

Product datasheet

Specifications



TeSys GV2 - Circuit breaker - thermal-magnetic - 9...14 A - lugs-ring terminals

GV2ME166

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 | 5.5 kW at 400/415 V AC 50/60 Hz 7.5 kW at 500 V AC 50/60 Hz 9 kW at 690 V AC 50/60 Hz 11 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 15 kA Icu at 400/415 V AC 50/60 Hz conforming to IEC 60947-2 8 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 6 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2 3 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 50 % at 400/415 V AC 50/60 Hz conforming to IEC 60947-2 50 % at 440 V AC 50/60 Hz conforming to IEC 60947-2 75 % at 500 V AC 50/60 Hz conforming to IEC 60947-2 75 % at 690 V AC 50/60 Hz conforming to IEC 60947-2 |
| Control type | Push-button |
| [In] rated current | 14 A |
| Thermal protection adjustment range | 9...14 A conforming to IEC 60947-4-1 |
| Magnetic tripping current | 170 A |
| [Ith] conventional free air thermal current | 14 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 |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947-2 |
| Phase failure sensitivity | Yes conforming to IEC 60947-4-1 |
| Suitability for isolation | Yes conforming to IEC 60947-1 § 7-1-6 |
| Power dissipation per pole | 2.5 W |
| Mechanical durability | 100000 cycles |
| Electrical durability | 100000 cycles for AC-3 at 415 V In |
| Rated duty | Continuous conforming to IEC 60947-4-1 |
| Width | 45 mm |
| Height | 89 mm |
| Depth | 78.5 mm |
| Net weight | 0.26 kg |
| Colour | Dark grey |
| Connection pitch | 13.5 mm without spreader |

Environment

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

Packing Units

| | |
|------------------------------|-----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 8.700 cm |
| Package 1 Width | 4.500 cm |
| Package 1 Length | 9.300 cm |
| Package 1 Weight | 283.900 g |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 24 |
| Package 2 Height | 15.000 cm |

| | |
|------------------|-----------|
| Package 2 Width | 30.000 cm |
| Package 2 Length | 40.000 cm |
| Package 2 Weight | 7.149 kg |

Offer Sustainability

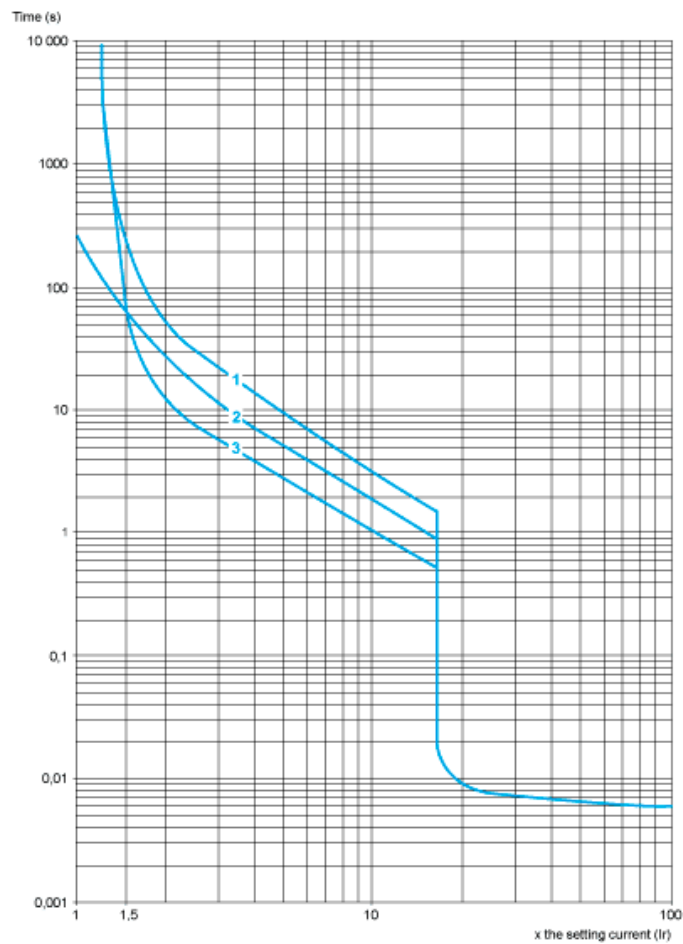
| | |
|----------------------------|---|
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Compliant EU RoHS Declaration |
| Mercury free | Yes |
| China RoHS Regulation | China RoHS declaration Product out of China RoHS scope. Substance declaration for your information |
| RoHS exemption information | Yes |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Contractual warranty

| | |
|----------|-----------|
| Warranty | 12 months |
|----------|-----------|

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

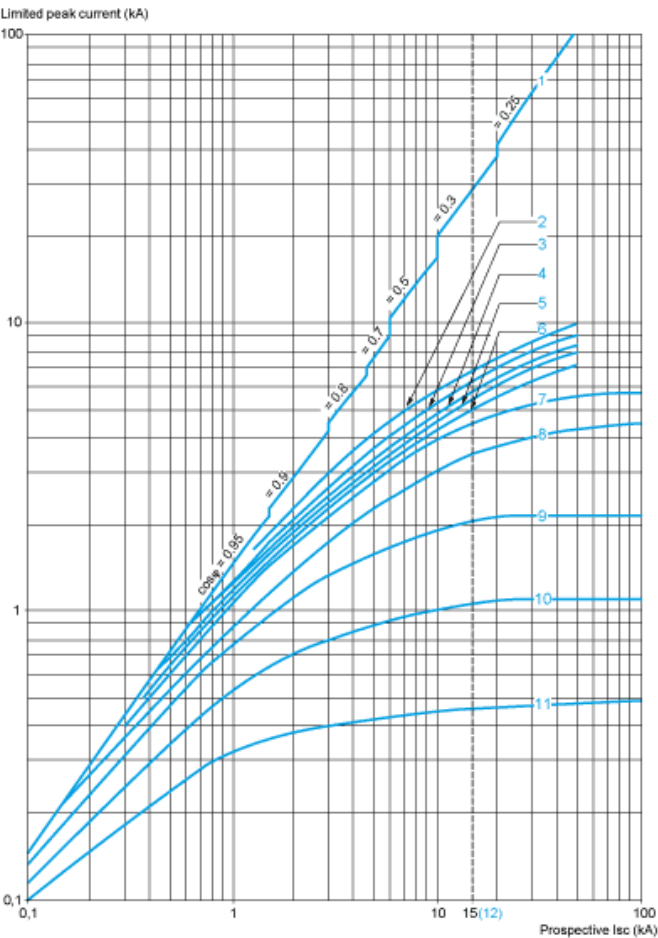
2 poles from cold state
- 3

3 poles from hot state

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

Dynamic Stress

I peak = f (prospective I_{sc}) at 1.05 U_e = 435 V

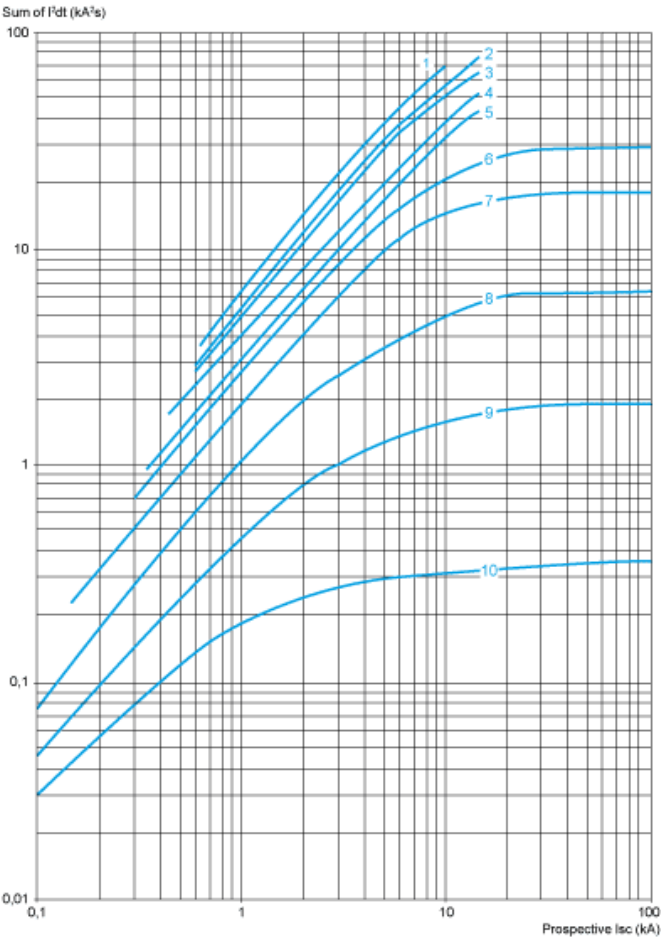


- 1 Maximum peak current
- 2 24-32 A
- 3 20-25 A
- 4 17-23 A
- 5 13-18 A
- 6 9-14 A
- 7 6-10 A
- 8 4-6.3 A
- 9 2.5-4 A
- 10 1.6-2.5 A
- 11 1-1.6 A
- 12 Limit of rated ultimate breaking capacity on short-circuit of GV2ME (14, 18, 23, and 25 A ratings).

Thermal Limit on Short-Circuit for GV2ME

Thermal Limit in kA²s in the Magnetic Operating Zone

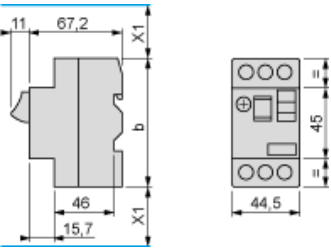
Sum of I²dt = f (prospective Isc) at 1.05 Ue = 435 V



- 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



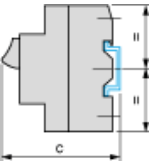
(1) Maximum
X1 Electrical clearance = 40 mm for Ue ≤ 690 V

| | b |
|----------|-----|
| GV2ME.. | 89 |
| GV2ME..3 | 101 |

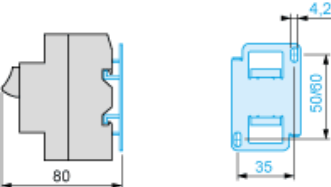
Mounting

GV2ME

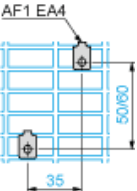
On 35 mm rail



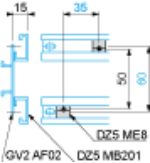
c = 78.5 on AM1 DP200 (35 x 7.5)
c = 86 on AM1 DE200, ED200 (35 x 15)
On panel with adapter plate GV2AF02



On pre-slotted plate AM1 PA

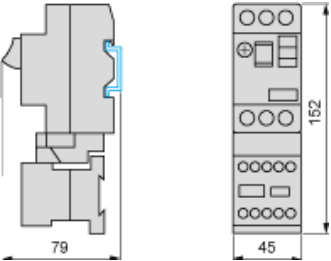


On rails DZ5 MB201



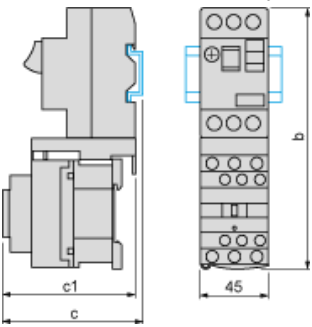
GV2AF01

Combination GV2ME + TeSys k contactor



GV2AF3

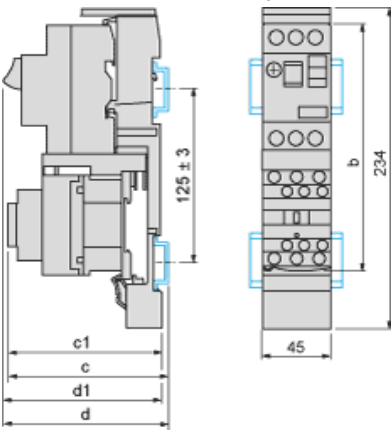
Combination GV2ME + TeSys d contactor



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

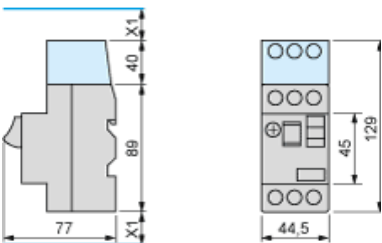
GV2AF4 + LAD311

Combination GV2ME + TeSys d contactor



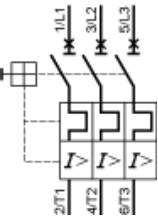
| GV2ME + | LC1D09...D18 | LC1D25 and D32 |
|---------|--------------|----------------|
| b | 176.4 | 186.8 |
| c1 | 103.1 | 136.4 |
| c | 135.6 | 141.9 |
| d1 | 107 | 107 |
| d | 112.5 | 112.5 |

GV2ME + GV1L3 (Current Limiter)

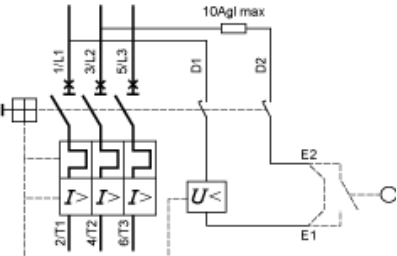


X1 = 10 mm for Ue = 230 V or 30 mm for 230 V < Ue ≤ 690 V

GV2ME•• and GV2RT



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



Recommended replacement(s)