


Protection components

Fuse protection

Applications	▶	Protection of control circuits or transformers
		
Breaking under load	▶	–
Fuse type (emergency stop)	▶	NF C or DIN
Cartridge fuses	▶	1...125 A
Device type	▶	Fuse carriers
Device type reference	▶	DF6, GK1-C, D, E, F
Pages	▶	23041/3

Motor protection



Protection of motors or variable speed drives



Yes, only if combined with a contactor.

Yes

NF C, DIN, BS or UL

1...1250 A

Switch-disconnector-fuses

LS1, GK1-E, GK1-F (without fuses)

GS1

23027/2

0211Q/2 and 0211Q/3

Protection components

Fuse carriers for the protection of control circuits or transformers

Type		DF6-AB08	GK1-C	DF6-AB10	GK1-D	GK1-E	GK1-F	
Environment								
Conforming to standards		NF C 61-201	–	NF C 61-201	–	–	–	
		IEC 947-3	IEC 947-3	IEC 947-3	IEC 947-3	IEC 947-3	IEC 947-3	
Protective treatment		“TC”	“TC”	“TC”	“TC”	“TC”	“TC”	
Ambient air temperature for operation with links without derating	°C	- 50...+ 70	- 50...+ 70	- 50...+ 70	- 50...+ 70	- 50...+ 70	- 50...+ 70	
Operating position in relation to normal vertical mounting position		± 23°	± 23°	± 23°	± 23°	± 23°	± 23°	
Pole characteristics								
Fuse size		8.5 x 31.5	8.5 x 31.5	10 x 38	10 x 38	14 x 51	22 x 58	
Rated operational voltage with links, a.c. operation	V	400	400	500	500	690	690	
Maximum continuous current (for ambient temperature ≤ 40 °C) (1)	With links	A	20	20	32	32	50	125
	With aM cartridge fuses	A	10	10	25	25	50	125
	With gG cartridge fuses	A	20	20	30	30	40	100
Permissible short-circuit currents (with links)	Maximum peak value (dynamic stress)	kA	8	8	8	8	8	8
	Short-time rating (rms value cos φ = 0.35)	kA	4	4	4	4	4	4
	Duration	ms	100	100	100	100	100	100
Cabling Maximum c.s.a. (without cable end)	Number of conductors		1 2	1 2	1 2	1 2	1 2	1 2
	Flexible cable	mm ²	10 6	10 6	10 6	10 6	25 10	35 16
	Solid cable	mm ²	10 6	10 6	10 6	10 6	25 10	50 25
Tightening torque	N.m	1.2	1.2	1.2	1.2	2	2	

(1) For use at ambient temperature > 40 °C, apply a derating coefficient equivalent to $\sqrt{\frac{120 - \text{ambient temperature}}{80}}$

Protection components

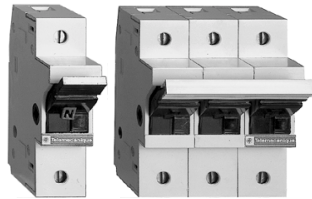
Fuse carriers for the protection of control circuits or transformers



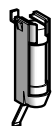
DF6-N10 GK1-CF



DF6-AB10 GK1-DF



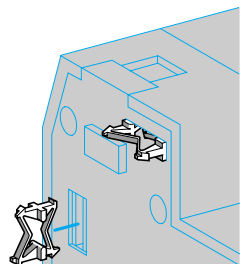
GK1-EN GK1-EF



GK1-AS



GK1-AP



Detail of assembly clip mounting

Fuse carriers (1)

Rated thermal current	Size of cartridge fuse or link	Composition	Sold in lots of	Unit reference	Weight kg
20 A	8.5 x 31.5	1 P	12	DF6-AB08	0.070
		1 N	12	DF6-N10	0.080
		1 P + N (2)	6	GK1-CC	0.152
		2 P	6	GK1-CD	0.142
		3 P	4	GK1-CF	0.213
		3 P + N (2)	3	GK1-CH	0.294
32 A	10 x 38	1 P	12	DF6-AB10	0.070
		1 N	12	DF6-N10	0.080
		1 P + N (2)	6	GK1-DC	0.152
		2 P	6	GK1-DD	0.142
		3 P	4	GK1-DF	0.213
		3 P + N (2)	3	GK1-DH	0.294
50 A	14 x 51	1 P	12	GK1-EB	0.130
		1 N	12	GK1-EN	0.140
		1 P + N (2)	6	GK1-EC	0.273
		2 P	6	GK1-ED	0.263
		3 P	4	GK1-EF	0.394
		3 P + N (2)	3	GK1-EH	0.536
125 A	22 x 58	1 P	12	GK1-FB	0.230
		1 N	12	GK1-FN	0.250
		1 P + N (2)	6	GK1-FC	0.480
		2 P	6	GK1-FD	0.460
		3 P	4	GK1-FF	0.690
		3 P + N (2)	3	GK1-FH	0.940

Blown fuse indicators (neon)

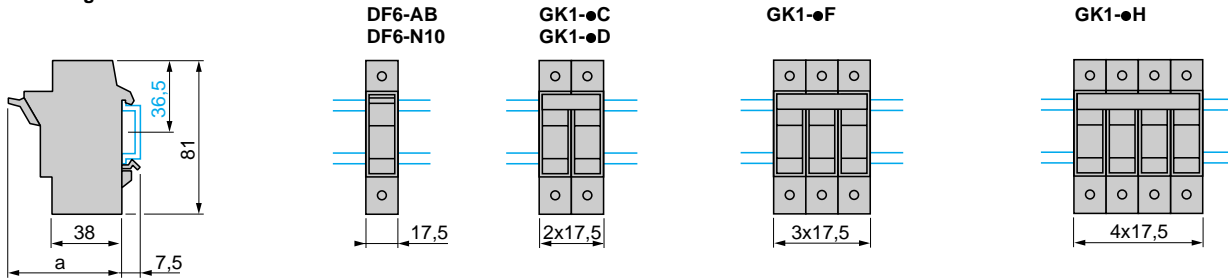
For use on fuse carriers	Operational voltage	Sold in lots of	Unit reference	Weight kg
DF6, GK1-C, D and E	80...400 V	10	GK1-AS	0.003

Fuse carrier assembly strips (3)

Fuse carriers to be assembled	Number	Sold in lots of	Unit reference	Weight kg
DF6	2	10	GK1-AP2	0.002
	3	10	GK1-AP3	0.003
	4	10	GK1-AP4	0.004
GK1-E	2	10	GK1-AP3	0.004
	3	10	GK1-AP5	0.004
	4	10	GK1-AP6	0.006
GK1-F	2	10	GK1-AP4	0.004
	3	10	GK1-AP6	0.006
	4	10	GK1-AP9	0.007

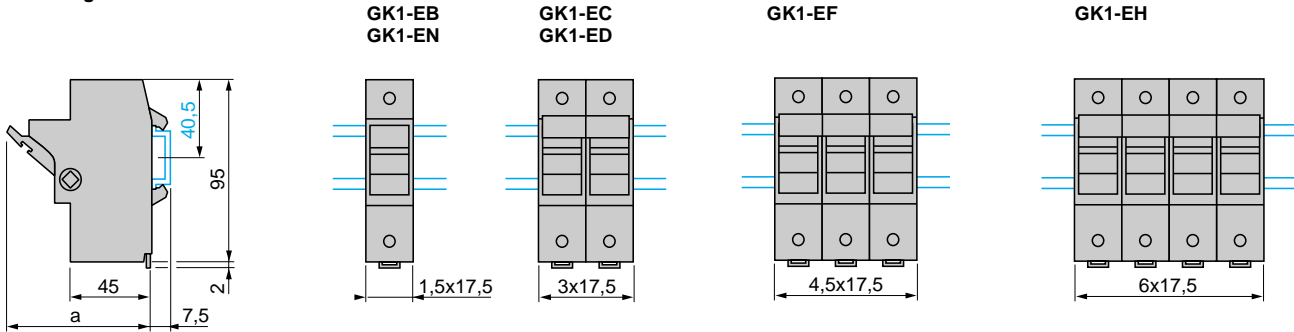
(1) Each pole can be marked. A groove is provided on the control lever for this purpose. Marking by means of AR1-M01 markers using positioning tool AT1-PA3.
 (2) N: neutral pole fitted with a locked link as standard.
 (3) Strips are supplied with all the clips needed for assembling the fuse carriers together.

Modular fuse carriers 20 A and 32 A
Mounting on rail AM1-DP200



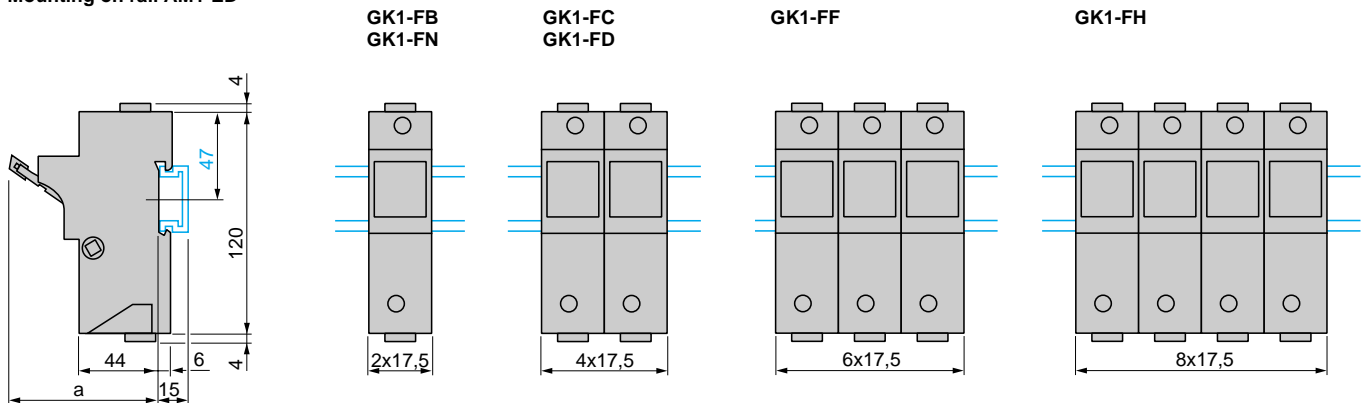
	a
1 pole	60.5
2, 3, 4 poles	64

Modular fuse carriers 50 A
Mounting on rail AM1-DP200



	a
1 pole	78.5
2, 3, 4 poles	82

Modular fuse carriers 125 A
Mounting on rail AM1-ED



	a
GK1-FB, FN	78.5
GK1-FC, FD, FF, FH	82

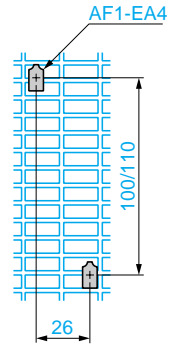
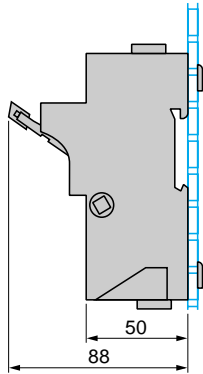
Characteristics :
page 23041/2

References :
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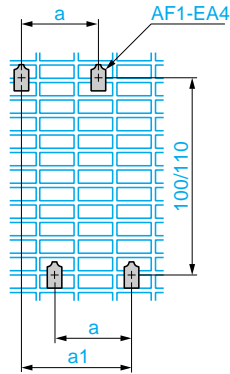
Schemes :
page 23041/5

Modular fuse carriers 125 A

Mounting on pre-slotted mounting plate AM1-PA
GK1-FB, FN



GK1-FC, FD, FF, FH



GK1-	FC	FD	FF	FH
a	35	35	70	105
a1	61	61	96	131

Schemes

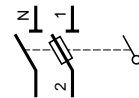
Modular fuse carriers
DF6-AB●



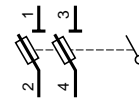
DF6-N



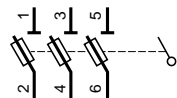
GK1-●C



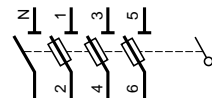
GK1-●D



GK1-●F



GK1-●H



GK1-●B



GK1-●N



Protection components

Fuse carriers for motor protection

Operation: Safety

The fuse carrier performs two basic functions:

- It isolates the downstream circuit by means of a visible break and wide opening contacts.
- It holds the cartridge fuses designed to protect the installation against short-circuits.

The type of cartridge fuse needed to protect the circuit must be determined before selecting the fuse carrier.

Cartridge fuse selection (type, rating, size)

Type

Application

- Motor protection.
- Transformer protection.

Solution

- **aM** type fuses. These fuses are designed to withstand high current peaks of a very short duration. They must be combined with a thermal overload relay coupled with a contactor.

Application

- Lighting circuit protection.
- Supply line protection.
- Furnace protection.

Solution

- **gG** type fuses, which are more widely used but whose limiting capacity is weaker than that of **aM** type fuses.

Rating

gG fuses aM fuses

See standard NF C 15-100.

Table 53 A paragraph 532-2-1 and table 52 C paragraph 523-1.

Motors 3 x 220 V		Motors 3 x 400 V		Cartridge fuses type aM		Fuse carrier
P	In	P	In	Size	Rating	
9 kW	32 A	15 kW	28.5 A	10 x 38	32 A	LS1-D32
11 kW	39 A	22 kW	44 A	14 x 51	50 A	GK1-EK
22 kW	75 A	37 kW	73 A	22 x 58	80 A	GK1-FK
30 kW	103 A	55 kW	105 A	22 x 58	125 A	GK1-FK

Size

Use the "fuse characteristics" table opposite to select the correct fuse size according to:

- the nominal current of the circuit to be protected,
- the operational voltage.

Fuse carrier selection

Application

Isolation of a circuit for safety reasons only.

Solution

The fuse carrier may be fitted with links.
The maximum permissible current is indicated in the "pole characteristics" table opposite.

Application

Isolation of a circuit and its **protection** against short-circuits.

Solution

Select a fuse carrier according to:

- the type of cartridge fuse required,
- the maximum permissible current in the fuse carrier poles (see "pole characteristics" table opposite). If the operational current is greater than the maximum permissible current in the poles of the fuse carrier corresponding to the cartridge fuse size selected, select the fuse carrier the next size up.

The **safety** provided by using a fuse carrier can be increased by adding a padlocking device with up to three padlocks.

Recommendations for use

The fuse carrier conforms to utilisation category AC-21A/22A of the standard IEC 947-3. It is therefore recommended that the fuse carrier early break auxiliary contacts be inserted in the coil circuit of the contactor with which it is in series. If the fuse carrier is not associated with a contactor, it is essential to ensure that it will be operated off-load.

Fuse carrier type		LS1-D32	LS1-D323	GK1-E●	GK1-F●
Environment					
Conforming to standards	NF EN 60947-3 IEC 947-3	● ●		● ●	● ●
Product certifications		BV, UR		–	–
Protective treatment		“TH”		“TC”	“TC”
Ambient air temperature for operation with links without derating	°C	- 50...+ 70		- 50...+ 70	- 50...+ 70
Maximum tilt in relation to normal vertical mounting position		± 23°		± 23°	± 23°

Pole characteristics					
Fuse size		10 x 38	10 x 38	14 x 51	22 x 58
Rated operational voltage with links, a.c. supply	V	690	690	690	690
Maximum continuous current at ambient temperature ≤ 40 °C (1) - with tubular links - with aM fuses - with gG fuses	Min. Ø cable/le mm ² /A	6/32 or 4/25 or 2.5/16	4/25 or 2.5/16	10/50 or 6/40	35/125 or 25/100
	mm ² /A	6/32 or 4/22 or 2.5/20	4/22 or 2.5/20	10/50 or 6/35	35/125 or 25/100
	mm ² /A	6/32 or 2.5/20 or 1.5/16	2.5/20 or 1.5/16	10/40 or 6/32	25/100 or 16/80

Early break contact characteristics					
Rated operational voltage	V	~ 500, --- 440	~ 250, --- 60	~ 500, --- 440	~ 500, --- 220
Conventional thermal current	A	2.5	2.5	6	6

Cartridge fuse characteristics						
Fuse size	Type aM	~ 400 V	A	10 x 38	14 x 51	22 x 58
		~ 500 V	A	32	50	125
		~ 660 V	A	16	40	80
	Type gG	~ 400 V	A	–	25	50
		~ 500 V	A	32	40	100
		~ 660 V	A	20	40	80
Maximum power dissipated by fuse	W	–	25	50	18	

Cabling										
Connection by screw clamp terminals or connectors										
Number and c.s.a. of conductors	Solid	mm ²	Min. 2 x 1	Max. 2 x 6	Min.	Max.	Min.	Max.	Min.	Max.
	Flexible without cable end	mm ²	2 x 1.5	2 x 6	–	–	1 x 2.5	1 x 25	1 x 16	1 x 70
	Flexible with cable end	mm ²	2 x 1	2 x 4	–	–	1 x 2.5	1 x 16	1 x 16	1 x 25
Connection			Screw clamp			Connector			Connector	
Tightening torque	N.m		1.7	–	–	–	2	–	2	–

Connection by spring terminals										
Number and c.s.a. of conductors	Solid	mm ²	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	Flexible without cable end	mm ²	–	–	2 x 1 (2)	2 x 6	–	–	–	–
			–	–	2 x 1.5 (2)	2 x 4	–	–	–	–

(4) For use in an installation with ambient temperature > 55 °C, apply a derating

$$\text{coefficient} = \text{to } \sqrt{\frac{120 - t^{\circ} \text{ ambient}}{80}}$$

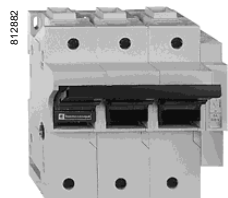
(5) For cross-sections 1 to 1.5 mm², the use of an LA9-D99 cable end reducer is recommended.



LS1-D323



LS1-D32



GK1-FK



LS1-D32

+ LA8-D324

3-pole basic blocks

Rating	Cartridge fuse size	Number of early break contacts (1)	Single-phase protection device (2)	Reference (3)	Weight (kg)
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Connection by spring terminals

25 A	10 x 38	– (4)	Without	LS1-D323	0.270
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Connection by screw clamp terminals or connectors

32 A	10 x 38	– (4)	Without	LS1-D32	0.300
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50 A	14 x 51	1	Without	GK1-EK	0.430
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With	GK1-EV	0.470
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2	Without	GK1-ES	0.470
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With	GK1-EW	0.510
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125 A	22 x 58	1	Without	GK1-FK	0.860
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With	GK1-FV	0.900
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2	Without	GK1-FS	0.900
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With	GK1-FW	0.940
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4-pole basic blocks

Connection by screw clamp terminals or connectors

32 A	10 x 38	– (4)	Without	LS1-D32 +LA8-D324 (5)	0.300
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50 A	14 x 51	1	Without	GK1-EM	0.570
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With	GK1-EY	0.600
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2	Without	GK1-ET	0.610
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With	GK1-EX	0.650
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125 A	22 x 58	1	Without	GK1-FM	1.090
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With	GK1-FY	1.130
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2	Without	GK1-FT	1.130
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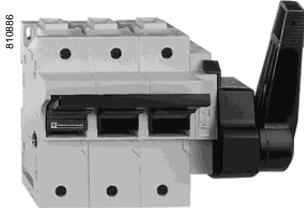
With	GK1-FX	1.160
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Fuse carriers for North American market

25 and 30 A basic blocks: please consult your Regional Sales Office.

- (1) With 1 or 2 early break contacts to be inserted in the contactor control circuit.
- (2) Fuse carriers with single-phase protection device must be fitted with striker fuses.
- (3) LS1-D: clips directly onto a 35 mm rail or screw fixing.
- GK1: clips directly onto a 35 mm rail or Telequick mounting plate.
- (4) Addition of add-on contact block, see page 23027/3.
- (5) Can be mounted on left-hand or right-hand side of the basic block.

Protection components

Fuse carriers
Operators and accessories

GK1-FK + GK1-AP07

Add-on contact blocks

Description	For use on	Mounting	Maximum number	Type of contacts	Sold in lots of	Unit reference	Weight kg
Instantaneous auxiliary contacts	LS1-D32	Front	1	N/O + N/C	10	GV-AE11	0.020
				N/O + N/O	10	GV-AE20	0.020
	LS1-D323	Front	1	N/O + N/C	10	GV-AE113	0.030
				N/O + N/O	10	GV-AE203	0.030

Operators

Side handles

For fuse carrier Rating	Number of poles	For mounting on	Reference	Weight kg
125 A	3 or 4	Right-hand side	GK1-AP07	0.300
		Left-hand side	GK1-AP08	0.300

Front handles (1)

32 - 50 - 125 A	Fitted as standard		
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External handles

32 A	3 or 4	Right or left-hand side	DK1-FB005	0.200
50 A	3 or 4	Right-hand side	GK1-AP05	0.180
		Left-hand side	GK1-AP06	0.180
125 A	3 or 4	Right-hand side	GK1-AP07	0.300
		Left-hand side	GK1-AP08	0.300

Padlocking devices (2)

For fuse carrier Rating	Number of poles	Single-phase protection device	Reference	Weight kg
32 A	3 or 4	Without	integral	
50 A	3	Without	GK1-AV07	0.100
		With	GK1-AV08	0.110
	4	Without	GK1-AV08	0.110
		With	GK1-AV09	0.070

Links

For fuse carrier Rating	Number of poles	Sold in lots of	Unit reference	Weight kg
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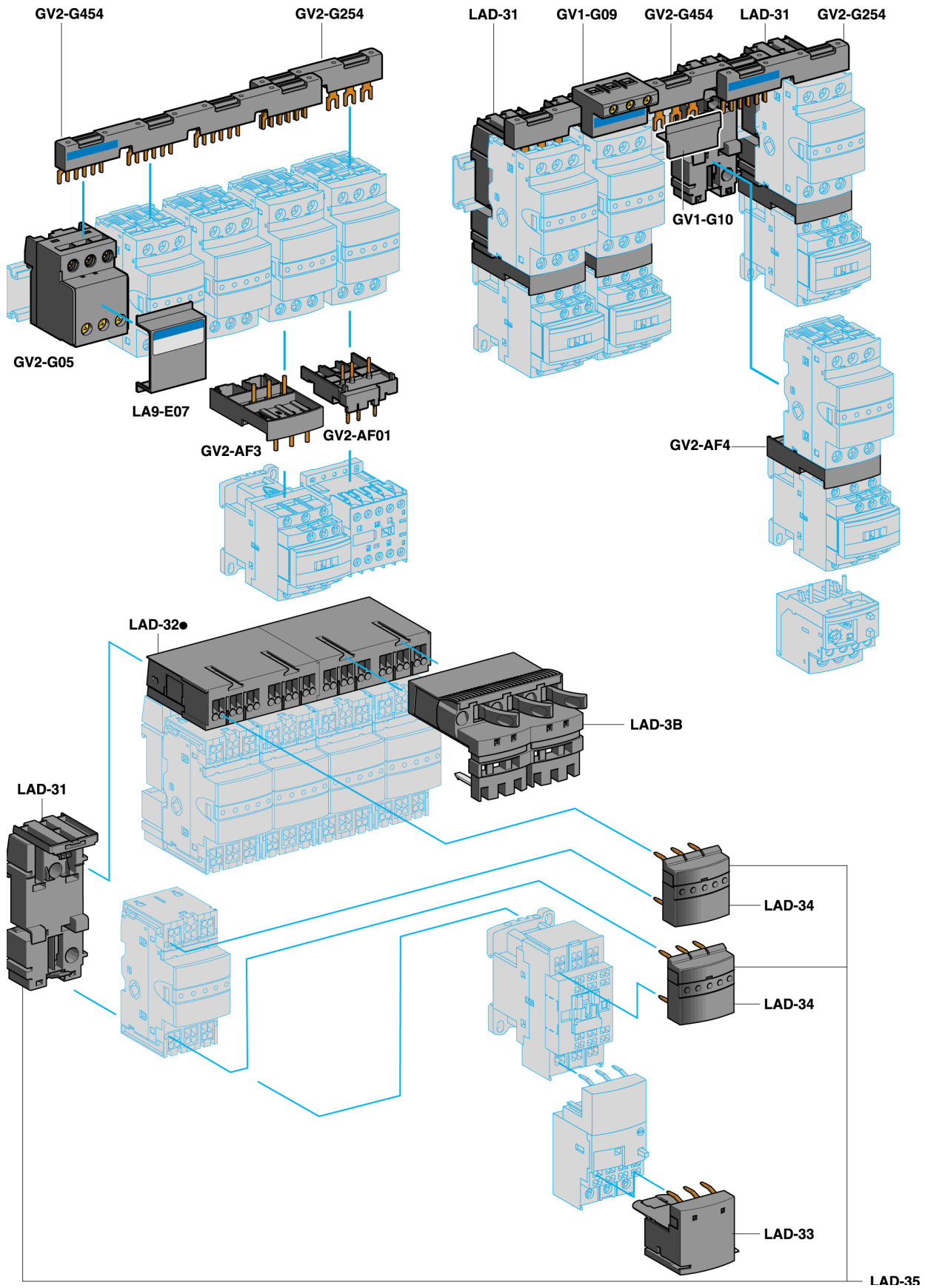
Tubular links

32 A	3 or 4	10	DK1-CB92 (3)	0.007
50 A	3 or 4	10	DK1-EB92 (4)	0.012
125 A	3 or 4	10	DK1-FA92 (4)	0.020

(1) Fitted as standard on 32, 50 and 125 A fuse carriers.

(2) For the 125 A rating, use side handles **GK1-AP07** or **GK1-AP08**.(3) For use on a neutral circuit, the tubular link can be interlocked with special device **LA8-D25906** (sold in lots of 10).

(4) Fuse carriers GK1 50 and 125 A are fitted with an interlocked neutral tubular link as standard.



Accessories for LS1-D32 (screw clamp terminals)

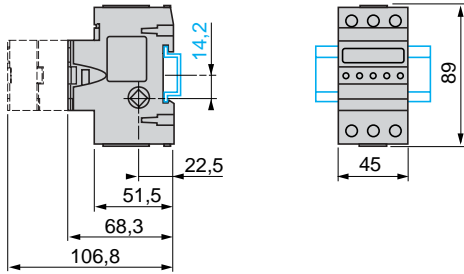
Description	Application	Sold in lots of	Unit reference	Weight kg	
Mounting plate	LS1-D32 and contactor LC1-D09 to D38 with front faces aligned	1	LAD-31	0.040	
Combination blocks	Between LS1-D32 and contactor LC1-K or LP1-K	10	GV2-AF01	0.020	
	Between LS1-D32 and contactor LC1-D09...D38	10	GV2-AF3	0.016	
	Between LS1-D32 mounted on LAD-31 and contactor LC1-D09...D38	10	GV2-AF4	0.016	
Description	Application	Pitch mm	Reference	Weight kg	
Sets of 3-pole 63 A busbars	2 tap-offs	45	GV2-G245	0.036	
		54	GV2-G254	0.038	
		72	GV2-G272	0.042	
	3 tap-offs	45	GV2-G345	0.058	
		54	GV2-G354	0.060	
	4 tap-offs	45	GV2-G445	0.077	
		54	GV2-G454	0.085	
		72	GV2-G472	0.094	
	5 tap-offs	54	GV2-G554	0.100	
	Description	Application	Sold in lots of	Unit reference	Weight kg
	Protective end cover	For unused busbar outlets	5	GV1-G10	0.005
	Terminal blocks Connection from top	For supply to one or more GV2-G busbar sets	1	GV1-G09	0.040
Cover for terminal block	For mounting in modular panels	10	LA9-E07	0.005	
Padlocking device	For use with up to 6 padlocks (not supplied), Ø 6 mm shank max.	1	GV2-V03	0.130	

Accessories for LS1-D323 (spring terminals)

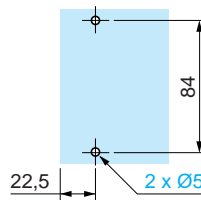
Description	Application	Sold in lots of	Reference	Weight kg	
Mounting plate	LS1-D32 and contactor LC1-D09 to D38 with front faces aligned	1	LAD-31	0.040	
Description	Extension by	Number of starters	Reference	Weight kg	
Power splitter box 63 A	LAD-32●	2	LAD-322	0.120	
		3	LAD-323	0.180	
		4	LAD-324	0.240	
Description	Composition of kit	Reference	Weight kg		
Assembly and power connection kit for LS1-D323 and LC1-D093...D323	1 LAD-31 plate for mounting LS1-D323 2 LAD-34 power connection modules - between LS1-D323 and power splitter box - between LS1-D323 and contactor		LAD-35	0.078	
Description	Maximum capacity	Application	Sold in lots of	Reference	Weight kg
Upstream terminal block	16 mm ²	Power supply of 1 or 2 power splitter boxes	1	LAD-3B	0.212
Downstream terminal block	16 mm ²	Connection of motor cables	1	LAD-33	0.050
Cable end reducer	-	For connection of conductors from 1 to 1.5 mm ²	20	LAD-99	-

LS1-D32

Mounting on rail AM1-DP200



Mounting on panel

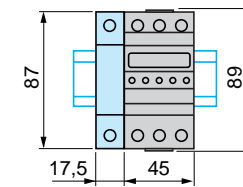


LS1-D32 + LA8-D324

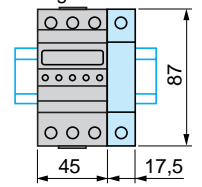
Mounting on rail AM1-DP200



Mounting of 4th pole
On left-hand side

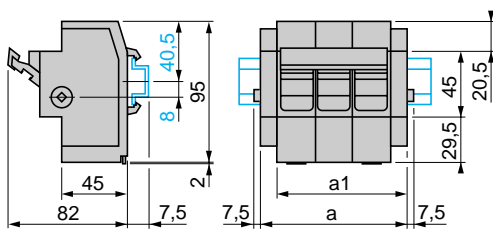


On right-hand side

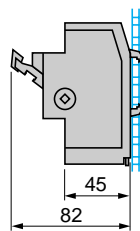


GK1-EK, EM, ES, ET, EV, EW, EX, EY

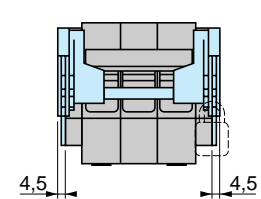
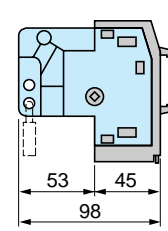
Mounting on rail AM1-DP200



Mounting on pre-slotted
plate AM-1P



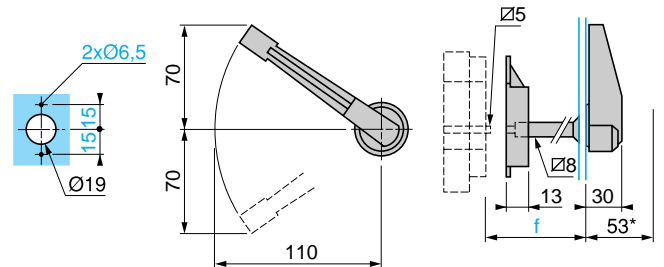
GK1-E + GK1-AV (padlocking device)



a : with single-phase protection device.
a1 : without single-phase protection device.

GK1-	a		a1	
	3 P	4 P	3 P	4 P
EK	-	-	88	-
EM	-	-	-	114
ES	-	-	97	-
ET	-	-	-	123
EV	106	-	-	-
EW	115	-	-	-
EX	-	141	-	-
EY	-	132	-	-

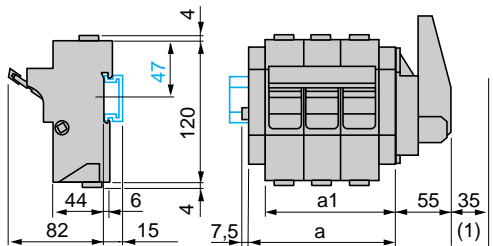
External operator **GK1-AP05** right-hand, **GK1-AP06** left-hand
Panel cut-out



External operator, right-hand or left-hand side	f
GK1-EK, EM, ES, ET	29...114
GK1-EV, EW, EX, EY	29...114

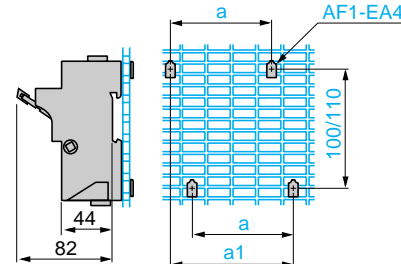
GK1-F● + GK1-AP07 (internal right-hand control)

Mounting on rail AM1-DE or ED



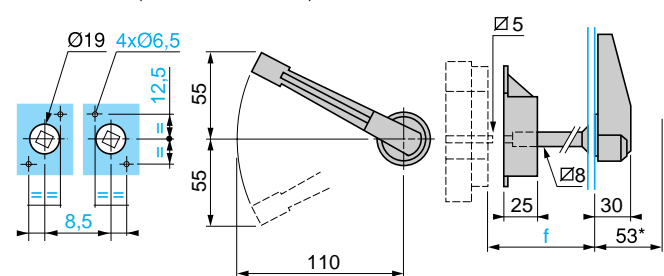
(1) Padlocking device (up to 3 padlocks)

Mounting on pre-slotted plate AM1-PA



GK1-F●	a		a1	
	3P	4P	3P	4P
	70	105	96	131

Internal or external control GK1-AP07 right-hand, GK1-AP08 left-hand
Panel cut-out (for external control)

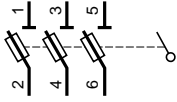


GK1-	a		a1	
	3 P	4 P	3 P	4 P
FK	-	-	121	-
FM	-	-	-	156
FS	-	-	136	-
FT	-	-	-	171
FV	136	-	-	-
FW	151	-	-	-
FX	-	186	-	-
FY	-	171	-	-

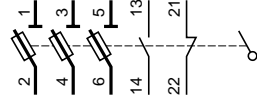
External operator, right-hand or left-hand side	f
GK1-FK, FM, FS, FT	35...114
GK1-FV, FW, FX, FY	35...114

Fuse carriers without single-phase protection device

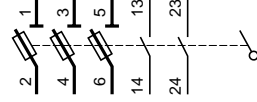
3-pole
LS1-D32, D323



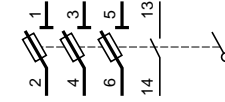
LS1-D32, D323 + GV-AE11●



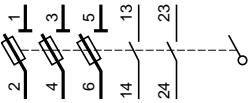
LS1-D32, D323 + GV-AE20●



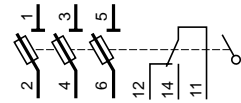
GK1-EK



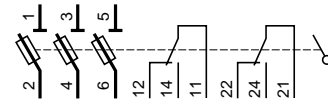
GK1-ES



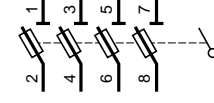
GK1-FK



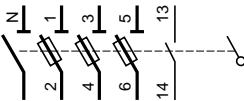
GK1-FS



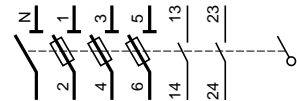
4-pole
LS1-D32 + LA8-D324



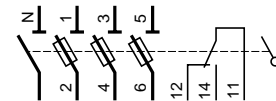
3-pole + Neutral
GK1-EM



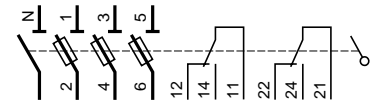
GK1-ET



GK1-FM

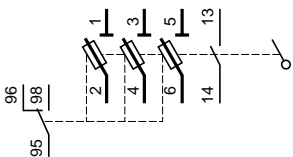


GK1-FT

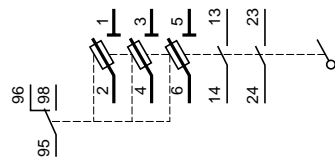


Fuse carriers with single-phase protection device

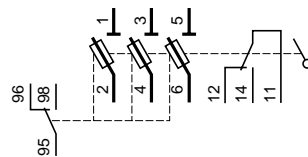
3-pole
GK1-EV



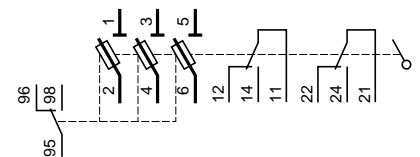
GK1-EW



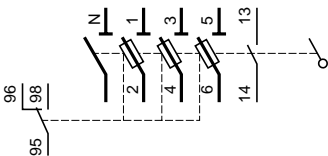
GK1-FV



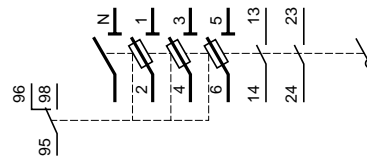
GK1-FW



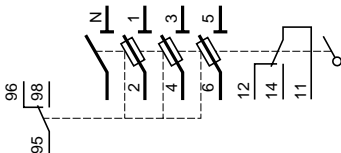
3-pole + Neutral
GK1-EY



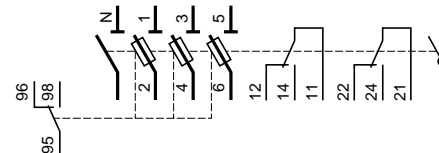
GK1-EX



GK1-FY



GK1-FX



Applications

GS1 switch-disconnector fuses provide on-load breaking and making, safe isolation and overcurrent protection. They are used, in particular, on the incoming supply for control panels, for protecting and switching off main supply. They provide simultaneous disconnection, together with all the other associated functions such as padlocking. Their compact design means that they can also be fitted in small automation system equipment to provide



Fuse type

NF C or DIN

Rated thermal current (I_{th})

32 A 50 A 63 A 100 A 125 A 160 A 250 A 400 A 630 A 1250 A

Number of poles

3
3 + Nc 3 or 4

Fuse size

10 x 38 14 x 51 T000 22 x 58 22 x 58
T00 T0 T1 T2 T3 T4

Internal operator, packlockable

Front Side Side or front

External operator, padlockable and lockable

Side or front Side or front

Rated operational voltage (U_e)

690 V

Rated operational current (I_e) at 400 V, AC-23A

32 A 50 A 63 A 100 A 125 A 160 A 250 A 400 A 630 A 1250 A

Rated breaking capacity at 400 V, AC-23B

256 A 400 A 500 A 800 A 1000 A 1280 A 2000 A 3200 A 5040 A 10 000

Rated making capacity at 400 V, AC-23B

320 A 500 A 630 A 1000 A 1250 A 1600 A 2500 A 4000 A 6300 A 12 500

Rated rms conditional short circuit current at 400 V, with gG (gl) fuses

100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA

Switch-disconnector-fuse type references

GS1-DD GS1- GS1- GS1- GS1- or KK GS1- or LL GS1- GS1-QQ GS1- GS1-

Pages

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protection.
 circuits (including emergency stop).
 and interlocking..
 disconnect and protection functions on the incoming supply of equipment, generators, starters or motors



BS

32 A	63 A	100 A	160 A	200 A	250 A	315 A	400 A	630 A	800 A	1250 A
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A1	A2-A3	A4 $\varnothing \leq 31$ mm	A4-B1-B2	B1-B2	B1...B3	B1...B3	B1...B4	C1-C2	C1...C3	D1
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Front	Side	Side or front
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Side or front	Side or front
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32 A	63 A	100 A	160 A	200 A	250 A	315 A	400 A	630 A	800 A	1000 A
------	------	-------	-------	-------	-------	-------	-------	-------	-------	--------

256 A	500 A	800 A	1280 A	1600 A	2000 A	2520 A	3200 A	5040 A	6400 A	10 000 A
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320 A	630 A	1000 A	1600 A	2000 A	2500 A	3150 A	4000 A	6300 A	8000 A	8000 A
-------	-------	--------	--------	--------	--------	--------	--------	--------	--------	--------

100 kA	100 kA	100 kA	80 kA	100 kA	80 kA	80 kA	80 kA	100 kA	100 kA	100 kA
--------	--------	--------	-------	--------	-------	-------	-------	--------	--------	--------

GS1-	GS1-GB	GS1-JB	GS1-LB or LLB	GS1-	GS1-NB	GS1-	GS1-QQB	GS1-SB	GS1-TB	GS1-VB
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23024/4

Protection components

Switch-disconnector-fuses, 32 to 1250 A

Functions	▶	Breaking	<ul style="list-style-type: none"> ● Quick break and quick tripping mechanism. ● Breaking mechanism independent of fuses.
			<ul style="list-style-type: none"> ● Utilisation categories AC-23/690 V and DC-23/500 V.
	▶	Isolation	<ul style="list-style-type: none"> ● Upstream and downstream breaking of fuses. up to 630 A : NFC/DIN, up to 800 A : BS upstream breaking of fuses for 1250 A. ● GS1-AN auxiliary contacts. ● Contacts forced open in the event of welding. ● Visible isolation distance between the open contacts.
	▶	Protection	<ul style="list-style-type: none"> ● Addition of gG (gl) fuses. ● Addition of aM fuses (associated with thermal overload relays). ● Addition of quick-blow fuses. ● "Blown fuse" detection device. ● Conditional short-circuit withstand voltage of 100 kA for all ratings. ● Handles with padlocking facility. ● Interlocking of handles by means of lock. ● Door interlock in "I" position. ● Fuse covers fitted as standard on all ratings. ● IPXXB terminal blocks fitted as standard up to 63 A, available as an option on other ratings.
	▶	Information and testing	<ul style="list-style-type: none"> ● Up to 10 auxiliary contacts. ● Test facility with auxiliary contacts GS1-ANT and handles GS1-AHT.
Product overview	▶	NF C and DIN fuses	BS fuses



<ul style="list-style-type: none"> - Opening and closing independent of operator speed. - Quality and durability of mechanical and electrical lives. 	▶	<ul style="list-style-type: none"> - On-load making and breaking of resistive, inductive or mixed resistive and inductive circuits. 	
<ul style="list-style-type: none"> - Durable performance in severe duty applications. 	▶	<ul style="list-style-type: none"> - Direct switching of motors. 	
<ul style="list-style-type: none"> - Double break isolation of the power circuit and safe replacement of fuses. 	▶	<ul style="list-style-type: none"> - Total isolation of power and control circuits to ensure safety of persons and equipment. 	
<ul style="list-style-type: none"> - Control circuit isolation. 	-	-	
<ul style="list-style-type: none"> - Fully apparent break (up to 315 A rating). "Open" position cannot be indicated unless all contacts are actually open. 	-	<ul style="list-style-type: none"> - Safe opening and clear indication of "Open" state of switch-disconnector 	
<ul style="list-style-type: none"> - Visible break (400 to 1250 A ratings). 	-	-	
-	▶	<ul style="list-style-type: none"> - Protection of distribution circuits and power switching circuits without significant current peak. 	
<ul style="list-style-type: none"> - Type 2 coordination ($I_q > 50$ kA) for motor starters consisting of fuses, contactor, relay. 	-	<ul style="list-style-type: none"> - Protection of motors. 	
-	-	<ul style="list-style-type: none"> - Protection of electronic variable speed controllers and soft starters. 	
-	-	<ul style="list-style-type: none"> - Protection against single-phasing. 	
<ul style="list-style-type: none"> - Equivalence between the breaking capacity of the fuses and the ability of the switch-disconnector-fuse to withstand this maximum capacity. 	▶	<ul style="list-style-type: none"> - Use in installations where very high short-circuit currents can develop. 	
-	▶	-	
<ul style="list-style-type: none"> - Protection against accidental contact. 	-	<ul style="list-style-type: none"> - Protection of persons. 	
-	-	-	
<ul style="list-style-type: none"> - Early break, "Open" and "Closed" position signalling, and "blown fuse" signalling 	▶	<ul style="list-style-type: none"> - Use in automation systems. 	
<p>Accessories</p>	<p>Handles</p>	▶	<ul style="list-style-type: none"> - Internal or external. - Mounted on right-hand side. - Mounted on left-hand side. - Mounted on front with door interlock. - Padlockable with up to 3 padlocks. - Lockable. - Black / Black or Yellow / Red.
<p>Contacts</p>	▶	<ul style="list-style-type: none"> - Addition of up to 8 auxiliary contacts GS1-AN suitable for isolation. Reversibility of these contacts to convert an N/C contact into an N/O contact and vice versa. - Control circuit test facility with auxiliary contacts GS1-ANT used in conjunction with handles GS1-AHT. - Two auxiliary early break and "O" and "I" position signalling contacts. - Auxiliary "blown fuse" signalling contacts.. 	

Protection components

Switch-disconnector-fuses, 32 to 1250 A
for use with NF C and DIN fuses

Type			GS1-DD	GS1-F	GS1-G	GS1-J
Environment						
Conforming to standards	Switch-disconnector-fuses Circuit breakers		IEC 60947-3 and 5, NF C 63-130, VDE 0660, NBN 63408 IEC 269-1 and 2, NFC 63-210 and 63-211, VDE 0636-1, DIN 43620			
Product certifications			ASEFA/LOVAG, KEMA, pending: LROS, CEBEC			
Protective treatment			"TH"			
Fire resistance conforming to IEC 695-2-1	Body	°C	960	960		
	Fuse cover	°C	–	850		

Pole characteristics

Rated thermal current at 40 °C (I _{th})		A	32	50	63	100	
Fuse size			10 x 38	14 x 51	T000	22 x 58	
Rated insulation voltage (U _i)		V	690	750	750	750	
Rated impulse withstand voltage (U _{imp})		kV	8	8	8	8	
Rated operational power	Cat. AC-23A/B (1)	~ 400 V	kW	15	25	33	55
		500 V	kW	18,5 (2)	33	45	75
		690 V	kW	25 (2)	45	55	90
Rated operational current (I _e)	Cat. AC-23A/B (1)	~ 400 V	A	32	50	63	100
		500 V	A	32 (2)	50	63	100
		690 V	A	32 (2)	50	63	100
	Cat. DC-23A/B (1)	≡ 500 V (3)	A	20	40	40	80
Short-circuit withstand	I rms with protection by gG (gl) fuses	kA	100	100	100	100	
Short-circuit making capacity	I rms with protection by gG (gl) fuses	kA	100	100	100	100	
Fuse ratings		A	32	50	63	100	
Rated breaking capacity making capacity	I rms at 400 V Cat. AC-23B	A	256	400	500	800	
		A	320	500	630	1000	
Mechanical durability	Number of operating cycles		30 000	10 000	10 000	10 000	
Electrical durability	Number of op. cycles Cat. AC/DC-23A/B (1)		1500/300	1500	1500	1500	
Cabling	Cable c.s.a. min/max	mm ²	2,5/16	6/25	10/25	25/95	
	Bars min c.s.a. / max width	mm	–	–	–	–	
Tightening torque		N.m	3	3.2	3.2	12	

GS1-AMS●11 and GS1-AM1 to AM4 early break and signalling contact characteristics

Rated thermal current at 40 °C (I _{th})		A	16
Rated operational current (I _e)	Cat. AC-15	A	127 V : 5; 230 V : 4; 400 /415 V : 3; 440 V : 2
	Cat. DC-13	A	24 V : 12; 48 V : 2; 110 V : 0.6; 220 V : 0.4
Durability	Number of operating cycles		Mechanical : 1 000 000; electrical Cat. AC-15 : 30 000
Fuse protection	gG	A	6 A max
Cabling		mm	Faston connector : 1 x 6.35 or 2 x 2.8

GS1-AN and GS1-ANT signalling contact characteristics (4)

Rated thermal current at 40 °C (I _{th})		A	20
Rated operational voltage (I _e)	Cat. AC-15	A	230 V : 10; 400/415 V : 8; 440 V : 6
	Cat. DC-13	A	48 V : 4; 110 V : 1.2; 220 V : 1
Durability	Number of operating cycles		Mechanical : 30 000; electrical Cat. AC-15 : 10 000
Fuse protection	gG		16 A max
Cabling	Cable c.s.a. min/max	mm ²	Min : 1.5; max : 16

- (1) Category "A" frequent operating cycles, category "B" infrequent operating cycles.
(2) With tubular links
(3) 2 poles in series per phase.
(4) Non utilisables sur GS1-DD.

GS1-K	GS1-KK	GS1-L	GS1-LL	GS1-N	GS1-QQ	GS1-S	GS1-V
IEC 947-3 and 5, NF C 63-130, VDE 0660, NBN 63408							
IEC 269-1 and 2, NFC 63-210 and 63-211, VDE 0636-1, DIN 43620							
ASEFA/LOVAG, KEMA, pending: LROS, CEPEC							
"TH"							
960							
850							
125	125	160	160	250	400	630	1250
22 x 58	T00	T0	T00	T1	T2	T3	T4
750	750	750	750	750	750	1000	1000
8	8	8	8	8	8	12	12
63	63	90	90	132	220	355	710
90	90	110	110	160	220	355	670/710
90	90	110	110	220	220/295	295/400	600/750
125	125	160	160	250	400	630	1250
125	125	160	160	250	315/315	500	900/1000
100	100	125	125	250	250/315	315/400	630/800
100	100	125/80	125/80	160	200/315	400/630	800/1000
100	100	100	100	100	100/50	100	100
100	100	100	100	100	100/50	100	100
125	125	160	160	250	315/400	630	1250
1000	1000	1280	1280	2000	3200	5040	10 000
1250	1250	1600	1600	2500	4000	6300	12 500
10 000	10 000	10 000	10 000	10 000	10 000	5000	5000
1000	1000	1000/200	1000/200	1000/200	1000/200	1000/200	500/100
35/95	35/95	50/95	50/95	95/240	185/240	2 x 150 / 2 x 300	- / 4 x 185
-	-	-	-	-	- / 45	2 x 30 x 5 / 63	2 x 60 x 5 / 100
12	12	12	12	25	25	44	44
16							
127 V : 5; 230 V : 4; 400 /415 V : 3; 440 V : 2							
24 V : 12; 48 V : 2; 110 V : 0.6; 220 V : 0.4							
Mechanical : 1 000 000; electrical Cat. AC-15 : 30 000							
6 A max							
Faston connectors : 1 x 6.35 or 2 x 2.8							
20							
230 V : 10; 400 /415 V : 8; 440 V : 6							
48 V : 4; 110 V : 1.2; 220 V : 1							
Mechanical : 30 000; electrical Cat. AC-15 : 10 000							
16 A max							
Min : 1.5; max : 16							

Protection components

Switch-disconnector-fuses, 32 to 1250 A
for use with BS fuses

Type			GS1-DDB	GS1-GB	GS1-JB
Environment					
Conforming to standards	Switch-disconnector-fuses Circuit breakers		IEC 947-3 and 5, NF C 63-130, VDE 0660, NBN 63408 IEC 269-1 and 2, NFC 63-210 and 63-211, VDE 0636-1, DIN 43620		
Product certifications			ASEFA/LOVAG, KEMA, pending: LROS		
Protective treatment			"TH"		
Fire resistance conforming to IEC 695-2-1	Body	°C	960		
	Fuse cover	°C	-		850

Pole characteristics

Rated thermal current at 40 °C (Ith)		A	32	63	100	
Fuse size			A1	A2-A3	A4 Ø ≤ 31 mm	
Rated insulation voltage (Ui)		V	690	750	750	
Rated impulse withstand voltage (Uimp)		kV	8	8	8	
Rated operational power	Cat. AC-23A/B (1)	~ 400 V	kW	15	30	51
		500 V	kW	18,5	40	63
		690 V	kW	25	55	90
Rated operational current (Ie)	Cat. AC-23A/B (1)	~ 400 V	A	32	63	100
		500 V	A	32	63	100
		690 V	A	32	63	100
	Cat. DC-23A/B (1)	≡ 500 V (2)	A	20	40	100
Short-circuit withstand	I rms with protection by gG (gl) fuses BS	kA	80	100	100	
Short-circuit making capacity	I rms with protection by gG (gl) fuses BS	kA	80	100	100	
Fuse ratings		A	32	63	100	
Rated breaking capacity making capacity	I rms at 400 V Cat. AC-23B	A	256	500	800	
		A	320	630	1000	
Mechanical durability	Number of operating cycles		30 000	10 000	10 000	
Electrical durability	Number of op. cycles Cat. AC/DC-23A/B (1)		1500/300	1500/300	1500/300	
Cabling	Cable c.s.a. min/max	mm ²	2,5/16	10/25	25/95	
	Bars min c.s.a. / max width	mm	-	-	-	
Tightening torque		N.m	3	3,2	12	

GS1-AM●11 and GS1-AM1 to AM4 early break and signalling contact characteristics

Rated thermal current at 40 °C (Ith)		A	16		
Rated operational current (Ie)	Cat. AC-15	A	127 V : 5; 230 V : 4; 400 /415 V : 3; 440 V : 2		
	Cat. DC-13	A	24 V : 12; 48 V : 2; 110 V : 0,6; 220 V : 0,4		
Durability	Number of operating cycles		Mechanical :1 000 000; electrical Cat. AC-15 : 30 000		
Fuse protection	gG		6A max		
Cabling		mm	Faston connectors : 1 x 6.35 or 2 x 2.8		

GS1-AN and GS1-ANT signalling contact characteristics

Rated thermal current at 40 °C (Ith)		A	20		
Rated operational current (Ie)	Cat. AC-15	A	230 V : 10; 400/415 V : 8; 440 V : 6		
	Cat. DC-13	A	48 V : 4; 110 V : 1,2; 220 V : 1		
Durability	Number of operating cycles		Mechanical : 30 000; electrical Cat. AC-15 : 10 000		
Fuse protection	gG		16 A max		
Cabling	Cable c.s.a. min / max	mm ²	Min : 1,5; max : 6		

(1) Category "A" frequent operating cycles, category "B" infrequent operating cycles.
(2) 2 poles in series per phase.

GS1-LB/LLB (1)	GS1-MMB	GS1-NB	GS1-PB	GS1-QQB	GS1-SB	GS1-TB	GS1-VB
IEC 947-3 and 5, NF C 63-130, VDE 0660, NBN 63408							
IEC 269-1 and 2, NFC 63-210 and 63-211, VDE 0636-1, DIN 43620							
ASEFA/LOVAG, KEMA, pending: LROS							
"TH"							
960							
850							
160	200	250	315	400	630	800	1250
A4, B1-B2 (3)	B1-B2	B1...B3	B1...B3	B1...B4	C1-C2	C1...C3	D1
750	750	750	750	1000	1000	1000	1000
8	8	8	8	12	12	12	12
80	100	132	132	220	355	450	560
110	140	160	160	400	355	450	560
110	150	220	220	220/295	295/400	600/750	600
160	200	250	250	400	630	800	1000
160	200	250	250	315	500	630	800
125	160	250	250	250/315	315/400	630/800	630
125	125	160	160	200/315	400/630	800	800/1000
80	80	80	80	80	-	-	-
80	80	80	55	80/50	100	100	100
160	200	250	315	400	630	800	1250
1280	1600	2000	2000	3200	5040	6400	10 000
1600	2000	2500	2500	4000	6300	8000	8000
10 000	10 000	10 000	10 000	8000	6000	6000	6000
1000/200	1000/200	1000/200	1000/200	1000/200	1000/200	500/100	500/100
50/95	50/95	95/240	95/240	185/240	2 x 150 / 2 x 300	-	- / 4 x 185
-	-	-	-	- / 40	2 x 30 x 5 / 63	2 x 60 x 5 / 63	2 x 60 x 5 / 100
12	12	25	25	25	44	44	44
16							
127 V : 5; 230 V : 4; 400 /415 V : 3; 440 V : 2							
24 V : 12; 48 V : 2; 110 V : 0.6; 220 V : 0.4							
Mechanical : 1 000 000; electrical Cat. AC-15 : 30 000							
6 A max							
Faston connectors : 1 x 6.35 or 2 x 2.8							
20							
230 V : 10; 400 /415 V : 8; 440 V : 6							
48 V : 4; 110 V : 1.2; 220 V : 1							
Mechanical : 30 000; electrical Cat. AC-15 : 10 000							
16 A max							
Min : 1.5; max : 16							

(3) Fit switch-disconnector-fuses with B1 or B2 type fuses for GS1-LB and A4 type fuses for GS1-LLB.

Protection components

Switch-disconnector-fuses, 32 to 1250 A
for use with NF C or DIN fuses



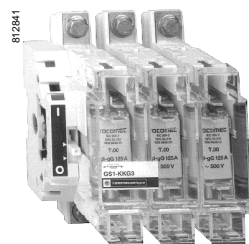
GS1-DD3



GS1-FD3



GS1-ND4



GS1-KKG3

Switch-disconnector-fuse switch bodies for use with NF C or DIN fuses

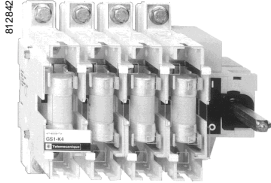
Switch rating A	Fuse size	Number of poles	Reference	Weight kg
For external operators mounted on RH or LH side, and internal or external front-mounted operators				
32	10 x 38	3	GS1-DD3	0.510
		3 + N (1)	GS1-DD4	0.540
For internal or external operators mounted on right-hand side				
50	14 x 51	3	GS1-FD3	0.900
		4	GS1-FD4	1.100
63	Size 000 (2)	3	GS1-GD3	1.100
		4	GS1-GD4	1.400
100	22 x 58	3	GS1-JD3	1.700
		4	GS1-JD4	2.100
125	22 x 58	3	GS1-KD3	1.700
		4	GS1-KD4	2.100
160	Size 00	3	GS1-KKD3	1.700
		4	GS1-KKD4	2.100
	Size 0	3	GS1-LD3	2.200
		4	GS1-LD4	2.800
250	Size 00	3	GS1-LLD3	1.700
		4	GS1-LLD4	2.100
400	Size 2	3	GS1-QD3	4.700
		4	GS1-QD4	6.600
630	Size 3	3	GS1-SD3	16.500
		4	GS1-SD4	20.500
1250	Size 4	3	GS1-VD3	27.500
		4	GS1-VD4	34.500
For external operators mounted on left-hand side				
50	14 x 51	3	GS1-FG3	0.900
		4	GS1-FG4	1.100
63	Size 000 (2)	3	GS1-GG3	1.100
		4	GS1-GG4	1.400
100	22 x 58	3	GS1-JG3	1.700
		4	GS1-JG4	2.100
125	22 x 58	3	GS1-KG3	1.700
		4	GS1-KG4	2.100
160	Size 00	3	GS1-KKG3	1.700
		4	GS1-KKG4	2.100
	Size 0	3	GS1-LG3	2.200
		4	GS1-LG4	2.800
250	Size 00	3	GS1-LLG3	1.700
		4	GS1-LLG4	2.100
400	Size 2	3	GS1-NG3	4.700
		4	GS1-NG4	6.600

(1) N = Switched neutral.

(2) Compact fuses for German market.

Protection components

Switch-disconnector-fuses, 50 to 1250 A
for use with NF C or DIN fuses



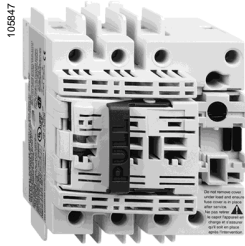
GS1-K4

Switch-disconnector-fuse switch bodies for use with NF C or DIN fuses

Switch rating A	Fuse size	Number of poles	Reference	Weight kg	
For external operators mounted on front					
50	14 x 51	3	GS1-F3	1.200	
		4	GS1-F4	1.400	
63	Size 000 (1)	3	GS1-G3	1.400	
		4	GS1-G4	1.700	
	100	22 x 58	3	GS1-J3	2.000
			4	GS1-J4	2.400
125	22 x 58	3	GS1-K3	2.000	
		4	GS1-K4	2.400	
	160	Size 00	3	GS1-KK3	2.000
			4	GS1-KK4	2.400
160	Size 0	3	GS1-L3	2.500	
		4	GS1-L4	3.100	
	250	Size 00	3	GS1-LL3	2.000
			4	GS1-LL4	2.400
250	Size 1	3	GS1-N3	3.800	
		4	GS1-N4	4.800	
400	Size 2	3	GS1-QQ3	4.500	
		4	GS1-QQ4	6.800	
For internal and external operators mounted on front					
630	Size 3	3	GS1-S3	16.500	
		4	GS1-S4	20.500	
1250	Size 4	3	GS1-V3	27.500	
		4	GS1-V4	34.500	

(1) Compact fuses for German market.

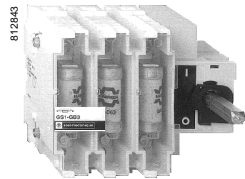
Protection components

Switch-disconnector-fuses, 32 to 1250 A
for use with BS fuses

GS1-DDB3



GS1-NBR3



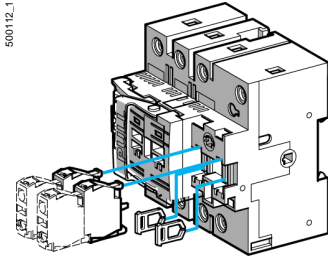
GS1-GB3

Switch-disconnector-fuse switch bodies for use with BS fuses

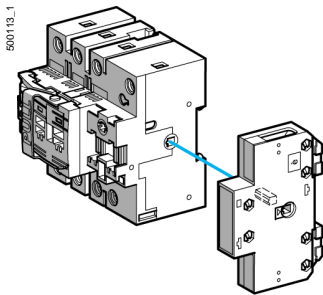
Switch rating	Fuse size	Number of poles	Reference	Weight
				kg
A				
For external operators mounted on RH or LH side, and internal or external front-mounted operators				
32	A1	3	GS1-DDB3	0.510
		3 + N (1)	GS1-DDB4	0.540
For internal or external operators mounted on right-hand side				
63	A2-A3	3	GS1-GBR3	1.100
		4	GS1-GBR4	1.400
100	A4 $\varnothing \leq 31$ mm	3	GS1-JBR3	1.700
		4	GS1-JBR4	2.100
160	A4	3	GS1-LLBR3	2.200
		4	GS1-LLBR4	2.900
	B1-B2	3	GS1-LBR3	2.200
		4	GS1-LBR4	2.900
200	B1-B2	3	GS1-MMBR3	2.200
		4	GS1-MMBR4	2.900
250	B1...B3	3	GS1-NBR3	3.500
		4	GS1-NBR4	4.500
315	B1...B3	3	GS1-PPBR3	3.500
		4	GS1-PPBR4	4.500
400	B1...B4	3	GS1-QQBR3	4.700
		4	GS1-QQBR4	6.600
630	C1-C2	3	GS1-SBR3	17.500
		4	GS1-SBR4	21.500
800	C1...C3	3	GS1-TBR3	22.000
		3 + N	GS1-TBR4	26.500
1250	D1	3	GS1-VBR3	27.500
		4	GS1-VBR4	34.500
For external operators mounted on front				
32	A1	3	GS1-DB3	1.200
		4	GS1-DB4	1.400
63	A2-A3	3	GS1-GB3	1.400
		4	GS1-GB4	1.700
100	A4 $\varnothing \leq 31$ mm	3	GS1-JB3	2.000
		4	GS1-JB4	2.400
160	A4	3	GS1-LLB3	2.200
		4	GS1-LLB4	2.900
	B1-B2	3	GS1-LB3	2.500
		4	GS1-LB4	3.200
200	B1-B2	3	GS1-MMB3	2.500
		4	GS1-MMB4	3.200
250	B1...B3	3	GS1-NB4	3.800
		4	GS1-NB4	4.800
315	B1...B3	3	GS1-PPB3	3.800
		4	GS1-PPB4	4.800
400	B1...B4	3	GS1-QQB3	4.500
		4	GS1-QQB4	6.800
For internal or external operators mounted on front				
630	C1-C2	3	GS1-SB3	17.500
		4	GS1-SB4	21.500
800	C1...C3	3	GS1-TB3	22.000
		3 + N	GS1-TB4	26.500
1250	D1	3	GS1-VB3	27.500
		4	GS1-VB4	34.500

(1) N = Switched neutral.

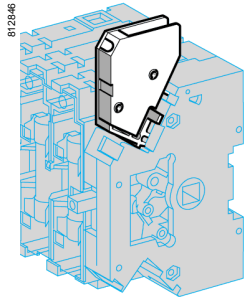
Protection components

Switch-disconnector-fuses, 32 to 1250 A
Auxiliary and signalling contacts

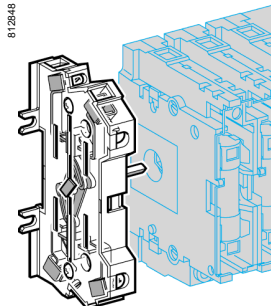
GS1-AM1●●



GS1-AM●11



GS1-AM1



GS1-AN●

Auxiliary early break and/or O and I position signalling contacts

Switch rating	Type of contact	Mounting	Reference	Weight
A				kg
32	1 N/O	Front (1)	GS1-AM110	0.015
	1 N/C	Front (1)	GS1-AM101	0.015
	1 C/O	Side (2)	GS1-AM111	0.060
	2 C/O	Side (2)	GS1-AM211	0.070

Auxiliary early break and O and I position signalling contacts

Switch rating	Type of contact	Reference	Weight	
A				kg
50...400	1 C/O	GS1-AM1	0.030	
630...1250	1 C/O	GS1-AM3	0.030	
50...400	2 C/O	GS1-AM2	0.050	
630...1250	2 C/O	GS1-AM4	0.050	

Auxiliary O and I position signalling contacts (3)

Standard contacts

50...400	1 N/C + 1 N/O	GS1-AN11 (4)	0.100
	2 N/C + 2 N/O	GS1-AN22 (4)	0.200

Contacts with test facility (5)

50...400	1 N/C + 1 N/O	GS1-ANT11	0.100
	2 N/C + 2 N/O	GS1-ANT22	0.200

Auxiliary "blown fuse" signalling contacts for use with NF C and DIN fuses (6)

Type of contact	Switch rating	Fuse size	Number of poles	Reference	Weight
A					
1st C/O	50	14 x 51	3	GS1-AF1	0.030
			4	GS1-AF1	0.030
	100 and 125	22 x 58	3	GS1-AF23	0.040
			4	GS1-AF24	0.050
	160	T0	3	GS1-AF33	0.050
			4	GS1-AF34	0.060
	250 and 400	T1 and T2	3	GS1-AF43	0.060
			4	GS1-AF44	0.060
	630	T3	3	GS1-AF63	0.070
			4	GS1-AF64	0.070
	1250	T4	3	GS1-AF73	0.070
			4	GS1-AF74	0.070
2nd C/O	50...400	-	3	GS1-AF	0.020
			4	GS1-AF	0.020
	630...1250	-	3	GS1-AFF	0.020
			4	GS1-AFF	0.020

(1) For use with external operator, front or side-mounted.

(2) For use only with internal, front-mounted operator.

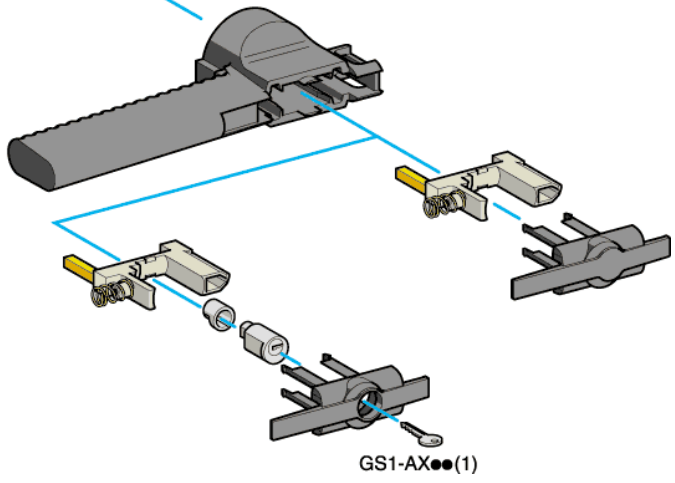
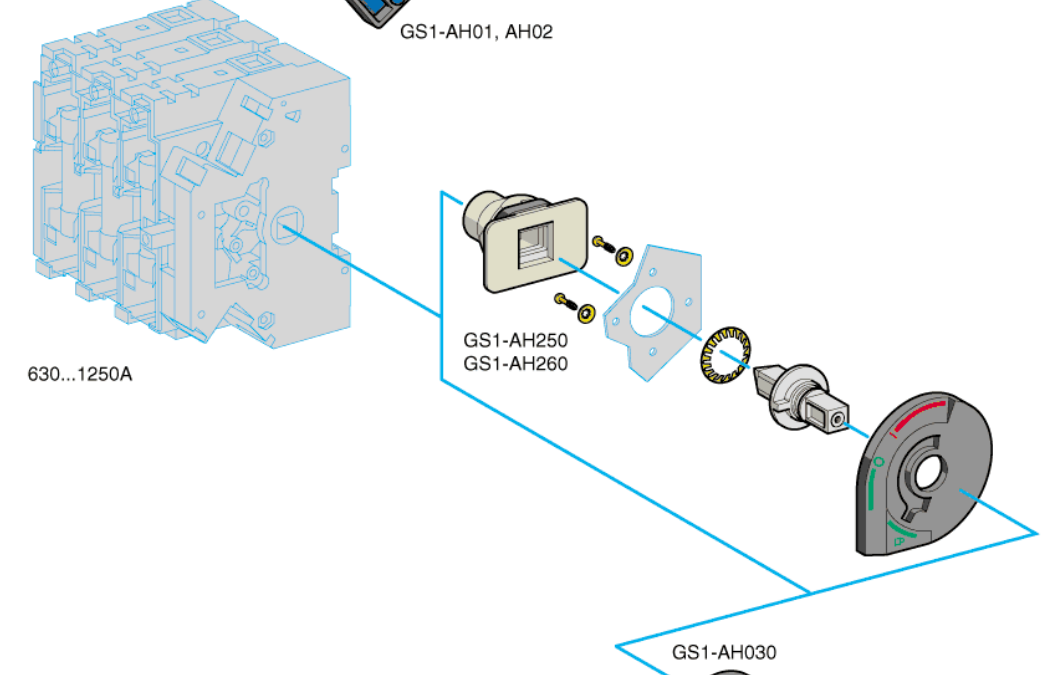
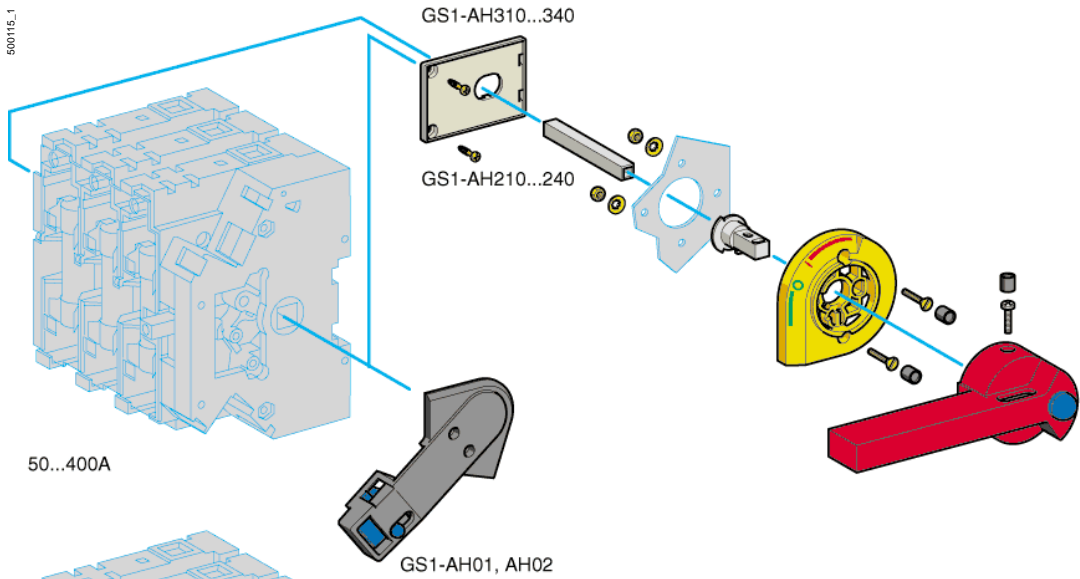
(3) Reversible add-on attachments for converting an N/C contact to an N/O contact and vice versa.

(4) For switch-disconnector-fuses with external operator mounted on left-hand side, add suffix **G** to the reference. Example : **GS1-AN11G**.

(5) Provides Test function only with handles GS1-AHT●●●.

(6) BS fuses are not available with striker.

600115_1



(1) See page 23024/10

Protection components

Switch-disconnector-fuses, 32 to 1250 A
Side-mounted operators

Side-mounted operators

Switch rating A	Type of operator	Colour handle/front plate	Reference	Weight kg
--------------------	------------------	---------------------------	-----------	--------------

Handles for internal operators mounted on right-hand side, padlockable

50 and 63	–	Black/–	GS1-AH01	0.050
100...400	–	Black/–	GS1-AH02	0.090
630...1250	Lockable(1) in position O	Black/–	GS1-AH030	0.300

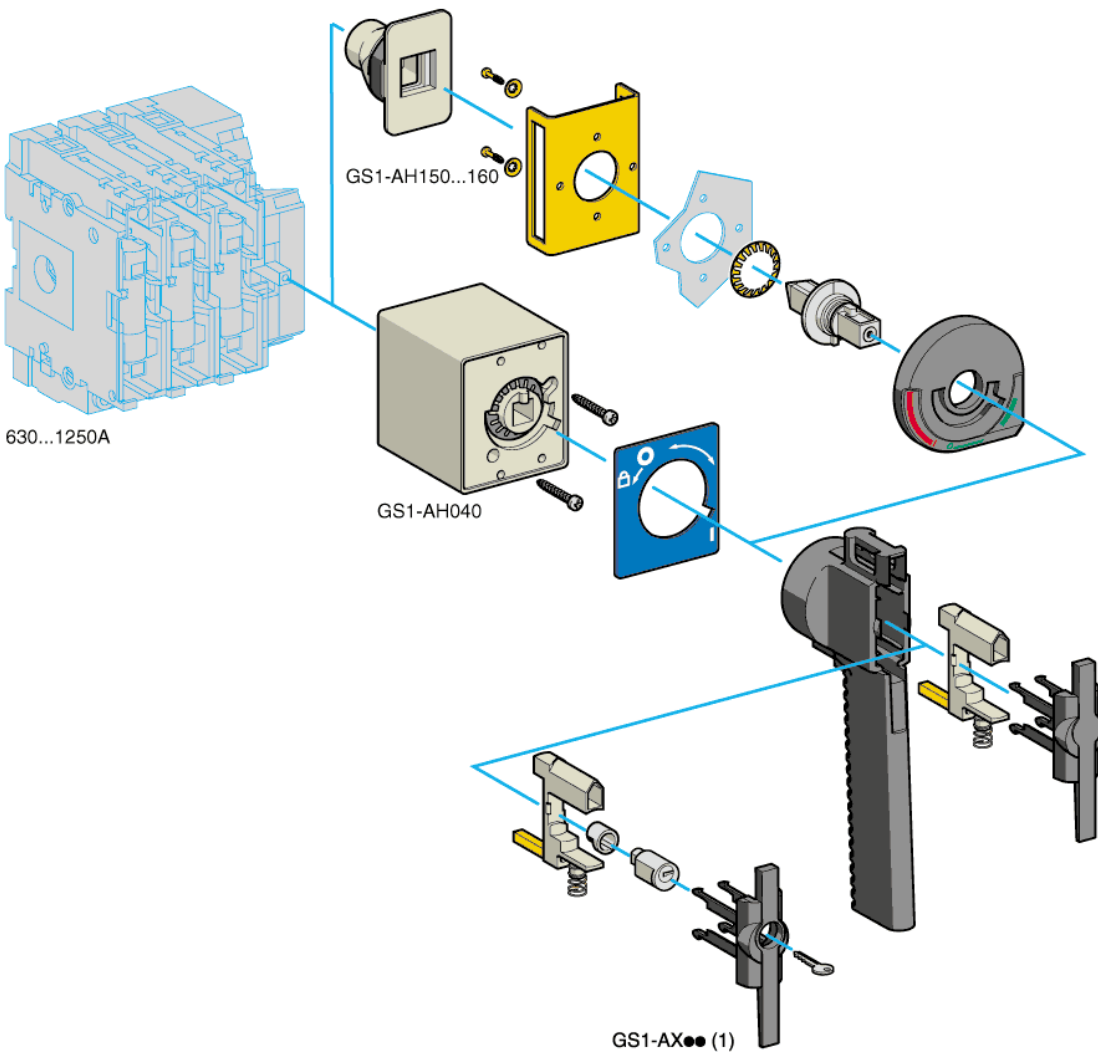
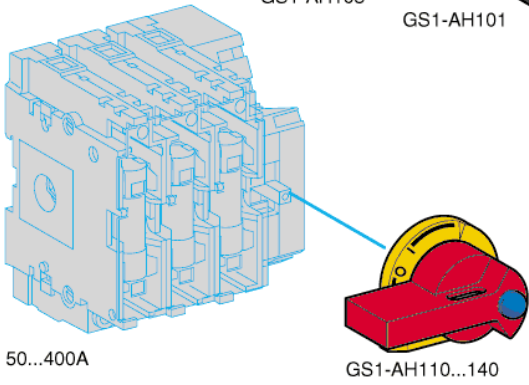
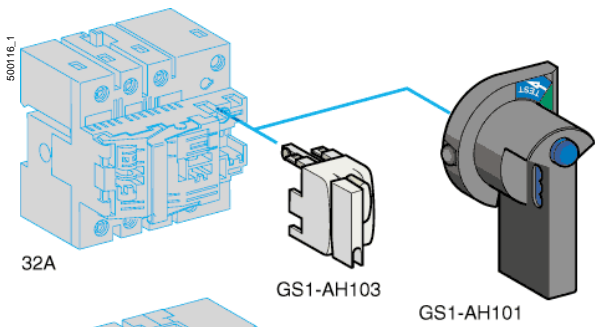
Handles for external operators mounted on right-hand side, padlockable, IP 65

32	–	Black/Black	GS1-AH101	0.160
		Red/Yellow	GS1-AH102	0.160
50 and 63	Lockable (2) in position O	Black/Black	GS1-AH210	0.320
		Red/Yellow	GS1-AH220	0.320
100...400	Lockable (2) in position O	Black/Black	GS1-AH230	0.350
		Red/Yellow	GS1-AH240	0.350
630...1250	Lockable (1) or (3) in position O	Black/Black	GS1-AH250	0.600
		Red/Yellow	GS1-AH260	0.600

Handles for external operators mounted on left-hand side, padlockable, IP 65 (4)

32	–	Black/Black	GS1-AH311	0.160
		Red/Yellow	GS1-AH321	0.160
50 and 63	Lockable (2) in position O	Black/Black	GS1-AH310	0.320
		Red/Yellow	GS1-AH320	0.320
100...400	Lockable (2) in position O	Black/Black	GS1-AH330	0.350
		Red/Yellow	GS1-AH340	0.350

- (1) Lockable with device GS1-AX11 to be ordered separately.
(2) Lockable with device GS1-AX31 to be ordered separately.
(3) Lockable with device GS1-AX21 to be ordered separately.
(4) For switch-disconnector-fuses with NF C and DIN fuses.



(1) See page 23024/10

Protection components

Switch-disconnector-fuses, 32 to 1250 A
Front-mounted operators

Front-mounted operators

Switch rating A	Type of operator	Colour handle/front plate	Reference	Weight kg
Handles for internal operators, mounted on front, padlockable				
32	–	Black/–	GS1-AH103	0.045
630...1250	Lockable (1) or (2) in position O	Black/–	GS1-AH040	0.600
Handles for external operators, mounted on front, padlockable, IP 65. Door interlock in "I" position (4)				
32	–	Black/Black	GS1-AH101	0.160
		Red/Yellow	GS1-AH102	0.160
50 and 63	Lockable (3) in position O	Black/Black	GS1-AH110	0.320
		Red/Yellow	GS1-AH120	0.320
100...400	Lockable (3) in position O	Black/Black	GS1-AH130	0.350
		Red/Yellow	GS1-AH140	0.350
630...1250	Lockable (1) in position O	Black/Black	GS1-AH150	0.700
		Red/Yellow	GS1-AH160	0.700
Handles for external operators, mounted on front, padlockable, with test facility IP 65. Door interlock in "I" position (4)				
50 and 63	Lockable (3) in position O	Black/Black	GS1-AHT110	0.320
		Red/Yellow	GS1-AHT120	0.320
100...400	Lockable (3) in position O	Black/Black black	GS1-AHT130	0.350
		Red/Yellow	GS1-AHT140	0.350

- (1) Lockable with device GS1-AX11 to be ordered separately.
 (2) Lockable with device GS1-AX21 to be ordered separately.
 (3) Lockable with device GS1-AX31 to be ordered separately.
 (4) Door interlock can be overridden with a tool on ratings up to 400 A.

Protection components

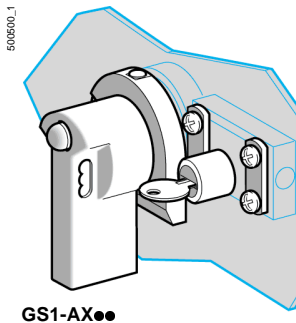
Switch-disconnector-fuses, 32 to 1250 A
Accessories

Shaft extensions for external operators

Switch rating A	Operator Type	Length mm	Cross section mm	Reference	Weight
					kg
32	Front or side-mounted	200	5 x 5	GS1-AE9	0.105
50...400	Side-mounted	200	10 x 10	GS1-AE1	0.050
	Front-mounted	320	10 x 10	GS1-AE2	0.200
630...1250	Side-mounted	200	15 x 15	GS1-AE5	0.500
	Front-mounted	200	15 x 15	GS1-AE6	0.450

Kits for handle locking devices

Switch rating A	Type of operator	Key description	Reference	Weight
				kg
50...400	External Side or front-mounted	Ronis EL11AP	GS1-AX31	0.400
630...1250	Internal or external Side or front-mounted	Ronis 1104	GS1-AX11	0.020
	Internal Front-mounted	Ronis EL11AP	GS1-AX21	0.200



Cage terminals for connection of bare cables (without lug)

Switch rating A	Number of poles	Reference	Weight
			kg
100...160	3	GS1-AW33	0.070
	4	GS1-AW34	0.090
250	3	GS1-AW43	0.013
	4	GS1-AW44	0.017

Protection components

Switch-disconnector-fuses, 32 to 1250 A
Accessories

Terminal protection shrouds for upstream or downstream connector plates

Switch rating A	Number of poles	Reference	Weight kg
50 and 63	3 or 4	(1)	–
100...160	3	GS1-AP33	0.100
	4	GS1-AP34	0.100
200...400	3	GS1-AP43	0.250
	4	GS1-AP44	0.300
630	3	GS1-AP63	0.400
	4	GS1-AP64	0.500

Terminal protection shrouds for upstream connector plates

800	3	GS1-AP73	0.400
	4	GS1-AP74	0.500
1250	3	GS1-AP83	0.300
	4	GS1-AP84	0.400

Fuse cover locking devices (2)

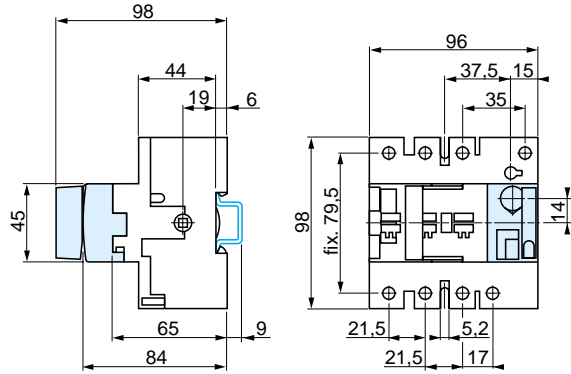
Switch rating A	Fuse size	Number of poles	Reference	Weight kg
50	14 x 51 and A1	3 or 4	(1)	–
63	T00C and A2-A3	3 or 4	GS1-AV1	0.010
100...160	22 x 58, T00 and A4	3 or 4	GS1-AV2	0.010
160	T0	3	GS1-AV33	0.050
		4	GS1-AV34	0.050
	B1-B2	3	GS1-AV43	0.150
		4	GS1-AV44	0.180
250	T1	3	GS1-AV53	0.060
		4	GS1-AV54	0.060
	B1...B3	3	GS1-AV63	0.180
		4	GS1-AV64	0.220
400	T2 and B1...B4	3	GS1-AV73	0.180
		4	GS1-AV74	0.220

(1) Fitted as standard on these switch-disconnector-fuses.

(2) For switch-disconnector-fuses fitted with internal or external operators mounted on right-hand side.

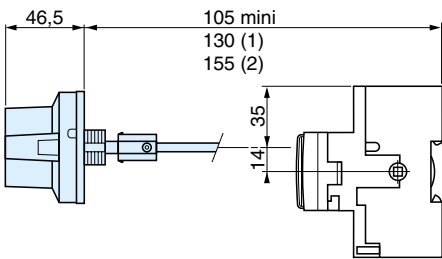
Switch-disconnector-fuses GS1-DD (32 A)

Frontal internal control



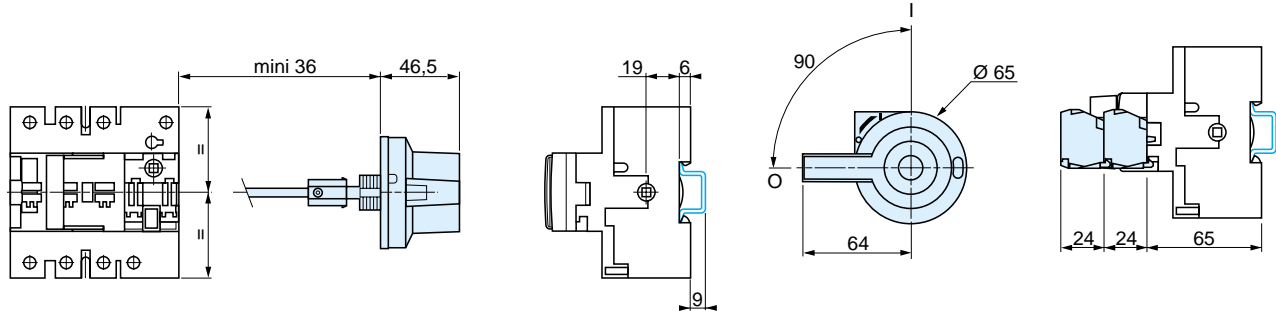
Switch-disconnector-fuses GS1-DD (32 A)

Frontal external control



- (1) With 1 or 2 GS1-AM1●●
- (2) With 3 or 4 GS1-AM1●●

External RH side-mounted operator



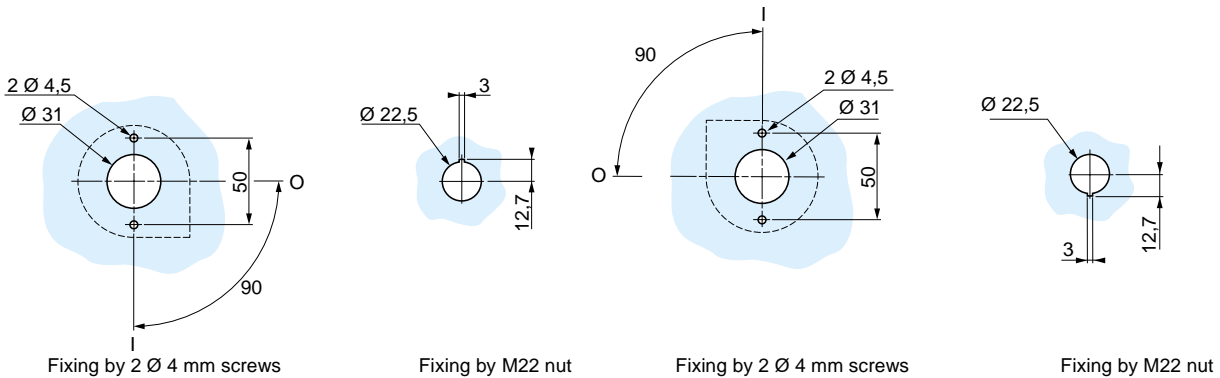
**Accessories
GS1-AM●11**

GS1-AM1●●

Door cut-out

For external front-mounted and LH side-mounted operator

For external RH side-mounted operator



Fixing by 2 Ø 4 mm screws

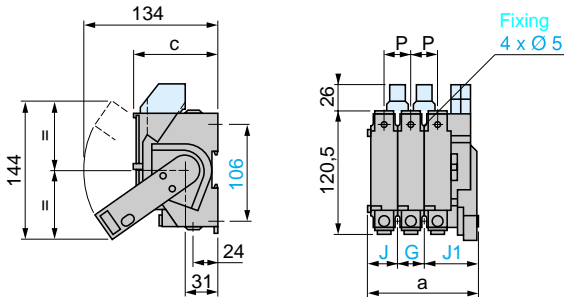
Fixing by M22 nut

Fixing by 2 Ø 4 mm screws

Fixing by M22 nut

Switch-disconnector-fuses GS1-F (50 A), G and GB (63 A)

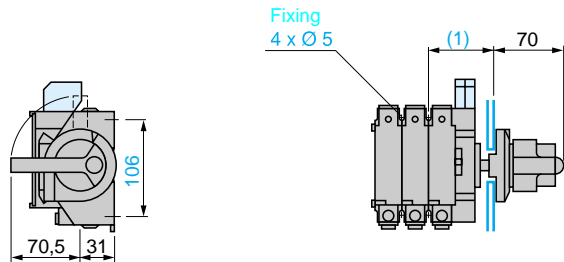
Lateral internal control



		a	c	G	J	J1	P
GS1-F	3P	114	87	27	29	58	27
	4P	141	87	54	29	58	27
GS1-G	3P	129	116,5	32	34	63	32
	4P	161	116,5	64	34	63	32
GS1-GB	3P	129	92,5	32	34	63	32
	4P	161	92,5	64	34	63	32

Switch-disconnector-fuses GS1-F (50 A), G and GB (63 A)

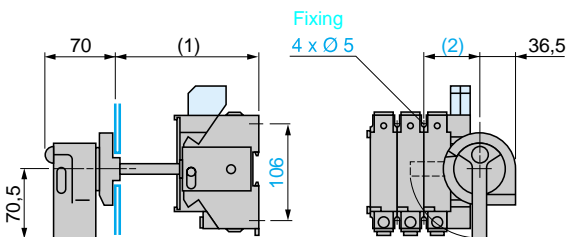
Lateral external control



(1) GS1-F : min 60, max 68. GS1-G and GB : min 65, max 73.
Without axis extension..

Switch-disconnector-fuses GS1-F (50 A), G and GB (63 A)

Frontal external control



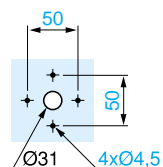
(1) GS1-F : min 94, max 165 ; GS1-G : min 124, max 165
GS1-GB : min 100, max 165

(2) GS1-F : 57,5 ; GS1-G and GB : 62,5

Switch-disconnector-fuses GS1

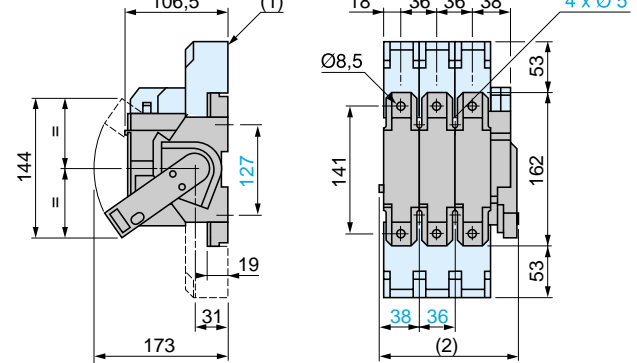
Lateral and frontal external control

Drill holes on the door



Switch-disconnector-fuses GS1-J or JB (100 A), K (125 A)

Lateral internal control

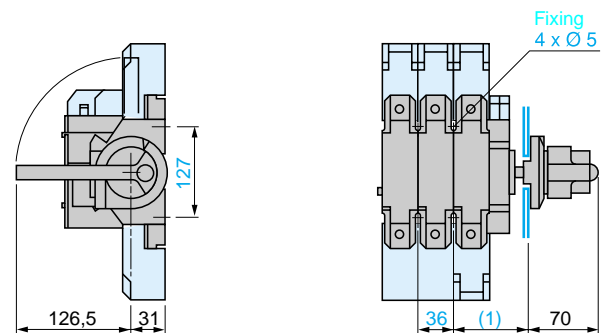


(1) Terminal cover

(2) 3P : 148, 4P : 184

Switch-disconnector-fuses GS1-J or JB (100 A), K (125 A)

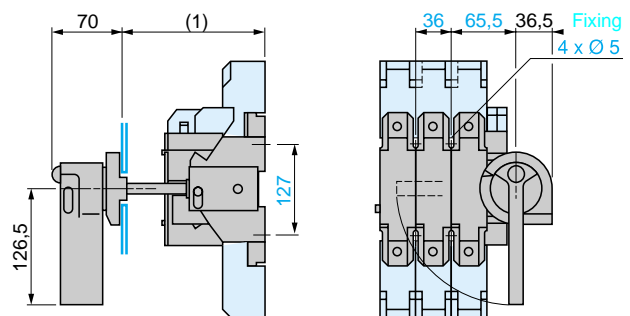
Lateral external control



(1) Min 69, max 77, without axis extension.

Switch-disconnector-fuses GS1-J or JB (100 A), K (125 A)

Frontal external control



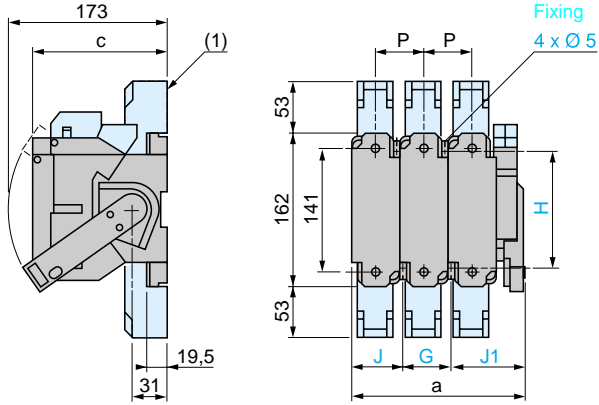
(1) Min 114, max 165

Protection components

Switch-disconnector-fuses, 32 to 1250 A

GS1-KK (125 A), L, LL, LB and LLB (160 A)

Lateral internal control

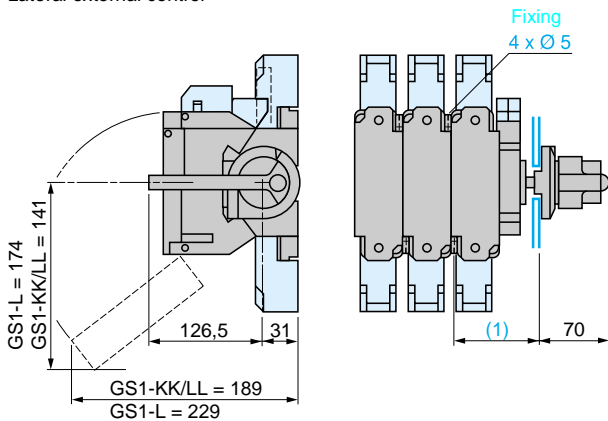


		a	c	G	H	J	J1	P
GS1-L	3P	190	136,5	50	140	50	90	50
	4P	240	136,5	100	140	50	90	50
GS1-KK, LL	3P	148	126,5	36	127	38	74	36
	4P	184	126,5	72	127	38	112	36
GS1-LB, LLB	3P	190	123	50	140	50	90	50
	4P	240	123	100	140	50	90	50

(1) Terminal cover

GS1-KK (125 A), L, LL, LB and LLB (160 A)

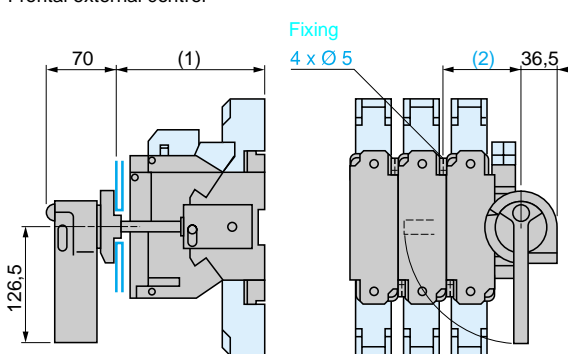
Lateral external control



(1) GS1-KK or LL : min 69, max 77. GS1-L, LB, LLB, MB : min 83, max 91. Without axis extension.

GS1-KK (125 A), L, LL, LB and LLB (160 A)

Frontal external control



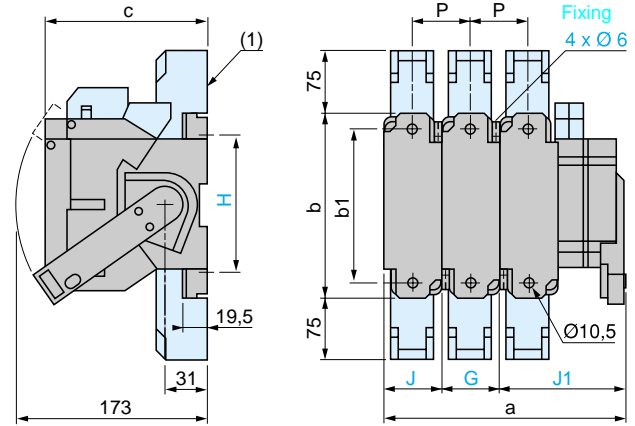
(1) GS1-KK, LL : min 134, max 165. GS1-L : min 144, max 165

GS1-LB, LLB : min 130, max 165

(2) GS1-KK, L and LL : 66,5. GS1-LB, LLB : 80,5

GS1-MMB (200 A), N or NB (250 A), PPB (315 A) and QQ (400 A)

Lateral internal control

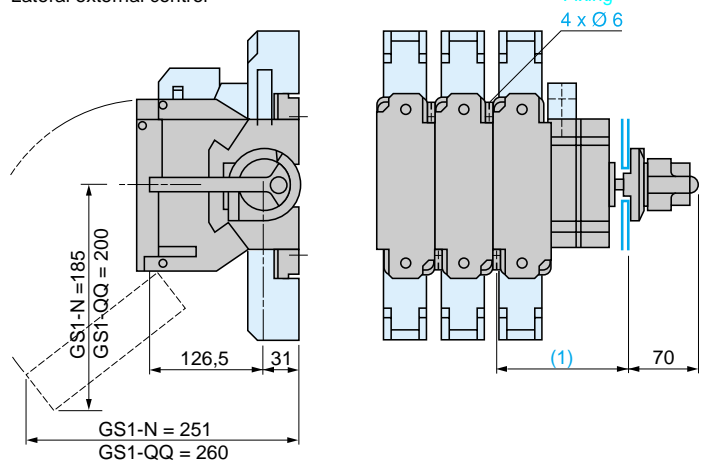


		a	b	b1	c	G	H	J	J1	P
GS1-MMB, N, NB	3P	250	195	166	146	60	162	60	130	60
	4P	310	195	166	146	120	162	60	130	60
GS1-QQ, PPB	3P	271	205	174	149	60	172	66	139	66
	4P	337	205	174	149	132	172	66	139	66

(1) Terminal cover

GS1-MMB (200 A), N or NB (250 A), PPB (315 A) and QQ (400 A)

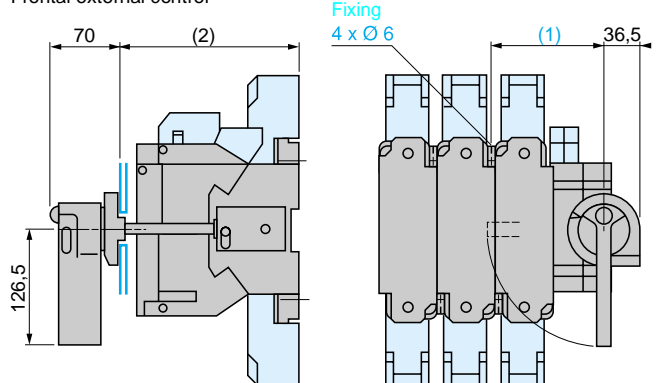
Lateral external control



(1) Min 124, max 132. Without axis extension.

GS1-MMB (200 A), N or NB (250 A), PPB (315 A) and QQ (400 A)

Frontal external control



(1) GS1-MMB, N (3P) : 90,5 GS1-MMB, N (4P) : 114,5 GS1-PPB, QQ : 121

(2) Min 154, max 225

General :
page 23021/2

Characteristics :
pages 23023/2 to 23023/

References :
5

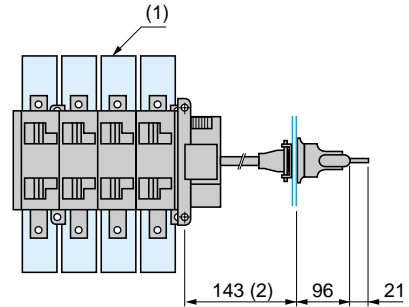
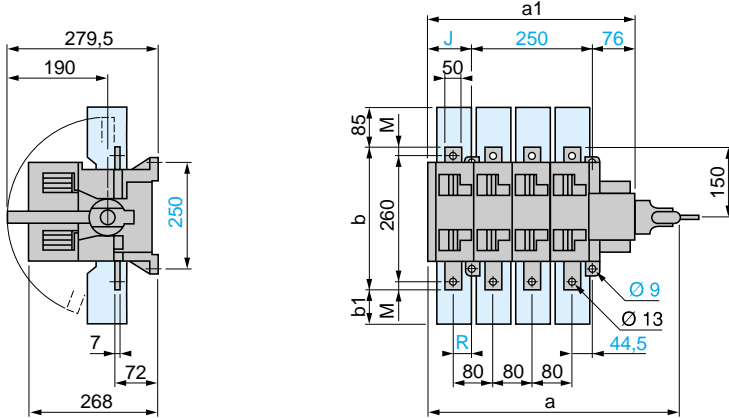
pages 23024/2 to 23024/
11

Schemes :
page 23025/7

Switch-disconnector-fuses GS1-S (630 A) and GS1-TB (800 A)

Lateral internal control

Lateral external control



		a	a1	b	b1	J	M	R
GS1-S	3P	421,5	345,5	300	85	19,5	20	45,5
	4P	501,5	425,5	300	85	99,5	20	34,5
GS1-TB	3P	421,5	345,5	320	65	19,5	30	45,5
	4P	501,5	425,5	320	65	99,5	30	34,5

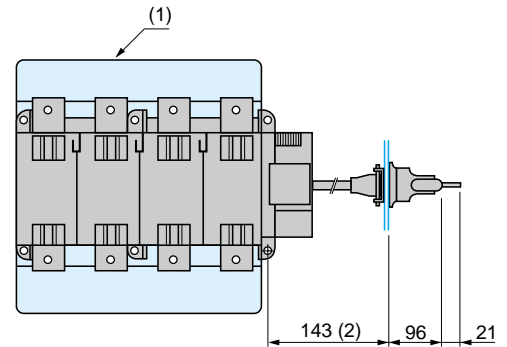
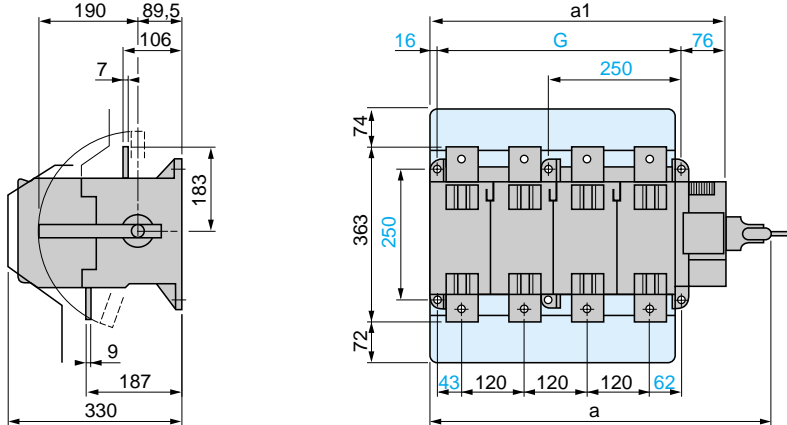
(1) Terminal cover

(2) Without axis extension. Minimum length with axis extension f + 27

Switch-disconnector-fuses GS1-V (1250 A)

Lateral internal control

Lateral external control



		a	a1	G
GS1-V	3P	522	437	345
	4P	641	557	465

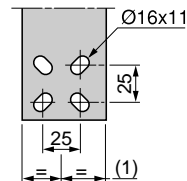
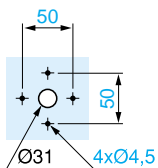
(1) Screen for protecting the plates

(2) Without axis extension. Minimum length with axis extension : f + 27

Switch-disconnector-fuses GS1-S (630 A), and GS1-V (1250 A)

Lateral internal control
Drill holes on the door

Switch-disconnector-fuses GS1-V (1250 A)
Connector plate

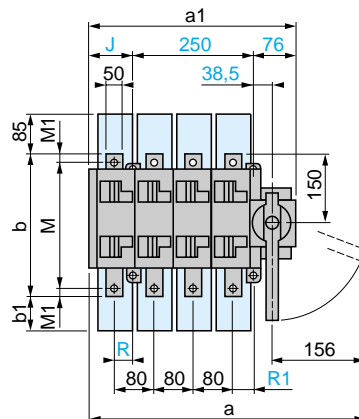
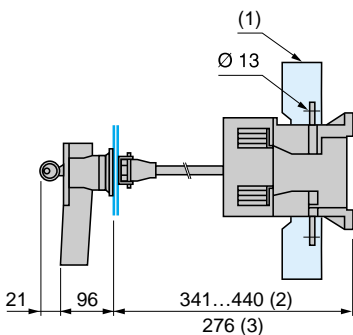
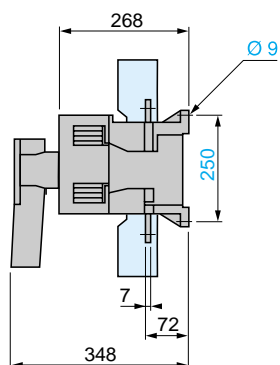


(1) upstream plate : 80, downstream plate : 65

Switch-disconnector-fuses GS1-S (630 A) and GS1-TB (800 A)

Frontal internal control

Frontal external control



		a	a1	b	b1	J	M	M1	R	R1
GS1-S	3P	470	345,5	300	85	19,5	260	20	45,5	44,5
	4P	550	425,5	300	85	99,5	260	20	34,5	44,5
GS1-TB	3P	470	345,5	320	65	19,5	267	26,5	-	-
	4P	550	425,5	320	65	99,5	267	26,5	-	-

(1) Terminal cover

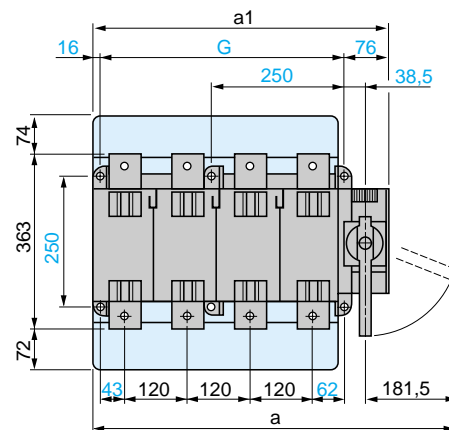
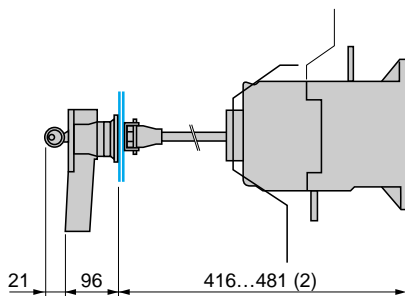
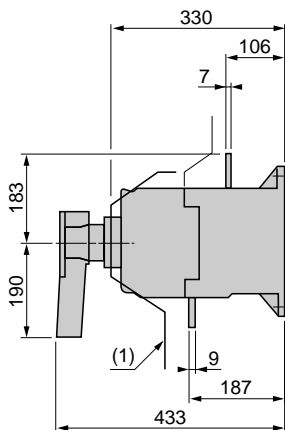
(2) Without axis extension. Minimum length with axis extension : f + 27.

(3) f min : shortened axis.

Switch-disconnector-fuses GS1-V (1250 A)

Frontal internal control

Frontal external control



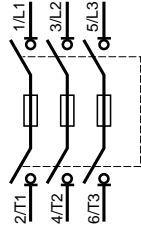
(1) Protective front screen (original)

(2) Without axis extension. Minimum length with axis extension : f + 27

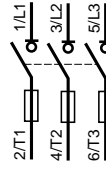
		a	a1	G
GS1-V	3P	561	437	345
	4P	681	557	465

Note : For external control, Switch-disconnector-fuses **GS1-S (630 A)** and **GS1-V (1250 A)**, see page 23025/4 for the drill holes on the door and the connector plate.

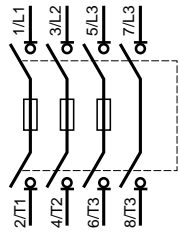
**3-pole GS1
32 A**



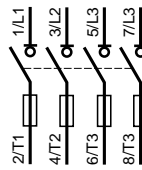
50 to 1250 A



**4-pole GS1
32 A**



50 to 1250 A



**Auxiliary signalling contacts
GS1-AM110**



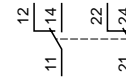
GS1-AM101



GS1-AM111



GS1-AM211



**GS1-AF
1 C/O**




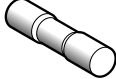
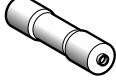
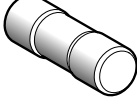
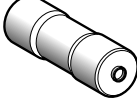
1 N/C + 1 N/O



Protection components

Cartridge fuses type aM

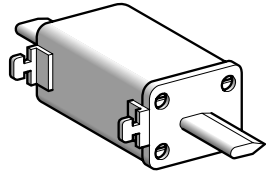
For protection of equipment with current peaks

Fuse type	Maximum rated voltage	Rating	Sold in lots of	Fuses without striker		Fuses with striker			
				Unit reference	Weight	Unit reference	Weight		
	V	A			kg		kg		
 DF2-CA●●●	Cylindrical 8.5 x 31.5	~ 400	1	10	DF2-BA0100	0.010	–	–	
			2	10	DF2-BA0200	0.010	–	–	
			4	10	DF2-BA0400	0.010	–	–	
			6	10	DF2-BA0600	0.010	–	–	
			8	10	DF2-BA0800	0.010	–	–	
			10	10	DF2-BA1000	0.010	–	–	
 DF2-EA●●●	Cylindrical 10 x 38	~ 500	0.16	10	DF2-CA001	0.010	–	–	
			0.25	10	DF2-CA002	0.010	–	–	
			0.50	10	DF2-CA005	0.010	–	–	
			1	10	DF2-CA01	0.010	–	–	
			2	10	DF2-CA02	0.010	–	–	
			4	10	DF2-CA04	0.010	–	–	
			6	10	DF2-CA06	0.010	–	–	
			8	10	DF2-CA08	0.010	–	–	
			10	10	DF2-CA10	0.010	–	–	
			12	10	DF2-CA12	0.010	–	–	
			16	10	DF2-CA16	0.010	–	–	
			 DF3-EA●●	Cylindrical 14 x 51	~ 400	20	10	DF2-CA20	0.010
25	10	DF2-CA25				0.010	–	–	
32	10	DF2-CA32				0.010	–	–	
 DF2-FA●●	Cylindrical 14 x 51	~ 690	0.25	10	DF2-EA002	0.020	–	–	
			0.50	10	DF2-EA005	0.020	–	–	
		~ 500	1	10	DF2-EA01	0.020	–	–	
			2	10	DF2-EA02	0.020	DF3-EA02	0.020	
			4	10	DF2-EA04	0.020	DF3-EA04	0.020	
			6	10	DF2-EA06	0.020	DF3-EA06	0.020	
			8	10	DF2-EA08	0.020	DF3-EA08	0.020	
			10	10	DF2-EA10	0.020	DF3-EA10	0.020	
			12	10	DF2-EA12	0.020	DF3-EA12	0.020	
			16	10	DF2-EA16	0.020	DF3-EA16	0.020	
			20	10	DF2-EA20	0.020	DF3-EA20	0.020	
			25	10	DF2-EA25	0.020	DF3-EA25	0.020	
			32	10	DF2-EA32	0.020	DF3-EA32	0.020	
			40	10	DF2-EA40	0.020	DF3-EA40	0.020	
			~ 400	50	10	DF2-EA50	0.020	DF3-EA50	0.020
			 DF3-FA●●	Cylindrical 22 x 58	~ 690	4	10	DF2-FA04	0.045
6	10	DF2-FA06				0.045	DF3-FA06	0.045	
8	10	DF2-FA08				0.045	DF3-FA08	0.045	
10	10	DF2-FA10				0.045	DF3-FA10	0.045	
16	10	DF2-FA16				0.045	DF3-FA16	0.045	
20	10	DF2-FA20				0.045	DF3-FA20	0.045	
25	10	DF2-FA25				0.045	DF3-FA25	0.045	
32	10	DF2-FA32				0.045	DF3-FA32	0.045	
40	10	DF2-FA40				0.045	DF3-FA40	0.045	
50	10	DF2-FA50				0.045	DF3-FA50	0.045	
~ 500	63	10				DF2-FA63	0.045	DF3-FA63	0.045
	80	10				DF2-FA80	0.045	DF3-FA80	0.045
	100	10				DF2-FA100	0.045	DF3-FA100	0.045
~ 400	125	10				DF2-FA125	0.045	DF3-FA125	0.045

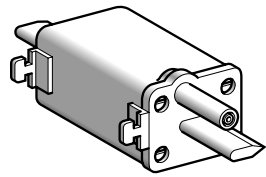
Protection components

Cartridge fuses type aM

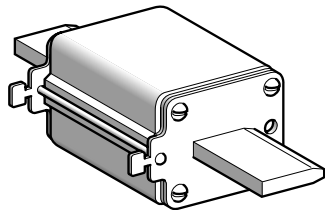
For protection of equipment with current peaks



DF2-GA●●●●



DF4-GA●●●●




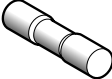
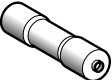
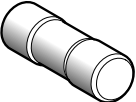
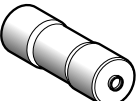
DF2-JA●●●●

Fuse type	Maximum rated voltage	Rating	Sold in lots of	Fuses without striker		Fuses with striker	
				Unit reference	Weight	Unit reference	Weight
	V	A			kg		kg
Blade size 00	~ 500	16	3	DF2-FGA16	0.160	–	–
		20	3	DF2-FGA20	0.160	–	–
		25	3	DF2-FGA25	0.160	–	–
		32	3	DF2-FGA32	0.160	–	–
		40	3	DF2-FGA40	0.160	–	–
		50	3	DF2-FGA50	0.160	–	–
		63	3	DF2-FGA63	0.160	–	–
		80	3	DF2-FGA80	0.160	–	–
		100	3	DF2-FGA100	0.160	–	–
			~ 400	125	3	DF2-FGA125	0.160
Blade size 0	~ 500	50	3	DF2-GA1051	0.230	–	–
		63	3	DF2-GA1061	0.230	–	–
		80	3	DF2-GA1081	0.230	–	–
		100	3	DF2-GA1101	0.230	–	–
		125	3	DF2-GA1121	0.230	DF4-GA1121	0.230
		160	3	DF2-GA1161	0.230	DF4-GA1161	0.230
		200	3	DF2-GA1201	0.230	DF4-GA1201	0.230
Blade size 1	~ 500	160	3	DF2-HA1161	0.400	–	–
		200	3	DF2-HA1201	0.400	DF4-HA1201	0.400
		250	3	DF2-HA1251	0.400	DF4-HA1251	0.400
		315	3	DF2-HA1311	0.400	DF4-HA1311	0.400
Blade size 2	~ 500	250	3	DF2-JA1251	0.560	–	–
		315	3	DF2-JA1311	0.560	DF4-JA1311	0.560
		400	3	DF2-JA1401	0.560	DF4-JA1401	0.560
		500	3	DF2-JA1501	0.560	DF4-JA1501	0.560
Blade size 3	~ 500	400	3	DF2-KA1401	0.850	–	–
		500	3	DF2-KA1501	0.850	DF4-KA1501	0.850
		630	3	DF2-KA1631	0.850	DF4-KA1631	0.850
Blade size 4	~ 500	630	1	DF2-LA1631	1.900	DF4-LA1631	1.900
		800	1	DF2-LA1801	1.900	DF4-LA1801	1.900
		1000	1	DF2-LA1101	1.900	DF4-LA1101	1.900
		~ 400	1250	1	DF2-LA1251	1.900	DF4-LA1251

Protection components

Cartridge fuses type gG

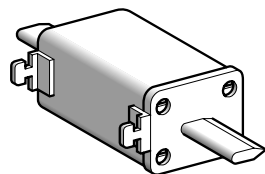
For protection of equipment with current peaks

Fuse type	Maximum rated voltage V	Rating A	Sold in lots of	Fuses without striker		Fuses with striker					
				Unit reference	Weight kg	Unit reference	Weight kg				
 DF2-CN●●	Cylindrical 8.5 x 31.5	~ 400	1	10	DF2-BN0100	0.010	–	–			
			2	10	DF2-BN0200	0.010	–	–			
			4	10	DF2-BN0400	0.010	–	–			
			6	10	DF2-BN0600	0.010	–	–			
			8	10	DF2-BN0800	0.010	–	–			
			10	10	DF2-BN1000	0.010	–	–			
			12	10	DF2-BN1200	0.010	–	–			
			16	10	DF2-BN1600	0.010	–	–			
			20	10	DF2-BN2000	0.010	–	–			
			 DF2-EN●●	Cylindrical 10 x 38	~ 500	2	10	DF2-CN02	0.010	–	–
4	10	DF2-CN04				0.010	–	–			
6	10	DF2-CN06				0.010	–	–			
8	10	DF2-CN08				0.010	–	–			
10	10	DF2-CN10				0.010	–	–			
12	10	DF2-CN12				0.010	–	–			
16	10	DF2-CN16				0.010	–	–			
20	10	DF2-CN20				0.010	–	–			
 DF3-EN●●	Cylindrical 14 x 51	~ 400				25	10	DF2-CN25	0.010	–	–
						32	10	DF2-CN32	0.010	–	–
			4	10	DF2-EN04	0.020	DF3-EN04	0.020			
 DF2-FN●●	Cylindrical 14 x 51	~ 500	6	10	DF2-EN06	0.020	DF3-EN06	0.020			
			10	10	DF2-EN10	0.020	DF3-EN10	0.020			
			16	10	DF2-EN16	0.020	DF3-EN16	0.020			
			20	10	DF2-EN20	0.020	DF3-EN20	0.020			
			25	10	DF2-EN25	0.020	DF3-EN25	0.020			
			32	10	DF2-EN32	0.020	DF3-EN32	0.020			
			40	10	DF2-EN40	0.020	DF3-EN40	0.020			
			50	10	DF2-EN50	0.020	–	–			
			 DF3-FN●●	Cylindrical 22 x 58	~ 690	10	10	DF2-FN10	0.045	DF3-FN10	0.045
						20	10	DF2-FN20	0.045	DF3-FN20	0.045
25	10	DF2-FN25				0.045	DF3-FN25	0.045			
32	10	DF2-FN32				0.045	DF3-FN32	0.045			
40	10	DF2-FN40				0.045	DF3-FN40	0.045			
50	10	DF2-FN50		0.045	DF3-FN50	0.045					
		~ 500		63	10	DF2-FN63	0.045	DF3-FN63	0.045		
				80	10	DF2-FN80	0.045	DF3-FN80	0.045		
				100	10	DF2-FN100	0.045	DF3-FN100	0.045		

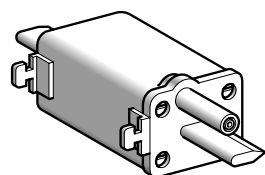
Protection components

Cartridge fuses type gG

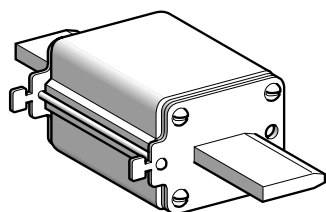
For protection of equipment with current peaks



DF2-GN●●●●



DF4-GN●●●●



DF2-JN●●●●

Fuse type	Maximum rated voltage	Rating	Sold in lots of	Fuses without striker		Fuses with striker	
				Unit reference	Weight	Unit reference	Weight
	V	A			kg		kg
Blade size 00	~ 500	10	10	DF2-FGN10	0.160	–	–
		16	10	DF2-FGN16	0.160	–	–
		20	10	DF2-FGN20	0.160	–	–
		25	10	DF2-FGN25	0.160	–	–
		32	10	DF2-FGN32	0.160	–	–
		40	10	DF2-FGN40	0.160	–	–
		50	10	DF2-FGN50	0.160	–	–
		63	10	DF2-FGN63	0.160	–	–
		80	10	DF2-FGN80	0.160	–	–
		100	10	DF2-FGN100	0.160	–	–
		125	10	DF2-FGN125	0.160	–	–
		160	10	DF2-FGN160	0.160	–	–
Blade size 0	~ 500	50	3	DF2-GN1051	0.230	–	–
		63	3	DF2-GN1061	0.230	–	–
		80	3	DF2-GN1081	0.230	–	–
		100	3	DF2-GN1101	0.230	–	–
		125	3	DF2-GN1121	0.230	DF4-GN1121	0.230
		160	3	DF2-GN1161	0.230	DF4-GN1161	0.230
Blade size 1	~ 500	160	3	DF2-HN1161	0.400	–	–
		200	3	DF2-HN1201	0.400	DF4-HN1201	0.400
		250	3	DF2-HN1251	0.400	DF4-HN1251	0.400
Blade size 2	~ 500	250	3	DF2-JN1251	0.560	–	–
		315	3	DF2-JN1311	0.560	DF4-JN1311	0.560
		400	3	DF2-JN1401	0.560	DF4-JN1401	0.560
Blade size 3	~ 500	500	3	DF2-KN1501	0.850	DF4-KN1501	0.850
		630	3	DF2-KN1631	0.850	DF4-KN1631	0.850
Blade size 4	~ 500	800	1	DF2-LN1801	1.900	DF4-LN1801	1.900
		1000	1	DF2-LN1101	1.900	DF4-LN1101	1.900
		1250	1	DF2-LN1251	1.900	DF4-LN1251	1.900