

# Product data sheet

Specifications



## Motor circuit breaker, TeSys Deca frame 2, 3P, 9-14A, thermal magnetic, push button, lugs terminals

GV2ME166

### 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<br>AC-3e 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                                      | 5.5 kW at 400/415 V AC 50/60 Hz<br>7.5 kW at 500 V AC 50/60 Hz<br>9 kW at 690 V AC 50/60 Hz<br>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<br>15 kA Icu at 400/415 V AC 50/60 Hz conforming to IEC 60947-2<br>8 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>6 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>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<br>50 % at 400/415 V AC 50/60 Hz conforming to IEC 60947-2<br>50 % at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>75 % at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>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                                                                                                                                                                                                                                                                    |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                               |                                                                           |
|-----------------------------------------------|---------------------------------------------------------------------------|
| <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<br>100000 cycles for AC-3e at 415 V In |
| <b>Rated Duty</b>                             | Continuous conforming to IEC 60947-4-1                                    |
| <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                                                                 |
| <b>Connection Pitch</b>                       | 13.5 mm without spreader                                                  |

## 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>             | 8.700 cm  |
| <b>Package 1 Width</b>              | 4.500 cm  |
| <b>Package 1 Length</b>             | 9.300 cm  |
| <b>Package 1 Weight</b>             | 283.900 g |
| <b>Unit Type Of Package 2</b>       | S02       |
| <b>Number Of Units In Package 2</b> | 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  |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency   RoHS/REACH

## Well-being performance

✓ Mercury Free

✓ Rohs Exemption Information   [Yes](#)

## Certifications & Standards

|                          |                                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Reach Regulation         | <a href="#">REACH Declaration</a>                                                                                           |
| Eu Rohs Directive        | Compliant with Exemptions                                                                                                   |
| China Rohs Regulation    | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information       |
| Environmental Disclosure | <a href="#">Product Environmental Profile</a>                                                                               |
| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile      | <a href="#">End of Life Information</a>                                                                                     |

Performance Curves

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 Isc) at 1.05 Ue = 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<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

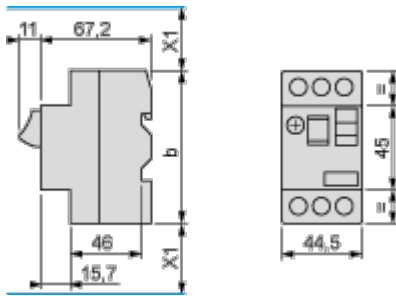


- 1 24-32 A
- 2 20-25 A
- 3 17-23 A
- 4 13-18 A
- 5 9-14 A
- 6 6-10 A
- 7 4-6.3 A
- 8 2.5-4 A
- 9 1.6-2.5 A
- 10 1-1.6 A

Dimensions Drawings

Dimension

GV2ME



(1) Maximum

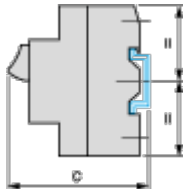
X1 Electrical clearance = 40 mm for  $U_e \leq 690\text{ V}$

|          | b   |
|----------|-----|
| GV2ME●●  | 89  |
| GV2ME●●3 | 101 |

Mounting

GV2ME

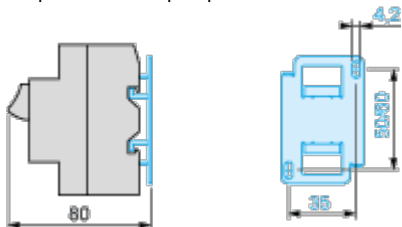
On 35 mm rail



c = 78.5 on AM1 DP200 (35 x 7.5)

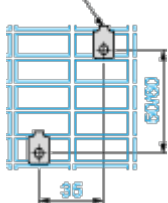
c = 86 on AM1 DE200, ED200 (35 x 15)

On panel with adapter plate GV2AF02



On pre-slotted plate AM1 PA

AF1 EA4



On rails DZ5 MB201

## GV2ME166



GV2AF3

GV2AF4 + LAD311

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| 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          |

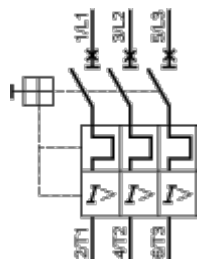
GV2ME + GV1L3 (Current Limiter)



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

Connections and Schema

GV2ME•• and GV2RT



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

