

# Product datasheet

Specifications



## Motor circuit breaker, TeSys GV2, 3P, 1-1.6 A, thermal magnetic, screw clamp terminals

GV2ME06

### Main

|                           |                         |
|---------------------------|-------------------------|
| Range                     | TeSys Deca              |
| Product name              | TeSys GV2<br>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<br>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<br>Panel: screwed (with adaptor plate)  |
| Motor power kW                                      | 0.37 kW at 400/415 V AC 50/60 Hz<br>0.55 kW at 400/415 V AC 50/60 Hz<br>0.37 kW at 500 V AC 50/60 Hz<br>0.55 kW at 500 V AC 50/60 Hz<br>0.75 kW at 500 V AC 50/60 Hz<br>0.75 kW at 690 V AC 50/60 Hz<br>1.1 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<br>100 kA Icu at 400/415 V AC 50/60 Hz conforming to IEC 60947-2<br>100 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>100 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>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<br>100 % at 400/415 V AC 50/60 Hz conforming to IEC 60947-2<br>100 % at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>100 % at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>100 % at 690 V AC 50/60 Hz conforming to IEC 60947-2                          |
| Control type  | Push-button   |
| [In] rated current                                  | 1.6 A   |
| Thermal protection adjustment range                 | 1...1.6 A conforming to IEC 60947-4-1   |
| Magnetic tripping current                           | 22.5 A  |

|  |   |
|--|---|
| <b>[Ith] conventional free air thermal current</b> | 1.6 A conforming to IEC 60947-4-1           |
| <b>[Ue] rated operational voltage</b>              | 690 V AC 50/60 Hz conforming to IEC 60947-2 |
| <b>[Ui] rated insulation voltage</b>               | 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>                                  | 0.26 kg                                     |
| <b>Colour</b>                                      | Dark grey                                   |

## Environment

|  |   |
|--|---|
| <b>Standards</b>                             | EN/IEC 60947-2<br>EN/IEC 60947-4-1  |
| <b>Product certifications</b>                | CCC<br>UL<br>CSA<br>EAC<br>ATEX<br>LROS (Lloyds register of shipping)<br>BV<br>RINA<br>DNV-GL<br>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<br>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>             | 4.5 cm  |
| <b>Package 1 Width</b>              | 8.5 cm  |
| <b>Package 1 Length</b>             | 9.0 cm  |
| <b>Package 1 Weight</b>             | 253.0 g |

|                              |            |
|------------------------------|------------|
| Unit Type of Package 2       | S02        |
| Number of Units in Package 2 | 24         |
| Package 2 Height             | 15.0 cm    |
| Package 2 Width              | 30.0 cm    |
| Package 2 Length             | 40.0 cm    |
| Package 2 Weight             | 6.317 kg   |
| Unit Type of Package 3       | P06        |
| Number of Units in Package 3 | 384        |
| Package 3 Height             | 75.0 cm    |
| Package 3 Width              | 80.0 cm    |
| Package 3 Length             | 60.0 cm    |
| Package 3 Weight             | 109.072 kg |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a>  |
| Mercury free               | Yes   |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a><br>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 |
|----------|-----------|

**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<sup>2</sup>dt = 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

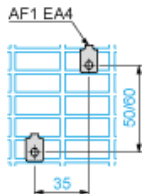


$c = 78.5$  on AM1 DP200 (35 x 7.5)  
 $c = 86$  on AM1 DE200, ED200 (35 x 15)

On panel with adapter plate GV2AF02



On pre-slotted plate AM1 PA

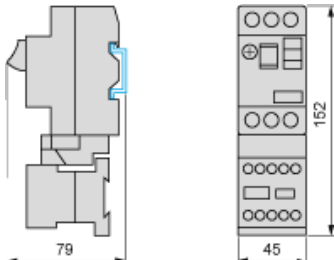


On rails DZ5 MB201



**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)