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AC FUSE HOLDERS

- Version without indicator: 1P, 1P+N, 2P, 3P, 3P+N
- Version with indicator: 1P
- For fuses 10x38, 14x51 and 22x58mm IEC class gG or aM.
- IEC rated current: 32A, 50A, 125A
- IEC rated voltage: 690VAC.



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AC FUSE HOLDERS CLASS CC FOR NORTH AMERICAN MARKET

- Version without indicator: 1P, 2P, 3P
- Version with indicator: 1P
- For 10x38mm UL/CSA class CC fuses
- IEC rated current: 30A
- IEC rated voltage: 600VAC.



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DC FUSE HOLDERS FOR PHOTOVOLTAIC APPLICATIONS

- Version without indicator: 1P, 2P
- Version with indicator: 1P, 2P
- For 10x38mm IEC class gPV fuses
- IEC rated current: 32A
- IEC rated voltage: 1000VDC
- IEC utilisation category: DC20B.



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DC FUSES FOR PHOTOVOLTAIC APPLICATIONS

- 10x38mm, IEC class gPV
- Rated current: 20A
- Rated voltage: 1000VDC.



- Modular size for 10x38, 14x51 and 22x58mm fuses
- Finger safe - IEC IP20 degree of protection against accidental contact with live parts and with sealable cover for operators' safety
- Version with status indicator to quickly determine if the fuse is still operative or needs to be replaced
- UL and CSA certified versions.

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Fuse holders UL Recognized and CSA certified



FB01 F... FB01 F 1PL



FB02 A... FB02 A 1PL



FB03 A... FB03 A 1PL

new

new

Order code	Pole arrangement	Status indicator	DIN size	Qty per pkg	Wt
			n°	n°	[kg]

For 10x38mm fuses.
IEC 32A rated current at 690VAC.

FB01 F 1P	1P	—	1	12	0.066
FB01 F 1PL	1P	YES	1	12	0.065
FB01 A 1M	1P+N	—	1	12	0.062
FB01 F 1N	1P+N	—	2	6	0.134
FB01 F 2P	2P	—	2	6	0.132
FB01 F 3P	3P	—	3	4	0.188
FB01 F 3N	3P+N	—	4	3	0.260

For 14x51mm fuses.
IEC 50A rated current at 690VAC.

FB02 A 1P	1P	—	1	12	0.113
FB02 A 1PL	1P	YES	1	12	0.114
FB02 A 1N	1P+N	—	2	6	0.237
FB02 A 2P	2P	—	2	6	0.224
FB02 A 3P	3P	—	3	4	0.335
FB02 A 3N	3P+N	—	4	3	0.460

For 22x58mm fuses.
IEC 125A rated current at 690VAC.

FB03 A 1P	1P	—	1	12	0.167
FB03 A 1PL	1P	YES	1	12	0.167
FB03 A 1N	1P+N	—	2	6	0.354
FB03 A 2P	2P	—	2	6	0.334
FB03 A 3P	3P	—	3	4	0.500
FB03 A 3N	3P+N	—	4	3	0.720

① Use with gG/aM class 125A fuses, not dissipating more than 12W power.

NOTE:
For FB01 F type: UL Recognized as "Fuseholders - Component". Current rating: 30A. Voltage rating: 750V max. CSA certified as "Fuseholder Assemblies". Current rating: 30A. Voltage rating: 600V max.
For FB02 A type: UL Recognized as "Fuseholders - Component". Current rating: 50A. Voltage rating: 750V max.
For FB03 A type: UL Recognized as "Fuseholders - Component". Current rating: 100A. Voltage rating: 750V max.

Operational characteristics

- IEC rated voltage U_e :
 - 690VAC (FB01 A 1M excluded)
 - 400VAC (FB01 A 1M only)
- IEC rated current I_e :
 - FB01 A 1M: 32A
 - FB01 F: 32A
 - FB02 A: 50A
 - FB03 A: 125A
- IEC utilisation category:
 - FB01 A 1M: AC22B 400V
 - FB01 F: AC22B 500V, AC21B 690V
 - FB02 A: AC22B 500V, AC21B 690V
 - FB03 A: AC21B 690V
- Suitable for IEC fuse class: gG and aM
- IEC degree of protection: IP20.

Certifications and compliance

Certifications obtained:

Type	CSA certified (File 252040 class 6255)	UL Recognized for USA and Canada (cULus - File E343395)
FB01 F...	●	●
FB02 A...	—	●
FB03 A...	—	●

● Certification obtained.

"UL Recognized": Products having this type of marking are intended for use as components of complete workshop-assembled equipment.

Compliant with standards: IEC/EN 60269-1, IEC/EN 60269-2, IEC/EN 60947-1, IEC/EN 60947-3, UL 4248-1, UL 4248-4, CSA C22.2 n°4248.1, CSA C22.2 n°4248.4.

Fuse holders



FB01 B... FB01 B 1PL

Order code	Pole arrangement	Status indicator	DIN size	Qty per pkg	Wt
			n°	n°	[kg]

For 10x38mm fuses.
IEC 32A rated current at 690VAC.

FB01 B 1P	1P	—	1	12	0.062
FB01 B 1PL	1P	YES	1	12	0.064
FB01 B 1N	1P+N	—	2	6	0.127
FB01 B 2P	2P	—	2	6	0.128
FB01 B 3P	3P	—	3	4	0.185
FB01 B 3N	3P+N	—	4	3	0.247

Operational characteristics

- IEC rated voltage U_e : 690VAC
- IEC rated current I_e : 32A
- IEC utilisation category: AC22B 500V, AC21B 690V
- Suitable for IEC fuse class: gG and aM
- IEC degree of protection IP20.

Reference standards

Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-3, IEC/EN 60269-1, IEC/EN 60269-2.

Fuse holders UL Listed and CSA certified for class CC fuses for North American market



FB01 G... FB01 G 1PL

new

Order code	Pole arrangement	Status indicator	DIN size	Qty per pkg	Wt
			n°	n°	[kg]

For 10x38mm fuses.
IEC 30A rated current at 600VAC.

FB01 G 1P	1P	—	1	12	0.070
FB01 G 1PL	1P	YES	1	12	0.072
FB01 G 2P	2P	—	2	6	0.140
FB01 G 3P	3P	—	3	4	0.210

NOTE: UL Listed and CSA certified as "Fuseholders, Cartridge Fuse" for use with Class CC fuses. Interrupting rating 200,000 Amps rms symmetrical. Voltage rating 600V. Current rating 30A.

Operational characteristics

- IEC rated voltage U_e : 600VAC
- IEC rated current I_e : 30A
- IEC utilisation category: AC22B 500V, AC21B 690V
- Suitable for UL/CSA fuse class: CC
- IEC degree of protection IP20.

Certifications and compliance

Certifications obtained: UL Listed for USA (UL - File E343395) and CSA certified for Canada only (File 252040 class 6225).
Compliant with standards: IEC/EN 60269-1, IEC/EN 60269-2, IEC/EN 60947-1, IEC/EN 60947-3, UL 4248-1, UL 4248-4, CSA C22.2 n°4248.1, CSA C22.2 n°4248.4.

Fuse holders

DC fuse holders for photovoltaic applications.

Accessories

Fuse holders for photovoltaic applications UL Listed / CSA certified



FB01 D... FB01 D 1PL

Order code	Pole arrangement	Status indicator	DIN size	Qty per pkg	Wt
			n°	n°	[kg]

For 10x38mm fuses.
IEC 32A rated current at 1000VDC.

FB01 D 1P	1P	—	1	12	0.064
FB01 D 1PL	1P	YES	1	12	0.065
FB01 D 2P	2P	—	2	6	0.127
FB01 D 2PL	2P	YES	2	6	0.130

NOTE: UL Listed and CSA certified as "Photovoltaic fuseholders" for use with Photovoltaic Fuses. Interrupting rating 30,000 DC Amps. Voltage rating 1000V. Current rating 30A.

Operational characteristics

- IEC rated voltage Ue: 1000VDC
- IEC rated current Ie: 32A
- IEC utilisation category: DC20B 1000VDC
- Suitable for IEC fuse class: gPV
- IEC degree of protection: IP20.

Certifications and compliance

Certifications obtained: UL Listed for USA (UL - File E366062) and CSA certified for Canada (file ref. not available at time of catalogue printing).
Compliant with standards: IEC/EN 60269-1, IEC/EN 60269-2, IEC/EN 60947-1, IEC/EN 60947-3, UL 4248-1, UL4248-18, CSA C22.2 n° 4248-1, CSA C22.2 n° 4248-18.

Fuses for photovoltaic applications



FE01 D...

Order code	Rated current In	Qty per pkg	Wt
	[A]	n°	[kg]

For 10x38mm fuses.
IEC 30kA breaking capacity at 1000VDC.

FE01 D 00200	2	10	0.008
FE01 D 00400	4	10	0.008
FE01 D 00600	6	10	0.008
FE01 D 00800	8	10	0.008
FE01 D 01000	10	10	0.008
FE01 D 01200	12	10	0.008
FE01 D 01600	16	10	0.008
FE01 D 02000	20	10	0.008

Operational characteristics

- IEC rated voltage Ue: 1000VDC
- IEC rated current Ie: 2-20A
- IEC fuse class: gPV.

Reference standards

Compliant with standards: IEC/EN 60269-6.

Accessories



FBX 00

FBX 01
FBX 03

FBX 02



P1X 90 33



P1X 92 01

P1X 92 02



P1X 91 33



Order code	Description	Qty per pkg	Wt
	[A]	n°	[kg]
FBX 00	Coupling clip for 10x38, 14x51 and 22x58mm sizes	100	0.003
FBX 01	Coupling pin for 10x38mm size type FB01 A1M, FB01 B1P and FB01 B1PL only	100	0.005
FBX 02	Coupling pin for 14x51 and 22x58mm sizes	100	0.008
FBX 03	Coupling pin for 10x38mm size types FB01 F, FB01 G, FB01 D only	1	0.005

For FB01 F, FB01 A1M, FB01 B and FB01 G types, AC duty.

P1X 90 31	1-phase connection busbar for 57 modules in total, 996mm/39.2" long	10	0.240
P1X 90 33	3-phase connection busbar for 60 modules in total, 1060mm/41.7" long	10	0.474
P1X 91 30	Kit of 5 isolating covers for unused busbar terminals	10	0.030
P1X 91 31	End cap for 1-phase P1X9031 busbar	50	0.001
P1X 91 33	End cap for 3-phase P1X9033 busbar	50	0.001
P1X 92 01	1-pole terminal for busbar supply, 25mm ² max conductor	25	0.011
P1X 92 02	1-pole terminal for busbar supply, 50mm ² max conductor	25	0.022

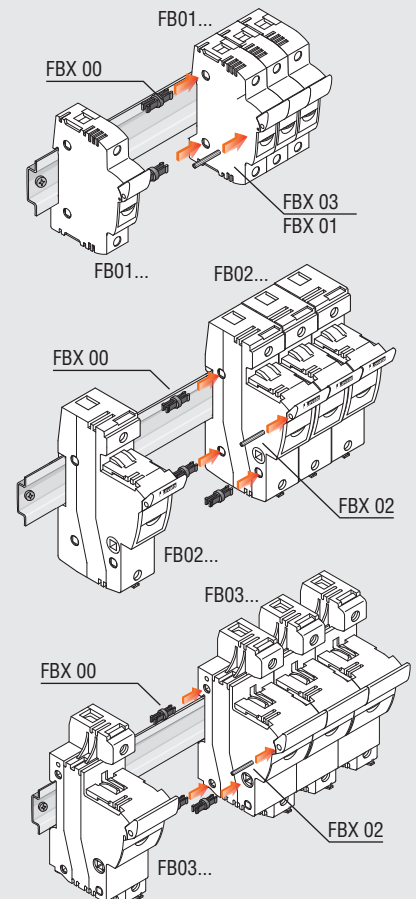
General and operational characteristics

SUPPLY CONNECTION BUSBARS

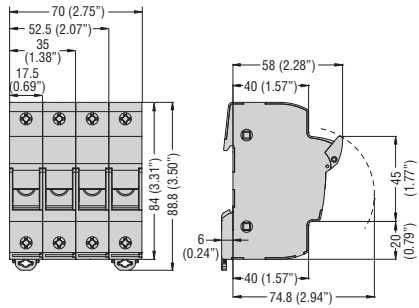
- Central point of power supply: 100A max^①
- Side point of power supply: 63A max^①
- Pitch: 18mm/0.7"
- Busbar section: 10mm²
- For paralleling connection
- Length can be cut in shorter sections.

① See technical characteristics under derating factor of FB01 type for operating conditions.

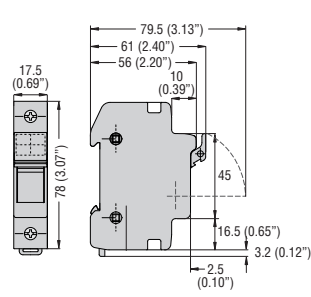
Fuse holder combinations



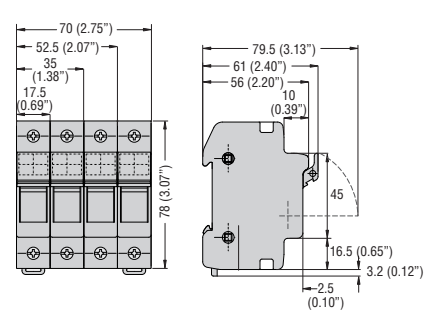
FB01 F... FB01 G... FB01 D...



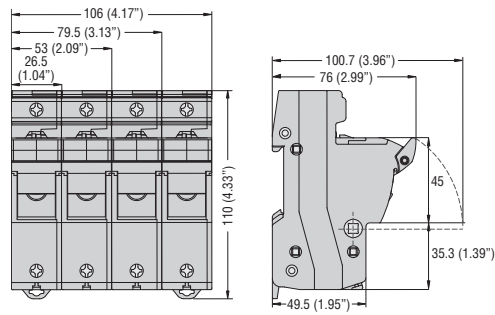
FB01 A1M



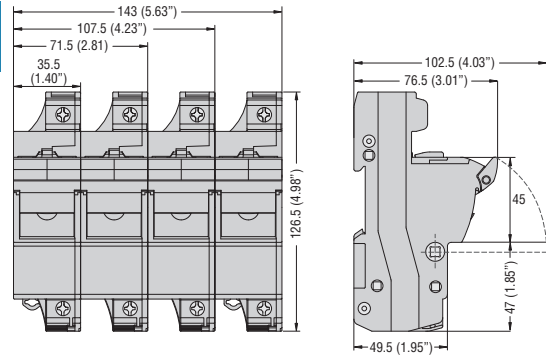
FB01 B...



FB02 A...

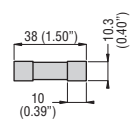


FB03 A...

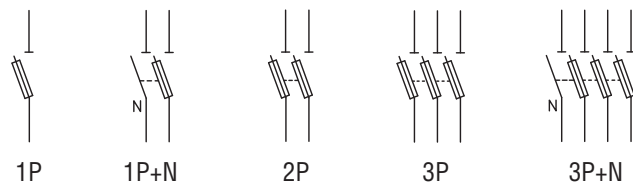


FUSES

FE01 D 0...



Wiring diagrams



TYPE	FB01 A...	FB01 B...	FB02 A...	FB03 A...	FB01 C...	FB01 D...
Range	AC				Class CC (AC)	DC
IEC maximum rated current I_n	32A		50A	125A [Ⓜ]	30A	32A
IEC maximum rated voltage U_n	690VAC; 400VAC [Ⓛ]	690VAC			600VAC	1000VDC
IEC utilisation category	AC22B 500V; AC21B 690V; AC22B 400V [Ⓛ]			AC21B 690V	AC22B 500V; AC21B 690V	DC20B 1000VDC
Maximum power dissipation	3W		5W	9.5W	3W	4W
Derating factor of current I_n for different ambient temperatures	20°C	1				
	30°C	0.95				
	40°C	0.9				
	50°C	0.8				
	60°C	0.7				
	70°C	0.5				
Derating factor of current I_n for side-by-side fuse holders - number of poles	1-4	1				
	5-6	0.8				
	7-9	0.7				
	≥10	0.6				
Voltage for status indicator	120...690VAC		230...690VAC		120...600VAC	350...1000VDC

CONNECTIONS

Maximum tightening torque		2.5Nm; 2Nm [Ⓛ] / 22lbin	3Nm / 26lbin	4Nm / 35lbin	2.5Nm / 22lbin	
Maximum conductor cross section	flexible/stranded	1x16mm ² ; 1-16mm ² [Ⓛ] / 8AWG	1x25mm ² / 6AWG	1x35mm ² / 2AWG	1x16mm ² / 8AWG	1x16mm ² / 6AWG
	rigid/solid	1x25mm ² ; 1-10mm ² [Ⓛ] / 8AWG	1x35mm ² / 8AWG	1x50mm ² / 1AWG	1x25mm ² / 10AWG	1x25mm ² / 4AWG

AMBIENT CONDITIONS

Operating temperature	-20...+70°C
Storage temperature	-40...+80°C
Maximum altitude	3,000m
Operation position	Any
Fixing	On 35mm DIN rail (IEC/EN 60715)

[Ⓛ] Values valid only for FB01 A 1M type.

[Ⓜ] Use with gG/aM class 125A fuses, not dissipating more than 12W power.

TECHNICAL CHARACTERISTICS FOR FE01 D... FUSES

TYPE	Rated current [A]	Power consumption at 0.7 I_n [W]	Power consumption at I_n [W]	Prearcing I^2t [A ² s]	Total I^2t at 1000VDC [A ² s]
FE01 D 00200	2	0.78	1.45	0.62	1
FE01 D 00400	4	0.64	1.57	6.9	11
FE01 D 00600	6	0.76	1.84	24	38
FE01 D 00800	8	0.8	1.92	62	99
FE01 D 01000	10	0.94	2.2	10	48
FE01 D 01200	12	0.98	2.4	18	94
FE01 D 01600	16	1.1	2.7	46	110
FE01 D 02000	20	1.2	2.9	118	282

TIME-CURRENT CHARACTERISTICS FOR FE01 D... FUSES

