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Modular fuse carriers for industrial cylindrical cartridge fuses

Cat. Nos :

F311 - F311N - F312 - F313 - F313N - F321 - F321N - F322 - F323 - F323N

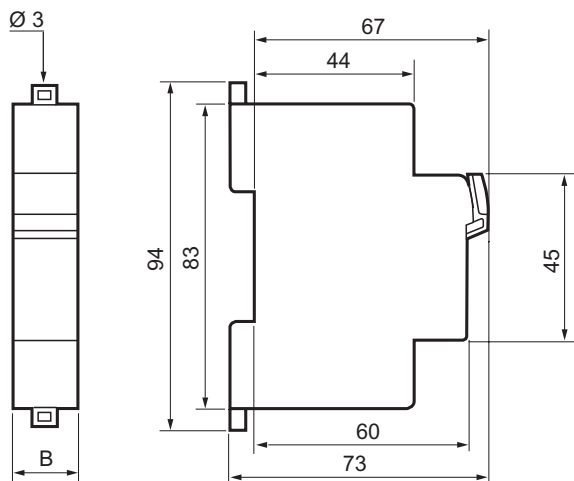
1. PRINCIPLE

Modular fuse carrier for protection and isolation of electrical circuits
Not intended for switching loads.

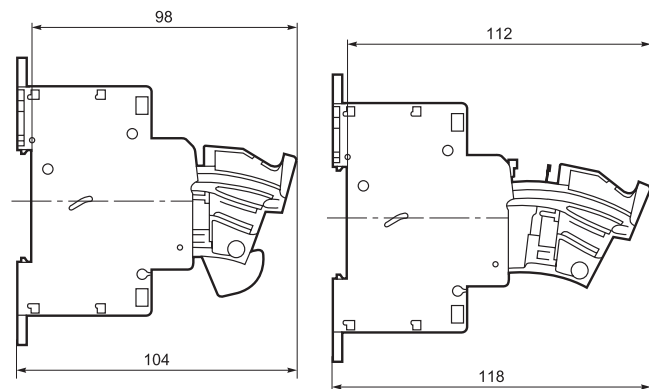
2. RANGE

Single-pole, single-pole + neutral, 2-pole, 3-pole, 3-pole + neutral

3. DIMENSIONS



	1P	1P + N	2P	3P	3P + N
B (mm)	17.7	17.7	35.5	53.4	71.2



4. ELECTRICAL CHARACTERISTICS

4.1 Breaking capacity

Industrial cylindrical cartridge fuses

Size (mm)	8.5 x 31.5	10 x 38
Type	gG or aM with or without indicator	gG or aM with or without indicator
Voltage	400 V~	500 V~
ISC	20 kA	100 kA

4.2 Maximum fuse cartridge rating depending on the voltage

	400 V	500 V
10 x 38	aM 25 A	gG 25 A - aM 16 A
8.5 x 31.5	gG 16 A - aM 10 A	-

4.3 Maximum dissipated power per pole

Size (mm)	1 Pole	1 Pole + Neutral
8.5 x 31.5	0,3 W	0,8 W
10 x 38	0,5 W	1,5 W

4.4 Other cartridge types

May be used within the dissipated power limits

4.5 Other characteristics

Nominal frequency	50/60 Hz
DC	48 V max
Overvoltage level	6 kV
Dielectric strength	4 kV (50 Hz)
Degree of pollution	3

5. CONFORMITY

Conforms to IEC standards 60269.1, 60269.2, 60269.2-1 and standard NF C 63-210

AC 20 isolators according to IEC 60947.3

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6. MECHANICAL CHARACTERISTICS

Environmental conditions :

Operating temperature : -5°C to +40°C (internal/external)


Storage temperature : -25°C to +70°C

Mechanical resistance : IPxx3

Materials :

Casing	Reinforced polyethylene	Density	1.62 to 1.70
		Max. tensile stress	> 100 MPa
		Flexural modulus	> 9.5 GPa
		Glow wire	960°C/5s
		Oxygen index	> 30
		Colour	Grey RAL 7035
Screws	Zinc dichromate plated steel		
Contacts	Silver plated copper		

7. PROTECTION INDEX

Class II  : unit closed, open or being opened

Protection index : IP 2X

8. DERATING

It may be necessary to derate the equipment in harsh operating conditions.

For ambient temperature greater than 35°C : derate the fuse by one rating for every 10°C (IEC 60943 guidance concerning permissible temperature rise)

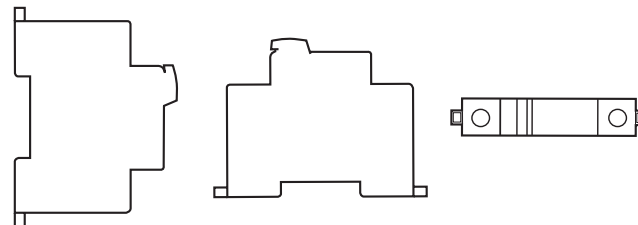
For units installed side-by-side operating simultaneously : apply the correct coefficient to the nominal current of the base unit.

Number of poles side-by-side	Coefficient
1, 2 or 3 poles	1
4, 5 or 6 poles	0.8
7, 8 or 9 poles	0.7
10 or more poles	0.6

(NF C 63-421/EN 60439-1) - Table 1

For continuous duty (more than 8 hours/day) : it may be necessary to derate the base units by one size.

9. POSITIONING



Vertical

Horizontal

On the side

Subject to the use of Legrand brand fuses.

10. INSTALLATION

Fixing 35x7.5 or 35x15 symmetrical rail according to EN 60715

With screws Ø3 on plate using ends of released clamps

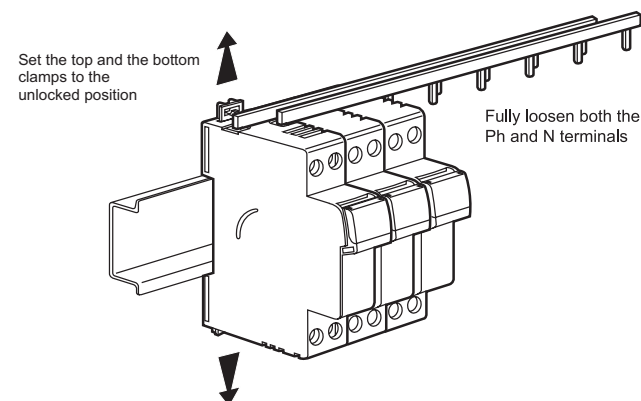
Power supply via the top and bottom

Terminals capacities

	1P+N	1P/2P/3P/3P+N
Permissible conductors		
- Flexible with ferrules	1.5 to 10 mm ²	1.5 to 25 mm ²
- Flexible	1.5 to 10 mm ²	1.5 to 25 mm ²
- Rigid	1.5 to 16 mm ²	1.5 to 25 mm ²
Tool required		
- Flat blade screwdriver	Ø4 to 5.5 mm	Ø4 to 5.5 mm
- Pozidriv	PZ1	PZ2
Tightening torque		
- Min	1.2 Nm	1.8 Nm
- Max	2.8 Nm	3 Nm
- Recommended	2 Nm	2.2 Nm

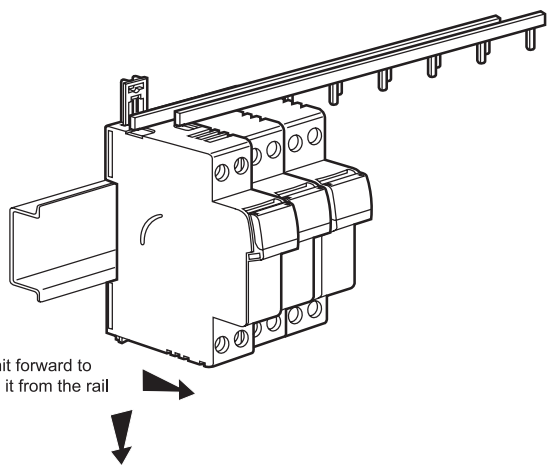
- Cage terminals, with combined releasable and captive Pozidriv screws

Maintenance with busbar connection

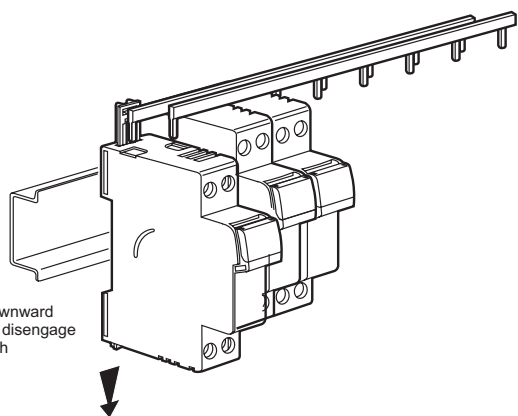


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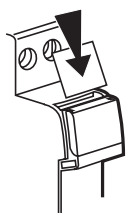
Pull the unit forward to disengage it from the rail



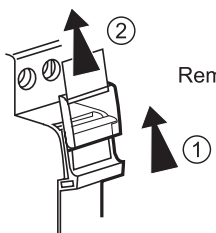
Pull the unit downward in order to fully disengage the busbar teeth

Labelling

Label holder for the identification of the circuit



Insertion

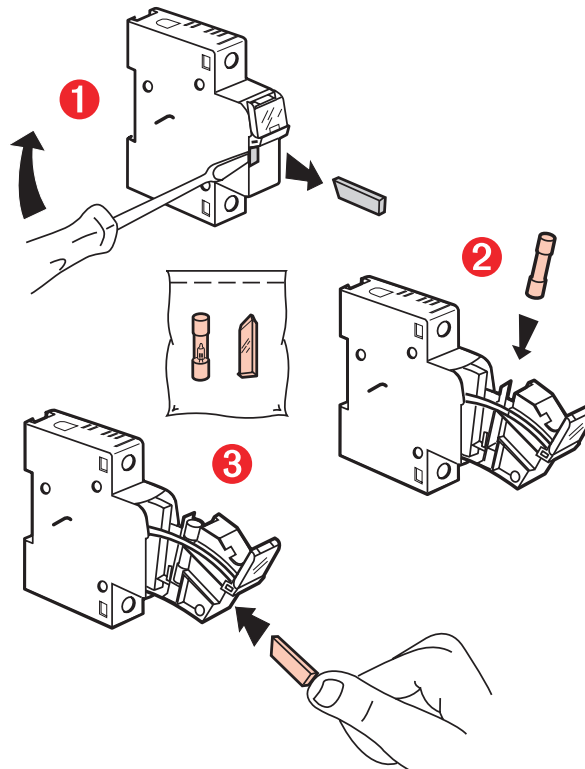


Removal

11. ACCESSORIES

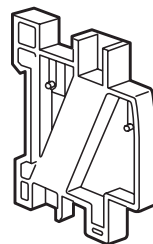
11.1 Blow-out indicator 250 V~

Cat. No. F300S



11.2 Separation module (0.5 module)

Cat. No. F80/05D



11.3 Fuse boxes

Cat. No. F300P



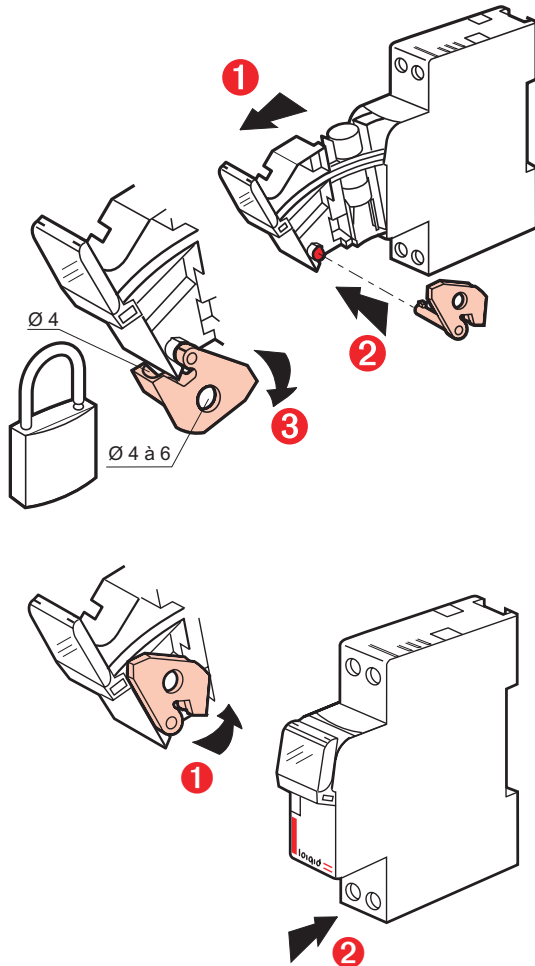
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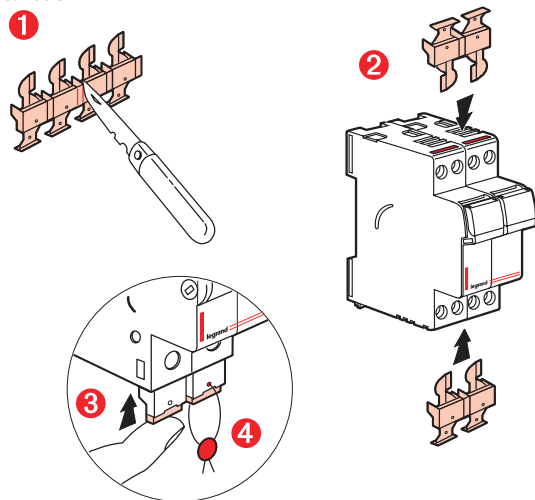
11.4 Padlocking accessory

Cat. No. F300L



11.5 Sealable terminal shield (4 separable poles)

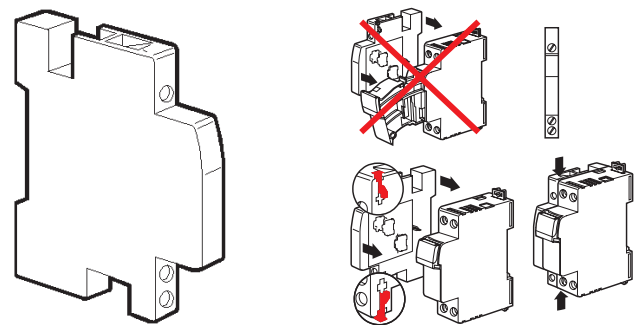
Cat. No. F80CV2



11.6 Auxiliary device

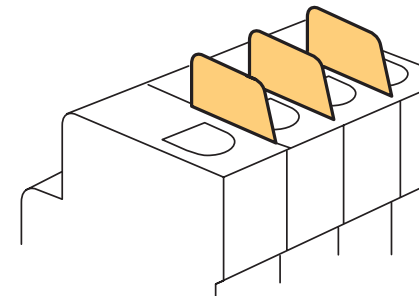
N/C + N/O auxiliary switch for on/off signalling 250 V (0.5 module)

Cat. No. F300NAC



11.7 Pole separation divider

Cat. No. F80SEP



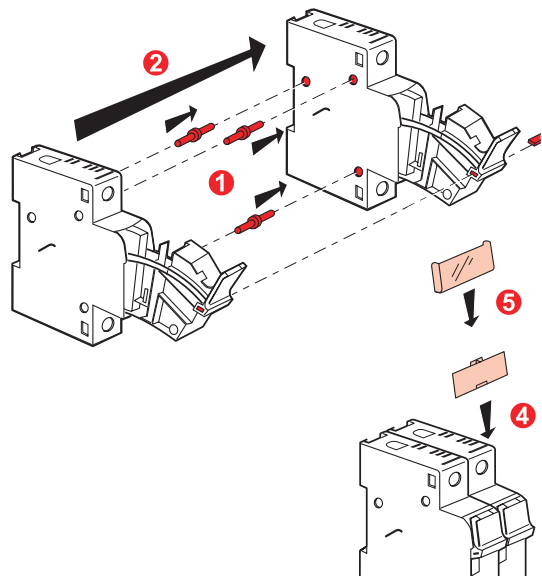
Not compatible with 1P+N fuse carrier

11.8 Reinforced joining kit

2-pole Cat. No. F300/2P

3-pole Cat. No. F300/3P

4-pole Cat. No. F300/4P



Not compatible with 1P+N fuse carrier