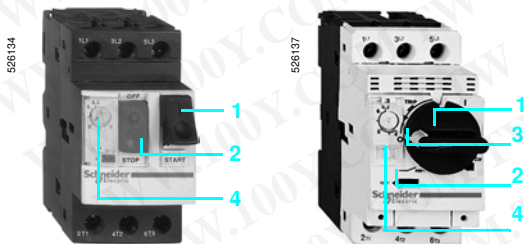


**GV2 ME●●, GV2 P●●****Thermal-magnetic Motor  
Circuit Breakers****Use in Explosive Atmospheres**CE 0080  II (2) GD - Zones 1 - 2, 21 - 22**EC type examination certificate:  
INERIS 06ATEX0035X****Description**GV2 ME  
with screw clamp terminals

GV2 P

GV2 ME and GV2 P motor circuit-breakers are 3-pole thermal-magnetic circuit-breakers **specifically designed for the control and protection of motors**, conforming to standards IEC 60947-2 and IEC 60947-4-1.

GV2 ME and GV2 P circuit-breakers are designed for connection by screw clamp terminals.

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-34970699  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

**Operation**

Control is manual and local when the motor circuit-breaker is used on its own.  
 Control is automatic and remote when it is associated with a contactor.

**GV2 ME**

Pushbutton control.

Energisation is controlled manually by operating the Start button "I" **1**.

De-energisation is controlled manually by operating the Stop button "O" **2**, or automatically by the thermal-magnetic protection elements or by a voltage trip attachment.

**GV2 P**

Control by rotary knob.

Energisation is controlled manually by moving the knob to position "I" **1**.

De-energisation is controlled manually by moving the knob to position "O" **2**.

De-energisation due to a fault automatically places the knob in the "Trip" position **3**.

Re-energisation is possible only after having returned the knob to position "O".

**Protection of motors and personnel**

Motor protection is provided by the thermal-magnetic protection elements incorporated in the motor circuit-breaker.

The **magnetic** elements (short-circuit protection) have a non-adjustable tripping threshold, which is equal to 13 times the maximum setting current of the thermal trips.

The **thermal** elements (overload protection) include automatic compensation for ambient temperature variations.

The rated operational current of the motor is displayed by means of a graduated knob **4**. Personnel protection is also provided. All live parts are protected against direct finger contact from the front panel.

The addition of an undervoltage trip allows the circuit-breaker to be de-energised in the event of an undervoltage condition. The user is therefore protected against sudden starting of the machine when normal voltage is restored, since the Start button "I" has to be pressed to restart the motor.

With the addition of a shunt trip, de-energisation of the unit can be remotely controlled.

The operators on both open-mounted and enclosed motor circuit-breakers can be locked in the Stop position "O" by up to 4 padlocks.

Because they are suitable for isolation, these circuit-breakers, in the open position, provide an adequate isolation distance and indicate the actual position of the moving contacts by the position of the operators.

**Special features**

These motor circuit-breakers are easily installed in any configuration thanks to their universal fixing arrangement: screw fixing or clip-on mounting on symmetrical, asymmetrical or combination rails.

# GV2 ME●●, GV2 P●●

Thermal-magnetic Motor  
Circuit Breakers

Use in Explosive Atmospheres

CE 0080



II (2) GD - Zones 1 - 2, 21 - 22

EC type examination certificate:  
INERIS 06ATEX0035X

## Environment

Circuit-breaker type		GV2 ME	GV2 P
Conforming to standards		IEC 60947-1, 60947-2, 60947-4-1, EN 60204, UL 508, CSA C 22.2 n° 14-05, NF C 63-650, 63-120, 79-130, VDE 0113, 0660	
Product certifications		UL, CSA, CCC, CEBEC, GOST, TSE, BV, GL, LROS, DNV, PTB, EZU, SETI, RINA, ATEX	UL, CSA, PTB, EZU, GOST, TSE, DNV, LROS, GL, BV, RINA, CCC, ATEX
Protective treatment		"TH"	
Degree of protection	Conforming to IEC 60529	Open mounted	IP 20
		In enclosure	GV2 M●01 : IP 41 GV2 M●02 : IP 55
Shock resistance		Conforming to IEC 60068-2-27	
Vibration resistance		Conforming to IEC 60068-2-6	
Ambient air temperature	Storage	°C	- 40...+ 80
	Operation	Open mounted	°C
		In enclosure	°C
Temperature compensation	Open mounted	°C	- 20...+ 60
	In enclosure	°C	- 20...+ 40
Flame resistance		Conforming to IEC 60695-2-1	
Maximum operating altitude		m	
Suitable for isolation		Conforming to IEC 60947-1 § 7-1-6	
Resistance to mechanical impact		J	0,5
		In enclosure: IK 06	
Sensitivity to phase failure		Yes, conforming to IEC 60947-4-1 § 7-2-1-5-2	

## Technical characteristics

Circuit-breaker type		GV2 ME and GV2 P
Utilisation category	Conforming to IEC 60947-2	A
	Conforming to IEC 60947-4-1	AC-3
Rated operational voltage (Ue)	Conforming to IEC 60947-2	V
Rated insulation voltage (Ui)	Conforming to IEC 60947-2	V
	Conforming to CSA C22-2 n° 14, UL 508	V
Rated operational frequency	Conforming to IEC 60947-2	Hz
Rated impulse withstand voltage (U imp)	Conforming to IEC 60947-2	kV
Total power dissipated per pole		W
Mechanical durability (C.O.: Close, Open)		F.O.
Electrical durability for AC-3 duty	440 V In/2	F.O.
	440 V In	F.O.
Duty class (maximum operating rate)		F.O./h
Maximum conventional rated thermal current (Ith)	Conforming to IEC 60947-4-1	A
Rated duty	Conforming to IEC 60947-4-1	

# GV2 ME●●, GV2 P●●

Thermal-magnetic Motor  
Circuit Breakers  
Use in Explosive Atmospheres



0080



II (2) GD - Zones 1 - 2, 21 - 22

EC type examination certificate:  
INERIS 06ATEX0035X

## Breaking capacity of GV2 ME and GV2 P

Circuit-breaker type			GV2 ME										GV2 P									
			01 to 06	07	08	10	14	16	20	21 & 22	32	01 to 06	07	08	10	14	16	20	21 & 22	32		
<b>Rating</b>	<b>A</b>		0,1 to 1,6	2,5	4	6,3	10	14	18	23 & 25	32	0,1 to 1,6	2,5	4	6,3	10	14	18	23 & 25	32		
<b>Breaking capacity</b> conforming to IEC 60947-2		230/240 V	lcu	kA	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	
			lcs % (1)		★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
		400/415 V	lcu	kA	★	★	★	★	★	15	15	15	10	★	★	★	★	★	★	★	★	
			lcs % (1)		★	★	★	★	★	50	50	40	50	★	★	★	★	★	★	★	★	★
		440 V	lcu	kA	★	★	★	50	15	8	8	6	6	★	★	★	★	★	★	★	★	
			lcs % (1)		★	★	★	100	100	50	50	50	50	★	★	★	★	★	★	★	★	★
		500 V	lcu	kA	★	★	★	50	10	6	6	4	4	★	★	★	★	★	★	★	★	
			lcs % (1)		★	★	★	100	100	75	75	75	75	★	★	★	★	★	★	★	★	★
		690 V	lcu	kA	★	3	3	3	3	3	3	3	3	★	8	8	6	6	6	4	4	4
			lcs % (1)		★	75	75	75	75	75	75	75	75	★	100	100	100	100	100	100	100	100
<b>Associated fuses (if required)</b> if lsc > breaking capacity lcu conforming to IEC 60947-2		230/240 V	aM	A	★	★	★	★	★	★	★	80	80	★	★	★	★	★	★	★	★	
			gG	A	★	★	★	★	★	★	★	★	100	100	★	★	★	★	★	★	★	★
		400/415 V	aM	A	★	★	★	★	★	63	63	80	80	★	★	★	★	★	★	★	★	
			gG	A	★	★	★	★	★	80	80	100	100	★	★	★	★	★	★	★	★	★
		440 V	aM	A	★	★	★	50	50	50	50	63	63	★	★	★	★	★	★	★	★	
			gG	A	★	★	★	63	63	63	63	63	80	80	★	★	★	★	★	★	★	★
		500 V	aM	A	★	★	★	50	50	50	50	50	50	★	★	★	★	★	★	★	★	
			gG	A	★	★	★	63	63	63	63	63	63	★	★	★	★	★	★	★	★	★
		690 V	aM	A	★	16	25	32	32	40	40	40	40	★	20	25	40	40	50	50	50	
			gG	A	★	20	32	40	40	50	50	50	50	★	25	32	50	50	63	63	63	63

★ > 100 kA.  
(1) As % of lcu.

# GV2 ME●●, GV2 P●●

Thermal-magnetic Motor  
Circuit Breakers

Use in Explosive Atmospheres

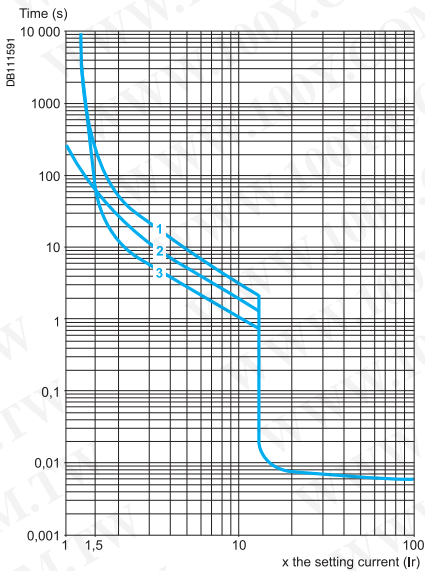


II (2) GD - Zones 1 - 2, 21 - 22

EC type examination certificate:  
INERIS 06ATEX0035X

## Thermal-magnetic tripping curves for GV2 ME and GV2 P

Average operating times at 20 °C related to multiples of the setting current

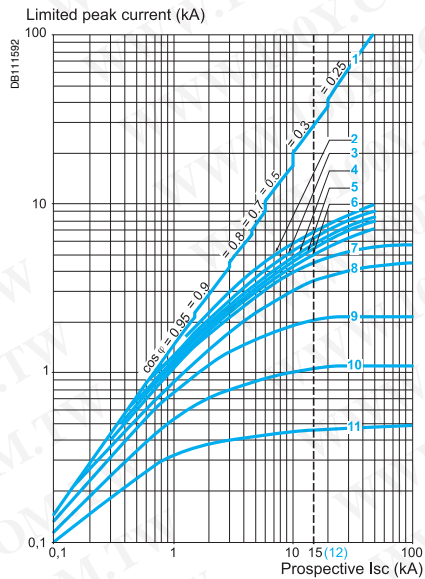


- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state

## Current limitation on short-circuit for GV2 ME and GV2 P (3-phase 400/415 V)

Dynamic stress

$I_{peak} = f(\text{prospective } I_{sc})$  at 1.05  $U_e = 435$  V

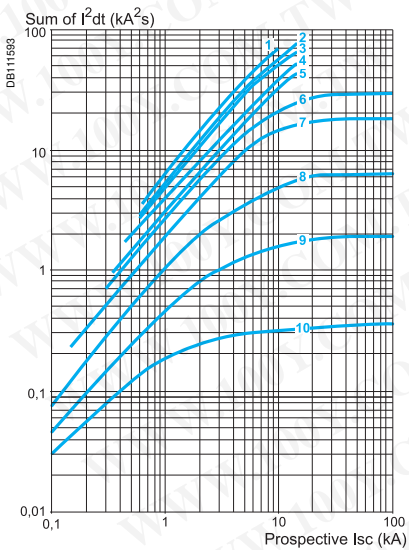


- 1 Maximum peak current
- 2 24-32 A
- 3 20-25 A
- 4 17-23 A
- 5 13-18 A
- 6 9-14 A
- 7 6-10 A
- 8 4-6.3 A
- 9 2.5-4 A
- 10 1.6-2.5 A
- 11 1-1.6 A
- 12 Limit of rated ultimate breaking capacity on short-circuit of GV2 ME (14, 18, 23 and 25 A ratings)

## Thermal limit on short-circuit for GV2 ME

Thermal limit in  $kA^2s$  in the magnetic operating zone

Sum of  $I^2dt = f(\text{prospective } I_{sc})$  at 1.05  $U_e = 435$  V

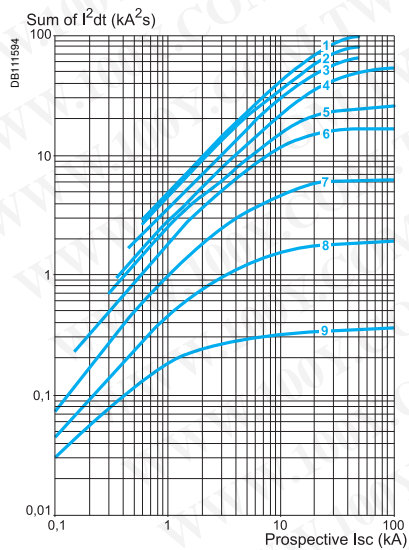


- 1 24-32 A
- 2 20-25 A
- 3 17-23 A
- 4 13-18 A
- 5 9-14 A
- 6 6-10 A
- 7 4-6.3 A
- 8 2.5-4 A
- 9 1.6-2.5 A
- 10 1-1.6 A

## Thermal limit on short-circuit for GV2 P

Thermal limit in  $kA^2s$  in the magnetic operating zone

Sum of  $I^2dt = f(\text{prospective } I_{sc})$  at 1.05  $U_e = 435$  V



- 1 24-32 A
- 2 20-25 A
- 3 17-23 A
- 4 13-18 A
- 5 6-10 A
- 6 4-6.3 A
- 7 2.5-4 A
- 8 1.6-2.5 A
- 9 1-1.6 A

# GV2 ME●●, GV2 P●●

Thermal-magnetic Motor  
Circuit Breakers  
Use in Explosive Atmospheres

CE 0080  $\text{Ex}$  II (2) GD - Zones 1 - 2, 21 - 22

EC type examination certificate:  
INERIS 06ATEX0035X



GV2 ME10

## Motor circuit-breakers from 0.06 to 15 kW / 400 V, with screw clamp terminals

### GV2 ME with pushbutton control

Standard power ratings of 3-phase motors 50-60 Hz in category AC-3									Setting range of thermal trips (2)	Magnetic tripping current I <sub>d</sub> ± 20 %	Reference	Weight
400/415 V			500 V			690 V						
P	I <sub>cu</sub>	I <sub>cs</sub> (1)	P	I <sub>cu</sub>	I <sub>cs</sub> (1)	P	I <sub>cu</sub>	I <sub>cs</sub> (1)				
kW	kA	%	kW	kA	%	kW	kA	%	A	A		kg
—	—	—	—	—	—	—	—	—	0,1...0,16	1,5	GV2 ME01	0,260
0,06	★	★	—	—	—	—	—	—	0,16...0,25	2,4	GV2 ME02	0,260
0,09	★	★	—	—	—	—	—	—	0,25...0,40	5	GV2 ME03	0,260
0,12	★	★	—	—	—	0,37	★	★	0,40...0,63	8	GV2 ME04	0,260
0,18	★	★	—	—	—	—	—	—	—	—	—	—
0,25	★	★	—	—	—	0,55	★	★	0,63...1	13	GV2 ME05	0,260
0,37	★	★	0,37	★	★	—	—	—	1...1,6	22,5	GV2 ME06	0,260
0,55	★	★	0,55	★	★	0,75	★	★	—	—	—	—
—	—	—	0,75	★	★	1,1	★	★	—	—	—	—
0,75	★	★	1,1	★	★	1,5	3	75	1,6...2,5	33,5	GV2 ME07	0,260
1,1	★	★	1,5	★	★	2,2	3	75	2,5...4	51	GV2 ME08	0,260
1,5	★	★	2,2	★	★	3	3	75	—	—	—	—
2,2	★	★	3	50	100	4	3	75	4...6,3	78	GV2 ME10	0,260
3	★	★	4	10	100	5,5	3	75	6...10	138	GV2 ME14	0,260
4	★	★	5,5	10	100	7,5	3	75	—	—	—	—
5,5	15	50	7,5	6	75	9	3	75	9...14	170	GV2 ME16	0,260
—	—	—	—	—	—	11	3	75	—	—	—	—
7,5	15	50	9	6	75	15	3	75	13...18	223	GV2 ME20	0,260
9	15	40	11	4	75	18,5	3	75	17...23	327	GV2 ME21	0,260
11	15	40	15	4	75	—	—	—	20...25	327	GV2 ME22 (3)	0,260
15	10	50	18,5	4	75	22	3	75	24...32	416	GV2 ME32	0,260

(1) As % of I<sub>cu</sub>.

(2) The thermal trip setting must be within the range marked on the graduated knob.

(3) Maximum rating which can be mounted in enclosures GV2 MC or MP, please consult your Regional Sales Office.

★ > 100 kA.



GV2 P

## Motor circuit-breakers from 0.06 to 30 kW / 400 V

### GV2 P control by rotary knob

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3									Setting range of thermal trips (2)	Magnetic tripping current I <sub>d</sub> ± 20 %	Reference	Weight
400/415 V			500 V			690 V						
P	I <sub>cu</sub>	I <sub>cs</sub> (1)	P	I <sub>cu</sub>	I <sub>cs</sub> (1)	P	I <sub>cu</sub>	I <sub>cs</sub> (1)				
kW	kA	%	kW	kA	%	kW	kA	%	A	A		kg
—	—	—	—	—	—	—	—	—	0,1...0,16	1,5	GV2 P01	0,350
0,06	★	★	—	—	—	—	—	—	0,16...0,25	2,4	GV2 P02	0,350
0,09	★	★	—	—	—	—	—	—	0,25...0,40	5	GV2 P03	0,350
0,12	★	★	—	—	—	0,37	★	★	0,40...0,63	8	GV2 P04	0,350
0,18	★	★	—	—	—	—	—	—	—	—	—	—
0,25	★	★	—	—	—	0,55	★	★	0,63...1	13	GV2 P05	0,350
0,37	★	★	0,37	★	★	—	—	—	1...1,6	22,5	GV2 P06	0,350
0,55	★	★	0,55	★	★	0,75	★	★	—	—	—	—
0,75	★	★	1,1	★	★	1,5	8	100	1,6...2,5	33,5	GV2 P07	0,350
1,1	★	★	1,5	★	★	2,2	8	100	2,5...4	51	GV2 P08	0,350
2,2	★	★	3	★	★	4	6	100	4...6,3	78	GV2 P10	0,350
3	★	★	5	50	100	5,5	6	100	6...10	138	GV2 P14	0,350
5,5	★	★	7,5	42	75	9	6	100	9...14	170	GV2 P16	0,350
—	—	—	—	—	—	11	6	100	—	—	—	—
7,5	50	50	9	10	75	15	4	100	13...18	223	GV2 P20	0,350
9	50	50	11	10	75	18,5	4	100	17...23	327	GV2 P21	0,350
11	50	50	15	10	75	—	—	—	20...25	327	GV2 P22	0,350
15	35	50	18,5	10	75	22	4	100	24...32	416	GV2 P32	0,350

(1) As % of I<sub>cu</sub>.

(2) The thermal trip setting must be within the range marked on the graduated knob.

# GV2 ME●●, GV2 P●●

Thermal-magnetic Motor  
Circuit Breakers

Use in Explosive Atmospheres

CE 0080  II (2) GD - Zones 1 - 2, 21 - 22

EC type examination certificate:  
INERIS 06ATEX0035X

## General rules for use

**These products MUST be installed outside ATEX zones.**

They are qualified for the protection of motors that are protected against explosions and placed in zones 1-2 or 21-22.

**Use of these products must be limited to the electric motor control function for which they are designed.**

These products must be installed, used and maintained in accordance with the standards and regulations applicable within the country of installation, for example:

- Directive 99/92/EC
- Standards IEC 60079-17 and IEC 60364
- Established practice for installation in the zone or zones for which they have been designed.

We accept no responsibility in the event of failure to comply with these standards and regulations. This product must be installed, started up and maintained by qualified, authorized personnel.

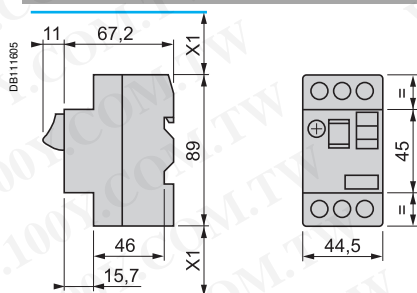
**Responsibility for manufacturer's traceability (serial number on the certification label) is at the first known delivery location.**

### Startup:

- Before startup, check that the product has not been damaged (do not use a product if it is damaged).
- Check that the information marked on the product is compatible with the permitted conditions for the Ex zone of the site in which it is to be used (**Group II**: Surface industries - **Category 2**: high protection level - **D**: Dust - **G**: Gas).
- Store the products in their original packaging, in a dry place, T: -60°... +70°C.
- On startup: connect, assemble and adjust in accordance with the manufacturer's instructions.

## Dimensions

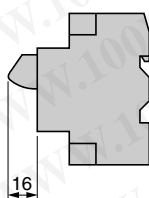
### GV2 ME



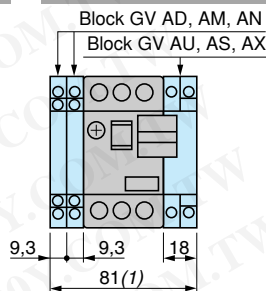
(1) Maximum

X1 Electrical clearance = 40 mm for  $U_e \leq 690$  V

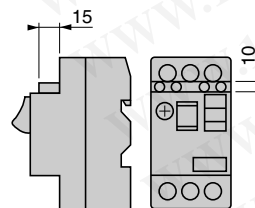
### GV AX



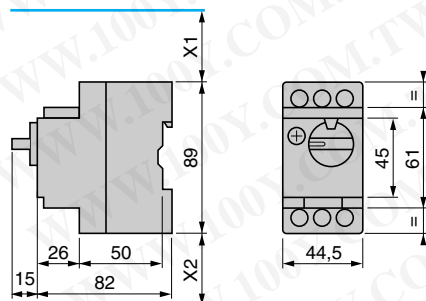
### GV AD, AM, AN, AU, AS, AX



### GV AE



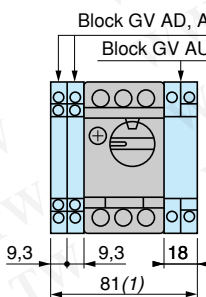
### GV2 P



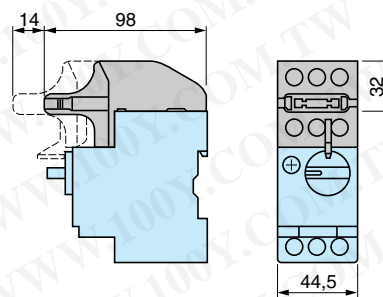
(1) Maximum

X1 Electrical clearance = 40 mm for  $U_e \leq 415$  V, or 80 mm for  $U_e = 440$  V, or 120 mm for  $U_e = 500$  and 690 V  
X2 = 40 mm

### GV AD, AM, AN, AU, AS



### GV2 AK00



# GV2 ME●●, GV2 P●●

Thermal-magnetic Motor  
Circuit Breakers  
Use in Explosive Atmospheres

CE 0080  $\text{Ex}$  II (2) GD - Zones 1 - 2, 21 - 22

EC type examination certificate:  
INERIS 06ATEX0035X

## Mounting

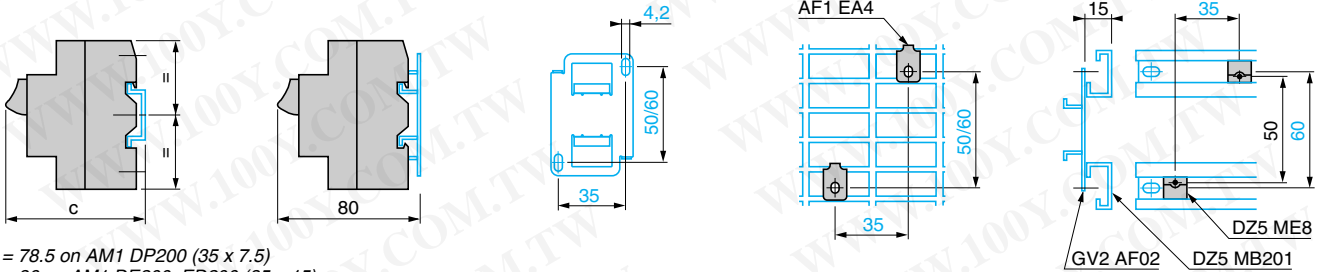
### GV2 ME

On 35 mm  $\sqsubset$  rail

On panel with adapter plate GV2 AF02

On pre-slotted plate  
AM1 PA

On rails DZ5 MB201



$c = 78.5$  on AM1 DP200 (35 x 7.5)  
 $c = 86$  on AM1 DE200, ED200 (35 x 15)

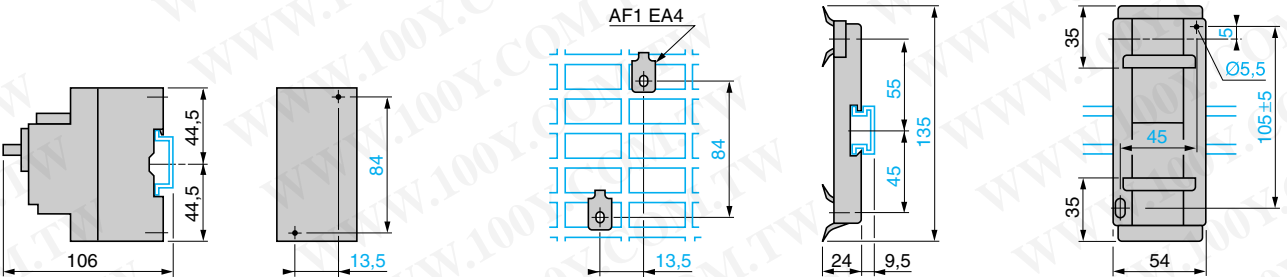
### GV2 P

On rail AM1 DE200, ED200  
(35 x 15)

Panel mounted

On pre-slotted plate  
AM1 PA

Adapter plate GK2 AF01



## Installation

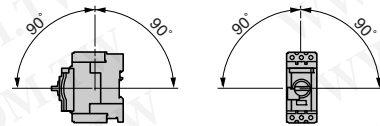
### ⚠ DANGER

**HAZARD OF ELECTRIC SHOCK, EXPLOSION,  
OR ARC FLASH**

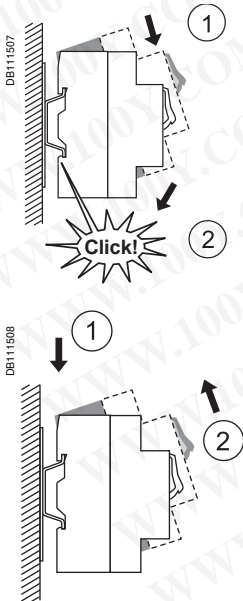
Disconnect all power before servicing equipment.  
Failure to follow these instructions will result  
in death or serious injury.

### Operating position

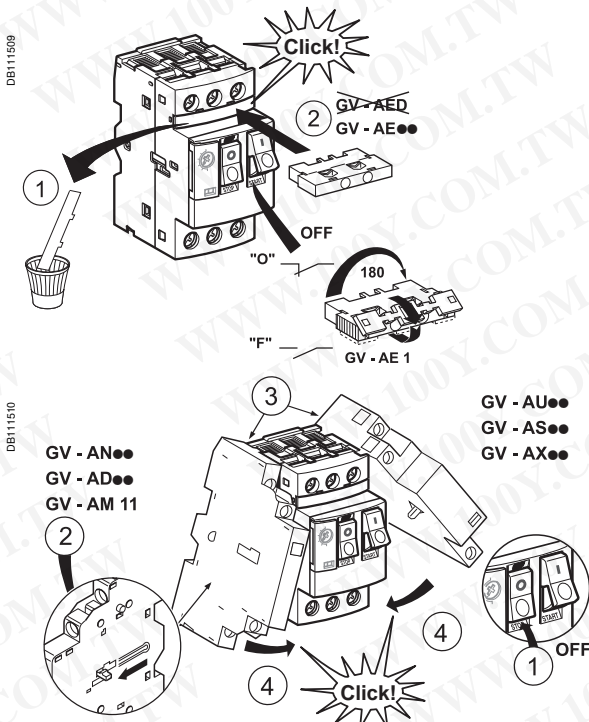
Without derating, in relation  
to normal vertical mounting  
plane



### GV2 ME and GV2 P



### Accessories



# GV2 ME●●, GV2 P●●

Thermal-magnetic Motor  
Circuit Breakers

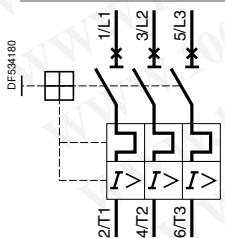
Use in Explosive Atmospheres

CE 0080  II (2) GD - Zones 1 - 2, 21 - 22

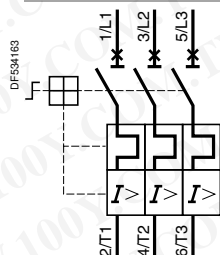
EC type examination certificate:  
INERIS 06ATEX0035X

## Connection

### GV2 ME



### GV2 P



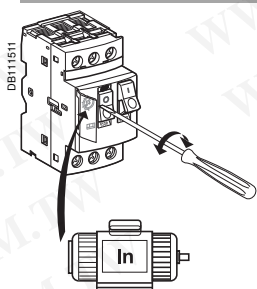
### Connection to screw clamp terminals

Bare cables

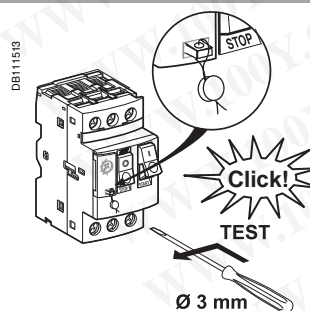
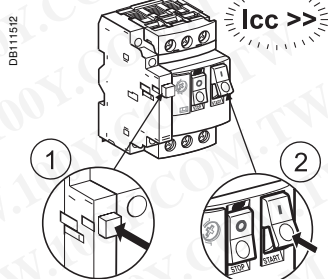
	mm	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>	Nm	mm
GV2 ME	10	1...6	1,5...6	1...4	1,7	Ø3
GV2 P	10	1...6	1,5...6	1...4	1,7	Ø3

## Setting and test

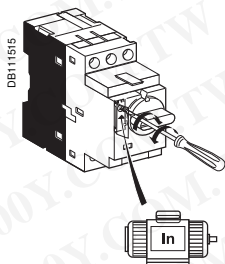
### GV2 ME



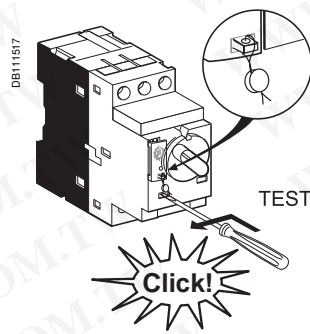
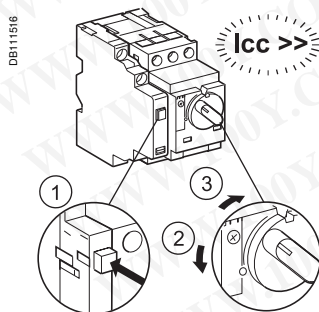
### GV - AM11



### GV2 P

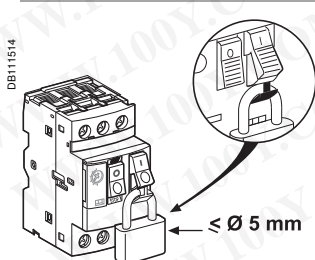


### GV-AM11

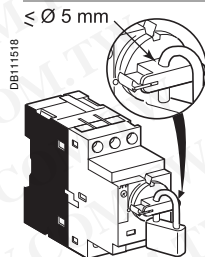


## Locking

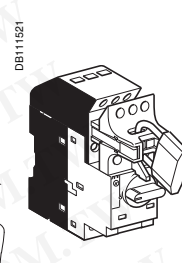
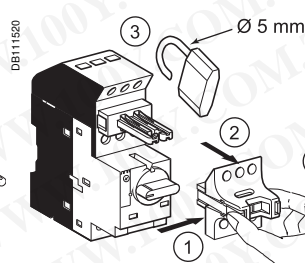
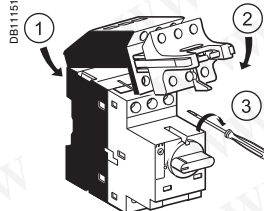
### GV2 ME



### GV2 P



### GV2 - AK00



## Maintenance

In accordance with the maintenance rules for all electrical installations, check the following once a year:

- The correct tightening of the cables, by re-tightening all the connections
- The mechanical operation of the product, by manually operating the test button.

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Due to possible changes in standards and equipment, the features described in this document in the form of the text and images are subject to confirmation by Schneider Electric.