

Emergency Lighting Distribution Board (Emergency Lighting Distribution Board\_600 A)

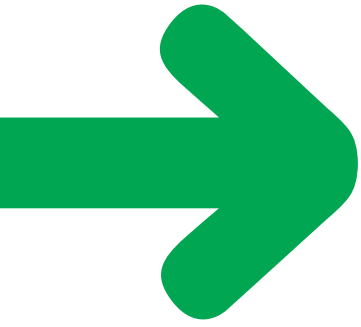
Acti 9

Lighting & Appliance Panel Board (Emergency Lighting Distribution Board\_600 A)

Ready to install  
Distribution and  
control products



**Schneider**  
Electric™



# Introduction

Schneider Electric's Ready to Install offer brings together the company's range of solutions for the distribution, protection, control and management of electrical systems. As a global specialist in energy management, Schneider Electric offers integrated solutions making energy safer, more reliable, efficient and productive.

The Ready to Install offer includes a comprehensive range of distribution boards, panel boards, switchgear, protection devices, control and command solutions, metering and measurement products and Integrated Installation Solutions.

Our products are highly compatible and complement each other, allowing you to provide your customers with integrated, tailored solutions. For easy identification, products previously known under the Merlin Gerin and Mita brands are now being labelled as Schneider Electric so customers can spot our quality solutions at a glance.

Whether you're specifying equipment for a major project or buying a selection of components for a simple maintenance installation, our range is unequalled. When you choose a system bearing our name you have the reassurance it is of the highest quality. Wherever you are located and whatever your need, we are committed to meeting your requirements.

The Ready to Install offer now includes our award winning Acti 9 product range, winner of Select's Best New Product category.



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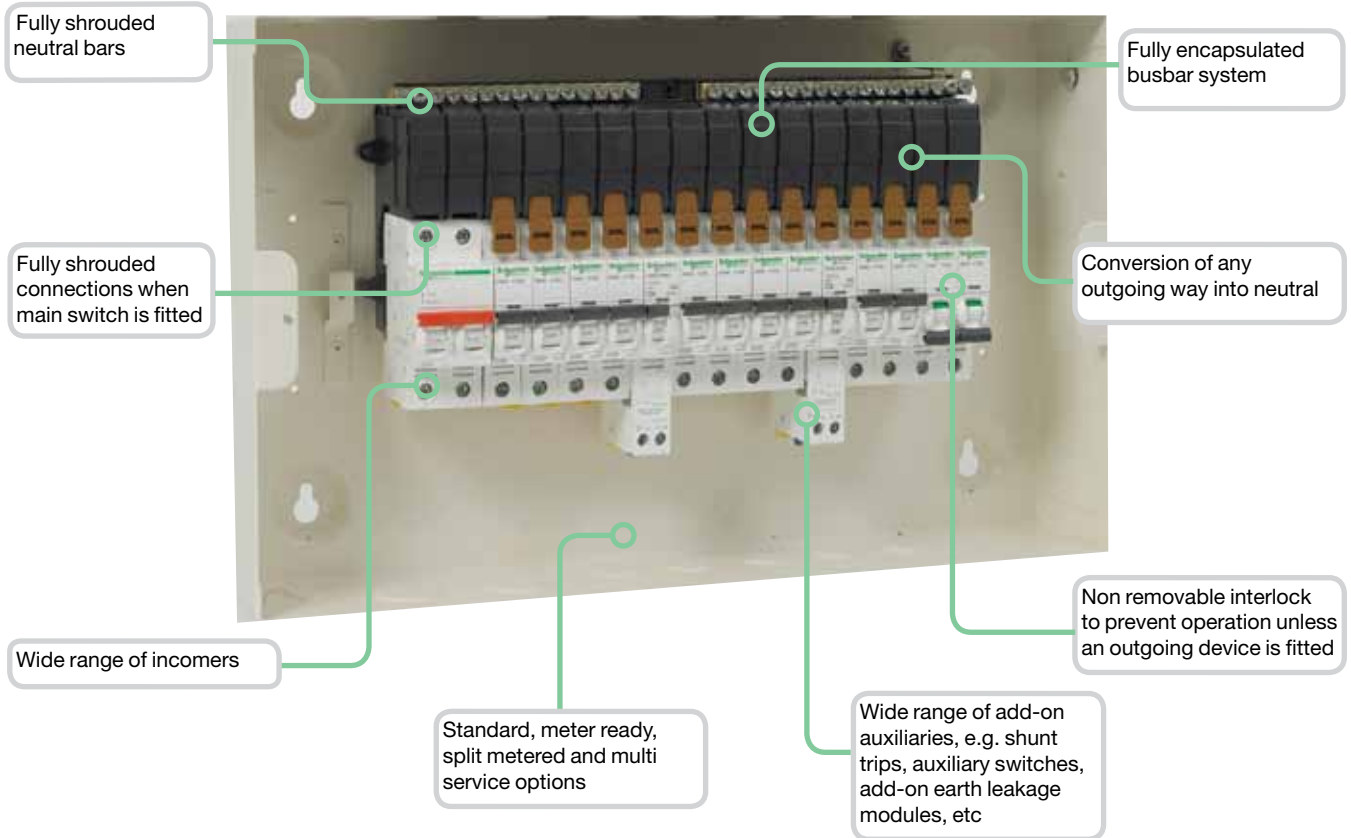
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## Acti 9 Isobar A type single phase distribution boards

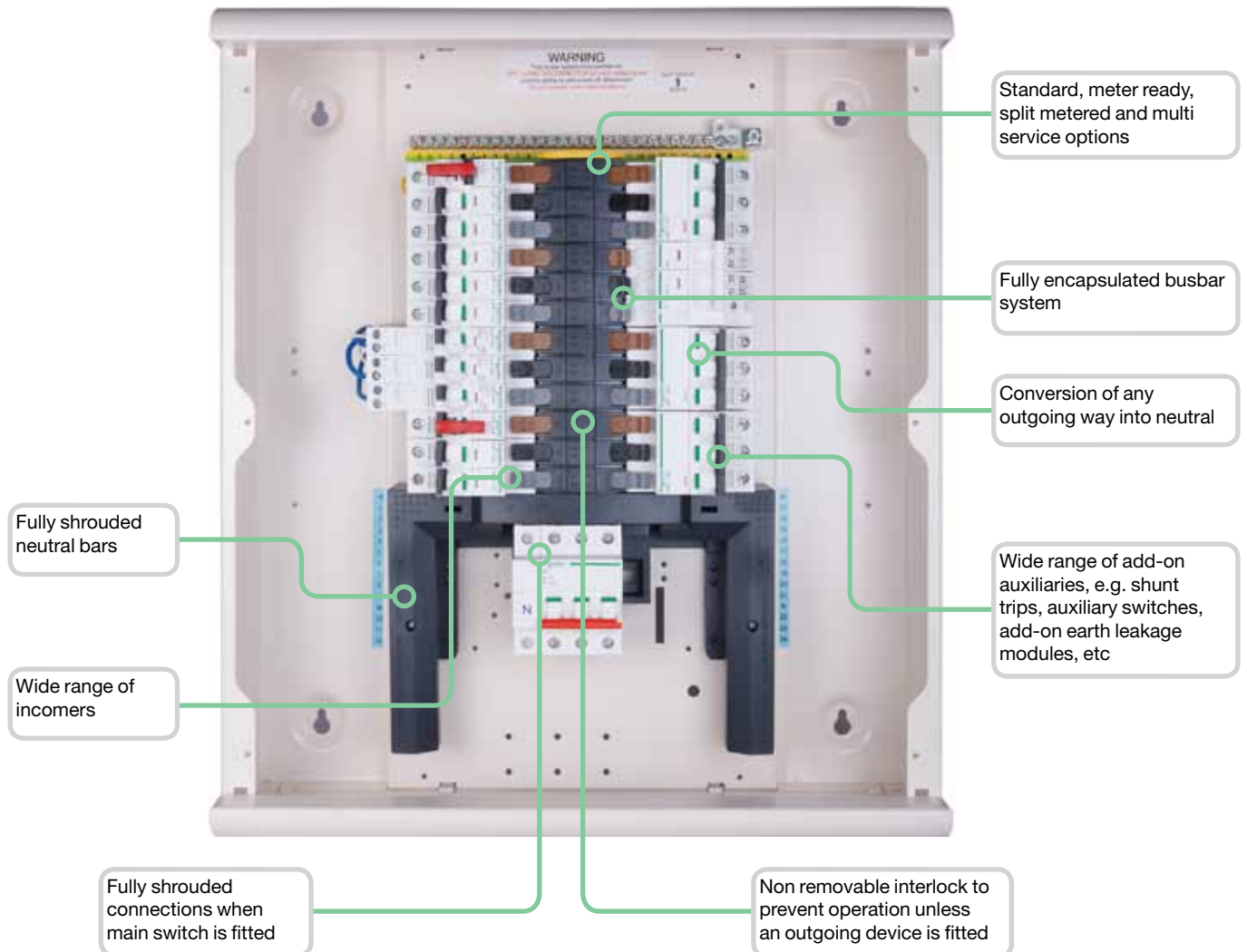
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- Fully type tested conditional short circuit rating of 16kA to BS EN 61439-3
- High performance MCB 10kA BS EN 60898 15kA BS EN 60947-2 in B, C or D curve single and double pole
- 125A busbar rating
- Isobar disconnection to BS EN 60947-3 ensuring unused outgoing ways are isolated
- Option of switching outgoing neutral on all boards using distributed neutral kit
- Terminal block for feeding up to 100A
- Range of incomers: switch disconnectors, residual current devices, terminal blocks
- Single pole RCBO for new or retrofit maintaining device density
- Full range of device accessories and auxiliaries
- Knockouts for cable gland and conduit mixed to suit the installation needs without loss of space
- Split metering options

## Acti 9 Isobar B type 3 phase distribution boards

1



- Fully type tested conditional short circuit rating of 25kA to BS EN 61439-3
- High performance MCB 10kA BS EN 60898 15kA BS EN 60947-2 in B, C or D curve 1, 2, 3, 4 pole
- 250A busbar rating
- Isobar disconnection to BS EN 60947-3 ensuring unused outgoing ways are isolated
- Option of switching outgoing neutral on all boards using distributed neutral kit
- Terminal block for feeding up to 100A
- Range of incomers: switch disconnectors, residual current devices, terminal blocks, mccb
- Single pole RCBO for new or retrofit maintaining device density
- Full range of device accessories and auxiliaries
- Knockouts for cable gland and conduit mixed to suit the installation needs without loss of space
- Removable insulated pan assembly
- Fully shrouded neutral
- Split neutral bars
- Removable gland plates
- Optional metering, dual supply, surge protection and contactor on incoming
- Metered extension enclosures

# Acti 9 Isobar

## A type distribution boards

1

### BS EN 61439-3 IEC 61439-3

- Acti 9 Isobar is a complete range of single and 3 phase distribution boards for commercial and industrial applications
- Standard distribution boards up to 24 ways
- Multi service distribution boards up to 24 ways
- Dual incomer distribution boards up to 24 ways
- Split load distribution boards up to 24 ways
- Split metered distribution boards up to 20 ways
- Any outgoing way can be converted to switch the Neutral

SEA9AN18



#### Alternating current (AC) 50Hz

withstand	110v	230/240v
conditional	25kA	25kA
unconditional	25kA/50mS	25kA/50mS
	17kA/200mS	17kA/200mS

#### Direct current (DC)

	24v	48v
unconditional	25kA/50mS	25kA/50mS

### Catalogue numbers

#### Acti 9 Isobar Standard distribution boards busbar rating 125 amp

Incomers not included	No of SP ways	No of DP ways*
SEA9AN2	2	1
SEA9AN6	6	3
SEA9AN10	10	5
SEA9AN14	14	7
SEA9AN18	18	9
SEA9AN27	27	12

\*When used with distributed neutral

#### Acti 9 Isobar Multi service distribution boards busbar rating 125 amp

Incomers not included	No of SP ways	Useable DIN rail 18mm ways
SEA9AN108MS	10	4
SEA9AN1432MS	14	16
SEA9AN616MS	6	8
SEA9AN624MS	6	12
SEA9AN148MS	14	4
SEA9AN1016MS	10	8

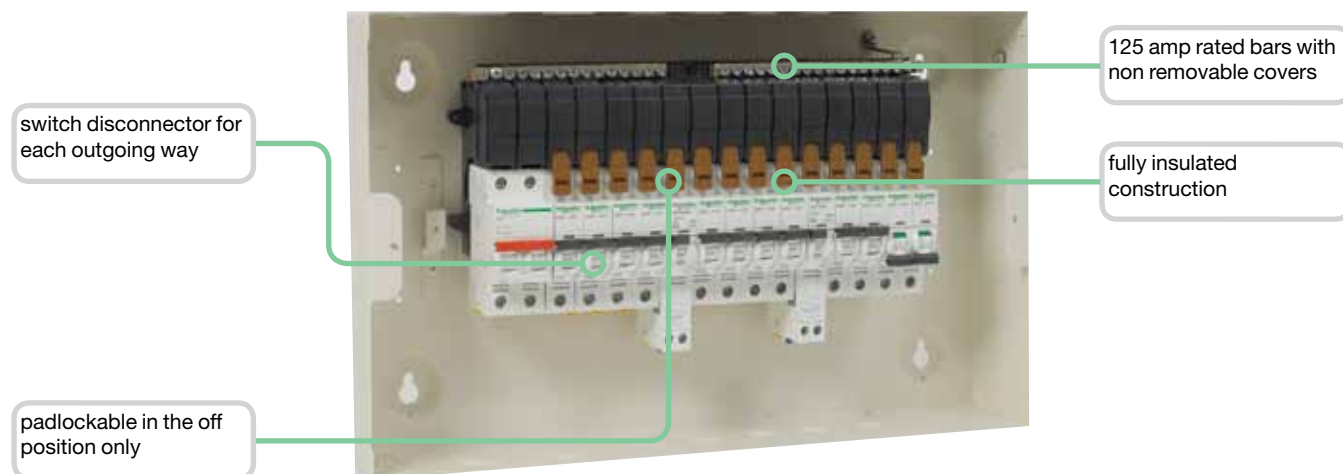
#### Acti 9 Isobar Split load distribution boards busbar rating 125 amp

Incomers not included	Unprotected way	RCCB protected ways
SEA9AN96SL	9	6
SEA9AN510SL	5	10
SEA9AN56SL	5	6

SEA9AN27







### Technical data Standard, Meter ready, Split metered Acti 9 Isobar

Main characteristics		110v		230/240v
According to BE EN 61439-3				
Withstand	conditional	25kA		25kA
	unconditional	25kA/50mS		25kA/50mS
		17kA/200mS		17kA/200mS
insulation voltage (Ui)		500V		500V
Pollution degree		3		3
Rated inpulse withstand voltage (Uimp)		6kV		6kV
Current rating (A)	direct connection	125A	Terminal block	125A
	Switch disconnector	125A	Power switch	125A
	RCCB sensitivites (mA)	30, 100, 300, 300TD, 100A		
Degree of protection (IEC 60529)		External IP3X Internal IP20		
Endurance (O-C) Isobar switch disconnector		3000		
Overvoltage category		IV		
Operating temperature		-35 to +70°C		
Storage teperature		-40 to +80°C		
Connections				
Rating	Tightening torque	Copper lugs	Cables bare	Device
125 amp		■	50mm	DIN switch disconnector
125 amp		■	50mm	Terminal block
100 amp		■	35mm	RCCB



### Acti 9 Isobar Dual supply distribution boards busbar rating 125 amp

Incomers not included	Section 1 SP ways	Section 2 SP ways
SEA9AN106DS	10	6
SEA9AN26DS	2	6
SEA9AN66DS	6	6

### Acti 9 Isobar Split metered distribution boards busbar rating 100 amp direct connected meters

Incoming switch disconnector included	Meter type	No of SP ways	No of SP ways
SEA9AN6S6	40A direct connected	6	6
SEA9AN10S10	63A direct connected	10	10
SEA9AN14S14	63A direct connected	14	14
Total load	2 row 50A per row 1 row 40A per split	Meter used	A9M17067 A9MEM2010

## Weight (kG) - Dimensions (mm)

Standard	Multi service	Split load	Dual Incomer	Split metered	kG	Height	Width	Depth
2 way	■	■	■	■	1.8	300	200	117
6 way	■	■	■	■	2.5	300	273	117
10 way	■	■	2 - 6	■	3.0	300	345	117
14 way	6 - 16, 10 - 8	5 - 6	6 - 6	■	4.8	300	417	117
18 way	6 - 24, 10 - 16, 14 - 8	5 - 10, 9 - 6	10 - 6	6 - 6	5.7	300	489	117
27 way	14 - 32	10 - 10, 14 - 14	■	10 - 10	8.9	530	417	117



## Incomers

Switch disconnector		Rating (A)	No of poles
SEA91252		125	2
Residual current circuit breaker 230/240vAC		Rating (A)	No of poles
Sensitivity (mA)			
SEA9R41263	30	63	2
SEA9R12263	100	63	2
SEA9R44263	300	63	2
SEA9R11280	30	80	2
SEA9R12280	100	80	2
SEA9R14280	300	80	2
SEA9R15280	300 TD	80	2
SEA9R11291	30	100	2
SEA9R12291	100	100	2
SEA9R14291	300	100	2
SEA9R15291	300 TD	100	2
Terminal block		Rating (A)	No of poles
SEA9TB1252		125	2

## DIN rail only enclosures

Reference	Description	Number of rows	Dimensions as
SEA9DE16	8 SP way module enclosure	1	SEA9AN6
SEA9DE24	12 SP way module enclosure	1	SEA9AN10
SEA9DE32	16 SP way module enclosure	1	SEA9AN14
SEA9DE40	20 SP way module enclosure	1	SEA9AN18
SEA9DE64	32 SP way module enclosure	2	SEA9AN27



## Accessories

Flush mounting kits (overall dimensions add 50mm to width and height)		
Reference		No of ways
SEA9AN6FK	Flush mounting kit	6
SEA9AN10FK	Flush mounting kit	10
SEA9AN14FK	Flush mounting kit	14
SEA9AN18FK	Flush mounting kit	18
Distributed neutral kits		
Reference		No of ways
SEA9NA6	Distributed neutral for 6 way SP+N	6
SEA9NA10	Distributed neutral for 10 way SP+N	10
SEA9NA14	Distributed neutral for 14 way SP+N	14
SEA9NA18	Distributed neutral for 18 way SP+N	18
SEA9NA27	Distributed neutral for 27 way SP+N	27
SEA9NKIT	Phase to neutral conversion kit (pack 4)	
Reference	Description	
SEA9BL	Door lock	
SEA9PD	Padlock kit for door	
SEA9BP	Blank pole	
SEA9BP25	Pack of 25 x 5 pole filler	
SEA9BP5	single 5 pole filler	
SEA9TB1001	100 amp terminal block 1 pole	
SEA9ANWL	SP&N LABELS	

## Acti 9 Isobar A type pan assemblies

Reference		No of ways	Height	Width	Depth
SEA9AN6PS	Supplied without distributed neutral	6	202	200	87
SEA9AN10PS	Supplied without distributed neutral	10	202	272	87
SEA9AN14PS	Supplied without distributed neutral	14	202	344	87
SEA9AN18PS	Supplied without distributed neutral	18	202	416	87



## Doors and covers

Reference	
SEA9AN6C	6 way door and cover
SEA9AN10C	10 way door and cover
SEA9AN14C	14 way door and cover
SEA9AN18C	18 way door and cover
SEA9AN27C	27 way door and cover

# Acti 9 Isobar

## B type distribution boards

1



### BS EN 61439-3 IEC 61439-3

- Acti 9 Isobar is a complete range of single and 3 phase
- distribution boards for commercial and industrial
- applications
- Standard distribution boards up to 24 ways
- Meter ready distribution boards up to 24 ways
- Split metered distribution boards up to 22 ways
- Any outgoing way can be converted to switch the Neutral

#### Alternating current (AC) 50Hz

withstand	230/240v	400v	415v
conditional	25kA	25kA	25kA
unconditional	25kA/50mS	25kA/50mS	25kA/50mS
	17kA/200mS	17kA/200mS	17kA/200mS

#### Direct current (DC)

	24v	48v	
unconditional	25kA/50mS	25kA/50mS	

### Catalogue numbers

#### Acti 9 Isobar Standard distribution boards busbar rating 250 amp

	No of TP ways	No of SP ways	No of DP ways*
SEA9BN4	4	12	6
SEA9BN6	6	18	9
SEA9BN8	8	24	12
SEA9BN12	12	36	18
SEA9BN16	16	48	24
SEA9BN18	18	54	26
SEA9BN24	24	72	36

#### Acti 9 Isobar Meter ready distribution boards busbar rating 250 amp

	No of TP ways	No of SP ways	No of DP ways
SEA9BN6M	6	18	9
SEA9BN8M	8	24	12
SEA9BN12M	12	36	18
SEA9BN16M	16	48	24
SEA9BN18M	18	54	26
SEA9BN24M	24	72	36

\*Metering kits page 1/10

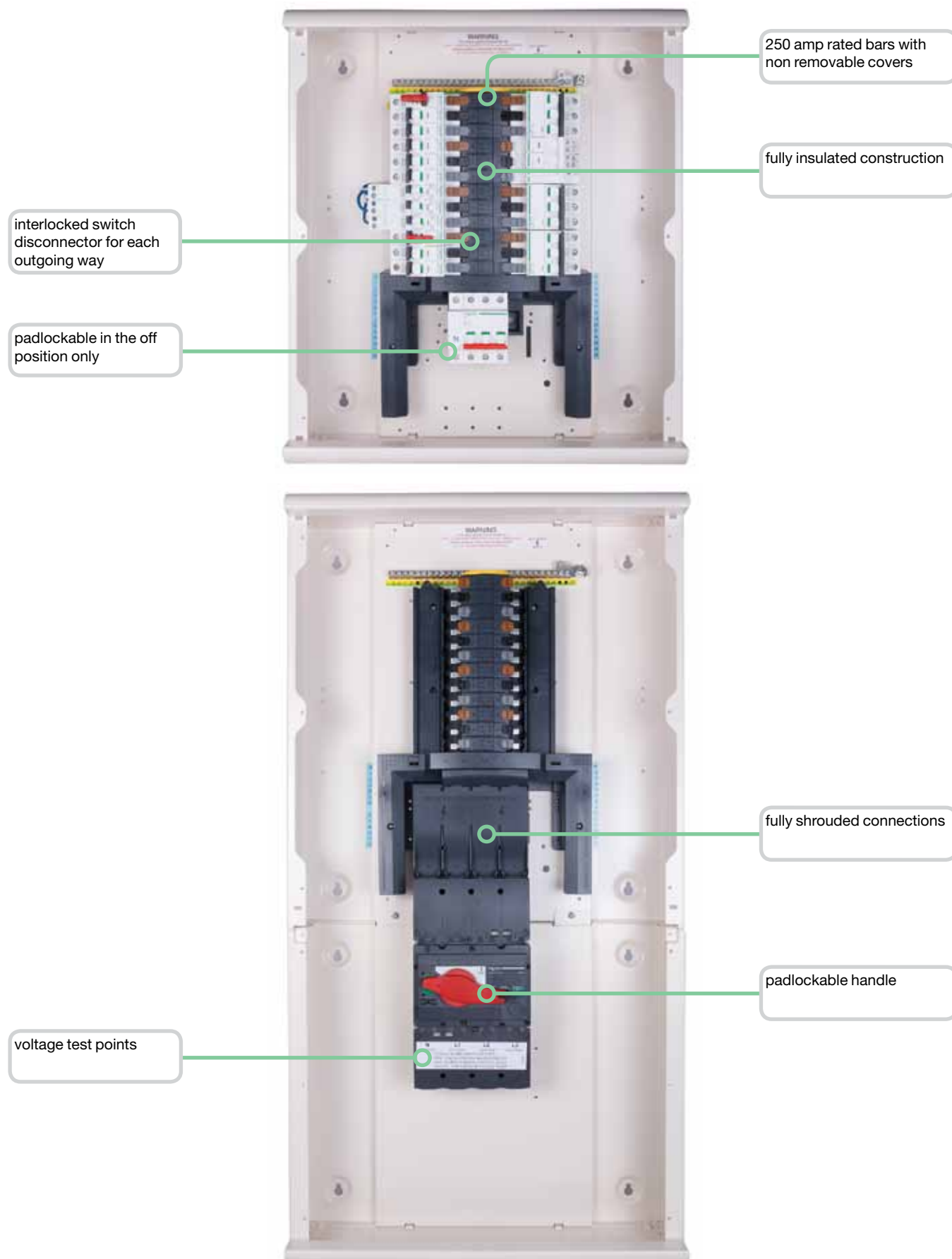
#### Acti 9 Isobar Split metered\* distribution boards busbar rating 125 amp switch disconnector fitted

	Lower pan assembly No of TP ways	No of SP ways	Upper pan assembly No of TP ways	No of SP ways
SEA9BN125S8	8	24	8	24
SEA9BN12512S8	14	42	8	24
SEA9BN12514S6	16	48	6	18
SEA9BN12516S4	18	54	4	12

#### Acti 9 Isobar Split metered\* distribution boards busbar rating 250 amp - incomer supplied separately

	Lower pan assembly No of TP ways	No of SP ways	Upper pan assembly No of TP ways	No of SP ways
SEA9BN250S8	8	24	8	24
SEA9BN25012S8	14	42	8	24
SEA9BN25014S6	16	48	6	18
SEA9BN25016S4	18	54	4	12

\*MID 3 Phase kWh kit Modbus communications and pulsed output



## Metering kits

Acti 9 Standard distribution boards			Rating (A)	Connection
SEA9BNKWH	MID 3 Phase kWh kit Modbus communications and pulsed output	Height 270 (mm)	250	via CT
SEA9BNKWHP	MID 3 Phase kWh kit pulsed output	Height 270 (mm)	250	via CT
SEA9BNMETE	Metering enclosure for standard Acti 9 Isobar boards for PM meters	height 270 (mm)	250	via CT
Acti 9 Meter ready distribution boards			Rating (A)	Connection
SEA9BN3155	MID 3 Phase kWh kit Modbus communications	Integral	63	direct
SEA9BN3110	MID 3 Phase kWh kit pulsed output	Integral	63	direct
SEA9BN3255	MID 3 Phase kWh kit Modbus communications	Height 135 (mm)	125	via CT
SEA9BN3210	MID 3 Phase kWh kit pulsed output	Height 135 (mm)	125	via CT

## Incomers for 250 amp split metered boards

		Rating (A)	No. of poles
SEA9NCB1604SM	160A 4P MCCB for A9 split meter board	160	4
SEA9NCB2004SM	200A 4P MCCB for A9 split meter board	200	4
SEA9NCB2504SM	250A 4P MCCB for A9 split meter board	250	4
SEA9NI1604SM	160A 4P Switch for A9 split meter board	160	4
SEA9NI2004SM	200A 4P Switch for A9 split meter board	200	4
SEA9NI2504SM	250A 4P Switch for A9 split meter board	250	4

## Connections

Rating	Copper lugs	Bare cables	Device
125 amp		50mm	DIN switch disconnecter/Terminal block
		95mm with spreader connection	Interpact DIN Switch Disconnecter
160 -250 amp	95mm	185mm with cable clamps	Interpact Switch Disconnecter
	95mm	185mm with cable clamps	NSX Moulded case circuit breaker
	120 mm		Terminal block

## Technical data Standard, Meter ready, Split metered Acti 9 Isobar

Main characteristics		230/240v	400v	415v
Withstand	conditional	25kA	25kA	25kA
	unconditional	25kA/50mS	25kA/50mS	25kA/50mS
		17kA/200mS	17kA/200mS	17kA/200mS
Insulation voltage (Ui)		500vAC	500vAC	500vAC
Pollution degree		3	3	3
Rated impulse withstand voltage (Uimp)		6kV	6kV	6kV
Current rating (A)	direct connection	125/250	6kV	6kV
	Switch disconnector	125	DIN mounted Power switch	
		160-200-250	Interpact	
	MCCB	100-160-200-225-250		
Degree of protection (IEC 60529)		External IP3X or IP55		
Endurance (O-C) Isobar switch disconnector		Internal IP20		
Overvoltage category		3000		
Operating temperature		IV		
Storage teperature		-35 to +70°C		
		-40 to +80°C		



## Main characteristics Acti 9 Isobar Heavy Duty

According to BE EN 61439-3		230/240v	400v	415v
Withstand	conditional	25kA	25kA	25kA
	unconditional	25kA/50mS	25kA/50mS	25kA/50mS
		17kA/200mS	17kA/200mS	17kA/200mS
Insulation voltage (Ui)		500vAC		
Pollution degree		3		
Rated impulse withstand voltage (Uimp)		6kV		
Current rating (A)		125A		
Degree of protection (IEC 60529)		External IP55 Internal IP20		
Endurance (O-C) Isobar switch disconnecter		3000		
Overvoltage category		IV		
Operating temperature		-35 to +70°C		
Storage temperature		-40 to +80°C		

Anti condensation measures should be taken if installed in an external location

## Catalogue numbers

## Acti 9 Isobar Standard IP55 distribution boards busbar rating 125 amp steel door

	No of TP ways	No of SP ways	No of DP ways
SEA9BN6HDGR	6	18	9
SEA9BN8HDGR	8	24	12
SEA9BN12HDGR	12	36	18
SEA9BN16HDGR	16	48	24

## Acti 9 Isobar Standard IP55 distribution boards busbar rating 125 amp transparent door

	No of TP ways	No of SP ways	No of DP ways
SEA9BN6HDGK	6	18	9
SEA9BN8HDGK	8	24	12
SEA9BN12HDGK	12	36	18
SEA9BN16HDGK	16	48	24

## Acti 9 Isobar and Acti 9 Isobar IP55

## Weight (kg) - Dimensions (mm)

Standard	Meter ready	Split meter	kG	Height	Width	Depth
4 way	■	■	9	484	470	139
6 way	6 way	■	10.5	484	470	138
8 way	6 way	■	11	538	470	138
12 way	12 way	■	13.5	700	470	139
16 way	16 way	■	16	808	470	139
18 way	18 way	■	16.2	862	470	139
24 way	24 way	■	22	1024	470	139
■	■	125 amp	28	1290	470	139
■	■	250 amp	32	1694	470	139
250 amp incoming section		■	4	405	470	130

IP55			kG	Height	Width	Depth
6 way		■	32.4	650	600	330
8 way		■	32.9	650	600	330
12 way		■	40.1	800	600	330
16 way		■	41.4	800	600	330



SEA91253N



SEA9NM2504



SEA9R44463



SEA9TB1254



SEA9BNDM250SD



Int= Internal to the distribution board  
Ext = in 400mm high extension enclosures  
■ = not applicable

## Incomers

Switch disconnecter		Rating (A)	No of poles	Standard	Meter ready	Split Metered	IP55
SEA91253N		125	3P+N	Int	Int	Int	Int
SEA91254		125	4	Int	Int	Int	Int
SEA9NI1603		160	3P+N	Ext	Ext	Ext	■
SEA9NI1604		160	4	Ext	Ext	Ext	■
SEA9NI2003		200	3P+N	Ext	Ext	Ext	■
SEA9NI2004		200	4	Ext	Ext	Ext	■
SEA9NI2254		225	4	Ext	Ext	Ext	■
SEA9NI2503		250	3P+N	Ext	Ext	Ext	■
SEA9NI2504		250	4	Ext	Ext	Ext	n ■
Moulded Case Circuit Breaker		Rating (A)	No of poles	Standard	Meter ready	Split metered	IP55
SEA9NCB1004		70-100	4	Ext	Ext	Ext	■
SEA9NCB1604		112-160	4	Ext	Ext	Ext	■
SEA9NCB2004		140-200	4	Ext	Ext	Ext	■
SEA9NCB2504		175-250	4	Ext	Ext	Ext	■
Residual current circuit breaker sensitivity (mA)		Rating (A)	No of poles	Standard	Meter ready	Split metered	IP55
A9R41463	30	63	4	Int	Int	Int	Int
A9R12463	100	63	4	Int	Int	Int	Int
A9R44463	300	63	4	Int	Int	Int	Int
A9R15463	300/time delayed	63	4	Int	Int	Int	Int
A9R11480	30	80	4	Int	Int	Int	Int
A9R14491	300	100	4	Int	Int	Int	Int
A9R15491	300/time delayed	100	4	Int	Int	Int	Int
SEA9NI160RCCB	adjustable	160	■	Ext	Ext	Ext	■
Terminals for direct connection		Rating (A)	No of poles	Standard	Meter ready	Split metered	IP55
SEA9TB1254		125	4	Int	Int	Int	Int
SEA9NTB2504		250	4	Ext	Ext	Ext	■
Dual source incomer		Rating (A)	No of poles	Standard	Meter ready	Split metered	IP55
SEA9NDSI	*270mm enclosure	125	4	Ext	Ext	Ext	■
Contactor incomer		Rating (A)	No of poles	Standard	Meter ready	Split metered	IP55
SEA9BN100CCI	*270mm enclosure	100	4	Ext	Ext	Ext	■
Dual metered extension enclosure MID 3 Phase kWh kit Modbus communications and pulsed output 270mm enclosures		Rating (A)	No of poles	Standard	Meter ready	Split metered	IP55
SEA9BNDM160SD	Interpact SD	160	4	Ext 270mm	■	■	■
SEA9BNDM200SD	Interpact SD	200	4	Ext 270mm	■	■	■
SEA9BNDM250SD	Interpact SD	250	4	Ext 270mm	■	■	■
SEA9BNDM160M	NSX MCCB	160	4	Ext 270mm	■	■	■
SEA9BNDM200M	NSX MCCB	200	4	Ext 270mm	■	■	■
SEA9BNDM250M	NSX MCCB	250	4	Ext 270mm	■	■	■
Single phasing kits		Rating (A)	No of poles	Standard	Meter ready	Split metered	IP55
SEA9125SPEV		125	4	Int	Int	Int	Int
SEA9250SPEV		250	4	Int	Int	Int	■



SEA9BNEX034N



Top or bottom extension enclosures height 270 (mm)		■ not applicable		
Switch disconnecter	Description			
SEA9BNEXN	Plain front cover for additional wiring space			
SEA9BNEX034N	Mounting of DIN devices, overall door and cutout for 17 x 18mm poles			
SEA9BNEXA14N	Single phase add on distribution board 14 way			

SEA9BN8SXS



Side extension enclosures				
Reference	Description	No of rows	Total 18mm SP ways	Dimensions as
SEA9BN4SXS	Slotted front cover + overall door	2	34	SEA9BN4
SEA9BN8SXS	Slotted front cover + overall door	2	34	SEA9BN8
SEA9BN12SXS	Slotted front cover + overall door	3	51	SEA9NB12
SEA9BN16SXS	Slotted front cover + overall door	4	68	SEA9NB16
SEA9BN24SXS	Slotted front cover + overall door	5	85	SEA9NB24
SEA9BN4SXP	Plain front cover + overall door	2	34	SEA9BN4
SEA9BN8SXP	Plain front cover + overall door	2	34	SEA9BN8
SEA9BN12SXP	Plain front cover + overall door	3	51	SEA9NB12
SEA9BN16SXP	Plain front cover + overall door	4	68	SEA9NB16
SEA9BN24SXP	Plain front cover + overall door	5	85	SEA9NB24

SEA9BN8SXP



SEA9NEK2

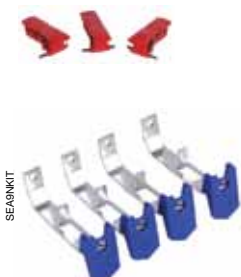


Accessories	
Reference	Description
SEA9BL	Door lock
SEA9PD	Padlock kit for door
SEA9NEK1	Extra earth terminal bar 14 hole
SEA9NEK2	Extra earth terminal bar 20 hole
SEA9NEK3	Extra earth terminal 26 hole
SEA9LA	Pack of 3 padlock attachment MCB
SEA9BN63SPL	Split load kit 63 amp
SEA9BNSJKN	Side joining kit
SEA9BNTJKA	Top/bottom joining kit for enc/ext/enc
SEA9BNTJKB	Top bottom kit replacing gland plate
SEA9BNTJKN	Joining kit B board top/bottom
SEA9BP	Blank pole
SEA9BP25	Pack of 25 x 5 pole filler
SEA9BP5	Single 5 pole filler
SEA9TB1001	100 amp terminal block 1 pole
SEA9BNBCE25	Clean earth B boards 25 hole
SEA9BNWL	TP&N Labels
SEA9BNC	Neutral shroud (spare)
SEA9NB4	Distributed neutral for 4 way TP+N
SEA9NB6	Distributed neutral for 6 way TP+N
SEA9NB8	Distributed neutral for 8 way TP+N
SEA9NB12	Distributed neutral for 12 way TP+N
SEA9NB16	Distributed neutral for 16 way TP+N
SEA9NB18	Distributed neutral for 18 way TP+N
SEA9NB24	Distributed neutral for 24 way TP+N
SEA9NKIT	Phase to neutral conversion kit (pack 4)
SEA9ISOKEY	Pack of 5 disconnecter keys
SEA9BGPEXN	Gland plate for Acti9 Isobar 4 extension
SEA9FCF	Pack of 10 cover fixing screws

SEA9TB1001



SEA9NKIT



1

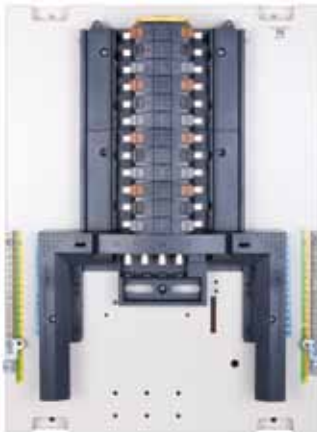
SEA9BN6PS



SEA9BN8P



SEA9BN8E



SEA9BN6TN

**Pan assemblies - 3 phase without distributed neutral, supplied without mounting plate**

Reference	Description
SEA9BN4PS	Pan assembly 4 way TP&N
SEA9BN6PS	Pan assembly 6 way TP&N
SEA9BN8PS	Pan assembly 8 way TP&N
SEA9BN12PS	Pan assembly 12 way TP&N
SEA9BN16PS	Pan assembly 16 way TP&N
SEA9BN18PS	Pan assembly 18 way TP&N
SEA9BN24PS	Pan assembly 24 way TP&N

**Pan assemblies - replacement for Acti 9 Isobar and Isobar 4c distribution boards**

Reference	Description
SEA9BN4P	B board replacement pan assembly
SEA9BN6P	B board replacement pan assembly
SEA9BN8P	B board replacement pan assembly
SEA9BN12P	B board replacement pan assembly
SEA9BN16P	B board replacement pan assembly
SEA9BN18P	B board replacement pan assembly
SEA9BN24P	B board replacement pan assembly

**Pan assemblies - for switchboard mounting supplied with earths and neutral, phase coloured Isobar switch disconnectors**

Reference	Description
SEA9BN4E	Pan assembly 4 way TP+ earth and neutral
SEA9BN6E	Pan assembly 6 way TP+ earth and neutral
SEA9BN8E	Pan assembly 8 way TP+ earth and neutral
SEA9BN12E	Pan assembly 12 way TP+ earth and neutral
SEA9BN16E	Pan assembly 16 way TP+ earth and neutral
SEA9BN18E	Pan assembly 18 way TP+ earth and neutral
SEA9BN24E	Pan assembly 24 way TP+ earth and neutral

**Pan assemblies - for switchboard mounting supplied with earths and neutral, black Isobar switch disconnectors**

Reference	Description
SEA9BN4PEV	Pan assembly 4 way TP+ earth and neutral
SEA9BN6PEV	Pan assembly 6 way TP+ earth and neutral
SEA9BN8PEV	Pan assembly 8 way TP+ earth and neutral
SEA9BN12PEV	Pan assembly 12 way TP+ earth and neutral
SEA9BN16PEV	Pan assembly 16 way TP+ earth and neutral
SEA9BN18PEV	Pan assembly 18 way TP+ earth and neutral
SEA9BN24PEV	Pan assembly 24 way TP+ earth and neutral

**Pan assemblies - 3 phase without distributed neutral, supplied fitted on a mounting plate**

Reference	Description
SEA9BN4TN	4 TP&N way panel fixing pan assembly
SEA9BN6TN	6 TP&N way panel fixing pan assembly
SEA9BN8TN	8 TP&N way panel fixing pan assembly
SEA9BN12TN	12 TP&N way panel fixing pan assembly
SEA9BN16TN	16 TP&N way panel fixing pan assembly
SEA9BN18TN	18 TP&N way panel fixing pan assembly
SEA9BN24TN	24 TP&N way panel fixing pan assembly

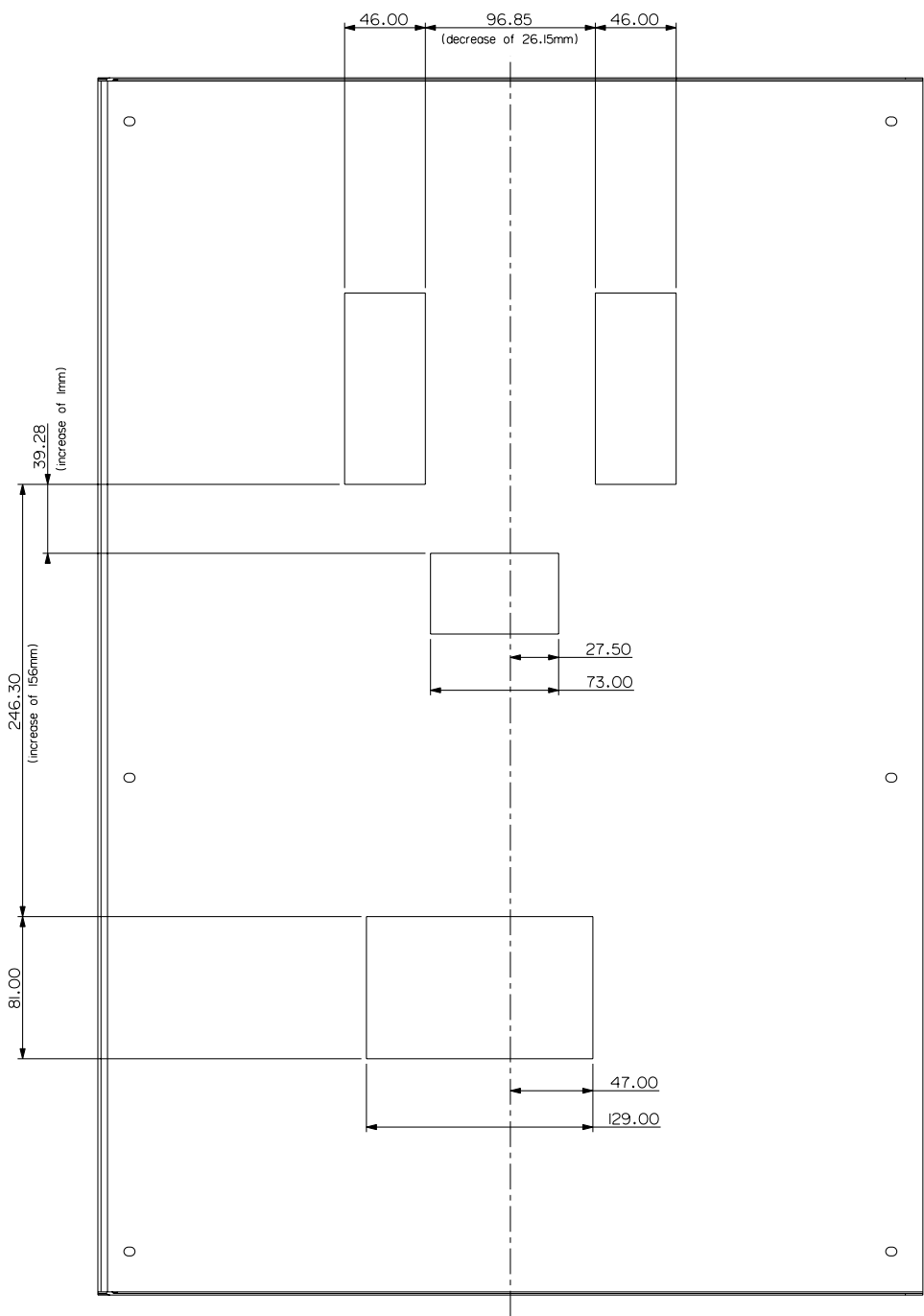
**Door and cover assemblies**

Reference	Description
SEA9BN4C	4 way door and cover
SEA9BN6C	6 way door and cover
SEA9BN8C	8 way door and cover
SEA9BN12C	12 way door and cover
SEA9BN16C	16 way door and cover
SEA9BN18C	18 way door and cover
SEA9BN24C	24 way door and cover



Pan assemblies - accessories	
Reference	Description
SEA9NPB250TB	250 amp incoming terminal block for E/PEV
SEA9BINCKIT	MCCB/Interpact connection kit for use with SEA9NPB250TB
SEA9TB2253	225 amp terminal block for PS/TN

Dimensions (mm)





*iC60H circuit breakers (curve B, C, D) . . . . .*pages 2/2 to 2/4

*iC60H and iC60H2 RCB0 10, 30 and 100 mA. . . . .*pages 2/5 to 2/8

*Vigi iC60 add-on residual current devices. . . . .*pages 2/9 to 2/12

    A type . . . . . pages 2/9 to 2/10

    SI type . . . . . page 2/11

    AC type . . . . . page 2/12

*iID residual current circuit breakers . . . . .*pages 2/13 to 2/16

    A type . . . . . page 2/13

    SI type . . . . . page 2/14

    AC, A, SI type . . . . . pages 2/15 to 2/16

*Electrical auxiliaries for iC60, iID, iDPN Vigi, RCA and ARA. . . . .*pages 2/17 to 2/23

*Accessories for iC60, iID, iDPN Vigi, Reflex iC60, RCA*

*ARA and iSW. . . . .*pages 2/24 to 2/29



### BS/EN 60947-2

### BS/EN 60898-1

- iC60H 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 according to IEC/EN 60947-2, standard.
  - 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/EN 60947-2						Service breaking capacity (Ics)
Voltage (Ue)						
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	70 kA	70 kA	70 kA	50 kA	100 % of Icu
	6 to 40 A	42 kA	30 kA	15 kA	10 kA	50 % of Icu
	50/63 A	42 kA	-	15 kA	10 kA	50 % of Icu

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

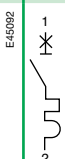

Voltage (Ue)	
Ph/Ph	400 V
Ph/N	230 V
Rating (In)	1 to 63 A 10000 A

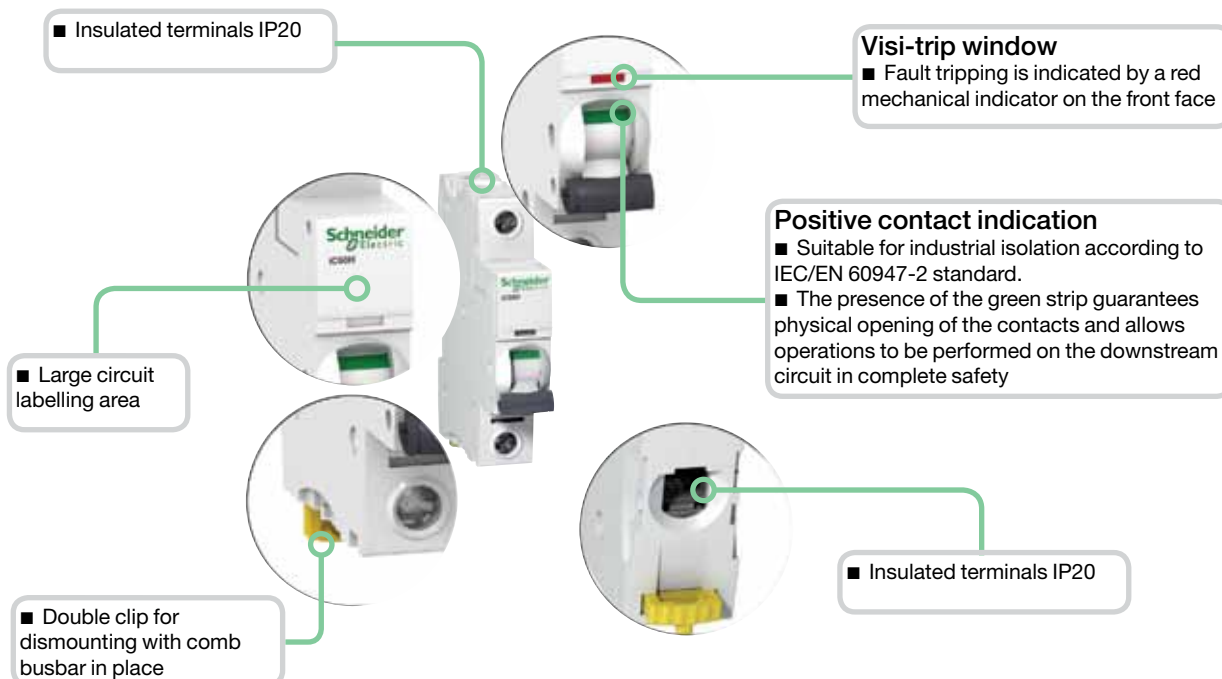
#### Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2						Service breaking capacity (Ics)
	Voltage (Ue)					
Between +/-	12 to 48 V	72 V	100 to 133 V		220 to 250 V	
Number of poles	1P		2P (in series)	3P (in series)	4P (in series)	
Rating (In)	1 to 63 A	20 kA	10 kA	10 kA	10 kA	100 % of Icu

## Catalogue numbers

### iC60H circuit breaker

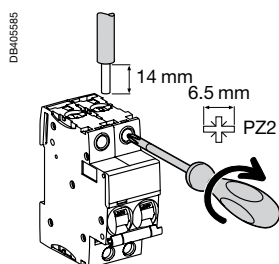
Type	1P			2P		
						
Current rating (In)	Curve			Curve		
	B	C	D	B	C	D
1 A	A9F53101	A9F54101	A9F55101	A9F53201	A9F54201	A9F55201
2 A	A9F53102	A9F54102	A9F55102	A9F53202	A9F54202	A9F55202
3 A	A9F53103	-	-	-	-	-
4 A	A9F53104	A9F54104	A9F55104	A9F53204	A9F54204	A9F55204
6 A	A9F53106	A9F54106	A9F55106	A9F53206	A9F54206	A9F55206
10 A	A9F53110	A9F54110	A9F55110	A9F53210	A9F54210	A9F55210
16 A	A9F53116	A9F54116	A9F55116	A9F53216	A9F54216	A9F55216
20 A	A9F53120	A9F54120	A9F55120	A9F53220	A9F54220	A9F55220
25 A	A9F53125	A9F54125	A9F55125	A9F53225	A9F54225	A9F55225
32 A	A9F53132	A9F54132	A9F55132	A9F53232	A9F54232	A9F55232
40 A	A9F53140	A9F54140	A9F55140	A9F53240	A9F54240	A9F55240
50 A	A9F53150	A9F54150	A9F55150	A9F53250	A9F54250	A9F55250
63 A	A9F53163	A9F54163	A9F55163	A9F53263	A9F54263	A9F55263
Width in 9-mm modules	2			4		








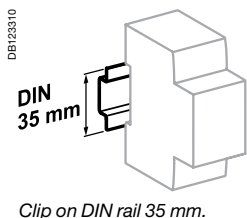
- Increased product service life thanks to:
  - overvoltage resistance by high level of industrial performances conception (pollution degree, rated impulse withstand voltage and insulation voltage),
  - high performance limitation (see limitation curves),
  - fast closing independent of the speed of actuation of the toggle.
- Remote indication, open/closed/tripped, by optional auxiliary contacts.
- Top or bottom electrical feeding.

3P			4P		
Curve			Curve		
B	C	D	B	C	D
A9F53301	A9F54301	A9F55301	A9F53401	A9F54401	A9F55401
A9F53302	A9F54302	A9F55302	A9F53402	A9F54402	A9F55402
-	-	-	-	-	-
A9F53304	A9F54304	A9F55304	A9F53404	A9F54404	A9F55404
A9F53306	A9F54306	A9F55306	A9F53406	A9F54406	A9F55406
A9F53310	A9F54310	A9F55310	A9F53410	A9F54410	A9F55410
A9F53316	A9F54316	A9F55316	A9F53416	A9F54416	A9F55416
A9F53320	A9F54320	A9F55320	A9F53420	A9F54420	A9F55420
A9F53325	A9F54325	A9F55325	A9F53425	A9F54425	A9F55425
A9F53332	A9F54332	A9F55332	A9F53432	A9F54432	A9F55432
A9F53340	A9F54340	A9F55340	A9F53440	A9F54440	A9F55440
A9F53350	A9F54350	A9F55350	A9F53450	A9F54450	A9F55450
A9F53363	A9F54363	A9F55363	A9F53463	A9F54463	A9F55463
6			8		

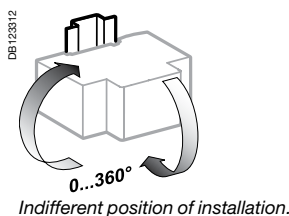
### Connection



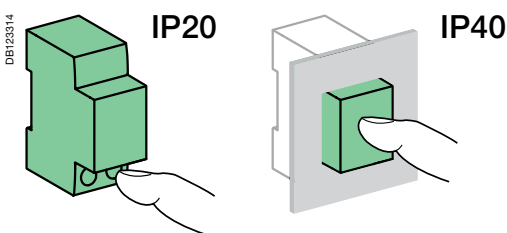
		Without accessory		With accessories			
Rating	Tightening torque	Copper cables		50 mm² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal	
		Rigid	Flexible or ferrule			Rigid cables	Flexible cables
		DB122945 	DB122946 	DB122935 	DB118789 	DB118787 	
1 to 25 A	2 N.m	1 to 25 mm²	1 to 16 mm²	-	Ø 5 mm	-	-
32 to 63 A	3.5 N.m	1 to 35 mm²	1 to 25 mm²	50 mm²		3 x 16 mm²	3 x 10 mm²



Clip on DIN rail 35 mm.



Indifferent position of installation.



### Technical data

#### Main characteristics

##### According to IEC/EN 60947-2

Insulation voltage (Ui)	500 V AC
Pollution degree	3
Rated impulse withstand voltage (Uimp)	6 kV
Thermal tripping	Reference temperature 50°C
Magnetic tripping	B curve 4 I <sub>n</sub> ± 20 % C curve 8 I <sub>n</sub> ± 20 % D curve 12 I <sub>n</sub> ± 20 %
Utilization category	A

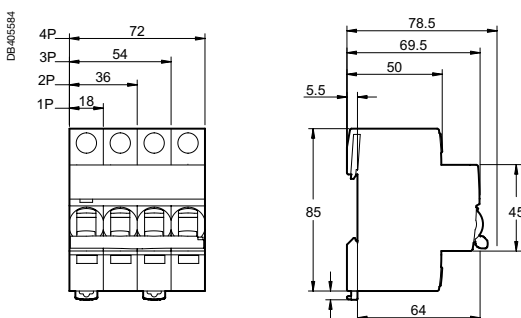
##### According to IEC/EN 60898-1

Limitation class	3
Rated making and breaking capacity of an individual pole (I <sub>cn1</sub> )	I <sub>cn1</sub> = I <sub>cn</sub>

#### Additional characteristics

Breaking capacity	40 A	4 kA
under 1 pole with IT 380-415 V isolated neutral system (case of double fault)	50/63 A	3 kA
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)

### Dimensions (mm)



### Weight (g)

#### Circuit-breaker

Type	iC60H
1P	125
2P	250
3P	375
4P	500





IEC 61009-1,  
IEC 61009-2-2,  
BS EN 61009-1

- The single-phase iC60H RCBO's self-contained residual current device carries out complete protection of final circuits:
  - protection against short-circuits and cable overloads
  - protection of persons against electric shock by direct contact (10, 30 mA sensitivities),
  - protection of equipment against fires set by leakage currents (100 mA sensitivity).
- The neutral is not interrupted when the device is tripped. Hence iC60H RCBO can be used on most circuits, except for the ones operating under TT or IT earthing systems when the neutral needs to be isolated.

2

#### Alternating current (AC) 50/60 Hz

Breaking capacity (I<sub>cn</sub>) according to IEC 61009-1


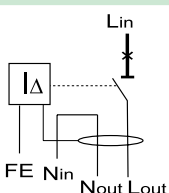
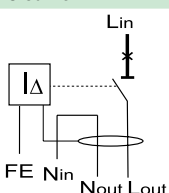
		Voltage (U <sub>e</sub> )	
Ph/N		110 V	240 V
Rating (I <sub>n</sub> )	6 to 45 A	10000 A	10000 A

#### Accessory

##### Padlocking device

- A9A27049 for pack of 10. Used to lock the toggle in the "open" or "closed" position by 4 mm diameter padlock (not supplied).

## Catalogue numbers

iC60H RCBO 10000							
1P+N			A 			Width in 9-mm modules	
B curve	Voltage rating (V)	Sensitivity (IΔn)	10 mA	30 mA	100 mA		
	240	Rating (In)	6 A	-	A9D31806	-	2
		10 A	-	A9D31810	-		
		16 A	-	A9D31816	-		
		20 A	-	A9D31820	-		
		25 A	-	A9D31825	-		
		32 A	-	A9D31832	-		
		40 A	-	A9D31840	-		
		45 A	-	A9D31845	-		
		C curve	Voltage rating (V)	Sensitivity (IΔn)	10 mA	30 mA	
	110	Rating (In)	10 A	-	A9D19810	-	2
		16 A	-	A9D19816	-		
		20 A	-	A9D19820	-		
		25 A	-	A9D19825	-		
		32 A	-	A9D19832	-		
	240	Rating (In)	6 A	A9D10806	A9D11806	A9D12806	
		10 A	A9D10810	A9D11810	A9D12810		
		16 A	A9D10816	A9D11816	A9D12816		
		20 A	A9D10820	A9D11820	A9D12820		
		25 A	A9D10825	A9D11825	A9D12825		
		32 A	A9D10832	A9D11832	A9D12832		
		40 A	A9D10840	A9D11840	A9D12840		
		45 A	A9D10845	A9D11845	A9D12845		
		Operating frequency			50...60 Hz		

Accessory	
Type	
Padlocking device (bag of 10 pieces)	A9A27049



IEC 61009-1,  
IEC 61009-2-2,  
AS/NZS 61009.1

- The 2-pole iC60H2 RCBO's self-contained residual current device carries out
- complete protection of final circuits:
  - protection against short-circuits and cable overloads,
  - protection of persons against electric shock by direct contact (30 mA sensitivities),
  - protection of equipment against fires set by leakage currents (300 mA sensitivity).
- iC60H2 RCBO switches neutral, together with phase. It is therefore suitable for all circuits, whatever the earthing system (except for TN-C).

Alternating current (AC) 50/60 Hz

Breaking capacity (Icn) according to IEC 61009-1

Ph/N, Ph/Ph	Voltage (Ue)	
	110 V	240 V
Rating (In)	10 to 32 A	10000 A


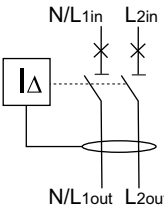
Accessory

Padlocking device

- A9A27049 for pack of 10. Used to lock the toggle in the "open" or "closed" position by 4 mm diameter padlock (not supplied).

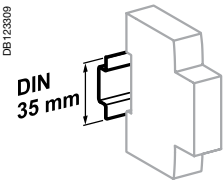
Catalogue numbers

iC60H2 RCBO 10000

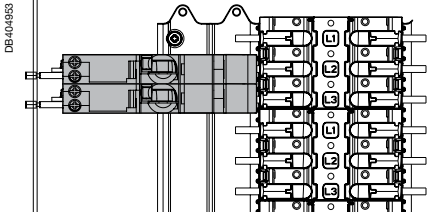
2P				A 	Width in 9-mm modules
C curve	Voltage rating (V)	Sensitivity (IΔn)		30 mA	4
	110	Rating (In)	10 A	A9D19210	
			16 A	A9D19216	
			20 A	A9D19220	
			25 A	A9D19225	
			32 A	A9D19232	
	240	Rating (In)	10 A	A9D11210	
			16 A	A9D11216	
			20 A	A9D11220	
			25 A	A9D11225	
			32 A	A9D11232	
Operating frequency				50...60 Hz	

Technical data

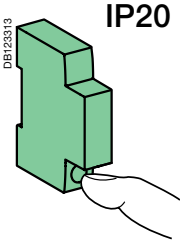
Main characteristics		iC60H RCBO	iC60H2 RCBO
Insulation voltage (Ui)		400 V AC	
Rated impulse withstand voltage (Uimp)		4 kV	
Rated residual operating current (IΔn)		10, 30, 100 mA	30 mA
Thermal tripping	Reference temperature	50°C	
Limitation class		3	
Surge current withstand (8/20 μs) without tripping		250 A	
Rated nominal breaking capacity (Icn)		10,000 A	10,000 A
Phase/earth rated residual breaking and making capacity (IΔm)		7,500 A	7,500 A
Additional characteristics			
Degree of protection	Device only	IP20	
	Device in modular enclosure	IP40	
Endurance (O-C)	Electrical	5,000 cycles	
	Mechanical	20,000 cycles	
Operating temperature		-15°C to +60°C	
Storage temperature		-40°C to +85°C	
Tropicalization		Treatment 2 (relative humidity: 95 % at 55°C)	



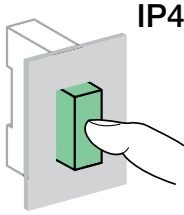
Clip on DIN rail 35 mm.



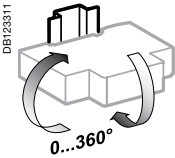
Installation on Isobar.



IP20



IP40

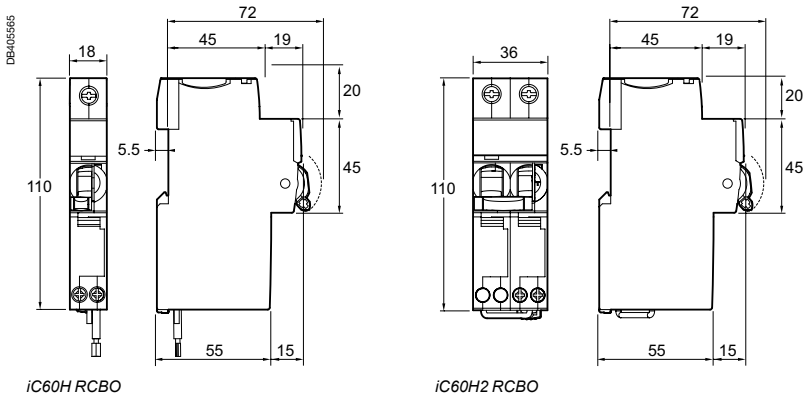


Indifferent position of installation.

Weight (g)

iC60 RCBO	
iC60H RCBO	205
iC60H2 RCBO	332

Dimensions (mm)



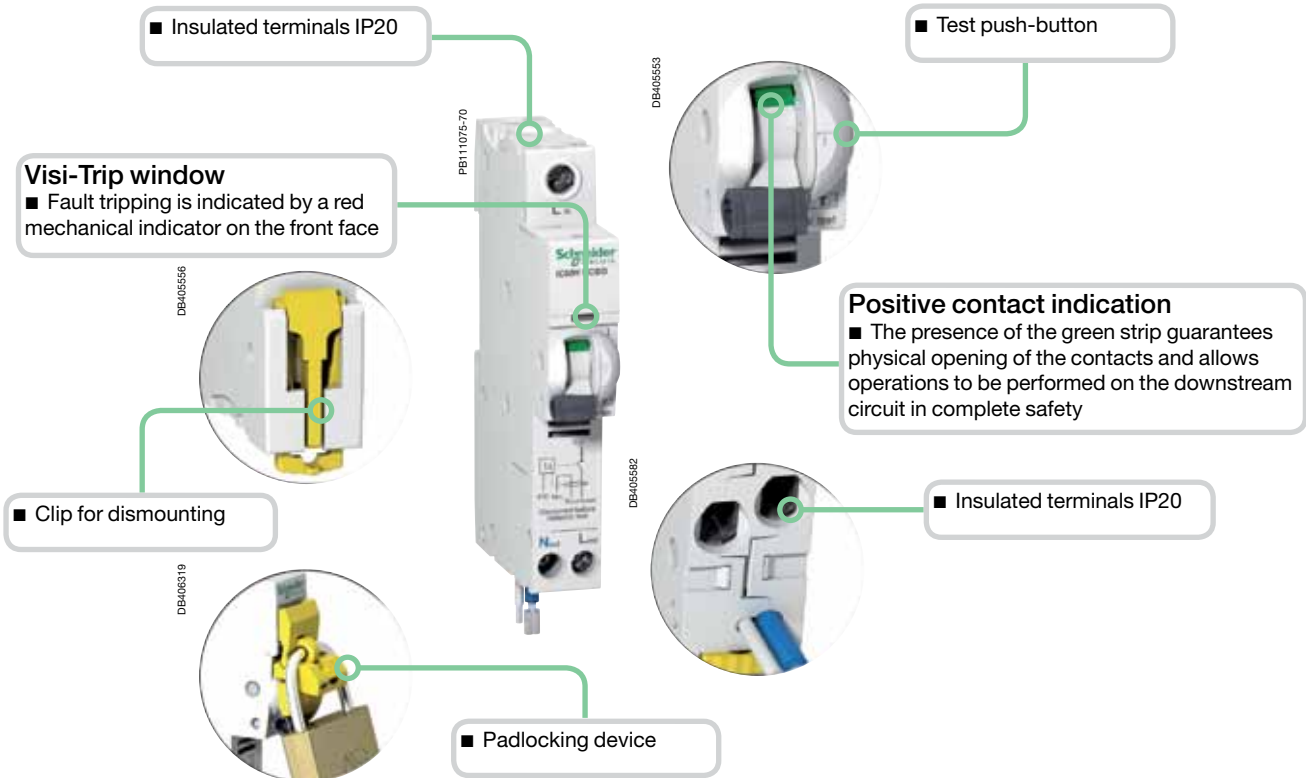
Protection

Earth leakage protection

iC60H RCBO

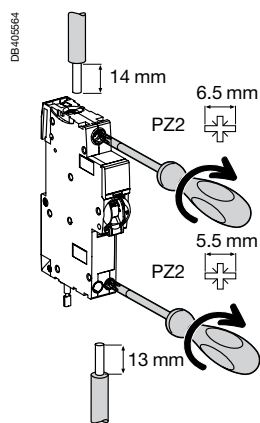
10, 30 and 100mA (cont.)

2



- Increased product service life thanks to fast closing independent of the speed of actuation of the toggle.
- Remote indication, open/closed/tripped, by optional auxiliary contacts.

Connection



Type	Rating	Tightening torque	Copper cables	
			Rigid	Flexible
N in and L in L out and N out	6 to 45 A	3.5 N.m	DB122345	DB122346
		2 N.m	1 to 25 mm <sup>2</sup> 1 to 16 mm <sup>2</sup>	1 to 16 mm <sup>2</sup> 1 to 10 mm <sup>2</sup>

IEC/EN 61009-1



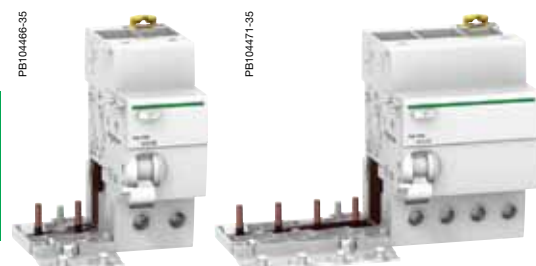
- Combined with iC60 circuit breaker, the Vigi iC60 provide:
  - protection of persons against electric shock by direct contact (30 mA),
  - protection of persons against electric shock by indirect contact ( $\geq 100$  mA),
  - protection of installations against the risk of fire (300 mA),
  - use with 1/2 pole or 3/4 pole iC60H.

Catalogue numbers

Vigi iC60 add-on residual current devices					
Type	A				Width in 9 mm modules
Product	Vigi iC60				
Auxiliaries	Without auxiliaries				
2P	Sensitivity	30 mA	100 mA	300 mA	
	Rating	25 A			3
		63 A	A9V02663 A9V01663*	A9V03663	4
4P	Sensitivity	30 mA	100 mA	300 mA	
	Rating	63 A	A9V02763	-	6
				A9V06763	
Voltage rating (Ue)		230 - 240 V, 400 - 415 V Except * 110 V			
Operating frequency		50/60 Hz			

IEC/EN 61009-1

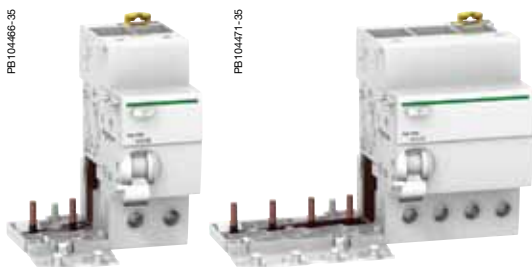
2



- Combined with iC60 circuit breaker, the Vigi iC60 provide:
  - protection of persons against electric shock by direct contact (30 mA),
  - protection of persons against electric shock by indirect contact ( $\geq 100$  mA),
  - protection of installations against the risk of fire (300 mA or 500 mA)),
  - use with 2 pole or 4 pole iC60H only.

## Catalogue numbers

Vigi iC60 add-on residual current devices									
Type	A							Width in 9 mm modules	
Product	Vigi iC60								
Auxiliaries	Without auxiliaries								
2P	Sensitivity	30 mA	100 mA	300 mA	500 mA	300 mA	1000 mA		
	Rating	25 A	A9V51225	A9V22225	A9V54225	A9V26225	-	-	3
		63 A	A9V51263	A9V22263	A9V54263	A9V26263	A9V25263	A9V29263	4
4P	Sensitivity	30 mA	100 mA	300 mA	500 mA	300 mA	1000 mA		
	Rating	25 A	A9V51425	A9V22425	A9V54425	A9V26425	-	-	6
		63 A	A9V51463	A9V22463	A9V54463	A9V26463	A9V25463	A9V29463	7
Voltage rating (Ue)		230 - 240 V, 400 - 415 V							
Operating frequency		50/60 Hz							



IEC/EN 61009-1

- Combined with iC60 circuit breaker, the Vigi iC60 provide:
  - protection of persons against electric shock by direct contact ( $\leq 30$  mA),
  - protection of persons against electric shock by indirect contact ( $\geq 300$  mA),
  - protection of installations against the risk of fire (300 mA),
  - use with 2 pole or 4 pole iC60H only.

The *SI* type provides increased immunity from electrical interference and polluted or corrosive environments.

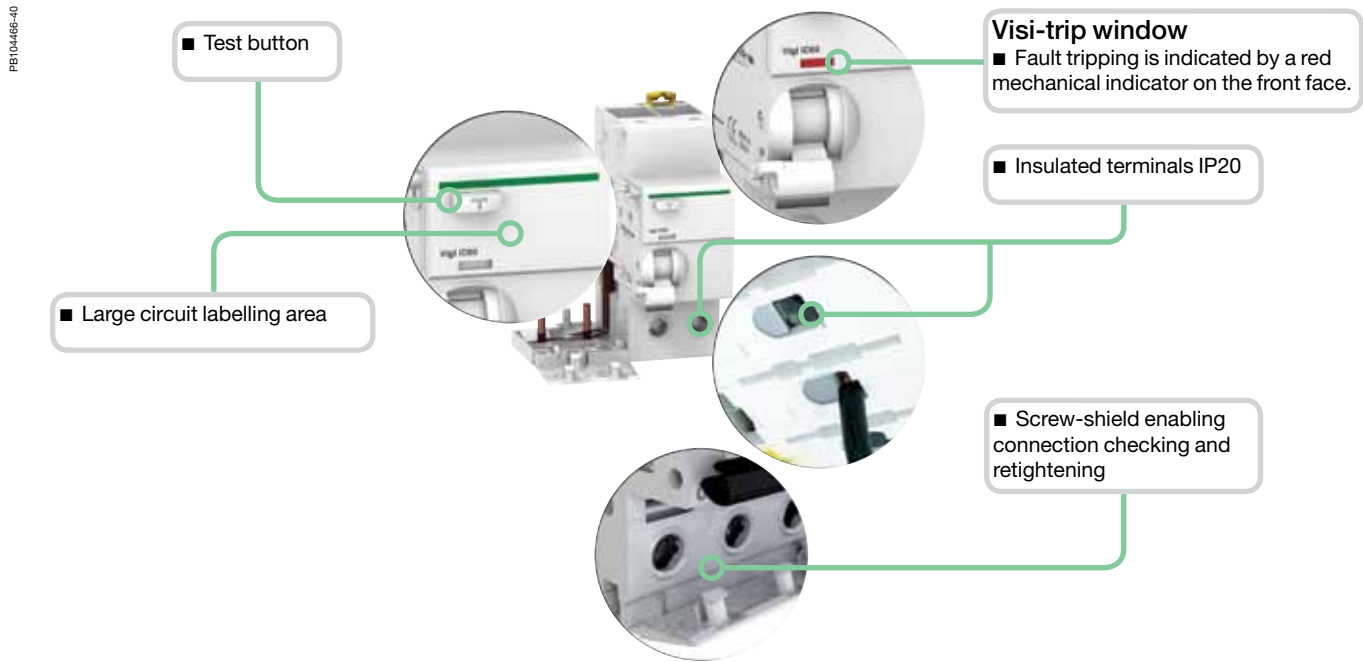
Catalogue numbers

Vigi iC60 add-on residual current devices						
Type	<i>SI</i>					Width in 9 mm modules
Product	Vigi iC60					
Auxiliaries	Without auxiliaries					
2P	Sensitivity	10 mA	30 mA	300 mA	1000 mA	
	Rating	25 A	A9V30225	A9V61225	-	3
		40 A	-	A9V61240	-	4
		63 A	-	A9V61263	A9V65263	4
4P	Sensitivity	10 mA	30 mA	300 mA	1000 mA	
	Rating	25 A	-	A9V61425	-	6
		40 A	-	A9V61440	-	7
		63 A	-	A9V61463	A9V65463	7
Voltage rating (Ue)		230 - 240 V, 400 - 415 V				
Operating frequency		50/60 Hz				

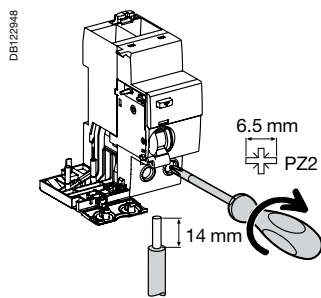
Protection  
Earth leakage protection



Vigi iC60 add-on residual  
current devices (AC type)

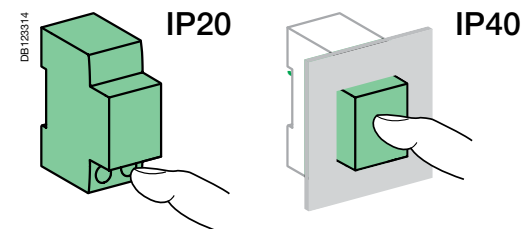
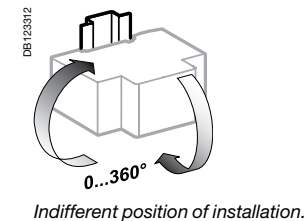
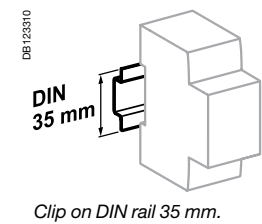
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

Connection



Type	Rating	Tightening torque	Copper cables	
			Rigid	Flexible or ferrule
Vigi iC60	25 A	2 N.m		
	40 to 63 A	3.5 N.m	1 to 35 mm <sup>2</sup>	1 to 25 mm <sup>2</sup>



Technical data

Main characteristics		
Insulation voltage (Ui)		500 V
Pollution degree		3
Rated impulse withstand voltage (Uimp)		6 kV
According to IEC/EN 61009-1		
Surge current withstand (8/20 μs) without tripping	A type (no selective 	250 Å
	A type (selective 	3 kÅ
Additional characteristics		
Degree of protection	Device only	IP20
	Device in modular enclosure	IP40 Insulation classe II
Operating temperature	AC type	-5°C to +60°C
	A and <b>SI</b> types	-25°C to +60°C
Storage temperature		-40°C to +85°C



PB10472-40



PB10473-40



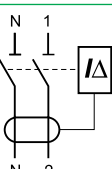

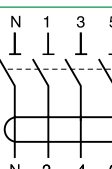



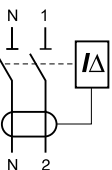
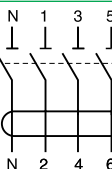
### IEC/EN 61008-1

- The iID residual current circuit breakers provide:
  - protection of persons against electric shock by direct contact ( $\leq 30$  mA),
  - protection of persons against electric shock by indirect contact ( $\geq 100$  mA),
  - protection of installations against the risk of fire (300 mA or 500 mA).

2

## Catalogue numbers

iID residual current circuit breakers								
Type	A 							Width in 9 mm module
Product	iID							
Auxiliaries								
2P	Sensitivity	10 mA	30 mA	100 mA	300 mA	500 mA	300 mA 	
	Rating	16 A	A9R20216	-	-	-	-	4
		25 A	A9R20225	A9R21225	-	A9R24225	-	
		40 A	-	A9R21240	-	A9R24240	-	
		63 A	-	A9R21263	-	A9R24263	-	
		100 A	-	A9R21291	-	A9R24291	-	
4P	Sensitivity	10 mA	30 mA	100 mA	300 mA	500 mA	300 mA 	
	Rating	25 A	-	A9R21425	-	A9R24425	-	8
		40 A	-	A9R21440	A9R22440	A9R24440	A9R26440	
		63 A	-	A9R21463	A9R22463	A9R24463	A9R26463	
		80 A	-	A9R21480	-	A9R24480	-	
		100 A	-	A9R21491	-	A9R24491	A9R26491	
Voltage rating (Ue)		2P	230 - 240 V					
		4P	400 - 415 V					
Operating frequency		50/60 Hz						

iID residual current circuit breakers for 110/230 V			
Type	A 		Width in 9 mm module
Product	iID		
Auxiliaries			
2P	Sensitivity	30 mA	
	Rating	63 A	4
		A9R08263	
4P	Sensitivity	30 mA	
	Rating	63 A	8
		A9R08463	
Voltage rating (Ue)		2P	110 V
		4P	230 V
Operating frequency		50/60 Hz	




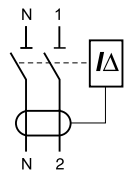


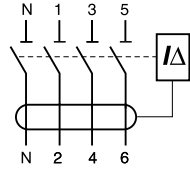


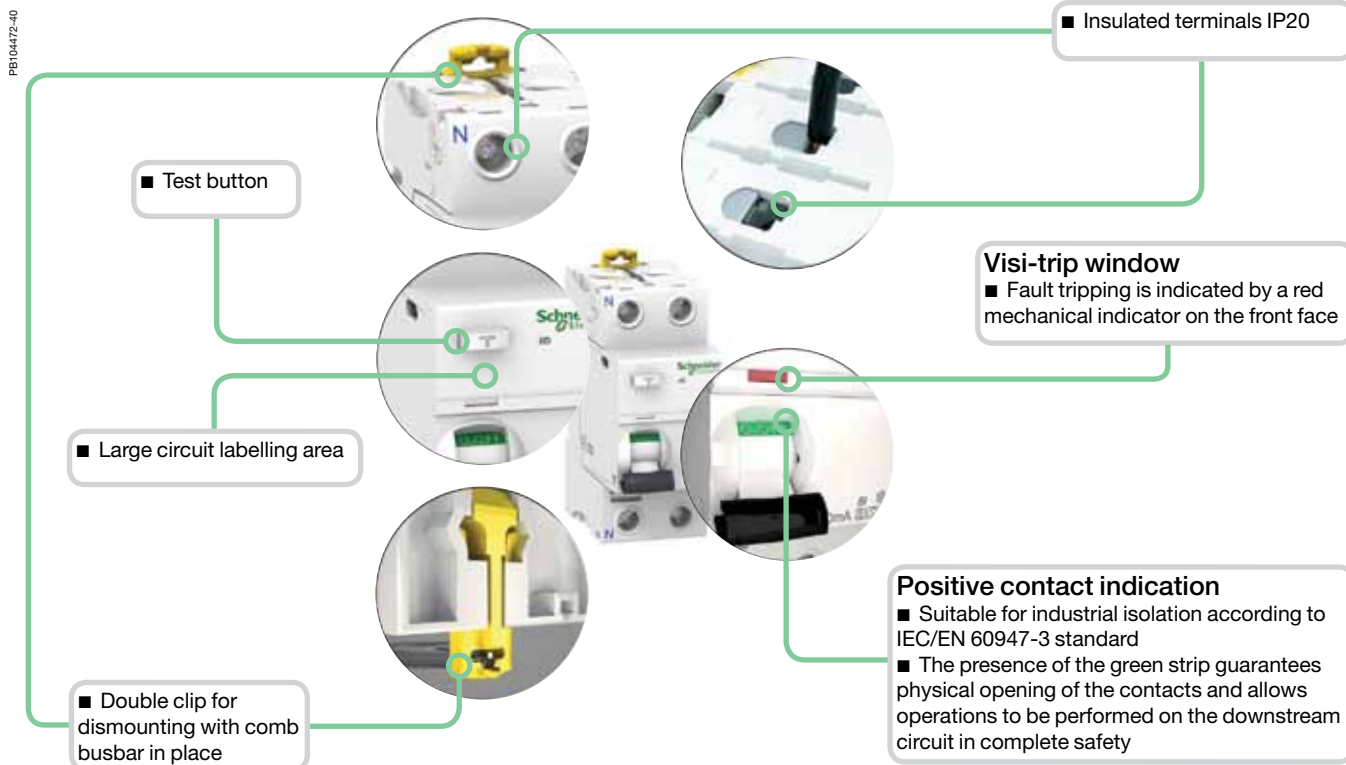
## IEC/EN 61008-1

- The iID residual current circuit breakers provide:
  - protection of persons against electric shock by direct contact ( $\leq 30$  mA),
  - protection of persons against electric shock by indirect contact ( $\geq 300$  mA),
  - protection of installations against the risk of fire (300 mA or 500 mA).

The **SI** type provides increased immunity from electrical interference and polluted or corrosive environments.

## Catalogue numbers

iID residual current circuit breakers								
Type		SI 					Width in 9 mm module	
Product		iID						
Auxiliaries								
2P		Sensitivity	10 mA	30 mA	300 mA	300 mA 	500 mA 	
	Rating	16 A	-	-	-	-	-	4
		25 A	A9R30225	A9R61225	-	-	-	
		40 A	-	A9R61240	-	A9R35240	-	
		63 A	-	A9R61263	-	A9R35263	-	
		100 A	-	-	-	A9R35291	-	
4P		Sensitivity	10 mA	30 mA	300 mA	300 mA 	500 mA 	
	Rating	25 A	-	A9R61425	-	-	-	8
		40 A	-	A9R61440	-	A9R35440	A9R37440	
		63 A	-	A9R61463	A9R34463	A9R35463	A9R37463	
		80 A	-	A9R31480	-	A9R35480	A9R37480	
		100 A	-	A9R31491	A9R34491	A9R35491	-	
Voltage rating (Ue)		2P	230 - 240 V					
		4P	400 - 415 V					
Operating frequency		50/60 Hz						



### *SI* type

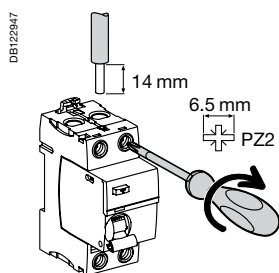
The *SI* type provides increased immunity from electrical interference and polluted or corrosive environments.

# Protection Earth leakage protection

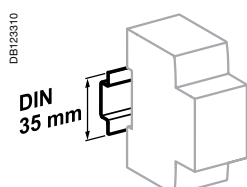
# iID residual current circuit breakers (AC, A, S/ types) (cont.)

2

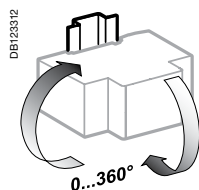
## Connection



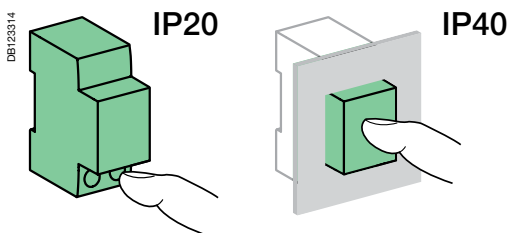
Type	Tightening torque	Without accessory		With accessories*			
		Copper cables		50 mm <sup>2</sup> Al terminal	Screw-on connection for ring terminal	Multi-cables terminal	
		Rigid	Flexible or ferrule			Rigid cables	Flexible cables
iID	3.5 N.m	DB122945 1 to 35 mm <sup>2</sup>	DB122946 1 to 25 mm <sup>2</sup>	DB122935 50 mm <sup>2</sup>	DB118789 Ø 5 mm	DB118787 3 x 16 mm <sup>2</sup>	3 x 10 mm <sup>2</sup>



Clip on DIN rail 35 mm.



Indifferent position of installation.



## Technical data

Main characteristics		
Insulation voltage (Ui)		500 V
Pollution degree		3
Rated impulse withstand voltage (Uimp)		6 kV
According to IEC/EN 61008-1		
Making and breaking capacity (Im/IΔm)		1500 A
Surge current withstand (8/20 μs) without tripping	AC and A types (no selective Ⓢ)	250 Å
	AC, A types (selective Ⓢ)	3 kÅ
	S/ type	3 kÅ
Conditional rated short circuit current (Inc/IΔc)	With C60H	15 kA
	With fuse	10,000 A
Additional characteristics		
Degree of protection	Device only	IP20
	Device in modular enclosure	IP40
		Insulation classe II
Endurance (O-C)	Electrical (AC1)	16 to 63 A 80 to 100 A
		15,000 cycles 10,000 cycles
	Mechanical	20,000 cycles
Operating temperature	AC type	-5°C to +60°C
	A and S/ types	-25°C to +60°C
Storage temperature		-40°C to +85°C

## Protection

### Circuit protection

### Earth leakage protection

■ The electrical auxiliaries are combined with iC60 circuit breakers, iLD residual current circuit breakers, remote tripping switch disconnectors iSW-NA, 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 iOF/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).

## Electrical auxiliaries for iC60, iLD, iDPN Vigì, RCA and ARA

### Tripping auxiliaries:

#### IEC/EN 60947-1

- iMN: undervoltage release
- iMNs: delayed undervoltage release
- iMNx: undervoltage release, independant from supply voltage
- iMX: shunt release
- iMX+OF: shunt release with open/close contact.

#### EN 50550

- iMSU: overvoltage release

### Indication auxiliaries:

#### IEC/EN 60947-5-1

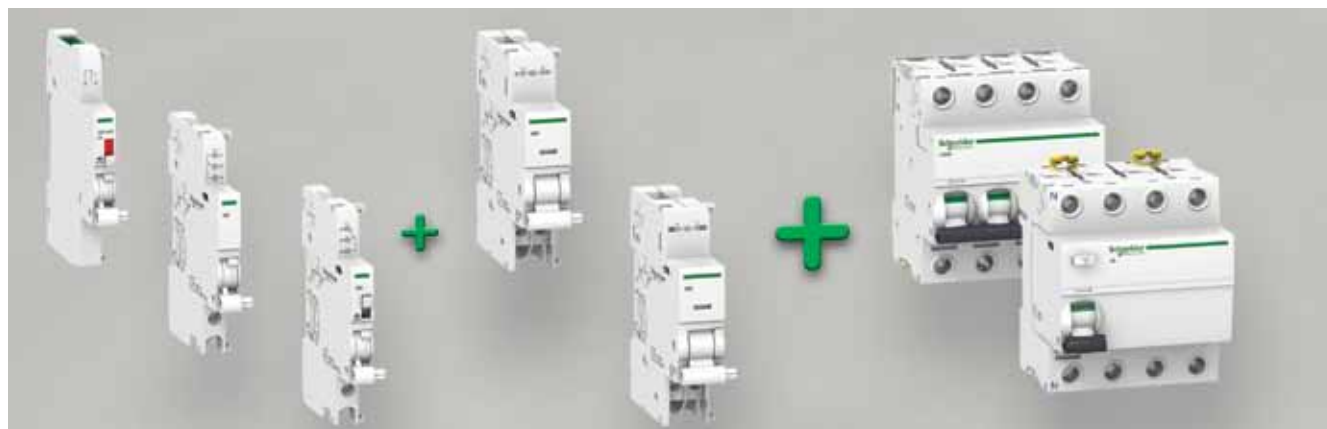
- iOF: open/close contact
- iSD: fault indicating contact
- iOF/SD+OF: open/close contact and switchable OF or SD contact.

#### IEC/EN 60947-5-4

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

2

DB404939



The mounting order for the various auxiliaries must be complied with.  
The tripping auxiliaries (iMN, iMX) should be mounted first, as close as possible to the circuit breaker or the residual current circuit breaker. Then, the indicating auxiliaries (iOF, iSD) should be mounted, complying with their position shown in the following table.

Indicating auxiliaries

PB104474-25



PB104475-25



1 (iOF/SD+OF or iOF+SD24 or iSD)  
1 iOF  
None  
None  
1 iSD

1 iOF/SD+OF  
1 (iSD or iOF or iOF/SD+OF)  
1 iOF+SD24  
None  
1 iSD

None  
1 iOF

1 (iSD or iOF or iOF/SD+OF or iOF+SD24)  
1 (iSD or iOF or iOF/SD+OF)

None  
1 iOF

1 (iSD or iOF or iOF/SD+OF or iOF+SD24)  
1 (iSD or iOF or iOF/SD+OF)

DB123593



Tripping devices must be mounted first. Comply with the position of the SD function.  
\*iSW-NA : the iSD auxiliary contact must be associated with an auxiliary (iMN, iMX, iMX+OF); it indicates that the remote tripping switch disconnecter has been tripped open.

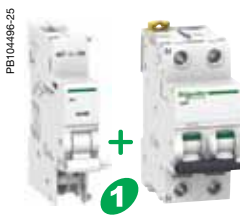










# Protection

## Circuit protection

### Earth leakage protection

## Electrical auxiliaries for iC60, iID, RCA and ARA (cont.)

2

Tripping auxiliaries	Remote control	Device	Vigi iC60
	ARA automatic recloser or RCA remote control	iC60 circuit breaker or iID residual current circuit breaker	Vigi iC60 add-on residual current device
1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU) max.	—	 iC60	 Vigi iC60
2 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU) max.	—	 iID/iSW-NA	—
2 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU) max.	—	—	—
3 iMSU max.	—	—	—
1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU) max.	—	—	—
1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU) max.	 ARA	 iC60	 Vigi iC60
None	—	 iID	—
1 (iMX or iMN or iMSU) max.	 RCA	 iC60	 Vigi iC60
None	—	—	—

# Protection




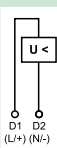
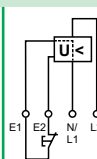
## Circuit protection

### Earth leakage protection

# Electrical auxiliaries for

## iC60, iID, iDPN Vigî, RCA and ARA

2

		Tripping						
Auxiliaries		iMN		iMNs		iMNx		
Type		Undervoltage release						
		Instantaneous		Delayed		Independent of the supply voltage		
		<div>PE104477-35</div>  <div>PE104479-35</div>		<div>PE104479-35</div>  <div>PE104480-35</div>		<div>PE104480-35</div>  <div>PE104480-35</div>		
Function		<div>■ Trips the device with which it is combined when its input voltage decreases (between 70 % and 35 % <math>U_n</math>). Prevents device closing again until its input voltage is restored</div>				<div>■ Tripping of the associated device by opening of the control circuit (e.g. push-button, dry contact)</div>		
				<div>■ Not tripping on transient voltage dip (up to 0.2 s)</div>		<div>■ A drop in the supply voltage does not trip the associated device</div> <div>■ A locking push-button control allows the circuit protected (e.g. machine control) to be placed in safety configuration</div>		
Wiring diagrams		<div>DB118804</div>  <div>D1 D2 (L+) (N-)</div>				<div>DB118805</div>  <div>E1 E2 N/ L2 L1</div>		
Use		<div>■ Emergency stoppage by normally closed push button</div> <div>■ Ensures the safety of power supply circuits for several machines by preventing "uncontrolled" restarting</div>				<div>■ Emergency stoppage with fail-safe principle</div> <div>■ Insensitive to control circuit voltage variation to increase service continuity</div> <div><b>Important: Before any servicing operation switch off the mains power supply (voltage presence at terminals E1/E2)</b></div>		
Catalogue numbers		A9A26960	A9A26961	A9A26959	A9A26963	A9A27108	A9A26969	A9A26971
iC60, iID, iDPN Vigi, RCA and ARA		■	■	■	■	■	■	■
Technical specifications								
Rated voltage (Ue)	V AC	220...240	48	115	220...240	24	220...240	380...415
	V DC	—	48	—	—	24	—	—
Standardised operating and non-response to voltage times (Ua)*		—	—	—	—	—	—	—
Maximum operating time		—	—	—	—	—	—	—
Minimum non-response time		—	—	—	—	—	—	—
Operating frequency	Hz	50/60		400	50/60		50/60	
Red mechanical indicator		On front face			On front face		On front face	
Test function		—			—		—	
Width in 9 mm modules		2			2		2	
Operating current		—			—		—	
Number of contacts		—			—		—	
Operating temperature	°C	-35...+70			-35...+70		-35...+70	
Storage temperature	°C	-40...+85			-40...+85		-40...+85	

\*( $U_a$ )  
 Voltages measured between the phase and the neutral conductor, at which the iMSU device must control the associated protective device.



# Protection

## Circuit protection




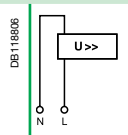
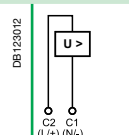
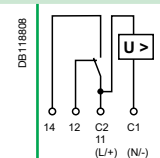
## Earth leakage protection

# Electrical auxiliaries for

## iC60, iID, iDPN Vigi, RCA and ARA

## (cont.)

2

iMSU					iMX			iMX+OF		
Overvoltage release					Shunt release			With Open/Close auxiliary contact		
										
<p>■ 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</p>					<p>■ Trips the breaker when powered</p>			<p>■ Includes an open/close contact (OF) to indicate the "open" or "closed" position of the breaker</p>		
										
<p>■ Protection of equipment against overvoltages on the electrical network (neutral conductor break)</p> <p>■ Voltage monitoring between phase and neutral conductors</p>					<p>■ Emergency stoppage by normally open push button</p>			<p>■ Emergency stoppage by normally open push button</p> <p>■ Remote indication of the position of the associated breaker</p>		
A9A26500					A9A26476	A9A26477	A9A26478	A9A26946	A9A26947	A9A26948
■					■	■	■	■	■	■
230					100...415	48	12...24	100...415	48	12...24
–					110...130	48	12...24	110...130	48	12...24
255 V AC	275 V AC	300 V AC	350 V AC	400 V AC	–	–	–	–	–	–
No tripping	15 s	5 s	0.75 s	0.20 s	–	–	–	–	–	–
	3 s	1 s	0.25 s	0.07 s	–	–	–	–	–	–
50/60					50/60			50/60		
On front face					On front face			On front face		
–					–			–		
2					2			2		
–					–			≤ 24 V DC 10 mA mini, 6 A maxi 48 V DC 2 A ≤ 130 V DC 1 A ≤ 240 V AC 6 A 415 V AC 3 A		
–					–			1 NO/NC		
–35...+70					–35...+70			–35...+70		
–40...+85					–40...+85			–40...+85		

# Protection

## Circuit protection





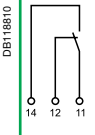
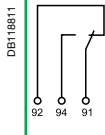
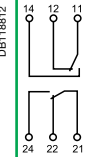
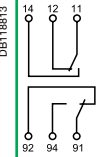
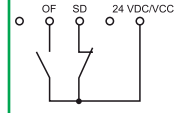
### Earth leakage protection

# Electrical auxiliaries for

## iC60, iID, iDPN Vigì, RCA and ARA

### (cont.)

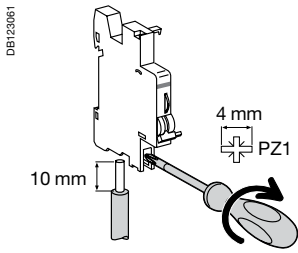
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		Indication			
Auxiliaries		iOF	iSD	iOF/SD+OF	iOF+SD24
Type		Open/close auxiliary contact	Fault indicating contact	Double open/close or fault indicating contact	Double open/close and fault indicating contact
					
Function		<ul style="list-style-type: none"> <li>Changeover contact indicates "open" or "closed" position of the breaker</li> </ul>	<ul style="list-style-type: none"> <li>Changeover contact indicates position of the breaker; upon: <ul style="list-style-type: none"> <li>electrical fault</li> <li>action on tripping auxiliary</li> </ul> </li> <li>Same indication as VISI-TRIP</li> </ul>	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>2 contacts (1 NO + 1 NC) can report the signalling information of the associated device to the Acti 9 Smartlink or a programmable logic controller: <ul style="list-style-type: none"> <li>electrical fault</li> <li>actuation of the tripping auxiliary</li> <li>"Open" or "Closed" position of the associated device</li> </ul> </li> </ul>
Wiring diagrams				 	
				OF position	SD position
Use		<ul style="list-style-type: none"> <li>Remote indication of the position of the associated breaker</li> </ul>	<ul style="list-style-type: none"> <li>Remote indication of tripping upon a fault of the associated breaker</li> </ul>	<ul style="list-style-type: none"> <li>Remote indication of position and/or tripping upon a fault of the associated breaker</li> </ul>	<ul style="list-style-type: none"> <li>Remote indication of position and tripping upon a fault of the associated breaker</li> </ul>
Catalogue numbers		A9A26924	A9A26927	A9A26929	A9A26897
iC60, iID, iDPN Vigì, RCA and ARA		■	■	■	■
Technical specifications					
Rated voltage (Ue)	V AC	240...415	240...415	240...415	-
	V DC	24...130	24...130	24...130	24
Operating frequency	Hz	50/60	50/60	50/60	-
Red mechanical indicator		-	On front face	On front face	On front face
Test function		On toggle	On toggle	On toggle	On toggle
Width in 9 mm modules		1	1	1	1
Operating current	24 V DC	10 mA mini, 6 A maxi			2 mA mini, 50 mA maxi
	48 V DC	2 A			-
	60 V DC	1.5 A			-
	130 V DC	1 A			-
	240 V AC	6 A			-
	415 V AC	3 A			-
Number of contacts		1 NO/NC	1 NO/NC	1 NO/NC + 1 NO/NC	1 NO/NC
Operating temperature	°C	-35...+70	-35...+70	-35...+70	-25...+70
Storage temperature	°C	-40...+85	-40...+85	-40...+85	-40...+85

Protection  
Circuit protection  
Earth leakage protection

Electrical auxiliaries for  
iC60, iID, iDPN Vig, RCA and ARA  
(cont.)

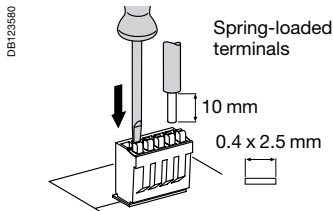
Connection





Type	Tightening torque	Copper cables		Multi-cables terminal	
		Rigid	Flexible	Rigid cables	Cables with ferrule
					
Indication auxiliaries	1 N.m	1 to 4 mm <sup>2</sup>	0.5 to 2.5 mm <sup>2</sup>	2 x 2.5 mm <sup>2</sup>	2 x 1.5 mm <sup>2</sup>
Tripping auxiliaries	1 N.m	1 to 6 mm <sup>2</sup>	0.5 to 4 mm <sup>2</sup>	2 x 2.5 mm <sup>2</sup>	2 x 2.5 mm <sup>2</sup>

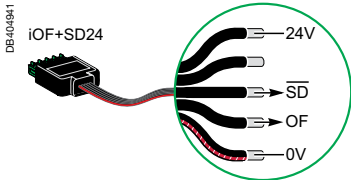
2

Ti24 connector connection



Type	Catalogue numbers	Copper cables	
		Rigid	Flexible
			
Ti24 interface	A9XC2412	1 x 0.5 to 1.5 mm <sup>2</sup>	1 x 0.5 to 1.5 mm <sup>2</sup>

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




# Protection


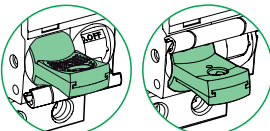
## Circuit protection

## Earth leakage protection

# Accessories for iC60, iID, iDPN Vigi, Reflex iC60, RCA, ARA and iSW

2

		Mounting		
Accessories		Rotary handle		Plug-in base
PB104509-35				PB104508-35 
		PB106297_10 		
Function				
		<p><b>Front or side-mounted control</b></p> <ul style="list-style-type: none"><li>■ Degree of protection: IP55 rotary handle</li><li>■ Installation:<ul style="list-style-type: none"><li>□ the control mechanism is mounted on the device</li><li>□ the rotary handle is fixed to the front or side of the enclosure</li></ul></li><li>■ Front-mounted (on door or faceplate)</li><li>■ Prevents the door from opening when the device is in the ON position (can be deactivated)</li><li>■ Can be padlocked when the device is in the "open" position (can be padlocked with the device in the "closed" position subject to adaptation)</li><li>■ Can be locked by padlock of (dia. 5 to 8 mm), not supplied with the device</li><li>■ Pushbutton: iID test available in the front face of the rotary handle</li></ul>	<ul style="list-style-type: none"><li>■ The Laser Square tool brings the accuracy to align the circuit breaker and the rotary handle</li></ul>	<p><b>Allows a breaker to be removed or replaced quickly, without handling the connections</b></p> <ul style="list-style-type: none"><li>■ Degree of protection: IP20</li><li>■ Consists of:<ul style="list-style-type: none"><li>□ a base to be fastened on a rail (or panel)</li><li>□ 2 "blades" to be fastened in the device's terminals</li></ul></li><li>■ Connection: tunnel terminals for cable up to 35 mm<sup>2</sup> rigid, 25 mm<sup>2</sup> flexible,</li><li>■ Installation:<ul style="list-style-type: none"><li>□ in universal enclosure</li><li>□ on horizontal rail</li></ul></li><li>■ Height: 178 mm</li><li>■ Not compatible with Vigi iC60 and auxiliaries</li><li>■ Can be locked by padlock of (dia. 6 mm), not supplied with the device</li></ul>
Catalogue numbers	A9A27005	A9A27006	A9A27008	GVAPL01
	Operating sub-assembly			
	+	+		
	Black handle	Red handle	No handle	
Set of	1	1	1	1
Suitability				
iC60	■ 2P, 3P, 4P			■
iSW	■ 2P, 3P, 4P			■
iC60 + Vigi iC60	■ 2P, 3P, 4P			–
iID	■			■ ≤ 63 A
Reflex iC60 or RCA+iC60 or ARA+iC60	–			–
ARA+iID	–			–

Padlocking device			
PE104492-15			
	DB12399		
<div>Used to padlock breaker in open or closed position</div> <ul style="list-style-type: none"><li>■ Padlock diameter: 3 to 6 mm</li><li>■ Sealable (max. diameter: 1.2 mm)</li><li>■ Locking in ON position does not prevent tripping of the breaker in the event of faults</li><li>■ Suitable for IEC/EN 60947-2 compliant disconnection</li></ul>			
MCB/RCCB		MCB in ISOBAR	RCBO in ISOBAR
A9A26970		SEA9LA	A9A27049
10		3	10
<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>			




## Protection

### Circuit protection

### Earth leakage protection

## Accessories for iC60, iID, iDPN Vigi, Reflex iC60, RCA, ARA, iSW (cont.)

2

Security						
Accessories	Screw shield		Terminal shield		Inter-pole barrier	Spacer
						
Function	Prevents any contact with the connecting screws <ul style="list-style-type: none"> <li>■ Upgrades degree of protection to IP20D</li> <li>■ Sealable, max. diameter 1.2 mm</li> </ul>		Prevents any contact with the terminals <ul style="list-style-type: none"> <li>■ Upgrades degree of protection to IP20D</li> <li>■ Sealable, max. diameter 1.2 mm</li> <li>■ Set of two, for upstream and downstream terminals</li> <li>■ For 3 poles: A9A26975 + A9A26976</li> <li>■ For 4 poles: 2 X A9A26976</li> </ul>		Enhances insulation between connections: cables, terminals, lugs, etc	<ul style="list-style-type: none"> <li>■ Used to:               <ul style="list-style-type: none"> <li>□ complete rows</li> <li>□ separate devices.</li> </ul> </li> <li>Width: 1 x 9 mm module</li> <li>■ Allows cable routing from one row to another, (above and below), up to 6 mm<sup>2</sup></li> </ul>
Catalogue numbers	A9A26982	A9A26981	A9A26975	A9A26976	A9A27001	A9A27062 DIN mounted A9A27063 Breaker mounted
Set of	12 x 1 pole	20 x 4 poles (splittable)	2 x 1 pole	2 x 2 poles	10	5
Suitability						
iC60	–	■	■	■	■	■
iSW	–	–	■	■	■	■
Vigi iC60	■	–	–	–	–	■
iID	–	■	–	■	■	■
Reflex iC60 or RCA+iC60 or ARA+iC60	–	■	■	■	■	■
ARA+iID	–	■	–	■	■	■

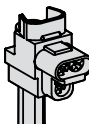





# Protection

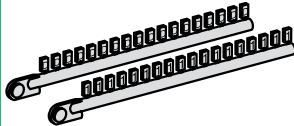
## Circuit protection

### Earth leakage protection

# Accessories for iC60, iID, iDPN Vigi, Reflex iC60, RCA, ARA, iSW (cont.)

2

		Connection			
Accessories		Multi-cable terminal		50 mm <sup>2</sup> terminal Al	Screw-on connection for ring terminal
DB118780				DB118781 	DB118783 
Function					
		For 3 copper cables: ■ Rigid up to 16 mm <sup>2</sup> ■ Flexible up to 10 mm <sup>2</sup>		For aluminium cables from 16 to 50 mm <sup>2</sup>	For lug tipped cables, front or rear mounting
DB118787 				DB122835  Al	DB118789  Ø 5 mm
Catalogue numbers	19091	19096		27060	27053
Set of	4	3		1	8
iC60 ≤ 25 A	–	–		–	■
Reflex iC60 ≤ 25 A	–	–		–	–
iC60 > 25 A	■	■		■	■
Reflex iC60 40 A, iSW	–	–		–	–
Vigi iC60	–	–		–	–
iID	■	■		■	■
iDPN Vigi	–	–		–	■
iSW-NA	■	■		■	■
Tightening torque	2 N.m		10 N.m		2 N.m
Lenght stripping	11 mm		13 mm		–
Tools to use	Dia. 5 mm or PZ2		Hc 1/5" or 5 mm		Dia. 5mm

Accessories		Marking					
		Marker strip					
DB118785							
Used for connection identification							
Catalogue numbers	0: AB1-R0 1: AB1-R1 2: AB1-R2 3: AB1-R3 4: AB1-R4	5: AB1-R5 6: AB1-R6 7: AB1-R7 8: AB1-R8 9: AB1-R9	A: AB1-GA B: AB1-GB C: AB1-GC D: AB1-GD E: AB1-GE F: AB1-GF G: AB1-GG H: AB1-GH I: AB1-GI	J: AB1-GJ K: AB1-GK L: AB1-GL M: AB1-GM N: AB1-GN O: AB1-GO P: AB1-GP Q: AB1-GQ R: AB1-GR	S: AB1-GS T: AB1-GT U: AB1-GU V: AB1-GV W: AB1-GW X: AB1-GX Y: AB1-GY Z: AB1-GZ	+: AB1-R12 -: AB1-R13 blank: AB1-RV	
Set of	250						
iC60, Reflex iC60, iSW	■ 4 markers max. per pole						
Vigi iC60	■ 4 markers max. per device						
iID	■ 4 markers max. per device						
iDPN Vigi	■ 4 markers max. per device						
iSW-NA	■ 4 markers max. per device						

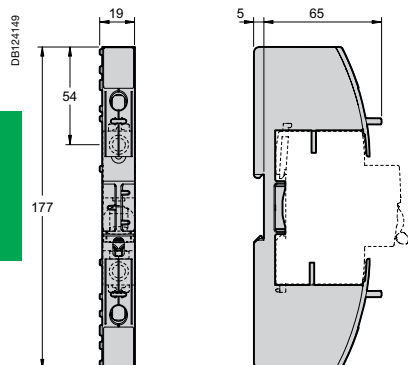
# Protection

## Circuit protection

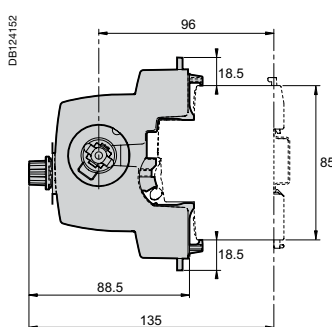
### Earth leakage protection

# Accessories for iC60, iID, iDPN Vigi, Reflex iC60, RCA, ARA, iSW (cont.)

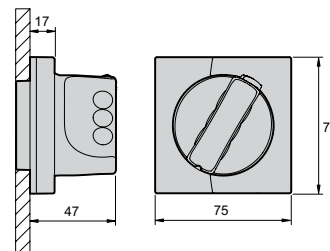
## Dimensions (mm)



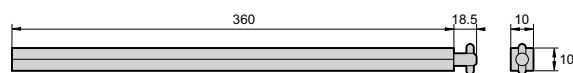
Plug-in base



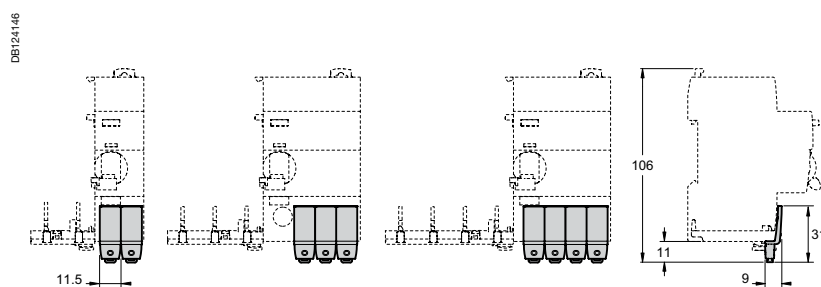
Adapter mechanism



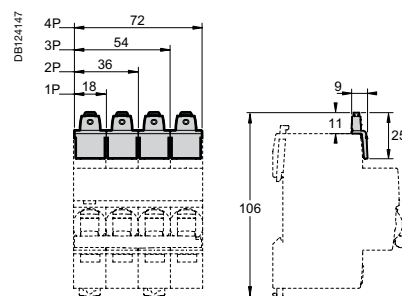
Handle



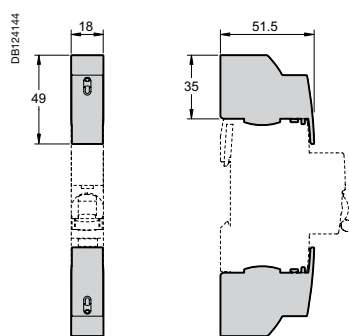
Rotary handle



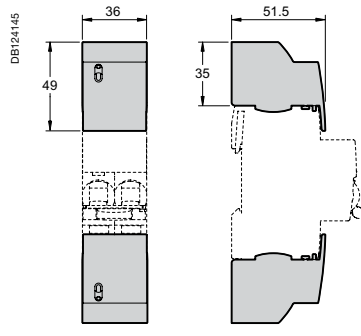
Screw shield 1P (A9A26982)



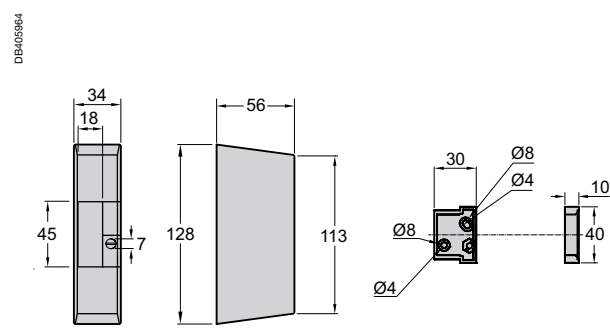
Screw shield 4P (A9A26981)



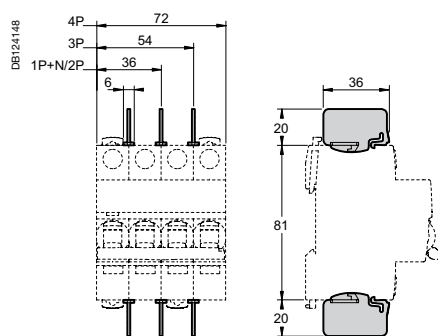
Terminal shield 1P



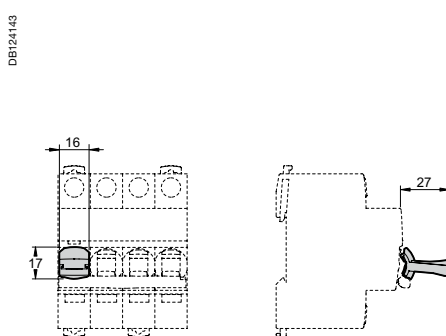
Terminal shield 2P



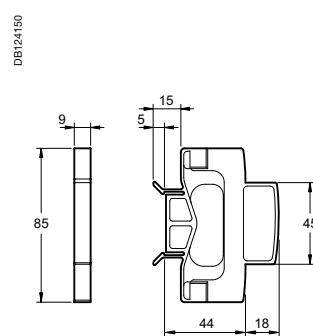
Wall mounted



Inter-pole barrier



Padlocking device

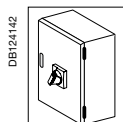


Spacer



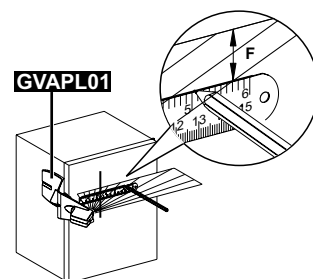
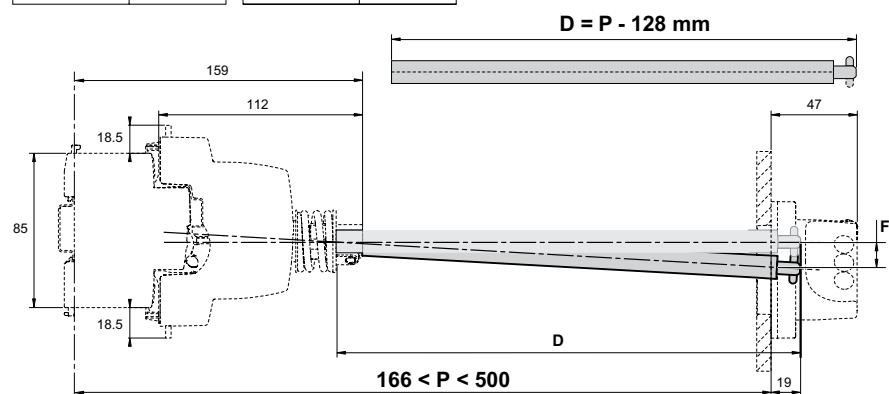
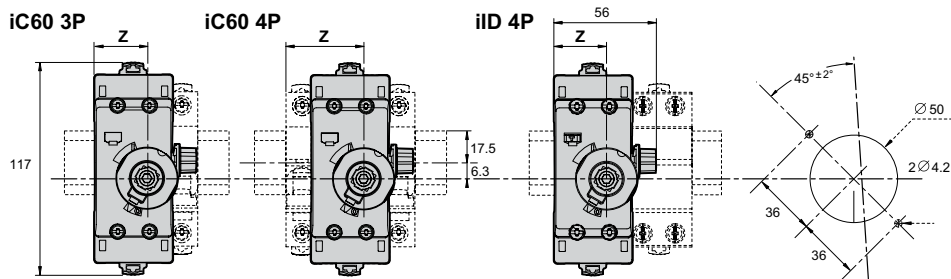
## Rotary handle installation

### Dimensions (mm)



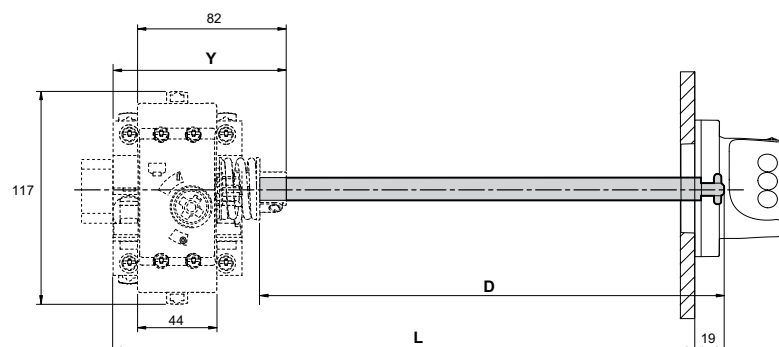
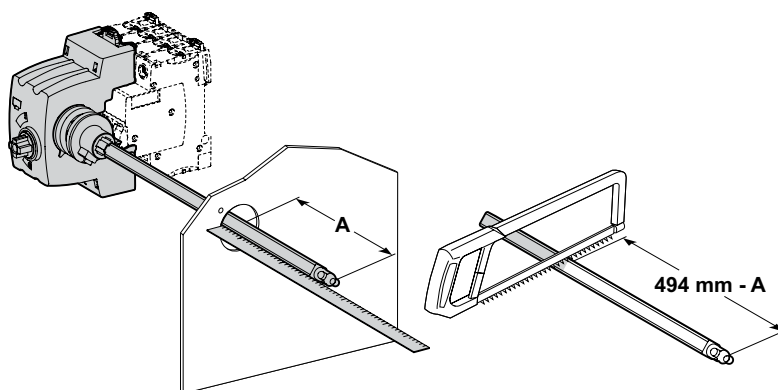
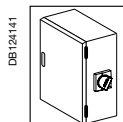
iC60	Z (mm)
2P	25.3
2P + Vigi	25.3
3P	25.3
3P + Vigi	43
4P	43
4P + Vigi	43

iID	Z (mm)
2P	25.3
4P	25.3



P (mm)	F (mm)
300	5
500	11

Rotary handle: front mounted control



iC60	X (mm)	Y (mm)
2P	44.5	76.8
2P + Vigi	44.5	76.8
3P	44.5	76.8
3P + Vigi	62	94.5
4P	62	94.5
4P + Vigi	62	94.5

iID/iSW-NA	X (mm)	Y (mm)
2P	44.5	76.8
4P	44.5	76.8



Rotary handle: side mounted control



*iDPN circuit breakers* . . . . . **pages 3/2 to 3/4**

*Residual current devices iDPN Vigi* . . . . . **pages 3/5 to 3/7**

*iC120H circuit breakers (curves B, C, D)* . . . . . **pages 3/8 to 3/10**

*Vigi iC120 add-on residual current devices* . . . . . **pages 3/11 to 3/15**

    Type AC . . . . . page 3/11

    Type A . . . . . page 3/12

    Type SI . . . . . page 3/13

    Technical . . . . . pages 3/14 to 3/15

*Accessories for iC120, DPN, DPN Vigi, C60H-DC, SW60-DC, C60NA-DC, C60PV-DC, iSW devices* . . . . . **pages 3/16 to 3/19**

    Installation . . . . . page 3/16

    Safety . . . . . page 3/17

    Connection . . . . . page 3/18

    Identification . . . . . page 3/19

*Electrical auxiliaries for iC120, DPN, DPN Vigi, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC devices* . . . . . **pages 3/20 to 3/23**

    Tripping . . . . . pages 3/20 to 3/21

    Identification . . . . . page 3/22

    Connection . . . . . page 3/23

*P25M* . . . . . **pages 3/24 to 3/27**

    Electrical auxiliaries . . . . . page 3/26

    Accessories . . . . . page 3/27



The protection of property and people against direct or indirect contacts, insulation faults and fire hazards is implemented by residual current devices obtained by the combination of a circuit breaker and an earth leakage module.

IEC/EN 60898-1

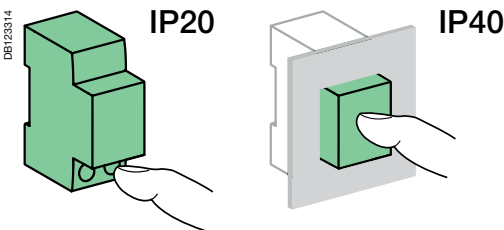
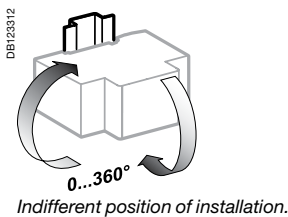
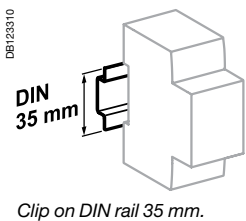
The circuit breakers are designed for protection against short-circuit and overload currents, for the control and disconnection of final distribution circuits in service sector, agricultural and industrial applications, in TT earthing system or with multiple earthed neutral (TN-S) requiring neutral cutoff without its protective device.

3

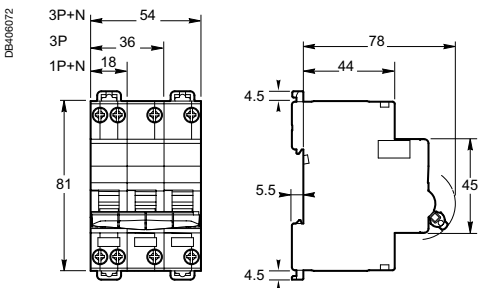


Catalogue numbers

iDPN N circuit breakers		
6000		
Type	1P+N	
Auxiliaries	Modules CA907008 and CA907010	
Vigi	Module CA902013	
Rating (In)	B curve	C curve
1 A	-	A9N21552
2 A	-	A9N21553
3 A	-	A9N21554
4 A	A9N17515	A9N21722
6 A	A9N17516	A9N21555
10 A	A9N17517	A9N21556
13 A	A9N17518	A9N21725
16 A	A9N17519	A9N21557
20 A	A9N17520	A9N21558
25 A	A9N17521	A9N21559
32 A	A9N17522	A9N21560
40 A	A9N17523	A9N21561
Width in 9-mm modules	2	



Dimensions (mm)



Technical data

Main characteristics		iDPN N
Insulation voltage (Ui)	Phase-to-neutral	400 V
	Phase-to-phase	440 V
Voltage rating (Ue)	Phase-to-neutral	230 V
	Phase-to-phase	400 V
Magnetic tripping	B curve	3 to 5 In
	C curve	5 to 10 In
	D curve	10 to 14 In

According to IEC/EN 60898-1

Limitation class	3
Rated breaking capacity (Icn)	6000 A
Service breaking capacity (Ics)	100 % Icn
Rated breaking and making capacity on a single pole (Icn1)	Icn1 = Icn

According to IEC 60947-2

Rated impulse withstand voltage (Uimp)	4 kV
Breaking capacity (Icu)	10 kA
Service breaking capacity (Ics)	75 % Icu
Pollution degree	3

Additional characteristics

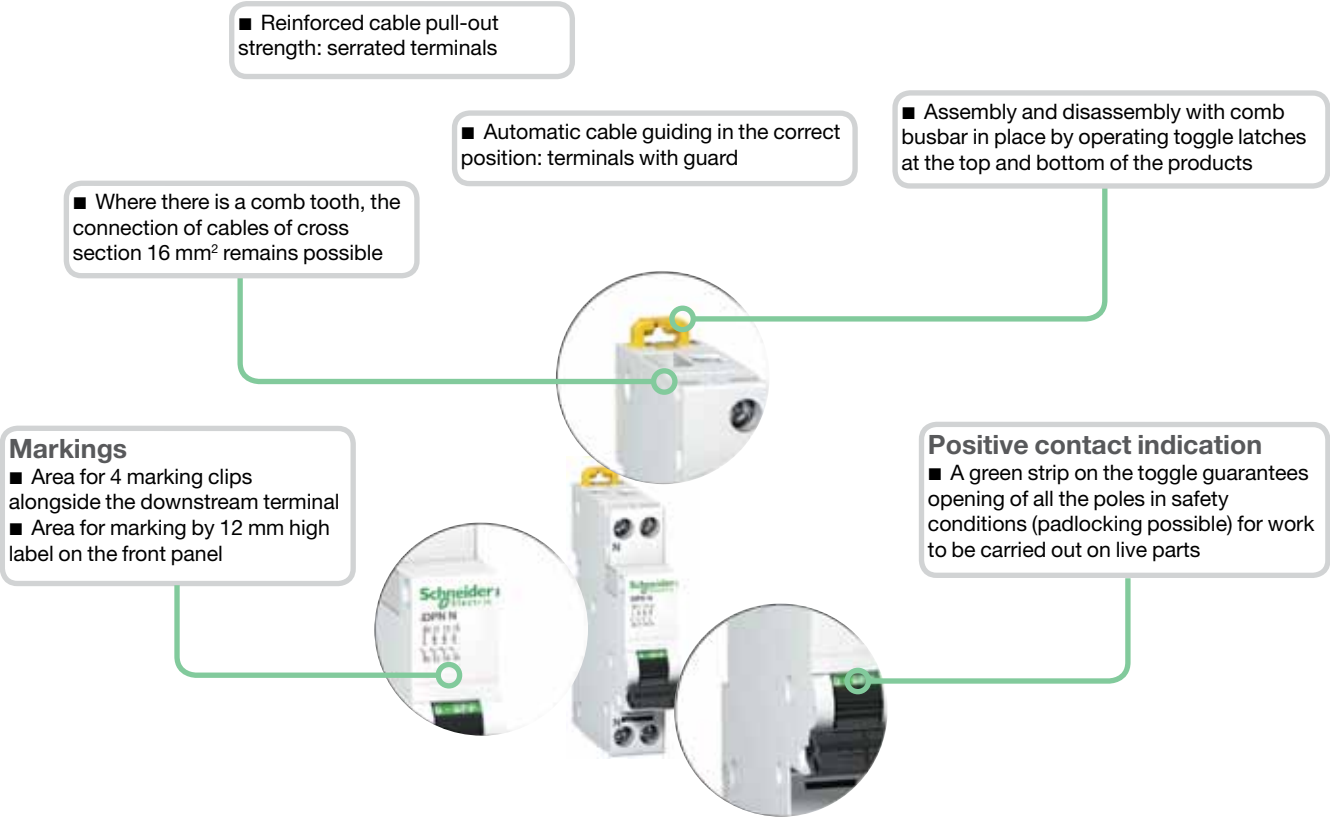
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Endurance (O-C)	Electrical    ≤ 20 A	20000 cycles
	≥ 25 A	10000 cycles
	Mechanical	20000 cycles
Operating temperature	-25°C to +70°C	
Storage temperature	-40°C to +70°C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity of 95 % at 55°C)	
Neutral opening and closing shifted relative to phases	No surge upon operation of the device	

Weight (g)

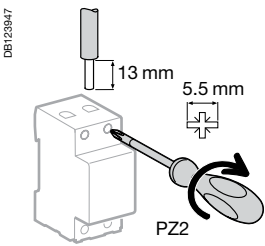
Circuit breaker

Type	iDPN
1P+N	115

3



Connection



Rating	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
		DB1229-45	DB1229-46
DT40, <i>iDPN</i> , C40	2 N.m		
DT60	3.5 N.m	0.75 to 16 mm <sup>2</sup>	0.33 to 10 mm <sup>2</sup>
		0.5 to 35 mm <sup>2</sup>	0.5 to 25 mm <sup>2</sup>

■ Connection by comb busbar or cables (as per EN 50027).


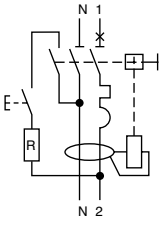
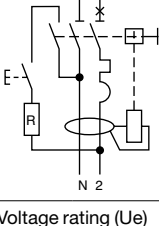



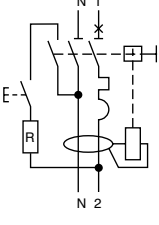
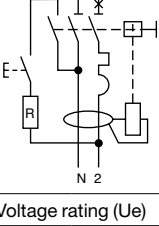
IEC/EN 61009

- The iDPN Vigì residual current device provide complete protection for final circuits (against overcurrents and insulation faults):
  - protection for users against electric shocks by direct contacts ( $\leq 30$  mA),
  - protection for users against electric shocks by indirect contacts (300 mA),
  - protection of the installations against fire risks (300 mA).



iDPN H Vigì

iDPN N Vigì 6000			
Type		AC 	Width in 9 mm modules
Auxiliaries			
1P+N Curve B	Sensitivity	30 mA	
	Rating (In)		4
	4 A	A9D55604	
	6 A	A9D55606	
	10 A	A9D55610	
	16 A	A9D55616	
	20 A	A9D55620	
	25 A	A9D55625	
	32 A	A9D55632	
	40 A	A9D55640	
1P+N Curve C	Sensitivity	30 mA	
	Rating (In)		4
	6 A	A9D31606	
	10 A	A9D31610	
	16 A	A9D31616	
	20 A	A9D31620	
	25 A	A9D31625	
	32 A	A9D31632	
	40 A	A9D31640	
Voltage rating (Ue)		230 V AC	
Operating frequency		50 Hz	

iDPN N Vigì 6000			
Type		A 	Width in 9 mm modules
Auxiliaries			
1P+N Curve B	Sensitivity	30 mA	
	Rating (In)		4
	10 A	A9D06610	
	16 A	A9D06616	
	20 A	A9D06620	
1P+N Curve C	Sensitivity	30 mA	
	Rating (In)		4
	10 A	A9D01610	
	16 A	A9D01616	
	20 A	A9D01620	
Voltage rating (Ue)		230 V AC	
Operating frequency		50 Hz	

DB405939-40

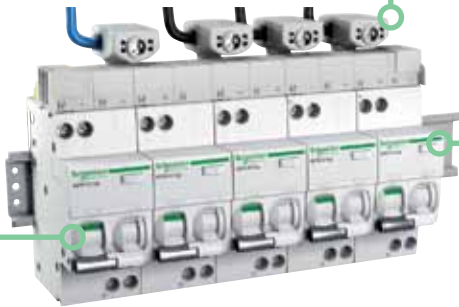
■ Fast contact closure

■ Insulated terminals IP20

**3**

**Visi-trip double window**

- Fault tripping circuit breaker is indicated by a red mechanical indicator on the front face.
- Earth fault is indicated by a red mechanical indicator on the front face



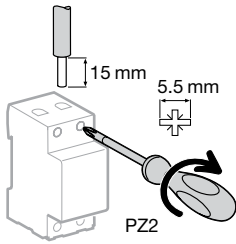
■ Test button

**Positive contact indication**

- A green strip on the toggle guarantees opening of all the poles in safety conditions (padlocking possible) for work to be carried out on live parts

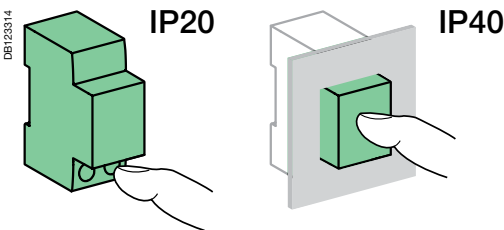
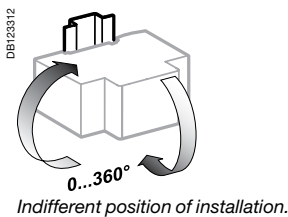
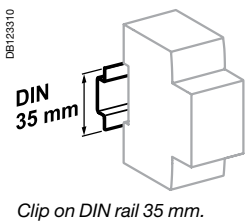
Connection

DB123947

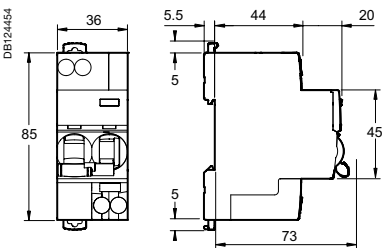


Rating	Tightening torque	Copper cables	
		Rigid	Flexible or ferrule
4 to 40 A	2 N.m	DB122945 1 to 16 mm <sup>2</sup>	DB122946 1 to 10 mm <sup>2</sup>





Dimensions (mm)



Technical data

Main characteristics		
Insulation voltage (Ui)		400 V AC
Pollution degree		3
Rated impulse withstand voltage (Uimp)		4 kV
Setting temperature for ratings		30°C
Magnetic tripping	Curve B	Between 3 and 5 In
	Curve C	Between 5 and 10 In
According to EN 61009		
Limitation class		
Rated breaking capacity (Icn)		6000 A
Rated residual breaking and making capacity (IΔm)		6000 A
8/20 μs impulse withstand Type AC		250 A
Additional characteristics		
Earth leakage protection with instantaneous tripping		30 mA
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation classe II
Endurance (O-C)	Electrical	≤ 20 A 20,000 cycles
		≥ 25 A 10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)		III
Operating temperature Type AC		-5°C to +60°C
Storage temperature		-40°C to +85°C
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity 95 % to 55°C)

Weight (g)

Residual current device	
Type	iDPN Vigi
1P+N	125



### IEC/EN 60898-1, IEC 60947-2

iC120H circuit breakers are multistandard circuit breakers that combine the following functions:

- circuit protection against short-circuit currents
- circuit protection against overload currents
- suitability for isolation in the industrial sector to IEC/EN 60947-2
- fault tripping and indication by adding auxiliaries.

#### Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) to IEC/EN 60947-2					Service breaking capacity (Ics)	
Type	Voltage (V)					
1P		12 to 130 V	220 to 240 V	380 to 415 V	440 V	
Rating (In)	63 to 125 A	30 kA	15 kA	4,5 kA <sup>(1)</sup>	-	50 % of Icu
2P, 3P, 4P		12 to 130 V	220 to 240 V	380 to 415 V	440 V	
	63 to 125 A	-	30 kA	15 kA	10 kA	50 % of Icu

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

Type	Voltage (V)	
1P, 2P, 3P, 4P	230 to 400 V	
Rating (In) 63 to 125 A	15000 A	50 % of Icn



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

#### Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2						Service breaking capacity (Ics)
	Voltage (Ue)					
Between +/-	12 to 125 V	≤ 144 V	≤ 250 V	≤ 375 V	≤ 500 V	
Number of poles	1P		2P	3P	4P	
Rating (In) 63 to 125 A	20 kA	15 kA	15 kA	15 kA	15 kA	100 % of Icu

## Catalogue numbers

### iC120H circuit breaker

Type	1P			2P		
						
Rating (In)	Curve			Curve		
	B	C	D	B	C	D
63 A	A9N18401	A9N18445	A9N18489	A9N18412	A9N18456	A9N18500
80 A	A9N18402	A9N18446	A9N18490	A9N18413	A9N18457	A9N18501
100 A	A9N18403	A9N18447	A9N18491	A9N18414	A9N18458	A9N18502
125 A	A9N18404	A9N18448	A9N18492	A9N18415	A9N18459	A9N18503
Width in 9 mm modules	3			6		

**Note:** For current ratings below 63 amp use IC60H

PB107916-40

■ Terminals insulated to IP20



■ Location for 4 clip-on terminal markers



### Positive contact indication

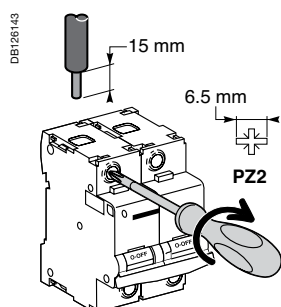
- Suitability for isolation in the industrial sector to IEC/EN 60947-2.
- The presence of the green strip guarantees that the contacts open physically and allows work to be carried out safely on the downstream circuit.






- 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 (see limitation curves).
  - fast closure independent of toggle operating speed.
- Remote indication of the open/closed/tripped state by auxiliary contacts (optional).
- Power supply from above or below.

3

3P			4P		
Curve			Curve		
B	C	D	B	C	D
A9N18423	A9N18467	A9N18511	A9N18434	A9N18478	A9N18522
A9N18424	A9N18468	A9N18512	A9N18435	A9N18479	A9N18523
A9N18425	A9N18469	A9N18513	A9N18436	A9N18480	A9N18524
A9N18426	A9N18470	A9N18514	A9N18437	A9N18481	A9N18525
9			12		

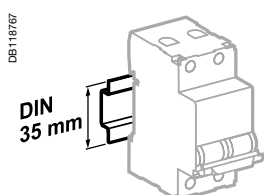
### Connection



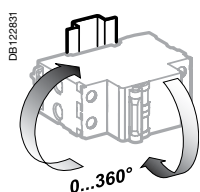
		Without access.		With accessories			
Rating	Tightening torque	Copper cables		50 mm <sup>2</sup> Al term.	Screw-on connection for ring terminal <sup>(1)</sup>	Multi-cable terminal	
		Rigid	Flexible or with ferrule			Rigid cables	Flexible cables
		DB122945 	DB122946 	DB122936  Al	DB118789 	DB118787 	
63 to 125 A	3.5 N.m	1 to 50 mm <sup>2</sup>	1.5 to 35 mm <sup>2</sup>	16 to 50 mm <sup>2</sup>	Ø 5 mm	3 x 16 mm <sup>2</sup>	3 x 10 mm <sup>2</sup>

<sup>(1)</sup> For lugs up to 63 A, front or rear accessories.

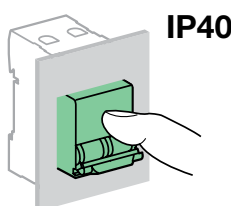
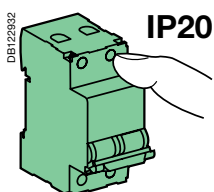
3



Clips onto 35 mm DIN rail.



Any installation position.



### Technical data

#### Main characteristics

##### To IEC/EN 60947-2

Insulation voltage (Ui)	500 V AC
Degree of pollution	3
Rated impulse withstand voltage (Uimp)	6 kV
Thermal tripping	Reference temperature
	50°C

##### To IEC/EN 60898-1

Magnetic tripping	Curve B	3 and 5 In
	Curve C	5 and 10 In
	Curve D	10 and 14 In
Limitation class		3

#### Additional characteristics

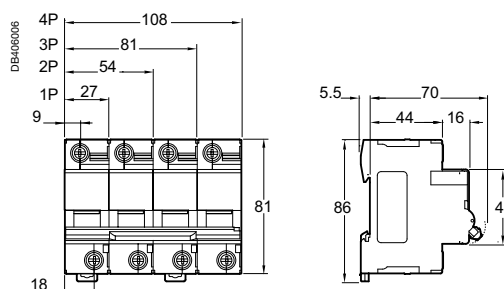
Degree of protection (IEC 60529)	Device only		IP20
	Device in a modular enclosure		IP40 (IPXXD)
Endurance (O-C)	Electrical	63 A	10000 cycles (O-C)
		80...125 A	5000 cycles (O-C)
	Mechanical		20000 cycles
Operating temperature			-30°C to +70°C
Storage temperature			-40°C to +80°C
Tropicalisation (IEC 60068-1)			Treatment 2 (relative humidity 95% at 55°C)

### Weight (g)

#### Circuit breaker

Type	iC120H
1P	205
2P	410
3P	615
4P	820

### Dimensions (mm)



EN 61009

When a Vigi iC120 device is combined with a iC120 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 ( $\geq 300$  mA),
- protection of installations against fire hazards (300 mA to 1000 mA).



2P




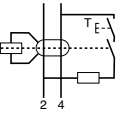


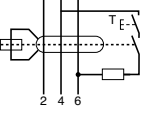


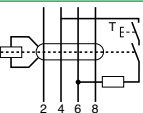


3P



4P

Catalogue numbers

Vigi iC120 add-on residual current devices						
Type	AC 					Width in 9 mm modules
Product	Vigi iC120					
2P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	1000 mA 
		A9N18563	A9N18564	A9N18565	A9N18544	A9N18545
						7
3P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	1000 mA 
		A9N18566	A9N18567	A9N18568	A9N18546	A9N18547
						10
4P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	1000 mA 
		A9N18569	A9N18570	A9N18571	A9N18548	A9N18549
						10
Operating voltage (Ue)		230...415 V				
Operating frequency		50/60 Hz				



EN 61009

3



2P



3P





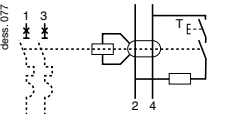



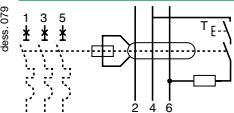



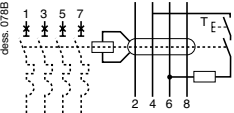


4P

When a Vigi iC120 device is combined with a iC120 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 ( $\geq 300$  mA),
- protection of installations against fire hazards (300 mA to 1000 mA).

Catalogue numbers

Vigi iC120 add-on residual current devices								
Type	A 							Width in 9 mm modules
Product	Vigi iC120							
2P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	500 mA 	1000 mA 	
		A9N18572	A9N18573	A9N18574	-	-	-	7
3P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	500 mA 	1000 mA 	
		A9N18575	A9N18576	A9N18577	-	-	-	10
4P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	500 mA 	1000 mA 	
		A9N18578	A9N18579	A9N18580	A9N18587	A9N18588	A9N18589	10
Operating voltage (Ue)	230...415 V							
Operating frequency	50/60 Hz							



EN 61009



2P



3P



4P

When a Vigi iC120 device is combined with a iC120 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 ( $\geq 300$  mA),
- protection of installations against fire hazards (300 mA to 1000 mA).

### Special feature of type SI




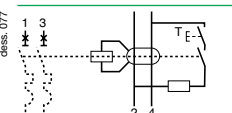


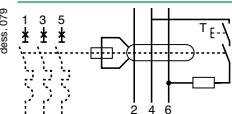


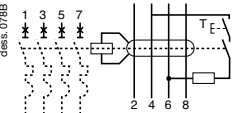
They are appropriate for operating in environments with:

- high risk of unwanted tripping: frequent lightning strikes, IT system, presence of electronic ballasts, frequency converters, presence of switchgear incorporating lighting type interference filters, computer system, etc.
- blind sources:
  - presence of harmonics or high frequency rejections
  - presence of DC components: diodes, diode bridges, switch-mode power supplies, etc.
- protected against unwanted tripping caused by transient voltage surges (lightning strike, operation of switchgear on the network, etc.)

3

## Catalogue numbers

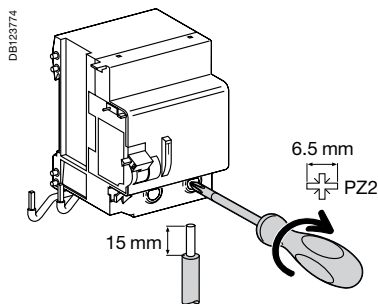
### Vigi iC120 add-on residual current devices

Type	SI 						Width in 9 mm modules
Product	Vigi iC120						
2P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	1000 mA 	
		A9N18591	A9N18592	-	A9N18556	A9N18557	7
3P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	1000 mA 	
		A9N18594	A9N18595	-	A9N18558	A9N18559	10
4P	Sensitivity	30 mA	300 mA	500 mA	300 mA 	1000 mA 	
		A9N18597	A9N18598	A9N18599	A9N18560	A9N18561	10
Operating voltage (Ue)	230...415 V						
Operating frequency	50/60 Hz						

## Protection Earth leakage protection

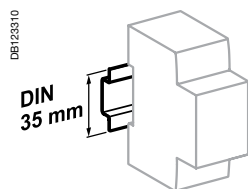
## Vigi iC120 add-on residual current devices (types AC, A and SI)

### Connection

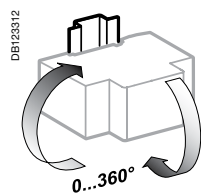


Type	Sensitivity	Tightening torque	Copper cables	
			Rigid	Flexible or with ferrule
Vigi iC120	30...1000 mA	3.5 N.m	1 to 50 mm <sup>2</sup>	1 to 35 mm <sup>2</sup>

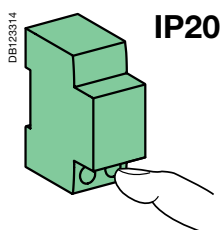
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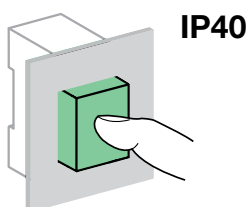
Clips onto 35 mm DIN rail.



Any installation position.



IP20



IP40

### Technical data

#### Main characteristics

##### To IEC 60947-2

Insulation voltage (Ui)	500 V AC
Degree of pollution	3
Rated impulse withstand voltage (Uimp)	6 kV

##### To EN 61009

Impulse current withstand (8/20 μs) without tripping	Types AC and A (non-selective S)	250 Å
	Types AC and A (selective S)	3 kÅ
	Types SI (non-selective S)	3 kÅ
	Types SI (selective S)	5 kÅ

#### Additional characteristics

Degree of protection	Device only	IP20
	Device in a modular enclosure	IP40 Insulation class II
Operating temperature	Type AC	-5°C to +60°C
	Types A and SI	-25°C to +60°C
Storage temperature		-40°C to +85°C

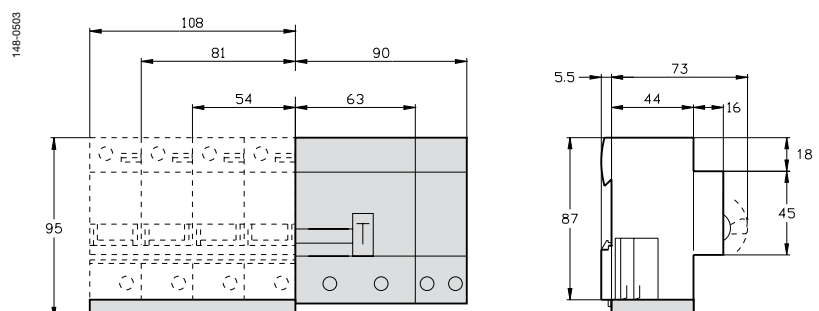
### Weight (g)

#### Add-on residual current devices

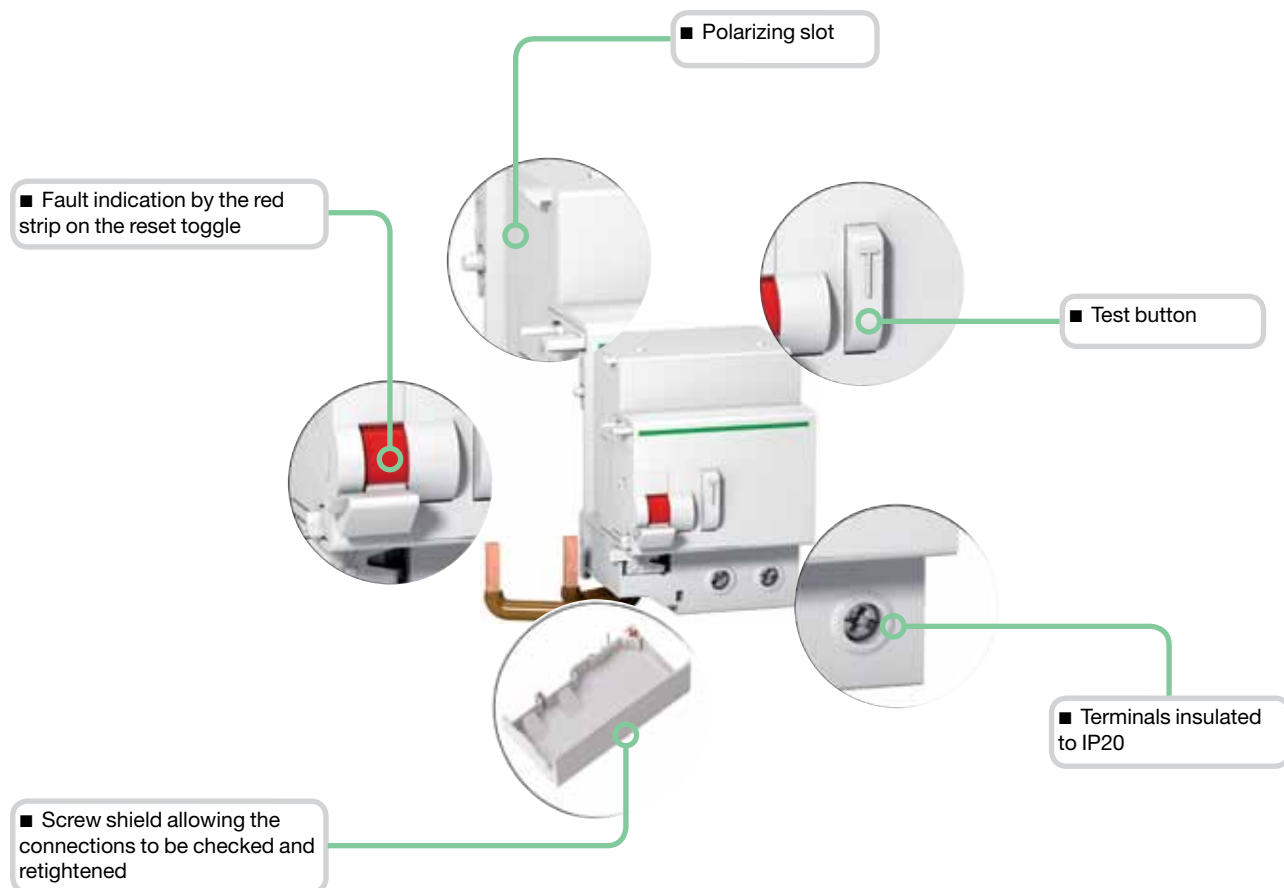
Type	Vigi iC120
2P	325
3P	500
4P	580

### Dimensions (mm)

#### iC120 + Vigi iC120







#### Type *SI*

The *SI* type provides increased immunity from electrical interference and polluted or corrosive environments.




# Protection

## Circuit protection

### Earth leakage protection

# Accessories for iC120, DPN, DPN Vigi, C60H-DC, SW60-DC, C60NA-DC, C60PV-DC, iSW devices

3






Installation							
Accessories	Rotary handle			Plug-in base		Padlocking device	
PB100137_SE-24 PB100138_SE-24							
	PB11764-40			066888_SE		0572093_SE-20	
Function	<p><b>Front or side control of 2, 3 and 4-pole circuit breakers</b></p> <ul style="list-style-type: none"> <li>■ Degree of protection: IP40</li> <li>■ A complete rotary handle consists of: <ul style="list-style-type: none"> <li>□ a circuit-breaker operating sub-assembly, cat. no. <b>27046</b>,</li> <li>□ a handle cat. no. <b>27047</b> or a handle cat. no. <b>27048</b></li> </ul> </li> <li>■ Installation: <ul style="list-style-type: none"> <li>□ the circuit-breaker operating sub-assembly cat. no. <b>27046</b> is fixed to the circuit breaker</li> <li>□ the removable handle cat. no. <b>27047</b> is mounted on the removable front panel or on the enclosure door</li> <li>□ the fixed handle cat. no. <b>27048</b> is fixed to the front or side panel of the enclosure</li> </ul> </li> </ul>			<p><b>Allows a circuit breaker to be quickly removed or replaced, without touching the connections</b></p> <ul style="list-style-type: none"> <li>■ Degree of protection: IP20</li> <li>■ It consists of: <ul style="list-style-type: none"> <li>□ a base to be fixed to a rail (or panel)</li> <li>□ 2 "blades" to be fixed in the device terminals</li> </ul> </li> <li>■ Connection: tunnel terminals for cables up to 50 mm<sup>2</sup> (rigid) or 35 mm<sup>2</sup> (flexible)</li> <li>■ Installation: <ul style="list-style-type: none"> <li>□ on backplate</li> <li>□ on a horizontal rail</li> </ul> </li> <li>■ Centreline between two rows: 200 mm</li> <li>■ Only on the circuit breaker, without a Vigi device or auxiliary</li> <li>■ Padlocking option (8 mm dia. padlock not supplied)</li> </ul>		<p><b>Used to padlock a circuit breaker in the "open" or "closed" position</b></p> <ul style="list-style-type: none"> <li>■ Diameter of the padlock: 8 mm max.</li> <li>■ Locking in the ON position does not prevent the circuit breaker from tripping in the event of a fault</li> <li>■ Isolation: in conformity with IEC/EN 60947-2.</li> </ul>	
Cat. numbers	<b>27047</b> Removable extended handle	<b>27048</b> Fixed handle	<b>27046</b> Operating sub-assembly	<b>26996</b> (1 per pole)	<b>26997</b> (1 per pole)	<b>27145</b>	<b>26970</b>
Set of	1	1	1	1	1	4	2
Suitable for the following devices:							
iC120	■ 2P, 3P, 4P			–	■ ≤ 63 A	■	–
iC120 + Vigi iC120	■ 2P, 3P, 4P			–	–	■	–
DPN, DPN Vigi	■ 3P, 4P			–	–	–	■
C60H-DC	■ 2P			■	–	–	■
SW60-DC, C60NA-DC, C60PV-DC	–			–	–	–	■
iSW	■ iSW ≥ at 4 modules of 9 mm			■ iSW 40 to 63 A	–	–	■

# Protection

## Circuit protection

## Earth leakage protection

# Accessories for iC120, DPN, DPN Vigi, C60H-DC, SW60-DC, C60NA-DC, C60PV-DC, iSW devices (cont.)

Safety								
Accessories	Screw shield		Terminal shield			Interpole barrier	Spacer	
	<div>066870_SE-33</div> <div></div> <div>PB124114</div> <div></div> <div>066889_SE-38</div> <div></div> <div>DB123888</div> <div></div> <div>PB104483-35</div> <div></div>							
Function	<b>Prevents all contact with the fixing screws</b> <ul style="list-style-type: none"><li>■ The degree of protection becomes IP40</li><li>■ Sealable, max. diameter 1.2 mm</li><li>■ Dividable</li></ul>		<b>Prevents all contact with the terminals</b> <ul style="list-style-type: none"><li>■ Degree of protection becomes IP40</li><li>■ Sealable, max. diameter 1.2 mm</li></ul> <div><div>■ 1P</div><div>■ 1P</div><div>■ 2P</div></div> <div><div>■ 3P: 1 x 26975 + 1 x 26976</div><div>■ 4P: 2 x 26976</div></div>			<b>Improves the insulation between the connections: cables, terminals, lugs, etc.</b>		<ul style="list-style-type: none"><li>■ Used to:<ul style="list-style-type: none"><li>□ complete the rows</li><li>□ separate the devices</li></ul></li><li>■ Width: 1 x 9 mm module</li><li>■ Allows that 2 cables are routed from one row to another (above and below), up to 6 mm²</li></ul>
Cat. numbers	18527	26981	18526	26975	26976	27001	A9N27062	
Set of	2 (4P dividable)		2 (for upstream/downstream terminal)			10	1	
Suitable for the following devices:								
iC120	■	–	■	–	–	■	■	
Vigi iC120	–	–	–	–	–	–	■	
DPN, DPN Vigi	–	–	–	–	–	–	■	
C60H-DC	–	■	–	■	■	■	■	
SW60-DC, C60NA-DC, C60PV-DC	–	■	–	–	–	■	■	
iSW	–	■ iSW 40 to 125 A	–	■ iSW 40 to 125 A	■ iSW 40 to 125 A	■ iSW 40 to 125 A	■	

3








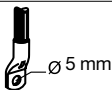
# Protection


## Circuit protection

### Earth leakage protection

# Accessories for iC120, DPN, DPN Vigì, C60H-DC, SW60-DC, C60NA-DC, C60PV-DC, iSW devices (cont.)

3

		Connection				
Accessories		Multi-cable terminal	50 mm² Al terminal	Screw-on connection for ring terminal	Connection kit for ring terminals	Terminal for rear connector
						
Function						
		For 3 copper cables: ■ Rigid up to 16 mm² ■ Flexible up to 10 mm²	For 16 to 50 mm² aluminium cables	For lug tipped cables, front or rear mounting	For terminal up to 63 A, front or rear access (screw Ø 5 mm) ■ It incorporates a "conductive" part and an "insulating" part which ensures the phase-to-phase clearance	For cable up to 50 mm² or by terminal ■ Supplied with a 1P terminal shield
						
Cat. numbers		19091	19096	27060	27053	17400
Set of		4	3	1	8	2
iC120		■	■	■	■	■
Vigi iC120		■	■	■	■	■
DPN, DPN Vigì		–	–	–	■	–
C60H-DC, iSW 40 to 125 A		■	■	■	■	■
SW60-DC, C60NA-DC		■	■	■	■	■
C60PV-DC		–	–	–	■	–
Tightening torque		2 N.m	10 N.m	2 N.m	–	–
Stripping length		11 mm	13 mm	–	–	–
Tools to be used		Diameter 5 mm or PZ2	Hc 1/5" or 5 mm	Diameter 5 mm	Diameter 5 mm	–

Identification																																									
Accessories	Clip-on terminal marker strip																																								
0312MD SE 23																																									
Function	For connection identification																																								
Cat. numbers	<table><tr><td>0: <b>AB1-R0</b></td><td>A: <b>AB1-GA</b></td><td>K: <b>AB1-GK</b></td><td>U: <b>AB1-GU</b></td></tr><tr><td>1: <b>AB1-R1</b></td><td>B: <b>AB1-GB</b></td><td>L: <b>AB1-GL</b></td><td>V: <b>AB1-GV</b></td></tr><tr><td>2: <b>AB1-R2</b></td><td>C: <b>AB1-GC</b></td><td>M: <b>AB1-GM</b></td><td>W: <b>AB1-GW</b></td></tr><tr><td>3: <b>AB1-R3</b></td><td>D: <b>AB1-GD</b></td><td>N: <b>AB1-GN</b></td><td>X: <b>AB1-GX</b></td></tr><tr><td>4: <b>AB1-R4</b></td><td>E: <b>AB1-GE</b></td><td>O: <b>AB1-GO</b></td><td>Y: <b>AB1-GY</b></td></tr><tr><td>5: <b>AB1-R5</b></td><td>F: <b>AB1-GF</b></td><td>P: <b>AB1-GP</b></td><td>Z: <b>AB1-GZ</b></td></tr><tr><td>6: <b>AB1-R6</b></td><td>G: <b>AB1-GG</b></td><td>Q: <b>AB1-GQ</b></td><td>+ : <b>AB1-R12</b></td></tr><tr><td>7: <b>AB1-R7</b></td><td>H: <b>AB1-GH</b></td><td>R: <b>AB1-GR</b></td><td>- : <b>AB1-R13</b></td></tr><tr><td>8: <b>AB1-R8</b></td><td>I: <b>AB1-GI</b></td><td>S: <b>AB1-GS</b></td><td>Blank : <b>AB1-RV</b></td></tr><tr><td>9: <b>AB1-R9</b></td><td>J: <b>AB1-GJ</b></td><td>T: <b>AB1-GT</b></td><td></td></tr></table>	0: <b>AB1-R0</b>	A: <b>AB1-GA</b>	K: <b>AB1-GK</b>	U: <b>AB1-GU</b>	1: <b>AB1-R1</b>	B: <b>AB1-GB</b>	L: <b>AB1-GL</b>	V: <b>AB1-GV</b>	2: <b>AB1-R2</b>	C: <b>AB1-GC</b>	M: <b>AB1-GM</b>	W: <b>AB1-GW</b>	3: <b>AB1-R3</b>	D: <b>AB1-GD</b>	N: <b>AB1-GN</b>	X: <b>AB1-GX</b>	4: <b>AB1-R4</b>	E: <b>AB1-GE</b>	O: <b>AB1-GO</b>	Y: <b>AB1-GY</b>	5: <b>AB1-R5</b>	F: <b>AB1-GF</b>	P: <b>AB1-GP</b>	Z: <b>AB1-GZ</b>	6: <b>AB1-R6</b>	G: <b>AB1-GG</b>	Q: <b>AB1-GQ</b>	+ : <b>AB1-R12</b>	7: <b>AB1-R7</b>	H: <b>AB1-GH</b>	R: <b>AB1-GR</b>	- : <b>AB1-R13</b>	8: <b>AB1-R8</b>	I: <b>AB1-GI</b>	S: <b>AB1-GS</b>	Blank : <b>AB1-RV</b>	9: <b>AB1-R9</b>	J: <b>AB1-GJ</b>	T: <b>AB1-GT</b>	
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9: <b>AB1-R9</b>	J: <b>AB1-GJ</b>	T: <b>AB1-GT</b>																																							
Set of	250																																								
iC120	■ 4 markers max. per pole																																								
Vigi iC120	■ 4 markers max. per device																																								
DPN, DPN Vigi	■ 4 markers max. per pole																																								
C60H-DC, SW60-DC, C60NA-DC, C60PV-DC	■ 4 markers max. per pole																																								




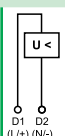
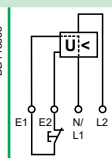
# Protection

## Circuit protection

## Earth leakage protection

# Electrical auxiliaries for iC120, DPN, DPN Vigi, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC devices

3

		Tripping							
Auxiliaries		MN			MNs		MNx		
Type		Undervoltage release							
		Instantaneous			Delayed		Independent of the supply voltage		
		<div>PB107151-30</div> 			<div>PB107152-30</div> 		<div>PB107149-30</div> 		
Function		<div>■ 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</div>			<div>■ No tripping in the event of transient voltage dips (up to 0.2 s)</div>		<div>■ Tripping of the associated device by opening of the control circuit (e.g. push-button, dry contact)</div> <div>■ A drop in the supply voltage does not trip the associated device</div> <div>■ A locking push-button control allows the circuit protected (e.g. machine control) to be placed in safety configuration</div>		
Wiring diagrams		<div>DB118804</div> 			<div>DB118805</div> 				
Utilization		<div>■ Emergency stop via a normally-closed pushbutton</div> <div>■ Ensures the safety of the power supply circuits of several machines by preventing accidental startups</div>			<div>■ Fail-safe emergency stop</div> <div>■ Insensitive to the variation in the control circuit voltage to improve continuity of service</div> <div><b>Important: Before any servicing operation switch off the mains power supply (voltage presence at terminals E1/E2)</b></div>				
Catalogue numbers		A9N26960		A9N26961	A9N26959	A9N26963		A9N26969	A9N26971
iC120, DPN, DPN Vigi, ID		■		■	■	■		■	■
C60H-DC, SW60-DC, C60PV-DC, C60NA-DC		■		■	■	■		■	■
Technical specifications									
Rated voltage (Ue)	V AC	220...240	48	115	220...240	230	400		
	V DC	–	48	–	–	–	–		
Standardised operating and non-response to voltage times (Ua)*		–	–	–	–	–	–	–	
Maximum operating time		–	–	–	–	–	–	–	
Minimum non-response time		–	–	–	–	–	–	–	
Operating frequency	Hz	50/60			400	50/60	50/60		
Mechanical state indicator light, red		On front face				On front face	On front face		
Test function		–				–	–		
Width in 9 mm modules		2				2	2		
Operating current		–				–	–		
Number of contacts		–				–	–		
Operating temperature	°C	-25...+50			-25...+50	-25...+50	-25...+50		
Storage temperature	°C	-40...+85			-40...+85	-40...+85	-40...+85		
Standards									
IEC/EN 60947-1		■			■	■	■		
IEC/EN 60947-5-1		–			–	–	–		
EN 60947-2		■			■	■	■		
EN 62019-2 <sup>(1)</sup>		–			–	–	–		

(1) For iC120, DPN.

\*( $U_a$ ): Voltages measured between the phase and the neutral conductor, at which the MSU device must control the associated protective device.




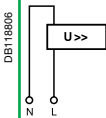
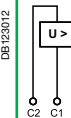
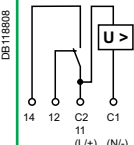
# Protection

## Circuit protection

## Earth leakage protection

# Electrical auxiliaries for iC120, DPN, DPN Vigi, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC devices (cont.)

3

MSU					MX			MX+OF		
Voltage threshold release					Shunt release			With Open/Close auxiliary contact		
										
<p>■ Cuts off the power supply by opening the device with which it is associated when the phase/neutral voltage is exceeded (loss of neutral). For a four-phase network, use three MSU tripping auxiliaries</p>					<p>■ Trips the associated device when it is powered on</p>			<p>■ Includes an open/close contact (OF) to indicate the "open" or "closed" position of the breaker</p>		
										
<p>■ Protection of the devices against overvoltages on the electrical network (break in the neutral conductor)</p> <p>■ Monitoring the voltage between the phase conductor and the neutral conductor</p>					<p>■ Emergency stop via a normally-open pushbutton.</p>			<p>■ Emergency stop via a normally-open pushbutton</p> <p>■ Remote indication of the position of the associated device</p>		
A9N26500					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
255 V AC	275 V AC	300 V AC	350 V AC	400 V AC	-	-	-	-	-	-
No tripping	15 s	5 s	0.75 s	0.20 s	-	-	-	-	-	-
	3 s	1 s	0.25 s	0.07 s	-	-	-	-	-	-
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		
■					■			■		
-					-			-		
-					-			-		
-					-			-		









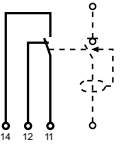
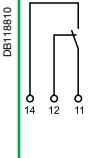
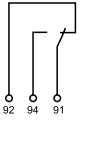
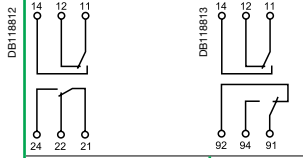
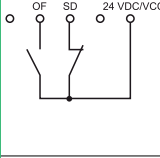
# Protection

## Circuit protection

### Earth leakage protection

# Electrical auxiliaries for iC120, DPN, DPN Vigi, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC devices (cont.)

3

		Indication				
Auxiliaries		OF.S	OF	SD	OF+SD/OF	OF+SD24
Type		Open/closed auxiliary contact	Open/closed auxiliary contact	Fault indicating contact	Double open/closed or fault indicating contact	Double open/close and fault indicating contact
	 PB100628, SE-30-b	 PB107145-30	 PB107146-30	 PB100625, SE-30-b	 PB107160-35	
Function						
		<ul style="list-style-type: none"> <li>Changeover contact indicating the "open" or "closed" position of the associated device</li> </ul>	<ul style="list-style-type: none"> <li>Changeover contact indicating the "open" or "closed" position of the associated device</li> </ul>	<ul style="list-style-type: none"> <li>Changeover contact indicating the position of the associated device in the event of:               <ul style="list-style-type: none"> <li>electrical fault</li> <li>action on the tripping auxiliary</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The OF+SD/OF auxiliary is a two-in-one product: choice of OF + SD or OF + OF contact via the selector switch</li> </ul>	<ul style="list-style-type: none"> <li>2 contacts (1 NO + 1 NC) can report the signalling information of the associated device to the Acti 9 Smartlink or a programmable logic controller:               <ul style="list-style-type: none"> <li>electrical fault</li> <li>actuation of the tripping auxiliary</li> <li>"Open" or "Closed" position of the associated device</li> </ul> </li> </ul>
		 <b>Compulsory for the addition of tripping or indication auxiliaries on a residual current circuit breaker ID</b>		 <b>Not compatible with a ID residual current circuit breaker, use an OF+SD/OF in the SD position</b>		
Wiring diagrams						
		 DB118809	 DB118810	 DB118811	 DB118812 DB118813	 DB124318
					OF position	SD position
Utilization						
		<ul style="list-style-type: none"> <li>Remote indication of the position of the associated device</li> </ul>	<ul style="list-style-type: none"> <li>Remote indication of the position of the associated device</li> </ul>	<ul style="list-style-type: none"> <li>Remote fault tripping indication of the associated device</li> </ul>	<ul style="list-style-type: none"> <li>Remote position and/or fault tripping indication of the associated device</li> </ul>	<ul style="list-style-type: none"> <li>Remote indication of position and tripping upon a fault of the associated breaker</li> </ul>
Catalogue numbers		A9N26923	A9N26924	A9N26927	A9N26929	A9N26899
ID		■	■	■	■	■
iC120, DPN, DPN Vigi, C60H-DC, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC		–	■	■	■	■
Technical specifications						
Rated voltage (Ue)	V AC	24...415	24...415	24...415	24...415	–
	V DC	24...130	24...130	24...130	24...130	24
Operating frequency	Hz	50/60	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 toggle
Width in 9 mm modules		1	1	1	1	1
Operating current		3 A /415 V AC 6 A / ≤ 240 V AC				2 mA mini, 100 mA maxi
Number of contacts		1 NO/NC	1 NO/NC	1 NO/NC	1 NO/NC + 1 NO/NC	1 NO + 1 NC
Operating temperature	°C	-25...+50	-25...+50	-25...+50	-25...+50	-25...+70
Storage temperature	°C	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85
Standards						
IEC/EN 60947-1		–	–	–	–	–
IEC/EN 60947-5-1		■	■	■	■	■ IEC 60947-5-4
EN 60947-2		–	–	–	–	–
EN 62019-2 <sup>(1)</sup>		■	■	■	■	–

(1) For iC120, DPN.



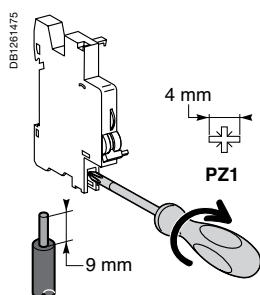
# Protection

## Circuit protection

## Earth leakage protection

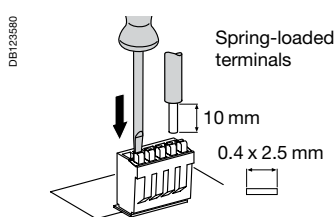
# Electrical auxiliaries for iC120, DPN, DPN Vigi, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC devices (cont.)

## Connection



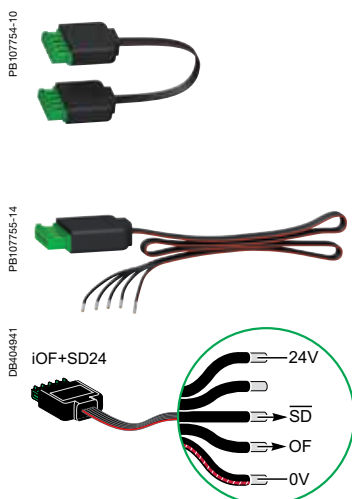
Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
Indication and tripping auxiliaries	1 N.m	DB122945 0.5 to 2.5 mm <sup>2</sup>	DB122946 2 x 1.5 mm <sup>2</sup>

## Ti24 connector connection



Type	Catalogue numbers	Copper cables	
		Rigid	Flexible
Ti24 interface	A9XC2412	DB122945 1 x 0.5 to 1.5 mm <sup>2</sup>	DB123553 1 x 0.5 to 1.5 mm <sup>2</sup>

## Ti24 prefabricated cables connection



Type	Cat. no.	Length
<b>Connection for Acti 9 Smartlink</b>		
6 short prefabricated	A9XCAS06	100 mm
6 medium-sized prefabricated	A9XCAM06	160 mm
6 long prefabricated	A9XCAL06	870 mm
<b>Connection for PLC type terminals</b>		
6 long prefabricated on a single side	A9XCAU06	870 mm

## Weight (g)

Electrical auxiliaries	
Type	
MN	66
MNs	66
MNx	73
MSU	66
MX	60
MX+OF	65
OF.S	33
OF	30
SD	30
OF+SD/OF	38
OF+SD24	28

## Dimensions (mm)

