The GV family of products are 3-pole, horsepower rated, UL 508 listed, manual starters. They include a manual disconnect, class 10 ambient-compensated thermal overload relay, and an instantaneous magnetic trip mechanism in one compact unit.

Any GV manual starter can be used alone for local manual control of a motor with individual full-load currents up to 220 amps. The GV family of products may also be used in group motor installations in accordance with National Electric Code article 430-53. Group motor installations give you greater panel density for smaller size and require fewer parts and less wiring necessary for installation when compared to conventional panel designs.

The GV2P and GV3P products also have an additional UL 508 type E rating as a stand alone self-protected manual combination starter. The UL 508 type E rating requires the addition of line side insulating barrier GV2GH7 for the GV2P or part number GV3G66 for the GV3P. The GV2P and the GV3P self-protected manual combination starter may also be combined with specific size contactors from the LC1D product family for a UL 508 Type F combination starter construction. These products have UL-listed short circuit current rating from 10–100 KA depending on application size and voltage. See www.us.telemecanique.com for more information.

GV2ME


GV2P21 with GV2GH7 installed


GV3P


GV7RE20

How to Order

To order the basic motor starter, select the model number (GV2ME••, GV2P••, or GV3P••) with the appropriate thermal setting from the table below. The thermal trip range and setting should be determined from the motor nameplate full-load current.

Table 18.124:

Thermal Setting (A)	Maximum Horsepower Ratings 1Ø 115 V hp	1Ø 230 V hp	3Ø 200 V hp	3Ø 230 V hp	3Ø 460 V hp	3Ø 575 V hp	Group Motor Applications Max. Fuse or Circuit Breaker	GV2/3M push button Catalog Number	GV2/3M push button $ Price	GV2/3P rotary handle Catalog Number	GV2/3P rotary handle $ Price
0.11–0.16	—	—	—	—	—	—	1200 A	GV2ME01▲	159.	GV2P01	212.
0.16–0.25	—	—	—	—	—	—	1200 A	GV2ME02▲	159.	GV2P02	212.
0.25–0.40	—	—	—	—	—	—	1200 A	GV2ME03▲	159.	GV2P03	212.
0.40–0.63	—	—	—	—	—	—	1200 A	GV2ME04▲	180.	GV2P04	233.
0.63–1	—	—	—	—	0.5	0.5	1200 A	GV2ME05▲	180.	GV2P05	233.
1–1.6	—	0.1	—	—	0.75	1	1200 A	GV2ME06▲	180.	GV2P06	233.
1.6–2.5	—	0.667	0.5	0.5	1	1.5	1200 A	GV2ME07▲	180.	GV2P07	233.
2.5–4	1/8	0.333	0.75	1	2	3	1200 A	GV2ME08▲	180.	GV2P08	233.
4–6.3	1/4	0.5	1.5	1.5	3	5	1200 A	GV2ME10▲	180.	GV2P10	233.
6–10	0.5	1.5	2	3	5	7.5	1200 A	GV2ME14▲	180.	GV2P14	233.
9–14	0.75	2	3	3	10	10	1200 A	GV2ME16▲	224.	GV2P16	278.
13–18	1	3	5	5	10	15	1200 A	GV2ME20▲	224.	GV2P20	278.
17–23	1.5	3	5	7.5	15	20	1200 A	GV2ME21▲	224.	GV2P21	278.
20–25	2	3	5	7.5	15	20	1200 A	GV2ME22▲	224.	GV2P22	278.
24–32	2	5	10	10	20	30	1200 A	GV2ME32	224.	GV2P32	278.
9–13	0.5	1.5	3	3	7.5	10		—	—	GV3P13	404.
12–18	0.75	2	5	5	7.5	10		—	—	GV3P18	404.
17–25	1.5	3	7.5	7.5	15	20		—	—	GV3P25	404.
23–32	2	3	10	7.5	20	25		—	—	GV3P32	404.
30–40	3	5	10	10	25	30		—	—	GV3P40	504.
37–50	3	7.5	15	10	30	40		—	—	GV3P50	504.
48–65	3	10	20	15	40	50		—	—	GV3P65	504.

New!

▲ For spring terminals add 3 to the catalog number, for example, GV2ME013. GV2ME32 is not available with spring terminals.

Table 18.125:

Thermal Setting (A)	Maximum Horsepower Ratings 1Ø 115 V hp	1Ø 230 V hp	3Ø 200 V hp	3Ø 230 V hp	3Ø 460 V hp	3Ø 575 V hp	Toggle Operator Standard Interrupt Catalog Number	Standard Interrupt $ Price	High Interrupt Catalog Number	High Interrupt $ Price
12–20	—	—	—	5	10	15	GV7RE20	417.	GV7RS20	813.
15–25	—	—	—	7.5	15	20	GV7RE25	417.	GV7RS25	813.
25–40	—	—	—	10	30	30	GV7RE40	417.	GV7RS40	813.
30–50	—	—	—	15	30	40	GV7RE50	417.	GV7RS50	813.
48–80	—	—	—	30	60	75	GV7RE80	417.	GV7RS80	813.
60–100	—	—	—	30	75	100	GV7RE100	456.	GV7RS100	891.
90–150	—	—	—	50	100	150	GV7RE150	502.	GV7RS150	978.
132–220	—	—	—	75	150	200	GV7RE220	502.	GV7RS220	978.

Specifications. . . . . .page 18-36
Accessories . . . . . pages 18-34 to 18-35
Dimensions . . . . . pages 18-52 to 18-55

E164864
CCN NLRV

LR81630
Class 3211 05


GVAU116


GVAE11


GVAD0101


GVAN11

Table 18.126: Voltage Trips

Only one trip or fault signaling contact can be installed per GV2/GV3 device.					
Description	**Characteristics**	**Voltage**	**Frequency**	**Catalog Number▲**	**$ Price**
Voltage trips GV2 & GV3P	Undervoltage or Shunt trip (external mount, 1 block right side only)	24 V	50 Hz	GVA•025	**81.00**
			60 Hz	GVA•026	
		48 V	50 Hz	GVA•055	
			60 Hz	GVA•056	
		100–110 V	50/60 Hz	GVA•107	
		110–115 V	50 Hz	GVA•115	
			60 Hz	GVA•116	
		120–127 V	50 Hz	GVA•125	
		127 V	60 Hz	GVA•115	
		200 V	50 Hz	GVA•207	
		200–220 V	60 Hz	GVA•207	
		220–240 V	50 Hz	GVA•225	
			60 Hz	GVA•226	
		380–400 V	50 Hz	GVA•385	
			60 Hz	GVA•386	
		415–440 V	50 Hz	GVA•415	
		415 V	60 Hz	GVA•416	
		440 V	60 Hz	GVA•385	
		480 V	60 Hz	GVA•415	
		500 V	50 Hz	GVA•505	
		600 V	60 Hz		

▲ To order an under voltage trip: replace the bullet (•) with a **U**, example: **GVAU025**. To order a shunt trip: replace the bullet (•) with an **S**, example: **GVAS025**.

Table 18.127: Auxiliary Contact Blocks

Description	Mounting Location	Max. No. of Blocks	Contact Type	Sold in lots of	Catalog Number	$ Price
Instantaneous auxiliary contacts GV2 + GV3P	Front■□	1	N.O. or N.C.♦	1	GVAE1	**21.80**
			N.O. + N.C.	10	GVAE11▼	**35.70**
			N.O. + N.O.	1	GVAE20▼	**35.70**
	Left Hand Side	2	N.O. + N.C.	1	GVAN11▼	**35.70**
			N.O. + N.O.	1	GVAN20▼	**35.70**
Fault signaling contact + instantaneous auxiliary contact GV2 + GV3P	Left Hand Side★	1	N.O. (fault) + N.O.	1	GVAD1010	**54.00**
			N.O. (fault) + N.C.	1	GVAD1001	**54.00**
			N.C. (fault) + N.O.	1	GVAD0110	**54.00**
			N.C. (fault) + N.C.	1	GVAD0101	**54.00**
Short circuit signaling contact GV2 + GV3P	Left Hand Side	1	SPDT	1	GVAM11	**35.70**

■ Mounting of a **GVAE** contact block or a **GV2AK00** visible isolation block on **GV2P**.
♦ Choice of N.C. or N.O. contact operation, depending on which way the reversible block is mounted.
★ The **GVAD** is always mounted next to the starter.
▼ For spring terminals add 3 to the catalog number. Example: **GVAE113**
△ One trip or one fault signaling can be fitted per GV3.
□ Cannot be used with **GV2GH7** insulator.

Table 18.128: Voltage Trips–Technical Data (GV2AU, GV2AS)

Rated Voltage–660 Vac					
Model	**Inrush**	**Sealed**	**Pick-Up Voltage**	**Drop-Out Voltage**	**Operating Time◊**
GVAU	12 VA / 8 W	3.5 VA / 1.1 W	0.8 to 1.1	0.35 to 0.7	10 to 15 ms
GVAS	14 VA / 10.5 W	5 VA / 1.6 W	0.7 to 1.1	0.2 to 0.75	10 to 15 ms

◊ From the loss of voltage at the trip terminals to the opening of the starter contacts.

Table 18.129: GV3P Accessories *New!*

Description	For GV3P	Catalog Number	$ Price
Set of 3-pole 115 A busbars (tap-offs: 2, pitch: 64 mm)	GV3P••	GV3G264	**25.00**
Set of 3-pole 115 A busbars (tap-offs: 3, pitch: 64 mm)	GV3P••	GV3G364	**45.00**
Cover "Larger Spacing" UL 508 type E (Only one cover required on supply side)	GV3P••	GV3G66	**18.00**
IP 20 cover (Two covers required per starter)	GV3P••	LAD96570	**12.00**
Padlocking device For use with up to 4 padlocks (not supplied) Ø 6 mm shank maximum	GV3P•• GV3P•••	GV2V03	**15.00**

- 45 mm wide (same dimensions as GV2ME)
- Available with screw clamp and spring type terminals
- Mounts directly to LC1D09–D32 contactors (with use of GV2AF3 or GV2AF4)
- Meets application needs for fusible starter
- Uses GV2AE instantaneous contact blocks to open control circuits
- DIN rail mounted


LS1D30

Table 18.133:

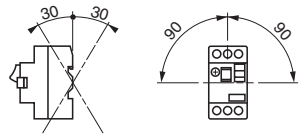
Description	Fuse Type	Dimensions		Use In	Catalog Number	$ Price
		IN	mm			
Spring terminals, 3-pole	CC, KTK-R	0.41 x 1.5	10.3 x 38	US Markets	LS1D303	**86.**
Screw clamp terminals, 3-pole	CC, KTK-R	0.41 x 1.5	10.3 x 38	US Markets	LS1D30	**86.**
Spring terminals, 3-pole	aM, gG	0.39 x 1.5	10 x 38	European Markets	LS1D323	**101.**
Screw clamp terminals, 3-pole	aM, gG	0.39 x 1.5	10 x 38	European Markets	LS1D32	**86.**
Auxiliary main pole adder	aM, gG	0.39 x 1.5	10 x 38	European Markets	LA8D324▲	**65.**

▲ Can be mounted on left-hand or right-hand side of the 3-pole LS1D32 block.

Table 18.134: Specifications

Type	LS1D30, LS1D303	LS1D32, LS1D323, LS1DT32
Max. voltage	600 V 3 Phase	
Max. current	30 A	
Conforming to standards	IEC 60947-1, 60947-2, 60947-4-1, EN60204, BS4841, UL 508, CSA 222.2 No. 14, NFC 63-650, 63-120, 79-130, VDE 0113, 0660	
Product approvals	UL, CSA	BV
Protective treatment	"TH"	"TH"
Ambient air temperature —operation	-58 to 158° F (-50 to +70° C)	
Wiring Number of conductors and cross sectional area (c.s.a.)	**Max.**	**Min.**
Solid cable	2–#8 AWG (2–6 mm^2)	2–#16 (2–1 mm^2)
Flexible cable without cable end	2–#8 AWG (2–6 mm^2)	2–#14 (2–1 mm^2)
Flexible cable with cable end	2–#10 AWG (2–4 mm^2)	2–#16 AWB (2–1 mm^2)
Resistance to mechanical impact conforming to IEC 60947-1 §7-1-6	0.5 J	
Tightening torque	15 in-lb (1.7 N•m)	
Sensitivity to phase failure	No	

Table 18.135: Specifications

Operating Positions: 	File E164864 CNN NLRV File LR81630 Class 3211 05
	Shock resistance—30 g (conforming to IEC 600 68-2-27)
	Vibration resistance—5 g (5 to 150 Hz) (IEC 600 68-2-26)
Rated voltage—600 V	Ambient temperature: -40 to 176°F (-40 to +80°C) for storage -4 to 140°F (-20 to +60°C) open operation -4 to 104°F (-20 to +40°C) enclosed operation
Rated thermal current—25 A (GV2), 63 A (GV3)	
Mechanical life: GV2: 100,000 operations	Maximum operating life—25 operations per hour
	Operating current of magnetic trip is approximately 13 times maximum thermal trip (non-adjustable setting)

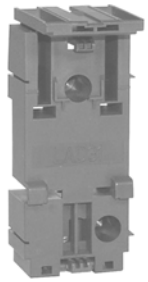
GV2GH7

Table 18.136: GV2 Mounting Accessories

Description	Application	Standard Pack ■	Catalog Number	$ Price Each
Common mounting plate	For GV2 plus any 3-pole LC1D09 thru LC1D25 contactor. (supplied with GV1G02 connector)	1	GK2AF01	21.60
Adapter plate	For screw mounting of GV2M	10	GV2AF02	7.10
Combination block	Interconnect for GV2 plus any 3-pole LC1K or LP1K contactor Interconnect GV2 and LC1D09 thru D32 Interconnect GV2 and LC1D09 thru D32 mounted on LAD31	10 10 10	GV2AF01 GV2AF3 GV2AF4	14.0 3.20 3.20
7.5 mm compensation plate	To allow mounting of GV2M and GV2P on a common bus bar	10	GV1F03	5.40
Mounting plate	For mounting GV2ME or GV2P and contactor LC1D09 thru D32	10	LAD31	6.20
		10	LAD311	12.30

Table 18.137: GV2 Cabling Accessories—Bus Bars

Description	Application	Pitch	Standard Pack ■	Catalog Number	$ Price Each
3-Pole, 63 A Bus Bar	For feeding 2 GV2 starters	45	1	GV2G245	23.30
		54	1	GV2G254	23.30
		72	1	GV2G272	23.30
	For feeding 3 GV2 starters	45	1	GV2G345	28.70
		54	1	GV2G354	28.70
	For feeding 4 GV2 starters	45	1	GV2G445	34.20
		54	1	GV2G454	34.20
		72	1	GV2G472	34.20
	For feeding 5 GV2 starters	54	1	GV2G554	34.20



LAD31

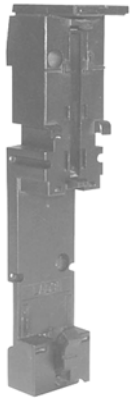
Table 18.138: GV2 Other Cabling Accessories

Description	Application	Standard Pack ■	Catalog Number	$ Price Each
Terminal blocks	Top feed for use with bus bars	1	GV1G09	34.20
	Bottom feed, to be used with bus bars; can be fitted with GV1L3 current limiter	1	GV2G05	34.20
Protective end cover	To cover unused bus bar outlets	5	GV1G10	3.60
3-pole flexible connector	For connecting a GV2 to an LC1D09 thru D25 contactor	10	GV1G02	14.30
Conduit adapter (1⁄ 2" NPT)		1	GV2AK1	16.20
Incoming line insulator	For GV2P when used in UL 508 Type E applications▲	10	GV2GH7	15.00

▲ Cannot be used with front-mounted auxiliary contact block.

Table 18.139: GV2 Other Accessories

Description	Application	Standard Pack ■	Catalog Number	$ Price Each
Visible isolation block - GV2P	Front mount, 3-pole visible isolation on incoming side of GV2P	1	GV2AK00	71.40
Current limiter - GV2M	Increases interrupt capacity when attached to GV2M	1	GV1L3	117.00
Through-Door operator - GV2P	For operating GV2P through enclosure door (red handle, yellow legend plate) For NEMA 1 use. IP54	1	GV2AP02	135.00



LAD311

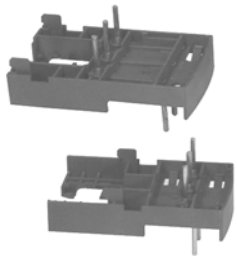
Table 18.140: GV2 Enclosures

Description	Mounting	Rating	Catalog Number	$ Price Each
Enclosures for GV2M with or without accessories (maximum of 1 accessory on right and left) Enclosures are not UL or CSA listed.	Surface mount	NEMA 1, IP41	GV2MC01	54.00
		IP55	GV2MC02	78.00
	Flush mount	NEMA 1, IP41	GV2MP01	31.10
		IP55	GV2MP02	54.00
	Flush mount reduced width (max. of 1 accessory on right)	NEMA 1, IP41	GV2MP03	27.90
		IP55	GV2MP04	49.70

Table 18.141: GV2 Enclosures Accessories

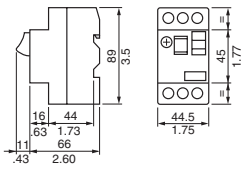
Description	Type		Standard Pack■	Catalog Number	$ Price Each
Padlocking device for GV2M (when padlocked, starter is automatically in Off position)			1	GV2V01	26.90
Mushroom head stop push button (40 mm, red) ♦	Spring return		1	GV2K011	35.90
	Latching	Key release (Ronis key no. 455)	1	GV2K021	104.00
		Turn to Release	1	GV2K031	52.00
	Latching / Padlockable Turn to Release		1	GV2K04	117.00
Sealing kit	For enclosures GV2MC01 and GV2MP01		10	GV2E01	18.00
Pilot Light (neon)	110 V	Green	10	GV2SN13	26.90
	110 V	Red	10	GV2SN14	
	110 V	Orange	10	GV2SN15	
	110 V	White	10	GV2SN17	
	220/240 V	Green	10	GV2SN23	
	220/240 V	Red	10	GV2SN24	
	220/240 V	Orange	10	GV2SN25	
	220/240 V	White	10	GV2SN27	
	380/440 V	Green	10	GV2SN33	
	380/440 V	Red	10	GV2SN34	
	380/440 V	Orange	10	GV2SN35	
	380/440 V	White	10	GV2SN37	

■ Orders must specify multiples of quantities listed.
♦ Supplied with IP55 sealing kit.

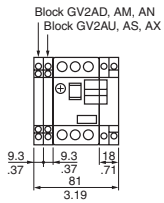


GV2AF3 / GV2AF4

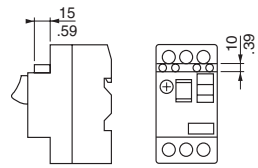
GV2M



GV2AD, AM, AN, AU, AS, AX

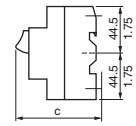


GV2AE

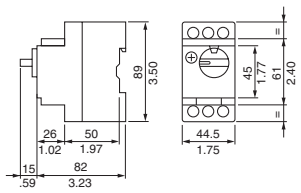


Mounting of GV2M

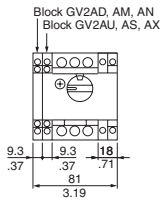
On 35 mm ⊔ rail
C = 78.5 mm (3.09") on AM1DP200 (35 x 7.5 mm)
C = 86 mm (3.39") on AM1DE200, ED200 (35 x 15 mm)



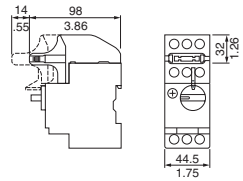
GV2P



GV2AD, AM, AN, AU, AS, AX

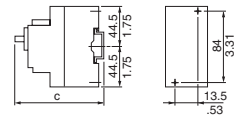


GV2AK00



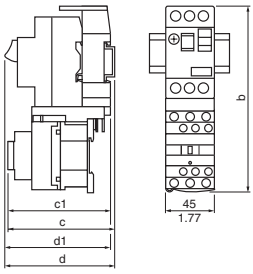
Mounting of GV2P

On 35 mm ⊔ rail
C = 98.5 mm (3.88") on AM1DP200
(35 x 7.5 mm)
C = 106 mm (4.17") on AM1DE200, ED200
(35 x 15 mm)

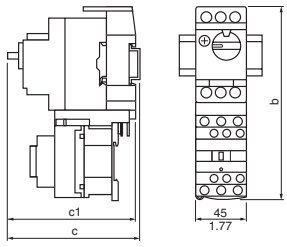


GV2AF4 + LAD31

Combination GV2ME + TeSys D range contactor

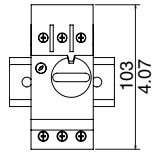


Combination GV2P + TeSys D range contactor



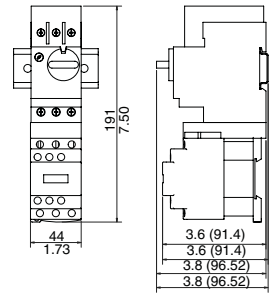
GV2P + GV2GH7

for UL 508 Type E application



GV2P + GV2GH7 + TeSys D contactor

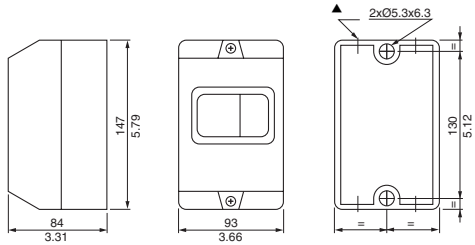
for UL 508 Type E application



GV2ME +	LC2D09 to D18	LC2D25 and D32
b	7.4 (188.6)	7.8 (199)
c1	3.6 (92.7)	3.9 (99)
c	3.9 (98.2)	4.11 (104.5)
d1	3.9 (98.3)	3.9 (98.3)
d	4.1 (103.8)	1.4 (103.8)

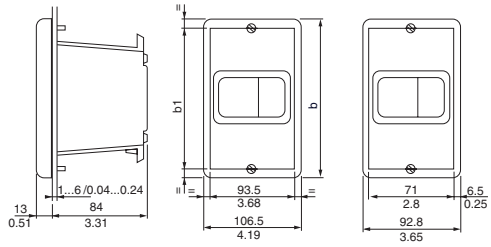
GV2P +	LC2D09 to D18	LC2D25 and D32
b	6.61 (168.1)	7.9 (199.5)
c1	4.6 (116.8)	4.6 (116.8)
c	4.8 (122.3)	4.8 (122.3)
—	—	—
—	—	—

Surface mounting enclosure GV2MC0 •



▲ **4 knock-outs for 16 mm plastic cable glands or no. 16 conduit.**

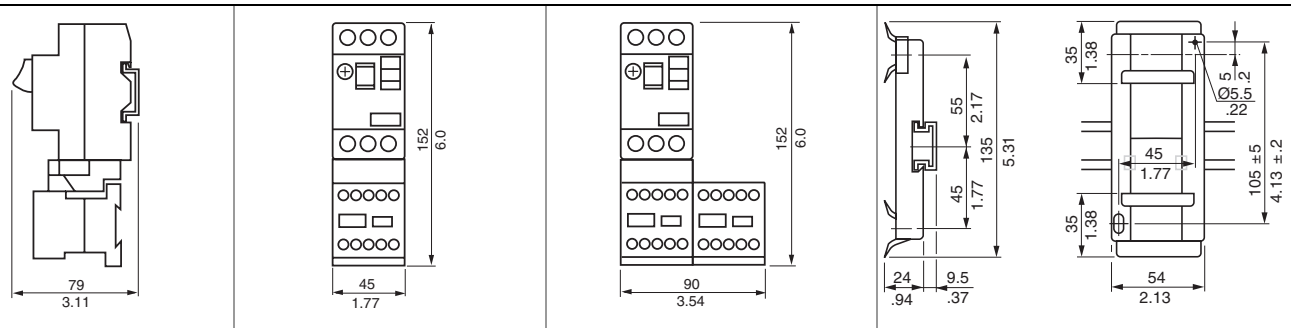
Flush mounting enclosure GV2MP0 • (bracket cut-out)



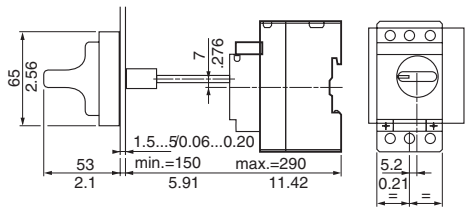
GV2	b		b1	
	IN	mm	IN	mm
MP01, MP02	5.51	140	5.00	127
MP03, MP04	5.24	133	4.61	117

GV2M with GK2AF01 and LC1K	GV2M with GV2AF01 and LC1K	GV2M with GV2AF01 and LC2K	Adapter plate GK2AF01

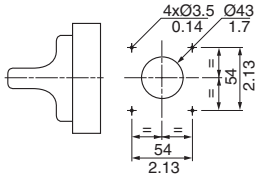
dimensions in mm



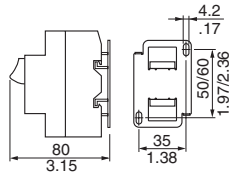
Mounting external operator GV2AP0•



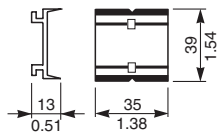
Door cut-out



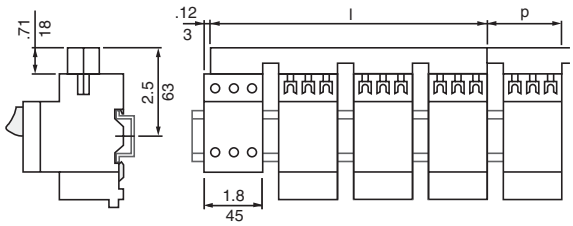
GV2M on panel with GV2AF02 adapter plate



7.5 mm height compensation plate GV1F03

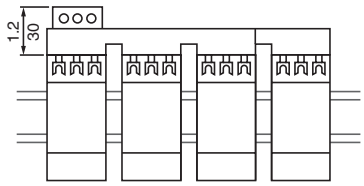


Sets of bus bars, GV2G445, GV2G454, GV2G472 with terminal block GV2G05

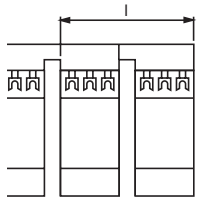


		I	P
GV2G445	0.16 x 1.8" (4 x 45 mm)	7.0" (179 mm)	1.8" (45 mm)
GV2G454	0.16 x 2.1" (4 x 54 mm)	8.1" (206 mm)	2.1" (54 mm)
GV2G472	0.16 x 1.8" (4 x 45 mm)	10.2" (260 mm)	2.8" (72 mm)

Sets of bus bars with terminal block GV1G09



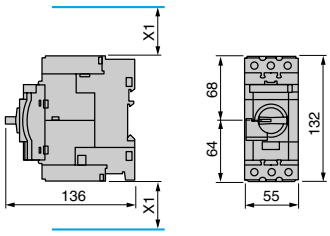
Sets of bus bars GV2G245, GV2G254, GV2G272



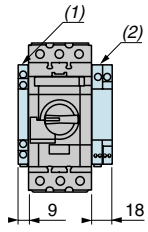
		I
GV2G245	0.08 x 1.8" (2 x 45 mm)	3.5" (89 mm)
GV2G254	0.08 x 2.1" (2 x 54 mm)	3.9" (98 mm)
GV2G272	0.08 x 2.8"(2 x 72 mm)	4.6" (116 mm)
GV2G354	0.12 x 2.1" (3 x 54 mm)	6.0" (152 mm)

GV3 P

Dimensions

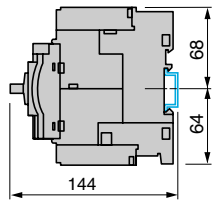


X1 = Electrical clearance (ISC max)
40 mm for Ue < 500 V, 50 mm for Ue < 690 V

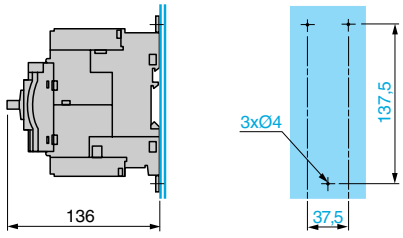


Blocks GV AN●●, GV AD●●, GV AM11
Block GV3 AU●● and GV3 AS●●

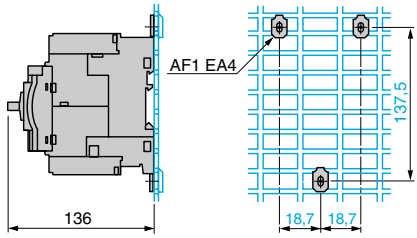
Mounting on rail AM1 DE200 or AM1 ED201

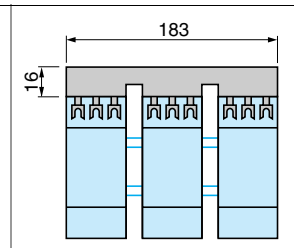


Mounting on panel, using M4 screws



Mounting on pre-slotted mounting plate AM1 PA





Note: Leave a space of 9 mm between 2 manual motor protectors: either an empty space or side-mounting add-on contact blocks. Horizontal mounting is possible: please consult your regional sales office.