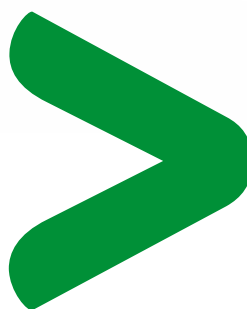


Low voltage

# Acti 9

the efficiency you deserve

Catalogue  
09/2013



**General****Principle of catalogue numbers, protection (Acti 9)**

CA901009E 1

**Circuit protection**

Choice of circuit protective devices

CA901011E 2

Circuit breaker panorama

CA901000E 4

**Neutral breaking circuit breakers**

i DPN, DT40, DT60, C40 (Clario, Libro, Prodis)

CA901012E 14

**Circuit breakers up to 63 A**

iC60a

CA901010E 26

iC60N

CA901002E 31

iC60N double terminals

CA901019E 40

iC60H

CA901003E 45

iC60H double terminals

CA901020E 54

iC60L

CA901004E 58

iK60 (B curve)

CA901006E 61

iK60 (C curve)

CA901007E 64

iK60 Biconnect

CA901027E 70

**Circuit breakers up to 125 A**

C 120a, N, H (RSA)

CA901017E 73

C 120N

CA901015E 78

C 120H

CA901016E 82

**High performance circuit breakers**

NG125a

CM901027E 85

NG125N

CM901028E 89

NG125H

CM901029E 95

NG125L

CM901030E 99

**Direct current circuit breakers**

C60H-DC

CA901024E 105

C60PV-DC

CA901031E 108

C60NA-DC

CA901032E 112

SW60-DC

CA901030E 116

**Motor protection circuit breakers**

P25M

CM901026E 120

iC60LMA

CA901005E 125

NG125LMA

CM901031E 128

**Fuses**

STI

CM901033E 132

DO fuse disconnectors switches (projet Dido)

CA901035E 135

Fuse holder with indicator light SBI

CM901034E 137

**Residual current devices**

Choice of earth leakage protection devices

CA902000E 140

Overview of the earth leakage protection product range

CA902011E 142

**Residual current circuit breakers**

iID

CA902002E 145

iID double terminals

CA902018E 161

iID K

CA902007E 167

iID K biconnect

CA902027E 171

IDc, ITG40, ID C40 (Clario, Libro, Prodis)

CA902012E 173

RCCB-ID 125 A

CM902001E 178

RCCB-ID type B

CM902002E 180

**Add-on residual current devices for circuit breakers**

Vigi iC60

CA902005E 182

Vigi iC60 double terminals

CA902019E 193

Vigi C120

CA902016E 199

Vigi NG125

CM902008E 204

Residual current devices

iDPN Vigi

CA902026E 214

i DPN Vigi, Vigi i DPN, Vigi TG40, Vigi TG60, DT40 Vigi, Vigi DT40, Vigi C40, C40 Vigi (Clario, Libro, Prodis)

CA902013E 217

DPNa Vigi, DPN N Vigi

CA902014E 227

DPN Vigi K

CA902032E 231

SPN N Vigi

CA902017E 233

DPN N Vigi

CA902037E 235

REDs, REDtest

CM902017E 237

**Load protection (surge arrester)****LV surge arresters**

Choice of surge arresters

CA903010E 244

iPRF1 - PRF1 - PRD1

CA903005E 248

iPF

CA903001E 254

iPRD Acti 9

CA903008E 258

iPRD (white product)

CA903002E 264

iQuick PRD

CA903003E 268

iQuick PF

CA903004E 271

**Surge arresters for telephon and informatic networks**

iPRC/iPRI

CA903006E 273

**Surge arresters for photovoltaic installations**

iPRD-DC PV (white product)

CA903007E 275

iPRD-PV-DC

CA903009E 278

**Disconnection****Switch-disconnectors**

iSW Acti 9

CA904027E 282

SW Biconnect switches

CA904030E 288

**Trip switch-disconnectors**

iSW-NA

CA904013E 290

NG125NA

CM901035E 292

## Install, connection, power distribution

### Accessorisation/Auxiliarisation

Accessories / Auxiliarisation iC60, iID, iSW-NA, Reflex iC60, RCA, ARA  
Accessories and auxiliaries for C120, Vigi C120, DPN, C60H-DC devices  
Accessories and auxiliaries for NG125 devices

### Circuit breakers and residual current devices accessories

Accessories for iC60, iID, iSW-NA, Reflex iC60, RCA, ARA  
Accessories for DT60

Accessories for C120, DPN, DPN Vigi, C60H-DC devices

Accessories for NG125 devices

### Comb busbar and devices feeders

Linerigy FH et FV: Horizontal and vertical comb busbars

Linerigy DX : Quick distribution blocks

Linerigy FM: Quick device feeders

Linerigy DS: Devices feeders

## Supervision and switchboard control

### Acti 9 control system

Smartlink Acti 9

### Monitoring and control of protections

#### Indication and tripping

Electrical auxiliaries for iC60, iID, iSW-NA, RCA, ARA  
Electrical auxiliaries for C120, DPN, DPN Vigi, ID, C60H-DC devices  
Electrical auxiliaries for NG125 devices

#### Remote control

RCA remote controls for iC60 circuit breakers

#### Automatic reclosers

ARA automatic reclosers for iC60 and iID

## Electrical circuit control

### Manual control

iPB pushbuttons

iSSW linear switches

DIN rail selector switches iCMB, iCMD, iCME, iCMC, iCMV and iCMA

Button holders

### Electrical control

Reflex iC60 integrated control circuit breakers

iCT contactors

iTL impulse relays

TL impulse relays (Clario, Libro, Prodis)

CT contactors (Clario, Libro, Prodis)

TL+ impulse relays

CT+ contactors

## Indication

### Indicators

iLL indicator lights

iSO bells and iRO buzzers

iTR transformers

## Lighting, time and energy management

Relays iRTA, iRTB, iRTC, iRTH, iRTL, iRTMF, iRBN, iRTBT, iRLI, iERL, iRCP, iRCI, iRCU, iRCC

CDS load-shedding

Modular iPC power sockets

Kilowatt-hour meters iEM, iME

## Complementary technical information

400 Hz network

Influence of ambient temperature

Dissipated power, Impedance and Voltage drop

Resistance to environmental conditions

### Circuit protections

Tripping curves

Short-circuit current limiting

Cascading

Protection discrimination

Circuit breakers for direct current applications

Direct current distribution

### Motor protections

Motor circuit protection and contactor combination

### Photovoltaic

Examples of installation architectures

### Acti 9 Smartlink

Acti 9 Smartlink installation

### Earth leakage protections

Routine operating checks

Response time of high-sensitivity residual current devices

Response time of medium-sensitivity residual current devices

Electrical and electromagnetic interference

Co-ordination

DCP Vigi RCBO

### Fuses

SBI/STI curves

### Impulse relays, contactors

iTL impulse relays and iCT contactors, choice of rating according to load type

### Auxiliaries

Auxiliary indicating contacts for Acti 9 protective devices

Auxiliary trip units for Acti 9 protective devices

Combination electrical auxiliaries for iC60, iID, iSW-NA, ARA and RCA

## Twilight and time switches, timers, thermostats

IC twilight switches

IHP, ITM time switches

MIN timers

STD, STU dimmers

TH4, TH7, THP1, THP2 thermostats

CA907000E	298
CA907013E	305
CM907004E	311
CA907001E	312
CA907011E	318
CA907012E	320
CM907006E	324
LIN001	326
LIN003	334
LIN022	336
CA907023E	338
CA907019E	341
CA907002E	347
CA907008E	355
CM907005E	361
CA904011E	365
CA904010E	370
CA904003E	375
CA904004E	376
CA904024E	378
CA907007E	381
CA904012E	382
CA904007E	387
CA904008E	404
CA904020E	417
CA904021E	423
CA904018E	429
CA904019E	431
CA904006E	433
CA904014E	434
CA904015E	435
CA904022E	438
CA904023E	447
CA904017E	453
CA904009E	456
CA908005E	460
CA908007E	462
CA908009E	470
CA908027E	472
CA908024E	474
CA908025E	483
557E4200	501
557E4300	539
557E4305	546
557E4310	580
557E4330	587
CA908036E	607
CA908032E	609
CA908006E	627
CA908022E	653
CA908035E	654
CA908033E	660
CA908012E	663
CA908013E	666
CA908018E	667
CA908015E	671
CA908023E	674
CM902006E	681
CM908003E	691
CA908026E	695
CA908028E	700
CA908029E	703
CA908030E	710
LSB02323EN	712
LSB02322EN	720
LSB02321EN	735
LSB02325EN	739
LSB02324EN	744

## iID, iC60, Vigi iC60, Reflex iC60, switches

A9 R 15 2 63

Range	Family	Code	Internal code	Poles	Code	Rating (A)	Code
Acti 9 (A9)	iID	R		0	0	0	00
	Vigi iC60	V		1P	1	0.5	70
	iC60	F		<b>2P</b>	<b>2</b>	0.75	71
	iK60	K		3P	3	1	01
	Auxiliaries and accessories	A		4P	4	1.6	72
	Switches	S		1N	5	2	02
	Reflex iC60	C		1P+N	6	2.5	73
			3P+N	7	3	03	
					4		04
					6		06
					6.3		76
					8		08
					10		10
					12.5		82
					13		13
					16		16
					20		20
					25		25
					32		32
					40		40
					50		50
					<b>63</b>		<b>63</b>
					80		80
					100		91
					125		92

## Comb busbar and comb busbar accessories

A9 X P H 4 12

Range	Family	Code	Type	Type of installation	Number of poles	Dimensioning				
Acti 9 (A9)	Comb busbar	X	<b>Comb busbar</b>		1P	1	Comb busbar			
			Fork teeth	F	Horizontal			H	Number of 18 mm modules (approximately)	
			Pin teeth	P			2P	2	Accessories	
			Auxiliarisable	A			3P			Number of pieces per cat. no.
			<b>Accessories</b>				4P			
			End-piece	E	Double terminals	D	4P balanced, with neutral	5		
			Tooth cover	T	Single terminal	M	3P balanced for single-poles	6		
			Connector	C						



Protection of electrical connections against short circuits and overloads



Protection of loads against overloads



Protection of control devices



Protection for people against indirect contacts in IT and TN earthing systems

- Circuit breakers can:
  - break a faulty electrical circuit (short-circuit, overload, insulation fault), to prevent fires,
  - protect control devices,
  - increase the service life of the installation, thanks to its ability to limit the short-circuit current (see module CA908025),
  - in IT and TN systems, they ensure personal protection against electrocution in the event of indirect contacts.
- The choice of circuit breakers must be optimised to provide absolute protection while ensuring continuity of service.
- Although circuit breakers are sometimes used as control units, it is recommended to install separate control devices which are more suitable for frequent switching operations (switch, contactor, impulse relay).

## Choice of protective circuit breakers

This depends on several criteria:

- prospective short-circuit current
- max. voltage rating
- planned amperage for the circuit to be protected
- nature and cross section of cables
- ambient temperature (possible derating)
- the network and neutral system, which determine the number of poles of the protective circuit breaker installed on their power supply circuit and the tripping curve
- coordination with the other electrical devices (protection, discrimination, cascading).

## Choice of breaking capacity

- The breaking capacity must be greater than or equal to the prospective short-circuit current ( $I_{sc}$ ) upstream of the circuit-breaker ( $I_{sc}$  depends on the length, type of conductor and cross section of the cable and the power of the source).
- However, in the event of use in combination with an upstream circuit-breaker limiting the current, this breaking capacity can possibly be reduced (cascading, see module 557E4200).

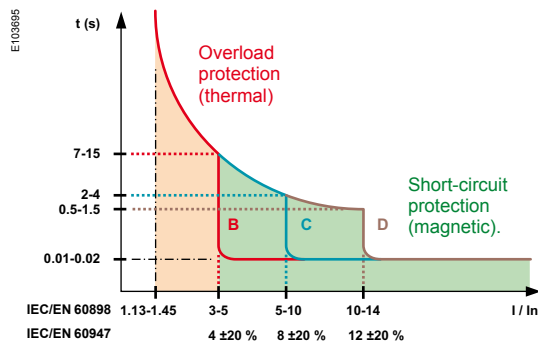
## Choice of rating

- The rating ( $I_n$ ) is chosen above all to protect the electrical connections:
  - for cables: it is chosen according to the cross section and type of conductor,
  - for Canalis prefabricated busbar trunking: it must be simply less than or equal to the rating of the busbar trunking.
- The rating should be greater than the nominal current of the loads.

## Choice of tripping curve

The tripping curve makes the protection more or less sensitive to:

- the inrush current at power up
- the overload current.





### Tripping thresholds ( $\times I_n$ )

Curves	IEC /EN 60898	IEC/EN 60947-2
B	Between 3 $I_n$ and 5 $I_n$	4 ± 20 %
C	Between 5 $I_n$ and 10 $I_n$	8 ± 20 %
D or K	Between 10 $I_n$ and 14 $I_n$	12 ± 20 %
MA	-	12 ± 20 %
Z	-	3 ± 20 %

- To prevent nuisance tripping, it may be advisable to choose a less sensitive curve, e.g. change from B to C (tripping curves, see module CA908024).

## Selection guide (cont.)

### Circuit breakers

Type		C120N	C120H			
						
Standard		IEC/EN 60898-1		IEC/EN 60898-1		
Quality label		Country approval pictogram		Country approval pictogram		
Number of poles		1P	2, 3, 4P	1P	2, 3, 4P	
Add-on residual current devices (Vigi)		■		■		
Auxiliaries for remote tripping and indication		■		■		
<b>Electrical characteristics</b>						
Curves		B, C, D		B, C, D		
Ratings (A)	In	63 to 125		63 to 125		
Maximum operational voltage (V)	Ue	AC (50/60 Hz)	240/415, 440			
		max DC	125 per pole			
Minimum operational voltage (V)	Ue	AC (50/60 Hz)	12			
		min DC	12			
Insulation voltage (V AC)		Ui		500		
Rated impulse withstand voltage (kV)		Uimp		6		
<b>Breaking capacity</b>						
IEC/EN 60898 (A)	Icn	230/400 V	10000	10000	15000	15000
<b>AC-Breaking capacity</b>	<b>Ue</b>	<b>(50/60 Hz)</b>	<b>1P</b>	<b>2, 3, 4P</b>	<b>1P</b>	<b>2, 3, 4P</b>
Ratings (A)	In	63 to 125		63 to 125		
IEC 60947-2 (kA)	Icu	110...130 V	–	–	–	–
		12...130 V	<b>20</b>	–	<b>30</b>	–
		220...240 V	<b>10</b>	<b>20</b>	<b>15</b>	<b>30</b>
		380...415 V	<b>3<sup>(1)</sup></b>	<b>10</b>	<b>4.5<sup>(1)</sup></b>	<b>15</b>
		440 V	–	<b>6</b>	–	<b>10</b>
		500 V	–	–	–	–
Ics	75 % of Icu		50 % of Icu			
<b>DC-Breaking capacity</b>						
IEC 60947-2 (kA)	Icu	12...125 V (1P)	<b>15</b>	<b>20</b>		
		≤ 144 V (1P)	<b>10</b>	<b>15</b>		
		≤ 250 V (2P)	<b>10</b>	<b>15</b>		
		≤ 375 V (3P)	<b>10</b>	<b>15</b>		
		≤ 500 V (4P)	<b>10</b>	<b>15</b>		
		Ics	100 % of Icu		100 % of Icu	
<b>Other characteristics</b>						
Suitable for industrial isolation according to IEC/EN 60947-2		■		■		
Reference temperature IEC/EN 60947-2		50°C		50°C		
Fault tripping indication		–		–		
Positive contact indication		■		■		
Fast closing		■		■		
Degree of protection	IP	Device only	IP20			
		Device in modular enclosure	IP40			
<b>For more detail, see module</b>		<b>CA901015</b>		<b>CA901016</b>		
<b>Accessories</b>		<b>CA907012 and CA907013</b>		<b>CA907012 and CA907013</b>		
<b>Auxiliaries</b>		<b>CA907008 and CA907013</b>		<b>CA907008 and CA907013</b>		
<b>Earth leakage module (Vigi)</b>		<b>CA902016</b>		<b>CA902016</b>		

(1) Breaking capacity under 1 pole with IT isolated neutral system (case of double fault).

# C120N circuit breakers (curves C, D)



Country approval pictograms



## IEC/EN 60947-2

C120N 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, 2P, 3P, 4P	230 to 400 V	75 % of Icu
Rating (In)	80 and 100 A	

### Direct current (DC)

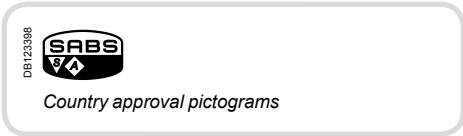
Breaking capacity (Icu) according to IEC/EN 60947-2	Voltage (Ue)					Service breaking capacity (Ics)
	Between +/-	≤ 144 V	≤ 250 V	≤ 375 V	≤ 500 V	
	1P	2P	3P	4P		
Rating (In) 80 and 100 A	15 kA	10 kA	10 kA	10 kA	10 kA	100 % of Icu

## Catalogue numbers

### C120N circuit breaker

Type	1P	2P	3P	4P
Auxiliaries	Remote indication and tripping, module CA907008 and CA907013	Remote indication and tripping, module CA907008 and CA907013	Remote indication and tripping, module CA907008 and CA907013	Remote indication and tripping, module CA907008 and CA907013
Vigi C120	Vigi C120 add-on residual current device, module CA902016	Vigi C120 add-on residual current device, module CA902016	Vigi C120 add-on residual current device, module CA902016	Vigi C120 add-on residual current device, module CA902016
Rating (In)	Curve C   D	Curve C   D	Curve C   D	Curve C   D
80 A	A9N60729   A9N60745	A9N60733   A9N60749	A9N60737   A9N60753	A9N60741   A9N60757
100 A	A9N60730   A9N60746	A9N60734   A9N60750	A9N60738   A9N60754	A9N60742   A9N60758
Width in 9-mm modules	3	6	9	12
Accessories	Module CA907012 and CA907013	Module CA907012 and CA907013	Module CA907012 and CA907013	Module CA907012 and CA907013

# C120H circuit breakers (curve C)



## IEC/EN 60947-2

C120H 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	230 to 400 V	50 % of Icu
Rating (In)	80 and 100 A	

### Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2	Voltage (Ue)					Service breaking capacity (Ics)
	Between +/-	12 to 125 V	≤ 144 V	≤ 250 V	≤ 375 V	
Number of poles	1P		2P	3P	4P	100 % of Icu
Rating (In)	80 and 100 A	20 kA	15 kA	15 kA	15 kA	

## Catalogue numbers

C120H circuit breaker					
Type	1P	2P	3P	4P	
Auxiliaries	Remote indication and tripping, module CA907008 and CA907013	Remote indication and tripping, module CA907008 and CA907013	Remote indication and tripping, module CA907008 and CA907013	Remote indication and tripping, module CA907008 and CA907013	
Vigi C120	Vigi C120 add-on residual current device, module CA902016	Vigi C120 add-on residual current device, module CA902016	Vigi C120 add-on residual current device, module CA902016	Vigi C120 add-on residual current device, module CA902016	
Rating (In)	Curve C	Curve C	Curve C	Curve C	
80 A	A9N60777	A9N60781	A9N60785	A9N60789	
100 A	A9N60778	A9N60782	A9N60786	A9N60790	
Width in 9-mm modules	3	6	9	12	
Accessories	Module CA907012 and CA907013	Module CA907012 and CA907013	Module CA907012 and CA907013	Module CA907012 and CA907013	



PB107917-40

■ Terminals insulated to IP20



■ Location for 4 clip-on terminal markers

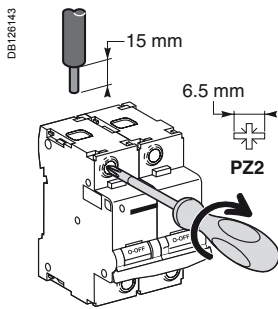


### Positive contact indication

- 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.

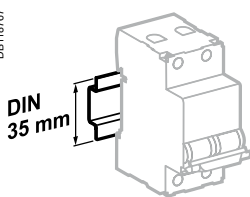
- Longer product service life thanks to:
  - good overvoltage withstand capacity: products designed to offer a high industrial performance level (degree of pollution, rated impulse withstand voltage and insulation voltage).
  - high limitation performances (see limitation curves).
  - fast closure independent of toggle operating speed.
- Remote indication of the open/closed/tripped state by auxiliary contacts (optional).
- Power supply from above or below.

## Connection

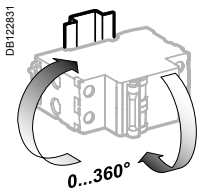


Rating	Tightening torque	Without access.		With accessories			
		Rigid/semi-rigid	Flexible or with ferrule	50 mm <sup>2</sup> Al Terminal	Screw-on connection for ring terminal <sup>(1)</sup>	Rigid cables	Flexible cables
		DB122845	DB122846	DB122835	DB118789	DB118787	
<b>80 and 100 A</b>	3.5 N.m	1 to 50 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>

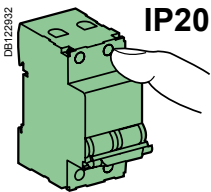
(1) For lugs up to 63 A, front or rear access.



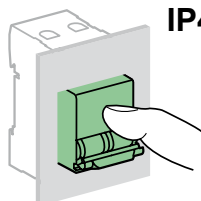
Clips onto 35 mm DIN rail.



Any installation position.



IP20



IP40

## Technical data

### Main characteristics

To IEC/EN 60947-2

Insulation voltage (U <sub>i</sub> )	500 V AC	
Degree of pollution	3	
Rated impulse withstand voltage (U <sub>imp</sub> )	6 kV	
Thermal tripping	Reference temperature	50°C
Magnetic tripping	Curve C	8 I <sub>n</sub> ± 20 %
	Curve D	12 I <sub>n</sub> ± 20 %
Limitation class	3	

### Additional characteristics

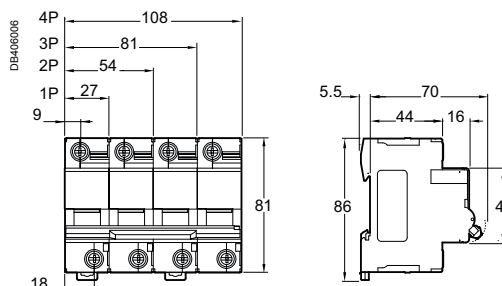
Degree of protection (IEC 60529)	Device only	IP20
	Device in a modular enclosure	IP40
Endurance (O-C)	Electrical	5000 cycles (O-C)
	Mechanical	20000 cycles
Operating temperature	-30°C to +70°C	
Storage temperature	-40°C to +80°C	
Tropicalisation (IEC 60068-1)	Treatment 2 (relative humidity 95 % at 55°C)	

## Weight (g)

### Circuit breaker

Type	C120
1P	205
2P	410
3P	615
4P	820

## Dimensions (mm)



# C120N circuit breakers (curves B, C, D)



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

C120N 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		75 % of Icu
Rating (In) 63 to 125 A	20 kA	10 kA	3 kA <sup>(1)</sup>	-		
2P/3P/4P	12 to 130 V	220 to 240 V	380 to 415 V	440 V		75 % of Icu
63 to 125 A	-	20 kA	10 kA	6 kA		

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

Type	Voltage (V)		Service breaking capacity (Ics)
1P, 2P, 3P, 4P	230 to 400 V		
Rating (In) 63 to 125 A	10000 A		

<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)
Between +/-	Voltage (Ue)						
	12 to 125 V	≤ 144 V	≤ 250 V	≤ 375 V	≤ 500 V		
Number of poles	1P	2P	3P	4P		100 % of Icu	
Rating (In) 63 to 125 A	15 kA	10 kA	10 kA	10 kA	10 kA		

## Catalogue numbers

### C120N circuit breaker

Type	1P	2P
Auxiliaries	Remote indication and tripping, module CA907008 and CA907013	Remote indication and tripping, module CA907008 and CA907013
Vigi C120	Vigi C120 add-on residual current device, module CA902016	Vigi C120 add-on residual current device, module CA902016
Rating (In)	Curve	Curve
	B   C   D	B   C   D
63 A	A9N18340   A9N18356   A9N18378	A9N18344   A9N18360   A9N18382
80 A	A9N18341   A9N18357   A9N18379	A9N18345   A9N18361   A9N18383
100 A	A9N18342   A9N18358   A9N18380	A9N18346   A9N18362   A9N18384
125 A	A9N18343   A9N18359   A9N18381	A9N18347   A9N18363   A9N18385
Width in 9-mm modules	3	6
Accessories	Module CA907012 and CA907013	Module CA907012 and CA907013

<sup>(1)</sup> Country France only

# C120N circuit breakers (curves B, C, D) (cont.)

PB107817-40

■ Terminals insulated to IP20



■ Location for 4 clip-on terminal markers

**Positive contact indication**

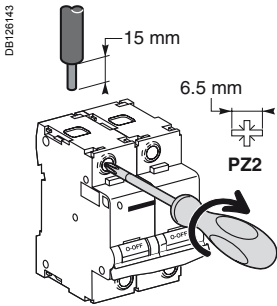
- Suitability for isolation in the industrial sector to IEC/EN 60947-2.
- The presence of the green strip guarantees that the contacts open physically and allows work to be carried out safely on the downstream circuit.

- Longer product service life thanks to:
  - good overvoltage withstand capacity: products designed to offer 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.

3P				4P		
Remote indication and tripping, module CA907008 and CA907013				Remote indication and tripping, module CA907008 and CA907013		
Vigi C120 add-on residual current device, module CA902016				Vigi C120 add-on residual current device, module CA902016		
Curve				Curve		
<b>B</b>	<b>C</b>	<b>D</b>		<b>B</b>	<b>C</b>	<b>D</b>
A9N18348	A9N18364	A9N18386		A9N18352	A9N18371	A9N18390
A9N18349	A9N18365	A9N18387		A9N18353	A9N18372	A9N18391
A9N18350	A9N18367	A9N18388		A9N18354	A9N18373(1)	A9N18392
A9N18351	A9N18369	A9N18389		A9N18355	A9N18374	A9N18392
					A9N18375(1)	
					A9N18376	A9N18393
					A9N18377(1)	
9				12		
Module CA907012 and CA907013				Module CA907012 and CA907013		

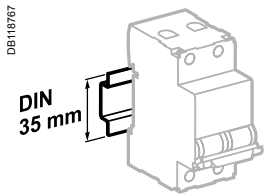
# C120N circuit breakers (curves B, C, D) (cont.)

## Connection

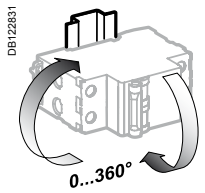


Rating	Tightening torque	Without access.		With accessories		
		Rigid/semi-rigid	Flexible or with ferrule	50 mm <sup>2</sup> Al Terminal	Screw-on connection for ring terminal <sup>(1)</sup>	Multi-cable terminal
		DBI122845	DBI122846	DBI122835	DBI18789	DBI18787
<b>63 to 125 A</b>	3.5 N.m	1 to 50 mm <sup>2</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>

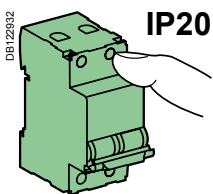
(1) For lugs up to 63 A, front or rear access.



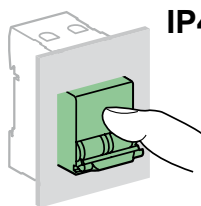
Clips onto 35 mm DIN rail.



Any installation position.



IP20



IP40

## Technical data

### Main characteristics

#### To IEC/EN 60947-2

Insulation voltage (U <sub>i</sub> )	500 V AC
Degree of pollution	3
Rated impulse withstand voltage (U <sub>imp</sub> )	6 kV
Thermal tripping Reference temperature	50°C

#### To IEC/EN 60898-1

Magnetic tripping	Curve B	3 and 5 I <sub>n</sub>
	Curve C	5 and 10 I <sub>n</sub>
	Curve D	10 and 14 I <sub>n</sub>
Limitation class		3

### Additional characteristics

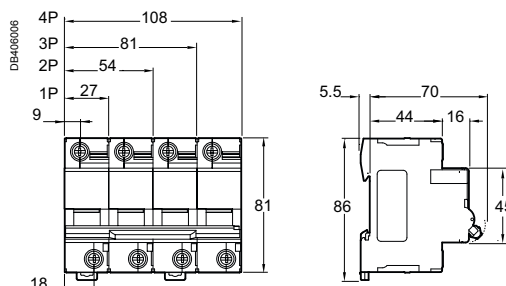
Degree of protection (IEC 60529)	Device only	IP20	
	Device in a modular enclosure	IP40	
Endurance (O-C)	Electrical	63 A	10000 cycles (O-C)
		80...125 A	5000 cycles (O-C)
	Mechanical		20000 cycles
Operating temperature		-30°C to +70°C	
Storage temperature		-40°C to +80°C	
Tropicalisation (IEC 60068-1)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

## Weight (g)

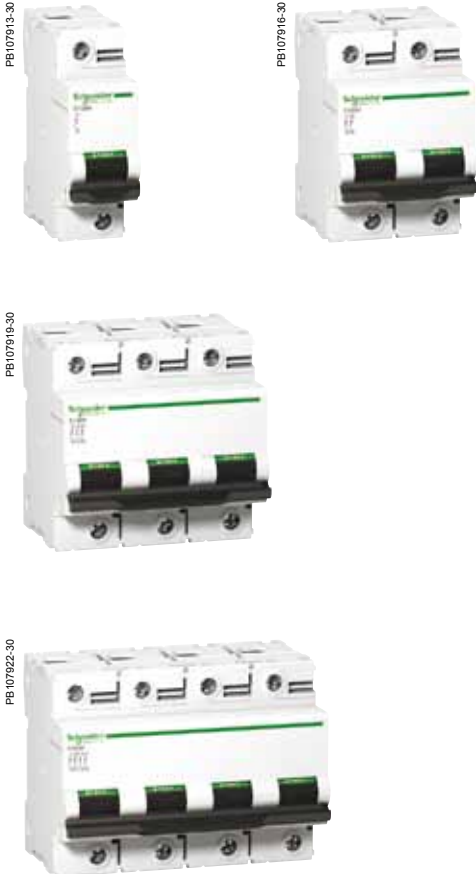
### Circuit breaker

Type	C120N
1P	205
2P	410
3P	615
4P	820

## Dimensions (mm)



# C120H circuit breakers (curves B, C, D)



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

C120H 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		50 % of Icu
Rating (In) 63 to 125 A	30 kA	15 kA	4,5 kA <sup>(1)</sup>	-		
2P, 3P, 4P	12 to 130 V	220 to 240 V	380 to 415 V	440 V		50 % of Icu
63 to 125 A	-	30 kA	15 kA	10 kA		

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

Type	Voltage (V)		Service breaking capacity (Ics)
1P, 2P, 3P, 4P	230 to 400 V		
Rating (In) 63 to 125 A	15000 A		

<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)
Between +/-	Voltage (Ue)						
	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

### C120H circuit breaker

Type	1P	2P
Auxiliaries	Remote indication and tripping, module CA907008 and CA907013	Remote indication and tripping, module CA907008 and CA907013
Vigi C120	Vigi C120 add-on residual current device, module CA902016	Vigi C120 add-on residual current device, module CA902016
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
Accessories	Module CA907012 and CA907013	Module CA907012 and CA907013

# C120H circuit breakers (curves B, C, D) (cont.)

PB107916-40

■ Terminals insulated to IP20



■ Location for 4 clip-on terminal markers



### Positive contact indication

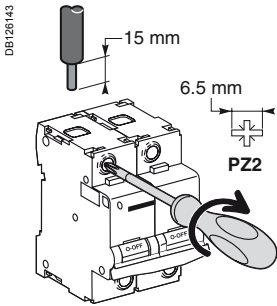
- Suitability for isolation in the industrial sector to IEC/EN 60947-2.
- The presence of the green strip guarantees that the contacts open physically and allows work to be carried out safely on the downstream circuit.

- 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.

3P			4P		
Remote indication and tripping, module CA907008 and CA907013			Remote indication and tripping, module CA907008 and CA907013		
Vigi C120 add-on residual current device, module CA902016			Vigi C120 add-on residual current device, module CA902016		
Curve			Curve		
<b>B</b>	<b>C</b>	<b>D</b>	<b>B</b>	<b>C</b>	<b>D</b>
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		
Module CA907012 and CA907013			Module CA907012 and CA907013		

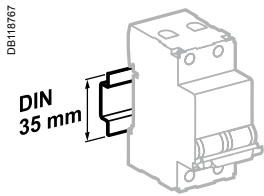
# C120H circuit breakers (curves B, C, D) (cont.)

## Connection

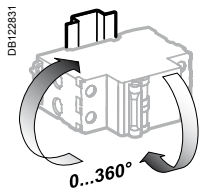


Rating	Tightening torque	Without access.		With accessories			
		Rigid	Flexible or with ferrule	50 mm <sup>2</sup> Al term.	Screw-on connection for ring terminal <sup>(1)</sup>	Rigid cables	Flexible cables
		DB1122945	DB1122946	DB1122935	DB1118769	DB1118767	
<b>63 to 125 A</b>	3.5 N.m	1 to 50 mm <sup>2</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>

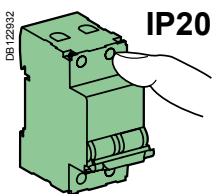
*(1) For lugs up to 63 A, front or rear accessories.*



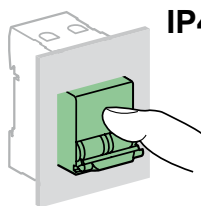
Clips onto 35 mm DIN rail.



Any installation position.



IP20



IP40

## Technical data

### Main characteristics

#### To IEC/EN 60947-2

Insulation voltage (U <sub>i</sub> )	500 V AC
Degree of pollution	3
Rated impulse withstand voltage (U <sub>imp</sub> )	6 kV
Thermal tripping	Reference temperature
	50°C

#### To IEC/EN 60898-1

Magnetic tripping	Curve B	3 and 5 I <sub>n</sub>
	Curve C	5 and 10 I <sub>n</sub>
	Curve D	10 and 14 I <sub>n</sub>
Limitation class		3

### Additional characteristics

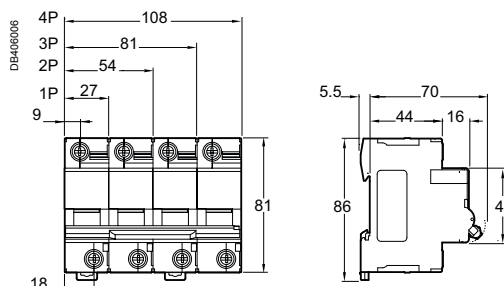
Degree of protection (IEC 60529)	Device only	IP20	
	Device in a modular enclosure	IP40 (IPXXD)	
Endurance (O-C)	Electrical	63 A	10000 cycles (O-C)
		80...125 A	5000 cycles (O-C)
	Mechanical		20000 cycles
Operating temperature		-30°C to +70°C	
Storage temperature		-40°C to +80°C	
Tropicalisation (IEC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

## Weight (g)

### Circuit breaker






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

## Dimensions (mm)







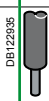
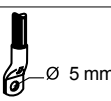





# Accessories for C120, DPN, DPN Vigi, C60H-DC, SW60-DC, C60NA-DC, C60PV-DC, iSW devices (cont.)

Safety								
Accessories	Screw shield		Terminal shield			Interpole barrier	Spacer	
								
	056870_SE-33	PB124114	056869_SE-38		DE123988	PB104483-35		
<b>Function</b>	<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> <ul style="list-style-type: none"> <li>■ 1P</li> <li>■ 1P</li> <li>■ 2P</li> <li>■ 3P: 1 x 26975 + 1 x 26976</li> <li>■ 4P: 2 x 26976</li> </ul>			<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 mm<sup>2</sup></li> </ul>
<b>Cat. numbers</b>	18527	26981	18526	26975	26976	27001	A9N27062	
<b>Set of</b>	2 (4P dividable)		2 (for upstream/downstream terminal)			10	1	
<b>Suitable for the following devices:</b>								
C120, C120NA-DC	■	–	■	–	–	■	■	
Vigi C120	–	–	–	–	–	–	■	
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	■	

# Accessories for C120, DPN, DPN Vigi, C60H-DC, SW60-DC, C60NA-DC, C60PV-DC, iSW devices (cont.)

		Connection				
Accessories	Multi-cable terminal	50 mm <sup>2</sup> Al terminal	Screw-on connection for ring terminal	Connection kit for ring terminals	Terminal for rear connector	
						
	DB118780	DB118782	DB123897	058967N-23	DB118784	
Function						
	For 3 copper cables: ■ Rigid up to 16 mm <sup>2</sup> ■ Flexible up to 10 mm <sup>2</sup>	For 16 to 50 mm <sup>2</sup> 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 mm <sup>2</sup> or by terminal ■ Supplied with a 1P terminal shield	
						
	DB118787	DB122835	DB118789			
Cat. numbers	19091	19096	27060	27053	17400	18528
Set of	4	3	1	8	2	2
C120, C120NA-DC	■	■	■	■	-	■
Vigi C120	■	■	■	-	-	-
DPN, DPN Vigi	-	-	-	■	-	-
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				
					
	031294D_SE23				
Function					
		For connection identification			
Cat. numbers		0: AB1-R0	A: AB1-GA	K: AB1-GK	U: AB1-GU
		1: AB1-R1	B: AB1-GB	L: AB1-GL	V: AB1-GV
		2: AB1-R2	C: AB1-GC	M: AB1-GM	W: AB1-GW
		3: AB1-R3	D: AB1-GD	N: AB1-GN	X: AB1-GX
		4: AB1-R4	E: AB1-GE	O: AB1-GO	Y: AB1-GY
		5: AB1-R5	F: AB1-GF	P: AB1-GP	Z: AB1-GZ
		6: AB1-R6	G: AB1-GG	Q: AB1-GQ	+ : AB1-R12
		7: AB1-R7	H: AB1-GH	R: AB1-GR	- : AB1-R13
		8: AB1-R8	I: AB1-GI	S: AB1-GS	Blank : AB1-RV
		9: AB1-R9	J: AB1-GJ	T: AB1-GT	
Set of	250				
C120, C120NA-DC	■ 4 markers max. per pole				
Vigi C120	■ 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				