2 x 2.5 mm ²
Outputs (OF/Locked)	0.7 Nm	 0.5 to 2.5 mm ² 2 x 0.5 to 2 x 1.5 mm ²	 0.5 to 2.5 mm ² 2 x 0.5 to 2 x 1.5 mm ²	 0.5 to 1.5 mm ² 2 x 0.5 to 2 x 1.5 mm ²



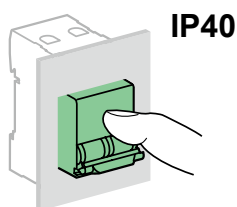
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

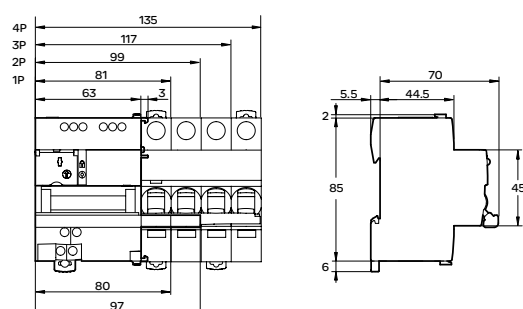
Technical data

Control circuit		
Supply voltage (U _e) (N/P)		230 V AC, 50 Hz
Control voltage (U _c)	Type 1 inputs (Y1/Y2)	230 V AC (as per IEC 61131-2)
Min. duration of control order (Y2)		≥ 200 ms
Response time (Y2)		< 500 ms
Consumption		≤ 1 W
Thermal self-protection with automatic Reset against overheating of the control circuit due to an abnormal number of operations		
Endurance (O-C) (ARA combined with a circuit breaker)		
Electrical		5000 cycles
Indication / Remote control		
Potential-free changeover contact output (OF/Locked)	Min.	24 V AC/DC, 10 mA
	Max.	230 V AC, 1 A
Input (Y1/Y2)	230 V AC	5 mA
Additional characteristics		
Degree of protection (IEC 60529)	Device only	IP20
	Device in a modular enclosure	IP40
		Insulation class II
Insulation voltage (U _i)		400 V
Degree of pollution (IEC 60947)		3
Rated impulse withstand voltage (U _{imp})		6 kV
Operating temperature		-25°C to +60°C
Storage temperature		-40°C to +70°C
Tropicalization		Treatment 2 (relative humidity of 93 % at +40°C)

Weight (g)

Automatic reclosers	
Type	ARA
For 1P, 1P+N, 2P circuit breakers or iID 2P residual current circuit breaker	440
For 3P, 4P circuit breakers or iID 4P residual current circuit breaker	470

Dimensions (mm)



To be listed



CE

Country approval pictograms

ComReady



GB14048.2 IEC/EN 60947-2

The Reflex iC60 devices are integrated control circuit breakers which combine the following main functions in a single device:

■ Remote control by latched and/or impulse-type order according to the 3 operating modes to be chosen by the user.

■ Circuit breaker, to provide:

- circuit protection against short-circuit currents,
- circuit protection against overload currents,
- disconnection in the industrial sector.

Resetting after a fault is performed manually, by the resetting handle.

The version with Ti24 allows direct interfacing of the Reflex iC60 with a PLC, to:

- Execute remote control (Y3).
- Indicate the state of the control circuit (O/C) and circuit-breaker state information (auto/OFF).

The Ti24 interface also allows fast, reliable connection of the Reflex iC60 to the Acti9 Smartlink thanks to the prefabricated cables.

The iMDU auxiliary allows the Reflex iC60 to be controlled in 24/48 V AC/DC.

Alternating current (AC) 50 Hz

Ultimate breaking capacity (Icu) as per IEC/EN 60947-2

	Voltage (Ue)		Service breaking capacity (Ics)
Ph/Ph (2P, 3P, 4P)	220~240 V	380~415 V	

Reflex iC60N

Rating (In)	10 ~ 40 A	20 kA	10 kA	75 % Icu
	63 A	20 kA	10 kA	50 % Icu

Reflex iC60H

Rating (In)	10 ~ 40 A	30 kA	15 kA	50 % Icu
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Catalogue numbers

Reflex iC60 circuit breaker

Type	2P		3P		4P	
Rating (In)	Curve		Curve		Curve	
	C	D	C	D	C	D

Reflex iC60N

With Ti24 interface

10 A	A9C62210	A9C63210	A9C62310	A9C63310	A9C62410	A9C63410
16 A	A9C62216	A9C63216	A9C62316	A9C63316	A9C62416	A9C63416
25 A	A9C62225	A9C63225	A9C62325	A9C63325	A9C62425	A9C63425
40 A	A9C62240	-	A9C62340	-	A9C62440	-
63 A	A9C62263	-	A9C62363	-	A9C62463	-

Without Ti24 interface

10 A	A9C52210	-	A9C52310	-	A9C52410	-
16 A	A9C52216	-	A9C52316	-	A9C52416	-
25 A	A9C52225	-	A9C52325	-	A9C52425	-
40 A	A9C52240	-	A9C52340	-	A9C52440	-
63 A	A9C52263	-	A9C52363	-	A9C52463	-

Reflex iC60H

With Ti24 interface

10 A	A9C65210	A9C66210	A9C65310	A9C66310	A9C65410	A9C66410
16 A	A9C65216	A9C66216	A9C65316	A9C66316	A9C65416	A9C66416
25 A	A9C65225	A9C66225	A9C65325	A9C66325	A9C65425	A9C66425
40 A	A9C65240	-	A9C65340	-	A9C65440	-
Width in 9 mm modules	9		11		13	

Reflex iC60N, iC60H (curves C, D)

To be listed

■ Tripping and disconnection device capable of:
□ disconnecting and padlocking (Ø 3 to 6 mm not supplied) in “open” position
□ neutralizing remote control

■ Ti24 interface for direct link to PLC and Acti 9 Smartlink

ComReady

■ IP20 insulated terminals

■ Bistable operation:
does not change state in the event of electrical power outage

■ Operating state indicator lamp

■ Resetting handle

■ Pushbutton:
□ manual control:
opening/closing
□ choice of operating “modes”

VisiSafe
■ Positive contact indication
■ Uimp: 6 kV
■ Ui: 500 V
■ Degree of pollution: level 3

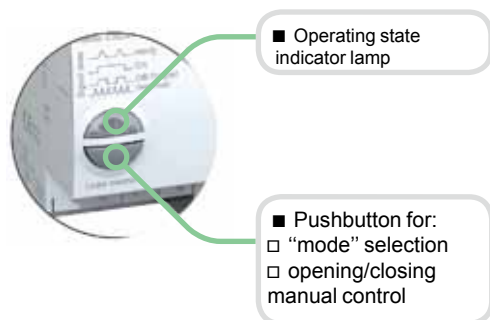


- Longer product service life thanks to:
- good overvoltage withstand capacity: products designed to provide a high industrial performance level (degree of pollution, rated impulse withstand voltage and insulation voltage)
 - high limitation performances
 - fast closure independent of the speed of resetting of the operating handle

Legend	
Ti24 interface	
+24VDC	V DC power supply
Y3	Remote control by latched order
auto/OFF	Circuit-breaker state information
O/C	Control circuit state information (open/closed)
0 V	V DC power supply

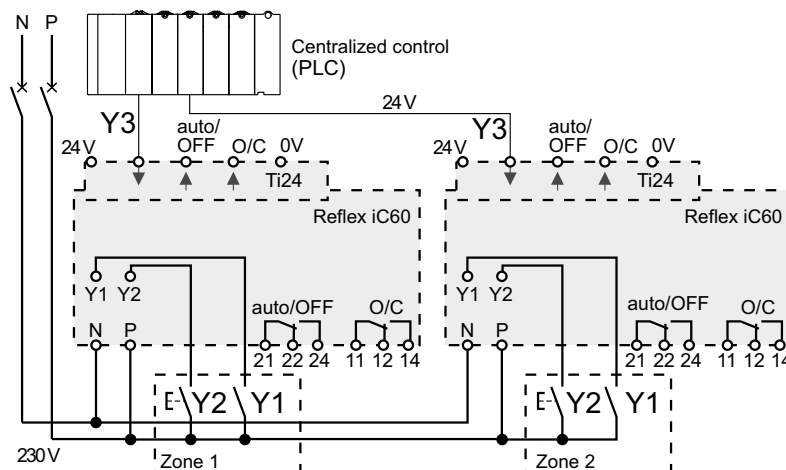
Y1	Latched order control
Y2	Control by impulse-type
N	230 V AC power supply
P	
O/C	Control circuit state indication contact
auto/ OFF	Circuit-breaker tripping indication contact

To be listed



Remote control is possible by 3 operating modes to be set using the pushbutton on the front panel.

Three types of control: Y1, Y2, Y3



Operating modes

Mode 1: Reflex iC60 opening/closing, locally or centrally controlled

- The opening/closing orders come from various control points, and they are taken into account in their order of arrival
- Y1: latched order local control
- Y2: impulse-type local control
- Y3: latched order centralized control

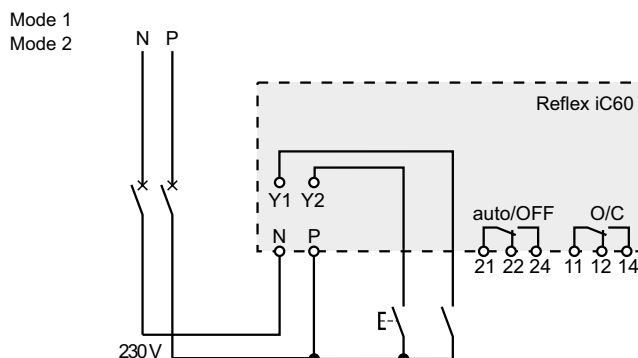
Mode 2: Reflex iC60 opening/closing, possible inhibition of local impulse-type control

- Y1 is used to inhibit Y2
- Y1: local opening/Y2 inhibition latched order control
- Y2: impulse-type local opening/closing control
- Y3: latched order centralized opening/closing control

Mode 3: Reflex iC60 opening/closing, possible inhibition of centralised latched order control

- Y1 is used to inhibit Y3
- Y3 inhibition local latched order control
- Y2: impulse-type local opening/closing control
- Y3: latched order centralized opening/closing control

Reflex iC60 without Ti24 interface



Reflex iC60 with Ti24 interface

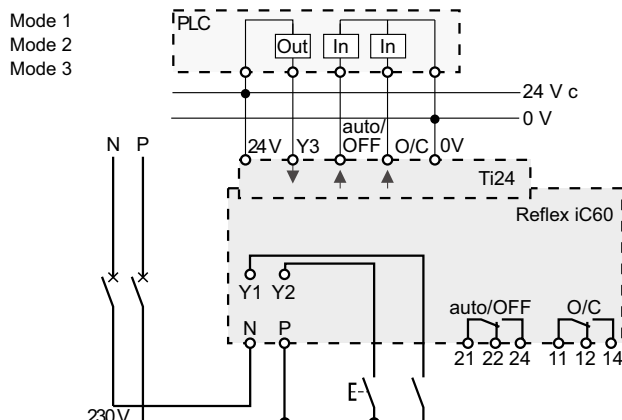


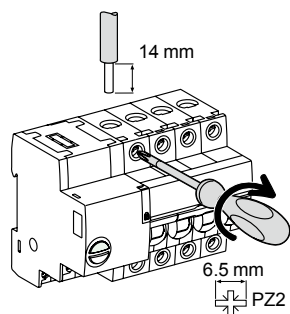
Table of modes

	Mode 1	Mode 2	Mode 3
Reflex iC60 without interface Ti24	■ Default mode	■ Possible mode	–
Reflex iC60 with interface Ti24	■ Possible mode	■ Possible mode	■ Default mode

Reflex iC60N, iC60H (curves C, D)

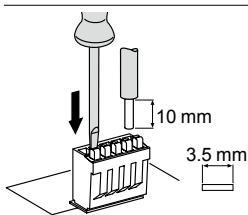
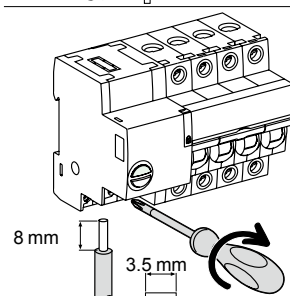
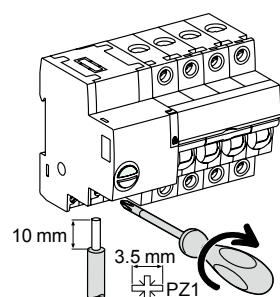
To be listed

Power connection



			Without accessories		With accessories			
Terminal	Rating	Tightening torque	Copper cables		Al terminal 50 mm ²	Screw-on connection for ring terminal	Multi-cable terminal	
			Rigid	Flexible or with ferrule			Rigid cables	Flexible cables
Power	10 ~ 25 A	2 N.m						
	40 ~ 63 A	3.5 N.m	1 ~ 25 mm ²	1 ~ 16 mm ²	-	Ø 5 mm	-	-
			1 ~ 35 mm ²	1 ~ 25 mm ²	50 mm ²		3 x 16 mm ²	3 x 10 mm ²

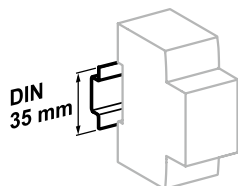
Control connection



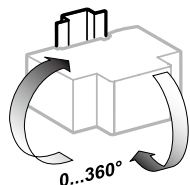
		Without accessories		
Terminal	Tightening torque	Copper cables		
		Rigid	Flexible	Flexible with ferrule
Power supply (N/P) Inputs (Y1/Y2)	1 N.m			
		1 ~ 10 mm ²	1 ~ 6 mm ²	1 ~ 4 mm ²
Outputs (O/C, auto/OFF)	0.7 N.m	1 ~ 2.5 mm ²	1 ~ 2.5 mm ²	1 ~ 1.5 mm ²
Ti24 interface	Spring-loaded terminals	0.5 ~ 1.5 mm ²	0.5 ~ 1.5 mm ²	0.5 ~ 1.5 mm ²

Reflex iC60N, iC60H (curves C, D)

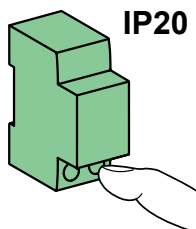
To be listed



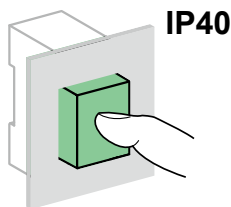
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Technical data

Control circuit

Supply voltage (Ue) (N/P)		230 V AC-50 Hz
Control voltage (Uc)	Inputs (Y1/Y2)	230 V AC-5 mA
	Input (Y3)	24 V DC - 5.5 mA
Min. duration of control impulse (Y2)		≥ 250 ms
Response time (Y2)		≤ 200 ms
Consumption		≤ 1 W
Inrush consumption		< 1000 VA
Length of control wires	Inputs (Y1/Y2)	Cable: 100 m
		Wires in a sheath: 500 m
	Input (Y3)	500 m
Inrush current at 230 V - 50 Hz	2P	4.2 Å
	3P	8.2 Å
	4P	16.2 Å

Power circuit

Max. working voltage (Ue)		400 V AC
Insulation voltage (Ui)		500 V
Rated impulse withstand voltage (Uimp)	Set to Disconnected	6 kV
	Set to Ready	4 kV
Thermal tripping	Reference temperature	50°C
Magnetic tripping	C	8 In ± 20 %
	D	12 In ± 20 %
Overvoltage category (IEC 60364)		IV

Indication / Remote control

Potential-free changeover contact outputs (O/C, auto/OFF)	Min.	24 V DC - 100 mA
	Max	230 V AC - 1 A

Ti24 interface (as per IEC 61131)

Outputs (O/C, auto/OFF)	Ti24 interface	24 V DC - 100 mA max
-------------------------	----------------	----------------------

Endurance (O-C)

Electrical	AC1 - AC7a	50,000 cycles ⁽¹⁾
	AC5a - AC5b	15,000 cycles ⁽¹⁾
	AC7c	20,000 cycles ⁽¹⁾
Mechanical		50,000 cycles

Additional characteristics

Degree of protection (IEC 60529)	Device only	IP20
	Device in a modular enclosure	IP40 Insulation class II
Degree of pollution		3
Operating temperature		-25°C to +60°C
Storage temperature		-40°C to +85°C
Tropicalization		Treatment 2 (relative humidity of 93 % at 40°C)
Immunity to voltage dips		IEC 61000-4-11 class III
Immunity to power supply frequency variations		IEC 61000-4-28 and IACS E10
Immunity to harmonics		IEC 61000-4-13 class 2
Immunity to electrostatic discharges	Air	8 kV, IEC 61 000-4-2
	Contacts	4 kV, IEC 61 000-4-2
Immunity to stray magnetic fields		10 V/m , 3 GHz, IEC 61000-4-3
Immunity to fast transients		4 kV , 5 ~ 100 kHz, IEC 61000-4-4
Immunity to shock waves		IEC 61000-4-5
Immunity to power frequency magnetic fields		10 V , 150 kHz~ 80 MHz, IEC 61000-4-6
Immunité aux champs magnétiques à la fréquence du réseau		Level 4 30 A/m to IEC 61000-4-8 and IEC 61000-4-9
Conducted emissions		CISPR 11/22
Radiated emissions		CISPR 11/22

(1) See the derating table according to the load types and ratings.

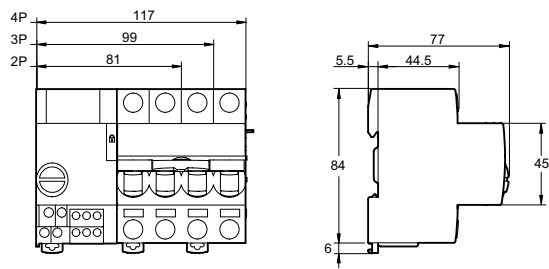
Reflex iC60N, iC60H
(curves C, D)

To be listed

Weight (g)

Circuit breaker	
Type	Reflex iC60
2P	480
3P	620
4P	750

Dimensions (mm)





Country approval pictograms



ComReady

The Acti 9 Smartlink transmits data from Acti 9 devices to a PLC or a supervision system via the Modbus serial line communication network.

Functions

Data transmission between the Modbus network and Acti 9 devices

■ Circuit breakers, residual current circuit breakers, residual current devices:

- ☐ open/closed state
- ☐ tripped state
- ☐ number of opening/closing cycles
- ☐ number of tripping actions.

■ Contactors, impulse relays:

- ☐ opening control
- ☐ closing control
- ☐ open/closed state
- ☐ number of cycles
- ☐ total period of operation of the load (device closed).

■ Remote controlled circuit breaker/Reflex iC60:

- ☐ opening control
- ☐ closing control
- ☐ open/closed state
- ☐ tripped state
- ☐ number of cycles
- ☐ total period of operation of the load.

■ Power meters:

- ☐ number of pulses recorded
- ☐ pulse value setting (e.g. kWh)
- ☐ total consumption recorded
- ☐ estimate of power consumption.

All the data are stored in memory: number of cycles, consumption, period of operation, even in the event of a power failure.

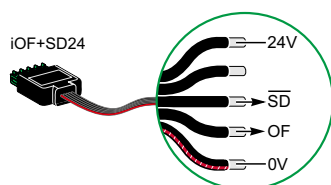
The Acti 9 Smartlink can also exchange data with any device having 24 V DC digital inputs/outputs.

No configuration of the connected products is required.

When the Acti 9 Smartlink is switched on, communication automatically adjusts to the Modbus Master (PLC, control station) communication parameters.



A9XMSB11



Catalogue numbers

Acti 9 Smartlink				
Type		Set of		
Acti 9 Smartlink		1	A9XMSB11	
Supplied with	Modbus connector	1		
	24 V DC power supply connector	1		
	Locking clips for mounting on Multiclip 80	2		
Accessories				
Link USB / Modbus for Acti 9 Smartlink test		1	A9XCATM1	
Prefabricated cables				
	With 2 connectors	Short: 100 mm	6	A9XCAS06
		Medium-sized: 160 mm	6	A9XCAM06
		Long: 870 mm	6	A9XCAL06
	With 1 connector	Long: 870 mm	6	A9XCAU06
Connectors	5-pin connectors (Ti24)	12	A9XC2412	
				
Mounting kit	DIN rail (4 feet, 4 straps, 4 adapters)	1	A9XMFA04	
	Multiclip 200 A (4 adapters)	1	A9XM2B04	
Spare parts	Lock for Multiclip 80 A (2 clips)	1	A9XMLA02	

The Acti9 communication system

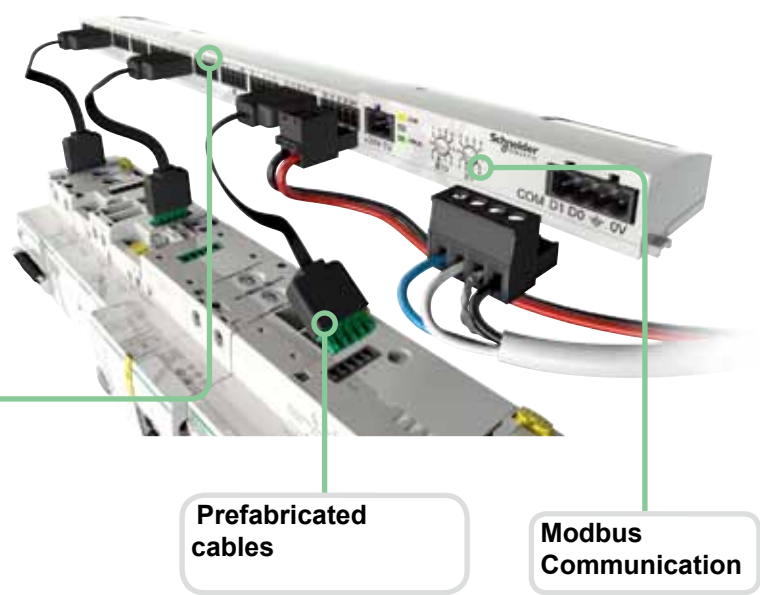
Acti9 Smart Test software

- Electrical continuity test
- Functional testing of the devices
- Report printing
- Printing of a simplified diagram
- Project archiving
- Compatible with Windows XP, Seven
- To be download on: Schneider Electric web sites:
 - schneider-electric.com or
 - schneider-electric country web site)

11 input/output channels

- Standard connectors
- In accordance with the IEC 61131-2 standard

- Communication adapts automatically to the communication parameters of the Modbus master (PLC, supervisor).
- Up to 32 slaves connected



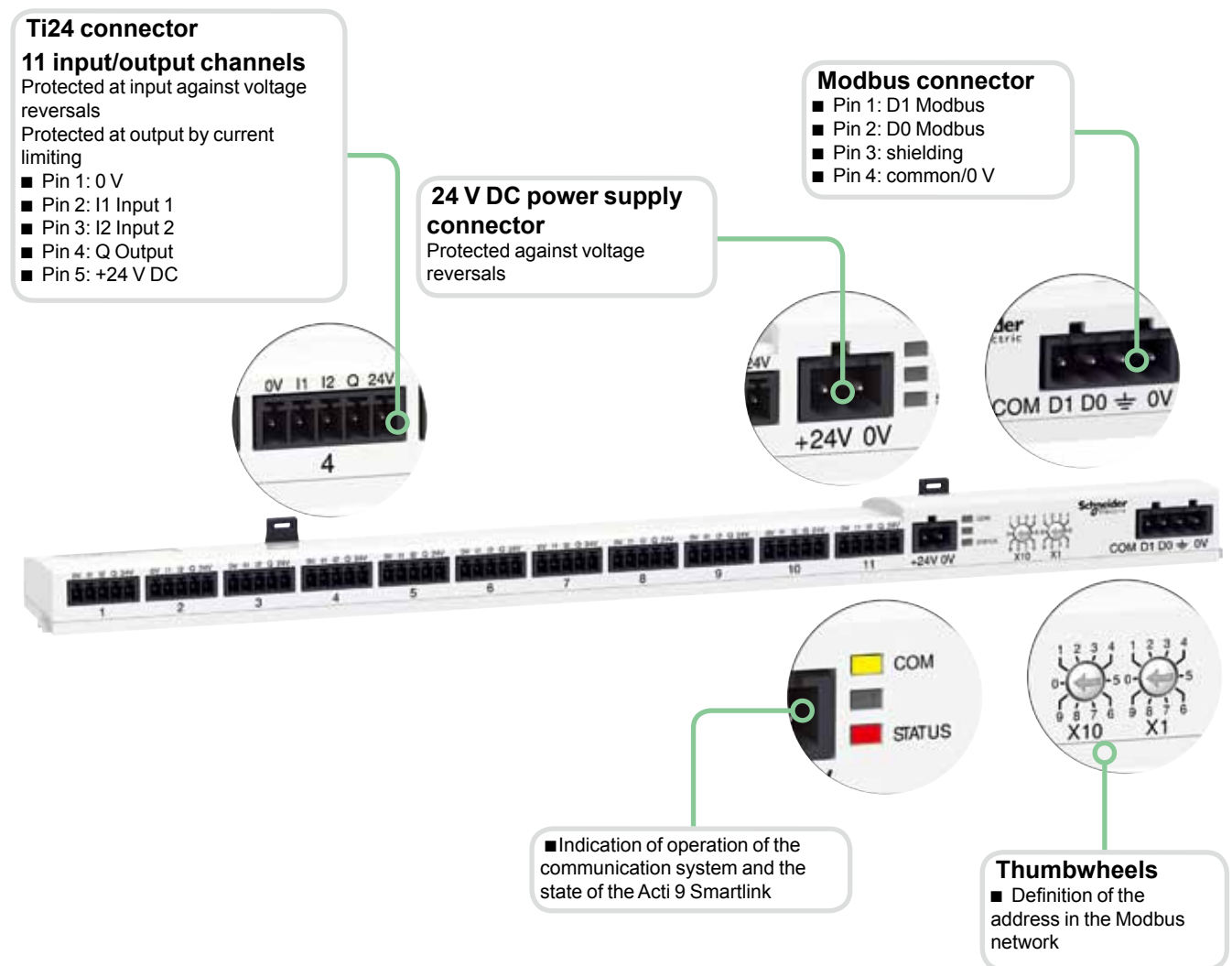
Connectable devices

With Ti24 interface		
Type	Reference	Description
iACT24	A9C15924	Low-level control and indication auxiliary for iCT contactors
iATL24	A9C15424	Low-level control and indication auxiliary for iTL impulse relays
iOF+SD24	A9A26897	Low-level indication auxiliary for iC60, iID, ARA, RCA, iSW-NA
OF+SD24	A9N26899	Low-level indication auxiliary for C60, C120, DPN, RCCB/iD, C60H-DC
RCA	Refer to page183	Remote control accessory with Ti24
Reflex iC60	Refer to page193	Reflex iC60 with Ti24
Without Ti24 interface		
24VDC Not more than 100mA of every output port		
IC2000 light sensitive switches		
Time switch		
24VDC Assistant contactor, IEC61131-2 Type1		
Impulse meter, IEC62053-21		
Impulse elctric energy meter,for example iEM3110		

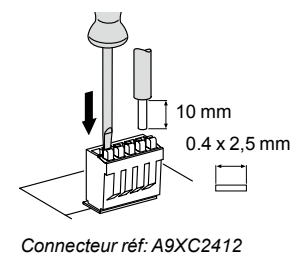
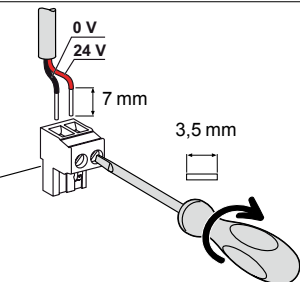
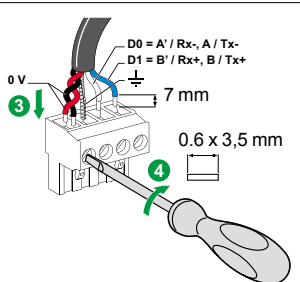
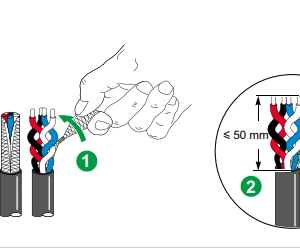


Installation

- Mounting in switchboards:
 - width 24 modules per row;
 - minimum spacing between rails 150 mm.



Connection

	Terminal	Terminal Tightening torque	Copper cables		
			Rigid	Flexible	Flexible with ferrule
	Ti24 interface	Spring loaded terminal	 0.5 to 1.5 mm ²	 0.5 to 1.5 mm ²	-
	Power supply connector	0.8 N.m	0.2 to 1.5 mm ²	0.2 to 1.5 mm ²	0.2 to 1.5 mm ²
	Modbus connector	0.8 N.m	0.25 mm ²	0.25 mm ²	0.25 mm ²

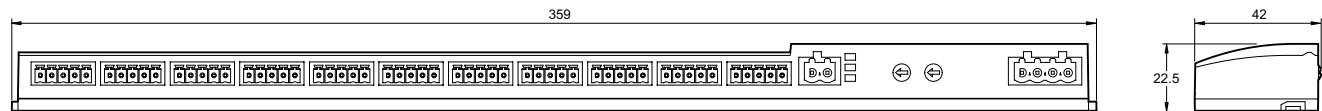
Weight (g)

Acti9 Smartlink

Type

Acti9 Smartlink | 195

Dimensions (mm)



Technical characteristics

Characteristics of the Modbus link		
Link		Modbus, RTU, RS485 serial connection
Transmission	Transfer rate	9600 baud ... 19200 baud, self-adaptable
	Medium	Shielded cable, double twisted pair
Structure	Type	Modbus.org
	Method	Master/Slave
Type of device		Slave
Configuration	Modbus addressing range of the Acti9 Smartlink	99
	Maximum number of slaves for a Modbus master	
	Maximum length of the bus	1000 m
Type of bus connector		4-pin connector
Power supply		
Rated		24 V DC $\pm$ 20 %
Maximum input current		1.5 A
Maximum inrush current		3 A
Meter		
Capacity		2 ³² pulses per input
Input characteristics		
Type of input		Current collector Type 1 IEC 61131-2
Number of channels		11 2-input channels
Maximum cable length		20 m
Rated voltage		24 V DC
Voltage limits		24 V DC $\pm$ 20 %
Rated current		2.5 mA
Maximum current		5 mA
Filtering time	In state 1	1 ms
	In state 0	1 ms
Isolation		No isolation between ports
Negative sequence voltage protection		Yes
Output characteristics		
Number of output channels		11
Type of output		24 V DC 0.1 A current source
Rated voltage	Voltage	24 V DC
	Maximum current	100 mA
Filtering time	In state 1	1 ms
	In state 0	1 ms
Voltage drop (voltage in state 1)		1 V max
Maximum inrush current		500 mA
Leakage current		0.1 mA
Overvoltage protection		33 V DC
Environmental characteristics		
Temperature	Operating	-25°C ... +60°C if vertical mounting, limited to 50°C
	Storage	-40°C...+80°C
Tropicalization		Treatment 2 (relative humidity of 93% at 40°C)
Resistance to voltage dips		10 ms, class 3 as per IEC 61000-4-29
Degree of protection		IP20
Pollution degree		3
Altitude	Operating	0 ... 2000 m
Vibration resistance	As per IEC 60068-2.6	1 g / $\pm$ 3.5 mm - 5 Hz to 300 Hz - 10 cycles
Shock resistance	As per IEC 60068-2.2.7	15 g / 11 ms
Immunity to electrostatic discharge	As per IEC 61000-4-2	Air: 8 kV
		Contact: 4 kV
Immunity to radiated magnetic fields	As per IEC 61000-4-3	10 V/m - 80 MHz to 3 GHz
Immunity to fast transients	As per IEC 61000-4-4	1 kV for inputs/outputs and Modbus communication. 2 kV for 24 DC power supply - 5 kHz - 100 kHz
Immunity to conducted magnetic fields	As per IEC 61000-4-6	10 V from 150 kHz to 80 MHz
Immunity to magnetic fields at mains frequency	As per IEC 61000-4-8	30 A/m
Resistance to corrosive atmospheres	As per IEC 60721-3-3	Level 3C2 on H ₂ S / SO ₂ / NO ₂ / Cl ₂
Fire resistance	For live parts	At 960°C 30 s / 30 s as per IEC 60 695-2-10 and IEC 60 695-2-11
	For other parts	At 650°C 30 s / 30 s as per IEC 60 695-2-10 and IEC 60 695-2-11
Salt spray test	As per IEC 60068-2.52	Severity 2
Environment		In compliance with the RoHS directive
Additional characteristics		
Mean time between failure (MTBF) = MTTF at 70°C		1,851,818 h
Duration of saving memory		10 years
Prefabricated cables characteristics		
Dielectric resistance		1 kV / 5 min
Minimum draw-out resistance		20 N

Function



The time switches control the opening and closing of one or more separate circuits according to a program preset by the user.
The dimensions of the 18 mm IH are reduced to two modules of 9mm.
24 h IH: The sequences are repeated daily.
7 days IH: The sequences are repeated weekly.

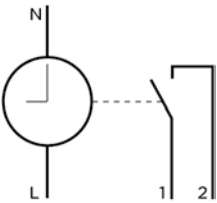
Description

- Technical data
- Programming
 - reference 15335 and 15336: 96 sections per day, each for 15 minutes
 - reference 15331: 84 sections per week, each for 2 hours
 - interval between two conversions:
 - IH : 15 minutes
 - IHH: 2 hours
 - cover with lock
 - control circuit
 - 230 V AC -10 % ~ +6 %
 - frequency: 46 ~ 50 Hz
 - consumption: 2.5 VA
 - main circuit 250 VAC: contact rating
 - 16A ($\cos\varphi = 1$)
 - 4A ($\cos\varphi = 0.6$)
 - utilisation temperature: -10 °C ~ +50 °C
 - connection: tunnel terminals for cables up to 6 mm²



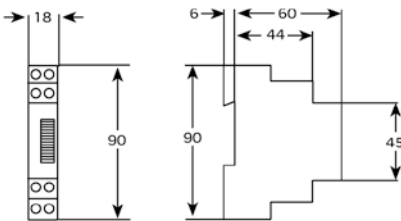
15335

Type	Power reserve (h)	Width (in mod. of 9 mm)	Reference
IH 24 hours	无	2	15335
	100	2	15336
IHH 7 days	100	2	15331



15335, 15336

Dimensions (mm)



Function



Country approval pictograms

The time switches control the opening and closing of one or more separate circuits according to a program preset by the user.

-60 min IH

The sequences are repeated hourly.

-24 h IH

The sequences are repeated daily.

-7 days IH

The sequences are repeated weekly.

Description

Technical data

■ Voltage rating

□ 230V AC $\pm 15\%$, 50 Hz (reference: CCT15338, 16364)

□ 110~240 V AC $\pm 15\%$, 50~60 Hz (reference: 15337, CCT15365, CCT15367)

■ Consumption: 2.5 VA (CCT15338: 1 VA)

■ Contact rating (250 V AC)

□ 16A ($\cos\varphi = 1$) or 4A ($\cos\varphi = 0.6$), reference: CCT15365, CCT15367

□ 10A ($\cos\varphi = 1$) or 4A ($\cos\varphi = 0.6$), reference: 15337, CCT15338

■ Maximum times of conversions

□ reference CCT15338, 24 opening/24 closing per hour

□ reference CCT15365, 24 opening/24 closing per day

□ reference 15337, 24 opening/ 24 closing per day for each channel

■ Programming

□ by jumpers (supplied)

-reference 15337: 4 red + 4 green + 2 white

-reference 15367: 7 green + 7 red

■ Permanent ON selector switch for 18mm IH and for IHH, catalogue number: 15331

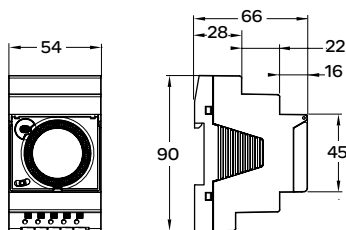
■ Optional cover sealing

■ Utilisation temperature: $-10\text{ }^{\circ}\text{C} \sim +50\text{ }^{\circ}\text{C}$

■ Weight(g): 135

■ Connection: tunnel terminals for cables up to 6 mm²

Dimensions (mm)

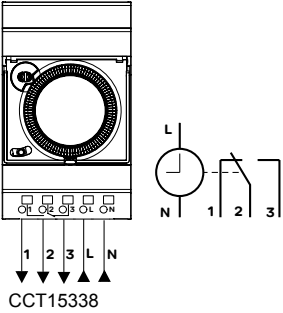


IH 54mm mechanical time switches
60 min, 24 h , 7 days



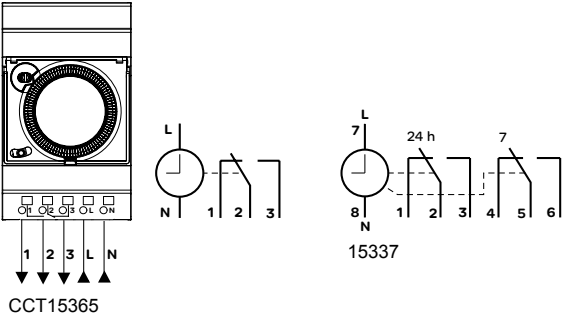
CCT15338

Type	Number of channel	Power reserve (h)	Interval between 2 jumpers on dial	Width (in mod. of 9 mm)	Reference
IH					
60 min	1	0	2 min	6	CCT15338



CCT15365

24 h	1	150	30 min	6	CCT15365
	2	150	30 min	6	15337

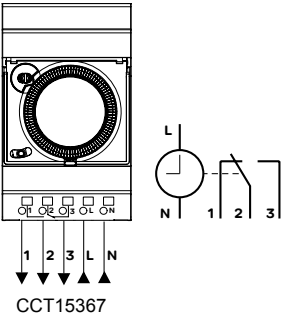


15337

7 days	1	150	4 h	6	CCT15367
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CCT15367



Function

Programmable time switches control opening and closing of one or more separate circuits according to a stored programme predetermined by the user.

Description



Country approval pictograms

Technical data

- Voltage: 230 V AC $\pm 10\%$
- Frequency: 50 ~ 60 Hz
- Programming cycle
 - IHP 1c / IHP+1c: 7 days or 24 h
 - IHP 2c / IHP+2c: 7 days or 24 h
- Interval between 2 conversions:
 - IHP 1C/2C, 1 min
 - IHP+1C/+2C, 1 s
- Accuracy: quartz time base ± 1 s a day at 20 °C
- Storing the programme using the battery: 6 year life span
- Consumption: IHP 1C/+1C, 4 VA; IHP 2C/+2C, 7 VA
- Output changeover switch
 - 250 V AC; 16 A $\cos\varphi=1$; 250 V AC; 10 A $\cos\varphi=0.6$
- Connection: tunnel terminals for cables up to 6 mm²
- Permanent liquid crystal display:
 - of hour and minutes
 - of day of the week
 - of channel switching status 9 alternating Channel 1/ Channel 2 on the IHP 2c and the IHP+2c
 - of the day programme (alternating Channel 1/ Channel 2 on the IHP 2c and the IHP+2c)
 - of mains or battery operation
- navigation using 4 keys "menu, <-, >+, OK" to access the programming and set time modes, as well as the manual and impulse function modes on the IHP+1c and the IHP+2c
- Programming:
 - language choice: French, English, Italian, German, Spanish or Portuguese
 - words in the language chosen help guide you through the menus
 - possibility of creating, verifying, modifying or erasing,

completely or partially (step by step), the programme

Setting time and switching to "winter/summer" time without programme modification

- automatic: (depending on geographical zone)
- manual by the user
- "On/Off" override
 - temporary
 - permanent
- direct access using front panel keys
- Block programming for repeated switching operations over the week
- to save on the number of modules used
- can be individually modified
- Reset function for general reset (programme, hour, chosen language)
- Sealable pivoting cover
- manual placed in the "manualholder" under the cover

Special technical data for IHP+1c and IHP+2c

"manual" functions

- temporary cancellation of programming for public holidays, vacations, etc. by giving parameters for the 2 dates (absence start and absence end)
- Simulation of presence thanks to the random function during ON periods

"Impulse" functions

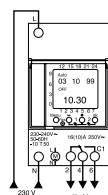
- Adjustable time delayed programming from 2 to 59 seconds (impulse has priority over switching)



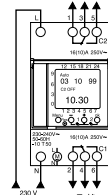
CCT15723



Type	Number of channels	Number of switch orders	Holiday timing random impulse	backup memory	Width (in mod. of 9 mm)	Reference
IHP 7 天						
IHP 1c	1	56		无	5	CCT15720
IHP + 1c	1	84	x	有	5	CCT15721
IHP 2c	2	56		无	5	CCT15722
IHP + 2c	2	84	x	有	5	CCT15723



CCT15721



CCT15723

Type	Reference
accessories	
programming toolkit	CCT15860
backup memory	CCT15861

Function



Country approval pictograms

ITM multifunction time switches can perform time programming, time delay control and counting for open-close control of 1-4 independent channels according to the functions and parameters set by the user.

The operation of ITM is simple and convenient and it can easily perform time programming, lighting control and counting. EEPROM backup memory can copy the programming procedure to other products and also can be used for backup.

Description

Technical data

- operating voltage: 230V AC $\pm 10\%$, 50Hz
- consumption: 45VA max
- memory capacity
 - week programming: 45 cycles
 - year programming: 15 cycles
 - different impulse programming: 20 cycles
- interval between two programming operation
 - 1 min
- clock using lithium battery (recording date and time)
- life expectancy: 10 years
- EEPROM backup memory used for storage of program
- connection terminal: up to 6mm²
- dimension:
 - length x width x height: 90 x 90 x 65mm
 - module (in mod. of 9mm): 10
- weight: 290g

time programming

- operation cycle (1cycle=1on+1off), able to perform operation modes of day-cycle, week-cycle and year-cycle according to program preset by the user.
- operation cycle can be copied to one day or a few days of the week
- switch of "winter/summer" time
 - manual
 - automatic
- each input can be corresponding with several outputs
- the output can be set to force state and the setup process is not performed for the time

impulse programming

- the impulse duration can be set to 1-59 seconds, and the programming can be set to one day or a few days of the week

delayed close

- a time delay cycle starts when the set signal is input
- the load is energized at the end of time delay
- delay duration can be set from 1 s to 10 h

delayed break

- a time delay cycle starts when the set signal is input
- the load is de-energized at the end of time delay
- delay duration can be set from 1 s to 10 h timer
- delay duration can be set from 1 s to 10 h
- allows set of the time sequence and each operation time flash function
- applies a time delay to energisation and de-energisation of a load for different periods of time. the time duration can be set from 1-59 seconds, repeatedly
- the operation cycle starts when ITM is energized
- allows set of the time cycle and operation time of each day
- can be associated with set input signal

hour counter

- calculate operation time (h) of circuits, motors, equipment and lighting
- the time duration can be set between 1 to 99,999 hours
- maximum time duration: 99,999 hours
- the counter can be reset

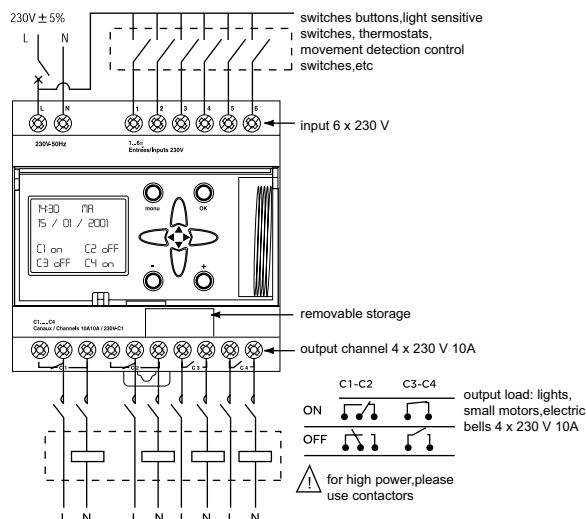
impulse counter

- calculate the number of impulse transmitted by sensors (power meters, temperature meter, flow and velocity)
- the time duration can be set between 1 to 99,999 hours
- maximum time duration: 99,999 hours
- the counter can be reset



15270

Type	Reference
ITM	15270

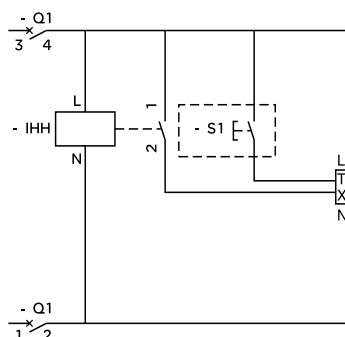


How to control automatically a ventilation system, where local control can also be applied

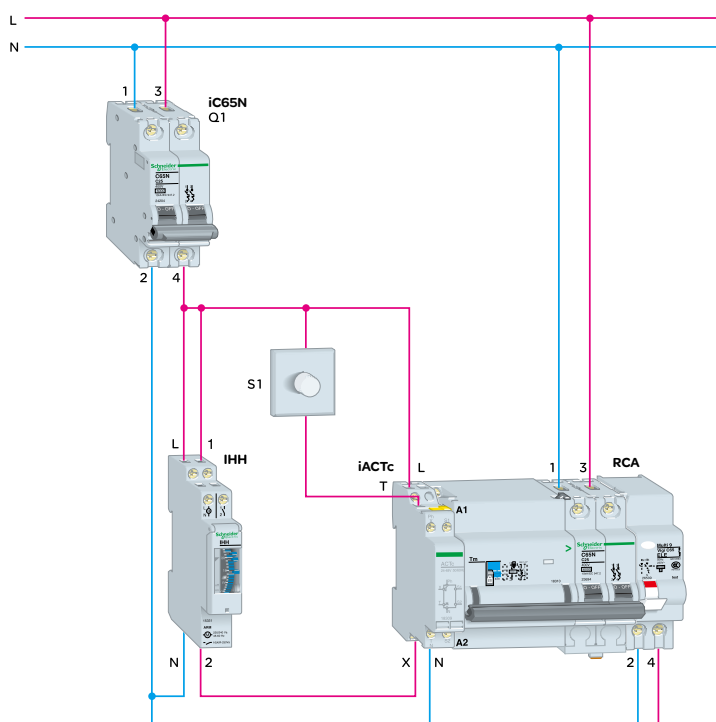
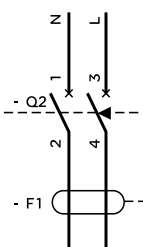
- a 1HH time switch controls the ventilation system by controlling the opening and closing of the TM+C65 circuit breaker
- RCA switch with a iACTc can accept two orders:
 - close down order by 1HH time switch
 - impulse order by a local S1 button; it can be operated manually by the local control button S1 at any time

Product used	Number	Reference
2P iC65N	2	-
2P Vigi iC65	1	-
iACTc	1	A9C18308
1HH	1	15331
RCA	1	-

control circuit



power circuit



How to manage the water heating system in building

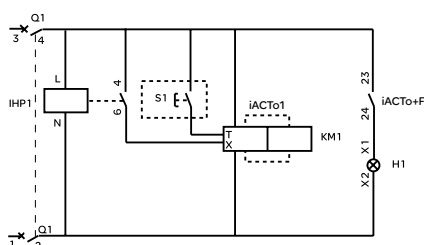
The public water heating tank is controlled by IHP programmable time switch and iCT contactor with ACTo+f auxiliaries

- normal operation: IHP programmable time switch controls the heating of the water tank
- users can also control the heating of the water tank by button instead of IHP programmable time switch
- returns to the normal operation state: because the last received order has priority, the switch will return to normal after the next switch

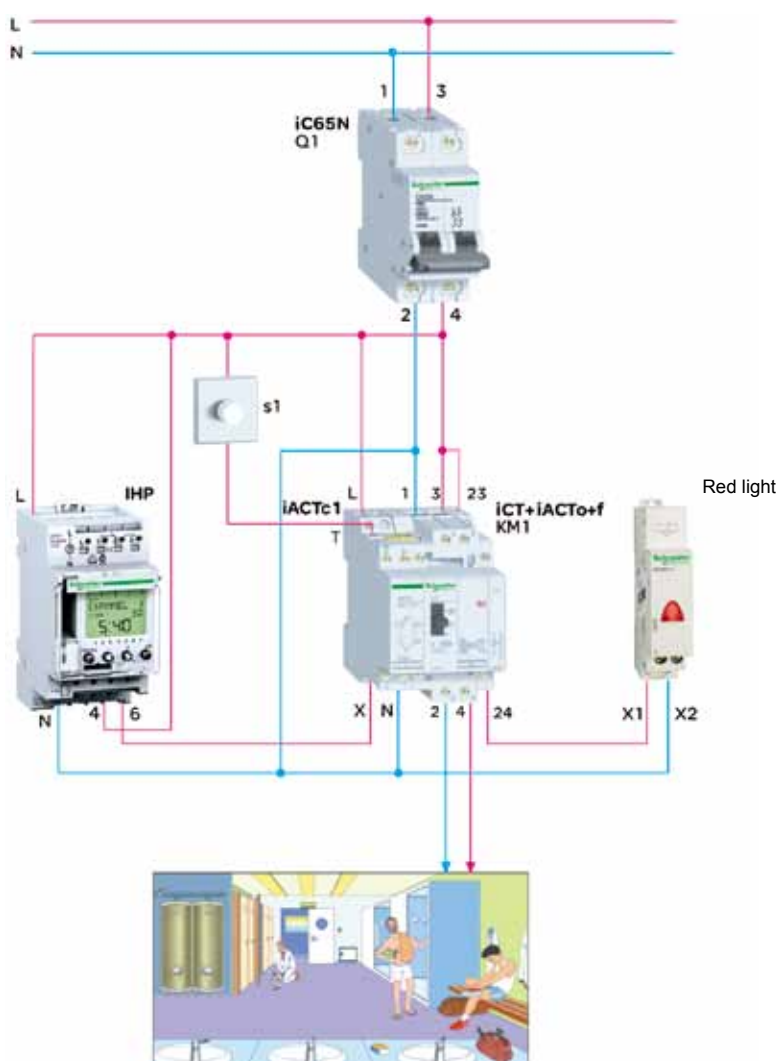
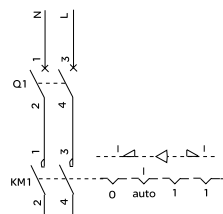
Note: the manual selection of iCT contactor makes the priority possible

Product used	Number	Reference
2P iC65N	1	-
2P iCT	1	A9C22715
iACTc	1	A9C18308
IHP 1C	1	CCT15720
red light	1	-

Control circuit



Power circuit



Function



Country approval pictograms

RTA

Delays energisation of a load.

RTB

Applies a time delay to energisation of a load on closing of an auxiliary contact (pushbutton).

RTC

Delays energisation of a load on closing of an auxiliary contact (pushbutton).

RTH

Applies a time delay to energisation of a load.

RTL

Applies a time delay to energisation and deenergisation of a load for different periods of time, repeatedly (flashing indicator).

RTMF

Lets you select one of the 4 time delay types: A, B, C or H.

Description

common technical data

- time delay range: 0.1 s to 100 h
- control circuit
 - control and supply voltage:
 - 24 V DC $\pm 10\%$
 - 24...240 V AC $\pm 10\%$
 - RTMF: 12...240 V AC / DC $\pm 10\%$
 - frequency: 50...60 Hz
 - consumption: 5 VA
 - operating temperature: -5 to +55 °C
 - power circuit
 - RTA, RTB, RTC, RTH, RTL: making contact
 - RTMF: switch contact
 - changeover switch (without cadmium)
 - minimum rating: 10 mA / 5 V DC
 - maximum rating: 8 A / 250 V DC and 8 A / 250 V AC
 - mechanical durability: $>10^7$ operations
 - electrical durability: $>100,000$ operations (utilisation category AC1)
 - visualisation of contact status by green indicator light (flashing during the time delay)
 - repetition accuracy: $\pm 0.5\%$ with constant parameters
 - unaffected by brownouts ≤ 20 ms
 - case protection: IP 40
 - connection by tunnel terminals
 - $2 \times 2.5 \text{ mm}^2$ single-strand cable without end
 - $2 \times 1.5 \text{ mm}^2$ multi-strand cable with end

specific technical data

RTA

- the single time delay cycle starts on energisation of the supply of the RTA relay

- the load is energised at the end of time delay T

RTB

- the single time delay cycle starts on closing of an auxiliary contact (pushbutton)

- at the end of time delay T, the load is de-energised

RTC

- the single time delay cycle starts on energisation of the supply of the RTC relay

- at the end of time delay T, the load is de-energised

RTH

- the single time delay cycle starts on energisation of the supply of the RTH relay

- the load is de-energised at the end of time delay T.

RTL

- the time delay cycle starts on energisation
- the load is energised for an adjustable time T1, then de-energised for an adjustable time T2. This cycle is repeated until the RTL relay supply is de-energised.

RTMF

- as applicable, the RTMF generates the time delay cycles of the RTA, RTB, RTC or RTH relays.

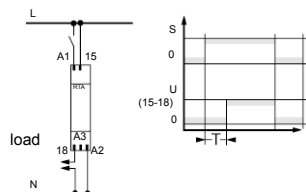
Time delay relays

RTA, RTB, RTC, RTH, RTL, RTMF



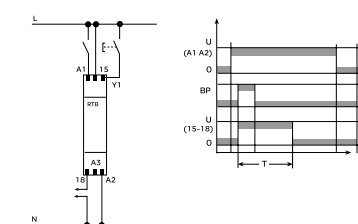
16065

Type	Voltage rating		Width (in mod. of 9 mm)	Reference
	(V AC)	(V DC)		
RTA	24...240	24	2	16065



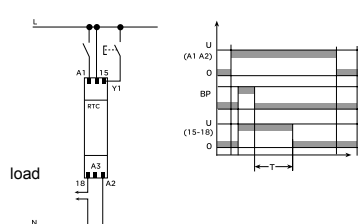
16066

RTB	24...240	24	2	16066
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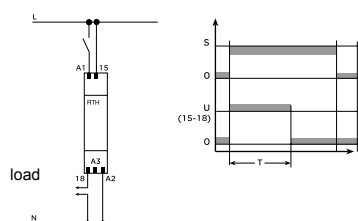
16067

RTC	24...240	24	2	16067
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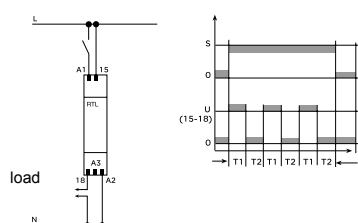
16068

RTH	24...240	24	2	16068
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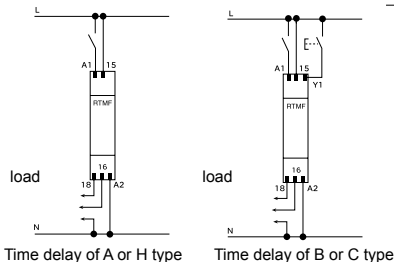
16069

RTL	24...240	24	2	16069
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16070

RTMF	12...240	12...240	2	16070
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Time delay of A or H type

Time delay of B or C type

Function

Opens or closes a contact when the photocell detects that an adjustable brightness threshold has been reached.

Description



Technical datas

- brightness threshold: adjustable from 2 to 2000 lux
- time delay: before switch ON and switch OFF ≥ 60 s
- operating voltage: 230 V +10%, -15%
- frequency: 50/60 Hz
- consumption: 6 VA
- operating temperature: -25 °C ~ +50 °C
- insulating degree : level II
- degree of protection: IP20B
- with a use guider on the front face
- contact ratings: (250 V AC)
- 16 A: $\cos \varphi = 1$
- 10 A: $\cos \varphi = 0.6$

Note: IC2000 (CCT15284) contains “panelfrontface” photocells (IP54);
IC2000 (CCT15368) contains “wall” photocells (IP54), with fixation.



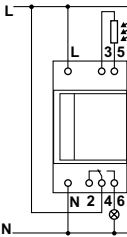
CCT15284



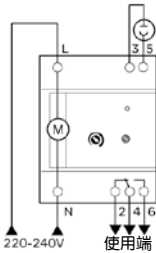
CCT15368

Type	Width (in modl. of 9mm)	Reference
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IC2000	5	CCT15284
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IC2000	5	CCT15368
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panel front face spare photo-cells	15281
wall spare photo-cells	CCT15268

Function



MINp

This timer allows closing and then opening of a contact in a predetermined time, and it also provides warning that the lighting is about to be switched off by reducing the brightness by 50%.

Description

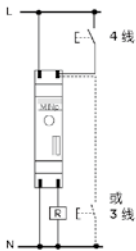
MINp

- two operating mode striggered by switch on front face:
- ☐ automatic mode with warning function:
 - operation in timing mode
 - time delay adjustable from 30 s to 20 min
 - setting in steps of 30 s using knob
 - switch-off warning built into the device with 50% reduction in brightness during warning time: time adjustable from 10 to 100 s
- ☐ automatic mode without warning function:
 - operation in timing mode
 - time delay adjustable from 30 s to 20 min
 - setting in steps of 30 s using knob
- switch-off warning selector in OFF position
- ☐ manual override mode:
 - constant lighting
- pressing on a pushbutton renews the time delay
- two control modes

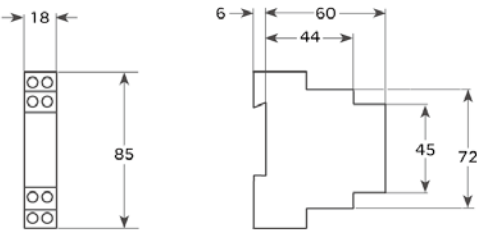
- ☐ button pressed for less than 2 s: lighting will last for as long as the pre-set time delay
- ☐ button pressed for longer than 2 s: lighting will last for 20 minutes
- ☐ concumption: < 6 VA
- degree of protection: IP 20B
- ulitisation frequency: 50 / 60 Hz
- main circuit
- ☐ voltage free
- ☐ rated current: 16 A, $\cos\varphi = 1$
- ☐ maximum power required: 3600 W
- control circuit
- ☐ consumption of connected luminous pushbuttouns: 150mA maximum
- connection
- ☐ tunnel terminals for cables up to 6 mm²
- ☐ connection type: 3 or 4 wire switch automatic selec-tion



MINp	230	2	CCT15233
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Dimensions (mm)



Time delay and test devices applications

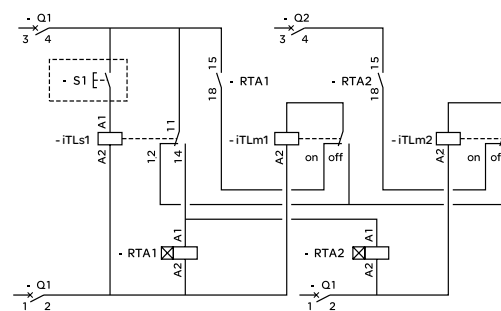
How to start different circuits

when start the button S1, the three circuits though impulse relay have the following functions:

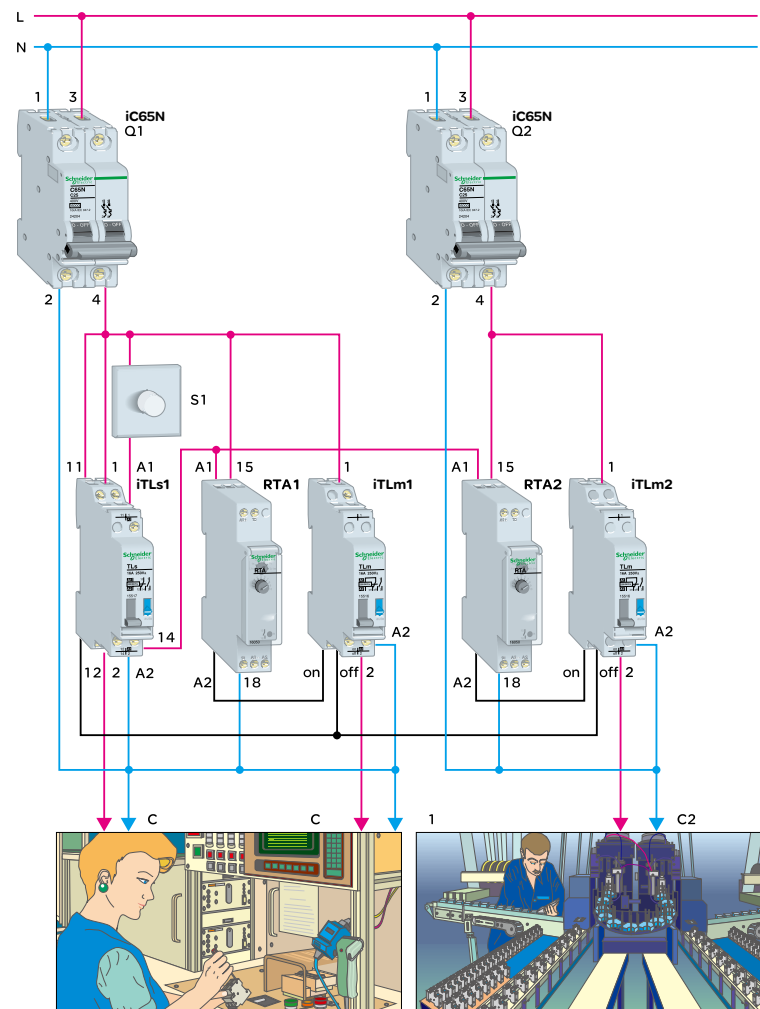
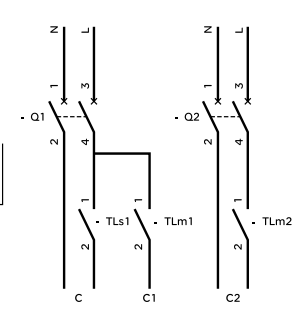
- impulse relay iTLS closes the power circuit C
 - with a time delay of RTA1, impulse relay iTLm1 closes C1 circuit
 - with a time delay of RTA2, impulse relay iTLm2 closes C2 circuit
- when presses the button S1 for the second time, the 3 circuit are started simultaneously

Product used	Number	Reference
2P iC65N	2	-
iTLs	1	A9C32811
iTLm	2	A9C34811
RTA	2	16065

control circuit

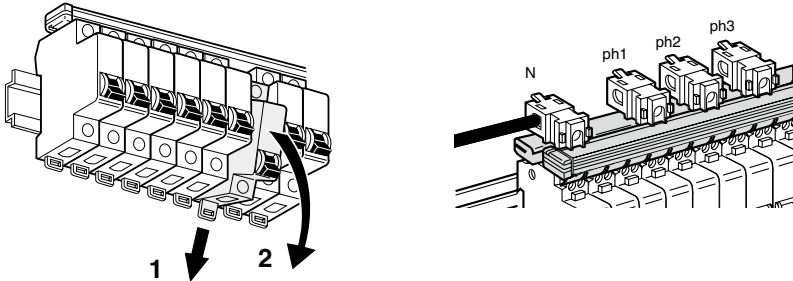


power circuit



Connection comb busbars

For iDPN

	Comb busbars	
Accessories	1P+N comb busbars	
		
Function	The comb busbars make it easier to install Schneider Electric products. ■ Supplied with 2 side plates, IP 20 ■ Outgoing feeders can be marked ■ Cutting markings on the copper bars and the insulating material ■ Self-extinguishing insulating material, colour RAL 7016 ■ The teeth left on standby can be isolated by tooth cover end-pieces	
Wiring diagram		
	Comb busbars allow dismountability (1-2)	
Use	■ Power supply via semi-rigid cable directly in the cage of the device: □ cross section 16 mm² for DPN	
	1P+N	1P+N
Catalogue numbers	14880	14890
Number of 9 mm modules	26	48
Set of	1	2
Suitable for the following devices:		
iDPN	■	■
Technical specifications		
Voltage rating (Ue)	250 V	
Acceptable current at 40°C	100 A	
Max. current per feeder	63 A	
Resistance to short-circuit currents	Compatible with the breaking capacity of Schneider Electric modular circuit breakers	

Connection comb busbars

For iDPN

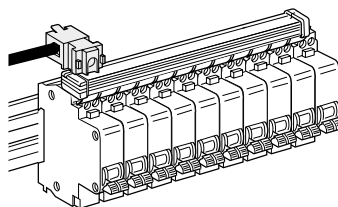
Accessories

Side plate

Insulated connector



- Compatible with all Schneider Electric comb busbars
- Clip onto the comb busbar's insulating material, which gives them very great stability
- Receive clip-on markers allowing circuit identification



- For 25 mm² semi-rigid cable

1P+N

14886

—

40

14885

—

4

■

■

■

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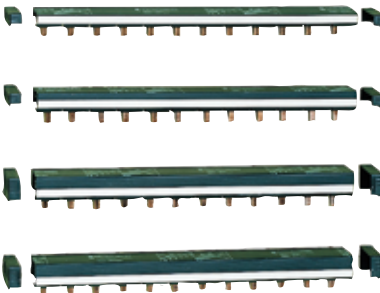
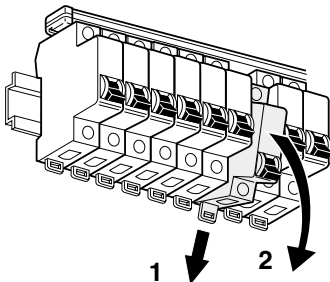
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Connection comb busbars

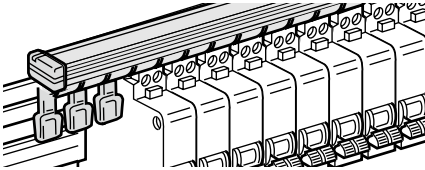
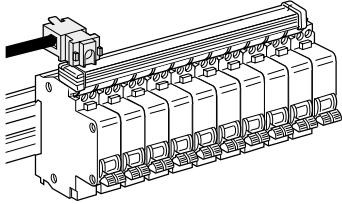
For iC65, iID, C65-DC

		Comb busbars							
Accessories		1P, 2P, 3P, 4P comb busbars							
									
Function		The comb busbars make it easier to install Schneider Electric products. ■ Supplied with 2 side plates, IP 20 ■ Outgoing feeders can be marked ■ Cutting markings on the copper bars and the insulating material ■ Self-extinguishing insulating material, colour RAL 7016 ■ The teeth left on standby can be isolated by tooth cover end-pieces							
Wiring diagram		 Comb busbars allow dismountability (1-2)							
Use		■ Power supply via semi-rigid cable directly in the cage of the device: □ cross section 25 mm² for iC65 and iID (all ratings)							
		1P		2P		3P		4P	
Catalogue numbers		14881	14891	14882	14892	14883	14893	14884	14894
Number of 9 mm modules		24	48	24	48	24	48	24	48
Set of		1	2	1	2	1	2	1	2
Suitable for the following devices:									
iC65		■	■	■	■	■	■	■	■
iID		■	■	■	■	■	■	■	■
C65N/H/L-DC		■	■	■	■	-	-	-	-
Technical specifications									
Voltage rating (Ue)		500 V							
Acceptable current at 40 °C		100 A							
Max. current per feeder		—							
Resistance to short-circuit currents		Compatible with the breaking capacity of Schneider Electric modular circuit breakers							

Connection comb busbars

For iC65, iLD, C65-DC

Accessories

Side plate		Tooth cover end-piece		Insulated connector
				
				■ Compatible with all Schneider Electric comb busbars ■ Clip onto the comb busbar's insulating material, which gives them very great stability ■ Receive clip-on markers allowing circuit identification
				
				■ For 25 mm² semi-rigid cable
1P, 2P	3P, 4P	1P, 2P, 3P, 4P		
14886	14887	14888		14885
40	40	40		4
■	■	■		■
■	■	■		■
■	-	■		■
-				
-				
-				
-				



IEC/EN 60947-7-1
IEC/EN 61439-2

Description

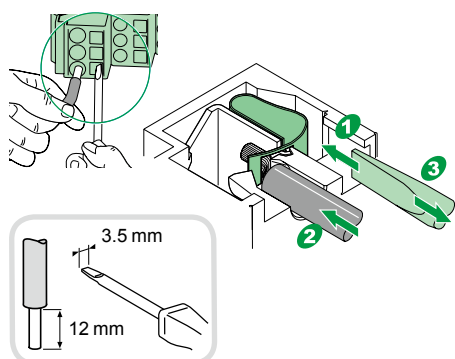
- Distribloc 63 A is a four pole splitter block installable on a standard DIN rail.
- Outgoing feeders are connected at the front, without screws, in spring terminals. The contact pressure of the cable is independent of the operator.

Advantages

- Very fast connection.
- Very simple phase rebalancing.
- In the event of an extension to or modification of the switchboard, connection is very easy.
- The appearance of its front panel (45 mm front tip) enables it to fit in on a row perfectly, alongside modular devices.

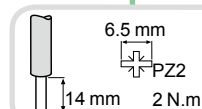
Technical data

Main characteristics		
Cat. no	Distribution through the top	04040
	Distribution through the bottom	04041
According to IEC/EN 60947-7-1		
Degree of protection	IP20	
Rated insulation voltage (Ui)	500 V AC	
Voltage rating (Ue)	440 V AC	
Rated impulse withstand voltage (Uimp)	6 kV	
Short-circuit current withstand	Up to breaking capacity of Schneider Electric outgoing circuit breakers, even when reinforced by cascading implementation	
Reference temperature	40°C	
Rated current at 40°C (In)	63 A	
Operating frequency	50/60 Hz	
Width in 9 mm modules	8	



Power supply

- Four-pole tunnel terminals with screw clamping.
- The tunnel terminals are located to facilitate the insertion of cables and clamping by screws.
- A single cable per connection point:
 - flexible from 4 to 16 mm²
 - rigid from 6 to 25 mm².



Installation

- Clip-on mounting on modular rail.
- Width occupied: 72mm

Distribution

- 3 outgoing feeders connected by flexible or rigid cables of cross section 1 to 6 mm².
- 2 rows of terminals:
 - 12 connection points for phases (L1, L2, L3)
 - 12 connection points for neutral.
- A single cable per connection point: flexible (without ferrule) or rigid from 1 to 6 mm².
- Reliable, maintenance-free (tightness guaranteed over time).
- Insensitive to vibrations and thermal variations.

Distribloc 63 A splitter block

Additional characteristics

According to IEC/EN 60947-7-1

Rated cross section $\leq 25 \text{ mm}^2$

Pollution degree 3

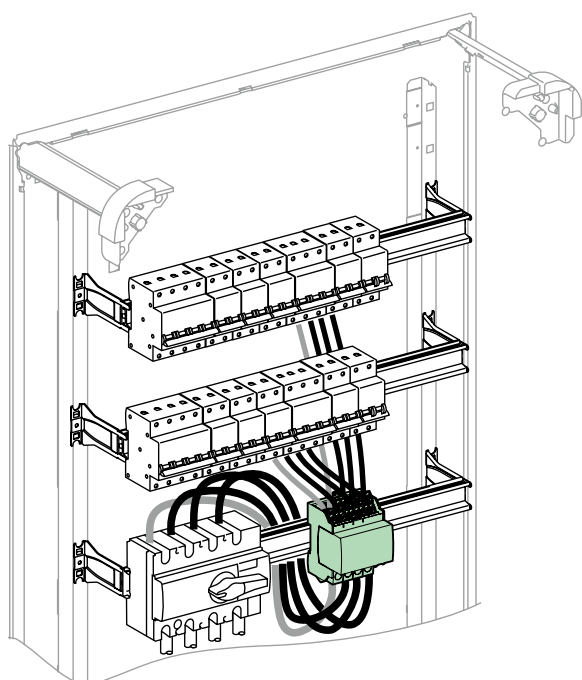
Storage temperature -40°C to $+85^\circ\text{C}$

According to IEC/EN 61439-2

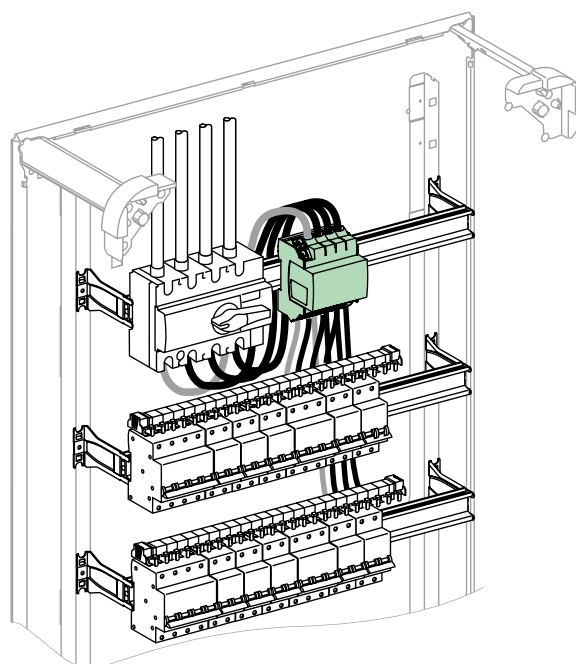
Operating temperature -25°C to $+60^\circ\text{C}$

temperature derating See Technical advice

Installation



Distribution through the bottom.



Distribution through the top.

Weight (g)

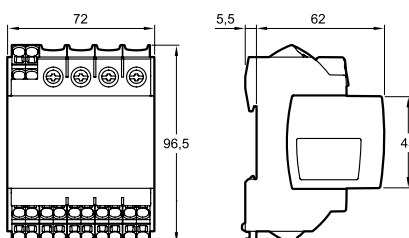
Distribloc

Type

Distribloc 63 A

290

Dimensions (mm)





IEC/EN 60947-7-1
IEC/EN 60439-1

Description

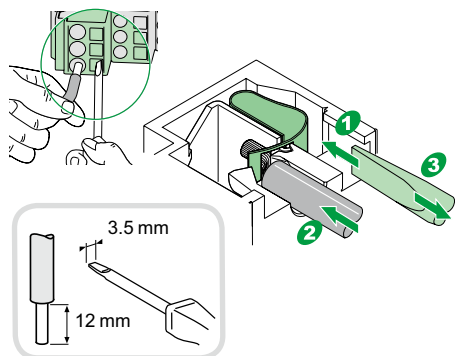
- Distribloc 125 A is a completely insulated four-pole modular splitter block.
- Connection is performed to a screw terminal or screwless spring-loaded terminal.
- Reversible cover for power supply through the top or bottom.

Advantages

- Connection is very fast.
- Phase rebalancing is very simple.
- For an extension to or modification of the switchboard, connection is very easy.
- It fits perfectly in a row alongside modular switchgear, thanks to the appearance of its front panel (45 mm front tip).

Technical data

Main characteristics		
Cat. no.	Distribloc 125 A	04045
According to IEC/EN 60947-7-1		
Degree of protection	IPxxB	
Rated insulation voltage (Ui)	750 V	
Voltage rating (Ue)	440 V AC	
Rated impulse withstand voltage (Uimp)	8 kV	
Short-circuit current withstand capacity	Up to the breaking capacity of Schneider Electric feeder circuit breakers, even in case of cascade configuration	
Reference temperature	40 °C	
Rated current at 40 °C (In)	125 A	
Acceptable peak current (Ipk)	20 kA	
Width in 9 mm modules	12	

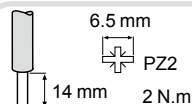


Installation

- Clips onto modular rail
- Screwing possible on solid or perforated plate
- Width occupied: 108 mm

Power supply

- In a tunnel terminal for cable:
 - flexible: 6 to 35 mm²
 - rigid: 10 to 35 mm²



Distribution in screw terminals

- Cable: flexible 4 to 16 mm²
- Cable: rigid 4 to 25 mm²

Distribution in spring-loaded terminals

- Minimum cross section: 1 mm²
- Facilitates phase rebalancing and extensions
- Insensitive to thermal variations
- Spring contact pressure automatically adapted to the cross section of the conductor
- A single cable without metal end-piece per spring
- Per phase or neutral, flexible or rigid cables:
 - 2 feeders per cable, 4 to 10 mm²
 - 3 feeders per cable, 2.5 to 6 mm²
 - 7 feeders per cable, 2.5 to 4 mm²

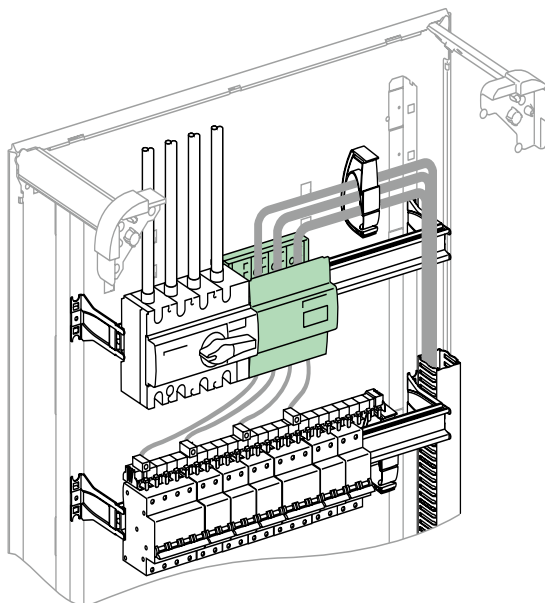
Distribloc 125 A splitter block

Additional characteristics

According to IEC/EN 60947-7-1

Storage temperature	-40°C to +85°C
Operating temperature	-25°C to +60°C

Installation



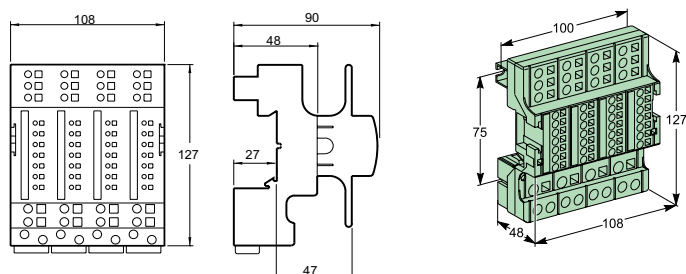
Weight (g)

Distribloc

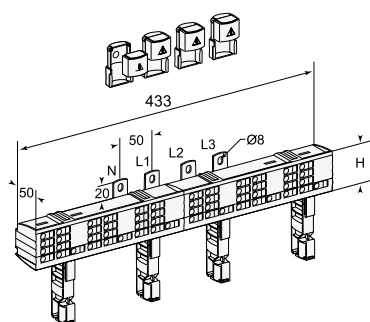
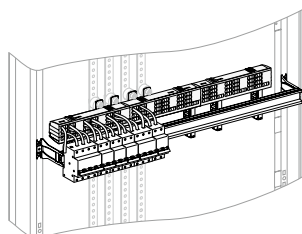
Type

Distribloc 125 A	425
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Dimensions (mm)



200A Multiclip Distribution Module Description



Pole number	H (mm)
2P	24
3P	44
4P	52

After optimization, 200A Multiclip distribution module can feed back electricity of modularized organs on each row. It makes the installation easier to clamp the distribution module on modularized track at the top/bottom of devices on each row. This module can be assembled before/after the installation of devices.

Its dimension remains minimal and matches with enclosure perfectly.

To ensure the compatibility of all organs, we recommend the power-supply and the distribution module be installed in the central position of the enclosure.

200A Multiclip distribution module provides:

- Flexibility
 - Compatible with all types of switched
 - Fit for mixed use of all types of module organs
 - Different pole number of distribution module
- Safety
 - Insulated from inlet gasket
 - Spring terminal makes connection more perfect and reliable
 - Avoid direct contact (IPxxB)
- Convenient for modification
 - Higher connection capacity (connectors and sectional area)
- All types of organs are allowed to add or modify the loop
- Hot plugging and heat commutation function

Application

Distribution for modularized organs in one row

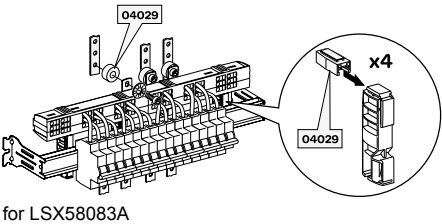
The distribution module is powered by busbar in enclosure.

Electric properties

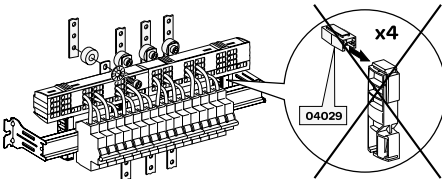
- Rated insulation class $U_i = 750 \text{ V}$
- Impulse endurance voltage $U_{imp} = 8 \text{ kV}$
- Short-circuit endurance current: no influence on cascade of circuit breakers
- 200 A Multiclip module:
 - 10 mm² outlet cables: $I_{max} = 50 \text{ A}$
 - Two 10 mm² outlet cables: $I_{max} = 63 \text{ A}$

Powersupply

- Terminal powered directly
 - 50 mm² cable with crimp cable end
 - 20 x 3 mm flexible busbar
- By busbar behind of WM enclosure (04029)



for LSX58083A



for LSX58082A and LSX58084A

Busbarconnection

After connection(04029), Multiclip distribution module can be power by busbar behind of enclosure.

Distribution

- 200A Multiclip, 2P and 3P (LSX58052A and LSX58053A):
 - 3x12 single phase and neutral connectors
- 200A Multiclip, 4P (LSX58054A)
 - 3x12 single phase connectors
 - 18 neutral connectors

Each connector can be connected with one 10 mm² flexible orrigid cable.

Installation

- Clamped behind the modularized track
- Installed on solid or perforated back panel

Accessories

- Bare copper: length: 100mm, sectional area: 10 mm²
- 200 A Multiclip; 2P 、 3P and 4P (LSX58052A, LSX58053A, LSX58054A): 2 groups 12 connectors
- Protection cover(IPxxB) of power-supply terminal
- Required hardware of power-supply terminal

Type	Rated Current (A)	Reference
2P	200	LSX58052A
3P	200	LSX58053A
4P	200	LSX58054A



IEC/EN 60947-7-1
IEC/EN 61439-2

Description

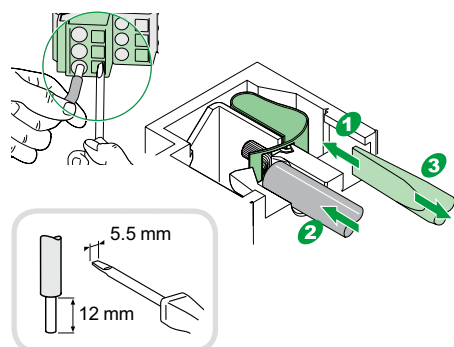
- Multiclip 80 A is a four-pole splitter block 24 modules wide installable on a standard DIN rail.
- Outgoing feeders are connected at the front, without screws, in spring terminals.
- The spring contact pressure adapts automatically to the cross section of the conductor. It is independent of the operator.
- Supplied with 12 black and 12 blue pre-stripped 6 mm² cables.

Advantages

- Very fast connection.
- Very simple phase rebalancing.
- In the event of an extension to or modification of the switchboard, connection is very easy.

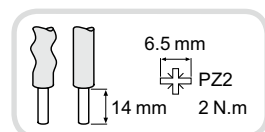
Technical data

Main characteristics	
Cat. no	04000
According to IEC/EN 60947-7-1	
Rated current at 40°C (I _n)	80 A
Maximum operated voltage (U _e)	440 V AC
Operating frequency	50/60 Hz
Rated insulation voltage (U _i)	500 V AC
Pollution degree	3
Rated impulse withstand voltage (U _{imp})	6 kV
Degree of protection	IP20
Short-circuit current withstand	Up to breaking capacity of Schneider Electric outgoing circuit breakers, even when reinforced by cascading implementation
Width in 9 mm modules	48



Power supply

- Four-pole tunnel terminals with screw clamping.
- One cable per connection point:
 - flexible from 6 to 25 mm²
 - rigid from 10 to 35 mm².



Installation

- Clip-on mounted Pragma and Prisma DIN rails.



Distribution

- Connection to spring terminals through the front.
- 2 rows of terminals:
 - 18 connection points for phases (L1, L2, L3)
 - 18 connection points for neutral.
- A single cable per connection point: flexible (without ferrule) or rigid from 1 to 6 mm².
- Maintenance-free (tightness guaranteed over time). Insensitive to vibrations and thermal variations.

Multiclip 80 A splitter block

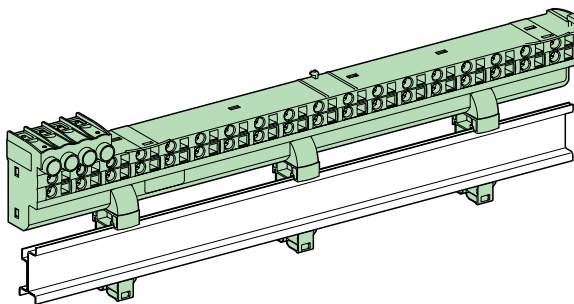


Additional characteristics

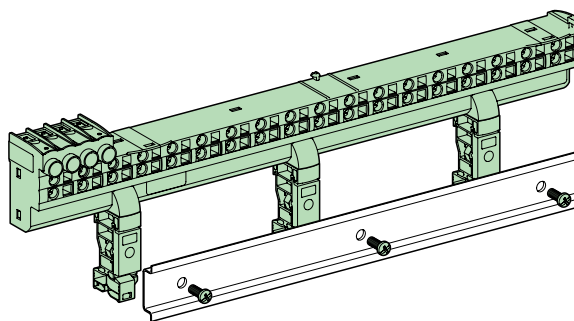
According to IEC/EN 61439-2

Operating temperature	-25°C to +60°C
Storage temperature	-40°C to +85°C
temperature derating	See Technical advice

Installation



On Pragma and Prisma rails



On other symmetric rails

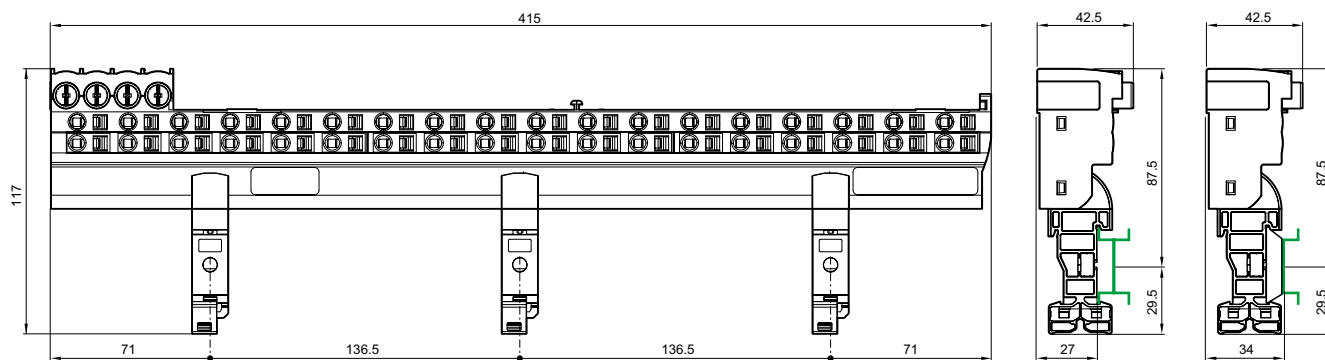
Weight (g)

Multiclip

Type

Multiclip	640
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Dimensions (mm)





Function

Pragma flush-mounted enclosure with the metal box has four sizes: 36 (2x18), 54 (3x18), 72(4x18) and 96 (4x24) modules. The rated current can reach 160A. MCB, MCCB and other non-modular devices can be installed inside. It can be used as the floor enclosure, the lighting distribution enclosure and in some cases the simple power enclosure. Pragma enclosure with the human oriented design is mighty, solid and esthetical. It is the favor of the apartment and mid-high residential customers and the best choice of the real estates, the panel builders and the end users!

Technical data

- Multi rows: 36 (2x18), 54 (3x18)
72 (4x18), 96 (4x24)
- Rated current: 36 (2x18), 54 (3x18): 125A; 72 (4x18), 96 (4x24): 160A
- Types and materials of door
 - 36 (2x18), 54 (3x18), 72 (4x18) enclosures
 - Type: Plain/Transparent/Smoked transparent
 - Material: Entirely imported material, insulated, environment-friendly, fireproof and self extinguishing
 - 96 (4x24) enclosure
 - Type: Plain/Transparent
 - Material: Entirely metal or metallic frame, tempered glass
- Door opening: door opens 180° to the left/right
- Flush-mounted box
 - Produced by 1.5 mm steel plate, surface treatment by electrostatic spraying, solid and durable, excellent corrosion resistance, and fit for flush-mounted.
- Standard: GB 17466-1998
- Protection class
 - IEC 60529: IP 40
 - IEC 62262: IK 09
 - Indirect contacts secondary protection on panel
- Fire and excessive heat endurance
 - IEC 60695-2-1 standard, 650°C/30s



TXA-72



TXA-96



TXA-72T



TXA-96T



TXA-54CT

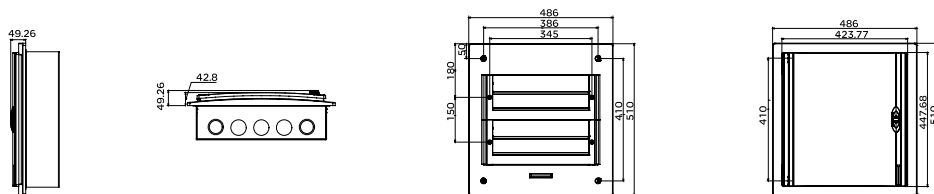
Pragma flush-mounted enclosure				
Type	Row	Module/row (18mm /module)	Total module	Reference
Flush-mounted White plain door	2	18	36	TXA-36
	3	18	54	TXA-54
	4	18	72	TXA-72
	4	24	96	TXA-96

Type	Row	Module/row (18mm /module)	Total module	Reference
Flush-mounted Transparent door	2	18	36	TXA-36T
	3	18	54	TXA-54T
	4	18	72	TXA-72T
	4	24	96	TXA-96T

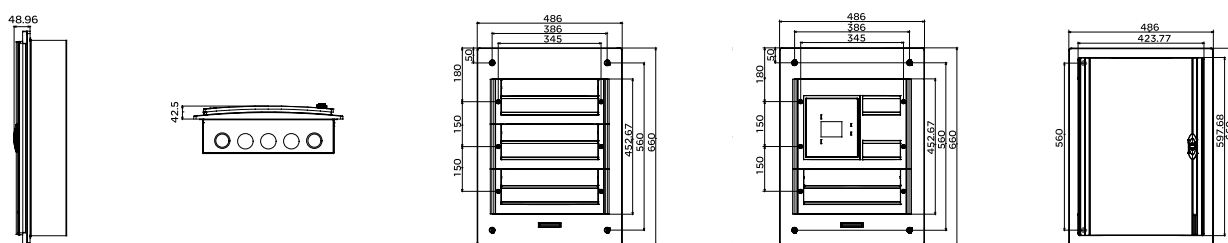
Type	Row	Module/row (18mm /module)	Total module	Reference
Flush-mounted Smoked transparent door	2	18	36	TXA-36CT
	3	18	54	TXA-54CT
	4	18	72	TXA-72CT

Note: this enclosure has no reference number, so please contact with the sales engineers around our agencies if you would like to purchase one.

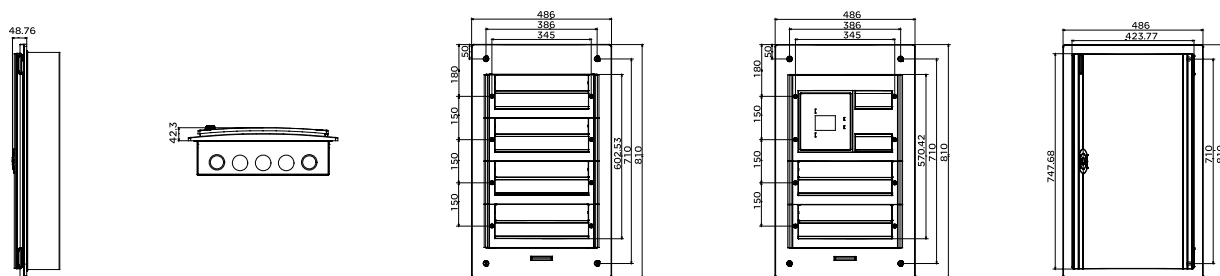
Flush mounted enclosure (36 modules)



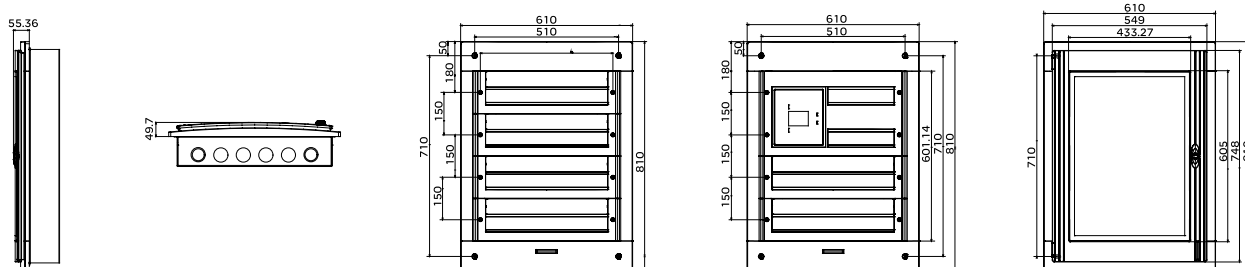
Flush mounted enclosure (54 modules)



Flush mounted enclosure (72 modules)



Flush mounted enclosure (96 modules)



Notes:

1. in any cace, firstly,pleas cut off the power, then you can install distribution product.
2. if you adopt bottom electrical feeding,pleas conect neutral line firstly, then phase line.



Country approval pictograms



Function

Pragma C is a new range of Final Low Voltage indoor enclosure, with plastic front face and metal back box. The range consists of a width from 8 to 36 modules of 18mm, from 1 to 3 rows ready-to-use, and the rated current is up to 125A. Compare with the traditional enclosure, it has a bigger back box for assembling. Pragma C is a good choice for the Final Low Voltage distribution of villas, apartments, commercial buildings and hotels.

Technical data

- 1 row: 8, 12, 16, 20 Modules
- 2 rows: 24 Modules
- 3 rows: 36 Modules
- Rated current
 - 1 row: 63A
 - 2 and 3 rows: 125A
- Curved door: Transparent/Plain
 - 1 row: door opens 90° upwards
 - 2 and 3 rows: door opens 180° to the left/right
- Material
 - Plastic panel:
 - Insulated, environmental-friendly and fireproof self-extinguish material
 - Color: White; RAL 9003
 - Metallic body
 - Flush-mounted: produced by 1.0 mm steel plate, surface treatment by electrostatic spraying, solid and durable, excellent corrosion resistance, and fit for flush-mounted.
 - Surface-mounted: main structure produced by 1.2 mm steel plate, surface treatment by electrostatic spraying, solid and durable, excellent corrosion resistance.
 - Single row: ABS plastic panel used on both left and right sides, more ornamental
 - Multi rows: ABS plastic panel used on both top and bottom sides, more ornamental
 - Punch-puts pieces for addition of modules, 4 x 9mm on both left and right side
 - 12, 16, 20, 24 and 36 (Module/Row) enclosure: 2 neutral cables
- Standard: GB 17466-1998
- Protection class
 - IEC 60529: IP 40
 - Indirect contacts secondary protection on panel
- Fire and excessive heat endurance
 - IEC 60695-2-1 standard, 650°C/30s (only for solid wall)

Note: flush-mounted enclosures without knock-off pieces are also provided, the order number of which should be added with a "W" after the standard one.

Neutral contact main parameters

Enclosure module/row	Length of neutral (mm)	Hole of neutral	Width (mm)	Length (mm)
8	73.6	7 x Ø4.5 + 1 x Ø5.5	6.5	9
12	64.1	(3 x Ø4 + 2 x Ø5 + 1 x Ø6) x 2	6.5	9
16	81.1	(5 x Ø4 + 2 x Ø5 + 1 x Ø6) x 2	6.5	9
20	89.6	(6 x Ø4 + 2 x Ø5 + 1 x Ø6) x 2	6.5	9
24	115.0	(8 x Ø4 + 2 x Ø5 + 1 x Ø6) x 2	6.5	9
36	162.7	(10 x Ø4 + 4 x Ø5 + 2 x Ø6) x 2	6.5	9

Earth contact main parameters

Enclosure module/row	Length of earth (mm)	Hole of earth	Width (mm)	Length (mm)
8	82.6	7 x Ø4.5 + 1 x Ø5.5	6.5	9
12	110.2	5 x Ø4 + 4 x Ø5 + 1 x Ø6	6.5	9
16	144.7	9 x Ø4 + 4 x Ø5 + 1 x Ø6	6.5	9
20	170.2	12 x Ø4 + 4 x Ø5 + 1 x Ø6	6.5	9
24	194.8	15 x Ø4 + 4 x Ø5 + 1 x Ø6	6.5	9
36	250.5	18 x Ø4 + 6 x Ø5 + 2 x Ø6	6.5	9

Note: Enclosure of 8 (module/row) has only one neutral line, the rest have two.

Pragma C flush/surfaced mounted enclosure



13687



13684



13685



13706



13699



13701

Pragma C flush/surfaced mounted enclosure

Type	Row	Module/row (18mm/module)	Model	Reference
Flush-mounted Plain door	1	8	TYA-08	13678
	1	8	TYA-08-W	13678W
	1	12	TYA-12	13679
	1	12	TYA-12-W	13679W
	1	16	TYA-16	13680
	1	16	TYA-16-W	13680W
	1	20	TYA-20	13681
	1	20	TYA-20-W	13681W
	2	24	TYA-24	13684
	2	24	TYA-24-W	13684W
	3	36	TYA-36	13685
	3	36	TYA-36-W	13658W

Type	Row	Module/row (18mm/module)	Model	Reference
Flush-mounted Transparent door	1	8	TYA-08T	13686
	1	8	TYA-08T-W	13686W
	1	12	TYA-12T	13687
	1	12	TYA-12T-W	13687W
	1	16	TYA-16T	13688
	1	16	TYA-16T-W	13688W
	1	20	TYA-20T	13689
	1	20	TYA-20T-W	13689W
	2	24	TYA-24T	13690
	2	24	TYA-24T-W	13690W
	3	36	TYA-36T	13694
	3	36	TYA-36T-W	13694W

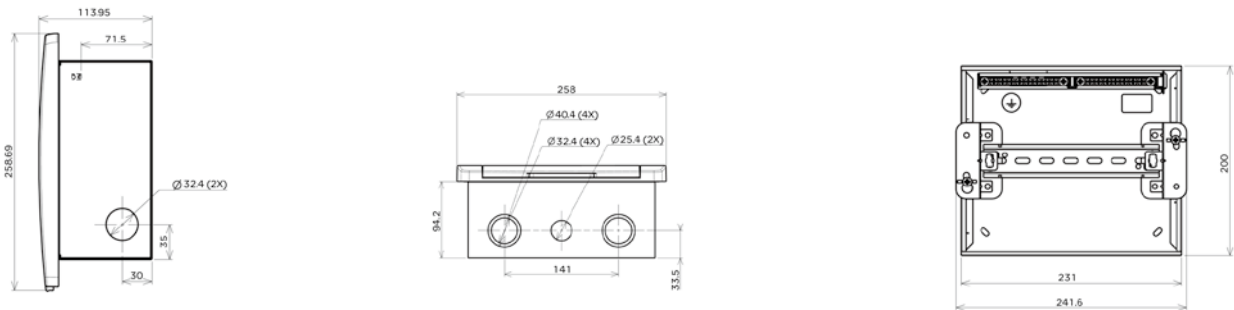
Type	Row	Module/row (18mm/module)	Model	Reference
Surface-mounted Plain door	1	8	TYM-08	13695
	1	12	TYM-12	13696
	1	16	TYM-16	13697
	1	20	TYM-20	13698
	2	24	TYM-24	13699
	3	36	TYM-36	13701

Type	Row	Module/row (18mm/module)	Model	Reference
Surface-mounted Transparent door	1	8	TYM-08T	13705
	1	12	TYM-12T	13706
	1	16	TYM-16T	13711
	1	20	TYM-20T	13715
	2	24	TYM-24T	13716
	3	36	TYM-36T	13720

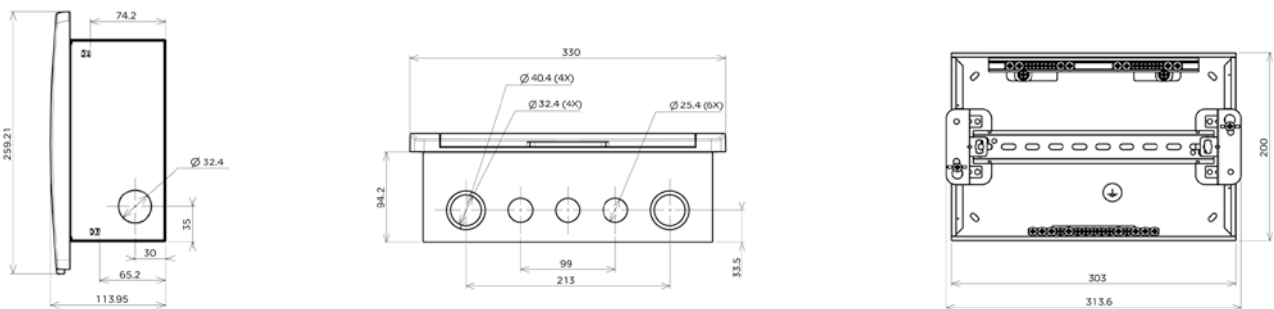
W: no punch-outs

No W: with knock-off hole

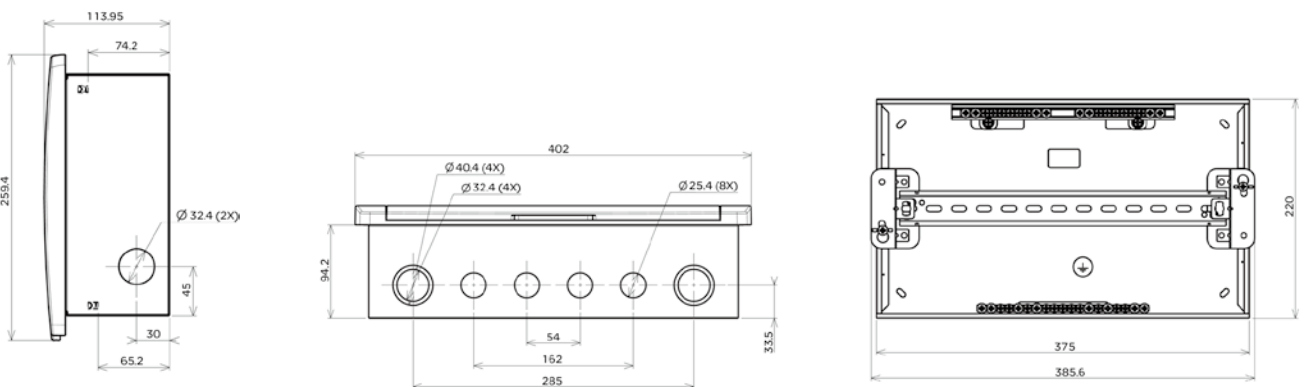
Flush mounted enclosure (8 modules)



Flush mounted enclosure (12 modules)



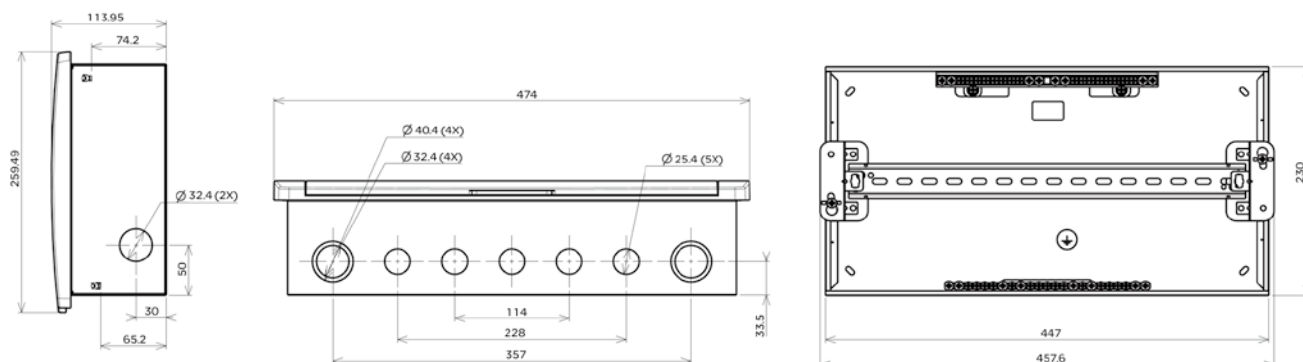
Flush mounted enclosure (16 modules)



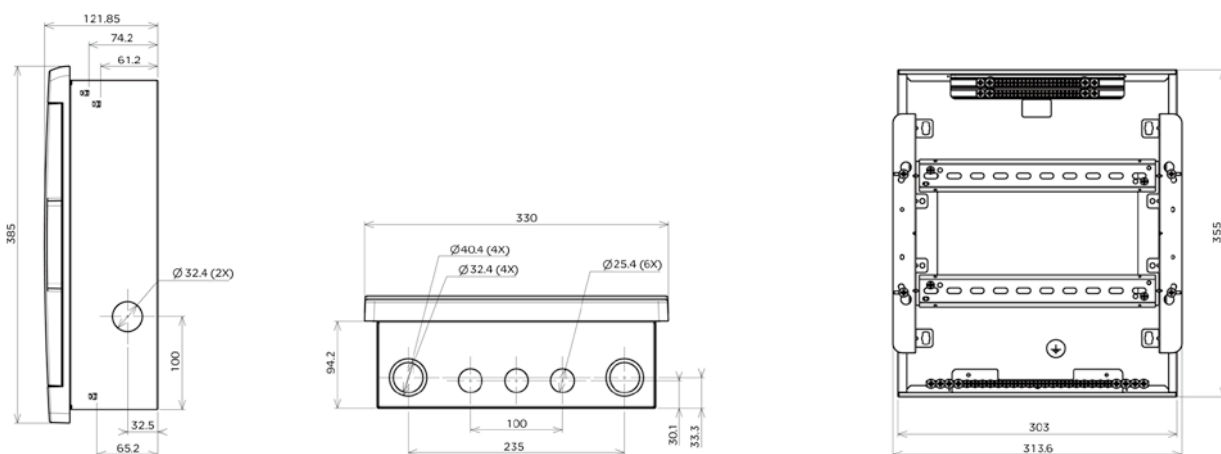
Notes:

1. in any case, firstly, please cut off the power, then you can install distribution product.
2. if you adopt bottom electrical feeding, please connect neutral line firstly, then phase line.

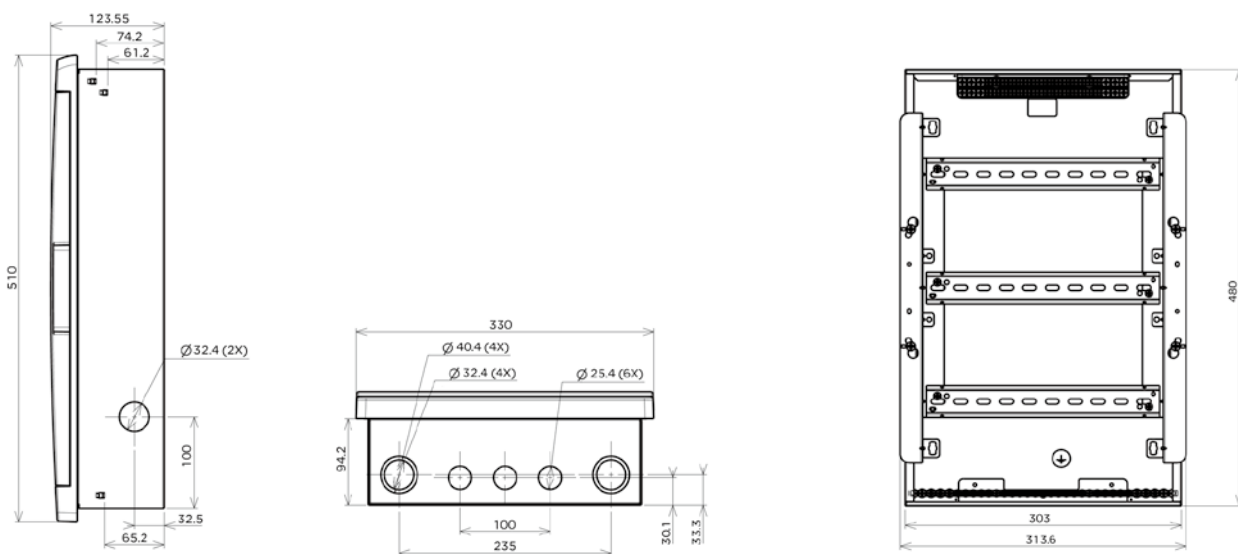
Flush mounted enclosure (20 modules)



Flush mounted enclosure (24 modules)



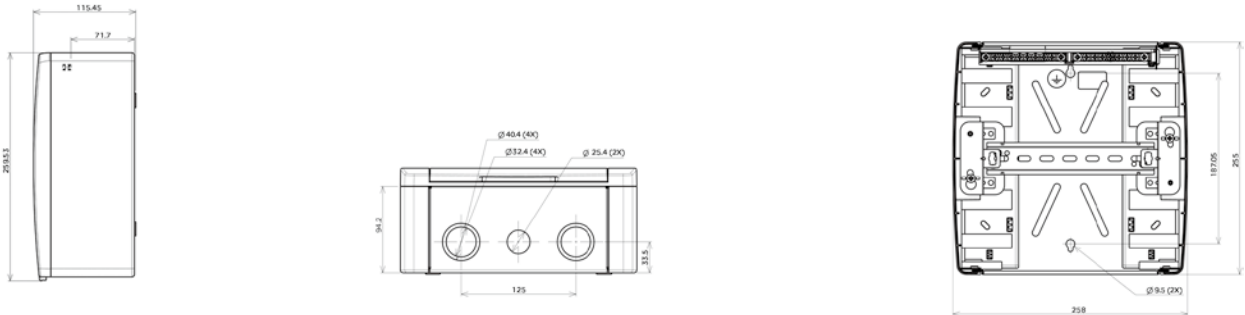
Flush mounted enclosure (36 modules)



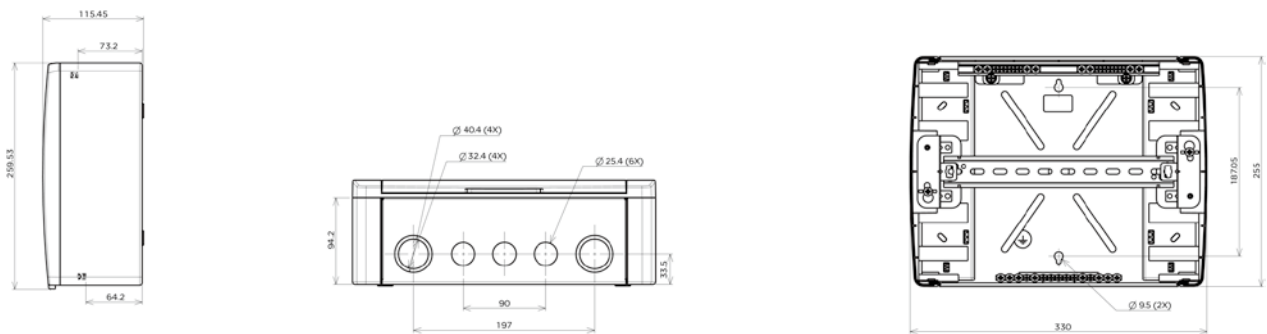
Notes:

1. in any case, firstly, please cut off the power, then you can install distribution product.
2. if you adopt bottom electrical feeding, please connect neutral line firstly, then phase line.

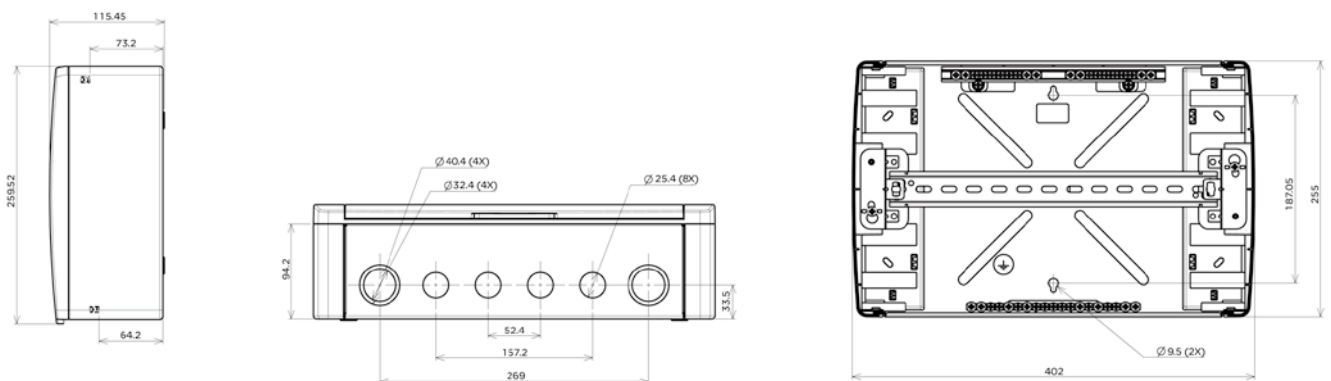
surface-mounted enclosure (8 modules)



surface-mounted enclosure (12 modules)



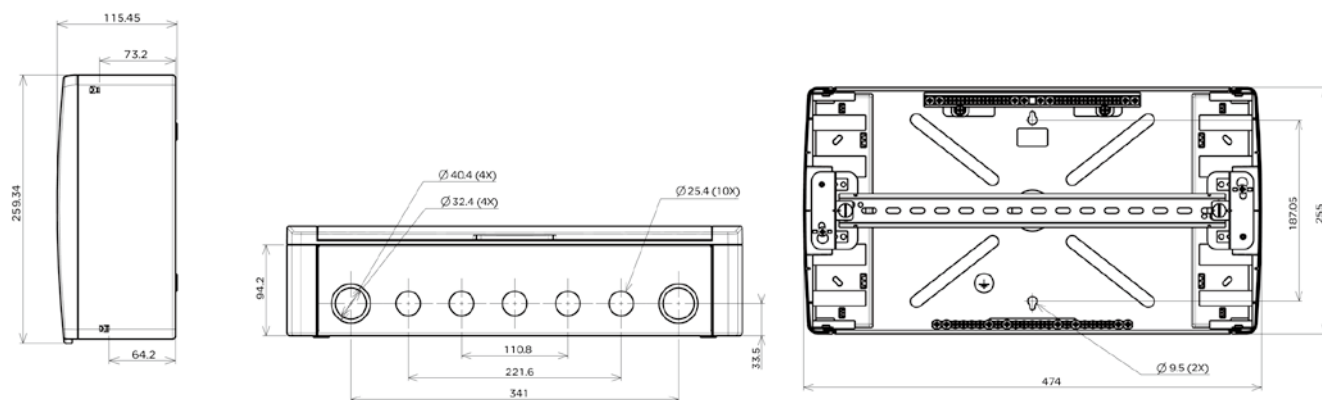
surface-mounted enclosure (16 modules)



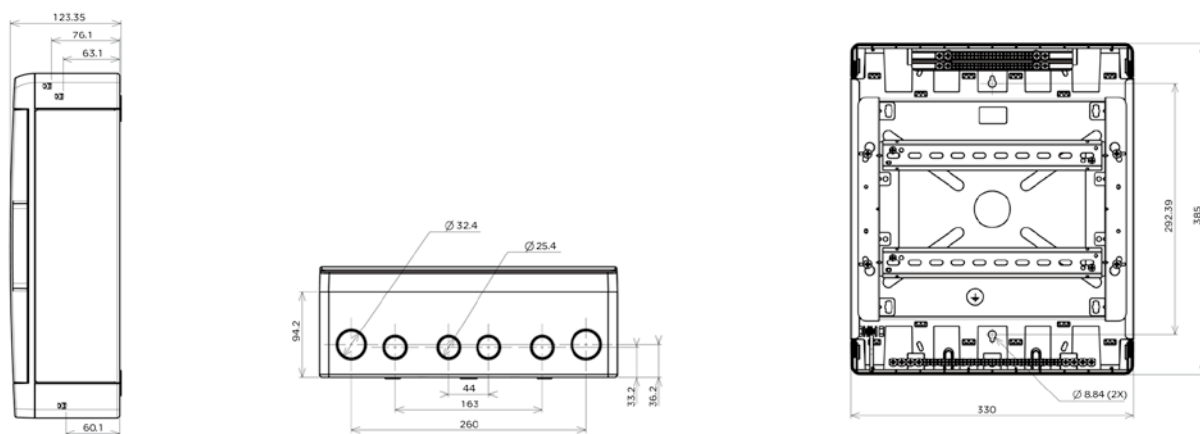
Notes:

1. in any case, firstly, please cut off the power, then you can install distribution product.
2. if you adopt bottom electrical feeding, please connect neutral line firstly, then phase line.

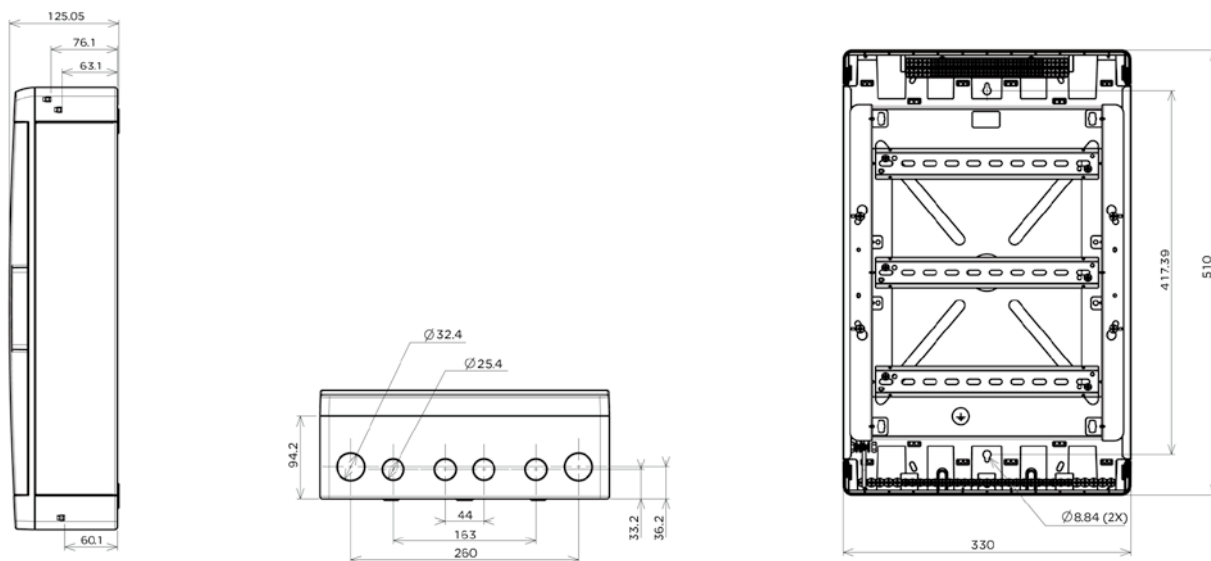
surface-mounted enclosure (20 modules)



surface-mounted enclosure (24 modules)



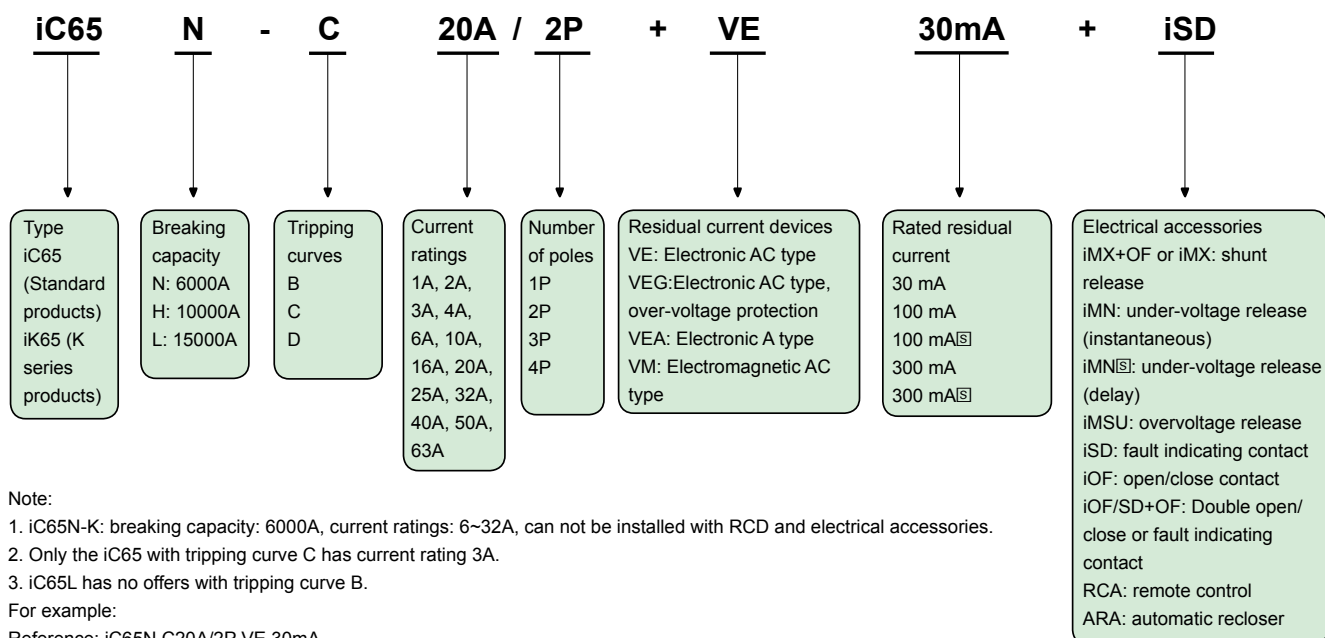
surface-mounted enclosure (36 modules)



Notes:

1. in any case, firstly, please cut off the power, then you can install distribution product.
2. if you adopt bottom electrical feeding, please connect neutral line firstly, then phase line.

iC65 circuit breaker selection guidance



Note:

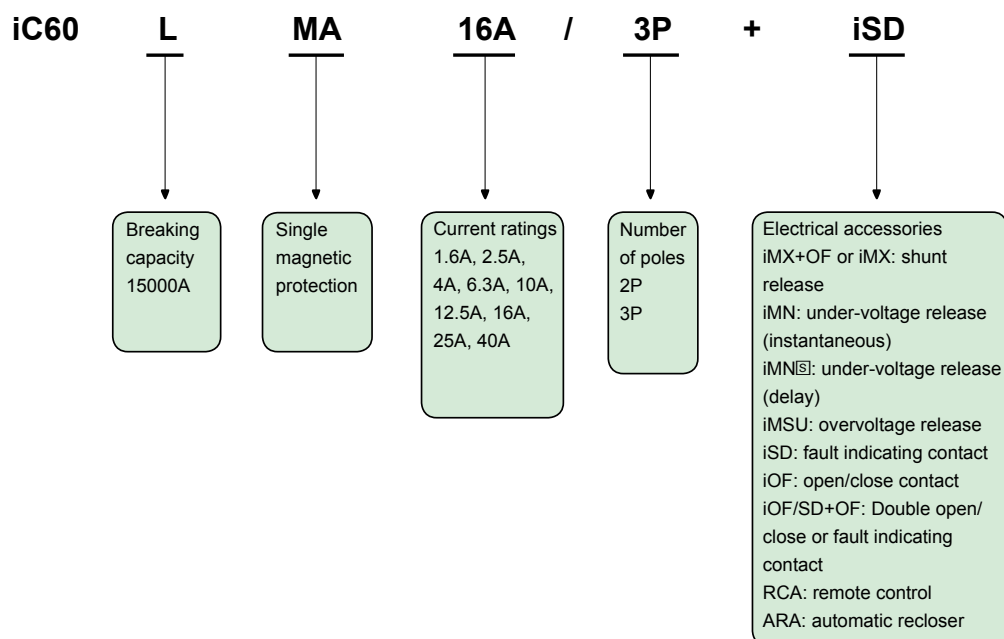
1. iC65N-K: breaking capacity: 6000A, current ratings: 6~32A, can not be installed with RCD and electrical accessories.
2. Only the iC65 with tripping curve C has current rating 3A.
3. iC65L has no offers with tripping curve B.

For example:

Reference: iC65N C20A/2P VE 30mA

Denotes: iC65 MCB, breaking capacity: 6kA, tripping curve: C, current rating: 20A, number of poles: 2, associated with electronic RCD, rated residual current: 30mA.

iC60L MA circuit breaker selection guidance



Note:

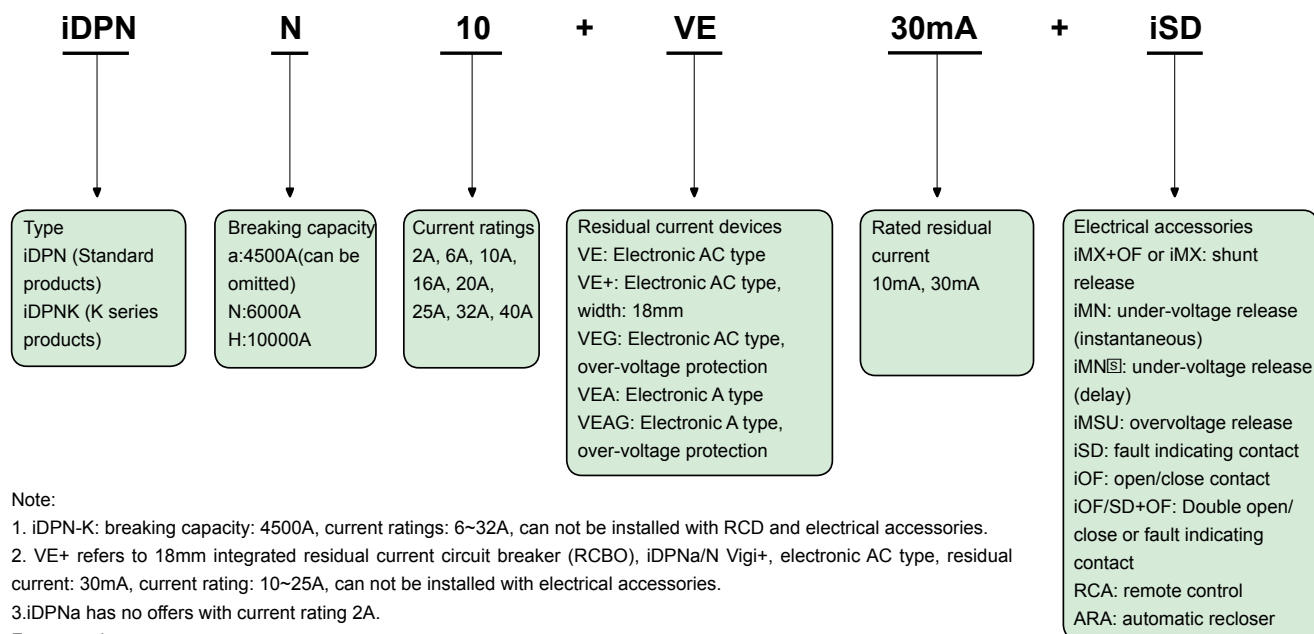
iC60L MA is a single magnetic MCB and has no circuit protection against overload currents. It has to be as associated with thermal relays to achieve overload protection.

For example:

Reference: iC60L MA 16A/3P iMN.

Denotes: iC60L MA single magnetic MCB, breaking capacity: 15kA, current rating: 20A number of poles: 3, associated with iMN under-voltage release.

iDPN circuit breaker selection guidance



Note:

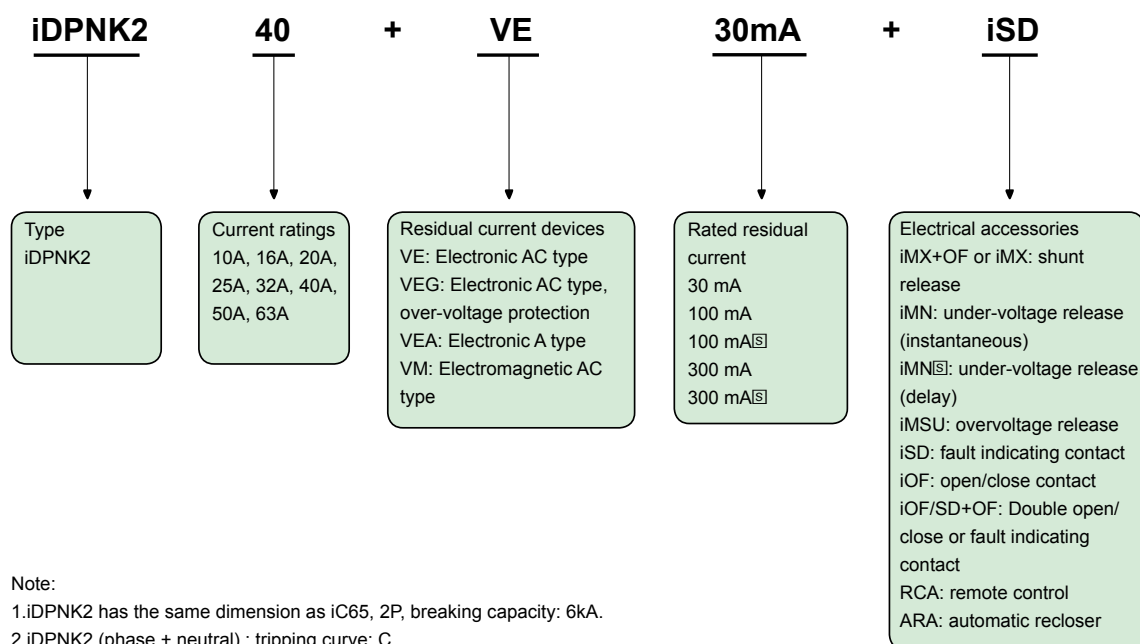
1. iDPN-K: breaking capacity: 4500A, current ratings: 6~32A, can not be installed with RCD and electrical accessories.
2. VE+ refers to 18mm integrated residual current circuit breaker (RCBO), iDPNa/N Vigi+, electronic AC type, residual current: 30mA, current rating: 10~25A, can not be installed with electrical accessories.
3. iDPNa has no offers with current rating 2A.

For example:

Reference: iDPN N 10 VE+.

Denotes: iDPNN Vigi+, breaking capacity: 6kA, current ratings: 10A, 18mm integrated RCBO, electronic, residual current: 30mA.

iDPNK2 circuit breaker selection guidance



Note:

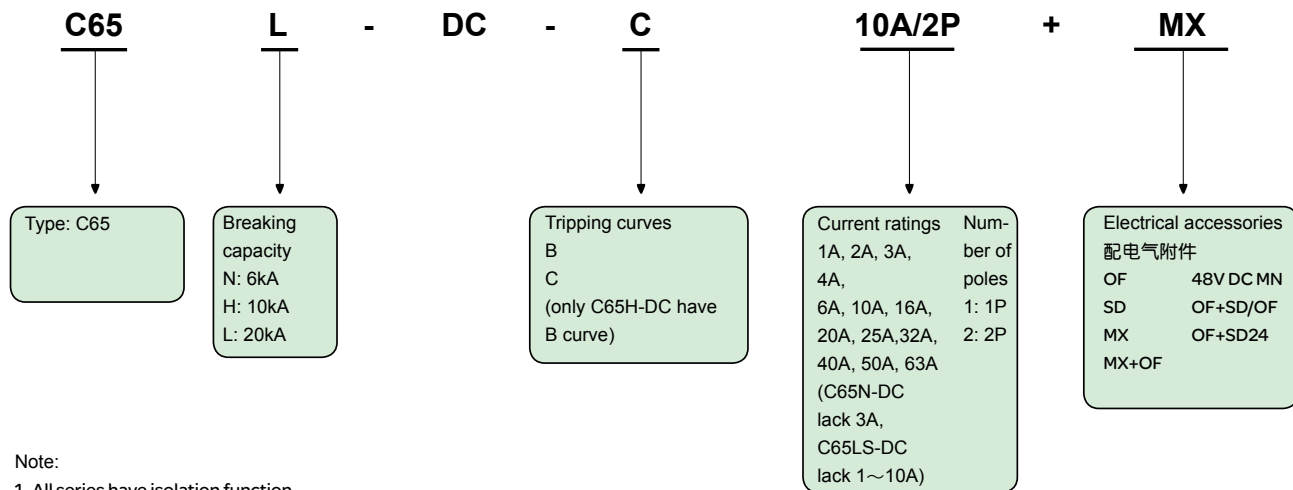
1. iDPNK2 has the same dimension as iC65, 2P, breaking capacity: 6kA.
2. iDPNK2 (phase + neutral) : tripping curve: C.

For example:

Reference: iDPNK2 20 VE 30mA, iSD.

Denote: iDPNK2 MCB, breaking capacity: 6kA, tripping curve: C, rating: 20A, number of poles: 1P+N, associated with electronic RCD, rated residual current: 30 mA, associated with iSD auxiliary.

C65-DC circuit breaker selection guidance



Note:

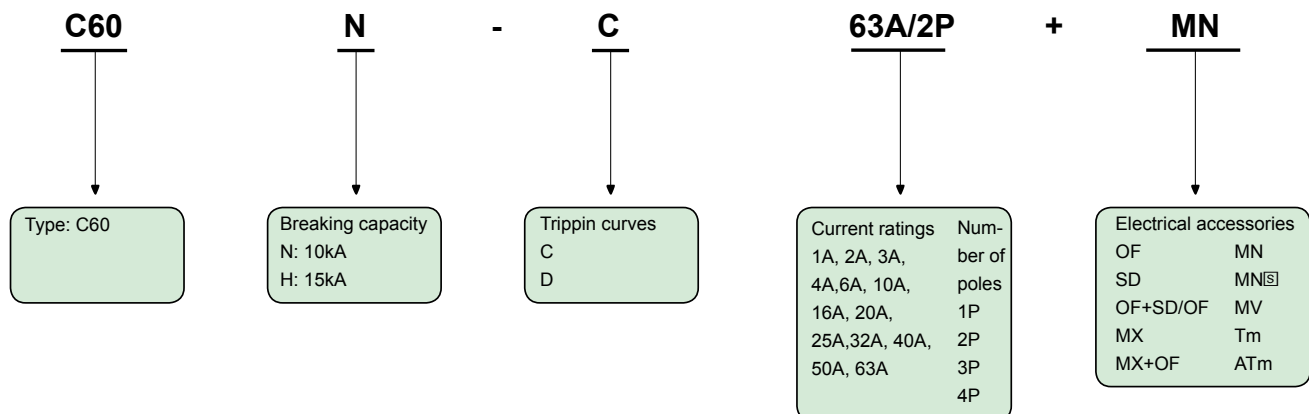
- All series have isolation function.
- The limitation class of all series reach the highest level 3,

For example:

Reference: C65L-DC-C1A/1P MX.

Denote: C65L-DC MCB, breaking capacity: 20kA, tripping curve: C, rating: 63A, number of poles:1, associated with MX auxiliary.

Marine C60 circuit breaker selection guidance



Note:

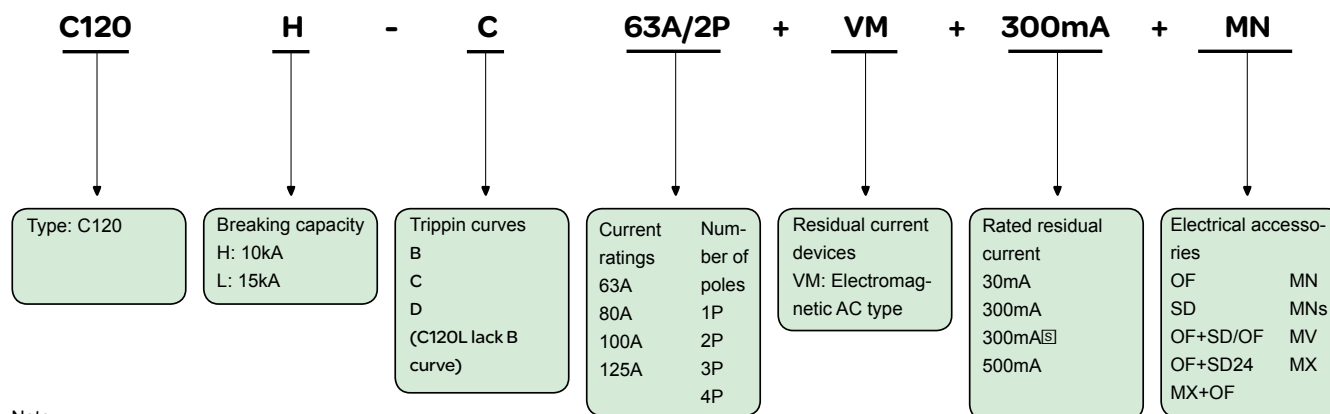
- C60 meet international standard that are compulsory for the worldwid merchant marine
- C60 have isolation function
- Current: C60H 1~40A

For example:

Reference: C60N-C63A/2P MN

Denote: C60 MCB, breaking capacity: 10kA, tripping curve: C, rating: 63A, number of poles:2, associated with MN auxiliary.

C120 circuit breaker selection guidance



Note:

1. C120 have isolation function.

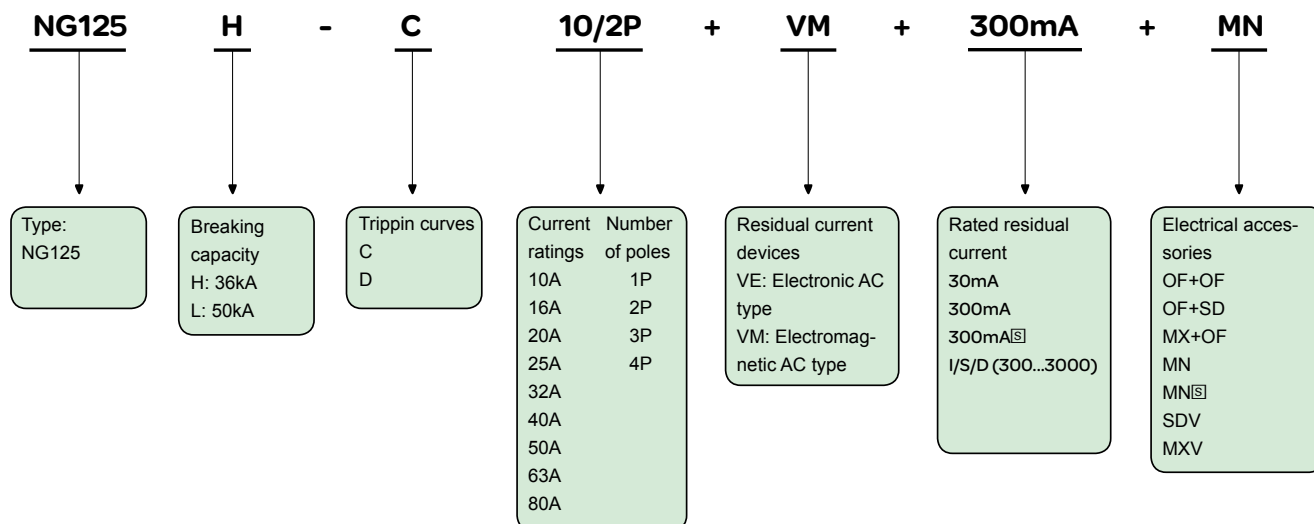
2. The limitation class of C120 reach the highest level 3.

For example:

Reference: C120H-C63A/2P VG 300mA MN.

Denote: C120 MCB, breaking capacity: 10kA, tripping curve: C, rating: 63A, number of poles:2, associated with MN auxiliary.

NG125 circuit breaker guidance



Note:

1. NG125 have isolation function.

2. The limitation class of NG125 reach the highest level 3.

3. Electrical auxiliaries are mounted to the left of the circuit-breaker within a maximum width of 36mm.

4. Vigi NG125 can only be used in conjunction with NG125 MCB≤63A.

For example:

Reference: NG125L-C20A/2P VG 300mA MN.

Denote: NG125 MCB, breaking capacity: 50kA, tripping curve: C, rating: 63A, number of poles:2, associated with MN auxiliary.

Module socket

PC

2P10A

Peles
2P
2P+E
3P+E

Current ratings
10
16
25
32

iINT switch – disconnecter selection guidance

iINT125

2P32

+

OF iSW

Number
of pole
1P
2P
3P
4P

Current ratings
32A, 40A, 63A,
80A, 100A,
125A

Electrical accesso-
ries
open/close contact

iID residual current switch selection guidance

iID

2P2530mA

+

iSD

Number
of pole
2P
4P

Current ratings
25A, 40A, 63A,
80A, 100A

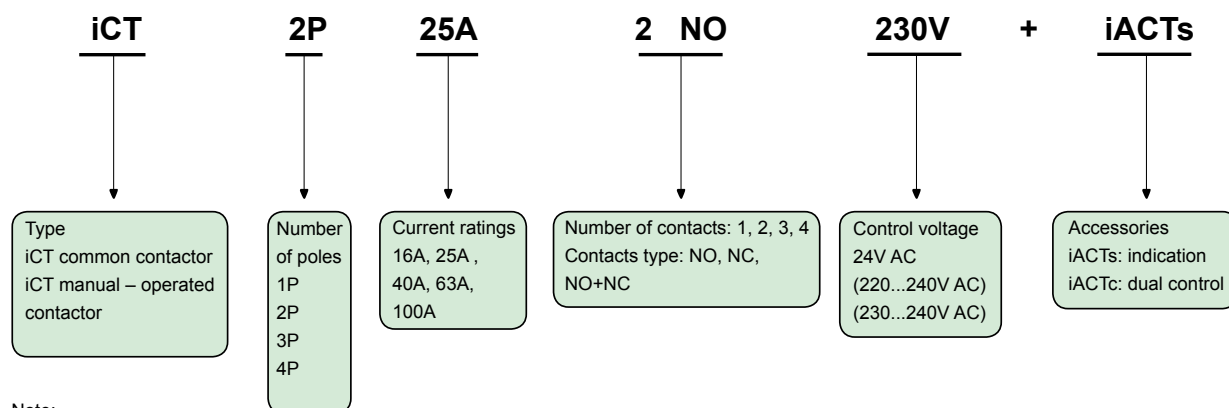
Rated residual
current
10mA, 30mA,
100mA, 300mA

Electrical accessories
iMX+OF or iMX: shunt
release
iMN: under-voltage release
(instantaneous)
iMN $\overline{\text{S}}$: under-voltage release
(delay)
iMSU: overvoltage release
iSD: fault indicating contact
iOF: open/close contact
iOF/SD+OF: Double open/
close or fault indicating
contact
RCA: remote control
ARA: automatic recloser

Note:

1. iID has the same electrical accessories with iC65.

Contactor selection guidance



Note:

1. Manually – operated contactor: current rating: 25~63A, contacts types: 2NO or 4NO, control voltage: 230~240VAC/220~240VAC.

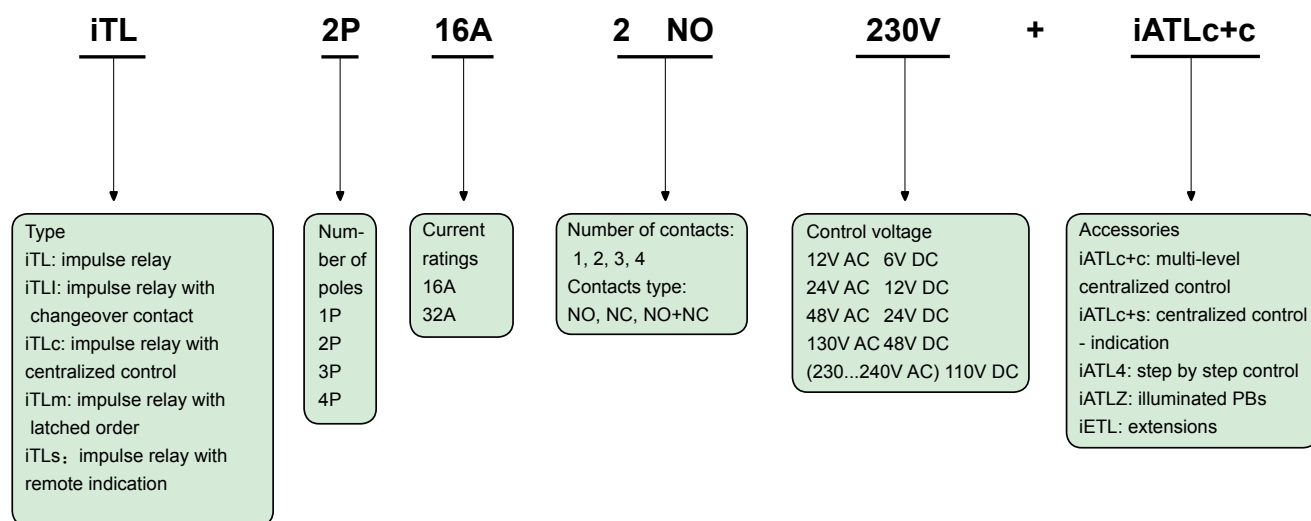
2.NO: normally open contact, NC: normally close contact.

For example:

Reference: iCT 2P 25A 2NO 24V iACTs.

Denotes: iCT contactor, 2P, current rating: 25A, contact type: 2 normally open, control 24V, associated with indication accessory.

Impulse relay selection guidance



Note:

1. impulse relays with 3P or 4P are actually extended from 1P or 2P by extension iETL.

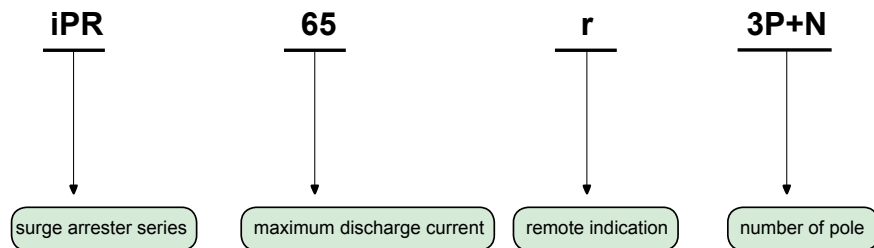
2.NO: normally open contact, NC: normally close contact.

For example:

Reference: iTL 2P 16A 2NO 48V AC.

Denotes: iTL impulse relay, 2P, current rating: 16A, contact type: 2 normally open, control 48V.

Surge protection device selection guidance



Technical data

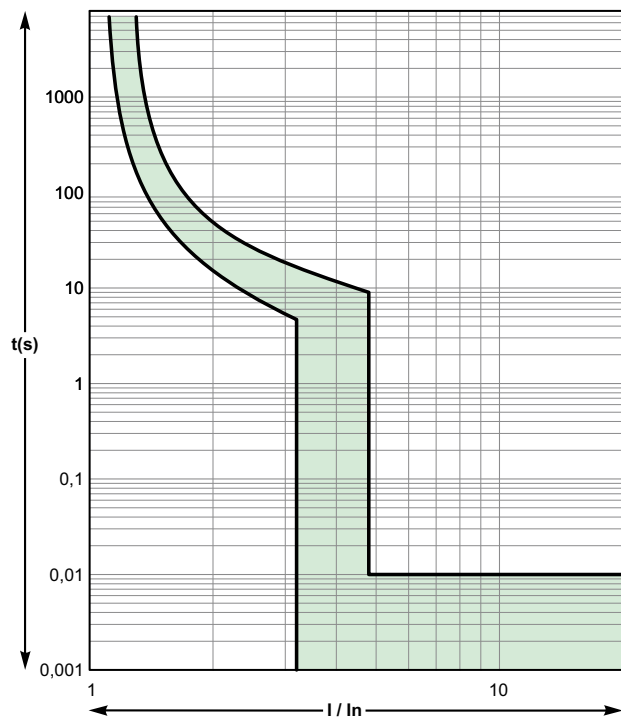
	Surge ar- rester name	Un (V)	Uc (V)	Up (kV)	Wave type (μs)	I _{max} (kA)	I _n (kA)	Number of poles	Opera- tion state indica- tion window	Remote indica- tion	Terminal area
iPR	iPR120r	230/400	340	2.1	8/20	120	60	1P, 2P, 3P, 4P	yes	yes	flexible: 2.5~25mm ² rigid: 2.5~35mm ²
	iPR80r	230/400	340/440	2.0/2.7	8/20	80	40	1P, 2P, 3P, 4P, 1P+N, 3P+N	yes	yes	
	iPR65r	230/400	340/440	2.0/2.1	8/20	65	35		yes	yes	
	iPR40r/40	230/400	340/440	1.5	8/20	40	20		yes	yes/no	
	iPR20r/20	230/400	340/440	1.2	8/20	20	10		yes	yes/no	
	iPR10	230/400	340/440	1.0	8/20	10	5		yes	no	
iST	iST65r/65	230/400	340/440	1.8/2.0	8/20	65	35	1P, 2P, 3P, 4P, 1P+N, 3P+N, NPE	yes	yes/no	flexible: 2.5~25mm ² rigid: 2.5~35mm ²
	iST40r/40	230/400	340/440	1.5	8/20	40	20		yes	yes/no	
	iST20r/20	230/400	340/440	1.2	8/20	20	10		yes	yes/no	
IPT	iPT40r/40	230/400	385	1.6	8/20	40	20	1P+N, 3P+N	yes	yes/no	flexible: 2.5~25mm ² rigid: 2.5~35mm ²
	iPT20r/20	230/400	385	1.5	8/20	20	10		yes	yes/no	
iPR-DC	iPR-DC	600/1000	840/1230	2.8/3.9	8/20	40	15	2P+1, 3P	yes	yes	flexible: 2.5~25mm ² rigid: 2.5~35mm ²



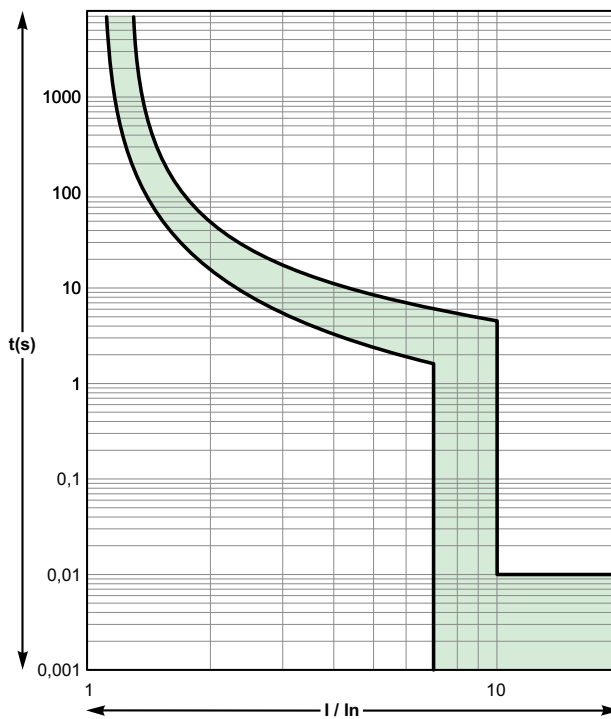
Surge protection device	iPR, iST, IPT, iPR-DC
Number of poles	1P, 1P+N, 2P, 3P, 3P+N, 4P
I _{max} (kA)	10, 20, 40, 65, 80, 120
Standard	IEC61643-11 GB18802.1
Protection class	IP20/IP40

iC65N/H/L ratings 1 to 4 A

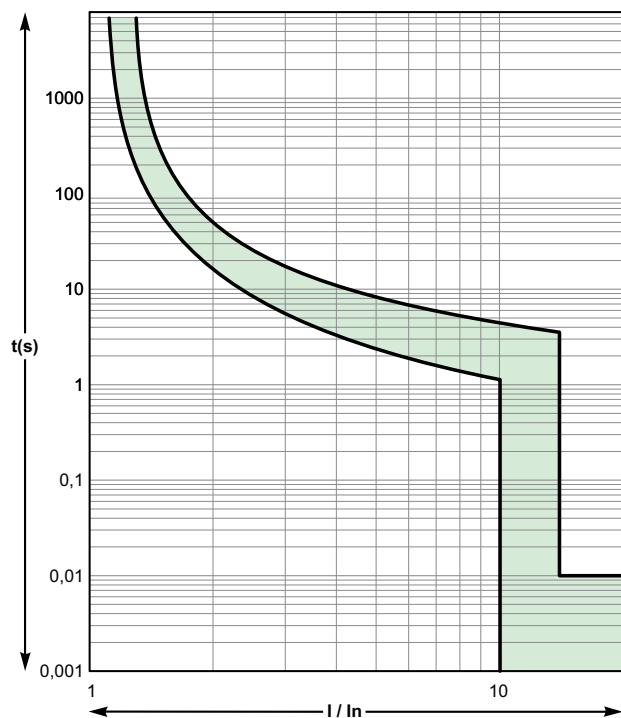
Curve B



Curve C



Curve D



iC65N/H circuit breaker

B, C and D curves, as in standard IEC60898

The operating range of the magnetic release is as follows:

for B curve: (3-5) I_n

for C curve: (5-10) I_n

for D curve: (10-14) I_n

iC65L circuit breaker

C and D curves, as in standard IEC60947-2

The operating range of the magnetic release is as follows:

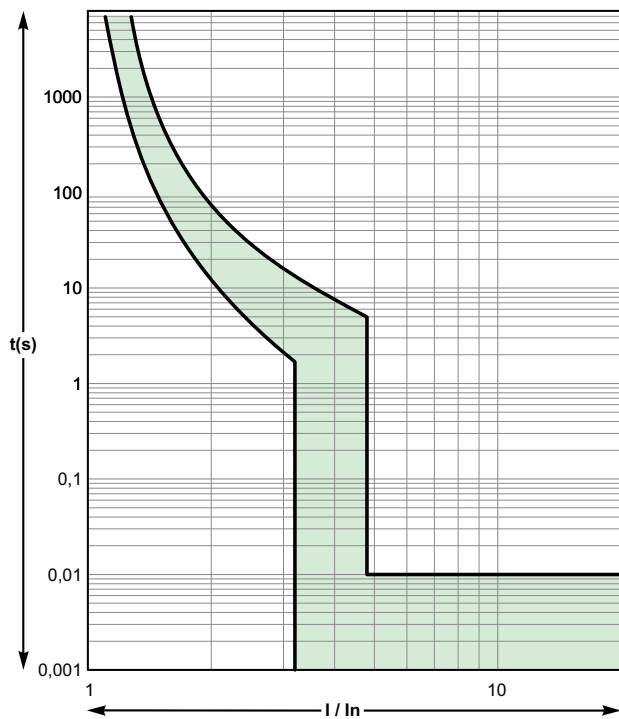
for C curve: $8I_n \pm 20\%$

for D curve: $12I_n \pm 20\%$

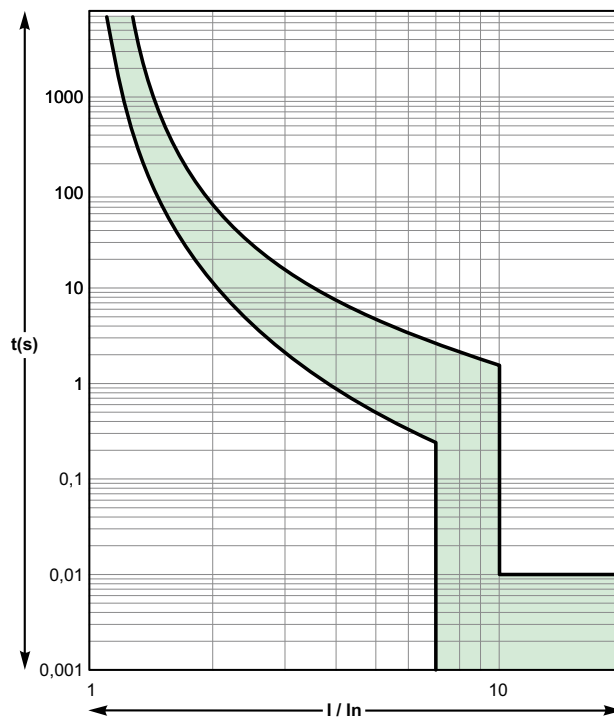
Tripping times (min, max) at an ambient temperature of 30 °C
(standards GB10963).

iC65N/H/L, iDPNK2 ratings 6 to 63 A

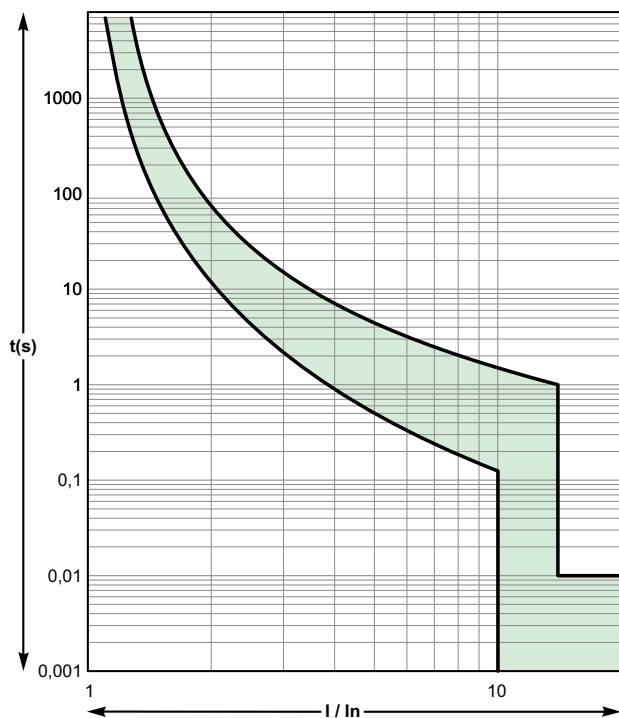
Curve B



Curve C



Curve D



Tripping times (min, max) at an ambient temperature of 30 °C (standards GB10963).

iC65N/H, iDPNK2 circuit breaker

B, C and D curves, as in standard IEC60898

The operating range of the magnetic release is as follows:

for B curve: (3-5) I_n

for C curve: (5-10) I_n

for BD curve: (10-14) I_n

iC65L circuit breaker

C and D curves, as in standard IEC60947-2

The operating range of the magnetic release is as follows:

for C curve: $8I_n \pm 20\%$

for D curve: $12I_n \pm 20\%$

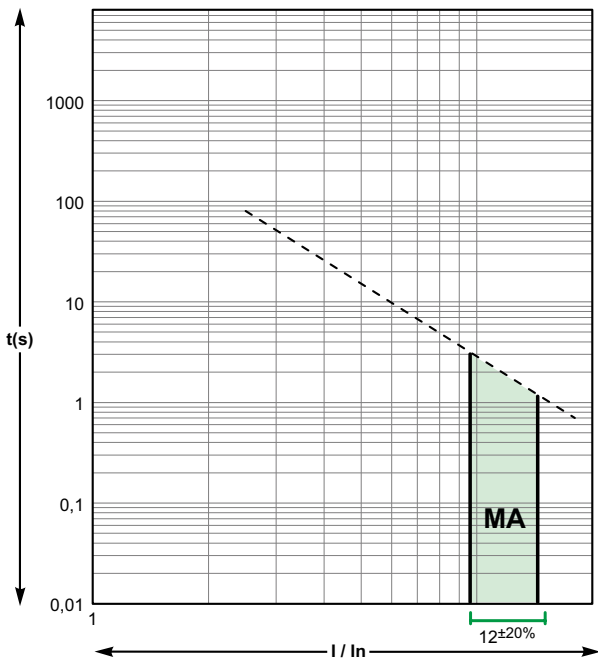
iC60LMA系列单磁式断路器

MA型脱扣曲线，符合IEC/EN 60947-2标准，其瞬时磁脱扣动作范围如下：

MA型曲线：12In ± 20%

iC60LMA

MA曲线



iDPNa/N/H, iDPNa-K circuit breaker

C curves, as in standard IEC60898

The operating range of the magnetic release is as follows:

for C curve: (5-10) In

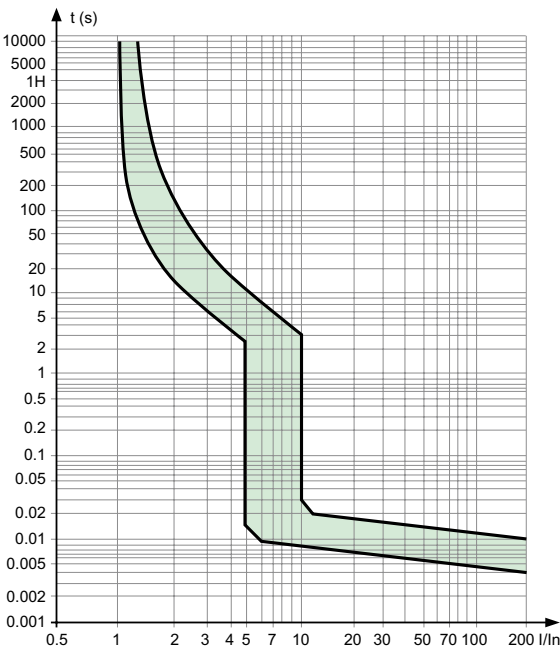
iC65N-K circuit breaker

C curves, as in standard IEC60898

The operating range of the magnetic release is as follows:
for C curve: (5-10) In

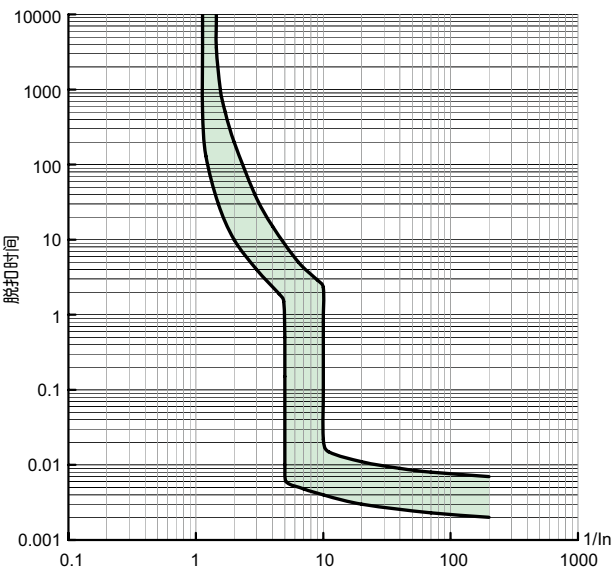
iC65N-K

Curve C



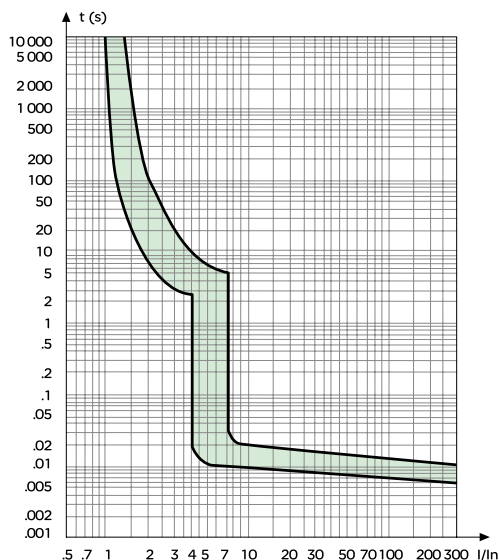
iDPNa/N/H, iDPNa-K

Curve C

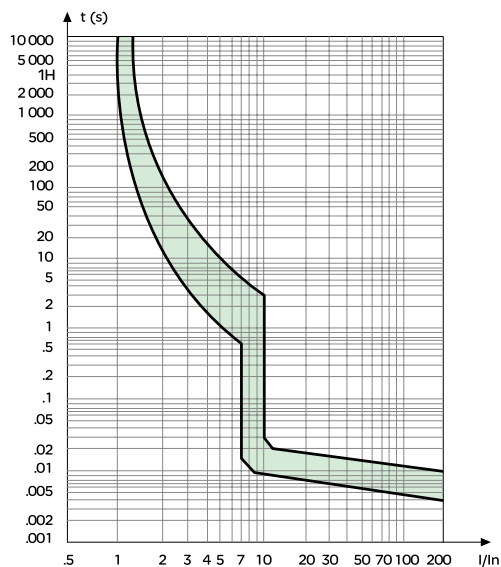


C65N-DC/C65H-DC/C65L-DC

Curve B (C65H-DC)



Curve C (C65N-DC/C65H-DC/C65L-DC)



C65N-DC/C65H-DC/C65L-DC

DC circuit breakers

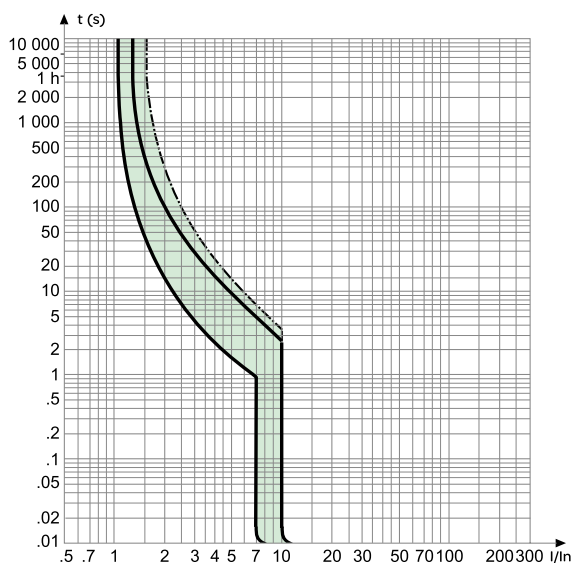
C65 circuit breakers conform to standards IEC60947-2/GB14048.2, the operation range of the magnetic release is as follows:

for B curve: $5.5 I_n \pm 20\%$

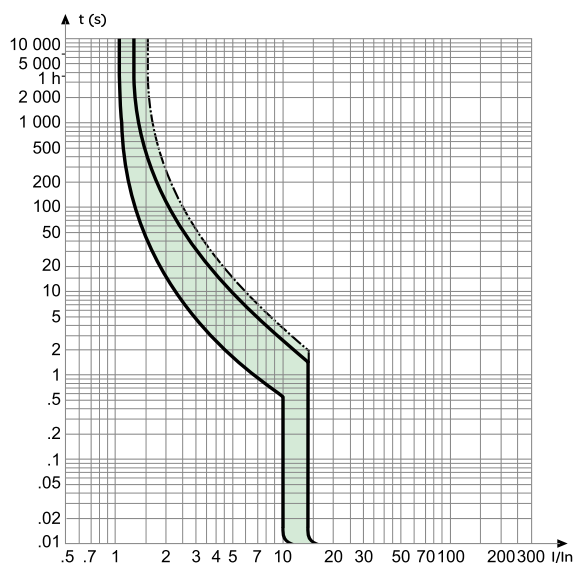
for C curve: $8.5 I_n \pm 20\%$

C60N/H

Curve C



Curve D



C60N/H molded case circuit breakers

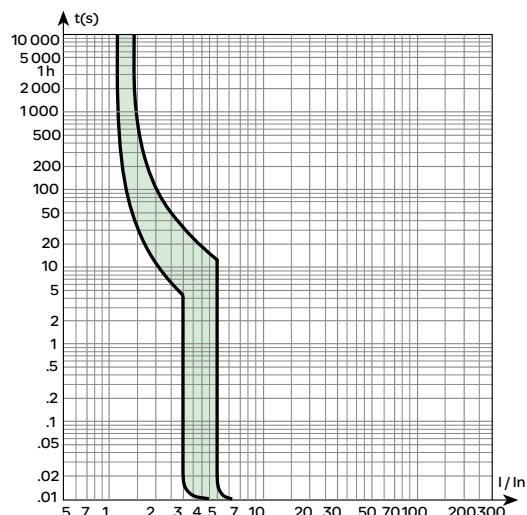
C60 molded case circuit breakers conform to standards IEC60947-2/GB14048.2, the operation range of the magnetic release is as follows:

for C curve: $8.5 I_n \pm 20\%$

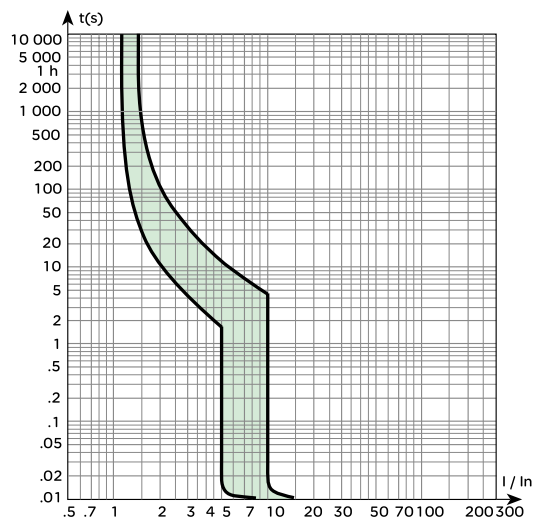
for D curve: $12 I_n \pm 20\%$

C120H/L

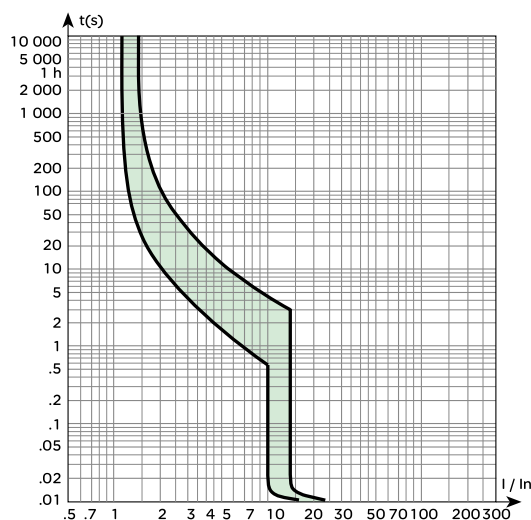
Curve B (C120H)



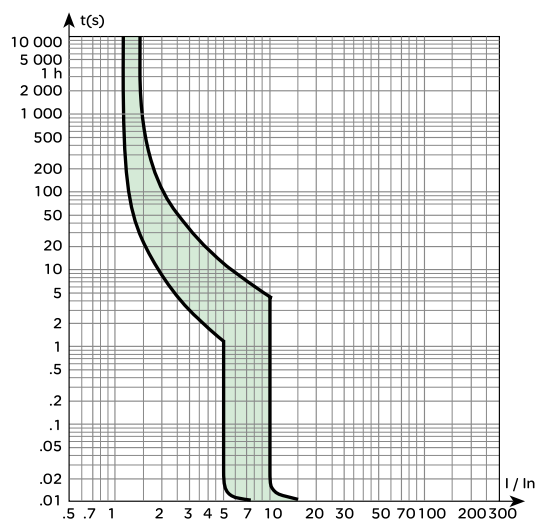
Curve C (C120H)



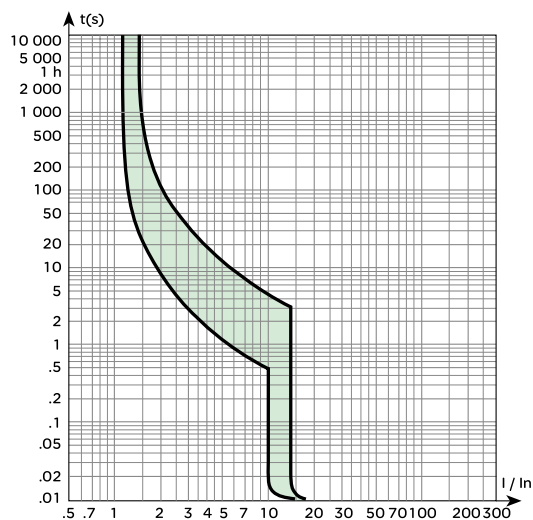
Curve D (C120H)



Curve C (C120L)



Curve D (C120L)



C120H/L

B, C and D curves, as in standard IEC 60898, the operating range of the magnetic release is as follows:

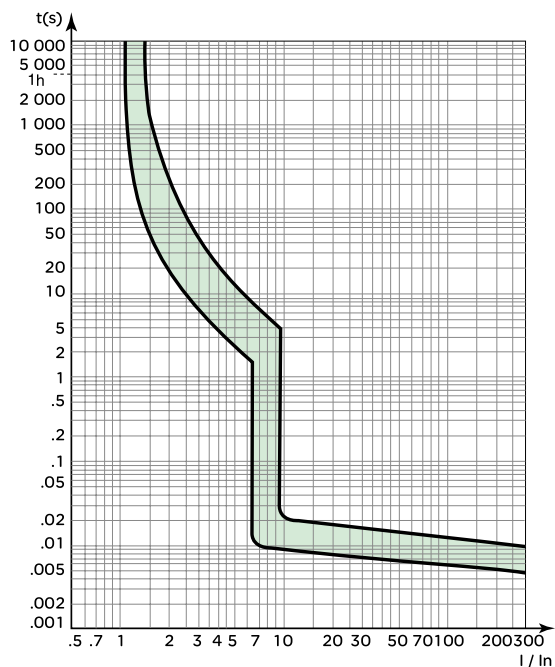
for B curve: (3-5) I_n

for C curve: (5-10) I_n

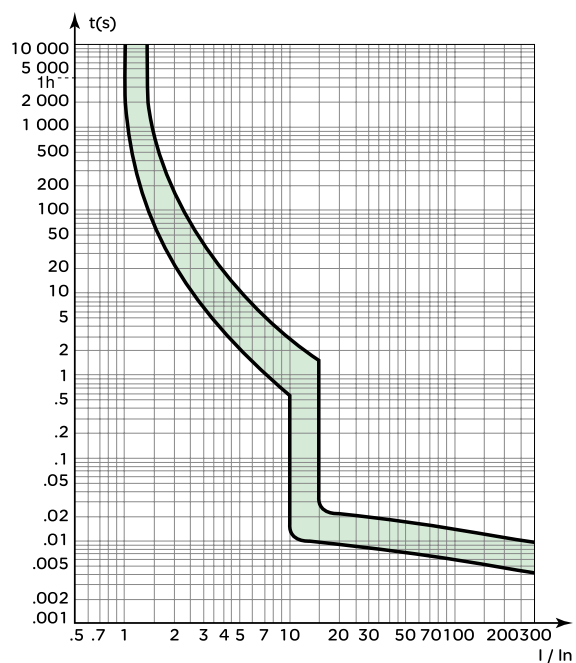
for D curve: (10-14) I_n

NG125H/L

Curve C



Curve D



NG125 circuit breaker

C and D curve, as in standard IEC 60947-2

The operation range of the magnetic release is as follows:

for C curve: $8I_n \pm 20\%$

for D curve: $12I_n \pm 20\%$

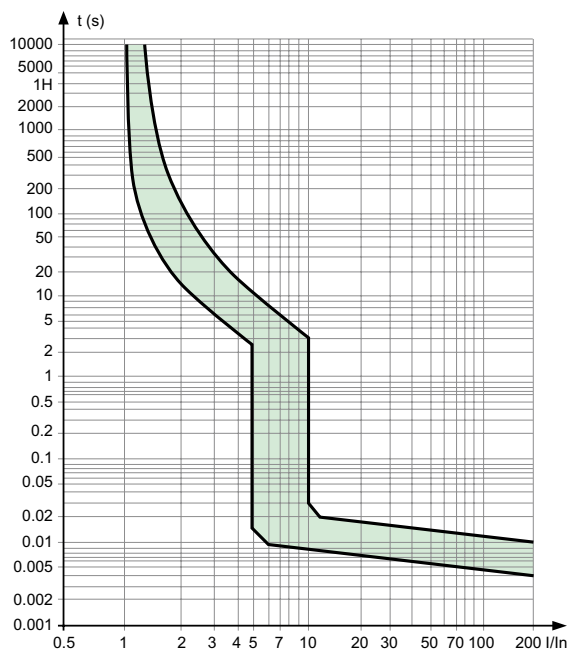
iDPNa/N Vigi+ residual current circuit breaker

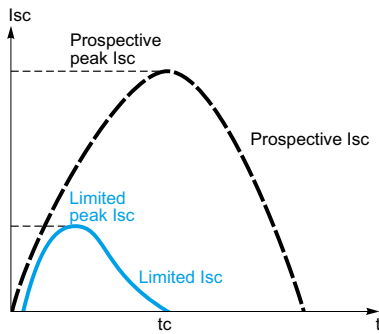
As in standard IEC61009, the operating range of the magnetic release is as follows:

for C curve: $(5-10) I_n$

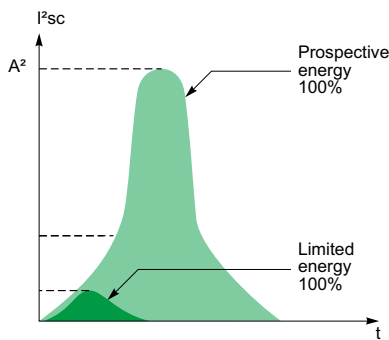
iDPNa/N Vigi+

Curve C





Prospective current and real limit current.



Definition

The limiting capacity of a circuit breaker is its ability to lessen the effects of a short circuit on an electrical installation by reducing the current amplitude and the dissipated power.

Benefits of limiting

Long installation service life

Thermal effects

Lower temperature rise at the conductor level, hence increased service life for cables and all components that are not self-protected (e.g. switches, contactors, etc.)

Mechanical effects

Lower electrodynamic repulsion forces, hence less risk of deformation or breakage of electrical contacts and busbars.

Electromagnetic effects

Less interference on sensitive equipment located in the vicinity of an electric circuit.

Savings through cascading

Cascading is a technique derived directly from current limiting: downstream of a current-limiting circuit breaker it is possible to use circuit breakers of breaking capacity lower than the prospective short-circuit current. The breaking capacity is heightened thanks to current limiting by the upstream device. Substantial savings can be achieved in this way on switchgear and enclosures.

Discrimination of protection devices

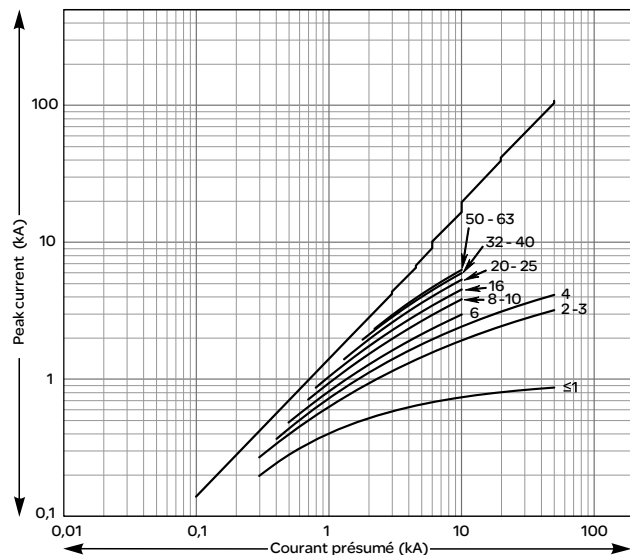
Profiting from Schneider Electric's experience and expertise in the field of short-circuit current breaking, the circuit breakers of the Acti9 range have a top-level current limiting characteristic for modular devices.

This assures them of optimal protection of the entire power distribution system.

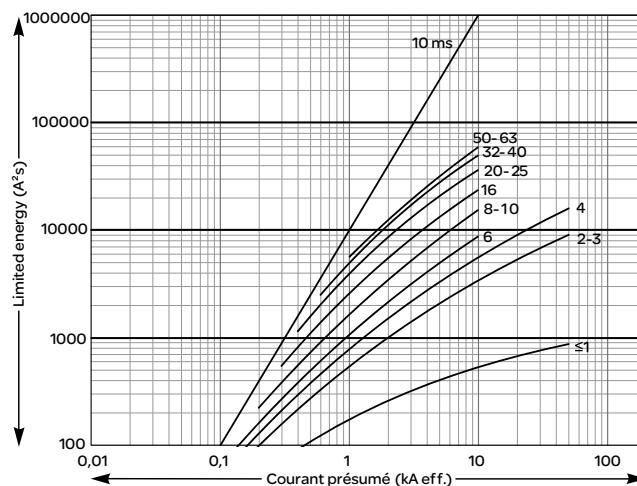
Limitation curves for 230 V single-phase or 400 V three-phase network (TN or TT earthing system)

iC65N

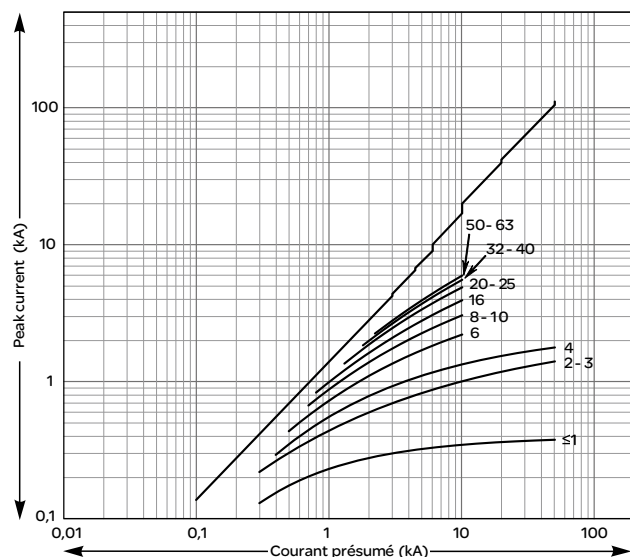
1P / 3P / 4P circuit breakers
Peak current



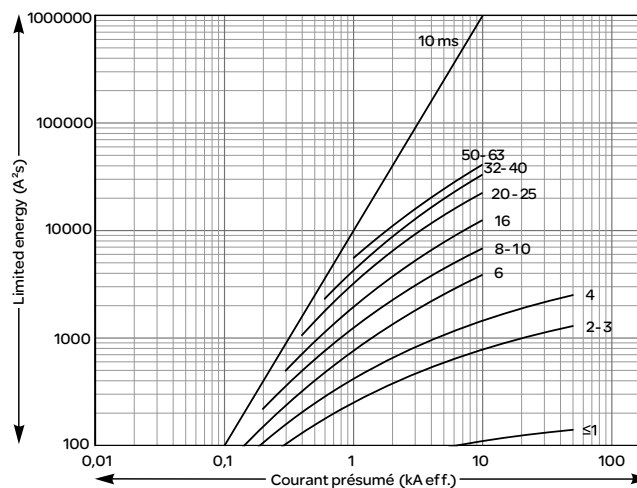
Thermal stress



2P circuit breakers
Peak current

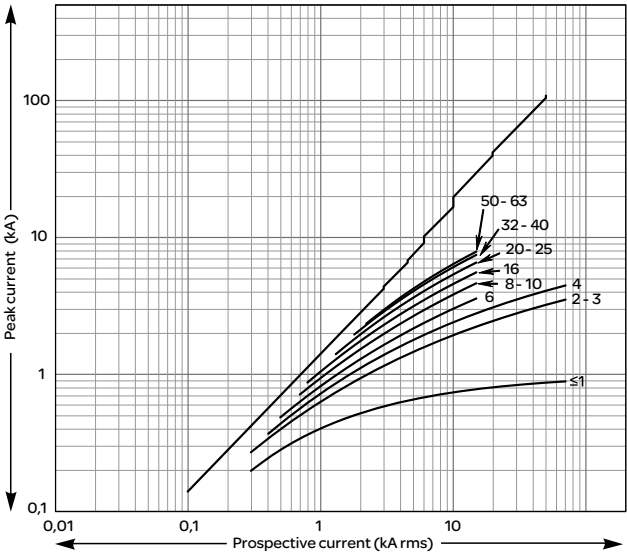


Thermal stress

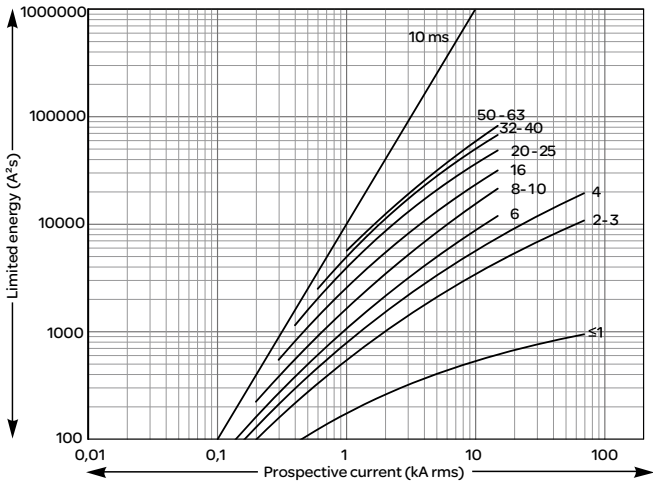


IC65H

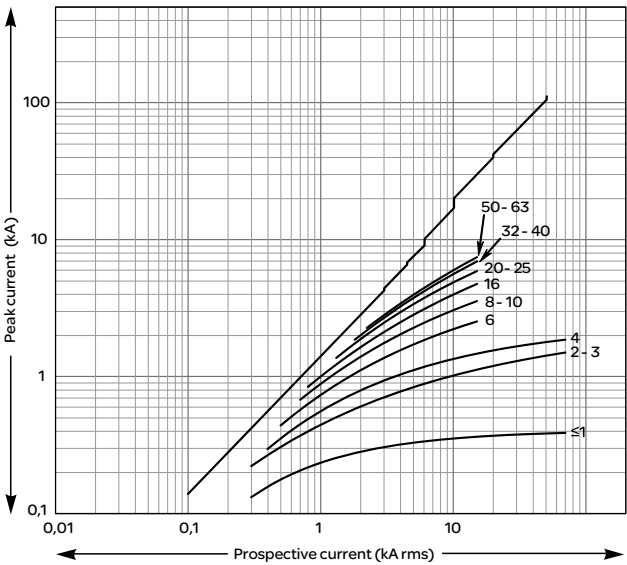
1P / 3P / 4P circuit breakers
Peak current



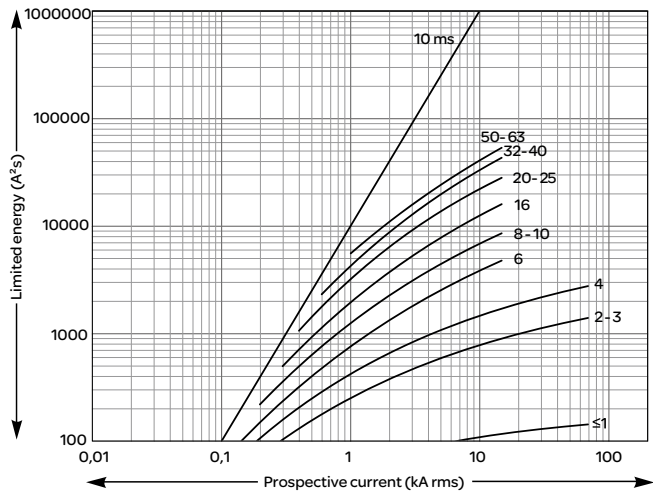
Thermal stress



2P circuit breakers
Peak current

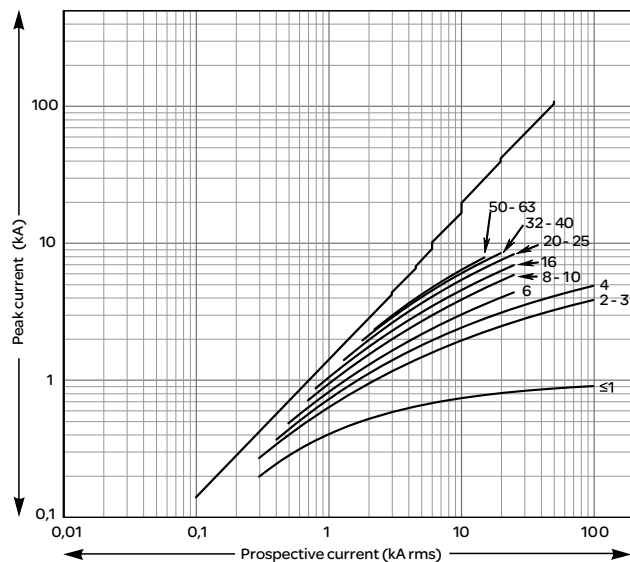


Thermal stress

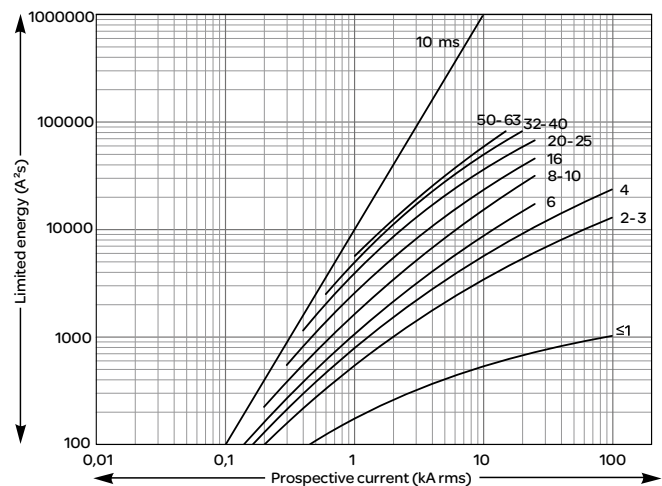


IC65L

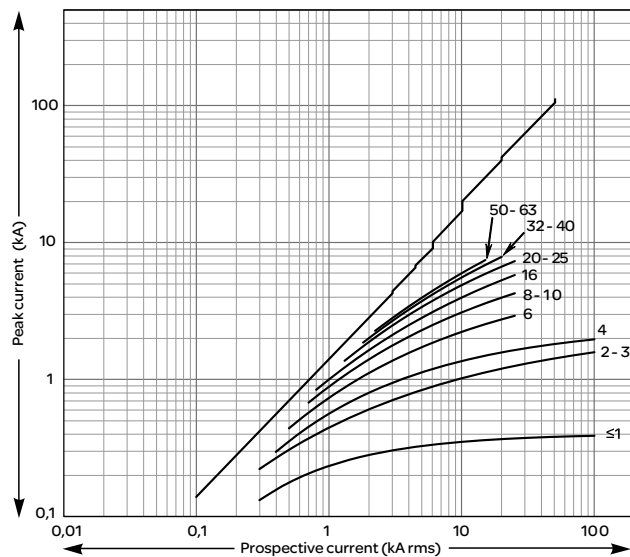
1P / 3P / 4P circuit breakers
Peak current



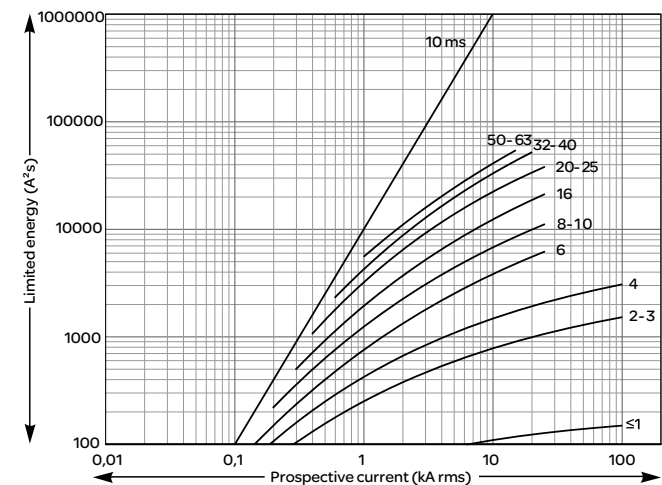
Thermal stress



2P circuit breakers
Peak current



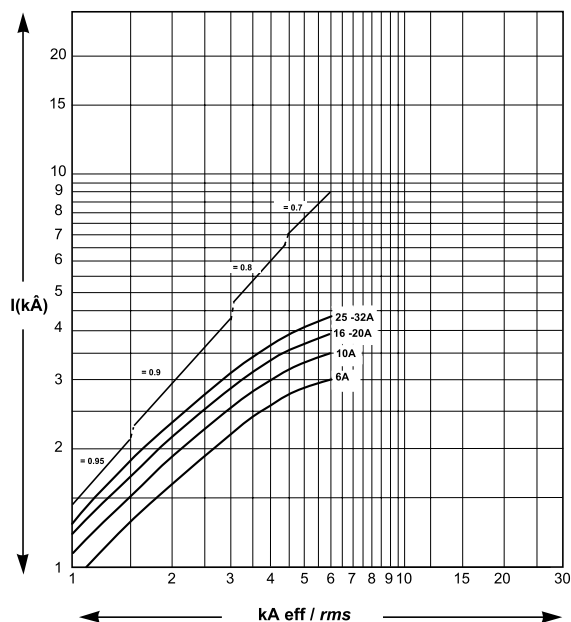
Thermal stress



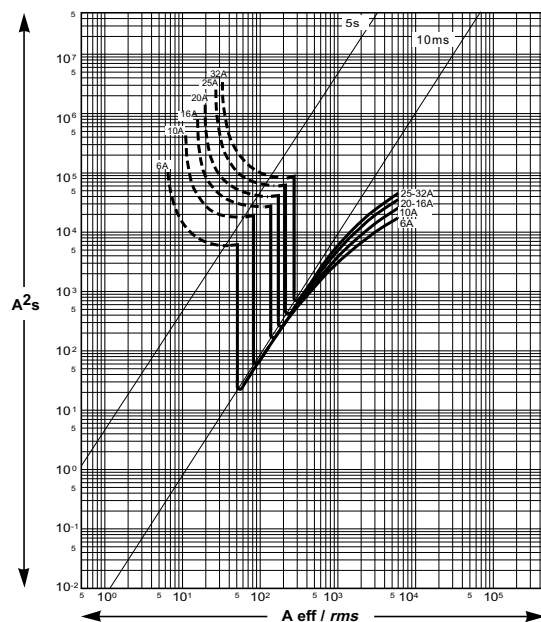
iC65N-K

1P / 2P / 3P / 4P circuit breakers

Peak current



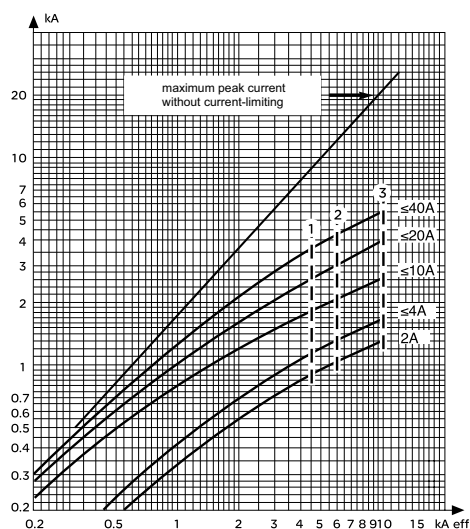
Thermal stress



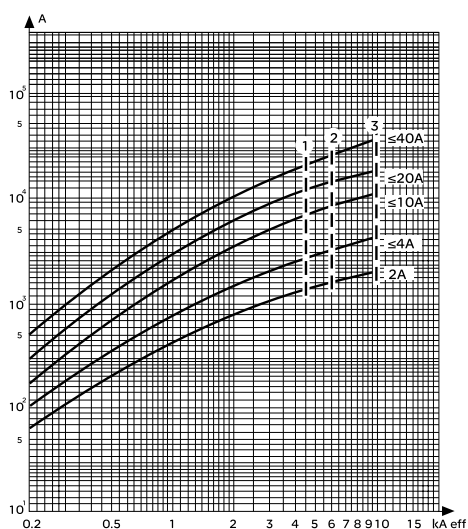
iDPNa/N/H

1P+N circuit breakers

Peak current

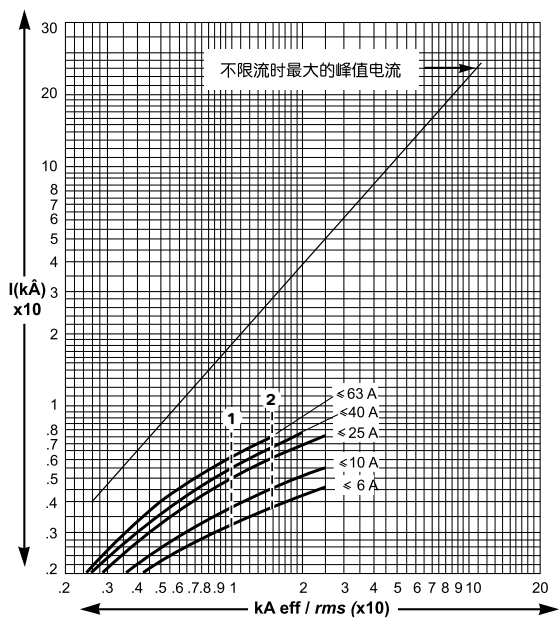


Thermal stress

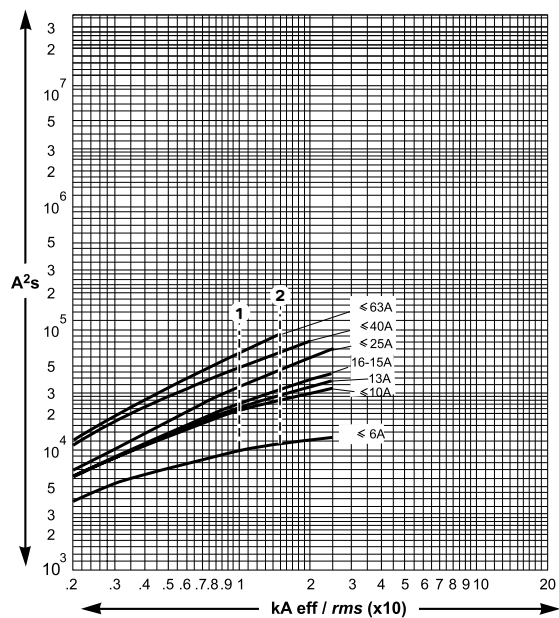


C60N/H

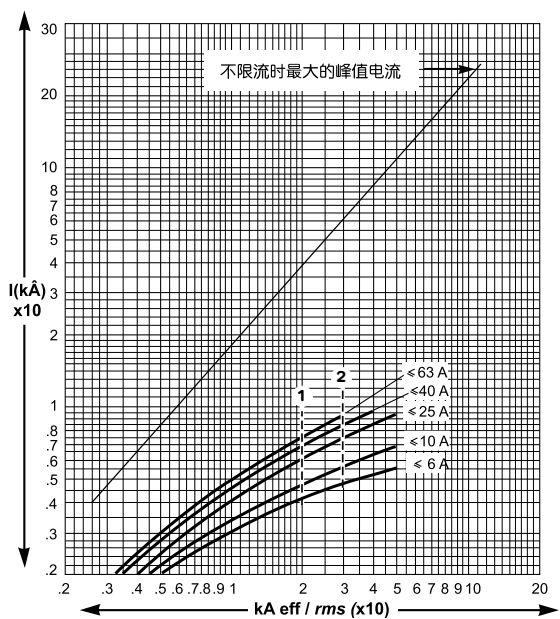
1P 240V circuit breakers
Peak current



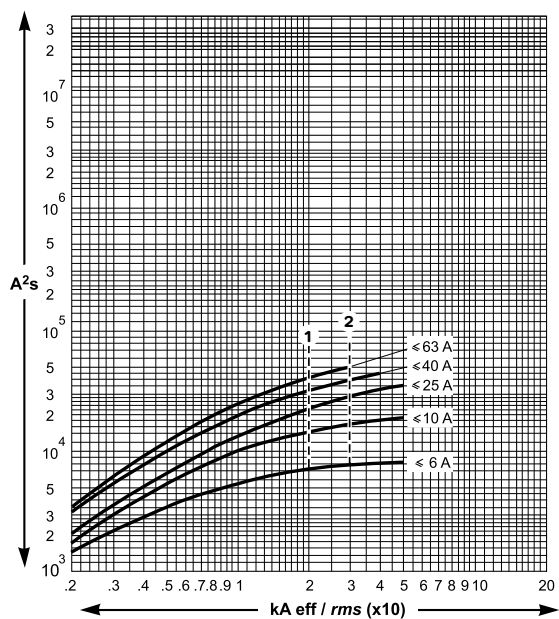
Thermal stress



2P, 3P, 4P 240V circuit breakers
Peak current

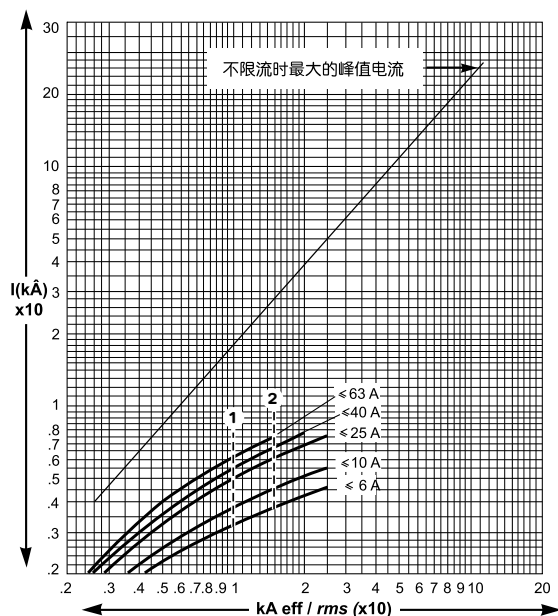


Thermal stress

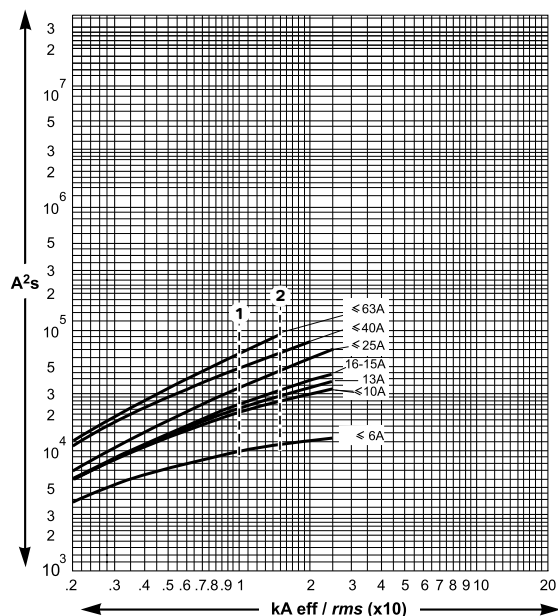


C60N/H (continue)

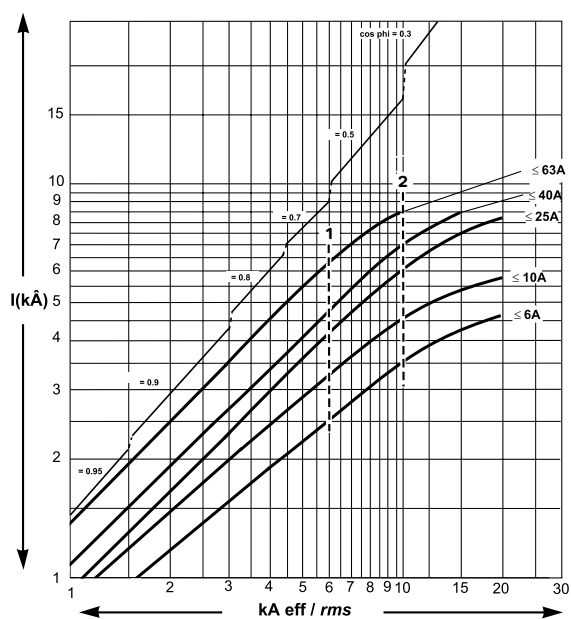
2P, 3P, 4P 415V circuit breakers
Peak current



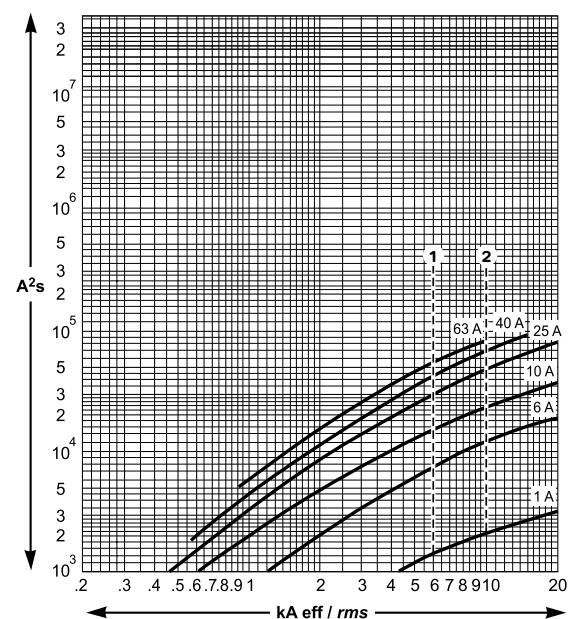
Thermal stress



2P, 3P, 4P 440V circuit breakers
Peak current



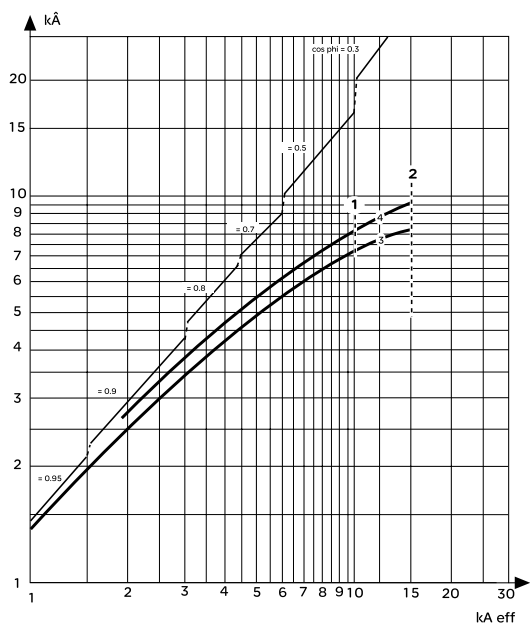
Thermal stress



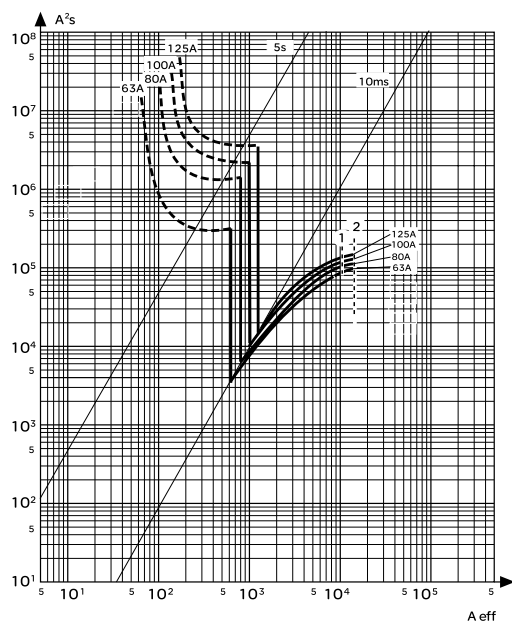
C120H/L

1P 240V/2P, 3P, 4P 415V circuit breakers

Peak current



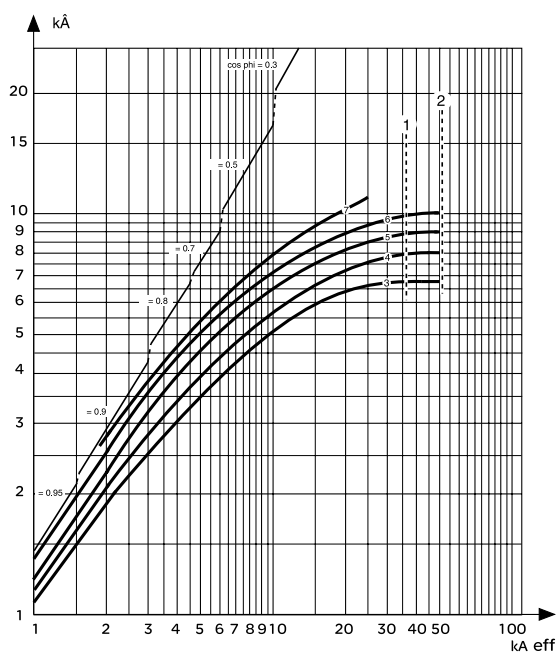
Thermal stress



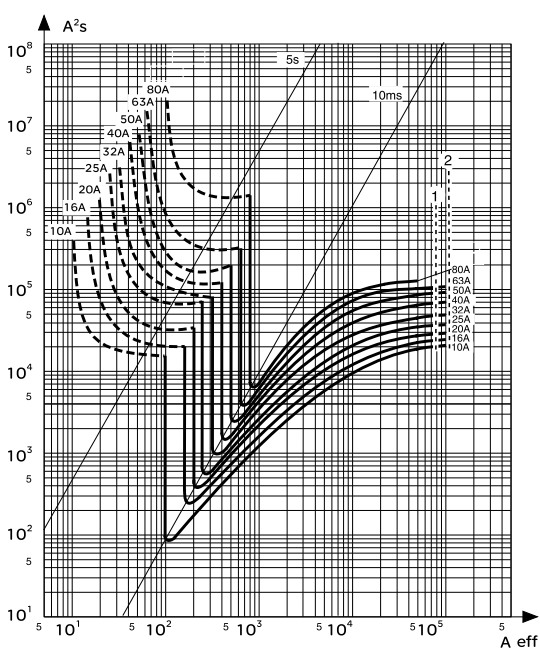
NG125 H/L

1P 240V/2P, 3P, 4P 415V circuit breakers

Peak current



Thermal stress



2P residual current circuit breaker

220V-240V single phase

iID	Circuit breakers 1P, 2P						
Rating	iC65N-K	iC65N	iC65H	iC65L	C120H	C120L	NG125L
16	6kA	6kA	10kA	15kA	10kA	15kA	25kA
25	6kA	6kA	10kA	15kA	10kA	15kA	25kA
40		6kA	10kA	15kA	10kA	15kA	20kA
63		6kA	10kA	15kA	10kA	10kA	10kA
80					10kA	10kA	10kA
100					10kA	10kA	

iID	Circuit breakers 1P+N, 2P					
Rating	iDPNa	iDPNN	iDPNH	C120H	C120L	NG125L
16	4.5kA	6kA	10kA	20kA	30kA	50kA
25	4.5kA	6kA	10kA	20kA	30kA	50kA
40	4.5kA	6kA	10kA	20kA	30kA	36kA
63				20kA	30kA	30kA
80				20kA	20kA	20kA
100				20kA	20kA	

4P residual current circuit breaker

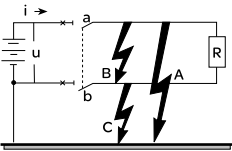
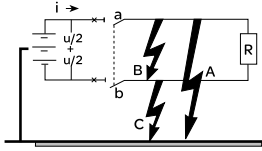
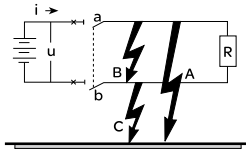
380V-415V three-phase

iID	Circuit breakers 3P, 4P						
Rating	iC65N-K	iC65N	iC65H	iC65L	C120H	C120L	NG125L
16	6kA	6kA	10kA	15kA	10kA	15kA	25kA
25	6kA	6kA	10kA	15kA	10kA	15kA	25kA
40		6kA	10kA	15kA	10kA	15kA	20kA
63		6kA	10kA	15kA	10kA	10kA	10kA
80					10kA	10kA	10kA
100					10kA	10kA	

DC current applications													
Breaking capacity Icu (According to IEC 60947-2)												Magnetic protect amplification factor	
		Voltage (Ue)											
voltage range		12~72 V		100~133 V				220~250 V					
Number of poles		1P		2P (in series)		3P (in series)		4P (in series)					
iC65N	1~63 A	6 kA		6 kA		6 kA		6 kA					
iC65H	1~63 A	10 kA		10 kA		10 kA		10 kA				1.38	
iC65L	1~63 A	15 kA		15 kA		15 kA		15 kA				1.38	
Breaking capacity Icu (According to IEC 60947-2)												Magnetic protect amplification factor	
		Voltage (Ue)											
voltage range		≤ 60 V		125V		250V		500V					
Number of poles		1P				2P (in series)		4P (in series)					
C120H		10 kA		10 kA		10 kA		—					1.4
C120L		15 kA		15 kA		15 kA		—				1.4	
NG125H		36 kA		36 kA		36 kA		36 kA				1.4	
NG125L		50 kA		50 kA		50 kA		50 kA				1.4	
Breaking capacity Icu (According to IEC 60947-2)												Magnetic protect amplification factor	
		Voltage (Ue)											
voltage range		≤ 60 V	110V	125V	220V	250V	125V	220V	250V	440V	500V		
Number of poles		1P					2P (in series)						
C65N-DC	1~63 A	6 kA	—	—	—	—	6 kA	—	—	—	—		DC-specific
C65H-DC	1~63 A	—	—	10 kA	—	—	20 kA	—	10 kA	—	—	DC-specific	
C65L-DC	1~63 A	—	20 kA	—	10 kA	6 kA	-	20 kA	—	10 kA	6 kA	DC-specific	

Main basis of selecting circuit breakers in DC current applications:

- Rated current depends on load power
- Maximum short circuit current at the point of installation depends on breaking capacity
- Rated voltage depends on breaking pole number in series
- Network type (as shown below)

System type		Earthing system		non-earthing system
		1 pole earthing	center earthing	
Fault type				
Fault effect	Fault A	Maximum I _{sc} only to positive pole	I _{sc} close to I _{sc} only to positive pole, voltage U/2	No effect
	Fault B	Maximum I _{sc} including 2 poles	Maximum I _{sc} including 2 poles	Maximum I _{sc} including 2 poles
	Fault C	No effect	same with fault A, but only to negative pole	No effect
Worst		Fault A	Fault A and C	Fault B
Breaking pole condition		Series in positive pole, break together	in 2 poles, circuit breaker must break I _{sc} at U/2	the circuit break that implements breaking should distribute evenly between 2 poles

The calculation of short circuit current between the two poles of battery (I_{sc})

When the battery is short, it discharges and the current can be calculated based on Ohm's law:

$$I_{sc} = V_b / R_i$$

When V_b=maximum discharge (the battery has been full charged)

R_i=the sum of internal resistance that is equivalent to battery resistance (based on battery capacity, which is normally given by manufacturers).

Examples

The calculation of short circuit current between the two poles of battery with the following properties:

-capacity: 500Ah

-maximum discharge voltage: 240V (110x2.2V per one)

-discharge current: 300A

-internal resistance: 0.5mΩ per battery

$$R_i = 110 \times 0.5 \times 10^{-3} = 55 \times 10^{-3} \Omega$$

$$I_{sc} = 240 / (55 \times 10^{-3}) = 4.4 \text{ kA}$$

The calculation above shows that the short circuit is very low.

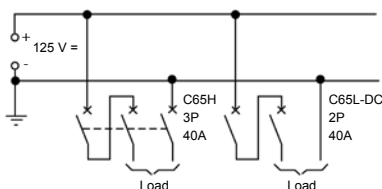
Note: if the internal resistance is not given, it can be calculated based on the below approximate formula:

I_{sc}=kC, C: battery capacity (A·h), k: a factor close to 10, normally not more than 20

$$\begin{aligned} &240 \text{ V DC} \\ &300 \text{ A} \\ &500 \text{ Ah} \\ &R_i = 0.5 \text{ m}\Omega/\text{battery} \end{aligned} \quad I_{sc}$$

Example 1

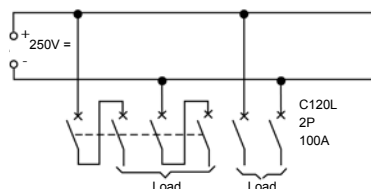
Guarantee that there is a 40A bypass for protection in the 125V DC network, negative earthing, I_{sc}=15kA



Because of negative earthing, the circuit breaker should be connected to positive of network to meet the requirement of breaking. e.g.: C65H-DC, 40A, 2P. Taking the requirement of insulation into account, 3P circuit breakers are also available (2P connected with positive and 1P connected with negative, e.g.: C65H, 40A, 3P (as shown above).

Example 2

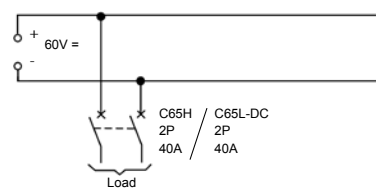
Guarantee that there is a 50A bypass for protection in the 250V DC network, center earthing, I_{sc}=15kA



Maximum voltage of every pole: U/2=125V
C120 (15Ka, 1P, 125V) can be used for every pole based on the diagram. According to requirement, when the 4 poles are in series, the circuit breaker can break current of 15kA at 250V.

Example 3

Guarantee that there is a 40A bypass for protection in the 60V DC network, non-earthing, I_{sc}=15kA



C65H (20Ka, 1P, 60V) or C65L-DC (20Ka, 1P, 60V) can be used according to the diagram. Taking the requirement of insulation into account, 2P circuit breaker is used in the above diagram (1P connected with positive of network, the other connected with negative).

What is cascading?

Cascading is the use of the current limiting capacity of circuit breakers at a given point to permit installation of lower-rated and therefore lower-cost circuit breakers downstream.

The upstream circuit breakers acts as a barrier against short-circuit currents. In this way, downstream circuit breakers with lower breaking capacities than the prospective short-circuit (at their point of installation) operate under their normal breaking conditions.

Since the current is limited throughout the circuit controlled by the limiting circuit breaker, cascading applies to all switchgear downstream. It is not restricted to two consecutive devices.

General use of cascading

With cascading, the devices can be installed in different switchboards. Thus, in general, cascading refers to any combination of circuit breakers where a circuit breaker with a breaking capacity less than the prospective I_{sc} at its point of installation can be used. Of course, the breaking capacity of the upstream circuit breaker must be greater than or equal to the prospective short-circuit current at its point of installation.

The combination of two circuit breakers in cascading configuration is covered by the following standards:

- IEC 60947-2 (circuit breaker design and manufacturing)
- IEC 60364, § 434.5.1 (electrical distribution network).

Coordination between circuit breakers

The use of a protective device possessing a breaking capacity less than the prospective short-circuit current at its installation point is permitted as long as another device is installed upstream with at least the necessary breaking capacity. In this case, the characteristics of the two devices must be coordinated in such a way that the energy let through by the upstream device is not more than that which can be withstood by the downstream device and the cables protected by these devices without damage.

Cascading can only be checked by laboratory tests and the possible combinations can be specified only by the circuit breaker manufacturer.

Cascading and protection discrimination

In cascading configurations, due to the Roto-active breaking technique, discrimination is maintained and, in some cases, even enhanced. Where upstream breaker is part of Compact NSX range, consult the enhanced discrimination tables for data on discrimination limits

Cascading tables

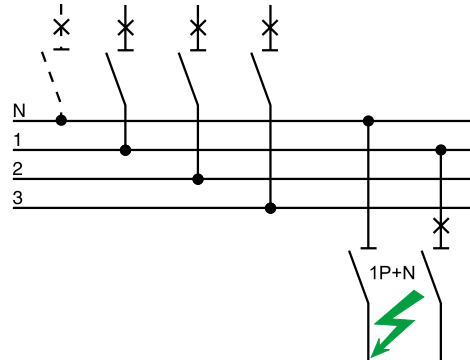
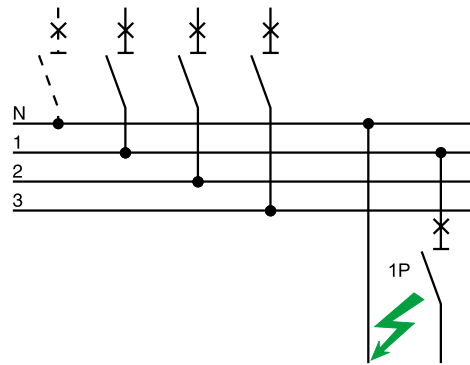
Schneider Electric cascading tables are:

- drawn up on the basis of electronical simulations (comparison between the energy limited by the upstream device and the maximum permissible thermal stress for the downstream device)
- verified experimentally in accordance with IEC standard 60947-2.

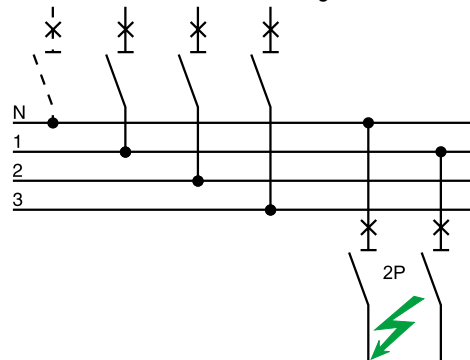
For distribution systems with 220/240 V, 400/415 V and 440 V between phases, the tables of the following pages indicate cascading possibilities between upstream Compact and downstream Multi 9 and Compact circuit breakers as well as between upstream Masterpact and downstream Compact circuit breakers.

Protection of single-phase circuits in a three-phase network system

■ the breaking capacities enhanced by cascading indicated in the 380/415 V rated voltage tables are valid when the downstream device is type 1P, 1P+N, 3P or 4P



■ in the case of 2P type downstream devices (2P or 4P upstream device), refer to the 220/240 V rated voltage tables.



Example of three level cascading

Consider three circuit breakers A, B and C connected in series. The criteria for cascading are fulfilled in the following two cases:

■ the upstream device A is coordinated for cascading with both devices B and C (even if the cascading criteria are not fulfilled between B and C). It is simply necessary to check that the combinations A + B and A + C have the required breaking capacity

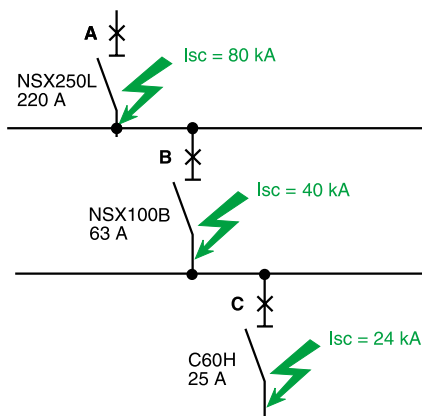
■ each pair of successive devices is coordinated, i.e. A with B and B with C (even if the cascading criteria are not fulfilled between A and C). It is simply necessary to check that the combinations A + B and B + C have the required breaking capacity. The upstream breaker A is a NSX250L (breaking capacity 150 kA) for a prospective Isc of 80 kA across its output terminals.

A NSX100F (breaking capacity 36 kA) can be used for circuit breaker B for a prospective Isc of 40 kA across its output terminals, since the "reinforced" breaking capacity provided by cascading with the upstream NSX250L is 150 kA.

A iC65L (breaking capacity 15 kA) can be used for circuit breaker C for a prospective Isc of 24 kA across its output terminals since the "reinforced" breaking capacity provided by cascading with the upstream NSX250L is 30 kA.

Note that the "reinforced" breaking capacity of the iC65L with the NSX100F upstream is only 20 kA, but:

- A + B = 150 kA
- A + C = 30 kA.



Cascading, network 380/415 V

Upstream: iDPN, iC65, C120, NG125

Downstream: iDPN, iC65, C120, NG125

Upstream	iC65N iDPNN 10	iC65H 15	iC65L ≤ 25 A 25	32/40 A 20	50/63 A 15	C120H 10	C120L 15	NG125H 36	NG125L 50
Downstream	Breaking capacity (kA rms)								
iDPNa	10	10	20	15	10	10	10	15	20
iDPNN		15	25	20	15		15	20	25
iC65N ≤ 25 A		15	25	20	15		15	25	25
iC65N 32 A to 40 A		15		20	15		15	25	25
iC65N 50 A to 63 A		15			15			25	25
iC65H ≤ 25 A			25					36	36
iC65H 32 A to 40 A								36	36
iC65H 50 A to 63 A								36	36
iC65L ≤ 25 A								36	40
iC65L 32 A to 40 A								36	40
iC65L 50 A to 63 A								36	36
C120N							15	25	36
C120H							15	25	36
NG125N								36	36
NG125H									50

Cascading, network 380/415 V

Upstream: Compact NSX100-160

Downstream: iDPN, iC65, C120, NG125,
Compact NSX100-160

Upstream	NSX100F	NSX100N	NSX100H	NSX100S	NSX100L
Breaking capacity (kA rms)	36	50	70	100	150
Downstream	Reinforced breaking capacity (kA rms)				
iDPNa	10	10	10	10	10
iDPNN	15	15	15	15	15
iC65N	25	30	30	30	30
iC65H ≤ 40 A	36	40	40	40	40
iC65H 50 A to 63 A	36	36	36	36	36
iC65L ≤ 25 A	36	40	40	40	40
iC65L 32 A to 40 A	36	40	40	40	40
iC65L 50 A to 63 A	36	36	36	36	36
C120H	25	25	25	25	25
C120L	25	25	25	25	25
NG125H		40	50	70	100
NG125L			70	100	150
NSX100F		50	70	100	150
NSX100N			70	100	150
NSX100H				100	150
NSX100S					150
NSX100L					150

Upstream	NSX160F	NSX160N	NSX160H	NSX160S	NSX160L
Breaking capacity (kA rms)	36	50	70	100	150
Downstream	Reinforced breaking capacity (kA rms)				
iDPNa	10	10	10	10	10
iDPNN	15	15	15	15	15
iC65N	25	30	30	30	30
iC65H ≤ 40 A	36	40	40	40	40
iC65H 50 A to 63 A	30	30	30	30	30
iC65L ≤ 25 A	36	40	40	40	40
iC65L 32 A to 40 A	36	40	40	40	40
iC65L 50 A to 63 A	30	36	36	36	36
C120H	25	25	25	25	25
C120L	25	25	25	25	25
NG125H		40	50	70	100
NG125L		50	70	100	150
NSX100F		50	70	100	150
NSX100N			70	100	150
NSX100H				100	150
NSX100S					150
NSX160F		50	70	100	150
NSX160N			70	100	150
NSX160H				100	150
NSX160S					150

Cascading, network 380/415 V

Upstream: Compact NSX250-630

Downstream: iDPN, iC65, C120, NG125,

Compact NSX100-250

Upstream	NSX250F	NSX250N	NSX250H	NSX250S	NSX250L
Breaking capacity (kA rms)	36	50	70	100	150
Downstream	Reinforced breaking capacity (kA rms)				
iDPNa	10	10	10	10	10
iDPNN	15	15	15	15	15
iC65N ≤ 40 A	25	30	30	30	30
iC65N 50 A to 63 A	25	25	25	25	25
iC65H ≤ 40 A	30	30	30	30	30
iC65H 50 A to 63 A	25	30	30	30	30
iC65L ≤ 25 A	30	36	36	36	36
iC65L 32 A to 40 A	30	30	30	30	30
iC65L 50 A to 63 A	25	25	25	25	25
C120H	25	25	25	25	25
C120L	25	25	25	25	25
NG125H		40	50	70	100
NG125L		50	70	100	150
NSX100F		50	70	100	150
NSX100N			70	100	150
NSX100H				100	150
NSX100S					150
NSX160F		50	70	100	150
NSX160N			70	100	150
NSX160H				100	150
NSX160S					150
NSX250F		50	70	100	150
NSX250N			70	100	150
NSX250H				100	150
NSX250S					150

Upstream	NSX400F	NSX400N	NSX400H	NSX400S	NSX400L	NSX630F	NSX630N	NSX630H	NSX630S	NSX630L
Breaking capacity (kA rms)	36	50	70	100	150	36	50	70	100	150
Downstream	Reinforced breaking capacity (kA rms)									
NSX100F		50	70	100	150		50	70	100	150
NSX100N			70	100	150			70	100	150
NSX100H				100	150				100	150
NSX100S					150					150
NSX160F		50	70	100	150		50	70	100	150
NSX160N			70	100	150			70	100	150
NSX160H				100	150				100	150
NSX160S					150					150
NSX250F		50	70	100	150		50	70	100	150
NSX250N			70	100	150			70	100	150
NSX250H				100	150				100	150
NSX250S					150					150
NSX400F		50	70	100	150		50	70	100	150
NSX400N			70	100	150			70	100	150
NSX400H				100	150				100	150
NSX400S					150					150
NSX630F							50	70	100	150
NSX630N								70	100	150
NSX630H									100	150
NSX630S										150

Cascading, network 380/415 V

Upstream: Compact NS630b-1600, Masterpact MT

Downstream: Compact NSX100-630,

Compact NS630b-1600

Upstream	NS630bN to NS1600N	NS630b H	NS630b L	NS800 H	NS1000 H	NS1250H NS1600H	Masterpact MT L1
Breaking capacity (kA rms)	50	70	150	70	70	70	150
Downstream	Reinforced breaking capacity (kA rms)						
NSX100F	50	70	150	70	70	70	
NSX100N		70	150	70	70	70	
NSX100H			150				
NSX100S			150				
NSX100L							
NSX160F	50	70	150	70	70	70	
NSX160N		70	150	70	70	70	
NSX160H			150				
NSX160S			150				
NSX160L							
NSX250F	50	70	150	70	70	70	
NSX250N		70	150	70	70	70	
NSX250H			150				
NSX250S			150				
NSX250L							
NSX400F	50	70	150	70	70	70	
NSX400N		70	150	70	70	70	
NSX400H			150				
NSX400S			150				
NSX400L							
NSX630F	50	70	150	70	70	70	
NSX630N		70	150	70	70	70	
NSX630H			150				
NSX630S			150				
NSX630L							
NS630bN		70	150	70	70	70	65
NS630bH			150				
NS800N				70	70	70	65
NS800H							
NS1000N					70	70	65
NS1000H							
NS1250N						70	65
NS1600N							65

Protection discrimination is an essential element that must be taken into account starting at the design stage of a low voltage installation to ensure the highest level of availability for users.

Discrimination is important in all installations for the comfort of users, however it is fundamental in installations requiring a high level of service continuity, e.g. industrial manufacturing processes.

Industrial installations without discrimination run a series of risks of varying importance including:

- production deadline overruns
- interruption in manufacturing, entailing:
 - production or finished-product losses
 - risk of damage to production machines in continuous processes
- restarting of machines, one by one, following a general power outage
- shutdown of vital safety equipment such as lubrication pumps, smoke fans, etc.

What is discrimination?

Discrimination, also called selectivity, is the coordination of automatic protection devices in such a manner that a fault appearing at a given point in a network is cleared by the protection device installed immediately upstream of the fault, and by that device alone.

Total discrimination

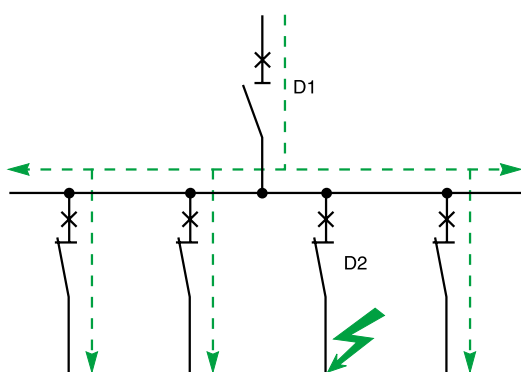
Discrimination is said to be total if, for all fault current values, from overloads up to the non-resistive short-circuit current, circuit breaker D2 opens and D1 remains closed.

Partial discrimination

Discrimination is partial if the above condition is not respected up to the full short-circuit current, but only to a lesser value termed the selectivity limit current (I_s).

No discrimination

In the event of a fault, both circuit breakers D1 and D2 open.



Total discrimination as standard with Masterpact MT circuit breakers

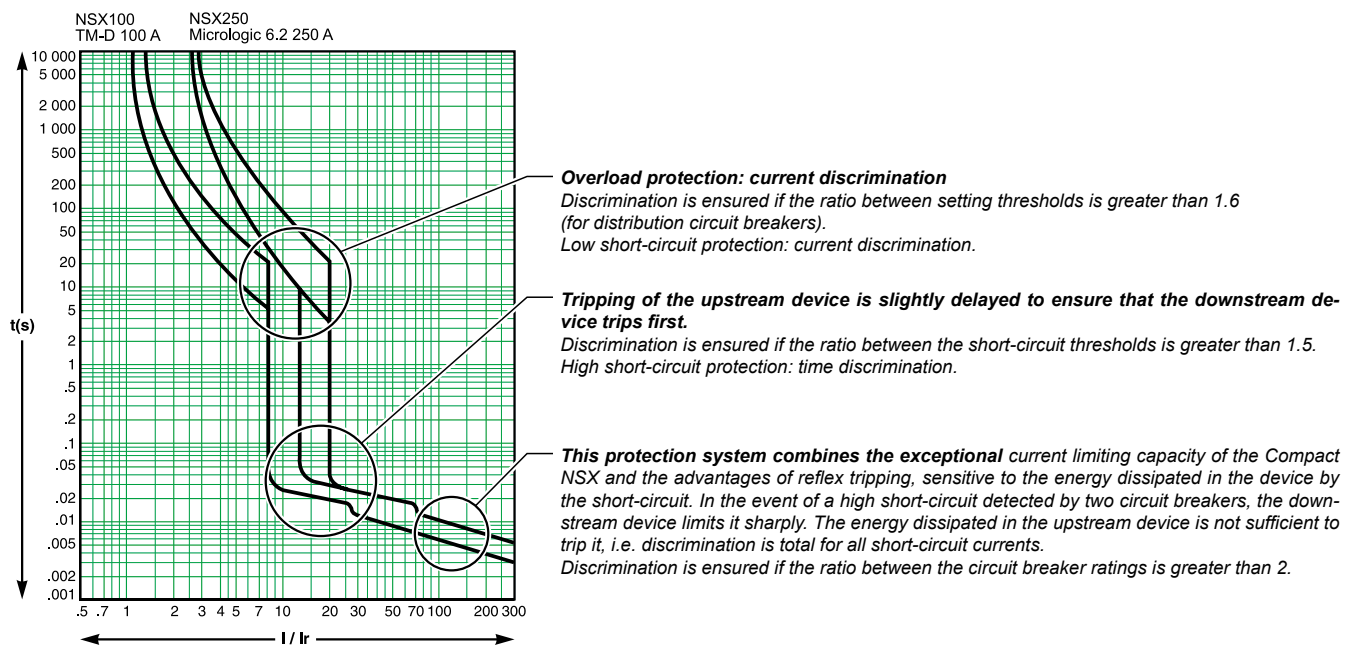
Thanks to their highly innovative design and the exceptional performance of their control units, the Masterpact MT circuit breakers offer total discrimination with downstream Compact NSX devices up to 630 A as standard ⁽¹⁾.

Natural discrimination with Compact NSX circuit breakers

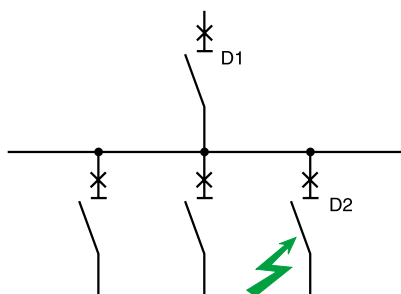
Due to the Roto-active breaking technique employed by the Compact NSX, the combined use of Schneider Electric circuit breakers provides an exceptional level of protection discrimination.

This is the result of the implementation and optimisation of three different techniques:

- current discrimination
- time discrimination
- energy discrimination.



(1) Except for the L1 performance level on Masterpact MT.



Discrimination between two distribution circuit breakers.

How to use the discrimination tables

■ for discrimination between 2 distribution circuit breakers

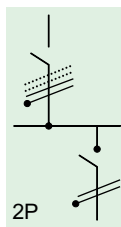
Combinations providing full discrimination are indicated by the symbol T.

If discrimination is partial, the table indicates the maximum fault current value for which discrimination is ensured. For fault currents above this value, the 2 circuit breakers trip simultaneously.

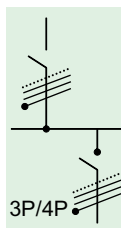
Requisite conditions

The values indicated in the tables are valid for operational rated voltages of 220, 380, 415 and 440 V:

For Acti9 range devices (miniature circuit-breakers), two types of tables are provided, depending on the number of phases of downstream circuit:



Single-phase downstream circuit, would upstream circuit be single- or triple-phase. These tables are identified by the pictogram opposite.



Triple-phase downstream (and upstream) circuit : tables identified by the pictogram opposite.

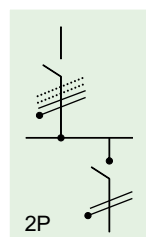
Upstream	Downstream	Frame up / Frame down	Thermal protection I _r up/I _r down	Magnetic protection I _m up/I _m down
TM	TM or Acti 9	≥ 2.5	≥ 1.6	≥ 2
	Micrologic	≥ 2.5	≥ 1.6	≥ 1.5
Micrologic	TM or Acti 9	≥ 2.5	≥ 1.6	≥ 1.5
	Micrologic	≥ 2.5	≥ 1.3	≥ 1.5

These conditions ensure that curves don't overlap. Curves could also be checked with Curve Direct software tools

Protection discrimination, 240 V network 2P

Upstream: C120H/L, NG125H/L, C curve

Downstream: iC65N/H/L, B, C, D curves



Upstream		C120H/L, NG125H/L										
		C curve										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream												
In (A)												
Discrimination (A)												
iC65N/H/L B curve	1	870	T	T	T	T	T	T	T	T	T	T
	2	210	1700	3700	10000	T	T	T	T	T	T	T
	3	80	610	1200	4300	T	T	T	T	T	T	T
	4	80	280	520	960	3600	13000	T	T	T	T	T
	6	80	190	260	460	1500	2700	6400	9000	9000	T	T
	8		130	160	200	1000	1400	3000	4500	4700	9000	T
	10		130	160	200	890	1100	2500	3500	3700	6600	T
	16					630	620	1400	2000	2000	3400	5100
	20					450	480	1100	1300	1400	2200	3400
	25						320	930	1000	1100	1800	2600
	32								930	1100	1400	2100
	40									960	1400	1900
	50									960	1300	1800
	63											1800
Discrimination (A)												
iC65N/H/L C curve	1	870	T	T	T	T	T	T	T	T	T	T
	2	210	1700	3700	10000	T	T	T	T	T	T	T
	3	80	610	1200	4300	T	T	T	T	T	T	T
	4	80	280	520	960	3600	13000	T	T	T	T	T
	6		190	260	460	1500	2700	6400	9000	9000	T	T
	8			260	460	1500	2700	3000	4500	4700	9000	T
	10				200	890	1100	2500	3500	3700	6600	T
	16						620	1400	2000	2000	3400	5100
	20							1100	1300	1400	2200	3400
	25								1000	1100	1800	2600
	32									1100	1400	2100
	40										1400	1900
	50											1800
	63											
Discrimination (A)												
iC65N/H/L D curve	1	870	T	T	T	T	T	T	T	T	T	T
	2	210	1700	3700	10000	T	T	T	T	T	T	T
	3	80	610	1200	4300	T	T	T	T	T	T	T
	4		280	520	960	3600	13000	T	T	T	T	T
	6			260	460	1500	2700	6400	9000	9000	T	T
	8				460	1500	2700	3000	4500	4700	9000	T
	10					890	1100	2500	3500	3700	6600	T
	16							1400	2000	2000	3400	5100
	20								1300	1400	2200	3400
	25									1100	1800	2600
	32										1400	2100
	40											1900
	50											
	63											

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

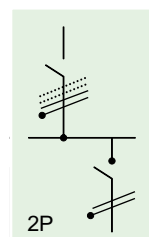
4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination, 240 V network 2P

Upstream: C120H/L, NG125H/L, D curve

Downstream: iC65N/H/L, B, C, D curves



Upstream		C120H/L, NG125H/L										
		D curve										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream												
In (A)												
Discrimination (A)												
iC65N/H/L B,C,D curves	≤ 1	T	T	T	T	T	T	T	T	T	T	T
	2	1200	16000	17000	T	T	T	T	T	T	T	T
	3	490	3000	3100	T	T	T	T	T	T	T	T
	4	270	1100	1200	5300	5000	T	T	T	T	T	T
	6	120	650	660	1800	1700	5700	11000	T	T	T	T
	8		480	500	1300	1400	2800	4500	9000	T	T	T
	10		420	450	1100	1100	2200	3800	8000	T	T	T
	16					700	1300	2200	4300	4900	T	T
	20					380	810	1600	3000	3500	6500	T
	25						480	1300	2300	2500	4400	6400
	32								1900	2200	3400	4400
	40									1900	2600	3500
	50									1500	2300	2800
	63											2500

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination, 240 V network 2P

Upstream: C120H/L NG125H/L

Downstream: iDPNa, C curve

Upstream		C120H/L C curves				Upstream		C120H/L D curves			
In (A)		63	80	100	125	In (A)		63	80	100	125
Downstream	Rating					Downstream	Rating				
Discrimination (A)	6	3000	4500	4500	4500	Discrimination (A)	6	3000	4500	4500	4500
iDPNa	10	1800	3000	4500	4500	iDPNa	10	1800	3000	4500	4500
C curves	16	1000	2000	3300	3700	C curves	16	1250	2000	3300	3700
	20	1000	1600	2500	3700		20	1000	1600	2500	3700
	25	800	1300	2100	3700		25	1000	1250	2100	3700
	32	800	1000	1800	2700		32	1000	1250	1800	2700
	40	800	1000	1600	2400		40	1000	1250	1600	2400

Upstream		NG125H/L C curves								
In (A)		10	16	20	25	32	40	50	63	80
Downstream	Rating									
Discrimination (A)	6	120	200	240	400	500	700	800	3000	4500
iDPNa	10		200	240	300	400	500	600	1800	3000
C curves	16				300	400	500	600	1000	2000
	20						500	600	1000	1600
	25							600	800	1300
	32								800	1000
	40								800	1000

Upstream		NG125H/L D curves								
In (A)		10	16	20	25	32	40	50	63	80
Downstream	Rating									
Discrimination (A)	6	125	250	250	400	500	630	800	3000	4500
iDPNa	10		250	250	200	500	630	800	1800	3000
C curves	16			250	400	500	630	800	1250	2000
	20				400	500	630	800	1000	1600
	25					500	630	800	1000	1250
	32						630	800	1000	1250
	40								1000	1250

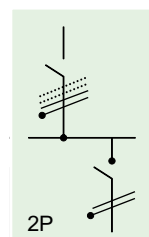
☒ Discrimination limit = 400 A.

☐ No discrimination.

Protection discrimination, 240 V network 2P

Upstream: iC65N/H/L, B curves

Downstream: iC65N/H/L, B, C, D curves



Upstream		iC65N/H/L B curves													
In (A)		1	2	3	4	6	8	10	16	20	25	32	40	50	63
Downstream															
In (A)															
Discrimination (A)															
iC65N/H B curves	1		10	20	20	50	60	120	530	790	2000	T	T	T	T
	2				16	40	50	60	200	250	380	980	1700	2400	5300
	3					24	32	40	120	150	230	520	730	1000	1600
	4						32	40	64	80	160	340	490	630	860
	6								64	80	100	230	350	410	560
	8								64	80	100	130	160	250	450
	10									80	100	130	160	200	250
	16											130	160	200	250
	20												160	200	250
	25													200	250
	32														250
	40														
Discrimination (A)															
iC65N/H/L C curves	1				20	50	60	120	530	790	2000	T	T	T	T
	2						50	60	200	250	380	980	1700	2400	5300
	3								120	150	230	520	730	1000	1600
	4								64	80	160	340	490	630	860
	6										100	230	350	410	560
	8											130	160	250	450
	10												160	200	250
	16														250
	20														
Discrimination (A)															
iC65N/H/L D curves	1					50	60	120	530	790	2000	T	T	T	T
	2							60	200	250	380	980	1700	2400	5300
	3								120	150	230	520	730	1000	1600
	4									80	160	340	490	630	860
	6											230	350	410	560
	8													250	450
	10													200	250
	16														

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

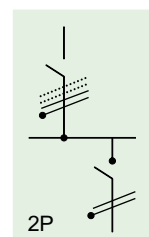
4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination, 240 V network 2P

Upstream: iC65N/H/L, C, D curves

Downstream: iC65N/H/L, B, C, D curves



Upstream		iC65N/H/L C curves													
In (A)		1	2	3	4	6	8	10	16	20	25	32	40	50	63
Downstream															
In (A)															
Discrimination (A)															
iC65N/H B curves	1		20	40	50	120	250	540	2700	T	T	T	T	T	T
	2				32	48	100	210	430	730	1500	3000	8400	9000	10000
	3					48	64	130	270	420	670	1200	2100	5000	7500
	4						64	120	190	290	460	680	1100	2200	2200
	6							80	130	160	330	480	700	1100	1100
	8							80	130	160	200	260	550	900	950
	10								130	160	200	260	520	800	850
	16											260	320	400	500
	20											260	320	400	500
	25												320	400	500
	32														500
	40														
Discrimination (A)															
iC65N/H/L C, D curves	1			40	50	120	250	540	2700	T	T	T	T	T	T
	2					48	100	210	430	730	1500	3000	8400	9000	10000
	3					48	64	130	270	420	670	1200	2100	5000	7500
	4								190	290	460	680	1100	2200	2200
	6									160	330	480	700	1100	1100
	8										200	260	550	900	950
	10											260	520	800	850
	16													400	500
	20														500
	25														

Upstream		iC65N/H/L D curves													
In (A)		1	2	3	4	6	8	10	16	20	25	32	40	50	63
Downstream															
In (A)															
Discrimination (A)															
iC65N/H/L B, C, D curves	1		40	90	150	340	1000	1500	T	T	T	T	T	T	T
	2				70	150	200	350	1100	2600	5800	10000	T	T	T
	3					72	96	220	530	1000	1600	3800	10000	T	T
	4						96	120	370	640	890	1400	2100	7100	10000
	6							120	190	450	590	900	1200	2200	2800
	8								190	240	450	750	1000	1750	2000
	10								190	240	450	660	910	1500	1700
	16											380	480	1100	1300
	20											380	480	900	760
	25												480	600	760
	32														760
	40														

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

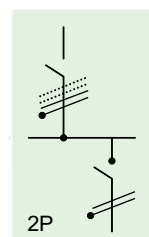
4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination, 240 V network 2P

Upstream: iC65N/H/L, B, C, D curves

Downstream: iDPNa-iDPNN, C, D curves



Upstream		iC65N/H B curves													
In (A)		1	2	3	4	6	8	10	16	20	25	32	40	50	63
Downstream	In (A)														
Discrimination (A)															
iDPNa	2						50	60	110	170	200	290	380	560	620
iDPNN	3								90	140	180	250	310	480	500
C curves	4								90	140	170	230	290	430	440
	6										150	190	240	350	380
	10												160	200	250
	16														250
	20														

Upstream		iC65N/H/L C curves													
In (A)		1	2	3	4	6	8	10	16	20	25	32	40	50	63
Downstream	In (A)														
Discrimination (A)															
iDPNa	2					48	100	140	230	310	460	600	680	2000	3400
iDPNN	3							120	210	260	350	500	550	1200	1600
C, D curves	4								190	240	330	450	510	980	1400
	6									160	200	300	320	830	1100
	10											260	320	640	840
	16													400	500
	20														500
	25														

Upstream		iC65N/H/L D curves													
In (A)		1	2	3	4	6	8	10	16	20	25	32	40	50	63
Downstream	In (A)														
Discrimination (A)															
iDPNa	2				48	140	190	240	470	710	1000	1600	3300	T	T
iDPNN	3					120	160	200	370	530	780	1200	1700	3300	5500
C, D curves	4						150	180	340	530	650	950	1400	2300	3400
	6							120	290	450	580	800	1100	1600	2100
	10								190	240	450	610	800	1300	1500
	16											380	480	990	1200
	20											380	480	900	1100
	25												480	900	1100
	32														760
	40														

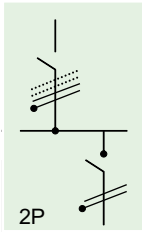
T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination, 240 V network 2P

Upstream: iDPNa-iDPNN, C curves
Downstream: iDPNa-iDPNN, C curves



2P 	Upstream	iDPNa-iDPNN C curves											
	In (A)	1	2	3	4	6	10	16	20	25	32	40	
Downstream	In (A)												
Discrimination (A)													
iDPNa iDPNN C, D curves	1			30	60	120	230	480	670	970	2000	2300	
	2					48	140	230	310	460	600	680	
	3						120	210	260	350	500	550	
	4							190	240	330	450	510	
	6								160	200	300	320	
	10										260	320	
	16												

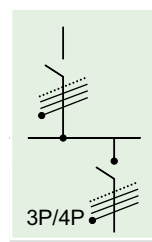
☐ 4000 Discrimination limit = 4 kA.

☐ No discrimination.

Protection discrimination, 415 V network 3P/4P

Upstream: C120L, NG125H/L, C curves

Downstream: iC65N/H/L, B, C, D curves



Upstream		C120L, NG125H/L										
		C curves										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream	In (A)											
Discrimination (A)												
iC65N/H B curves	1	140	490	860	2100	T	T	T	T	T	T	T
	2	80	270	380	550	1800	2100	7700	10000	13000	T	T
	3	80	190	280	380	1200	1300	3900	8000	8500	14000	T
	4	80	130	160	300	830	880	2200	3500	3600	6500	14000
	6	80	130	160	200	570	620	1400	2100	2300	3800	6400
	8		130	160	200	500	550	1200	1500	1700	2500	4000
	10		130	160	200	480	480	1000	1300	1500	2200	3400
	16					420	320	770	950	1100	1600	2300
	20					260	320	680	800	960	1300	1900
	25						320	640	760	640	1200	1600
	32								500	640	800	1500
	40									640	800	1000
	50									640	800	1000
	63											1000
Discrimination (A)												
iC65N/H/L C curves	1	140	490	860	2100	T	T	T	T	T	T	T
	2	80	270	380	550	1800	2100	7700	10000	13000	T	T
	3	80	190	280	380	1200	1300	3900	8000	8500	14000	T
	4	80	130	160	300	830	880	2200	3500	3600	6500	14000
	6		130	160	200	570	620	1400	2100	2300	3800	6400
	8			160	200	500	550	1200	1500	1700	2500	4000
	10				200	480	480	1000	1300	1500	2200	3400
	16						320	770	950	1100	1600	2300
	20							680	800	960	1300	1900
	25								760	640	1200	1600
	32									640	800	1500
	40										800	1000
	50											1000
	63											
Discrimination (A)												
iC65N/H/L D curves	1	140	490	860	2100	T	T	T	T	T	T	T
	2	80	270	380	550	1800	2100	7700	10000	13000	T	T
	3	80	190	280	380	1200	1300	3900	8000	8500	14000	T
	4		130	160	300	830	880	2200	3500	3600	6500	14000
	6			160	200	570	620	1400	2100	2300	3800	6400
	8				200	500	550	1200	1500	1700	2500	4000
	10					480	480	1000	1300	1500	2200	3400
	16							770	950	1100	1600	2300
	20								800	960	1300	1900
	25									640	1200	1600
	32										800	1500
	40											1000
	50											
	63											

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

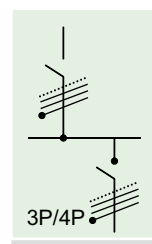
4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination, 415 V network 3P/4P

Upstream: C120H, C curves

Downstream: iC65N/H/L, B, C, D curves



Upstream		C120H C curves										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream												
In (A)												
Discrimination (A)												
iC65N/H B curves	1	140	490	860	2100	T	T	T	T	T	T	T
	2	80	270	380	550	1800	2100	7700	T	T	T	T
	3	80	190	280	380	1200	1300	3900	8000	8500	T	T
	4	80	130	160	300	830	880	2200	3500	3600	6500	T
	6	80	130	160	200	570	620	1400	2100	2300	3800	6400
	8		130	160	200	500	550	1200	1500	1700	2500	4000
	10		130	160	200	480	480	1000	1300	1500	2200	3400
	16					420	320	770	950	1100	1600	2300
	20					260	320	680	800	960	1300	1900
	25						320	640	760	640	1200	1600
	32								500	640	800	1500
	40									640	800	1000
	50									640	800	1000
	63											1000
Discrimination (A)												
iC65N/H/L C curves	1	140	490	860	2100	T	T	T	T	T	T	T
	2	80	270	380	550	1800	2100	7700	T	T	T	T
	3	80	190	280	380	1200	1300	3900	8000	8500	T	T
	4	80	130	160	300	830	880	2200	3500	3600	6500	T
	6		130	160	200	570	620	1400	2100	2300	3800	6400
	8			160	200	500	550	1200	1500	1700	2500	4000
	10				200	480	480	1000	1300	1500	2200	3400
	16						320	770	950	1100	1600	2300
	20							680	800	960	1300	1900
	25								760	640	1200	1600
	32									640	800	1500
	40										800	1000
	50											1000
	63											
Discrimination (A)												
iC65N/H/L D curves	1	140	490	860	2100	T	T	T	T	T	T	T
	2	80	270	380	550	1800	2100	7700	T	T	T	T
	3	80	190	280	380	1200	1300	3900	8000	8500	T	T
	4		130	160	300	830	880	2200	3500	3600	6500	T
	6			160	200	570	620	1400	2100	2300	3800	6400
	8				200	500	550	1200	1500	1700	2500	4000
	10					480	480	1000	1300	1500	2200	3400
	16							770	950	1100	1600	2300
	20								800	960	1300	1900
	25									640	1200	1600
	32										800	1500
	40											1000
	50											1000
	63											

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

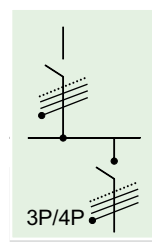
4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination, 415 V network 3P/4P

Upstream: C120L, NG125H/L, D curves

Downstream: iC65N/H/L, B, C, D curves



Upstream		C120L, NG125H/L										
		D curves										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream												
In (A)												
Discrimination (A)												
iC65N B,C,D curves	1	410	3200	3900	T	T	T	T	T	T	T	T
	2	240	770	880	2300	2500	6300	14000	T	T	T	T
	3	180	570	640	1500	1600	3100	11000	T	T	T	T
	4	120	450	500	1000	1100	1800	4100	11000	14000	T	T
	6	120	340	360	730	740	1200	2400	4700	6200	T	T
	8		190	240	550	650	1000	1900	3200	4500	7500	9000
	10		190	240	300	620	860	1600	2800	3500	5600	6800
	16					380	480	1200	1900	2300	3600	4200
	20					380	480	1000	1500	1900	2700	3300
	25						480	950	1400	1700	2400	2800
	32								1200	1600	2200	2600
	40									1400	2100	2400
	50									960	1900	1500
	63											1500
Discrimination (A)												
C65H/L B,C,D curves	1	410	3200	3900	T	T	T	T	T	T	T	T
	2	240	770	880	2300	2500	6300	14000	T	T	T	T
	3	180	570	640	1500	1600	3100	11000	T	T	T	T
	4	120	450	500	1000	1100	1800	4100	11000	14000	T	T
	6	120	340	360	730	740	1200	2400	4700	6200	14000	T
	8		190	240	550	650	1000	1900	3200	4500	7500	9000
	10		190	240	300	620	860	1600	2800	3500	5600	6800
	16					380	480	1200	1900	2300	3600	4200
	20					380	480	1000	1500	1900	2700	3300
	25						480	950	1400	1700	2400	2800
	32								1200	1600	2200	2600
	40									1400	2100	2400
	50									960	1900	1500
	63											1500

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

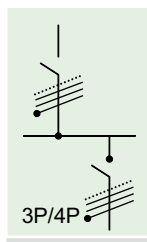
4000 Discrimination limit = 4 kA.

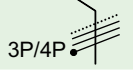
No discrimination.

Protection discrimination, 415 V network 3P/4P

Upstream: C120H, D curves

Downstream: iC65N/H/L, B, C, D curves



 3P/4P	Upstream		C120H										
	In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream		In (A)											
Discrimination (A)													
iC65N B,C,D curves	1	410	3200	3900	T	T	T	T	T	T	T	T	T
	2	240	770	880	2300	2500	6300	T	T	T	T	T	T
	3	180	570	640	1500	1600	3100	T	T	T	T	T	T
	4	120	450	500	1000	1100	1800	4100	T	T	T	T	T
	6	120	340	360	730	740	1200	2400	4700	6200	T	T	T
	8		190	240	550	650	1000	1900	3200	4500	7500	9000	
	10		190	240	300	620	860	1600	2800	3500	5600	6800	
	16					380	480	1200	1900	2300	3600	4200	
	20					380	480	1000	1500	1900	2700	3300	
	25						480	950	1400	1700	2400	2800	
	32								1200	1600	2200	2600	
	40									1400	2100	2400	
	50									960	1900	1500	
	63												1500
Discrimination (A)													
iC65H/L B,C,D curves	1	410	3200	3900	T	T	T	T	T	T	T	T	T
	2	240	770	880	2300	2500	6300	T	T	T	T	T	T
	3	180	570	640	1500	1600	3100	T	T	T	T	T	T
	4	120	450	500	1000	1100	1800	4100	T	T	T	T	T
	6	120	340	360	730	740	1200	2400	4700	6200	T	T	T
	8		190	240	550	650	1000	1900	3200	4500	7500	9000	
	10		190	240	300	620	860	1600	2800	3500	5600	6800	
	16					380	480	1200	1900	2300	3600	4200	
	20					380	480	1000	1500	1900	2700	3300	
	25						480	950	1400	1700	2400	2800	
	32								1200	1600	2200	2600	
	40									1400	2100	2400	
	50									960	1900	1500	
	63												1500

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

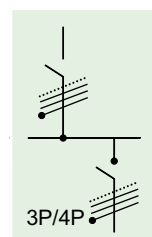
4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination, 415 V network 3P/4P

Upstream: C120H/L, B curves

Downstream: iDPNa-iDPNN, C curves



Upstream		C120H/L, NG125H/L										
		B curves										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream												
In (A)												
Discrimination (A)												
iDPNa C curves	1	200	T	T	T	T	T	T	T	T	T	T
	2	60	130	190	330	490	2000	2800	T	T	T	T
	3	40	110	150	230	280	560	630	1100	1700	3000	T
	4		64	80	180	240	420	460	860	1500	2400	T
	6			80	150	130	350	360	620	1000	1400	2800
	10						160	200	410	590	850	1300
	16							200	250	520	770	1200
	20									320	600	940
	25										400	800
	32											500
	40											
Discrimination (A)												
iDPNN C curves	1	200	T	T	T	T	T	T	T	T	T	T
	2	60	130	190	330	490	2000	2800	T	T	T	T
	3	40	110	150	230	280	560	630	1100	1700	3000	6400
	4		64	80	180	240	420	460	860	1500	2400	6400
	6			80	150	130	350	360	620	1000	1400	2800
	10						160	200	410	590	850	1300
	16							200	250	520	770	1200
	20									320	600	940
	25										400	800
	32											500
	40											

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

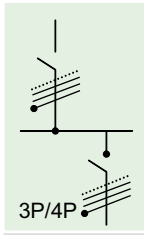
4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination, 415 V network 3P/4P

Upstream: C120H/L, NG125H/L, C curves

Downstream: iDPNa-iDPNN, C curves



Upstream		C120H/L, NG125H/L C curves										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream												
In (A)												
Discrimination (A)												
iDPNa C curves	1	120	430	730	2300	T	T	T	T	T	T	T
	2	80	270	380	550	1600	1700	T	T	T	T	T
	3	80	210	290	380	1200	1400	4900	T	T	T	T
	4	80	130	160	320	870	880	2200	3700	4100	T	T
	6		130	160	200	570	620	1400	1900	2300	3800	T
	10				200	450	480	1000	1300	1500	2200	3400
	16						320	720	950	1100	1600	2300
	20							680	800	960	1300	1900
	25								800	640	1200	1800
	32									640	800	1500
	40										800	1000
Discrimination (A)												
iDPNN C curves	1	120	430	730	2300	T	T	T	T	T	T	T
	2	80	270	380	550	1600	1700	6200	T	T	T	T
	3	80	210	290	380	1200	1400	4900	T	T	T	T
	4	80	130	160	320	870	880	2200	3700	4100	8300	T
	6		130	160	200	570	620	1400	1900	2300	3800	6400
	10				200	450	480	1000	1300	1500	2200	3400
	16						320	720	950	1100	1600	2300
	20							680	800	960	1300	1900
	25								800	640	1200	1800
	32									640	800	1500
	40										800	1000

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

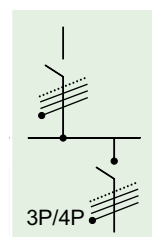
4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination, 415 V network 3P/4P

Upstream: C120H/L, NG125H/L, D curves

Downstream: DPN-DPNN, C curves



Upstream		C120H/L, NG125H/L										
		D curves										
In (A)		10	16	20	25	32	40	50	63	80	100	125
Downstream												
In (A)												
Discrimination (A)												
iDPNa C curves	1	350	T	T	T	T	T	T	T	T	T	T
	2	240	770	830	2000	2200	4800	T	T	T	T	T
	3	180	610	640	1600	1700	3800	T	T	T	T	T
	4	120	450	500	1000	1100	1900	4600	T	T	T	T
	6	120	340	360	730	740	1200	2600	4700	T	T	T
	10		190	240	550	580	860	1600	2800	3500	5600	T
	16					380	480	1200	1900	2400	3600	4200
	20					380	480	1000	1500	2000	2900	3300
	25						480	950	1400	1700	2600	2900
	32								1100	1600	2200	2600
	40									1400	2100	2400
Discrimination (A)												
iDPNN C curves	1	350	T	T	T	T	T	T	T	T	T	T
	2	240	770	830	2000	2200	4800	T	T	T	T	T
	3	180	610	640	1600	1700	3800	T	T	T	T	T
	4	120	450	500	1000	1100	1900	4600	T	T	T	T
	6	120	340	360	730	740	1200	2600	4700	6200	T	T
	10		190	240	550	580	860	1600	2800	3500	5600	7300
	16					380	480	1200	1900	2400	3600	4200
	20					380	480	1000	1500	2000	2900	3300
	25						480	950	1400	1700	2600	2900
	32								1100	1600	2200	2600
	40									1400	2100	2400

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

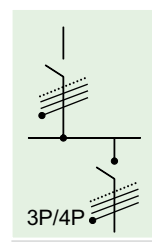
4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination, 415 V network 3P/4P

Upstream: iC65N/H, B curves

Downstream: iC65N/H/L, B, C, D curves



Upstream		iC65N/H/L													
		B curves													
In (A)		1	2	3	4	6	8	10	16	20	25	32	40	50	63
Downstream															
In (A)															
Discrimination (A)															
iC65N/H B curves	1		8	12	16	40	50	60	170	210	280	670	1200	1500	2900
	2				16	24	32	40	120	140	200	370	560	630	910
	3					24	32	40	64	80	150	280	420	460	670
	4						32	40	64	80	100	240	350	380	520
	6								64	80	100	130	260	300	410
	8								64	80	100	130	160	200	250
	10									80	100	130	160	200	250
	16											130	160	200	250
	20												160	200	250
	25													200	250
	32														250
	40														
Discrimination (A)															
iC65N/H/L C curves	1				16	40	50	60	170	210	280	670	1200	1500	2900
	2						32	40	120	140	200	370	560	630	910
	3								64	80	150	280	420	460	670
	4								64	80	100	240	350	380	520
	6										100	130	260	300	410
	8											130	160	200	250
	10												160	200	250
	16														250
	20														
Discrimination (A)															
iC65N/H/L D curves	1					40	50	60	170	210	280	670	1200	1500	2900
	2							40	120	140	200	370	560	630	910
	3								64	80	150	280	420	460	670
	4									80	100	240	350	380	520
	6											130	260	300	410
	8													200	250
	10													200	250
	16														

☐ Total discrimination, up to the breaking capacity of the downstream circuit breaker.

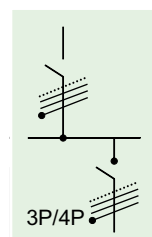
☐ 4000 Discrimination limit = 4 kA.

☐ No discrimination.

Protection discrimination, 415 V network 3P/4P

Upstream: iC65N/H/L, C, D curves

Downstream: iC65N/H/L, B, C, D curves



Upstream		iC65N/H/L C curves													
In (A)		1	2	3	4	6	8	10	16	20	25	32	40	50	63
Downstream															
In (A)															
Discrimination (A)															
iC65N/H B curves	1		16	24	32	48	64	180	340	560	960	1900	5000	T	T
	2				32	48	64	130	240	350	510	780	1200	2000	2000
	3					48	64	80	130	260	380	580	880	1500	1500
	4						64	80	130	160	320	460	650	1100	1100
	6							80	130	160	200	260	480	770	800
	8								130	160	200	260	320	400	500
	10								130	160	200	260	320	400	500
	16											260	320	400	500
	20											260	320	400	500
	25												320	400	500
	32														500
	40														
Discrimination (A)															
iC65N/H/L C, D curves	1			24	32	48	64	180	340	560	960	1900	5000	T	T
	2					48	64	130	240	350	510	780	1200	2000	2000
	3							80	130	260	380	580	880	1500	1500
	4								130	160	320	460	650	1100	1100
	6									160	200	260	480	770	800
	8										200	260	320	400	500
	10											260	320	400	500
	16													400	500
	20														500
	25														
Upstream															
In (A)															
Discrimination (A)															
iC65N/H/L B, C, D curves	1		24	36	48	72	190	290	770	1500	2900	13000	T	T	T
	2				48	72	96	210	450	730	1000	1500	2100	4600	6300
	3					72	96	120	350	550	720	1100	1600	3200	4300
	4						96	120	290	430	560	840	1200	2000	2600
	6							120	190	240	450	620	860	1400	1600
	8								190	240	300	380	550	1200	1400
	10								190	240	300	380	480	1100	1300
	16											380	480	900	760
	20											380	480	600	760
	25												480	600	760
	32														760
	40														

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

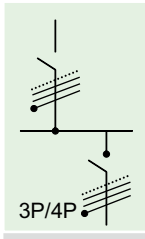
4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination, 415 V network 3P/4P

Upstream: iC65N/H/L, B, C curves

Downstream: iDPNa-iDPNN, C curves



Upstream		iC65N/H/L B curves													
In (A)		1	2	3	4	6	8	10	16	20	25	32	40	50	63
Downstream															
Discrimination (A)															
iDPNa	1				20	30	50	70	150	250	350	610	980	T	T
C curves	2						40	60	110	180	240	340	450	710	720
	3								64	140	190	280	350	550	570
	4								64	120	160	220	280	420	450
	6										100	130	160	330	250
	10												160	200	250
	16														250
	20														
Discrimination (A)															
iDPNN	1				20	30	50	70	150	250	350	610	980	6400	7600
C curves	2						40	60	110	180	240	340	450	710	720
	3								64	140	190	280	350	550	570
	4								64	120	160	220	280	420	450
	6										100	130	160	330	250
	10												160	200	250
	16														250
	20														

Upstream		iC65N/H/L C curves													
In (A)		1	2	3	4	6	8	10	16	20	25	32	40	50	63
Downstream															
Discrimination (A)															
iDPNa	1			24	32	70	120	180	400	630	1200	T	T	T	T
iDPNN	2					48	110	140	270	350	510	820	830	1900	2400
C curves	3							80	210	290	380	630	650	1500	2000
	4							130	240	320	480	510	1100	1400	
	6								160	200	320	380	770	1000	
	10										260	320	600	800	
	16												400	500	
	20													500	
	25														

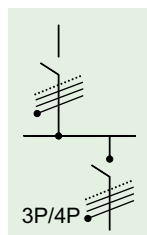
T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

4000 Discrimination limit = 4 kA.

No discrimination.

Upstream: iDPNa-iDPNN, C curves

Downstream: iDPNa-iDPNN, C curves



Upstream		iDPNa-iDPNN C curves										
In (A)		1	2	3	4	6	10	16	20	25	32	40
Downstream	In (A)											
Discrimination (A)												
iDPNa	1			24	32	70	180	400	630	1200	T	T
iDPNN	2					48	140	270	350	510	820	830
C curves	3						80	210	290	380	630	650
	4							130	240	320	480	510
	6								160	200	320	380
	10										260	320
	16											

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination

Upstream: Compact NSX100-250 TM-D

Downstream: iDPNa, iC65, C120, NG125, Ph-N

Upstream		Compact NSX100F/N/H/S/L								Compact NSX160F/N/H/S/L				Compact NSX250F/N/H/S/L		
Trip unit		TM-D								TM-D				TM-D		
Downstream	Rating (A)	16	25	32	40	50	63	80	100	80	100	125	160	160	200	250
Discrimination limit (kA)																
iDPNa C curves	1	3	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	2	0.7	2	4	T	T	T	T	T	T	T	T	T	T	T	T
	3	0.5	1	2	4	4	4	T	T	T	T	T	T	T	T	T
iDPNN C curves	4	0.5	1	2	3	3	3	T	T	T	T	T	T	T	T	T
	6	0.19	0.5	1	2	2	2	4	T	4	T	T	T	T	T	T
	10	0.19	0.5	0.8	1	1	1	2	5	2	5	T	T	T	T	T
Ph-N	16			0.4	0.8	0.8	0.8	1.5	3	1.5	3	T	T	T	T	T
	20			0.4	0.5	0.5	0.5	1.5	3	1.5	3	T	T	T	T	T
	25				0.5	0.5	0.5	1	2.5	1	2.5	T	T	T	T	T
	32					0.5	0.5	1	2	1	2.5	T	T	T	T	T
iC65N/H B-C-D curves	40						0.5	0.63	1	1	2	T	T	T	T	T
	0.5-0.8	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	1	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
iC65L C-D curves	2-3	1	5	T	T	T	T	T	T	T	T	T	T	T	T	T
	4	0.5	2	5	10	T	T	T	T	T	T	T	T	T	T	T
	6	0.19	1	2	3	3	3	6	T	6	T	T	T	T	T	T
Ph-N	8-10	0.19	0.7	1	2	2	2	3	10	3	10	T	T	T	T	T
	16			0.8	1	1	1	2	5	2	5	T	T	T	T	T
	20			0.4	0.8	0.8	0.8	1.5	3	1.5	3	T	T	T	T	T
	25				0.8	0.8	0.8	1.5	3	1.5	3	T	T	T	T	T
	32					0.5	0.5	1	2	1	2	T	T	T	T	T
	40						0.5	0.63	1	0.63	1	T	T	T	T	T
	50							0.63	0.8	0.63	0.8	T	T	T	T	T
	63								0.8		0.8	T	T	T	T	T
	C120H/L C,D curves	10 (H)	0.19	0.3	0.4	0.5	0.5	0.5	1.5	2.5	1.5	2.5	T	T	T	T
Ph-N	16 (H)			0.4	0.5	0.5	0.5	1	2	1	2	T	T	T	T	T
	20 (H)			0.4	0.5	0.5	0.5	1	2	1	2	T	T	T	T	T
	25 (H)				0.5	0.5	0.5	0.63	1.5	0.63	1.5	T	T	T	T	T
	32 (H)					0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T
	40 (H)							0.63	0.8	0.63	0.8	T	T	T	T	T
	50 (H)								0.8		0.8	T	T	T	T	T
	63											T	T	T	T	T
	80												T	T	T	T
	100														T	T
NG125H/L C,D curves	125															T
	10	0.19	0.3	0.4	0.5	0.5	0.5	1.5	2.5	1.5	2.5	T	T	T	T	T
	16			0.4	0.5	0.5	0.5	1	2	1	2	T	T	T	T	T
Ph-N	20			0.4	0.5	0.5	0.5	1	2	1	2	T	T	T	T	T
	25				0.5	0.5	0.5	0.63	1.5	0.63	1.5	T	T	T	T	T
	32					0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T
	40							0.63	0.8	0.63	0.8	T	T	T	T	T
	50								0.8		0.8	T	T	T	T	T
	63											T	T	T	T	T
	80												T	T	T	T
	100 (N)														T	T
125 (N)															T	

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

4000 Discrimination limit = 4 kA.

No discrimination.

Upstream: Compact NSX100 - 250 Micrologic

Downstream: iDPNa, iC65, C120, NG125, Ph-N

Upstream		Compact NSX100F/N/H/S/L								Compact NSX160F/N/H/S/L				Compact NSX250F/N/H/S/L		
Trip unit		Micrologic								Micrologic				Micrologic		
Downstream	Rating (A)	40				100				160				250		
		18	25	32	40	40	63	80	100	80	100	125	160	160	200	250
Discrimination limit (kA)																
iDPNa	1	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
C curves	2	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	3	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
iDPNN	4	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
C curves	6	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
Ph-N	16		T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20			T	T	T	T	T	T	T	T	T	T	T	T	T
	25				T	T	T	T	T	T	T	T	T	T	T	T
	32						T	T	T	T	T	T	T	T	T	T
	40							T	T	T	T	T	T	T	T	T
iC65N/H	0.5-0.8	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
B-C-D curves	1	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	2-3	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
iC65L	4	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
C-D curves	6	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	8-10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
Ph-N	16		T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20			T	T	T	T	T	T	T	T	T	T	T	T	T
	25				T	T	T	T	T	T	T	T	T	T	T	T
	32						T	T	T	T	T	T	T	T	T	T
	40							T	T	T	T	T	T	T	T	T
	50							T	T	T	T	T	T	T	T	T
	63								T	T	T	T	T	T	T	T
C120H/L	10 (H)	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
C,D curves	16 (H)		T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20 (H)			T	T	T	T	T	T	T	T	T	T	T	T	T
Ph-N	25 (H)				T	T	T	T	T	T	T	T	T	T	T	T
	32 (H)					T	T	T	T	T	T	T	T	T	T	T
	40 (H)						T	T	T	T	T	T	T	T	T	T
	50 (H)							T	T	T	T	T	T	T	T	T
	63								T		T	T	T	T	T	T
	80											T	T	T	T	T
	100												T	T	T	T
	125														T	T
NG125H/L	10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
C,D curves	16		T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20			T	T	T	T	T	T	T	T	T	T	T	T	T
Ph-N	25				T	T	T	T	T	T	T	T	T	T	T	T
	32					T	T	T	T	T	T	T	T	T	T	T
	40						T	T	T	T	T	T	T	T	T	T
	50							T	T	T	T	T	T	T	T	T
	63								T		T	T	T	T	T	T
	80											T	T	T	T	T
	100 (N)												T	T	T	T
	125 (N)														T	T

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

No discrimination.

Protection discrimination

Upstream: Compact NSX100 - 250 TM-D

Downstream: iDPNa, iC65, C120, NG125

Upstream		Compact NSX100F/N/H/S/L								Compact NSX160F/N/H/S/L				Compact NSX250F/N/H/S/L			
Trip unit		TM-D								TM-D				TM-D			
Downstream	Rating (A)	16	25	32	40	50	63	80	100	80	100	125	160	160	200	250	
Discrimination limit (kA)																	
iDPNa C curves	≤ 10	0.19	0.3	0.4	0.5	0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	16		0.3	0.4	0.5	0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	20			0.4	0.5	0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	25					0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	32						0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	40						0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
iDPNN C curves	≤ 10	0.19	0.3	0.4	0.5	0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	16		0.3	0.4	0.5	0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	20			0.4	0.5	0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	25					0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	32						0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	40						0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
iC65N/H B-C-D curves	≤ 10	0.19	0.3	0.4	0.9	0.9	0.9	1.3	3	1.3	3	T	T	T	T	T	
	16		0.3	0.4	0.5	0.5	0.5	1	2	1	2	T	T	T	T	T	
	20			0.4	0.5	0.5	0.5	0.63	1.5	0.63	1.5	T	T	T	T	T	
iC65L C-D curves	25				0.5	0.5	0.5	0.63	1.5	0.63	1.5	T	T	T	T	T	
	32						0.5	0.63	1	0.63	1	T	T	T	T	T	
	40						0.5	0.63	1	0.63	1	T	T	T	T	T	
	50							0.63	0.8	0.63	0.8	T	T	T	T	T	
	63								0.8		0.8	T	T	T	T	T	
	C120H/L C,D curves	10 (H)	0.19	0.3	0.4	0.5	0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T
16 (H)			0.3	0.4	0.5	0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
20 (H)				0.4	0.5	0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
25 (H)					0.5	0.5	0.5	0.63	0.8	0.63	0.8	2.4	2.4	2.4	T	T	
32 (H)							0.5	0.63	0.8	0.63	0.8	2.4	2.4	2.4	T	T	
40 (H)								0.63	0.8	0.63	0.8	2.4	2.4	2.4	T	T	
50 (H)								0.63	0.8	0.63	0.8	2.4	2.4	2.4	T	T	
63									0.8		0.8	2.4	2.4	2.4	T	T	
80													2.4	2.4	2.4	T	T
100															T	T	
125																T	
NG125H/L C,D curves	10	0.19	0.3	0.4	0.5	0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	16		0.3	0.4	0.5	0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	20			0.4	0.5	0.5	0.5	0.63	0.8	0.63	0.8	T	T	T	T	T	
	25					0.5	0.5	0.63	0.8	0.63	0.8	2.4	2.4	2.4	T	T	
	32						0.5	0.63	0.8	0.63	0.8	2.4	2.4	2.4	T	T	
	40							0.63	0.8	0.63	0.8	2.4	2.4	2.4	T	T	
	50							0.63	0.8	0.63	0.8	2.4	2.4	2.4	T	T	
	63								0.8		0.8	2.4	2.4	2.4	T	T	
	80												2.4	2.4	2.4	T	T
	100 (N)														T	T	
	125 (N)															T	

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

4000 Discrimination limit = 4 kA.

No discrimination.

Upstream		Compact NSX100F/N/H/S/L Micrologic								Compact NSX160F/N/H/S/L Micrologic				Compact NSX250F/N/H/S/L Micrologic		
Trip unit		Micrologic								Micrologic				Micrologic		
Downstream	Rating (A)	40				100				160				250		
		16	25	32	40	40	63	80	100	80	100	125	160	160	200	250
Discrimination limit (kA)																
iDPNa C curves	≤ 10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16		T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20			T	T	T	T	T	T	T	T	T	T	T	T	T
	25				T	T	T	T	T	T	T	T	T	T	T	T
	32						T	T	T	T	T	T	T	T	T	T
	40						T	T	T	T	T	T	T	T	T	T
iDPNN C curves	≤ 10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16		T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20			T	T	T	T	T	T	T	T	T	T	T	T	T
	25				T	T	T	T	T	T	T	T	T	T	T	T
	32						T	T	T	T	T	T	T	T	T	T
	40						T	T	T	T	T	T	T	T	T	T
iC65N/H B-C-D curves	≤ 10	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	16		T	T	T	T	T	T	T	T	T	T	T	T	T	T
	20			T	T	T	T	T	T	T	T	T	T	T	T	T
iC65L C-D curves	25				T	T	T	T	T	T	T	T	T	T	T	T
	32						T	T	T	T	T	T	T	T	T	T
	40						T	T	T	T	T	T	T	T	T	T
	50							6	6	T	T	T	T	T	T	T
	63								6		T	T	T	T	T	T
C120H/L C,D curves	10 (H)	0.6	0.6	0.6	0.6	1.5	1.5	1.5	1.5	T	T	T	T	T	T	T
	16 (H)		0.6	0.6	0.6	1.5	1.5	1.5	1.5	T	T	T	T	T	T	T
	20 (H)			0.6	0.6	1.5	1.5	1.5	1.5	T	T	T	T	T	T	T
	25 (H)				0.6	1.5	1.5	1.5	1.5	2.4	2.4	2.4	2.4	T	T	T
	32 (H)						1.5	1.5	1.5	2.4	2.4	2.4	2.4	T	T	T
	40 (H)						1.5	1.5	1.5	2.4	2.4	2.4	2.4	T	T	T
	50 (H)							1.5	1.5	2.4	2.4	2.4	2.4	T	T	T
	63								1.5		2.4	2.4	2.4	T	T	T
	80											2.4	2.4	T	T	T
	100												2.4	T	T	T
	125														T	T
NG125H/L C,D curves	10	0.6	0.6	0.6	0.6	1.5	1.5	1.5	1.5	T	T	T	T	T	T	T
	16		0.6	0.6	0.6	1.5	1.5	1.5	1.5	T	T	T	T	T	T	T
	20			0.6	0.6	1.5	1.5	1.5	1.5	T	T	T	T	T	T	T
	25				0.6	1.5	1.5	1.5	1.5	2.4	2.4	2.4	2.4	T	T	T
	32						1.5	1.5	1.5	2.4	2.4	2.4	2.4	T	T	T
	40						1.5	1.5	1.5	2.4	2.4	2.4	2.4	T	T	T
	50							1.5	1.5	2.4	2.4	2.4	2.4	T	T	T
	63								1.5		2.4	2.4	2.4	T	T	T
	80											2.4	2.4	T	T	T
	100 (N)												2.4	T	T	T
	125 (N)														T	T

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination

Upstream: Compact NSX400 - 630 Micrologic

Downstream: iDPNa, iC65, C120, NG125,

Compact NSX100 - 400

Upstream		Compact NSX400F/N/H/S/L					Compact NSX630F/N/H/S/L				
Trip unit		Micrologic					Micrologic				
Downstream	Rating (A)	400	200	250	320	400	630	320	400	500	630
Discrimination limit (kA)											
iDPNa		T	T	T	T	T	T	T	T	T	T
iDPNN		T	T	T	T	T	T	T	T	T	T
iC65N/H/L		T	T	T	T	T	T	T	T	T	T
C120H/L	≤ 80	T	T	T	T	T	T	T	T	T	T
	100		T	T	T	T	T	T	T	T	T
	125			T	T	T	T	T	T	T	T
NG125H/L	≤ 80	T	T	T	T	T	T	T	T	T	T
	100		T	T	T	T	T	T	T	T	T
	125			T	T	T	T	T	T	T	T
Compact NSX100 F/N/H/S/L TM-D	≤ 80	T	T	T	T	T	T	T	T	T	T
	100	T	T	T	T	T	T	T	T	T	T
Compact NSX160 F/N/H/S/L TM-D	≤ 100	T	T	T	T	T	T	T	T	T	T
	125		T	T	T	T	T	T	T	T	T
	160			T	T	T	T	T	T	T	T
Compact NSX250 F/N/H/S/L TM-D	≤ 100	4.8	4.8	4.8	4.8	4.8	T	T	T	T	T
	125		4.8	4.8	4.8	4.8	T	T	T	T	T
	160			4.8	4.8	4.8	T	T	T	T	T
	200				4.8	4.8		T	T	T	T
	250					4.8			T	T	T
Compact NSX100 F/N/H/S/L Micrologic	40	T	T	T	T	T	T	T	T	T	T
	100	T	T	T	T	T	T	T	T	T	T
Compact NSX160 F/N/H/S/L Micrologic	40	T	T	T	T	T	T	T	T	T	T
	100	T	T	T	T	T	T	T	T	T	T
	160			T	T	T	T	T	T	T	T
Compact NSX250 F/N/H/S/L Micrologic	≤ 100	4.8	4.8	4.8	4.8	4.8	T	T	T	T	T
	160			4.8	4.8	4.8	T	T	T	T	T
	250					4.8			T	T	T
Compact NSX400 F/N/H/S/L Micrologic	160						6.9	6.9	6.9	6.9	6.9
	200							6.9	6.9	6.9	6.9
	250								6.9	6.9	6.9
	320									6.9	6.9
	400										6.9

T Total discrimination, up to the breaking capacity of the downstream circuit breaker.

4000 Discrimination limit = 4 kA.

No discrimination.

Protection discrimination

Upstream: C60N/H, C,D curves

Downstream: C60, C, D curves

Upstream		C60N/H C curve											
In (A)		2	3	4	6	10	16	20	25	32	40	50	63
Downstream	Rating(A)												
Discrimination limit (A) C60, C curve	1			32	50	80	125	160	200	250	320	400	500
	2			32	50	80	125	160	200	250	320	400	500
	3				50	80	125	160	200	250	320	400	500
	4				50	80	125	160	200	250	320	400	500
	6					80	125	160	200	250	320	400	500
	10						125	160	200	250	320	400	500
	16								200	250	320	400	500
	20									250	320	400	500
	25										320	400	500
	32											400	500
	40												500
	50/63												
Discrimination limit (A) C60, D curve	1			32	50	80	125	160	200	250	320	400	500
	2			32	50	80	125	160	200	250	320	400	500
	3				50	80	125	160	200	250	320	400	500
	4					80	125	160	200	250	320	400	500
	6						125	160	200	250	320	400	500
	10							160	200	250	320	400	500
	16								200	250	320	400	500
	20										320	400	500
	25											400	500
	32												500
	40												
	50/63												
	1			32	50	80	125	160	200	250	320	400	500
	2			32	50	80	125	160	200	250	320	400	500

Upstream		C60N/H D curve											
In (A)		2	3	4	6	10	16	20	25	32	40		
Downstream	Rating(A)												
Discrimination limit (A) C60, C curve	1			50	72	125	200	250	300	400	500		
	2			50	72	125	200	250	300	400	500		
	3				72	125	200	250	300	400	500		
	4				72	125	200	250	300	400	500		
	6					125	200	250	300	400	500		
	10						200	250	300	400	500		
	16								300	400	500		
	20									400	500		
	25										500		
	32												
	40												
	50/63												
Discrimination limit (A) C60, D curve	1			50	72	125	200	250	300	400	500		
	2			50	72	125	200	250	300	400	500		
	3				72	125	200	250	300	400	500		
	4				72	125	200	250	300	400	500		
	6					125	200	250	300	400	500		
	10						200	250	300	400	500		
	16								300	400	500		
	20									400	500		
	25										500		
	32												
	40												
	50/63												
	1			50	72	125	200	250	300	400	500		
	2			50	72	125	200	250	300	400	500		

☒ Discrimination limit = 400 A, ensured protection when Short-circuit ≤ 400A

☐ No discrimination.

Protection discrimination

Upstream: C65H-DC

Downstream: C65H-DC

Discrimination Matching table

Downstream ↓	Upstream → C65H-DC C curve Rating In(A)	1	2	3	4	6	10	16	20	25	32	40	50	63
Discrimination Fault Current Limit (A)		7.5	15	22.5	30	45	75	120	150	187.5	240	300	375	472.5
C65H-DC	1													
B Curve	2													
	3													
	4													
	6													
	10													
	16													
	20													
	25													
	32													
	40													
	50													
	63													

Discrimination Matching table

Downstream ↓	Upstream → C65H-DC B curve Rating In(A)	1	2	3	4	6	10	16	20	25	32	40	50	63
Discrimination Fault Current Limit (A)		5.5	11	16.5	22	33	55	88	110	137.5	176	220	275	346.5
C65H-DC	1													
B Curve	2													
	3													
	4													
	6													
	10													
	16													
	20													
	25													
	32													
	40													
	50													
	63													

Discrimination Matching table

Downstream ↓	Upstream → C65H-DC C curve Rating In(A)	1	2	3	4	6	10	16	20	25	32	40	50	63
Discrimination Fault Current Limit (A)		7.5	15	23	30	45	75	120	150	188	240	300	375	473
C65H-DC	1													
C Curve	2													
	3													
	4													
	6													
	10													
	16													
	20													
	25													
	32													

Protection discrimination

Upstream: C65H-DC/C65L-DC

Downstream: C65H-DC/C65L-DC

Discrimination Matching table

Downstream ↓	Upstream → C65H-DC/C65L-DC C curve Rating In(A)	1	2	3	4	6	10	16	20	25	32	40	50	63
Discrimination Fault Current Limit (A)	(A)	7.5	15	23	30	45	75	120	150	188	240	300	375	473
C65H-DC/C65L-DC C Curve	1													
	2													
	3													
	4													
	6													
	10													
	16													
	20													
	25													
	32													

Discrimination Matching table

Downstream ↓	Upstream → C65L-DC C curve Rating In(A)	1	2	3	4	6	10	16	20	25	32	40	50	63
Discrimination Fault Current Limit (A)	(A)	7.5	15	23	30	45	75	120	150	188	240	300	375	473
C65H-DC B Curve	1													
	2													
	3													
	4													
	6													
	10													
	16													
	20													
	25													
	32													

Discrimination Matching table

Downstream ↓	Upstream → C65H-DC B curve Rating In(A)	1	2	3	4	6	10	16	20	25	32	40	50	63
Discrimination Fault Current Limit (A)	(A)	4.5	9	14	18	27	45	72	90	113	144	180	225	284
C65L-DC C Curve	1													
	2													
	3													
	4													
	6													
	10													
	16													

Temperature derating

iC65N/H, iDPNK2

Temperature (°C)	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	30
Current rating (A)												
1	1.23	1.21	1.20	1.18	1.16	1.15	1.13	1.11	1.09	1.08	1.06	1.00
2	2.41	2.38	2.35	2.32	2.29	2.26	2.23	2.20	2.17	2.13	2.10	2.00
3	3.60	3.56	3.52	3.47	3.43	3.38	3.34	3.29	3.24	3.20	3.15	3.00
4	4.87	4.81	4.75	4.68	4.62	4.55	4.49	4.42	4.35	4.29	4.22	4.00
6	7.84	7.72	7.59	7.46	7.32	7.19	7.05	6.91	6.77	6.62	6.47	6.00
10	12.04	11.89	11.75	11.60	11.45	11.30	11.14	10.99	10.83	10.67	10.51	10.00
16	19.84	19.57	19.30	19.02	18.74	18.46	18.17	17.88	17.58	17.27	16.96	16.00
20	24.77	24.43	24.09	23.75	23.40	23.05	22.69	22.33	21.96	21.58	21.20	20.00
25	30.09	29.73	29.36	28.99	28.62	28.24	27.86	27.47	27.07	26.67	26.26	25.00
32	40.06	39.50	38.93	38.35	37.76	37.17	36.56	35.95	35.32	34.68	34.03	32.00
40	49.09	48.45	47.81	47.15	46.48	45.81	45.13	44.43	43.72	43.00	42.27	40.00
50	60.83	60.06	59.29	58.51	57.71	56.91	56.09	55.26	54.42	53.57	52.70	50.00
63	77.25	76.25	75.24	74.21	73.16	72.11	71.03	69.94	68.83	67.71	66.56	63.00

iC65N/H, iDPNK2

Temperature (°C)	20	25	30	35	40	45	50	55	60	65	70
Current rating (A)											
1	1.04	1.02	1.00	0.98	0.96	0.94	0.92	0.90	0.88	0.85	0.83
2	2.07	2.03	2.00	1.96	1.93	1.89	1.86	1.82	1.78	1.74	1.70
3	3.10	3.05	3.00	2.95	2.90	2.84	2.79	2.73	2.68	2.62	2.56
4	4.15	4.07	4.00	3.93	3.85	3.77	3.69	3.61	3.53	3.44	3.36
6	6.32	6.16	6.00	5.83	5.66	5.49	5.30	5.12	4.92	4.71	4.50
10	10.34	10.17	10.00	9.83	9.65	9.47	9.28	9.09	8.90	8.71	8.50
16	16.65	16.33	16.00	15.67	15.32	14.97	14.61	14.25	13.87	13.48	13.08
20	20.81	20.41	20.00	19.58	19.16	18.73	18.28	17.82	17.36	16.87	16.38
25	25.85	25.43	25.00	24.56	24.12	23.67	23.21	22.74	22.26	21.77	21.26
32	33.37	32.69	32.00	31.29	30.57	29.83	29.07	28.28	27.48	26.65	25.79
40	41.53	40.77	40.00	39.21	38.41	37.59	36.75	35.89	35.01	34.10	33.17
50	51.81	50.91	50.00	49.07	48.12	47.15	46.16	45.15	44.11	43.05	41.97
63	65.28	64.15	63.00	61.83	60.64	59.42	58.18	56.92	55.62	54.29	52.93

iC65L

Temperature (°C)	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	50
Current rating (A)												
1	1.34	1.32	1.30	1.28	1.26	1.25	1.23	1.21	1.19	1.17	1.15	1.00
2	2.60	2.57	2.54	2.50	2.47	2.44	2.41	2.37	2.34	2.30	2.27	2.00
4	4.97	4.92	4.87	4.81	4.76	4.71	4.65	4.60	4.54	4.48	4.43	4.00
6	8.51	8.38	8.25	8.12	7.99	7.85	7.71	7.58	7.43	7.29	7.14	6.00
10	13.05	12.89	12.73	12.57	12.40	12.23	12.06	11.89	11.72	11.54	11.36	10.00
16	21.93	21.63	21.32	21.01	20.69	20.37	20.04	19.71	19.37	19.03	18.67	16.00
20	27.46	27.08	26.70	26.30	25.90	25.50	25.09	24.67	24.24	23.81	23.37	20.00
25	33.34	32.91	32.47	32.03	31.58	31.12	30.66	30.19	29.71	29.23	28.73	25.00
32	42.99	42.43	41.85	41.27	40.68	40.08	39.47	38.85	38.22	37.58	36.93	32.00
40	53.81	53.10	52.37	51.64	50.90	50.15	49.38	48.60	47.81	47.01	46.19	40.00
50	69.06	68.08	67.10	66.10	65.08	64.05	63.00	61.93	60.84	59.73	58.61	50.00
63	87.27	86.03	84.78	83.50	82.21	80.89	79.56	78.20	76.81	75.40	73.97	63.00

iC65L

Temperature (°C)	20	25	30	35	40	45	50	55	60	65	70
Current rating (A)											
1	1.13	1.11	1.09	1.07	1.05	1.02	1.00	0.98	0.95	0.93	0.90
2	2.23	2.19	2.16	2.12	2.08	2.04	2.00	1.96	1.92	1.87	1.83
4	4.37	4.31	4.25	4.19	4.13	4.06	4.00	3.94	3.87	3.80	3.74
6	6.99	6.83	6.67	6.51	6.35	6.18	6.00	5.82	5.63	5.44	5.24
10	11.17	10.99	10.80	10.60	10.41	10.20	10.00	9.79	9.58	9.36	9.13
16	18.32	17.95	17.58	17.20	16.81	16.41	16.00	15.58	15.15	14.70	14.24
20	22.92	22.46	21.99	21.51	21.02	20.52	20.00	19.47	18.93	18.36	17.78
25	28.23	27.72	27.20	26.66	26.12	25.57	25.00	24.42	23.82	23.21	22.59
32	36.26	35.59	34.90	34.20	33.48	32.75	32.00	31.23	30.44	29.64	28.80
40	45.36	44.51	43.65	42.76	41.86	40.94	40.00	39.03	38.04	37.03	35.98
50	57.46	56.28	55.08	53.86	52.60	51.32	50.00	48.65	47.25	45.81	44.33
63	72.50	71.01	69.48	67.92	66.32	64.68	63.00	61.27	59.50	57.66	55.77

Temperature derating

iC65N-K

Temperature (°C)	-25	-20	-15	-10	-5	0	5	10	15	30
Current rating (A)										
6	7.74	7.60	7.45	7.31	7.16	7.00	6.85	6.69	6.52	6.00
10	12.64	12.42	12.20	11.97	11.75	11.51	11.27	11.03	10.78	10.00
16	19.46	19.17	18.88	18.58	18.28	17.97	17.66	17.34	17.01	16.00
20	24.13	23.78	23.43	23.08	22.71	22.35	21.97	21.59	21.21	20.00
25	30.57	30.11	29.64	29.16	28.67	28.18	27.67	27.16	26.64	25.00
32	39.21	38.44	37.85	37.24	36.63	36.01	35.37	34.72	34.06	32.00

iC65N-K

Temperature (°C)	20	25	30	35	40	45	50	55	60
Current rating (A)									
6	6.35	6.18	6.00	5.82	5.63	5.43	5.22	5.01	4.78
10	10.53	10.27	10.00	9.72	9.44	9.15	8.85	8.53	8.21
16	16.68	16.34	16.00	15.65	15.29	14.92	14.54	14.15	13.75
20	20.81	20.41	20.00	19.58	19.15	18.72	18.27	17.81	17.33
25	26.10	25.56	25.00	24.43	23.85	23.25	22.63	22.00	21.35
32	33.43	32.72	32.00	31.26	30.51	29.73	28.94	28.12	27.27

iDPNa/N/H

Temperature (°C)	-25	-20	-15	-10	-5	0	5	10	15	30
Current rating (A)										
2	2.54	2.49	2.45	2.40	2.36	2.31	2.26	2.21	2.16	2.00
6	7.73	7.59	7.45	7.30	7.15	7.00	6.84	6.68	6.52	6.00
10	12.05	11.88	11.71	11.53	11.35	11.17	10.98	10.79	10.60	10.00
16	19.87	19.55	19.23	18.89	18.56	18.21	17.86	17.51	17.14	16.00
20	24.21	23.86	23.50	23.14	22.77	22.40	22.02	21.63	21.23	20.00
25	30.08	29.66	29.23	28.79	28.34	27.89	27.43	26.96	26.48	25.00
32	38.49	37.95	37.39	36.83	36.26	35.69	35.10	34.50	33.89	32.00
40	49.21	48.45	47.67	46.88	46.08	45.26	44.43	43.58	42.71	40.00

iDPNa/N/H

Temperature (°C)	20	25	30	35	40	45	50	55	60
Current rating (A)									
2	2.11	2.05	2.00	1.94	1.89	1.83	1.76	1.70	1.63
6	6.35	6.18	6.00	5.82	5.63	5.43	5.23	5.02	4.80
10	10.40	10.20	10.00	9.79	9.58	9.36	9.14	8.91	8.68
16	16.77	16.39	16.00	15.60	15.19	14.77	14.34	13.89	13.43
20	20.83	20.42	20.00	19.57	19.13	18.69	18.23	17.76	17.27
25	26.00	25.50	25.00	24.49	23.96	23.42	22.87	22.31	21.73
32	33.27	32.64	32.00	31.34	30.67	29.99	29.29	28.57	27.83
40	41.83	40.92	40.00	39.05	38.09	37.09	36.07	35.02	33.94

C65N-DC/C65H-DC

Temperature (°C)	20	25	30	35	40	45	50	55	60	65	70
Current rating (A)											
1	1.10	1.08	1.05	1.03	1.00	0.97	0.95	0.92	0.89	0.86	0.83
2	2.20	2.15	2.10	2.05	2.00	1.95	1.89	1.83	1.77	1.71	1.65
3	3.29	3.22	3.15	3.08	3.00	2.29	2.84	2.76	2.68	2.59	2.50
4	4.49	4.37	4.25	4.13	4.00	3.87	3.73	3.59	3.44	3.29	3.13
6	6.67	6.51	6.34	6.17	6.00	5.82	5.64	5.44	5.25	5.04	4.83
10	11.34	11.02	10.69	10.35	10.00	9.64	9.26	8.86	8.45	8.02	7.56
16	17.82	17.39	16.94	16.47	16.00	15.51	15.01	14.48	13.94	13.38	12.79
20	22.20	21.67	21.13	20.57	20.00	19.41	18.80	18.17	17.52	16.84	16.14
25	27.82	27.14	26.45	25.73	25.00	24.24	23.46	22.66	21.82	20.95	20.04
32	35.41	34.59	33.75	32.89	32.00	31.09	30.15	29.18	28.18	27.14	26.05
40	44.51	43.42	42.31	41.17	40.00	38.79	37.54	36.25	34.91	33.52	32.07
50	55.45	54.14	52.80	51.42	50.00	48.54	47.04	45.49	43.88	42.21	40.47
63	71.00	69.09	67.12	65.09	63.00	60.83	58.59	56.25	53.82	51.27	48.58

C65N-DC/C65H-DC

Temperature (°C)	-30	-25	-20	-15	-10	-5	0	5	10	15	40
Current rating (A)											
1	1.32	1.30	1.28	1.26	1.24	1.22	1.19	1.17	1.15	1.13	1.00
2	2.64	2.60	2.56	2.52	2.48	2.43	2.39	2.34	2.30	2.25	2.00
3	3.93	3.87	3.81	3.75	3.69	3.63	3.56	3.50	3.43	3.36	3.00
4	5.53	5.43	5.34	5.24	5.14	5.03	4.93	4.82	4.72	4.60	4.00
6	8.10	7.97	7.84	7.70	7.56	7.42	7.28	7.13	6.98	6.83	6.00
10	14.14	13.89	13.63	13.36	13.09	12.82	12.54	12.25	11.95	11.65	10.00
16	21.72	21.37	21.00	20.63	20.25	19.87	19.48	19.08	18.67	18.25	16.00
20	26.94	26.50	26.06	25.61	25.15	24.68	24.21	23.72	23.23	22.72	20.00
25	33.85	33.30	32.73	32.16	31.58	30.98	30.37	29.76	29.12	28.48	25.00
32	42.77	42.09	41.40	40.70	39.99	39.27	38.53	37.77	37.00	36.22	32.00
40	54.16	53.27	52.37	51.46	50.52	49.57	48.60	47.61	46.60	45.57	40.00
50	67.17	66.09	64.99	63.88	62.74	61.59	60.41	59.21	57.98	56.73	50.00
63	87.88	86.34	84.78	83.18	81.55	79.89	78.19	76.46	74.69	72.87	63.00

C65L-DC

Temperature (°C)	10	15	20	25	30	40	50	60	70
Current rating (A)									
1	1.06	1.04	1.02	1.00	0.98	0.93	0.89	0.84	0.79
2	2.12	2.08	2.04	2.00	1.96	1.86	1.78	1.68	1.58
3	3.24	3.15	3.09	3.00	2.91	2.73	2.55	2.37	2.13
4	4.28	4.20	4.12	4.00	3.88	3.68	3.44	3.20	2.92
6	6.42	6.30	6.12	6.00	5.88	5.58	5.22	4.92	4.56
10	10.80	10.60	10.30	10.00	9.70	9.10	8.50	7.90	7.00
16	17.12	16.80	16.32	16.00	15.68	14.88	13.92	12.96	12.00
20	21.40	21.00	20.40	20.00	19.60	18.60	17.40	16.40	15.20
25	26.75	26.25	25.50	25.00	24.50	23.25	21.75	20.25	18.75
32	34.24	33.28	32.64	32.00	31.36	29.76	28.16	26.24	24.64
40	42.80	42.00	40.80	40.00	39.20	37.20	35.20	32.80	30.40
50	53.50	52.50	51.00	50.00	49.00	46.50	43.50	30.50	37.50
63	68.04	66.15	64.89	63.00	61.11	57.33	53.55	49.14	44.73

C65L-DC

Temperature (°C)	-30	-25	-20	-15	-10	-5	0	5	25
Current rating (A)									
1	1.21	1.19	1.18	1.16	1.14	1.12	1.10	1.09	1.00
2	2.42	2.38	2.36	2.32	2.28	2.24	2.20	2.18	2.00
3	3.81	3.75	3.66	3.60	3.54	3.45	3.54	3.33	3.00
4	5.00	4.92	4.84	4.76	4.68	4.60	4.48	4.40	4.00
6	7.68	7.26	7.14	7.02	6.90	6.78	6.66	6.54	6.00
10	12.80	12.50	12.80	12.10	11.80	11.60	11.80	11.10	10.00
16	19.84	19.52	19.20	18.88	18.56	18.24	17.76	17.44	16.00
20	25.60	24.20	23.80	23.40	23.00	22.60	22.20	21.80	20.00
25	31.00	30.50	30.00	29.50	29.00	28.50	27.75	27.25	25.00
32	40.96	38.72	38.08	37.44	36.80	36.16	35.52	34.88	32.00
40	51.20	48.40	47.60	46.80	46.00	45.20	44.40	43.60	40.00
50	64.00	60.50	59.50	58.50	57.50	56.50	55.50	54.50	50.00
63	80.01	78.75	76.86	75.60	74.34	72.45	71.19	69.93	63.00

C60N/H

Temperature (°C)	20	25	30	35	40	45	50	55	60
Current rating (A)									
1	1.13	1.11	1.09	1.07	1.05	1.02	1.00	0.98	0.95
2	2.26	2.22	2.17	2.13	2.09	2.04	2.00	1.95	1.91
3	3.45	3.38	3.31	3.23	3.16	3.08	3.00	2.92	2.83
4	4.37	4.31	4.25	4.19	4.13	4.06	4.00	3.94	3.87
6	6.79	6.66	6.54	6.41	6.27	6.14	6.00	5.86	5.71
8	8.96	8.81	8.65	8.49	8.33	8.17	8.00	7.83	7.65
10	11.38	11.16	10.94	10.71	10.48	10.24	10.00	9.75	9.49
13	14.68	14.41	14.14	13.86	13.58	13.29	13.00	12.70	12.39
16	17.61	17.35	17.09	16.82	16.55	16.28	16.00	15.72	15.43
20	22.86	22.41	21.95	21.48	21.00	20.51	20.00	19.48	18.95
25	28.24	27.73	27.20	26.67	26.13	25.57	25.00	24.42	23.82
32	35.91	35.29	34.65	34.01	33.35	32.68	32.00	31.30	30.59
40	45.61	44.72	43.82	42.90	41.95	40.99	40.00	38.99	37.95
45	51.57	50.53	49.48	48.40	47.29	46.16	45.00	43.81	42.58
50	56.17	55.19	54.19	53.17	52.14	51.08	50.00	48.90	47.76
63	72.40	70.92	69.41	67.87	66.28	64.66	63.00	61.29	59.53

C60N/H

Temperature (°C)	-25	-20	-15	-10	-5	0	5	10	15	50
Current rating (A)										
1	1.30	1.28	1.27	1.25	1.23	1.21	1.19	1.17	1.15	1.00
2	2.59	2.56	2.52	2.49	2.45	2.41	2.37	2.34	2.30	2.00
3	4.04	3.98	3.92	3.85	3.79	3.73	3.66	3.59	3.52	3.00
4	4.86	4.81	4.76	4.70	4.65	4.59	4.54	4.48	4.42	4.00
6	7.82	7.71	7.60	7.49	7.38	7.27	7.15	7.03	6.91	6.00
8	10.23	10.09	9.96	9.82	9.68	9.54	9.40	9.25	9.11	8.00
10	13.19	13.00	12.81	12.61	12.42	12.22	12.01	11.81	11.60	10.00
13	16.88	16.65	16.42	16.18	15.94	15.69	15.45	15.19	14.94	13.00
16	19.77	19.54	19.31	19.08	18.84	18.60	18.36	18.11	17.86	16.00
20	26.59	26.20	25.81	25.41	25.00	24.59	24.17	23.74	23.31	20.00
25	32.50	32.06	31.60	31.15	30.68	30.21	29.73	29.24	28.75	25.00
32	41.07	40.53	39.98	39.43	38.86	38.29	37.71	37.12	36.52	32.00
40	52.91	52.15	51.38	50.60	49.80	48.99	48.17	47.33	46.48	40.00
45	60.08	59.19	58.29	57.38	56.45	55.51	54.55	53.58	52.58	45.00
50	64.31	63.46	62.60	61.72	60.83	59.93	59.01	58.08	57.13	50.00
63	84.56	83.29	82.01	80.71	79.39	78.04	76.67	75.27	73.85	63.00

C120H,L B,C,D curves

Temperature (°C)	20	25	30	35	40	45	50	55	60	65	70
Current rating (A)											
63	65.87	64.45	63.00	61.52	60.00	58.44	56.84	55.19	53.49	51.94	49.92
80	83.35	81.69	80.00	78.27	76.50	74.69	72.84	70.93	68.98	66.96	64.89
100	104.47	102.26	100.00	97.69	95.32	92.89	90.39	87.82	85.18	82.45	79.63
125	130.88	127.98	125.00	121.95	118.83	115.62	112.31	108.91	105.40	101.77	98.00

C120H,L B,C,D curves

Temperature (°C)	-30	-25	-20	-15	-10	-5	0	5	10	15	30
Current rating (A)											
63	78.64	77.46	76.26	75.04	73.80	72.53	71.25	69.94	68.61	67.25	63.00
80	98.41	97.01	95.59	94.15	92.68	91.19	89.68	88.14	86.57	84.98	80.00
100	124.46	122.61	120.73	118.82	116.87	114.90	112.89	110.85	108.77	106.64	100.00
125	157.02	154.61	152.16	149.66	147.13	144.55	141.92	139.24	136.51	133.73	125.00

Temperature derating

NG125

Temperature (°C)	20	25	30	35	40	45	50	55	60	65	70
Current rating (A)											
10	11.18	10.90	10.61	10.31	10.00	9.68	9.35	9.01	8.66	8.29	7.90
16	17.35	17.02	16.69	16.35	16.00	15.65	15.28	14.91	14.53	14.14	13.74
20	21.89	21.43	20.97	20.49	20.00	19.50	18.99	18.46	17.91	17.35	16.77
25	27.79	27.12	26.43	25.72	25.00	24.25	23.48	22.69	21.86	21.00	20.11
32	34.87	34.18	33.47	32.74	32.00	31.24	30.46	29.66	28.84	28.00	27.13
40	44.29	43.26	42.20	41.12	40.00	38.85	37.67	36.45	35.19	33.87	32.51
50	55.14	53.90	52.63	51.33	50.00	48.63	47.22	45.77	44.27	42.72	41.11
63	69.45	67.90	66.30	64.67	63.00	61.28	59.51	57.69	55.81	53.86	51.84
80	86.32	84.79	83.22	81.63	80.00	78.34	76.64	74.91	73.13	71.31	69.44

NG125

Temperature (°C)	-30	-25	-20	-15	-10	-5	0	5	10	15	40
Current rating (A)											
10	13.70	13.47	13.24	13.00	12.75	12.51	12.25	11.99	11.73	11.46	10.00
16	20.32	20.05	19.76	19.48	19.19	18.89	18.59	18.29	17.98	17.67	16.00
20	26.02	25.64	25.25	24.85	24.45	24.04	23.63	23.21	22.77	22.34	20.00
25	33.76	33.21	32.65	32.08	31.51	30.92	30.32	29.70	29.08	28.44	25.00
32	41.19	40.60	40.00	39.40	38.79	38.16	37.53	36.88	36.22	35.55	32.00
40	53.54	52.69	51.83	50.95	50.05	49.14	48.21	47.26	46.29	45.30	40.00
50	66.26	65.23	64.19	63.13	62.05	60.95	59.83	58.69	57.53	56.35	50.00
63	83.42	82.13	80.82	79.49	78.14	76.76	75.35	73.92	72.46	70.97	63.00
80	100.41	99.09	97.75	96.40	95.02	93.63	92.21	90.78	89.32	87.83	80.00

iDPNa/N vigi+

Temperature (°C)	-30	-25	-20	-15	-10	-5	0	5	10	15	30
Current rating (A)											
10	12.25	12.08	11.91	11.73	11.55	11.37	11.18	11.00	10.80	10.61	10.00
16	19.42	19.15	18.89	18.62	18.35	18.07	17.79	17.50	17.21	16.92	16.00
20	24.33	24.00	23.67	23.33	22.98	22.63	22.27	21.91	21.54	21.17	20.00
25	30.42	30.00	29.58	29.16	28.73	28.29	27.84	27.39	26.93	26.46	25.00

iDPNa/N vigi+

Temperature (°C)	20	25	30	35	40	45	50	55	60	65	70
Current rating (A)											
10	10.41	10.21	10.00	9.79	9.57	9.35	9.13	8.89	8.66	8.41	8.16
16	16.62	16.31	16.00	15.68	15.36	15.03	14.69	14.34	13.98	13.62	13.24
20	20.79	20.40	20.00	19.60	19.18	18.76	18.33	17.89	17.43	16.97	16.49
25	25.98	25.50	25.00	24.49	23.98	23.45	22.91	22.36	21.79	21.21	20.61

Multiclip and Distribloc

Temperature (°C)	40	45	50	55	60
Current rating (A)					
Multiclip 80A	80	76	73	69	66
Distribloc 63A	63	60	58	55	53

Reflex iC60

Temperature (°C)	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60
Current rating (A)																		
10	13.00	12.80	12.60	12.50	12.30	12.10	11.90	11.70	11.50	11.30	11.10	10.90	10.70	10.50	10.20	10.00	9.80	9.50
16	20.60	20.30	20.00	19.70	19.50	19.20	18.90	18.60	18.30	18.00	17.70	17.30	17.00	16.70	16.30	16.00	15.70	15.30
25	31.20	30.80	30.40	30.10	29.70	29.30	28.90	28.50	28.10	27.60	27.20	26.80	26.40	25.90	25.50	25.00	24.50	24.10
40	51.30	50.60	49.90	49.20	48.50	47.80	47.10	46.40	45.60	44.90	44.10	43.30	42.50	41.70	40.90	40.00	39.10	38.20
63	83.90	82.70	81.40	80.10	78.90	77.60	76.20	74.90	73.50	72.10	70.70	69.20	67.70	66.20	64.60	63.00	61.40	59.70

Temperature derating of MCB combined with residual current devices

Temperature derating of iC65, iDPNK2 combined with residual current devices

Vigi		MCB current rating											
		1A	2A	4A	6A	10A	16A	20A	25A	32A	40A	50A	63A
Vigi iC65 ELE	1P+N	1					1	1	0.98	0.95	0.99	0.96	0.93
	2P								0.96	0.93	0.97	0.93	0.91
	3P/4P								0.95	0.92	0.95	0.94	0.88
Vigi iC65 ELM	2P	1				0.98	1	0.95	0.93	0.91	0.96	0.95	0.91
	3P/4P					1				0.89	0.94	0.92	0.89

Temperature derating of iDPN combined with residual current devices

Vigi		MCB current rating						
		2A/6A	10A	16A	20A	25A	32A	40A
Vigi iDPN ELE		1.00	1.00	0.97	0.96	0.96	0.92	0.90
Vigi iDPN ELM		1.00	0.97	0.94	0.94	0.92	0.90	0.85

When circuit breaker is combined with residual current device, the temperature correction factor needs to be multiplied with temperature derating in the above table.

Temperature derating of altitude

Altitude(m)	2000	3000	4000	5000
Withstand voltage(V)	2500	2200	1950	1700
Maximum operating voltage(V)	440	380	380	380
Temperature derating(40°C)	1.00	0.96	0.93	0.90
Breaking capacity	unchanged	unchanged	unchanged	unchanged

Guidance for storage and transport of circuit breakers

Guidance for storage of circuit breakers

For circuit breakers which need to be stored for a long time, if there is no necessary control of the storage environment, it will cause corrosive damage to the internal or external metal and the coating. Therefore, for the circuit breakers in storage, our advice is as follows:

- Circuit breakers need to be stored at normal temperature and under dry conditions. For high humidity environments, it requires necessary seal control.
- Circuit breakers should not be mixed stored with acid volatile liquid or acid gas. High dust environment is also not suitable for storage.
- Circuit breakers should not be mixed stored with acid volatile liquid or acid gas. High dust environment is also not suitable for storage.
- It is suggested that the circuit breaker should not be connected with cables before it is put into use to prevent corrosion.
- For special storage conditions, it is suggested to notify the manufacturer and ask for operation advice. For example: hot and humid environment, the island near the equator, in ultra-low temperature region.

Guidance for transport of circuit breakers

- For long-distance transport, it is proposed that the circuit breaker and the enclosure should be packaged separately and installed on site.
- For long-distance transport or humid transportation environment, it is recommended to place desiccant into packaging.
- The circuit breaker must be sealed packaged for shipping transportation; for example, use vacuum-sealed packaging or multi-layer plastic film packaging to prevent corrosion caused by rain or humidity ;
- Besides sealed packaging for shipping transportation, it is also suggested to use normal protective transport packaging: such as wooden or iron transport boxes and cabinets, etc.
- Circuit breakers should not be contacted with acidic gases or liquids during transportation.
- If the circuit breakers have corroded, they must be tested by the manufacturers before put into use.

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