






Selection guide



Circuit breakers

Type	iC60A		iC60N			
						
Standard	IEC/EN 60898-1, 60947-2		IEC/EN 60947-2, 60898-1			
Quality label	Country approval pictogram		Country approval pictogram			
Number of poles	1P	2, 3, 4P –	1P, 1P+N	2, 3, 4P		
Add-on residual current devices (Vigi)	■		■			
Auxiliaries for remote tripping and indication	■		■			
Electrical characteristics						
Curves	C		B, C, D			
Ratings (A)	In	1 to 63	0.5 to 63			
Maximum operational voltage (V)	Ue AC (50/60 Hz)	415	440			
	max DC	–	250			
Minimum operational voltage (V)	Ue AC (50/60 Hz)	220	12			
	min DC	–	12			
Insulation voltage (V AC)	Ui	500	500			
Rated impulse withstand voltage (kV)	Uimp	6	6			
Breaking capacity						
AC-Breaking capacity	Ue (50/60 Hz)	Ph / N	Ph / Ph	Ph / N	Ph / Ph	
IEC 60947-2 (kA)	Icu	12...60 V	–	–	50 (0.5 to 4 A) 36 (6 to 63 A)	–
		12...133 V	–	–	–	50 (0.5 to 4 A) 36 (6 to 63 A)
		100...133 V	–	–	50 (0.5 to 4 A) 20 (6 to 63 A)	–
		220...240 V	6	10	50 (0.5 to 4 A) 10 (6 to 63 A)	50 (0.5 to 4 A) 20 (6 to 63 A)
		380...415 V	–	6	–	50 (0.5 to 4 A) 10 (6 to 63 A)
		440 V	–	–	–	25 (0.5 to 4 A) 6 (6 to 63 A)
	Ics	100 % of Icu		100 % of Icu (0.5 to 4 A) 75 % of Icu (6 to 63 A)		
EN 60898 (A)	Icn	230/400 V	4500	4500	6000	6000
DC-Breaking capacity						
IEC 60947-2 (kA)	Icu	Ue DC				
		12...60 V (1P)	–	–	15	–
		100...133 V (2P)	–	–	–	20
		100...133 V (3P)	–	–	–	30
	220...250 V (4P)	–	–	–	40	
Ics	100 % of Icu		100 % of Icu			
Other characteristics						
Suitable for industrial isolation according to IEC/EN 60947-2	■		■			
Fault tripping indication	Visi-trip window		Visi-trip window			
Positive contact indication	■		■			
Fast closing	■		■			
Dismounting with comb busbar in place	Upstream connection		Upstream connection			
Degree of protection	IP	Device only	IP20	IP20	IP20	
		Device in modular enclosure	IP40	IP40	IP40	
		Insulation class II	Insulation class II	Insulation class II	Insulation class II	
For more detail, see module	Page 32		Page 36			
Accessories	Pages 123 and 136		Pages 123 and 136			
Auxiliaries	Pages 123 and 136		Pages 155 and 168			
Add-on residual current devices (Vigi)	Page 82		Page 82			

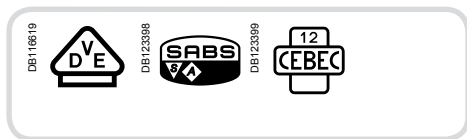
(1) 100 % of Icu for ratings 6 to 25 A under Ue 100 to 133 V AC Ph/Ph and Ue 12 to 60 V AC Ph/N.

iC60H		iC60L		iC60LMA	
					
IEC/EN 60947-2, 60898-1		IEC/EN 60947-2, 60898-1		IEC/EN 60947-2	
Country approval pictogram		Country approval pictogram		Country approval pictogram	
1P	2, 3, 4P	1P	2, 3, 4P	2, 3	
■		■		■	
■		■		■	
B, C, D		B, C, K		MA	
0.5 to 63		0.5 to 63		1.6 to 40	
440		440		440	
250		250		250	
12		12		12	
12		12		12	
500		500		500	
6		6		6	
Ph / N	Ph / Ph	Ph / N	Ph / Ph	Ue	(50/60 Hz)
70 (0.5 to 4 A) 42 (6 to 63 A)	–	100 (0.5 to 4 A) 70 (6 to 63 A)	100 (0.5 to 4 A) 80 (6 to 63 A)	–	–
–	70 (0.5 to 4 A) 42 (6 to 63 A)	–	–	–	–
70 (0.5 to 4 A) 30 (6 to 63 A)	–	100 (0.5 to 4 A) 50 (6 to 25 A) 36 (32/40 A) 30 (50/63 A)	100 (0.5 to 4 A) 70 (6 to 63 A)	–	–
70 (0.5 to 4 A) 15 (6 to 63 A)	70 (0.5 to 4 A) 30 (6 to 63 A)	100 (0.5 to 4 A) 25 (6 to 25 A) 20 (32/40 A) 15 (50/63 A)	100 (0.5 to 4 A) 50 (6 to 25 A) 36 (32/40 A) 30 (50/63 A)	100 (1.6 to 4 A) 50 (6.3 to 25 A) 36 (40 A)	
–	70 (0.5 to 4 A) 15 (6 to 63 A)	–	100 (0.5 to 4 A) 25 (6 to 25 A) 20 (32/40 A) 15 (50/63 A)	100 (1.6 to 4 A) 25 (6.3 to 25 A) 20 (40 A)	
–	50 (0.5 to 4 A) 10 (6 to 63 A)	–	70 (0.5 to 4 A) 20 (6 to 25 A) 15 (32/40 A) 10 (50/63 A)	50 (1.6 to 4 A) 20 (6.3 to 25 A) 15 (40 A)	
100 % of Icu (0.5 to 4 A) 50 % of Icu (6 to 63 A)		100 % of Icu (0.5 to 4 A) 50 % of Icu (6 to 63 A) ⁽¹⁾		50 % of Icu (1.6 to 40 A)	
10000	10000	15000	15000	–	–
20	–	25	–	–	–
–	25	–	30	–	–
–	40	–	50	–	–
–	50	–	70	–	–
100 % of Icu		100 % of Icu		–	–
■		■		■	
Visi-trip window		Visi-trip window		Visi-trip window	
■		■		■	
■		■		■	
Upstream connection		Upstream connection		Upstream connection	
IP20		IP20		IP20	
IP40		IP40		IP40	
Insulation class II		Insulation class II		Insulation class II	
Page 40		Page 44		Page 48	
Pages 123 and 136		Pages 123 and 136		Pages 155 and 168	
Pages 155 and 168		Pages 155 and 168		Pages 155 and 168	
Page 82		Page 82		Page 82	

Selection guide (cont.)

Circuit breakers							
Type		C120N	C120H				
							
Standard		IEC 60947-2, IEC/EN 60898-1	IEC 60947-2, 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		■	■				
Electrical characteristics							
Curves		B, C, D	B, C, D				
Ratings (A)	In	63, 80, 100, 125	10 to 125				
Maximum operational voltage (V)	Ue AC (50/60 Hz)	240/440	240/440				
	Ue max DC	125 per pole	125 per pole				
Minimum operational voltage (V)	Ue AC (50/60 Hz)	12	12				
	Ue min DC	12	12				
Insulation voltage (V AC)	Ui	500	500				
Rated impulse withstand voltage (kV)	Uimp	6	6				
Breaking capacity							
AC-Breaking capacity		Ue (50/60 Hz)	Ph / N	Ph / Ph	Ph / N	Ph / Ph	
IEC 60947-2 (kA)	Icu	110...130 V	–	–	–	–	
		130 V	20	–	30	–	
		220...240 V	–	–	–	–	
		230/400 V	10	20	15	30	
		380...415 V	–	–	–	–	
		400/415 V	3⁽¹⁾	10	4.5⁽¹⁾	15	
		440 V	–	6	–	10	
	500 V	–	–	–	–		
Ics	75 % of Icu		50 % of Icu				
EN 60898 (A)	Icn	230/400 V	10000	10000	15000	15000	
DC-Breaking capacity		Ue DC					
IEC 60947-2 (kA)	Icu	60 V (1P)	10	–	15	–	
		125 V (1P)	10	–	15	–	
		250 V (2P)	–	10	–	15	
		500 V (4P)	–	–	–	–	
	Ics	100 % of Icu		100 % of Icu			
Other characteristics							
Suitable for industrial isolation according to IEC/EN 60947-2		■	■				
Fault tripping indication		–	–				
Positive contact indication		■	■				
Fast closing		■	■				
Dismounting with comb busbar in place		Special comb busbar	Special comb busbar				
Degree of protection	IP	Device only	IP20	IP20			
		Device in modular enclosure	IP40	IP40			
For more detail, see module		Page 60	Page 64				
Accessories		Page 123	Page 123				
Auxiliaries		Page 123	Page 123				
Earth leakage module (Vigi)		Page 89	Page 89				

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



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



- iC60a 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.

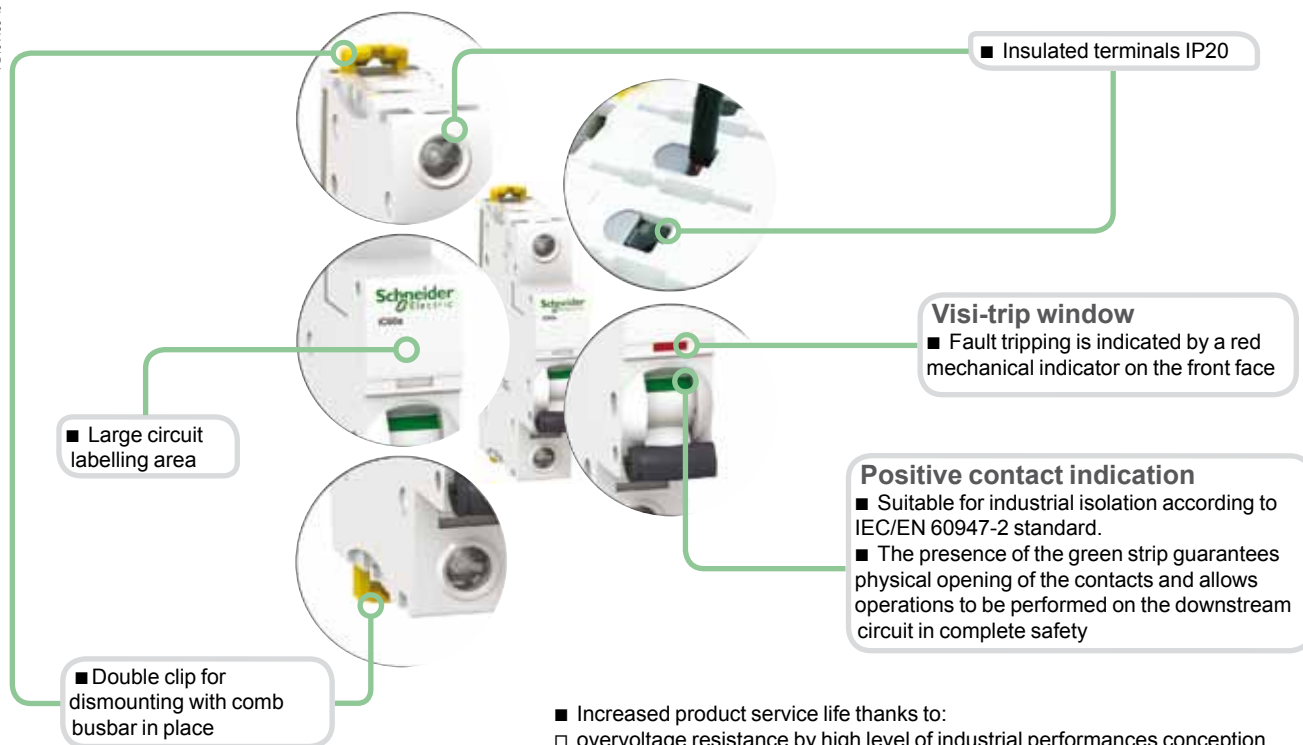
Alternating current (AC) 50/60 Hz			
Breaking capacity (Icu) according to IEC/EN 60947-2			Service breaking capacity (Ics)
Voltage (Ue)			
Ph/Ph (2P, 3P, 4P)	220 to 240 V	380 to 415 V	
Ph/N (1P)		220 to 240 V	
Rating (In) 1 to 63 A	10 kA	6 kA	100 % of Icu
Breaking capacity (Icn) according to IEC/EN 60898-1			
Voltage (Ue)			
Ph/Ph	400 V		
Ph/N	230 V		
Rating (In) 1 to 63 A	4500 A		

Catalogue numbers

iC60a circuit breaker

Type	1P	2P
Auxiliaries	Remote tripping and indication, pages 123 and 136	Remote tripping and indication, pages 123 and 136
Vigi iC60	Vigi iC60 add-on residual current device, page 82	Vigi iC60 add-on residual current device, page 82
Rating (In)	Curve C	Curve C
Quality label		
1 A	A9F64101	A9F64201
2 A	A9F64102	A9F64202
3 A	A9F64103	A9F64203
6 A	A9F64106	A9F64206
10 A	A9F64110	A9F64210
16 A	A9F64116	A9F64216
20 A	A9F64120	A9F64220
25 A	A9F64125	A9F64225
32 A	A9F64132	A9F64232
40 A	A9F64140	A9F64240
50 A	A9F64150	A9F64250
63 A	A9F64163	A9F64263
Width in 9-mm modules	2	4
Accessories	Pages 123 and 136	Pages 123 and 136

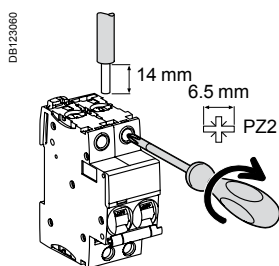
PB104433-40



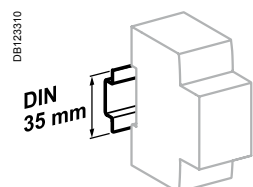
- Increased product service life thanks to:
 - overvoltage resistance by high level of industrial performances conception (pollution degree, rated impulse withstand voltage and insulation voltage),
 - high performance limitation (see limitation curves),
 - fast closing independent of the speed of actuation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

3P	4P
Remote tripping and indication, pages 123 and 136	Remote tripping and indication, pages 123 and 136
Vigi iC60 add-on residual current device, page 82	Vigi iC60 add-on residual current device, page 82
Curve C	Curve C
A9F64301	A9F64401
A9F64302	A9F64402
A9F64303	A9F64403
A9F64306	A9F64406
A9F64310	A9F64410
A9F64316	A9F64416
A9F64320	A9F64420
A9F64325	A9F64425
A9F64332	A9F64432
A9F64340	A9F64440
A9F64350	A9F64450
A9F64363	A9F64463
6	8
Pages 123 and 136	Pages 123 and 136

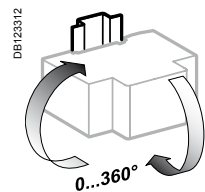
Connection



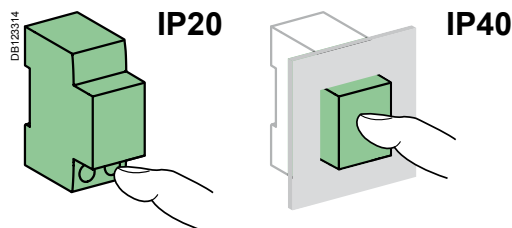
Rating	Tightening torque	Without accessory		With accessories			
		Copper cables		50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal	
		Rigid	Flexible or ferrule			Rigid cables	Flexible cables
1 to 25 A	2 N.m	1 to 25 mm ²	1 to 16 mm ²	-	Ø 5 mm	-	
32 to 63 A	3.5 N.m	1 to 35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



Clip on DIN rail 35 mm.



Indifferent position of installation.



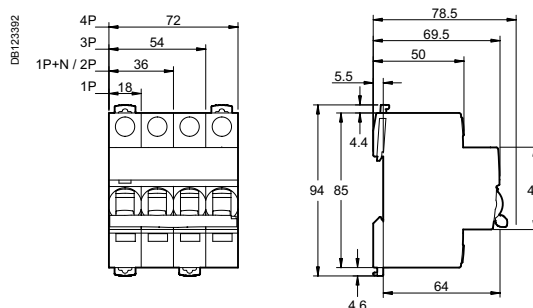
Technical data

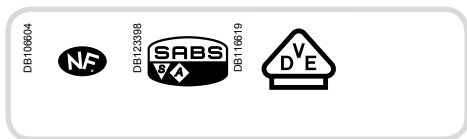
Main characteristics		
According to IEC/EN 60947-2		
Insulation voltage (Ui)	500 V AC	
Pollution degree	3	
Rated impulse withstand voltage (Uimp)	6 kV	
Thermal tripping	Reference temperature	50 °C
	Temperature derating	See page 233
Magnetic tripping	C curve	8 In ± 20 %
Utilization category	A	
According to IEC/EN 60898-1		
Limitation class	3	
Rated making and breaking capacity of an individual pole (Icn1)	Icn1 = Icn	
Additional characteristics		
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation class II
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)	IV	
Operating temperature	-35°C to +70°C	
Storage temperature	-40°C to +85°C	
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity 95 % to 55°C)	

Weight (g)

Circuit-breaker	
Type	iC60a
1P	125
2P	250
3P	375
4P	500

Dimensions (mm)





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

- iC60N 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	Voltage (Ue)				Service breaking capacity (Ics)
	12 to 133 V	220 to 240 V	380 to 415 V	440 V	
Ph/Ph (2P, 3P, 4P)	12 to 133 V	220 to 240 V	380 to 415 V	440 V	100 % of Icu 75 % of Icu
Ph/N (1P, 1P+N)	12 to 60 V	100 to 133 V	220 to 240 V	-	
Rating (In)	0.5 to 4 A	50 kA	50 kA	50 kA	
	6 to 63 A	36 kA	20 kA	10 kA	6 kA

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

Breaking capacity (Icn) according to IEC/EN 60898-1	Voltage (Ue)	
	Ph/Ph	Ph/N
	400 V	230 V
Rating (In)	0.5 to 63 A	6000 A

Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2	Voltage (Ue)				Service breaking capacity (Ics)
	12 to 72 V	100 to 133 V	220 to 250 V		
Between +/-	12 to 72 V	100 to 133 V	220 to 250 V		100 % of Icu
Number of poles	1P	2P (in series)	3P (in series)	4P (in series)	
Rating (In)	1 to 63 A	6 kA	6 kA	6 kA	

Catalogue numbers

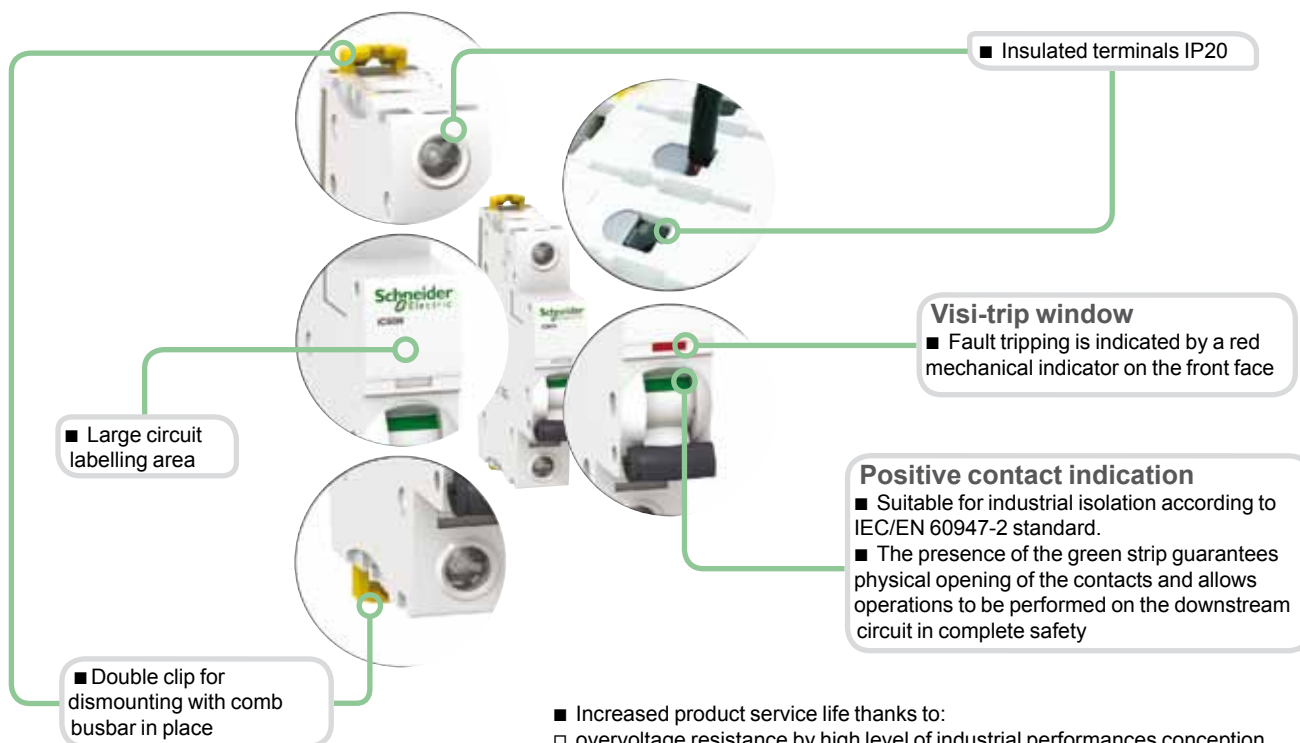
iC60N circuit breaker

Type	1P	2P
Auxiliaries	Remote tripping and indication, pages 123 and 136	Remote tripping and indication, pages 123 and 136
Vigi iC60	Vigi iC60 add-on residual current device, page 82	Vigi iC60 add-on residual current device, page 82
Rating (In)	Curve B ⁽²⁾ C D ⁽¹⁾	Curve B ⁽²⁾ C D ⁽¹⁾
0.5 A ⁽¹⁾	A9F73170	A9F73170
1 A ⁽¹⁾	A9F73101	A9F73101
2 A ⁽¹⁾	A9F73102	A9F73102
3 A ⁽¹⁾	A9F73103	A9F73103
4 A ⁽¹⁾	A9F73104	A9F73104
6 A	A9F76106	A9F76106
10 A	A9F76110	A9F76110
13 A ⁽¹⁾	A9F73113	A9F73113
16 A	A9F76116	A9F76116
20 A	A9F76120	A9F76120
25 A	A9F76125	A9F76125
32 A	A9F76132	A9F76132
40 A	A9F76140	A9F76140
50 A	A9F76150	A9F76150
63 A	A9F76163	A9F76163
Width in 9-mm modules	2	4
Accessories	Pages 123 and 136	Pages 123 and 136

(1) VDE approved only.

(2) only NF and VDE.

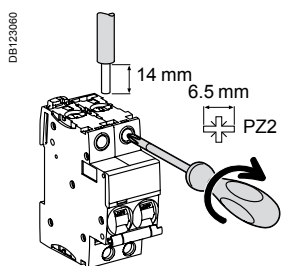
PB10434-40



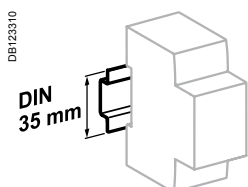
- Increased product service life thanks to:
 - overvoltage resistance by high level of industrial performances conception (pollution degree, rated impulse withstand voltage and insulation voltage),
 - high performance limitation (see limitation curves),
 - fast closing independent of the speed of actuation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

3P			4P		
Remote tripping and indication, pages 123 and 136			Remote tripping and indication, pages 123 and 136		
Vigi iC60 add-on residual current device, page 82			Vigi iC60 add-on residual current device, page 82		
Curve			Curve		
B ⁽²⁾	C	D ⁽¹⁾	B ⁽²⁾	C	D ⁽¹⁾
A9F73370	A9F74370	A9F75370	A973470	A9F74470	A9F75470
A9F73301	A9F74301	A9F75301	A9F73401	A9F74401	A9F75401
A9F73302	A9F74302	A9F75302	A9F73402	A9F74402	A9F75402
A9F73303	A9F74303	A9F75303	A9F73403	A9F74403	A9F75403
A9F73304	A9F74304	A9F75304	A9F73404	A9F74404	A9F75404
A9F76306	A9F77306	A9F75306	A9F76406	A9F77406	A9F75406
A9F76310	A9F77310	A9F75310	A9F76410	A9F77410	A9F75410
A9F73313	A9F74313	A9F75313	A9F73413	A9F74413	A9F75413
A9F76316	A9F77316	A9F75316	A9F76416	A9F77416	A9F75416
A9F76320	A9F77320	A9F75320	A9F76420	A9F77420	A9F75420
A9F76325	A9F77325	A9F75325	A9F76425	A9F77425	A9F75425
A9F76332	A9F77332	A9F75332	A9F76432	A9F77432	A9F75432
A9F76340	A9F77340	A9F75340	A9F76440	A9F77440	A9F75440
A9F76350	A9F77350	A9F75350	A9F76450	A9F77450	A9F75450
A9F76363	A9F77363	A9F75363	A9F76463	A9F77463	A9F75463
6			8		
Pages 123 and 136			Pages 123 and 136		

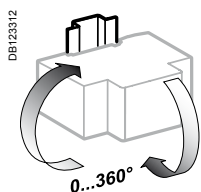
Connection



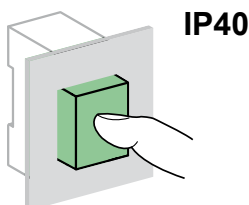
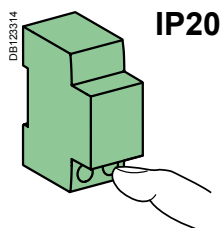
Rating	Tightening torque	Without accessory		With accessories		
		Rigid	Flexible or ferrule	50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal
0.5 to 25 A	2 N.m	DB1122945	DB1122946	DB1122935	DB118789	DB118787
32 to 63 A	3.5 N.m	1 to 25 mm ²	1 to 16 mm ²	-	Ø 5 mm	-
		1 to 35 mm ²	1 to 25 mm ²	50 mm ²		3 x 16 mm ²
						3 x 10 mm ²



Clip on DIN rail 35 mm.



Indifferent position of installation.



Technical data

Main characteristics

According to IEC/EN 60947-2

Insulation voltage (U _i)	500 V AC
Pollution degree	3
Rated impulse withstand voltage (U _{imp})	6 kV
Thermal tripping	Reference temperature
	Temperature derating
	50 °C
	See page 233
Magnetic tripping	B curve
	C curve
	D curve
	4 I _n ± 20 %
	8 I _n ± 20 %
	12 I _n ± 20 %
Utilization category	A

According to IEC/EN 60898-1

Limitation class	3
Rated making and breaking capacity of an individual pole (I _{cn1})	I _{cn1} = I _{cn}

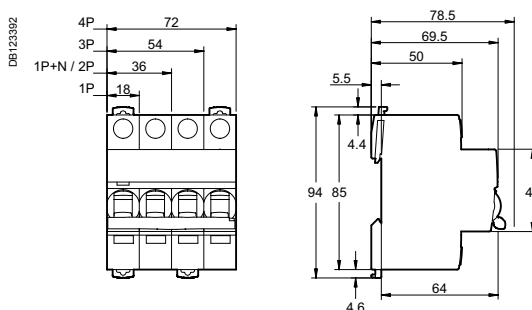
Additional characteristics

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

Weight (g)

Circuit-breaker	
Type	iC60N
1P	125
2P	250
3P	375
4P	500

Dimensions (mm)





IEC/EN 60947-2 IEC/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	Voltage (Ue)				Service breaking capacity (Ics)
	Ph/Ph (2P, 3P, 4P)	12 to 133 V	220 to 240 V	380 to 415 V	
Ph/N (1P, 1P+N)	12 to 60 V	100 to 133 V	220 to 240 V	-	
Rating (In)	0.5 to 4 A	70 kA	70 kA	70 kA	50 kA
	6 to 40 A	42 kA	30 kA	15 kA	10 kA
	50/63 A	42 kA	-	15 kA	10 kA

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

Breaking capacity (Icn) according to IEC/EN 60898-1	Voltage (Ue)	
	Ph/Ph	Ph/N
	400 V	230 V
Rating (In)	0.5 to 63 A	10000 A

Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2	Voltage (Ue)				Service breaking capacity (Ics)
	Between +/-	12 to 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	10 kA	10 kA	10 kA	100 % of Icu

Catalogue numbers

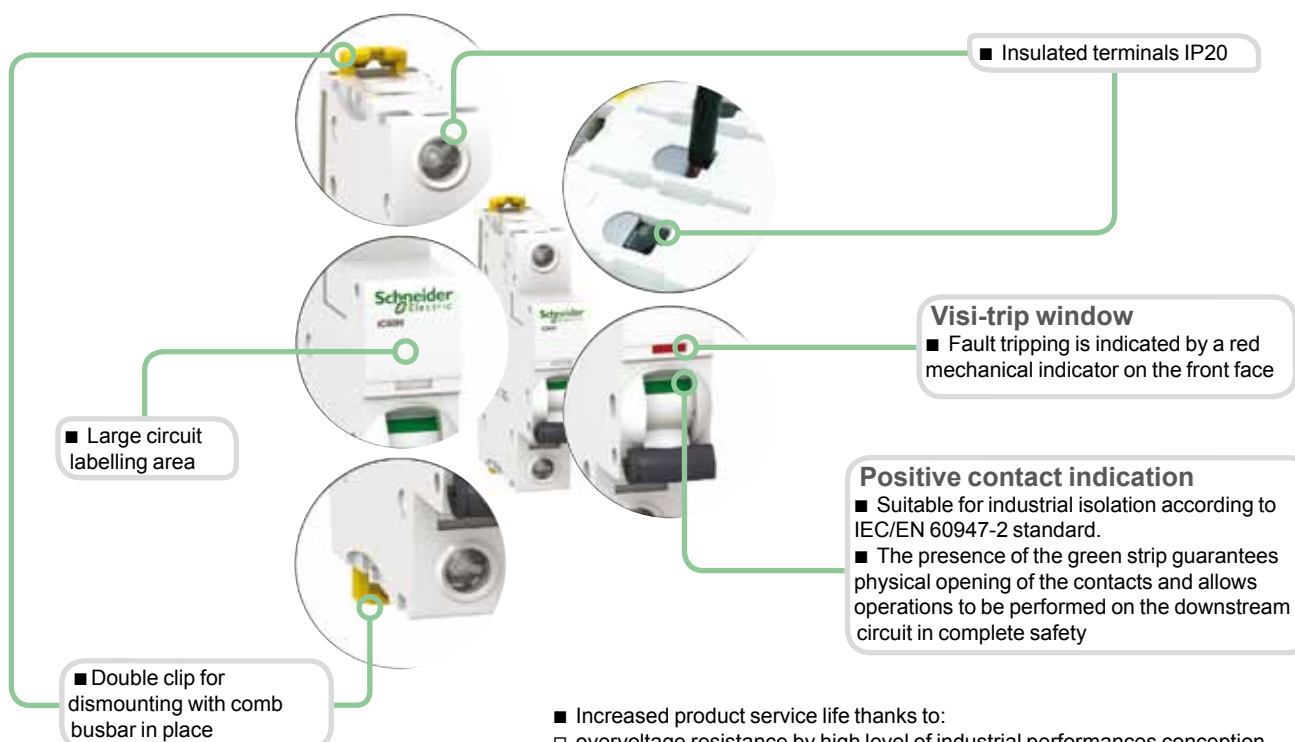
iC60H circuit breaker

Type	1P	2P
Auxiliaries	Remote tripping and indication, pages 123 and 136	Remote tripping and indication, pages 123 and 136
Vigi iC60	Vigi iC60 add-on residual current device, page 82	Vigi iC60 add-on residual current device, page 82
Rating (In)	Curve B ⁽²⁾ C D ⁽¹⁾	Curve B ⁽²⁾ C D ⁽¹⁾
0.5 A ⁽¹⁾	A9F83170	A9F83170
1 A ⁽¹⁾	A9F83101	A9F83101
2 A ⁽¹⁾	A9F83102	A9F83102
3 A ⁽¹⁾	A9F83103	A9F83103
4 A ⁽¹⁾	A9F83104	A9F83104
6 A	A9F86106	A9F87106
10 A	A9F86110	A9F87110
13 A ⁽¹⁾	A9F83113	A9F84113
16 A	A9F86116	A9F87116
20 A	A9F86120	A9F87120
25 A	A9F86125	A9F87125
32 A	A9F86132	A9F87132
40 A	A9F86140	A9F87140
50 A	A9F86150	A9F87150
63 A	A9F86163	A9F87163
Width in 9-mm modules	2	4
Accessories	Pages 123 and 136	Pages 123 and 136

(1) VDE approved only.

(2) only NF and VDE.

PB10435-40



■ Large circuit labelling area

■ Double clip for dismounting with comb busbar in place

■ Insulated terminals IP20

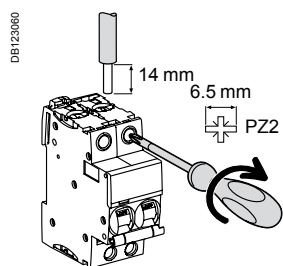
Visi-trip window
■ Fault tripping is indicated by a red mechanical indicator on the front face

Positive contact indication
■ Suitable for industrial isolation according to IEC/EN 60947-2 standard.
■ The presence of the green strip guarantees physical opening of the contacts and allows operations to be performed on the downstream circuit in complete safety

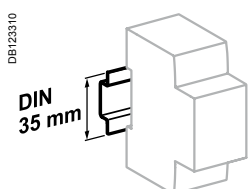
- Increased product service life thanks to:
 - overvoltage resistance by high level of industrial performances conception (pollution degree, rated impulse withstand voltage and insulation voltage),
 - high performance limitation (see limitation curves),
 - fast closing independent of the speed of actuation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

3P			4P		
Remote tripping and indication, pages 123 and 136			Remote tripping and indication, pages 123 and 136		
Vigi iC60 add-on residual current device, page 82			Vigi iC60 add-on residual current device, page 82		
Curve			Curve		
B ⁽²⁾	C	D ⁽¹⁾	B ⁽²⁾	C	D ⁽¹⁾
A9F83370	A9F84370	A9F85370	A9F83470	A9F84470	A9F85470
A9F83301	A9F84301	A9F85301	A9F83401	A9F84401	A9F85401
A9F83302	A9F84302	A9F85302	A9F83402	A9F84402	A9F85402
A9F83303	A9F84303	A9F85303	A9F83403	A9F84403	A9F85403
A9F83304	A9F84304	A9F85304	A9F83404	A9F84404	A9F85404
A9F86306	A9F87306	A9F85306	A9F86406	A9F87406	A9F85406
A9F86310	A9F87310	A9F85310	A9F86410	A9F87410	A9F85410
A9F83313	A9F84313	A9F85313	A9F83413	A9F84413	A9F85413
A9F86316	A9F87316	A9F85316	A9F86416	A9F87416	A9F85416
A9F86320	A9F87320	A9F85320	A9F86420	A9F87420	A9F85420
A9F86325	A9F87325	A9F85325	A9F86425	A9F87425	A9F85425
A9F86332	A9F87332	A9F85332	A9F86432	A9F87432	A9F85432
A9F86340	A9F87340	A9F85340	A9F86440	A9F87440	A9F85440
A9F86350	A9F87350	A9F85350	A9F86450	A9F87450	A9F85450
A9F86363	A9F87363	A9F85363	A9F86463	A9F87463	A9F85463
6			8		
Pages 123 and 136			Pages 123 and 136		

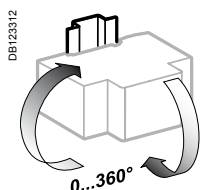
Connection



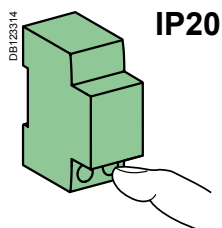
Rating	Tightening torque	Without accessory		With accessories		
		Rigid	Flexible or ferrule	50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal
0.5 to 25 A	2 N.m	1 to 25 mm ²	1 to 16 mm ²	-	Ø 5 mm	-
32 to 63 A	3.5 N.m	1 to 35 mm ²	1 to 25 mm ²	50 mm ²	-	3 x 16 mm ² / 3 x 10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



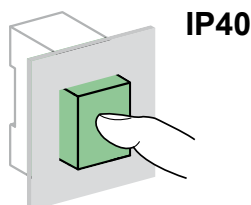
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

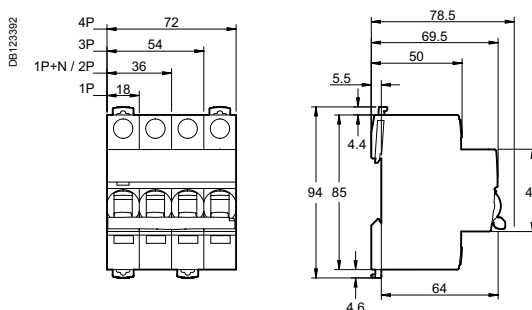
Technical data

Main characteristics	
According to IEC/EN 60947-2	
Insulation voltage (U _i)	500 V AC
Pollution degree	3
Rated impulse withstand voltage (U _{imp})	6 kV
Thermal tripping	Reference temperature: 50 °C Temperature derating: See page 233
Magnetic tripping	B curve: 4 I _n ± 20 % C curve: 8 I _n ± 20 % D curve: 12 I _n ± 20 %
Utilization category	A
According to IEC/EN 60898-1	
Limitation class	3
Rated making and breaking capacity of an individual pole (I _{cn1})	I _{cn1} = I _{cn}
Additional characteristics	
Degree of protection (IEC 60529)	Device only: IP20 Device in modular enclosure: IP40 Insulation class II
Endurance (O-C)	Electrical: 10,000 cycles Mechanical: 20,000 cycles
Overvoltage category (IEC 60364)	IV
Operating temperature	-35 °C to +70 °C
Storage temperature	-40 °C to +85 °C
Tropicalization (IEC 60068-1)	Treatment 2 (relative humidity 95 % to 55 °C)

Weight (g)

Circuit-breaker	
Type	iC60H
1P	125
2P	250
3P	375
4P	500

Dimensions (mm)





IEC/EN 60947-2 IEC/EN 60898-1 up to 40 A

- iC60L 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	100 % of Icu
Ph/N (1P)		12 to 60 V	100 to 133 V	220 to 240 V	-	
Rating (In)	0.5 to 4 A	100 kA	100 kA	100 kA	70 kA	100 % of Icu
	6 to 25 A	70 kA	-	25 kA	20 kA	50 % of Icu ⁽¹⁾
	32 / 40 A	70 kA	-	20 kA	15 kA	50 % of Icu
	50 / 63 A	70 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)	0.5 to 40 A	15000 A	

Direct current (DC)

Breaking capacity (Icu) according to IEC/EN 60947-2						Service breaking capacity (Ics)
		Voltage (Ue)				
Between +/-		12 to 72 V	100 to 144 V		220 to 250 V	100 % of Icu
Number of poles		1P	2P (in series)	3P (in series)	4P (in series)	
Rating (In)	1 to 63 A	15 kA	15 kA	15 kA	15 kA	

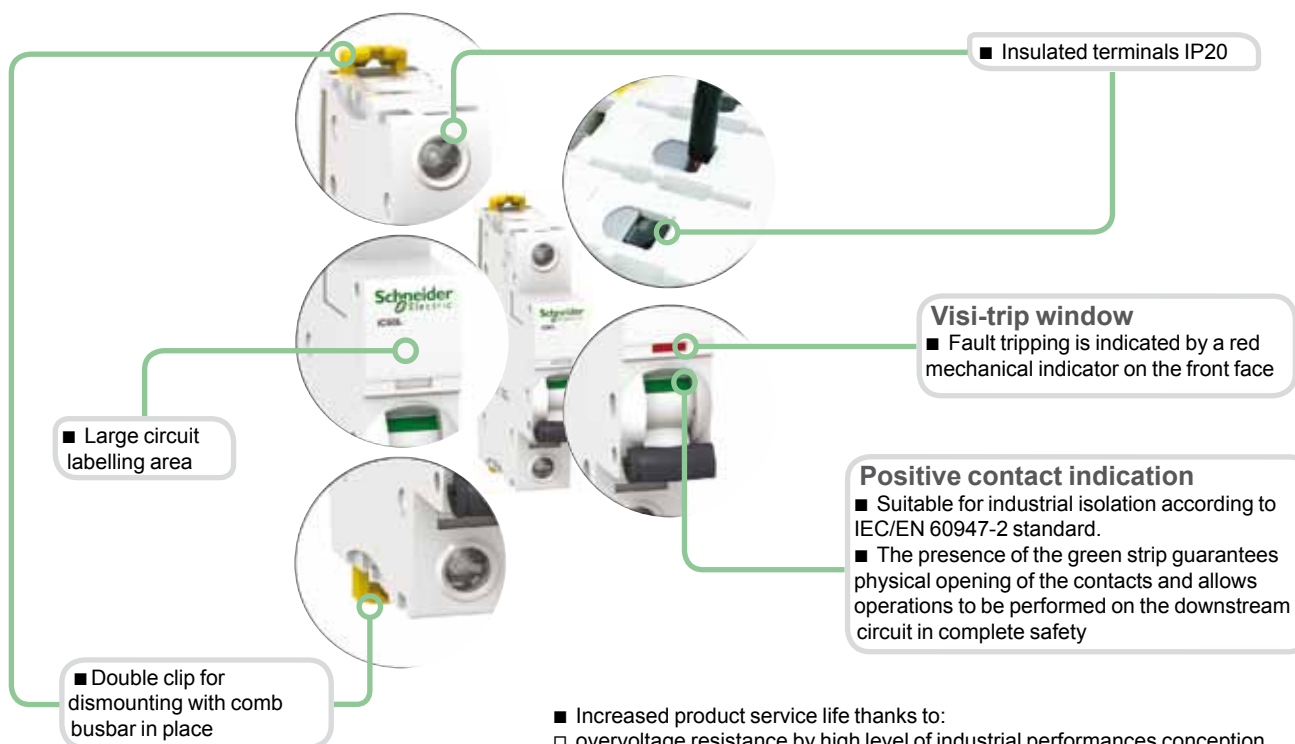
Catalogue numbers

iC60L circuit breaker

Type	1P	2P		
Auxiliaries	Remote tripping and indication, pages 123 and 136	Remote tripping and indication, pages 123 and 136		
Vigi iC60	Vigi iC60 add-on residual current device, page 82	Vigi iC60 add-on residual current device, page 82		
Rating (In)	Curve	Curve		
Quality label (2)	B C K	B	C	K
0.5 A	A9F93170 A9F94170 A9F95170	A9F93270	A9F94270	A9F95270
1 A	A9F93101 A9F94101 A9F95101	A9F93201	A9F94201	A9F95201
1.6 A	- - A9F95172	-	-	A9F95272
2 A	A9F93102 A9F94102 A9F95102	A9F93202	A9F94202	A9F95202
3 A	A9F93103 A9F94103 A9F95103	A9F93203	A9F94203	A9F95203
4 A	A9F93104 A9F94104 A9F95104	A9F93204	A9F94204	A9F95204
6 A	A9F93106 A9F94106 A9F95106	A9F93206	A9F94206	A9F95206
10 A	A9F93110 A9F94110 A9F95110	A9F93210	A9F94210	A9F95210
16 A	A9F93116 A9F94116 A9F95116	A9F93216	A9F94216	A9F95216
20 A	A9F93120 A9F94120 A9F95120	A9F93220	A9F94220	A9F95220
25 A	A9F93125 A9F94125 A9F95125	A9F93225	A9F94225	A9F95225
32 A	A9F93132 A9F94132 A9F95132	A9F93232	A9F94232	A9F95232
40 A	A9F93140 A9F94140 A9F95140	A9F93240	A9F94240	A9F95240
50 A	A9F93150 A9F94150 A9F95150 ⁽³⁾	A9F93250	A9F94250	A9F95250
63 A	A9F93163 A9F94163 A9F95163 ⁽³⁾	A9F93263	A9F94263	A9F95263
Width in 9-mm modules	2	4		
Accessories	Pages 123 and 136	Pages 123 and 136		

(1) 100 % of Icu for ratings 6 to 25 A under Ue 100 to 133 V AC Ph/Ph and Ue 12 to 60 V AC Ph/N.
(2) Information to be provided by the country.

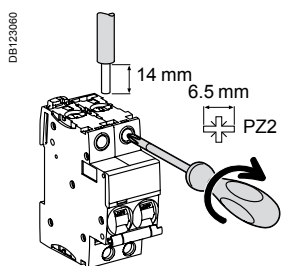
PB 104436-40



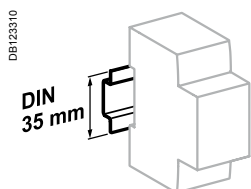
- Increased product service life thanks to:
 - overvoltage resistance by high level of industrial performances conception (pollution degree, rated impulse withstand voltage and insulation voltage),
 - high performance limitation (see limitation curves),
 - fast closing independent of the speed of actuation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

3P			4P		
Remote tripping and indication, pages 123 and 136			Remote tripping and indication, pages 123 and 136		
Vigi iC60 add-on residual current device, page 82			Vigi iC60 add-on residual current device, page 82		
Curve			Curve		
B	C	K	B	C	K
A9F93370	A9F94370	A9F95370	A9F93470	A9F94470	A9F95470
A9F93301	A9F94301	A9F95301	A9F93401	A9F94401	A9F95401
-	-	A9F95372	-	-	A9F95472
A9F93302	A9F94302	A9F95302	A9F93402	A9F94402	A9F95402
A9F93303	A9F94303	A9F95303	A9F93403	A9F94403	A9F95403
A9F93304	A9F94304	A9F95304	A9F93404	A9F94404	A9F95404
A9F93306	A9F94306	A9F95306	A9F93406	A9F94406	A9F95406
A9F93310	A9F94310	A9F95310	A9F93410	A9F94410	A9F95410
A9F93316	A9F94316	A9F95316	A9F93416	A9F94416	A9F95416
A9F93320	A9F94320	A9F95320	A9F93420	A9F94420	A9F95420
A9F93325	A9F94325	A9F95325	A9F93425	A9F94425	A9F95425
A9F93332	A9F94332	A9F95332	A9F93432	A9F94432	A9F95432
A9F93340	A9F94340	A9F95340	A9F93440	A9F94440	A9F95440
A9F93350	A9F94350	A9F95350	A9F93450	A9F94450	A9F95450
A9F93363	A9F94363	A9F95363	A9F93463	A9F94463	A9F95463
4			6		
Pages 123 and 136			Pages 123 and 136		

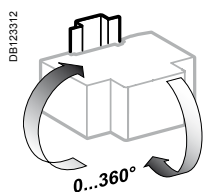
Connection



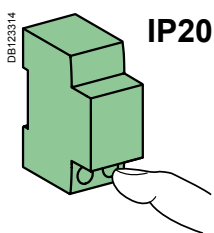
Rating	Tightening torque	Without accessory		With accessories		
		Rigid	Flexible or ferrule	50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal
0.5 to 25 A	2 N.m	DBI122945	DBI122946	DBI122935	DBI18789	DBI18787
32 to 63 A	3.5 N.m	1 to 25 mm ²	1 to 16 mm ²	-	Ø 5 mm	-
		1 to 35 mm ²	1 to 25 mm ²	50 mm ²		3 x 16 mm ²
						3 x 10 mm ²



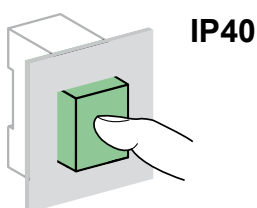
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Technical data

Main characteristics

According to IEC/EN 60947-2

Insulation voltage (U _i)	500 V AC
Pollution degree	3
Rated impulse withstand voltage (U _{imp})	6 kV
Thermal tripping	Reference temperature
	Temperature derating
	50 °C
	See page 233
Magnetic tripping	B curve
	C curve
	K curve
	4 I _n ± 20 %
	8 I _n ± 20 %
	12 I _n ± 20 %
Utilization category	A

According to IEC/EN 60898-1

Limitation class	3
Rated making and breaking capacity of an individual pole (I _{cn1})	I _{cn1} = I _{cn}

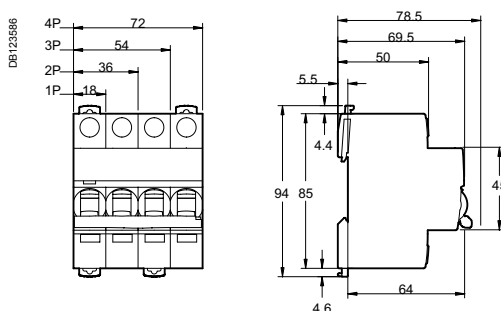
Additional characteristics

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

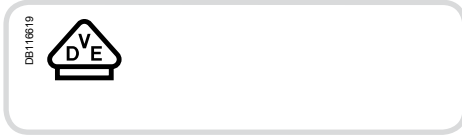
Weight (g)

Circuit-breaker	
Type	iC60L
1P	125
2P	250
3P	375
4P	500

Dimensions (mm)



iC60L circuit breakers instantaneous circuit breakers (curve MA)



IEC/EN 60947-2



- iC60L curve MA circuit breakers combine the following functions:
 - circuit protection against short-circuit currents,
 - suitability for industrial isolation according to IEC/EN 60947-2, standard,
 - fault tripping indication by a red mechanical indicator in circuit breaker front face,
 - to be associated with overload protection for motor.

Alternating current (AC) 50/60 Hz					
Breaking capacity (Icu) according to IEC/EN 60947-2				Service breaking capacity (Ics)	
Ph/Ph (2P, 3P, 4P)	Voltage (Ue)				
Rating (In)	1.6 to 4 A	220 to 240 V	380 to 415 V	440 V	50 % of Icu
	6.3 to 25 A	50 kA	25 kA	20 kA	50 % of Icu
	40 A	36 kA	20 kA	15 kA	50 % of Icu

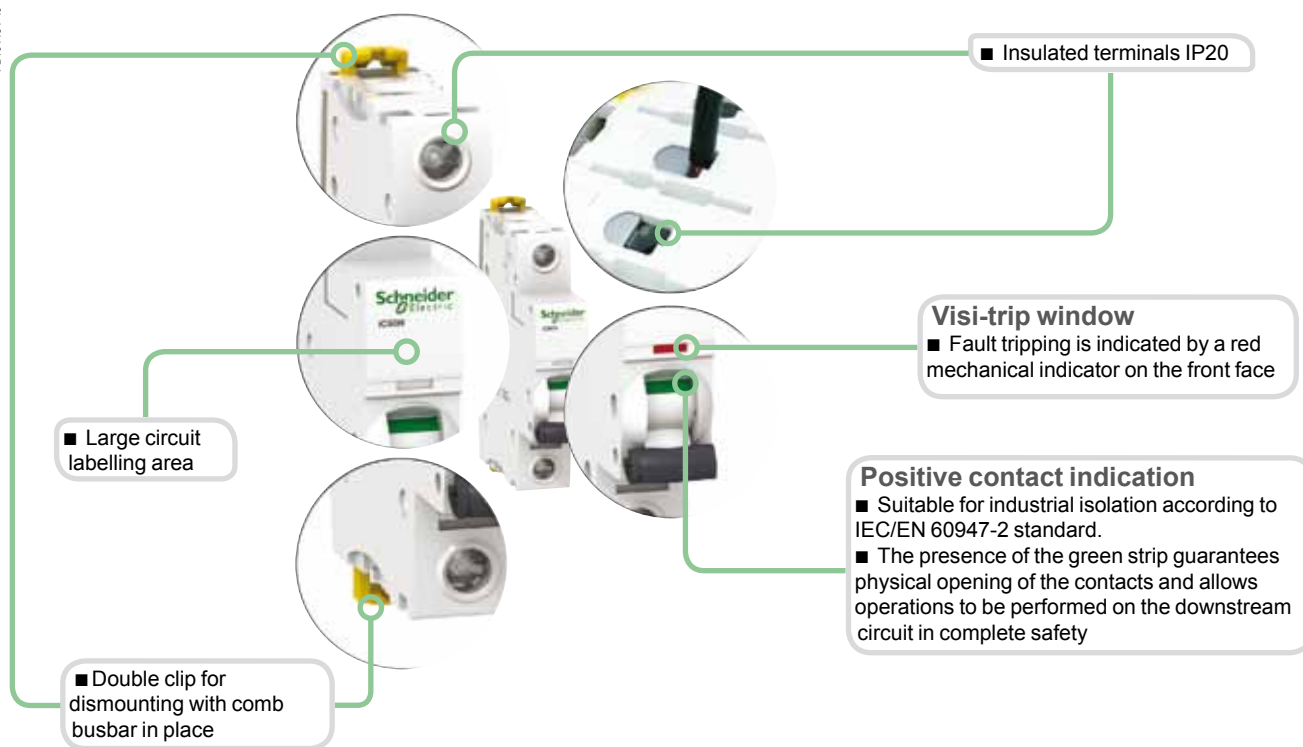
Catalogue numbers

iC60L instantaneous trip circuit breaker				
Type	2P		3P	
Auxiliaries	Remote tripping and indication, pages 123 and 136		Remote tripping and indication, pages 123 and 136	
Vigi iC60	Vigi iC60 add-on residual current device, page 82		Vigi iC60 add-on residual current device, page 82	
Rating (In)	Quality label ⁽¹⁾	Curve MA	Curve MA	
1.6 A		A9F90272	A9F90372	
2.5 A		A9F90273	A9F90373	
4 A		A9F90204	A9F90304	
6.3 A		A9F90276	A9F90376	
10 A		A9F90210	A9F90310	
12.5 A		A9F90282	A9F90382	
16 A		A9F90216	A9F90316	
25 A		A9F90225	A9F90325	
40 A		A9F90240	A9F90340	
Width in 9-mm modules	4		6	
Accessories	Pages 123 and 136		Pages 123 and 136	

(1) Information to be provided by the country.

iC60L circuit breakers instantaneous circuit breakers (curve MA) (cont.)

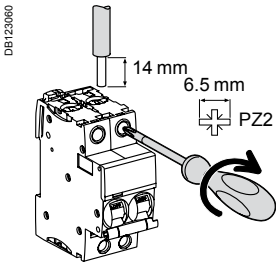
PB10434-40



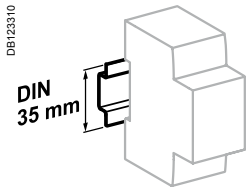
- Increased product service life thanks to:
 - overvoltage resistance by high level of industrial performances conception (pollution degree, rated impulse withstand voltage and insulation voltage),
 - high performance limitation (see limitation curves),
 - fast closing independent of the speed of actuation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

ic60L circuit breakers instantaneous circuit breakers (curve MA) (cont.)

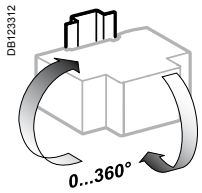
Connection



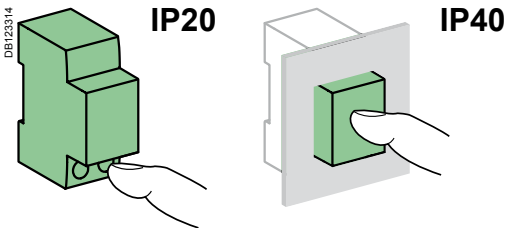
Rating	Tightening torque	Without accessory		With accessories				
		Copper cables		50 mm ² Al terminal	Screw-on connection for ring terminal		Multi-cables terminal	
		Rigid	Flexible or ferrule		Rigid cables	Flexible cables		
1.6 to 25 A	2 N.m	DB1122945	DB1122946	DB1122945	DB118789	DB118787	-	-
40 A	3.5 N.m	1 to 25 mm ²	1 to 16 mm ²	-	Ø 5 mm	-	3 x 16 mm ²	3 x 10 mm ²
		1 to 35 mm ²	1 to 25 mm ²	50 mm ²				



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
	Temperature derating	See page 233
Magnetic tripping	MA curve	12 In ± 20 %
Utilization category		A

Additional characteristics

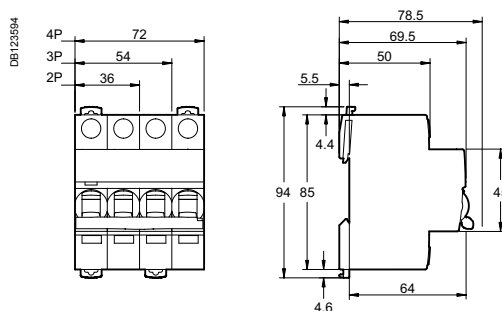
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40 Insulation class II
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)		IV
Operating temperature		-35°C to +70°C
Storage temperature		-40°C to +85°C
Tropicalization (IEC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

iC60L circuit breakers instantaneous circuit breakers (curve MA) (cont.)

Weight (g)

Circuit-breaker	
Type	iC60L
2P	250
3P	375

Dimensions (mm)





**IEC/EN 60947-2, GB 14048.2,
UL1077** (Supplementary Protector TC 3)



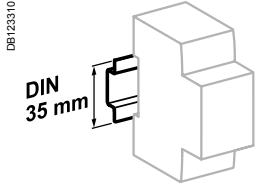
The C60H-DC supplementary protectors are used in direct current circuits (Industrial control and automations, transport, renewable energy...). They combine the following functions of circuit protection against short-circuit and overload currents, control and isolation.



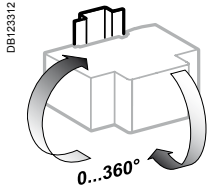
Catalogue numbers

C60H-DC			
Operating voltage (Ue)	12...250 V DC	12...500 V DC	
Rated voltage (Un)	250 V DC	500 V DC	
Number of poles	1P	2P	
Curve	C	C	
Number of modules of 9 mm	2	4	
Diagrams			
Standards	UL1077	IEC 60947-2 EN 60947-2 GB 14048.2	UL1077 IEC 60947-2 EN 60947-2 GB 14048.2
Breaking capacity	5 kA / 250 V DC	20 kA / 110 V DC 10 kA / 220 V DC 6 kA / 250 V DC	5 kA / 500 V DC 20 kA / 220 V DC 10 kA / 440 V DC 6 kA / 500 V DC
Rating (A)*	UL 1077, IEC 60947-2, EN 60947-2, GB 14048.2		
0.5	MGN61500	MGN61520	
1	MGN61501	MGN61521	
2	MGN61502	MGN61522	
3	MGN61503	MGN61523	
4	MGN61504	MGN61524	
5	MGN61505	MGN61525	
6	MGN61506	MGN61526	
10	MGN61508	MGN61528	
13	MGN61509	MGN61529	
15	MGN61510	MGN61530	
16	MGN61511	MGN61531	
20	MGN61512	MGN61532	
25	MGN61513	MGN61533	
30	MGN61514	MGN61534	
32	MGN61515	MGN61535	
40	MGN61517	MGN61537	
Rating (A)*	IEC 60947-2, EN 60947-2, GB 14048.2		
50	MGN61518	MGN61538	
63	MGN61519	MGN61539	

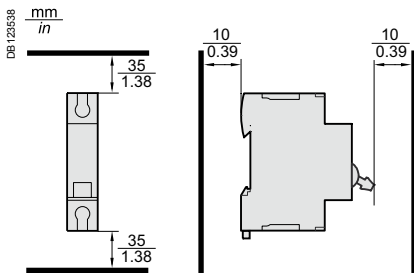
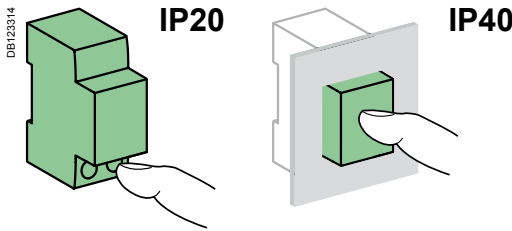
* At 25°C / 77°F see temperature derating module 92515.



Clip on DIN rail 35 mm.



Indifferent position of installation.



Details of minimum distance between circuit-breaker and earthed metal parts for circuit-breaker intended for use without enclosure.

Technical data

- Tripping curves: C curve - Overcurrent protection for any type of application.
- Positive break indication - the green strip indicates that all the poles are open and allows work to be carried out on the downstream circuit in complete safety.
- Suitable for isolation as defined in IEC / EN 60947-2.
- Increase in the service life of the product: thanks to fast closure independent of the speed of action on the handle.
- Current limitation in the event of a fault: fast opening of the contacts prevents the loads from being destroyed in the event of a short-circuit.

Main characteristics

Rated service breaking capacity (Ics)	75 % of the ultimate breaking capacity (Icu)
Power loss	See module 92517
Magnetic tripping (Ii)	8.5 In (± 20 %) (compatible with curve C)
Rated impulse withstand voltage (Uimp) under frame	6 kV
Insulation voltage (Ui)	500 V DC

Endurance (O-C)

Electrical	3,000 cycles (where L/R=2 ms) 6,000 cycles where the circuit is resistive
Mechanical	20,000 cycles

Additional characteristics

Pollution degree	3
Utilization category	A (no delay in accordance with IEC/EN 60947-2 standards)
Tropicalization (IEC 60068-2 and GB 14048.2)	Relative humidity: 95 % at 55°C / 131°F
Operating temperature	-25°C to 70°C / -13°F to 158°F
Storage temperature	-40°C to 85°C / -40°F to 185°F



Failure to match polarity during connection may lead to a fire hazard and/or serious injury.

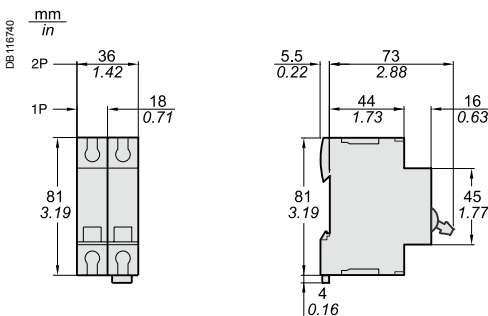
- The connection polarity must be observed (marked on the front panel).
- Use only with direct current.
- If two poles are used in series for the American network, use at least a 12 inch / 30 cm cable.

Weight (g)

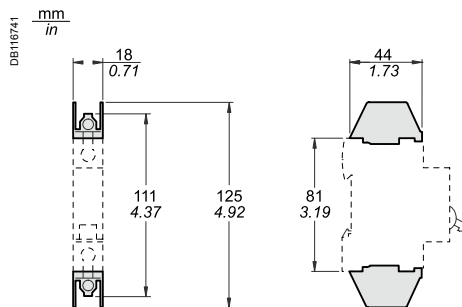
Circuit-breaker

Type	C60H-DC
1P	128 g / 4.51 oz
2P	256 g / 9.03 oz

Dimensions (mm/in)

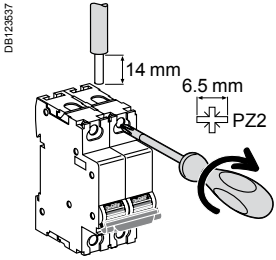


C60H-DC



Kit for ring terminals

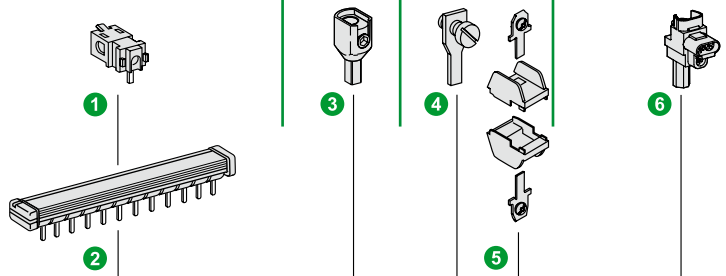
Connection



Rating	Tightening torque	Without accessory		With accessories			
		Copper cables		50 mm ² Al terminal	Screw-on connection for ring terminal	Multi-cables terminal	
		Rigid / Stranded	Flexible or ferrule			Rigid cables	Flexible cables
≤ 25 A	2.5 N.m / 22 lb.in	DB112345 1 to 25 mm ² #18 - #4 AWG	DB12346 1 to 16 mm ² #18 - #6 AWG	DB118789 50 mm ² 1 AWG	DB118787 Ø 5 mm	3 x 16 mm ² 3 x 6 AWG	3 x 10 mm ² 3 x 8 AWG
> 25 A	3.5 N.m / 31 lb.in	1 to 35 mm ² #18 - #2 AWG	1 to 25 mm ² #18 - #4 AWG	-			

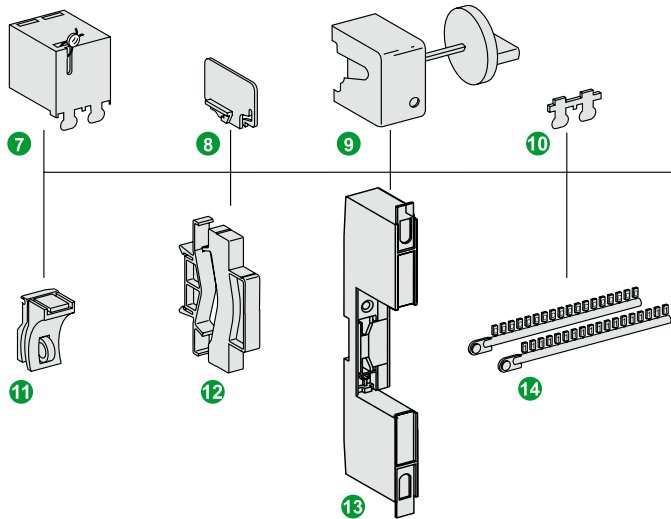
1	Insulated connector	see module 91906
2	Comb busbar	see module 91906
3	Terminal 50 mm ² Al / Cu	27060
4	Ring tongue terminal screw connection	27053
5	Ring tongue terminal connections kit Ø 5 mm, (upstream/downstream)	17400
6	Insulated distribution terminal	4 pieces 19091 3 pieces 19096

DB118759



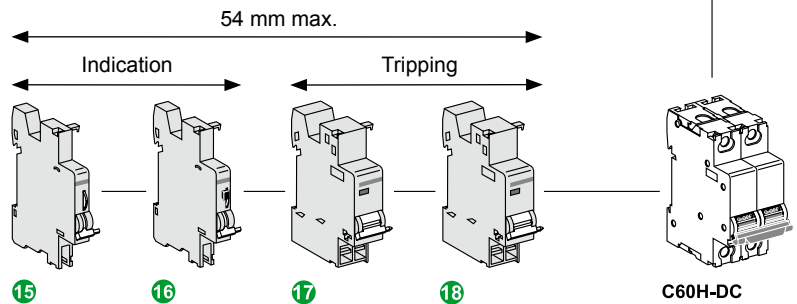
Mounting accessories

7	Sealable terminal shield	26976
8	Inter-pole barrier	27001
9	Rotary handle	
	Switching sub-assembly	27046
	Disconnectable handle	27047
	Fixed handle	27048
10	Screw shield	26981
11	Padlocking accessory (to be locked in the "open" position)	26970
12	Spacer	27062
13	Dividable mounting plate	26996
14	Marker strip	see module 91900



Electrical auxiliaries

Indication		
15	SD fault indicating switch	see module 90081
16	OF open/closed contact	see module 90081
Tripping		
17	MN undervoltage release	see module 90081
18	MX + OF shunt release	see module 90081



- The electrical auxiliaries must be installed to the left of the circuit breaker and within a width of 54 mm.
- If the auxiliary SD contacts are associated with the tripping auxiliaries (MN, MX, etc.), they must be installed to the left of these auxiliaries.

Poles connected in series

Network selection			
Type	Earthed		Isolated from earth
Source	Earthed polarity + or -	Earthed central point	Isolated polarities
Protected polarities	1 (1P isolation)	2	2
Diagrams (and type of faults)	<p>DB116851</p> <p>Example : negative polarity to the earth</p>	<p>DB116852</p>	<p>DB116853</p>

Selection of supplementary protector and pole connection			
24 V ≤ Un ≤ 250 V	Single-pole	Two-pole	Two-pole
Upstream connection	Only if L+ polarity is earthed	<p>DB116735</p>	<p>DB116735</p>
Downstream connection	<p>DB116752</p>	<p>DB116738</p>	<p>DB116738</p>
250 V < Un ≤ 500 V	Two-pole	Two-pole	Two-pole
Upstream connection	<p>DB116736</p>	<p>DB116735</p>	<p>DB116735</p>
Downstream connection	<p>DB116737</p>	<p>DB116738</p>	<p>DB116738</p>

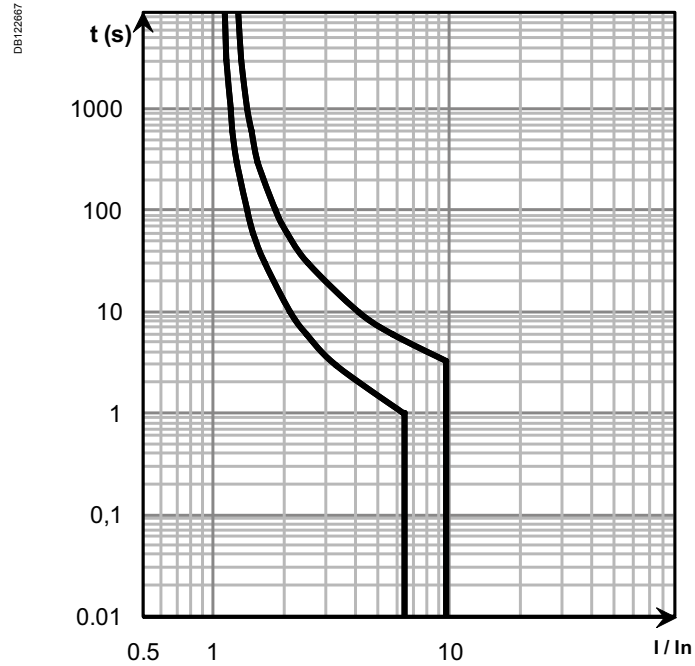
Fault analysis (low earth connection resistance)			
Fault A	<p>b I_{sc} maximum at U</p> <p>b Only protected polarity concerned</p> <p>b All the poles of the protected polarity must have a breaking capacity ≥ I_{sc} max. at U</p>	<p>b I_{sc} maximum at U/2</p> <p>b Only positive polarity concerned</p> <p>b All the positive polarity poles must have a breaking capacity ≥ I_{sc} max. at U/2</p>	<p>b Not relevant</p> <p>b The fault must be indicated by a permanent insulation monitor (PIM) and cleared (IEC/EN 60364)</p>
Fault B	<p>b I_{sc} maximum at U</p> <p>b If one polarity (in this case positive) is protected: all the poles of this polarity must have a breaking capacity ≥ I_{sc} max. at U</p> <p>b If two polarities are protected, to ensure isolation: all the protections of the two polarities must have a breaking capacity ≥ I_{sc} max. at U</p>	<p>b I_{sc} maximum at U</p> <p>b The 2 polarities are concerned</p> <p>b All the poles of the two polarities must have a breaking capacity ≥ I_{sc} max. at U</p>	<p>b I_{sc} maximum at U</p> <p>b The 2 polarities are concerned</p> <p>b All the poles of the two polarities must have a breaking capacity ≥ I_{sc} max. at U</p>
Fault C		<p>b As for fault A</p> <p>b All the negative polarity poles must have a breaking capacity ≥ I_{sc} max. at U/2</p>	<p>b As for fault A with the same requirements</p>

Curves

Tripping curves

C curve as in standard IEC 60947.2

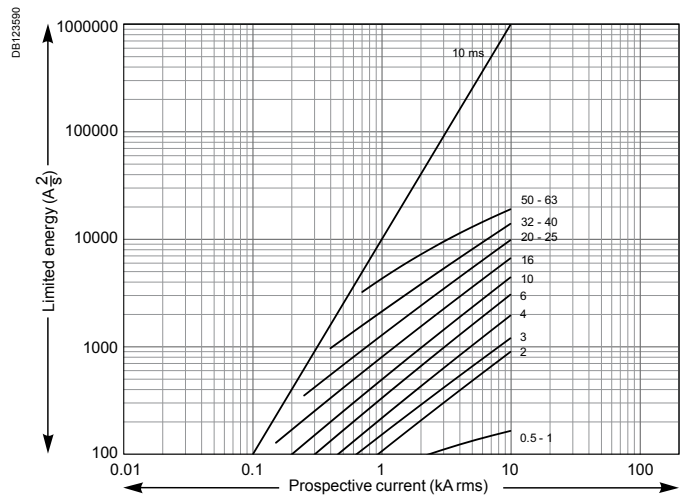
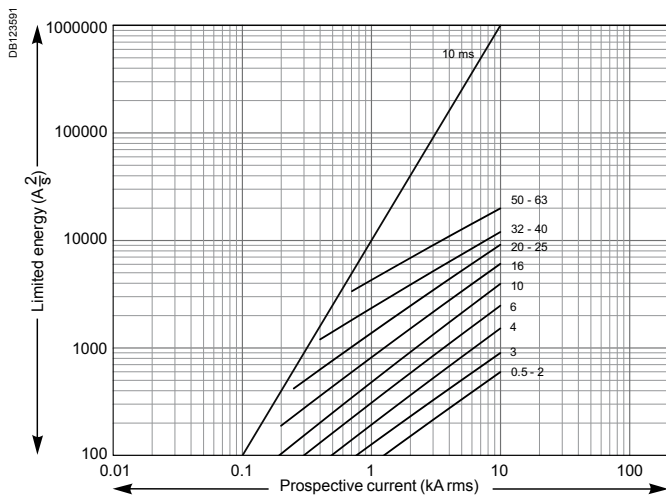
- The operating range of the magnetic release is as follows between 7 In and 10 In.
- The curves show the cold thermal tripping limits when poles are charged and the electromagnetic tripping limits with 2 charged poles.
- The curves are used without any derating.



Short circuit current limiting

220 V with 1P, 440 V with 2P

250 V with 1P, 500 V with 2P

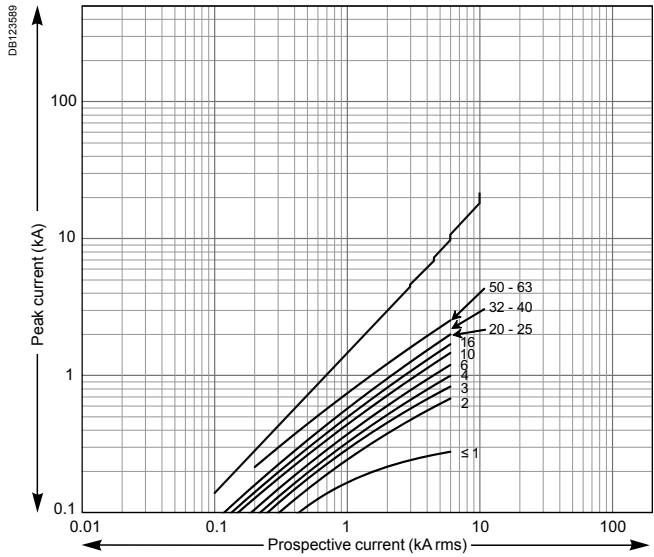
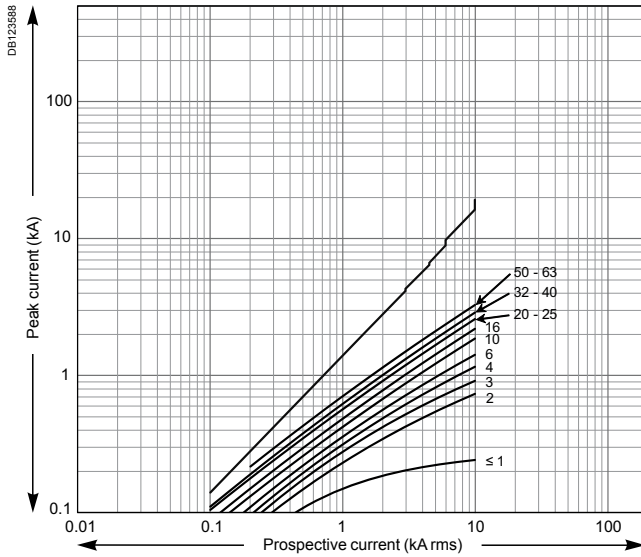


Curves (cont.)

Thermal stress limitation curve

220 V with 1P, 440 V with 2P

250 V with 1P, 500 V with 2P



Temperature derating (according to UL 1077/ CSA22.2/ UL489A/ UL489/ IEC 60947-2 standards)

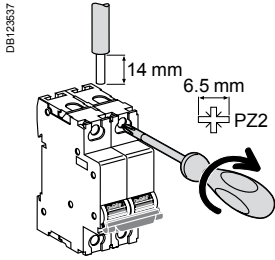
The maximum permissible current in a device depends on the ambient temperature in which it is placed. Ambient temperature is the temperature inside the enclosure or switchboard in which the devices have been installed.

The reference temperature is in the coloured column.





When several simultaneously operating devices are mounted side by side in a small enclosure, the temperature rise inside the enclosure causes a reduction in the current rating. A reduction coefficient of the order of 0.8 must therefore be allocated to the rating (already derated if it depends on the ambient temperature).

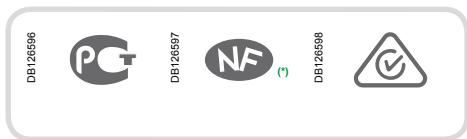
Temperature (°C)	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	
Ratings (A)																						
0.5	0.63	0.62	0.61	0.60	0.59	0.58	0.56	0.55	0.54	0.53	0.51	0.5	0.49	0.47	0.46	0.44	0.43	0.41	0.39	0.38	0.36	
1	1.18	1.17	1.15	1.14	1.12	1.10	1.09	1.07	1.05	1.04	1.02	1	0.98	0.96	0.94	0.92	0.90	0.88	0.86	0.84	0.82	
1.2	1.45	1.43	1.41	1.39	1.37	1.34	1.32	1.30	1.27	1.25	1.22	1.2	1.17	1.15	1.12	1.09	1.07	1.04	1.01	0.98	0.95	
1.5	1.86	1.83	1.80	1.77	1.74	1.71	1.67	1.64	1.61	1.57	1.54	1.5	1.46	1.42	1.39	1.34	1.30	1.26	1.22	1.17	1.12	
2	2.54	2.50	2.45	2.41	2.36	2.31	2.26	2.21	2.16	2.11	2.06	2	1.94	1.88	1.82	1.76	1.70	1.63	1.56	1.48	1.41	
3	3.78	3.71	3.65	3.58	3.51	3.45	3.38	3.30	3.23	3.16	3.08	3	2.92	2.84	2.75	2.66	2.57	2.48	2.38	2.27	2.17	
4	5.08	4.99	4.90	4.81	4.71	4.62	4.52	4.42	4.32	4.22	4.11	4	3.89	3.77	3.65	3.53	3.40	3.27	3.13	2.98	2.83	
5	6.00	5.92	5.83	5.74	5.66	5.57	5.48	5.39	5.29	5.20	5.10	5	4.90	4.80	4.69	4.58	4.47	4.36	4.24	4.12	4.00	
6	7.26	7.15	7.04	6.94	6.83	6.71	6.60	6.48	6.37	6.25	6.12	6	5.87	5.74	5.61	5.47	5.33	5.19	5.04	4.89	4.73	
7	8.76	8.62	8.47	8.32	8.17	8.01	7.85	7.69	7.52	7.35	7.18	7	6.82	6.63	6.44	6.24	6.03	5.82	5.60	5.37	5.13	
8	9.64	9.50	9.36	9.22	9.08	8.93	8.78	8.63	8.48	8.32	8.16	8	7.83	7.67	7.49	7.31	7.13	6.95	6.76	6.56	6.36	
10	12.59	12.38	12.16	11.94	11.71	11.49	11.25	11.01	10.77	10.52	10.26	10	9.73	9.45	9.17	8.87	8.57	8.25	7.92	7.58	7.22	
13	15.49	15.28	15.07	14.85	14.63	14.41	14.19	13.96	13.72	13.49	13.25	13	12.75	12.49	12.23	11.97	11.69	11.41	11.13	10.83	10.53	
15	18.61	18.31	18.01	17.70	17.38	17.06	16.74	16.40	16.07	15.72	15.36	15	14.63	14.25	13.85	13.45	13.03	12.60	12.16	11.69	11.21	
16	19.43	19.14	18.85	18.55	18.25	17.95	17.64	17.32	17.00	16.68	16.34	16	15.65	15.29	14.93	14.56	14.17	13.78	13.37	12.95	12.52	
20	24.06	23.72	23.37	23.02	22.67	22.31	21.94	21.56	21.18	20.80	20.40	20	19.59	19.17	18.74	18.30	17.85	17.39	16.92	16.43	15.93	
25	30.35	29.91	29.45	28.99	28.52	28.05	27.56	27.07	26.57	26.06	25.53	25	24.46	23.90	23.33	22.74	22.14	21.53	20.89	20.24	19.56	
30	37.35	36.74	36.12	35.50	34.86	34.21	33.54	32.86	32.17	31.46	30.74	30	29.24	28.46	27.66	26.83	25.98	25.10	24.19	23.24	22.25	
32	38.45	37.91	37.36	36.80	36.24	35.66	35.08	34.48	33.88	33.27	32.64	32	31.35	30.68	30.00	29.31	28.59	27.86	27.11	26.34	25.54	
35	44.15	43.40	42.63	41.86	41.06	40.25	39.42	38.58	37.72	36.83	35.93	35	34.05	33.06	32.05	31.01	29.93	28.81	27.64	26.42	25.14	
40	48.92	48.17	47.42	46.65	45.87	45.08	44.28	43.45	42.62	41.76	40.89	40	39.09	38.16	37.20	36.22	35.21	34.17	33.10	31.99	30.84	
50	59.93	59.09	58.25	57.39	56.52	55.63	54.74	53.82	52.89	51.95	50.98	50	49.00	47.97	46.93	45.86	44.77	43.64	42.49	41.31	40.09	
60	76.16	74.83	73.48	72.11	70.71	69.28	67.82	66.33	64.81	63.25	61.64	60	58.31	56.57	54.77	52.92	50.99	48.99	46.90	44.72	42.43	
63	78.16	76.91	75.63	74.33	73.01	71.67	70.30	68.90	67.47	66.02	64.53	63	61.44	59.83	58.18	56.49	54.74	52.93	51.06	49.12	47.10	

Multi-cables connection



Without accessory

Rating	Tightening torque	2 Copper cables		3 Multi-cables / Different wires	
		Rigid / Stranded	Flexible or ferrule	Flexible / Stranded	Flexible / Stranded / Rigid
		 DB122945	 DB122946	 DB118787	
≤ 25 A	2.5 N.m / 22 lb.in	2 x 1 mm ² to 2 x 10 mm ² 2 x 18 AWG - 2 x 8 AWG		3 x 1 mm ² 3 x 18 AWG	2 x 2.5 mm ² + 1 x 1.5 mm ² 2 x 13 AWG + 1 x 15 AWG
> 25 A	3.5 N.m / 31 lb.in	2 x 1 mm ² to 2 x 16 mm ² 2 x 18 AWG - 2 x 6 AWG		3 x 4 mm ² 3 x 6 AWG	2 x 10 mm ² + 1 x 6 mm ² 2 x 8 AWG + 1 x 9 AWG



18360



18376

IEC/EN 60898-1, CEI 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	130 V	230 to 400 V	400 to 415 V	440 V	75 % Icu
Rating (In) 63 to 125 A	20 kA	10 kA	3 kA ⁽¹⁾	-	
2P/3P/4P	130 V	230 to 400 V	400 to 415 V	440 V	75 % Icu
63 to 125 A	-	20 kA	10 kA	6 kA	

Breaking capacity (Icu) to CEI/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		



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

Direct current (DC)

Breaking capacity (Icu) to IEC/EN 60947-2					Service breaking capacity (Ics)
Type	Voltage (V)				
1P	24/48 V	125 V	250 V		100 % Icu
Rating (In) 63 to 125 A	10 kA	10 kA	-		
2P (in series)	24/48 V	125 V	250 V		100 % Icu
63 to 125 A	-	-	10 kA		

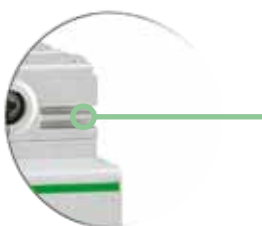
Catalogue numbers

C120N circuit breaker

Type	1P			2P		
						
Auxiliaries	Remote indication and tripping, page 136			Remote indication and tripping, page 136		
Vigi C120	Vigi C120 add-on residual current device, page 89			Vigi C120 add-on residual current device, page 89		
Rating (In)	Curve			Curve		
	B	C	D	B	C	D
63 A	18340	18356	18378	18344	18360	18382
80 A	18341	18357	18379	18345	18361	18383
100 A	18342	18358	18380	18346	18362	18384
125 A	18343	18359	18381	18347	18363	18385
Largeur en pas de 9 mm	3			6		
Accessories	Page 136			Page 136		

^(*) NF B and C curves only.

■ Terminals insulated to IP20



■ Location for 4 clip-on terminal markers



■ Label holder on toggle

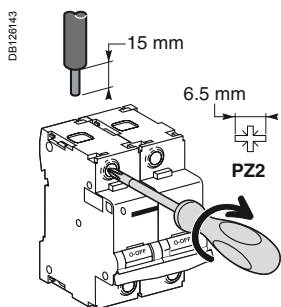
Positive contact indication

- 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.

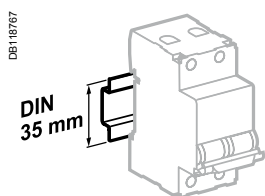
3P				4P			
Remote indication and tripping, page 136				Remote indication and tripping, page 136			
Vigi C120 add-on residual current device, page 89				Vigi C120 add-on residual current device, page 89			
Curve				Curve			
B		C		B		C	
18348	18349	18350	18351	18352	18353	18354	18355
18364	18365	18367	18369	18371	18372	18374	18376
D		D		D		D	
18386	18387	18388	18389	18390	18391	18392	18393
9				12			
Page 136				Page 136			

Connection

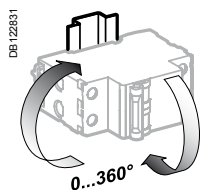


Rating	Tightening torque	Without access.		With accessories			
		Copper cables		50 mm ² Al Terminal	Screw-on connection for ring terminal ⁽¹⁾	Multi-cable terminal	
		Rigid/semi-rigid	Flexible or with ferrule			Rigid cables	Flexible cables
		DB122945	DB122946	Al	DB122935 DB118789	DB118787	
63 to 125 A	3.5 N.m	1 to 50 mm ²	1.5 to 35 mm ²	16 to 50 mm ²	∅ 5 mm	3 x 16 mm ²	3 x 10 mm ²

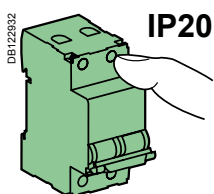
(1) For lugs up to 63 A, front or rear access.



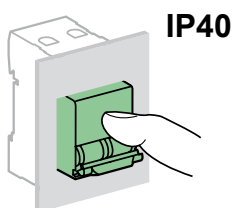
Clips onto 35 mm DIN rail.



Any installation position.



IP20



IP40

Technical data

Main characteristics

To IEC/EN 60947-2

Insulation voltage (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

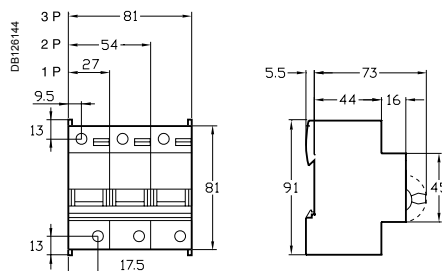
Additional characteristics

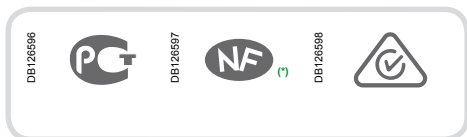
Degree of protection (IEC 60529)	Device only	IP20	
	Device in a modular enclosure	IP40	
Endurance (O-C)	Electrical	63 A	10000 cycles (O-C)
		80...125 A	5000 cycles (O-C)
	Mechanical		20000 cycles
Operating temperature		-25 °C to +70 °C	
Storage temperature		-40 °C to +85 °C	
Tropicalisation (IEC 60068-1)		Treatment 2 (relative humidity 95 % at 55 °C)	

Weight (g)

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

Dimensions (mm)





IEC/EN 60898-1, CEI 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.



18503



18437

Alternating current (AC) 50/60 Hz

Breaking capacity (Icu) to IEC/EN 60947-2					Service breaking capacity (Ics)
Type	Voltage (V)				
1P	130 V	230 to 240 V	400 to 415 V	440 V	50 % Icu
Rating (In) 10 to 125 A	30 kA	15 kA	4,5 kA ⁽¹⁾	-	
2P, 3P, 4P	130 V	230 to 240 V	400 to 415 V	440 V	50 % Icu
10 to 125 A	-	30 kA	15 kA	10 kA	

Breaking capacity (Icu) to CEI/EN 60898-1		
Type	Voltage (V)	
1P, 2P, 3P, 4P	230 to 400 V	
Rating (In) 10 to 125 A	15000 A	
	50 % Icu	

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

Direct current (DC)

Breaking capacity (Icu) to IEC/EN 60947-2				Service breaking capacity (Ics)
Type	Voltage (V)			
1P	24/48 V	125 V	250 V	100 % Icu
Rating (In) 10 to 125 A	15 kA	15 kA	-	
2P (in series)	24/48 V	125 V	250 V	100 % Icu
10 to 125 A	-	-	15 kA	

Catalogue numbers

C120H circuit breaker

Type	1P	2P
Auxiliaries	Remote indication and tripping, page 136	Remote indication and tripping, page 136
Vigi C120	Vigi C120 add-on residual current device, page 89	Vigi C120 add-on residual current device, page 89
Rating (In)	Curve	Curve
	B	B
10 A	18394	18405
16 A	18395	18406
20 A	18396	18407
25 A	18397	18408
32 A	18398	18409
40 A	18399	18410
50 A	18400	18411
63 A	18401	18412
80 A	18402	18413
100 A	18403	18414
125 A	18404	18415
Width in 9 mm modules	3	6
Accessories	Page 136	Page 136

^(*) NF B and C curves only.

■ Terminals insulated to IP20



■ Location for 4 clip-on terminal markers



■ Label holder on toggle



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



Remote indication and tripping, page 136

Vigi C120 add-on residual current device, page 89

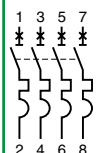
Curve

B	C	D
18416	18460	18504
18417	18461	18505
18418	18462	18506
18419	18463	18507
18420	18464	18508
18421	18465	18509
18422	18466	18510
18423	18467	18511
18424	18468	18512
18425	18469	18513
18426	18470	18514

9

Page 136

4P



Remote indication and tripping, page 136

Vigi C120 add-on residual current device, page 89

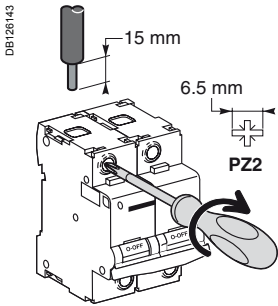
Curve

B	C	D
18427	18471	18515
18428	18472	18516
18429	18473	18517
18430	18474	18518
18431	18475	18519
18432	18476	18520
18433	18477	18521
18434	18478	18522
18435	18479	18523
18436	18480	18524
18437	18481	18525

12

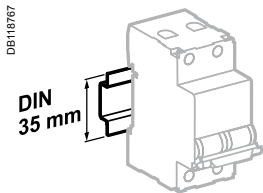
Page 136

Connection

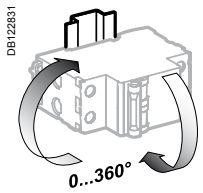


Rating	Tightening torque	Without access.		With accessories			
		Rigid	Flexible or with ferrule	50 mm ² Al term.	Screw-on connection for ring terminal ⁽¹⁾	Rigid cables	Flexible cables
10 to 125 A	3.5 N.m	DB1122945 1 to 50 mm ²	DB1122946 1.5 to 35 mm ²	AI DB1122935 16 to 50 mm ²	DB1118789 Ø 5 mm	DB1118787 3 x 16 mm ²	3 x 10 mm ²

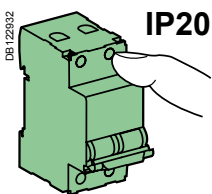
(1) For lugs up to 63 A, front or rear accessories.



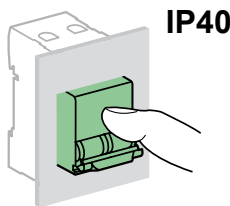
Clips onto 35 mm DIN rail.



Any installation position.



IP20



IP40

Technical data

Main characteristics

To IEC/EN 60947-2

Insulation voltage (U _i)	500 V AC	
Degree of pollution	3	
Rated impulse withstand voltage (U _{imp})	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

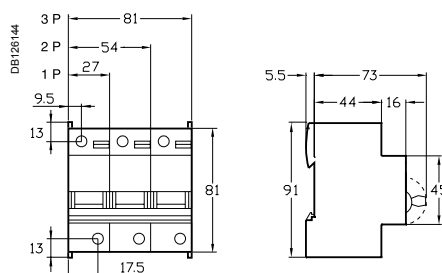
Additional characteristics

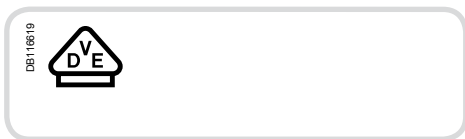
Degree of protection (IEC 60529)	Device only	IP20	
	Device in a modular enclosure	IP40 (IPXXD)	
Endurance (O-C)	Electrical	63 A	10000 cycles (O-C)
		80...125 A	5000 cycles (O-C)
	Mechanical		20000 cycles
Operating temperature		-30 °C to +60 °C	
Storage temperature		-40 °C to +70 °C	
Tropicalisation (IEC 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)





IEC/EN 60947-3

- The NG125NA is a switch-disconnector with free tripping for making and breaking under load.
- It is especially suitable for the modular enclosure incoming feeder with remote breaking (e.g. emergency cutoff) or earth leakage protection functions.



NG125NA 3P



NG125NA 4P

Catalogue numbers

NG125NA switch			
Type	3P		3P+N
Auxiliaries	Remote indication and tripping, module CM907005 – Vigi NG125 add-on residual current device, module CM902008		
Rating (In)	Quality label (1)		
63 A		18889	18897
80 A		18890	18898
100 A		18891	18899
125 A		18892	18900
Width in 9 mm modules		9	12
Accessories	Module CM907006		

(1) Information to be supplied by the country concerned.