

GV2ME07TQ

Motor circuit breaker, TeSys GV2, 3P, 1.6-2.5 A, thermal magnetic, screw clamp terminals, TQ 24 units



Main

| | |
|----------------------|------------------|
| Range | TeSys |
| Product name | TeSys GV2 |
| Device short name | GV2ME |
| Device application | Motor |
| Trip unit technology | Thermal-magnetic |

Complementary

| | |
|---|---|
| Poles description | 3P |
| Network type | AC |
| Utilisation category | AC-3 conforming to IEC 60947-4-1 Category A conforming to IEC 60947-2 |
| Network frequency | 50/60 Hz conforming to IEC 60947-4-1 |
| Fixing mode | 35 mm symmetrical DIN rail: clipped Panel: screwed (with adaptor plate) |
| Operating position | Any position |
| Motor power kW | 0.75 kW at 400/415 V AC 50/60 Hz 1.1 kW at 500 V AC 50/60 Hz 1.5 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 3 kA Icu at 690 V AC 50/60 Hz conforming to IEC 60947-2 |
| [Ics] rated service short-circuit breaking capacity | 100 % at 500 V AC 50/60 Hz conforming to IEC 60947-2 100 % at 230/240 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 400/415 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 | 2.5 A |

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|---|---|
| Thermal protection adjustment range | 1.6...2.5 A |
| Magnetic tripping current | 33.5 A |
| [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 |
| [Ith] conventional free air thermal current | 2.5 A conforming to IEC 60947-4-1 |
| [Uimp] rated impulse withstand voltage | 6 kV IEC 60947-2 |
| Power dissipation per pole | 2.5 W |
| Mechanical durability | 100000 cycles |
| Electrical durability | 100000 cycles for AC-3 at 440 V |
| Maximum operating rate | 25 cyc/h |
| Rated duty | Continuous conforming to IEC 60947-4-1 |
| Connections - terminals | Screw clamp terminals 2 cable(s) 1...6 mm ² solid Screw clamp terminals 2 cable(s) 1.5...6 mm ² flexible without cable end Screw clamp terminals 2 cable(s) 1...4 mm ² flexible with cable end |
| Tightening torque | 1.7 N.m on screw clamp terminals |
| Suitability for isolation | Yes conforming to IEC 60947-1 |
| Phase failure sensitivity | Yes conforming to IEC 60947-4-1 |
| Quantity per set | Set of 24 |
| Height | 89 mm |
| Width | 45 mm |
| Depth | 78.5 mm |
| Net weight | 0.26 kg |

Environment

| | |
|---------------------------------------|--|
| Standards | EN/IEC 60947-2 EN/IEC 60947-4-1 CSA C22.2 No 60947-4-1 UL 60947-4-1 |
| Product certifications | IECEE CB Scheme UL CSA CCC EAC ATEX BV LROS (Lloyds register of shipping) DNV-GL RINA |
| Protective treatment | TH |
| IP degree of protection | IP20 conforming to IEC 60529 |
| IK degree of protection | IK04 |
| Ambient air temperature for operation | -20...60 °C |
| Ambient air temperature for storage | -40...80 °C |
| Fire resistance | 960 °C conforming to IEC 60695-2-1 |
| Operating altitude | 2000 m |

Offer Sustainability

| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Compliant EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS declaration Product out of China RoHS scope. Substance declaration for your information |
| Environmental Disclosure | Product Environmental Profile |

| | |
|---------------------|---|
| Circularity Profile | No need of specific recycling operations |
| 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 |
|----------|-----------|

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 kA^2s 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

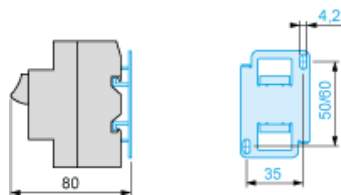
GV2ME

On 35 mm rail

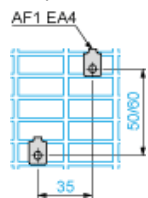


- $c = 78.5$ on AM1 DP200 (35 x 7.5)
 $c = 86$ on AM1 DE200, ED200 (35 x 15)

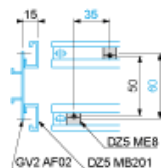
On panel with adapter plate GV2AF02



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 $U_e = 230\text{ V}$ or 30 mm for $230\text{ V} < U_e \leq 690\text{ V}$

GV2ME•• and GV2RT



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

