

SPX³-V Vertical fuse carriers for blade type fuses

Cat. Nos: 6 058 50-6 058 51/52/53



1. USE

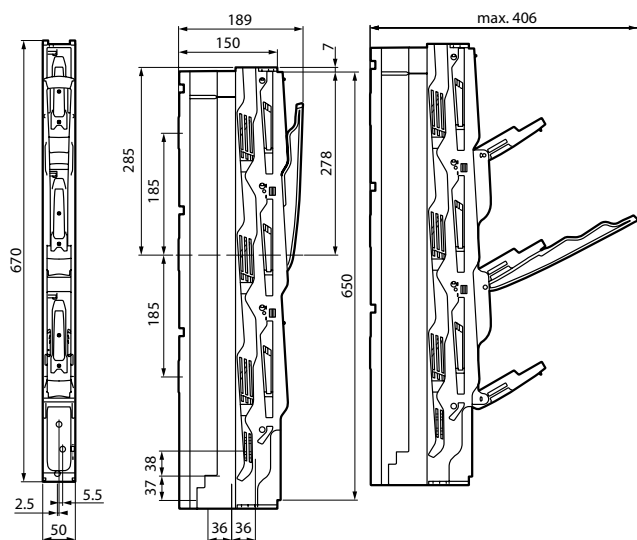
SPX³-V vertical fuse carrier (compatible with DIN 43 620 NH fuse without striker), offers optimal solutions for protection against short-circuits and over-loads. It is also used for connection, and disconnection of electric circuit parts without load or at full load in all the situations where a fuse is a more adapted protection instead of a circuit breaker. It is recommended for 185 mm busbar installations.

2. RANGE

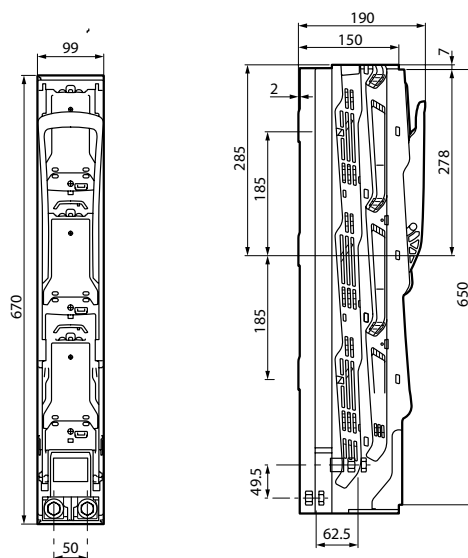
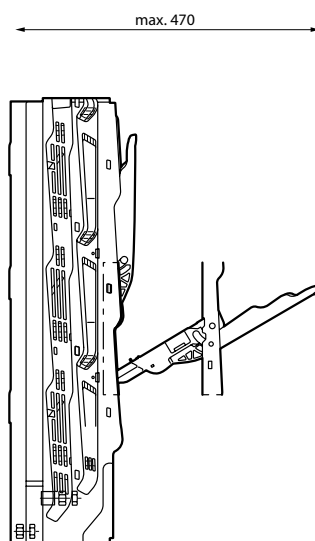
I _n (A)	Cat. Nos
160	6 058 50
250	6 058 51
400	6 058 52
630	6 058 53

3. DIMENSIONS (mm)

Cat. No: 6 058 50



Cat. Nos: 6 058 51/52/53



4. ELECTRICAL AND MECHANICAL CHARACTERISTICS

SPX ³ -V 160 A		SPX ³ -V 250 A
Size	00	1
Type of fuse	NH 000, NH 00	NH 1
Rated uninterrupted current I_u	160 A	250 A
Nominal frequency	AC (50/60 Hz)	AC (50/60 Hz)
Rated operational voltage U_e	800 V AC	800 V AC
Rated insulating voltage U_i	1000 V	1000 V
Rated impulse withstand voltage U_{imp}	8 kV	12 kV
Category of use EN 60947-3	400 V	AC 23 B
	500 V	AC 22 B
	690 V	AC 21 B (125 A)
	800 V	AC 22 B (63 A)

SPX ³ -V 400 A		SPX ³ -V 630 A
Size	2	3
Type of fuse	NH 2	NH 3
Rated uninterrupted current I_u	400 A	630 A
Nominal frequency	AC (50/60 Hz)	AC (50/60 Hz)
Rated operational voltage U_e	690 V AC	800 V AC
Rated insulating voltage U_i	1000 V	1000 V
Rated impulse withstand voltage U_{imp}	8 kV	12 kV
Category of use EN 60947-3	400 V	AC 23 B
	500 V	AC 22 B
	690 V	AC 22 B AC 21 B
	800 V	AC 20 B ⁽¹⁾

*Rated current according to the available fuse links, taking into account the maximum permissible power dissipation 34 W. Do not switch under load.

4.1 Power dissipated by fuse carrier (without fuse component)

Cat. Nos	Voltage/Category of use/current	I [A]	P [W]
6 058 50 SPX ³ -V 160 A	400 V/AC 23 B/160 A	160	28
	800 V/AC 22 B/63 A	63	4
6 058 51 SPX ³ -V 250 A	400 V/AC 23 B/250 A	250	24
	800 V/AC 22 B/160 A	160	10
6 058 52 SPX ³ -V 400 A	400 V/AC 23 B/400 A	400	60
6 058 53 SPX ³ -V 630 A	400 V/AC 23 B/630 A	630	118
	800 V/AC 22 B/315 A	315	30

4.2 Conditioned short-circuit current with fuses

Cat. Nos	Tension (U_e) / Rated operational current (I_e)	Cond. short-circuit current with fuses*
6 058 50 SPX ³ -V 160 A	690 V/160 A	100 kA
	800 V/63 A	30 kA
6 058 51 SPX ³ -V 250 A	500 V/250 A	120 kA
	690 V/250 A	100 kA
	800 V/160 A	50 kA
6 058 52 SPX ³ -V 400 A	500 V/400 A	120 kA
	690 V/400 A	100 kA
6 058 53 SPX ³ -V 630 A	500 V/630 A	100 kA
	690 V/500 A	80 kA
	800 V/315 A	50 kA

*approved with fuse links of operation class gG.

4.3 Connections

Size	Screw terminals	Direct connection terminals	
00	M8 70 mm ² Tightening torque 8-10 Nm	Cu (with clamp 6 058 65) 1 x 10 mm ² re; 1 x 16-95 mm ² rm; 1 x 35-95 mm ² sm; 1 x 10-95 mm ² f; 1 x 10-70mm ² f+AE; Tightening torque 3-4 Nm	Al not allowed
1/2/3	M12 2 x 185 mm ² - 240 mm ² Tightening torque 30 Nm	Cu (with clamp 6 058 66) 1 x 70 - 240 mm ² sm 1 x 95-240 mm ² se 1 x 70 -185 mm ² rm Tightening torque 20 - 25 Nm	Al ⁽¹⁾ (with clamp 6 058 66) 1 x 95-240 mm ² se Tightening torque 20 - 25 Nm
		Cu (with clamp 6 058 67) 1 x 150 - 300 mm ² sm 1 x 185 - 300 mm ² se 1 x 120 - 300 mm ² rm Tightening torque 25-30 Nm	Al ⁽¹⁾ (with clamp 6 058 67) 1 x 150 - 300 mm ² sm Tightening torque 25-30 Nm

⁽¹⁾ Al connections allowed up to 80°C

sm: stranded sectored
se: solid sectored
rm: stranded round
re: solid round
f: flexible
AE: wire-end ferrules

5. INSTALLATION RULES

The information contained in the documentation applies for the recommended mounting position and the ambient conditions of indoor installation (contamination level 3; 2 in exceptional cases) according to IEC/EN 61439-1/2/3.

5. INSTALLATION RULES (continued)

■ 5.1 Derating conditions

Plant-specific reduction factors must be considered, depending on the exact conditions of use. The assumed loading factors listed below represent guide values and refer to a maximum 35 °C temperature of the air directive surrounding the products.

IEC 61439-2	
Type of load	Assumed loading factor
Distribution-2 and 3 circuits	0,9
Distribution-4 and 5 circuits	0,8
Distribution-6 and 9 circuits	0,7
Distribution-10 or more circuits	0,6
Electric actuator	0,2
Motors ≤ 100 kW	0,8
Motors > 100 kW	1,0

IEC 61439-3	
Number of outgoing circuits	Assumed loading factor
2 and 3	0,8
4 and 5	0,7
6 to 9 inclusive	0,6
10 and above	0,5

We recommend vertically mounting the device on a horizontal busbar system with pitch pole 185 mm.

In case of deviating mounting positions and conditions, all influencing factors are on maximum temperature must be accounted for by applying additional correction factors. For example:

- power dissipation of the fuse-links and the devices in operation,
- simultaneous full and partial load cycles,
- arrangement in the system, mutual influence of the devices,
- busbar cross-section, conductor cross-section,
- ambient temperature, flow conditions, ventilation or cooling.

Mounting positions are prohibited where gravity and direction of mounting are opposed.

Derating with altitude

Altitude (m)	2000	3000	4000	5000
U _e (V)	690	590	520	460
I _n (A) (T _a = 40 °C)	1xI _n	0,98xI _n	0,94xI _n	0,9xI _n

6. EQUIPMENTS AND ACCESSORIES

■ 6.1 Mechanical accessories

- Signalling contact: Auxiliary switch contact (250 V AC/5 A, 30 V DC/4 A)

Cat. No: 6 052 30

■ 6.2 Connection accessories

- Cage terminals for Copper and Aluminium cables:
10-95 mm² (size 00)
70-240 mm² (size 1/2/3)
120-300 mm² (size 1/2/3)

Cat. No: 6 058 65

Cat. No: 6 058 66

Cat. No: 6 058 67

■ 6.3 Terminal shields

- For SPX³-V size 00

Cat. No: 6 058 68

Can be fixed at the bottom of the SPX³-V vertical fuse carriers.

- For SPX³-V size 1/2/3

Cat. No: 6 058 69

Can be fixed at the top or at the bottom of the SPX³-V vertical fuse carriers.

■ 6.4 Busbar support

- Collector rail supports for 185 mm phase offset: Universal busbar support 185 mm for drilled and undrilled flat busbars 30, 40, 60, 80, 100, 120 x 10 mm

Cat. No: 6 058 80

■ 6.5 Current transformers

Accuracy class 1, secondary rated current 5 A

Size	Rated current	Cat. Nos
00	80 A	6 058 70
00	150 A	6 058 71
12/3	150 A	6 058 73
1/2/3	200 A	6 058 74
1/2/3	250 A	6 058 75
1/2/3	400 A	6 058 76
1/2/3	600 A	6 058 77

■ 6.6 DPX³ 1600 adaptors

- For connection between DPX³ 1600 MCCBs and the busbars

Cat. No: 6 058 60

Compensated rated current in accordance with ambient temperature (A)

	30°C	40°C	50°C	60°C	65°C	70°C
DPX ³ 1600TM (I _n = 1250A)	1,00	1,00	1,00	0,90	0,80	0,75
DPX ³ 1600E (I _n = 1600A)	1,00	1,00	1,00	0,90	0,70	0,70

7. OTHER INFORMATION

■ 7.1 Maximum fuses power ratings

			DIN 43 620 Fuses ratings (A)			
SPX ³ -V	I _u (A)	P _{max} (W)	aM	gG	gR	aR
00	160	15	125	160	32	40
1	250	24	250	250	63	80
2	400	34	400	400	125	125
3	630	48	500	630	160	200

Please note: these values are for guidance only; check compliance of fuses maximum power dissipation and rated current on corresponding datasheets. The power dissipation shall not exceed the P_{max} of SPX³-V.

7. OTHER INFORMATION (continued)

■ 7.2 Permissible load current of 185 mm system inside XL³ S and XL³

Copper bar cross-section (mm)	I [A]	
	IP ≤ 30	IP > 30
30 x 10	630	550
40 x 10	700	600
60 x 10	1100	950
80 x 10	1300	1150
100 x 10	1550	1350
120 x 10	1800	1550

8. MARKING

SPX³-V
Ie 400 A
6 058 52
Ue 690 V a.c. 50/60 Hz
DIN VDE 0636-201
NH 2 Pv 34 W



IEC/EN 60947-3
IEC 60269-2-1

AC-21B	690 V	400 A
AC-22B	690 V	400 A
AC-22B	500 V	400 A
AC-23B	400 V	400 A



9. CONFORMITY

The SPX³-V vertical fuse carriers range is conform to the IEC 60947-3 standard.

For further technical information, please contact Legrand technical support.
Unless otherwise indicated, data reported in this document refers exclusively to test conditions according to product standards.
For different conditions of use of the product, inside electrical equipment or in any different installation context, refer to the regulatory requirements of the equipment, local regulations and design specifications of the system.