

# Product datasheet

Specifications



## Motor circuit breaker, TeSys GV2, 3P, 0.63-1 A, thermal magnetic, screw clamp terminals

GV2ME05

### Main

Range	TeSys Deca
Product name	TeSys GV2 TeSys Deca
Product or component type	Motor circuit breaker
Device short name	GV2ME
Device application	Motor protection
Trip unit technology	Thermal-magnetic

### Complementary

Poles description	3P
Network type	AC
Utilisation category	Category A conforming to IEC 60947-2 AC-3 conforming to IEC 60947-4-1
Network frequency	50/60 Hz conforming to IEC 60947-4-1
Fixing mode	35 mm symmetrical DIN rail: clipped Panel: screwed (with adaptor plate)
Motor power kW	0.25 kW at 400/415 V AC 50/60 Hz 0.55 kW at 690 V AC 50/60 Hz
Breaking capacity	100 kA Icu at 230/240 V AC 50/60 Hz conforming to IEC 60947-2 100 kA Icu at 400/415 V AC 50/60 Hz conforming to IEC 60947-2 100 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 100 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2 100 kA Icu at 690 V AC 50/60 Hz conforming to IEC 60947-2
[Ics] rated service short-circuit breaking capacity	100 % at 230/240 V AC 50/60 Hz conforming to IEC 60947-2 100 % at 400/415 V AC 50/60 Hz conforming to IEC 60947-2 100 % at 440 V AC 50/60 Hz conforming to IEC 60947-2 100 % at 500 V AC 50/60 Hz conforming to IEC 60947-2 100 % at 690 V AC 50/60 Hz conforming to IEC 60947-2
Control type	Push-button
[In] rated current	1 A
Thermal protection adjustment range	0.63...1 A conforming to IEC 60947-4-1
Magnetic tripping current	13 A
[Ith] conventional free air thermal current	1 A conforming to IEC 60947-4-1
[Ue] rated operational voltage	690 V AC 50/60 Hz conforming to IEC 60947-2
[Ui] rated insulation voltage	690 V AC 50/60 Hz conforming to IEC 60947-2

<b>[Uimp] rated impulse withstand voltage</b>	6 kV conforming to IEC 60947-2
<b>Phase failure sensitivity</b>	Yes conforming to IEC 60947-4-1
<b>Suitability for isolation</b>	Yes conforming to IEC 60947-1 § 7-1-6
<b>Power dissipation per pole</b>	2.5 W
<b>Mechanical durability</b>	100000 cycles
<b>Electrical durability</b>	100000 cycles for AC-3 at 415 V In
<b>Rated duty</b>	Continuous conforming to IEC 60947-4-1
<b>Tightening torque</b>	1.7 N.m - on screw clamp terminal
<b>Width</b>	45 mm
<b>Height</b>	89 mm
<b>Depth</b>	78.5 mm
<b>Net weight</b>	0.28 kg
<b>Colour</b>	Dark grey

## Environment

<b>Standards</b>	EN/IEC 60947-2 EN/IEC 60947-4-1
<b>Product certifications</b>	CCC UL CSA EAC ATEX LROS (Lloyds register of shipping) BV RINA DNV-GL UKCA
<b>IK degree of protection</b>	IK04
<b>IP degree of protection</b>	IP20 conforming to IEC 60529
<b>Climatic withstand</b>	conforming to IACS E10
<b>Ambient air temperature for storage</b>	-40...80 °C
<b>Fire resistance</b>	960 °C conforming to IEC 60695-2-11
<b>Ambient air temperature for operation</b>	-20...60 °C
<b>Mechanical robustness</b>	Shocks: 30 Gn for 11 ms Vibrations: 5 Gn, 5...150 Hz
<b>Operating altitude</b>	2000 m

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	4.500 cm
<b>Package 1 Width</b>	8.500 cm
<b>Package 1 Length</b>	9.500 cm
<b>Package 1 Weight</b>	231.000 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	24
<b>Package 2 Height</b>	15.000 cm
<b>Package 2 Width</b>	30.000 cm

Package 2 Length	40.000 cm
Package 2 Weight	5.799 kg
Unit Type of Package 3	P12
Number of Units in Package 3	768
Package 3 Height	90.000 cm
Package 3 Width	80.000 cm
Package 3 Length	120.000 cm
Package 3 Weight	177.408 kg

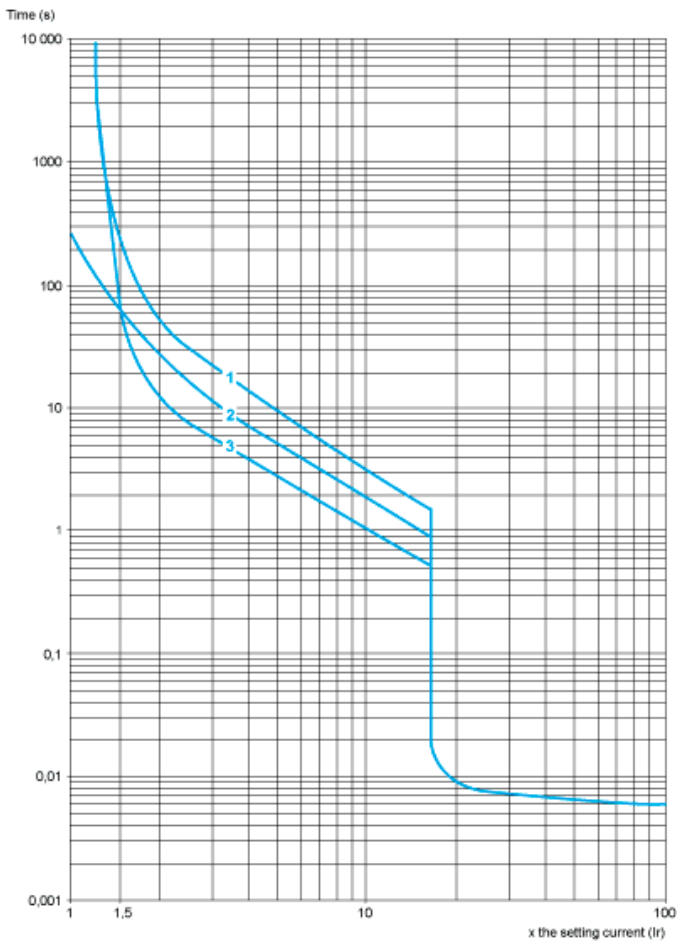
## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information
RoHS exemption information	Yes
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

## Contractual warranty

Warranty	18 months
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**Thermal-Magnetic Tripping Curves for GV2ME and GV2P**  
Average Operating Times at 20 °C Related to Multiples of the Setting Current

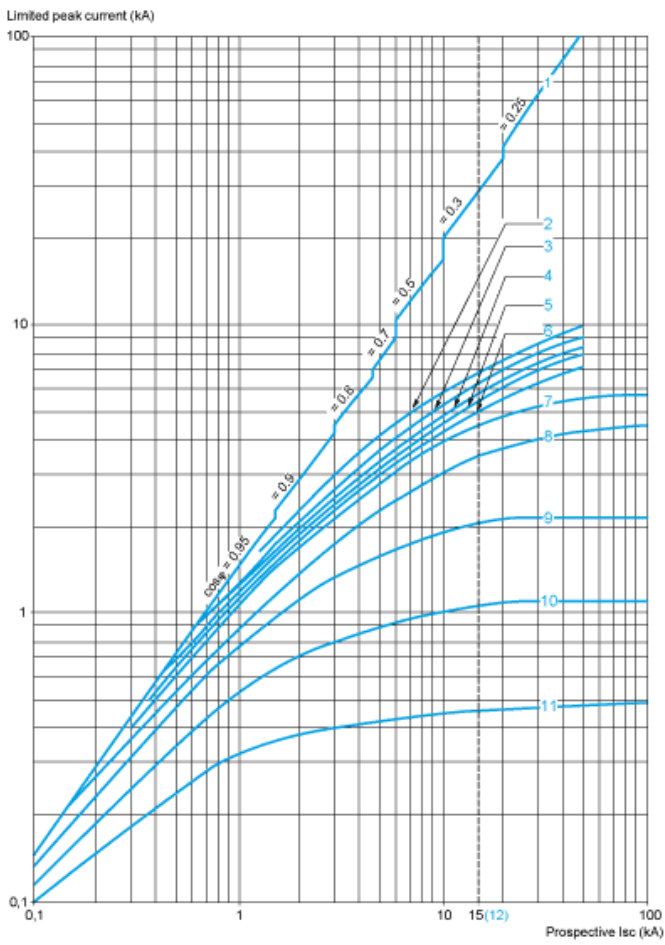


- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state

**Current Limitation on Short-Circuit for GV2ME and GV2P (3-Phase 400/415 V)**

**Dynamic Stress**

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

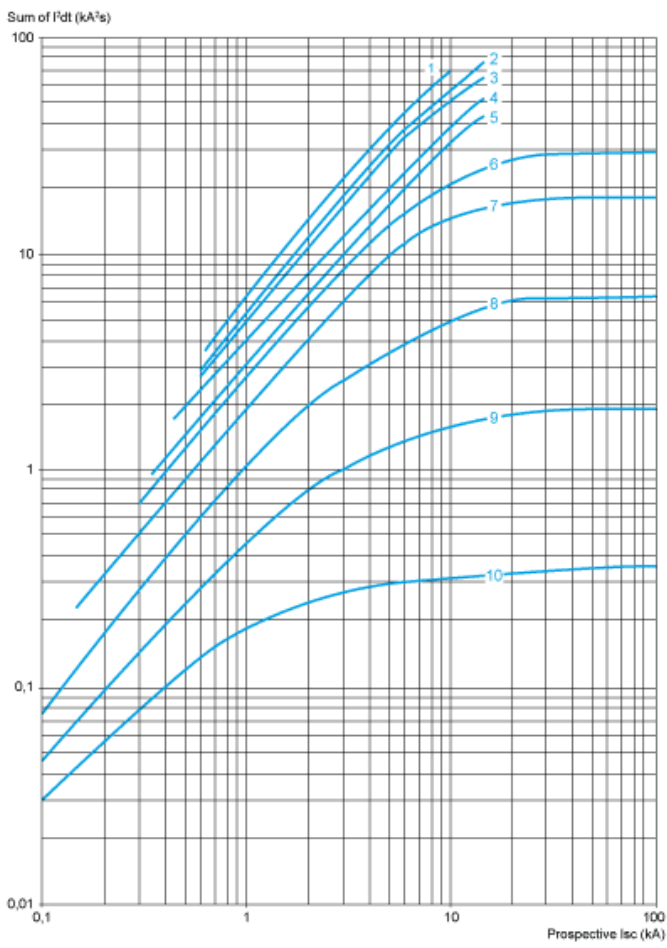


- 1 Maximum peak current
- 2 24-32 A
- 3 20-25 A
- 4 17-23 A
- 5 13-18 A
- 6 9-14 A
- 7 6-10 A
- 8 4-6.3 A
- 9 2.5-4 A
- 10 1.6-2.5 A
- 11 1-1.6 A
- 12 Limit of rated ultimate breaking capacity on short-circuit of GV2ME (14, 18, 23, and 25 A ratings).

**Thermal Limit on Short-Circuit for GV2ME**

**Thermal Limit in kA<sup>2</sup>s in the Magnetic Operating Zone**

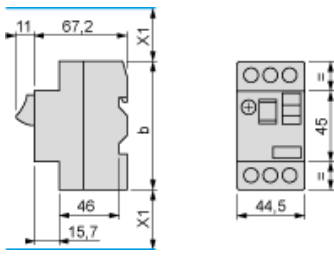
Sum of  $I^2dt = f$  (prospective Isc) at 1.05 Ue = 435 V



- 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

**Dimension**

**GV2ME**



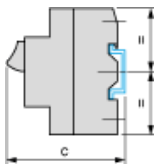
(1) Maximum  
X1 Electrical clearance = 40 mm for  $U_e \leq 690$  V

	b
GV2ME..	89
GV2ME..3	101

**Mounting**

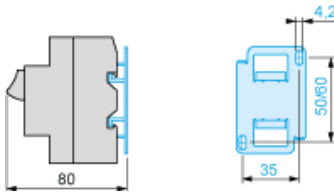
**GV2ME**

On 35 mm rail

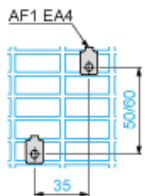


$c = 78.5$  on AM1 DP200 (35 x 7.5)  
 $c = 86$  on AM1 DE200, ED200 (35 x 15)

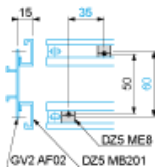
On panel with adapter plate GV2AF02



On pre-slotted plate AM1 PA

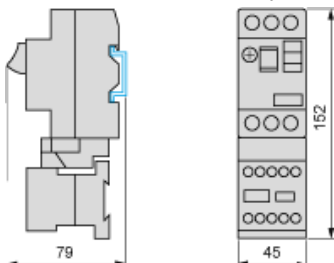


On rails DZ5 MB201



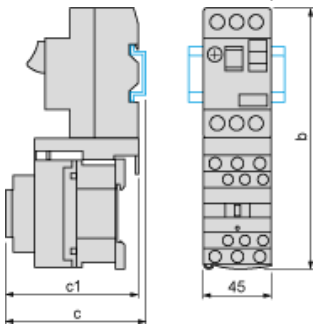
**GV2AF01**

Combination GV2ME + TeSys k contactor



**GV2AF3**

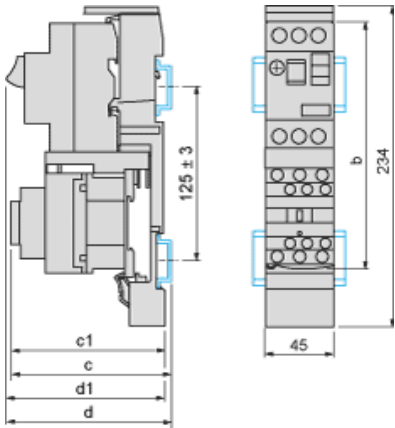
Combination GV2ME + TeSys d contactor



GV2ME +	LC1D09...D18	LC1D25 and D32
b	176.4	186.8
c1	94.1	100.4
c	99.6	105.9

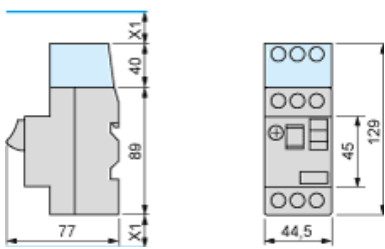
GV2AF4 + LAD311

Combination GV2ME + TeSys d contactor



GV2ME +	LC1D09...D18	LC1D25 and D32
b	176.4	186.8
c1	103.1	136.4
c	135.6	141.9
d1	107	107
d	112.5	112.5

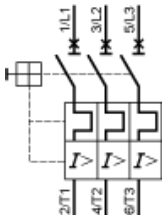
GV2ME + GV1L3 (Current Limiter)



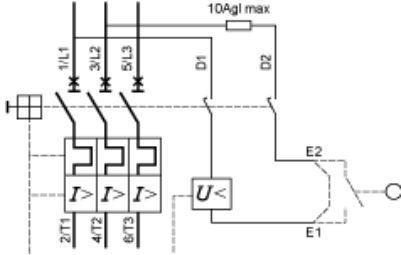
X1 = 10 mm for Ue = 230 V or 30 mm for 230 V < Ue ≤ 690 V



## GV2ME•• and GV2RT



## Connection of Undervoltage Trip for Dangerous Machines (Conforming to INRS) on GV2ME Only



## Recommended replacement(s)