

UL/CSA + IEC/EN 60947-2 + GB

C60SP - UL 1077 - B, C, D curves – Tunnels terminals



UL 1077 / CSA C22.2 No 235 / IEC/EN 60947-2 / GB 14048-2

C60SP are multi-standard miniature circuit breakers and supplementary protection as defined by UL 1077. It combines following functions:

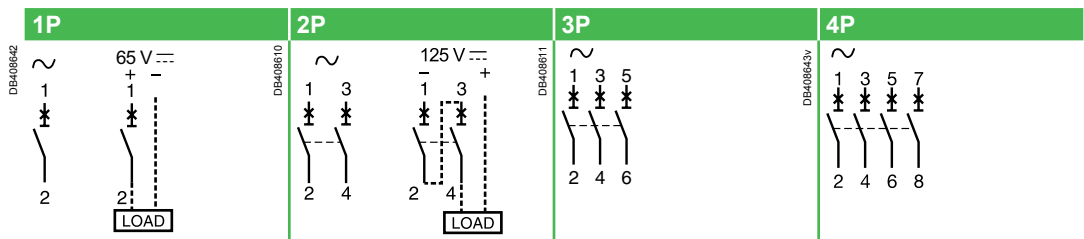
- circuit protection against short-circuit currents
- circuit protection against overload currents
- tripping and fault indication by the addition of auxiliaries.



Number of 18 mm (0.71 in.) poles	Rating (A) 25°C/77°F	Breaking capacity (kA rms) AIR				Icu			
		UL 1077 / CSA C22.2 No 235				IEC 60947-2			
1P	0.5 to 32	277 V ~	240 V ~	120 V ~	65 V ~	440 V ~	415 V ~	240 V ~	60 V ~
	40 to 63	10	14	14	10	-	3	10	20
2P	1 to 25	480Y/277 V ~		240 V ~	125 V ~	440 V ~	415	240 V ~	125 V ~
	32	10	14	14	10	6	10	20	-
3P/4P	2 to 32	10	14	-	-	6	10	20	-
2P/3P/4P	40 to 63	5	10	□	-	6	10	20	-



Electrical diagrams



Catalogue numbers

Tunnel terminal connection									
Type	1P				2P				
Auxiliaries	Remote indication and tripping, see page 43								
Rating (In)	Curve			Width in 9 mm modules	Curve			Width in 9 mm modules	
	B	C	D (=K)		B	C	D (=K)		
C60SP									
0.5	M9F21170	M9F22170	M9F23170	2	-	-	-	4	
1	M9F21101	M9F22101	M9F23101		M9F21201	M9F22201	M9F23201		
2	M9F21102	M9F22102	M9F23102	M9F21202	M9F22202	M9F23202			
3	M9F21103	M9F22103	M9F23103	M9F21203	M9F22203	M9F23203			
4	M9F21104	M9F22104	M9F23104	M9F21204	M9F22204	M9F23204			
5	M9F21105	M9F22105	M9F23105	M9F21205	M9F22205	M9F23205			
6	M9F21106	M9F22106	M9F23106	M9F21206	M9F22206	M9F23206			
8	M9F21108	M9F22108	M9F23108	M9F21208	M9F22208	M9F23208			
10	M9F21110	M9F22110	M9F23110	M9F21210	M9F22210	M9F23210			
13	M9F21113	M9F22113	M9F23113	M9F21213	M9F22213	M9F23213			
16	M9F21116	M9F22116	M9F23116	M9F21216	M9F22216	M9F23216			
20	M9F21120	M9F22120	M9F23120	M9F21220	M9F22220	M9F23220			
25	M9F21125	M9F22125	M9F23125	M9F21225	M9F22225	M9F23225			
32	M9F21132	M9F22132	M9F23132	M9F21232	M9F22232	M9F23232			
40	M9F21140	M9F22140	M9F23140	M9F21240	M9F22240	M9F23240			
45	M9F21145	M9F22145	M9F23145	M9F21245	M9F22245	M9F23245			
50	M9F21150	M9F22150	M9F23150	M9F21250	M9F22250	M9F23250			
63	M9F21163	M9F22163	M9F23163	M9F21263	M9F22263	M9F23263			
Accessories	See page 48								

UL/CSA + IEC/EN 60947-2 + GB

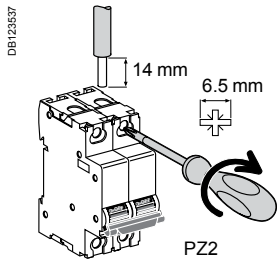
C60sP - UL 1077 - B, C, D curves – Tunnels terminals (cont.)

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Conformity with product standards

- UL 1077 supplementary protection , document #E90509.
- CSA C22.2 No. 235 supplementary protection, document #E179014.
- IEC/EN 60947-2.
- GB 14048-2.

UL 486A connections for copper cables, document #E216919



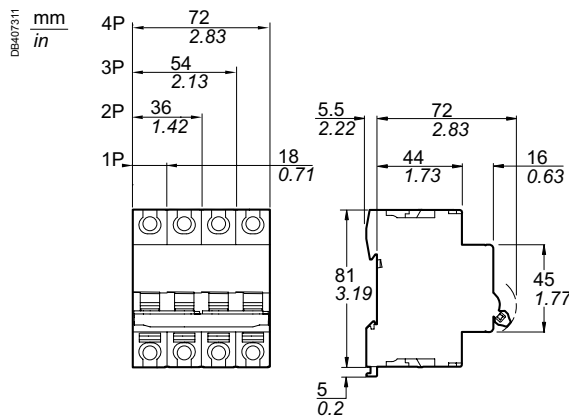
Without accessory

Rating	Tightening torque	Copper cables	
		Rigid, flexible or with ferrule	
0.5 to 25 A	2.5 N.m (22 lb.in)	IEC 60947-2	UL 486A-B
30 to 63 A	3.5 N.m (31 lb.in)	1 to 25 mm ²	AWG #18 to #8
		1 to 35 mm ²	AWG #18 to #2

Weight (g / oz)

Circuit-breaker	
Type	C60sP
1P	120 g / 4.23 oz
2P	240 g / 8.46 oz
3P	360 g / 12.70 oz
4P	480 g / 16.93 oz

Dimensions (mm / inches)

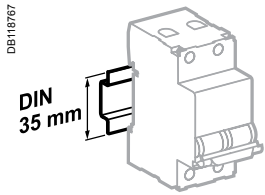


C60sP Tunnel terminal connection

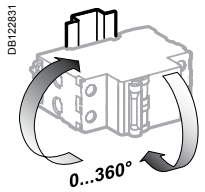
3P				4P					
Curve	B	C	D (=K)	Width in 9 mm modules	Curve	B	C	D (=K)	Width in 9 mm modules
M9F21302	M9F22302	M9F23302			M9F21402	M9F22402	M9F23402		
-	-	-			-	-	-		
-	-	-			-	-	-		
-	-	-			-	-	-		
M9F21306	M9F22306	M9F23306			M9F21406	M9F22406	M9F23406		
M9F21308	M9F22308	M9F23308			M9F21408	M9F22408	M9F23408		
M9F21310	M9F22310	M9F23310			M9F21410	M9F22410	M9F23410		
M9F21313	M9F22313	M9F23313			M9F21413	M9F22413	M9F23413		
M9F21316	M9F22316	M9F23316			M9F21416	M9F22416	M9F23416		
M9F21320	M9F22320	M9F23320			M9F21420	M9F22420	M9F23420		
M9F21325	M9F22325	M9F23325			M9F21425	M9F22425	M9F23425		
M9F21332	M9F22332	M9F23332			M9F21432	M9F22432	M9F23432		
M9F21340	M9F22340	M9F23340			M9F21440	M9F22440	M9F23440		
M9F21345	M9F22345	M9F23345			M9F21445	M9F22445	M9F23445		
M9F21350	M9F22350	M9F23350			M9F21450	M9F22450	M9F23450		
M9F21363	M9F22363	M9F23363			M9F21463	M9F22463	M9F23463		

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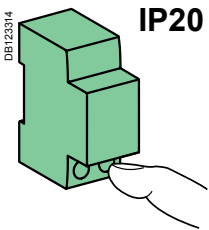
C60sP - UL 1077 - B, C, D curves – Tunnels terminals (cont.)



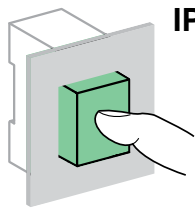
Clip on DIN rail 35 mm.



Indifferent position of installation.



IP20



IP40

Technical data

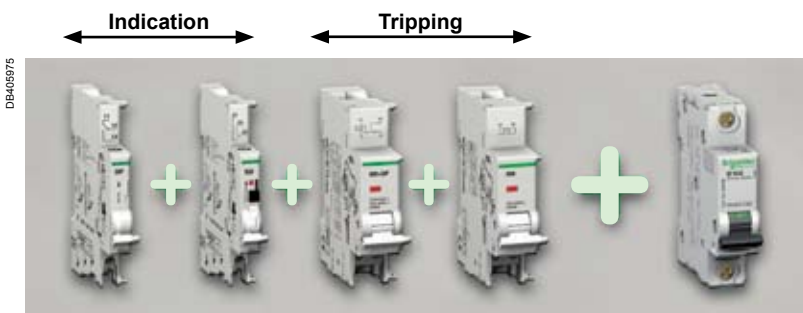
Main characteristics			
Insulation voltage (Ui)		500 V	
Service breaking capacity (Ics)	In alternating current	75 % of Icu	
	In direct current	100 % of Icu	
Pollution degree		3	
Rated impulse withstand voltage (Uimp)		6 kV	
Thermal tripping	Reference temperature	25°C / 77°F	
Magnetic tripping	B curve	In alternating current	4 In ± 20 %
		In direct current	5.7 In ± 20 %
	C curve	In alternating current	8.5 In ± 20 %
		In direct current	12 In ± 20 %
	D curve (=K curve)	In alternating current	12 In ± 20 %
		In direct current	17 In ± 20 %
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	
Operating temperature		-30°C to +70°C / -22°F to 158°F	
Storage temperature		-40°C to +80°C / -40°F to 176°F	
Tropicalization (IEC 60068-1)		Treatment 2 (relative humidity 95 % at 55°C / 131°F)	
Dissipated power		See page 68	



Compliance with electrical auxiliaries standards

- For UL 489 Branch circuit protection File #E215117.
- For CSA C22.2 No. 5 Branch circuit protection File #179014.
- For UL 1077 Supplementary Protection File #E90509.
- For CSA C22.2 No. 235 Supplementary Protection File #179014.
- For IEC 60947-1 and IEC 60947-5-1 circuit-breakers.
- CE Marked.

- The electrical auxiliaries provide the remote tripping or position (open/closed/tripped) indication functions of these devices in the event of a fault.
- They clip on (no tool required) to the left-hand side of the associated device.
- The SD+OF auxiliary is a two-in-one product: a mechanical selector switch is used to select one of two contacts: SD or OF.



Combination table

Indication auxiliaries		Tripping auxiliaries		Devices	
1 SD+OF maxi	1 SD+OF maxi	1 maxi			
1 OF maxi	1 (SD+OF or SD or OF) maxi	2 maxi			C60, N40N, N40 Vigi
None	1 (SD+OF or OF) maxi	2 maxi			
1 OF maxi	1 OF maxi	1 maxi			
				OF.S	+ RCCB-ID
None		1 OFsp	None		
					RCCB-ID B type



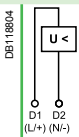
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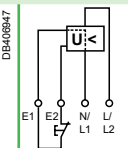
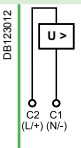
Tripping devices must be installed first.
 If two tripping devices are used: the MN undervoltage release must be installed first
 Indication auxiliaries: install the SD auxiliary first

Common electrical auxiliaries (cont.)

Tripping

Auxiliaries	MN						MN ^S
Type	Undervoltage release						
	Instantaneous						Delayed
							
Function	<ul style="list-style-type: none"> Causes the device with which it is associated to trip when its input voltage decreases (between 70 % and 35 % of U_n). Prevents the device from closing until its input voltage has been restored 						<ul style="list-style-type: none"> No tripping in the event of transient voltage dips (up to 0.2 s)
Wiring diagrams							
Utilization	<ul style="list-style-type: none"> Emergency stop via a normally-closed pushbutton Ensures the safety of the power supply circuits of several machines by preventing accidental startups 						
Catalogue numbers	M9A27108	M9A27107	M9A26960	M9A26961	M9A26959	M9A26963	
Technical specifications							
Rated voltage (U_e)	V AC	24	120	220...240	48	115	220...240
	V DC	24			48		–
Operating frequency	Hz	50/60			400		50/60
Pollution degree		3					3
Mechanical state indicator light, red		On front face					On front face
Test function		–					–
Width in 9 mm modules		2					2
Operating current		–					–
Number of contacts		–					–
Operating temperature		-25...+50°C / -13...122°F					-25...+50°C / -13...122°F
Storage temperature		-40...+85°C / -40...185°F					-40...+85°C / -40...185°F
Standards							
IEC/EN 60947-1		■					■
IEC/EN 60947-5-1		–					–
EN 60947-2		■					■
EN 62019-2		–					–
UL		■					■
SE SA		■					■
RU		■					■
CCC		–					–
ERC		■					■

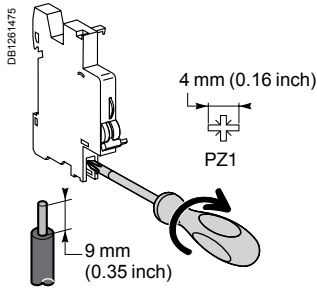
Common electrical auxiliaries (cont.)

MNx	MX	MX+OF
		Shunt release
Independent of the supply voltage		With open/closed auxiliary contact
		
<ul style="list-style-type: none"> Tripping of the associated device by opening of the control circuit (e.g. push-button, dry contact) 	<ul style="list-style-type: none"> Trips the associated device when it is powered on 	
<ul style="list-style-type: none"> A drop in the supply voltage does not trip the associated device A locking push-button control allows the circuit protected (e.g. machine control) to be placed in safety configuration 		<ul style="list-style-type: none"> Includes an open/closed contact (OF contact) to indicate the "open" or "closed" position of the associated device
		
<ul style="list-style-type: none"> Fail-safe emergency stop Insensitive to the variation in the control circuit voltage to improve continuity of service Important: Before any servicing operation switch off the mains power supply (voltage presence at terminals E1/E2) 	<ul style="list-style-type: none"> Emergency stop via a normally-open pushbutton. 	<ul style="list-style-type: none"> Emergency stop via a normally-open pushbutton Remote indication of the position of the associated device
M9A26969 M9A26971	M9A26476 M9A26477 M9A26478	M9A26946 M9A26947 M9A26948
230 400	100...415 48 12...24	100...415 48 12...24
–	110...130 48 12...24	110...130 48 12...24
50/60	50/60	50/60
3	3	3
On front face	On front face	On front face
–	–	–
2	2	2
–	–	3 A / 415 V AC 6 A / ≤ 240 V AC
–	–	1 NO/NC
–25...+50°C / -13...122°F	–25...+50°C / -13...122°F	–25...+50°C / -13°F...122°F
–40...+85°C / -40...185°F	–40...+85°C / -40...185°F	–40...+85°C / -40°F...185°F
■	■	■
–	–	–
–	–	–
–	–	–
–	■	■
–	■	■
–	■	■
–	–	■
■	■	■

Common electrical auxiliaries (cont.)

		Signalisation				
Auxiliaries		OF.S	OFsp	OF	SD	SD+OF
Type		Open/closed auxiliary contact	Open/closed auxiliary contact	Open/closed auxiliary contact	Fault indicating contact	Double open/closed or fault indicating contact
	 PE100626_SE-30	 PB107910-30	 PE100626_SE-30	 PE100626_SE-30	 PE100626_SE-30	 PE100626_SE-30
Function		<ul style="list-style-type: none"> Changeover contact indicating the "open" or "closed" position of the associated device <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>⚠ Compulsory for the addition of tripping or indication auxiliaries on an ID RCCB</p> </div>	<ul style="list-style-type: none"> Changeover contact indicating the "open" or "closed" position of the associated device 	<ul style="list-style-type: none"> Changeover contact indicating the position of the associated device in the event of: <ul style="list-style-type: none"> □ electrical fault □ action on the tripping auxiliary <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>⚠ Not compatible with a RCCB-ID residual current circuit breaker, use a SD+OF in the SD position</p> </div>	<ul style="list-style-type: none"> Changeover contact indicating the position of the associated device in the event of: <ul style="list-style-type: none"> □ electrical fault □ action on the tripping auxiliary 	<ul style="list-style-type: none"> The SD+OF auxiliary is a two-in-one product: choice of OF or SD contact via the selector switch
Wiring diagrams		 DB11809	 DB408611	 DB118810	 DB118811	 DB118812 DB118813
Utilization		<ul style="list-style-type: none"> Remote indication of the position of the associated device 	<ul style="list-style-type: none"> Remote indication of the position of the associated device 	<ul style="list-style-type: none"> Remote fault tripping indication of the associated device 	<ul style="list-style-type: none"> Remote position and/or fault tripping indication of the associated device 	<ul style="list-style-type: none"> Remote position and/or fault tripping indication of the associated device
Catalogue numbers		26923	16940	M9A26924	M9A26927	M9A26929
Technical specifications						
Rated voltage (Ue)	V AC	24...415	230	240...415	240...415	240...415
	V DC	24...130	110	24...130	24...130	24...130
Operating frequency	Hz	50/60	50	50/60	50/60	50/60
Pollution degree		3	3	3	3	3
Mechanical state indicator light, red		–	–	–	On front face	On front face
Test function		–	–	On front face	On front face	On front face
Width in 9 mm modules		1	1	1	1	1
Operating current		3 A /415 V AC 6 A / ≤240 V AC	1 A /110 V DC 6 A / ≤230 V AC	3 A /415 V AC 6 A / ≤240 V AC		
Number of contacts		1 NO/NC	1 NC + NC/NO	1 NO/NC	1 NO/NC	1 NO/NC + 1 NO/NC
Operating temperature		-25...+50°C / -13°F...122°F	-25...+50°C / -13°F...122°F	-25...+50°C / -13°F...122°F	-25...+50°C / -13°F...122°F	-25...+50°C / -13°F...122°F
Storage temperature		-40...+85°C / -40°F...185°F	-40...+85°C / -40°F...185°F	-40...+85°C / -40°F...185°F	-40...+85°C / -40°F...185°F	-40...+85°C / -40°F...185°F
Standards						
IEC/EN 60947-1		–	–	–	–	–
IEC/EN 60947-5-1		■	–	■	■	■
EN 60947-2		–	–	–	–	–
EN 62019-2		■	–	■	■	■
UL		–	–	■	■	■
SA SA		–	–	■	■	■
RU		–	–	■	■	■
CCC		–	–	■	■	■
EAC		–	–	■	■	■

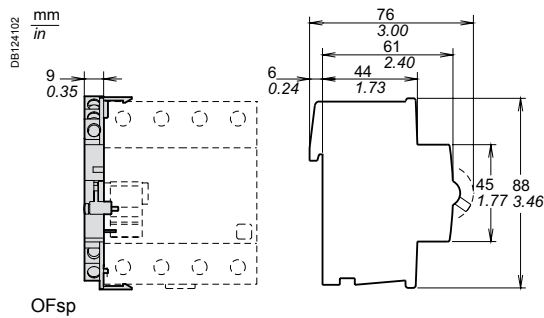
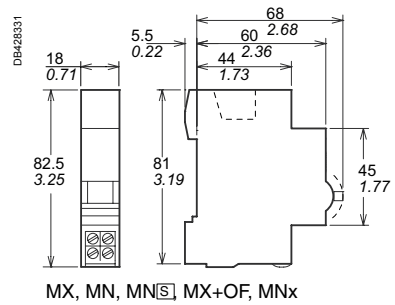
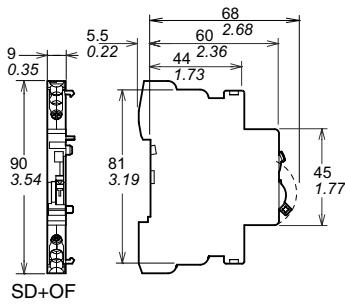
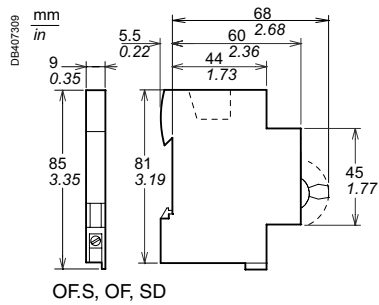
Common electrical auxiliaries (cont.)



Connection

Type	Tightening torque	Copper cables
Indication and tripping auxiliaries	1 N.m (9 lb.in)	Rigid
		DB122946
OFsp	0.8 N.m (7 lb.in)	2 cables, 1.5 mm ² / #16 AWG
		DB405990 or 1 cable, 2.5 mm ² / #14 AWG
		1 cable, 1.5 mm ² / #16 AWG

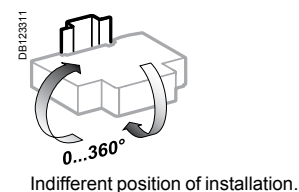
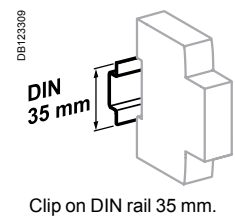
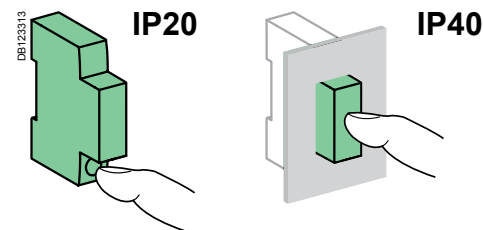
Dimensions (mm / inches)



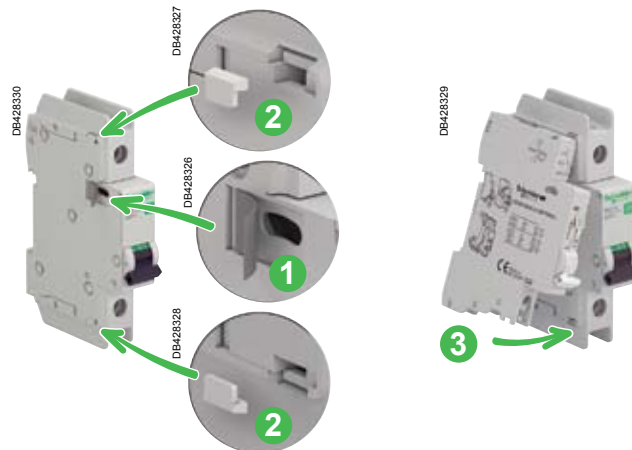
Weight (g / oz)



Electrical auxiliaries	
Type	
MN	66 g / 2.32 oz
MN square	66 g / 2.32 oz
MNx	73 g / 2.57 oz
MX	60 g / 2.32 oz
MX+OF	65 g / 2.12 oz
OF.S	33 g / 1.16 oz
OF	30 g / 1.06 oz
OFsp	40 g / 1.41 oz
SD	30 g / 1.06 oz
SD+OF	38 g / 1.34 oz

3



C60BP or C60BPR association



Installation				
Accessories	Rotary handle			Plug-in base
				
	<p>PB100137_SE-24 PB100138_SE-24</p>			<p>PB111764-40</p>
Function				
	<p>Front or side control of 2, 3 and 4-pole circuit breakers</p> <ul style="list-style-type: none"> ■ Degree of protection: IP40 ■ A complete rotary handle consists of: <ul style="list-style-type: none"> □ a circuit-breaker operating sub-assembly, cat. no. 27046, □ a handle cat. no. 27047 or a handle cat. no. 27048 ■ Installation: <ul style="list-style-type: none"> □ the circuit-breaker operating sub-assembly cat. no. 27046 is fixed to the circuit breaker □ the removable handle cat. no. 27047 is mounted on the removable front panel or on the enclosure door □ the fixed handle cat. no. 27048 is fixed to the front or side panel of the enclosure 			<p>Allows a circuit breaker to be quickly removed or replaced, without touching the connections</p> <ul style="list-style-type: none"> ■ Degree of protection: IP20 ■ It consists of: <ul style="list-style-type: none"> □ a base to be fixed to a rail (or panel) □ 2 "blades" to be fixed in the device terminals ■ Connection: tunnel terminals for cables up to 50 mm² (rigid) or 35 mm² (flexible) ■ Installation: <ul style="list-style-type: none"> □ on backplate □ on a horizontal rail ■ Centreline between two rows: 200 mm ■ Only on the circuit breaker, without a Vigi device or auxiliary ■ Padlocking option (8 mm dia. padlock not supplied)
Cat. numbers	27047 Removable extended handle	27048 Fixed handle	27046 Operating sub-assembly	26996 (1 per pole)
Set of	1	1	1	1
Suitable for the following devices:				
C60_{BP} UL489, C60_{BPR} UL489	■ 2P, 3P			–
C60_{SP} UL1077	■ 2P, 3P, 4P			■
C60_{H-DC}	■ 2P			■
GFP UL1053	–			■
C60N, H, L, C60CTRL	■ 2P, 3P, 4P			■
N40N	■ 3P+N			–
RCCB-ID (AC, A-SI types)	–			–
RCCB-ID B type	–			–
N40 Vigi	–			–
Operating temperature	-35°C to +70°C / -31°F to 158°F			-35°C to +70°C / -31°F to 158°F

Auxiliaries and accessories

Common accessories (cont.)

Accessories		Padlocking device		
		Front		Side
				
	05720A_SE-20	DB409566-25	AGA26380-40	AGA26381-40
Function				
	<p>Used to padlock a circuit breaker in the "open" or "closed" position</p> <ul style="list-style-type: none"> Locking in the ON position does not prevent the circuit breaker from tripping in the event of a fault Isolation: in conformity with IEC/EN 60947-2. Diameter of the padlock: 8 mm max. 	<p>Used to padlock a circuit breaker in the "open" position</p> <ul style="list-style-type: none"> Isolation: in conformity with UL 489/CSA C22.2 No 5 Listed and UL 1077 Recognized. Diameter of the padlock: 8 mm max. 	<p>Can be used to padlock a circuit breaker in open position</p> <ul style="list-style-type: none"> Attached directly to the circuit breaker, it cannot be lost Padlock diameter: 6 mm 	
Cat. numbers	26970	M9PAF	MGN26380 Left-hand mounting	MGN26381 Right-hand mounting
Set of	2	1	1	1
Suitable for the following devices:				
C60_{BP} UL489, C60_{BPR} UL489	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C60_{SP} UL1077	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C60_{H-DC}	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GFP UL1053	<input checked="" type="checkbox"/>	–	–	–
C60N, H, L, C60CTRL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
N40N	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RCCB-ID (AC, A-SI types)	<input checked="" type="checkbox"/>	–	–	–
RCCB-ID B type	–	–	–	–
N40 Vigi	<input checked="" type="checkbox"/>	–	–	–
Operating temperature	-35°C to +70°C / -31°F to 158°F	-35°C to +70°C / -31°F to 158°F	-35°C to +70°C / -31°F to 158°F	-35°C to +70°C / -31°F to 158°F

Auxiliaries and accessories






Common accessories (cont.)






Installation (continued)


Accessories	Front mounting kit		Pole filler	Front mounting bracket				
	Front mounting kit	DIN rail support						
Function	<ul style="list-style-type: none"> Consists of a transparent, hinged, weatherproof cover Allows installation of up to twenty modules (10 poles of C60) of circuit breakers or supplementary protectors and accessories A DIN rail with support is also available Degree of protection as per IEC 529: IP55 Includes a 10-Module divisible blanking plate and mounting template 	<ul style="list-style-type: none"> DIN rail with support for front mounting kit cat. no. 14210 Allows installation of up to twenty modules (10 poles of C60) of circuit breakers or supplementary protectors and accessories 	<ul style="list-style-type: none"> Used to fill empty panels spaces They clip into space They may be snapped apart in 9 mm increments 	<ul style="list-style-type: none"> Provides a convenient way to mount circuit breakers, supplementary protectors or accessories Allows the C60 devices to be clipped onto it in a standard manner In 480 V AC UL 1077 applications, cat. no. 26981 terminal screw shield should be used for increased isolation between the terminal screws of the device and the mounting bracket. These shields are included with the mounting bracket kits 				
Cat. numbers	14210	14211	M9PF4	M9PF5	MG26983	MG26984	MG26985	MG26989
			4 strips of 4 by 18 mm pole filler	4 strips of 5 by 18 mm pole filler				
Set of	1	1	4	4	1			
Suitable for the following devices:								
C60^{BP} UL489,	■	For multi-pole mounting kit cat. no.14210	For multi-pole mounting kit cat. no.14210	■				
C60^{BPR} UL489	■			■				
C60^{SP} UL1077	■			■				
C60^{H-DC}	■			■				
GFP UL1053	■			■				
C60N, H, L,	■			■				
C60CTRL	■			■				
N40N	■			■				
RCCB-ID (AC, A-SI types)	■			■				
RCCB-ID B type	—			—				
N40 Vigi	■	■						
Operating temperature	-35°C to +70°C / -31°F to 158°F				-35°C to +70°C / -31°F to 158°F			

Auxiliaries and accessories

Common accessories (cont.)

Safety						
Accessories	Screw shield		Terminal shield	Interpole barrier	Spacer	
						
Function	Prevents all contact with the fixing screws <ul style="list-style-type: none"> The degree of protection becomes IP40 Sealable, max. diameter 1.2 mm 		Prevents all contact with the terminals <ul style="list-style-type: none"> Degree of protection becomes IP40 Sealable, max. diameter 1.2 mm 		Improves the insulation between the connections: cables, terminals, lugs, etc. <ul style="list-style-type: none"> Used to: <ul style="list-style-type: none"> complete the rows separate the devices Width: 1 x 9 mm module Allows that 2 cables are routed from one row to another (above and below), up to 6 mm² 	
	Dividable		<ul style="list-style-type: none"> 1P 2P 3P: 1 x 26975 + 1 x 26976 4P: 2 x 26976 			
Cat. numbers	26981	16939	26975	26976	27001	27062
Set of	2 (4P dividable)	10	2 (for upstream/downstream terminal)		10	1
Suitable for the following devices:						
C60_{BP} UL489, C60_{BPR} UL489	–	–	–	–	–	■
C60_{SP} UL1077	■	–	■	■	■	■
C60_{H-DC}	■	–	■	■	■	■
GFP UL1053	■	–	–	–	■	■
C60N, H, L, C60CTRL	■	–	■	■	■	■
N40N	–	–	–	–	–	■
RCCB-ID (AC, A-SI types)	■	–	■	■	■	■
RCCB-ID B type	–	■	–	–	–	■
N40 Vigi	–	–	–	–	–	■
Operating temperature	-35°C to +70°C / -31°F to 158°F	-35°C to +70°C / -31°F to 158°F	-35°C to +70°C / -31°F to 158°F		-35°C to +70°C / -31°F to 158°F	-35°C to +70°C / -31°F to 158°F

Connection				
Accessories	Multi-cable terminal	50 mm ² / #1 AWG Al terminal	Connection kit for ring terminals	
				
	DB10334_SE-19	DB12261	DB40956	
Function	For 3 copper cables: <ul style="list-style-type: none"> Rigid up to 16 mm² Flexible up to 10 mm² 		For 16 to 50 mm² aluminium cables	For terminal up to 63 A, front or rear access (screw Ø 5 mm) <ul style="list-style-type: none"> It incorporates a "conductive" part and an "insulating" part which ensures the phase-to-phase clearance
				
	DB11677	DB12295		
Cat. numbers	19091	19096	27060	M9A17400
Set of	4	3	1	24
Suitable for the following devices:				
C60_{BP} UL489, C60_{BPR} UL489	–	–	–	–
C60_{SP} UL1077 ≤ 25 A	–	–	–	■
C60_{SP} UL1077 > 25 A	■	■	–	■
GFP UL1053	■	■	–	–
C60N, H, L, C60CTRL ≤ 25 A	–	–	–	■
C60N, H, L, C60CTRL > 25 A	■	■	■	■
C60_{H-DC} ≤ 25 A	–	–	–	■
C60_{H-DC} > 25 A	■	■	■	■
N40N	–	–	–	–
RCCB-ID (AC, A-SI types)	■	■	■	–
RCCB-ID B type	–	–	–	–
N40 Vigi	–	–	–	–
Tightening torque	2 N.m (18 lb.in)		10 N.m (89 lb.in)	2 N.m (18 lb.in)
Stripping length	11 mm (0.43 in)		13 mm (0.51 in)	–
Tools to be used	Diameter 5 mm (0.2 in) or PZ2		Hc 1/5" or 5 mm (0.2 in)	Diameter 5 mm (0.2 in) or PZ2
Operating temperature	-35°C to +70°C / -31°F to 158°F		-35°C to +70°C / -31°F to 158°F	-35°C to +70°C / -31°F to 158°F

Identification				
Accessories	Clip-on terminal marker strip			
				
	031204D_SE-23			
Function	For connection identification			
Cat. numbers	0: AB1-R0 1: AB1-R1 2: AB1-R2 3: AB1-R3 4: AB1-R4 5: AB1-R5 6: AB1-R6 7: AB1-R7 8: AB1-R8 9: AB1-R9	A: AB1-GA B: AB1-GB C: AB1-GC D: AB1-GD E: AB1-GE F: AB1-GF G: AB1-GG H: AB1-GH I: AB1-GI J: AB1-GJ	K: AB1-GK L: AB1-GL M: AB1-GM N: AB1-GN O: AB1-GO P: AB1-GP Q: AB1-GQ R: AB1-GR S: AB1-GS T: AB1-GT	U: AB1-GU V: AB1-GV W: AB1-GW X: AB1-GX Y: AB1-GY Z: AB1-GZ +: AB1-R12 -: AB1-R13 Blank: AB1-RV
Set of	250			
Suitable for the following devices:				
C60_{BP} UL489	–			
C60_{BPR} UL489	–			
C60_{SP} UL1077	■ 4 repères maxi. par pôle			
C60_{H-DC}	■ 4 repères maxi. par pôle			
GFP UL1053	■ 4 repères maxi. par pôle			
C60_{H-DC}	■ 4 repères maxi. par pôle			
C60N, H, L, C60CTRL	■ 4 markers max. per pole			
N40N	■ 4 markers max. per pole			
RCCB-ID (2P) (AC, A-SI types)	■ 4 markers max. per pole			
RCCB-ID B type	–			
N40 Vigi	■ 4 markers max. per device			

Comb busbars for C60_{SP} (UL1077)



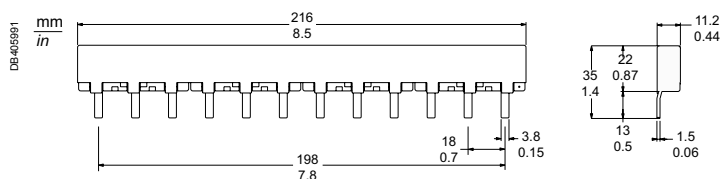
The comb busbars are used only for C60_{SP} circuit breakers UL 1077 supplementary protection in conformity with standards: UL 1077 / CSA C22.2 No. 235 / IEC 60947-2 / GB 14048-2.

They perform distribution and subdistribution of the electric power supply and allow rapid assembly and disassembly of equipment.

Connection accessories	Comb busbars			Accessory
	Comb busbar			Tooth cover end-piece
Function	<ul style="list-style-type: none"> The comb busbars make it easier to install Schneider Electric circuit breakers UL 1077 supplementary protection Power supply directly in the cage of the circuit-breaker 			<ul style="list-style-type: none"> The Tooth Caps are insulated protectors which may be slipped onto the unused teeth of the comb busbar They come in strips with 1-pole spacing, but can be snapped apart to be used individually
Number of poles	1P	2P	3P	All
Voltage rating (Ue)	480Y/277 V AC	480Y/277 V AC	480Y/277 V AC	–
Catalogue numbers	10285	10286	10287	60488
Number of 18 mm modules	12 (8.5 inches/216 mm)	12 (8.5 inches/216 mm)	12 (8.5 inches/216 mm)	–
Set of	1	1	1	20

Technical specifications	
Insulation voltage (Ui)	690 V
Impulse withstand voltage (Uimp)	12 kV under 240 V 5 kV under 480Y/277 V or 277 V
Acceptable current at 40°C (Ie)	63 A with 1 central power supply point 100 A with 2 power supply points
	<ul style="list-style-type: none"> Power supply via cable directly in the cage of the device: □ cross section maxi: 3 AWG (25 mm²) □ cross section mini: 10 AWG (5.27 mm²)
Resistance to short-circuit currents	Compatible with the breaking capacity of C60 _{SP} Schneider Electric circuit breakers UL 1077 supplementary protection
Pollution degree	3
Fire resistance	Self-extinguishability 960°C 30 secondes
Colour	RAL 7035 RAL 1021
Standards	UL 1077 –

Dimensions (mm / inches)



3