# Product datasheet

Specifications

## Motor circuit breaker, TeSys Deca, 3P, 0.63 to 1A, thermal magnetic, screw clamp terminals, button control

GV2ME05

## 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** | 0.25 kW at 400/415 V AC 50/60 Hz<br>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<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 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 |
| **[Uimp] Rated Impulse Withstand Voltage** | 6 kV 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

| | |
|---|---|
| **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<br>100000 cycles for AC-3e at 415 V In |
| **Rated Duty** | Continuous conforming to IEC 60947-4-1 |
| **Tightening Torque** | 1.7 N.m - on screw clamp terminal |
| **Width** | 45 mm |
| **Height** | 89 mm |
| **Depth** | 78.5 mm |
| **Net Weight** | 0.28 kg |
| **Colour** | Dark grey |

## Environment

| | |
|---|---|
| **Standards** | EN/IEC 60947-2<br>EN/IEC 60947-4-1 |
| **Product Certifications** | CCC<br>UL<br>CSA<br>EAC<br>ATEX<br>LROS (Lloyds register of shipping)<br>BV<br>RINA<br>DNV-GL<br>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<br>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** | 4.500 cm |
| **Package 1 Width** | 8.500 cm |
| **Package 1 Length** | 9.500 cm |
| **Package 1 Weight** | 231.000 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** | 5.582 kg |
| **Unit Type Of Package 3** | P06 |
| **Number Of Units In Package 3** | 384 |
| **Package 3 Height** | 75.000 cm |
| **Package 3 Width** | 60.000 cm |
| **Package 3 Length** | 80.000 cm |
| **Package 3 Weight** | 100.784 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-$CO_2$ 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

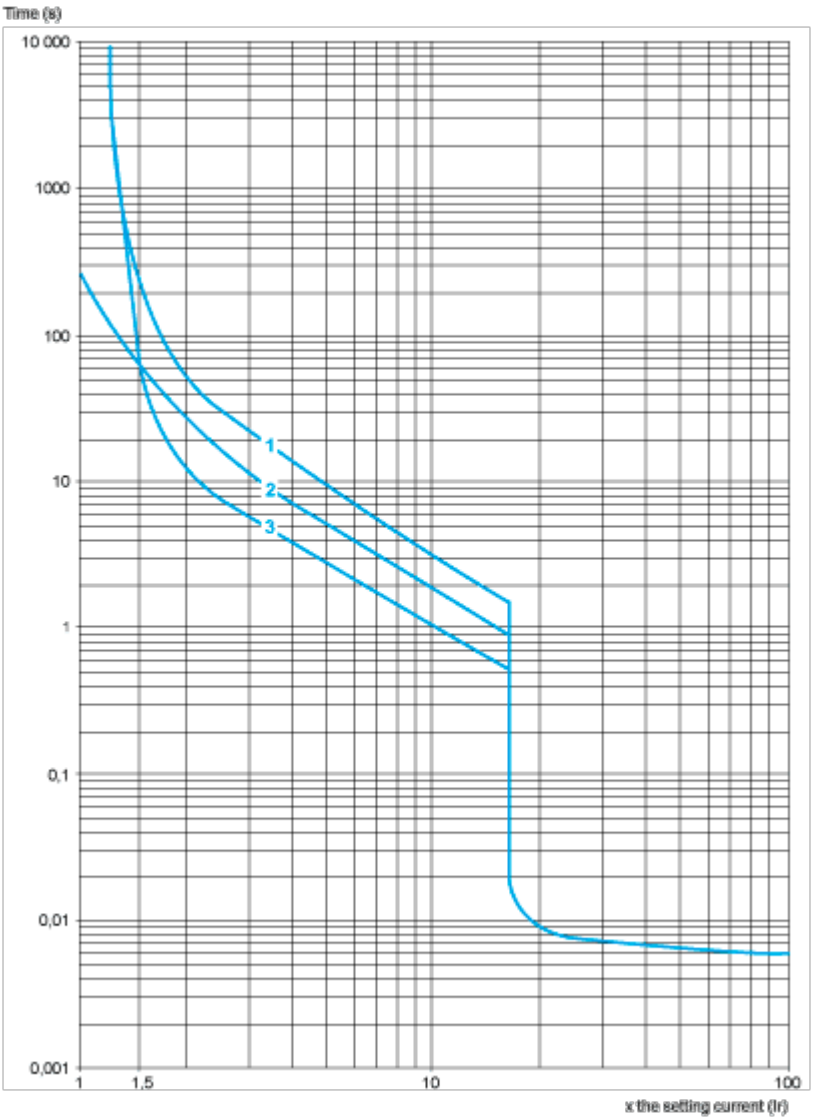
## Certifications & Standards

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

## 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

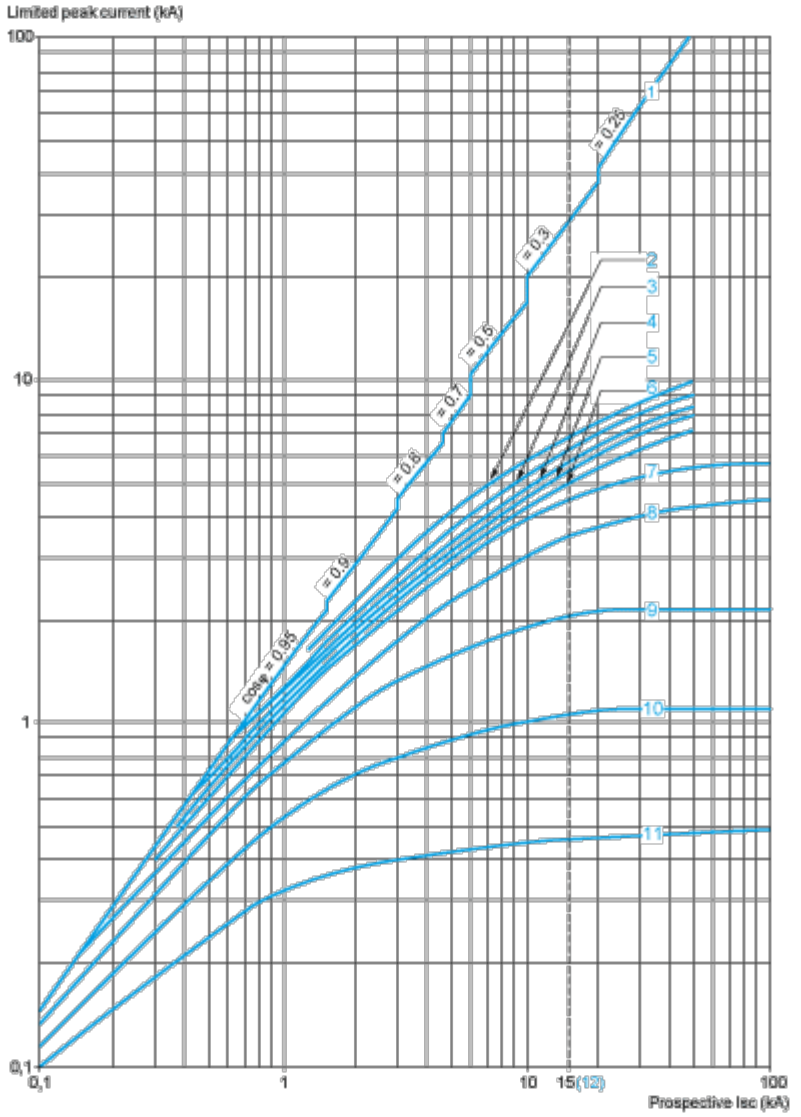
2 2 poles from cold state

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

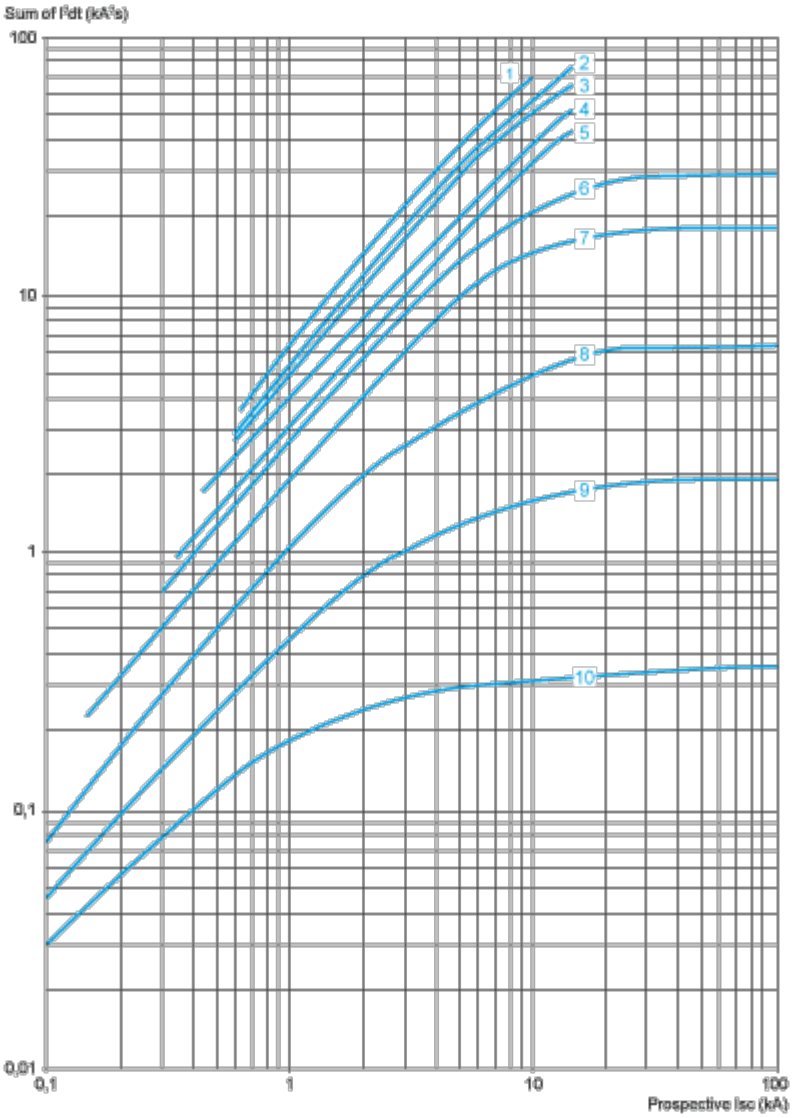
11 1-1.6 A

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 $kA^2s$ 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

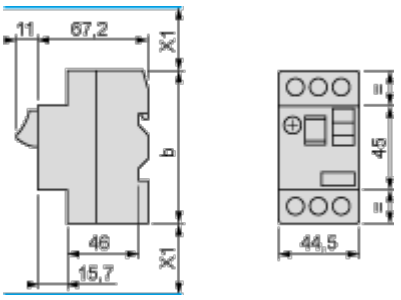
9 1.6-2.5 A

10 1-1.6 A

## Dimensions Drawings

### Dimension

**GV2ME**




(1) Maximum

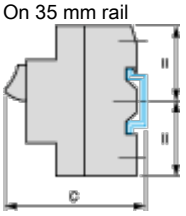
X1 Electrical clearance = 40 mm for Ue ≤ 690 V

| | b |
|---|---|
| GV2ME•• | 89 |
| GV2ME••3 | 101 |

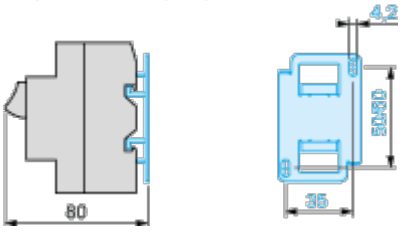
### Mounting

**GV2ME**

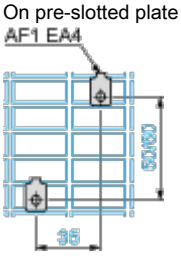
On 35 mm rail



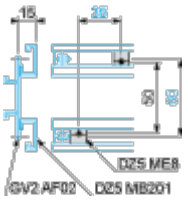

c = 78.5 on AM1 DP200 (35 x 7.5)
c = 86 on AM1 DE200, ED200 (35 x 15)
On panel with adapter plate GV2AF02



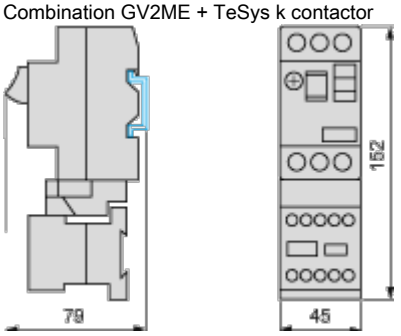

On pre-slotted plate AM1 PA



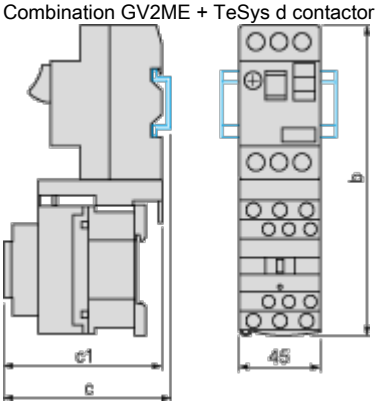

On rails DZ5 MB201




**GV2AF01**
Combination GV2ME + TeSys k contactor

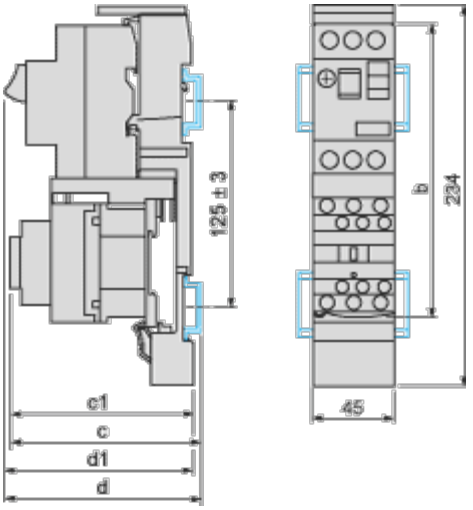



**GV2AF3**
Combination GV2ME + TeSys d contactor



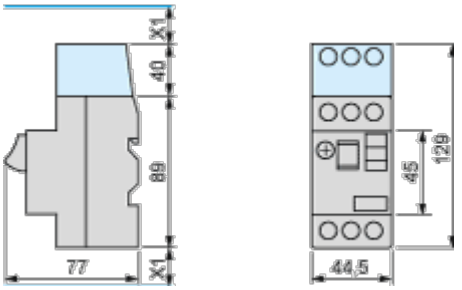

| GV2ME + | LC1D09…D18 | LC1D25 and D32 |
|---|---|---|
| b | 176.4 | 186.8 |
| c1 | 94.1 | 100.4 |
| c | 99.6 | 105.9 |

**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 |

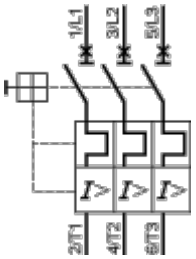
**GV2ME + GV1L3 (Current Limiter)**

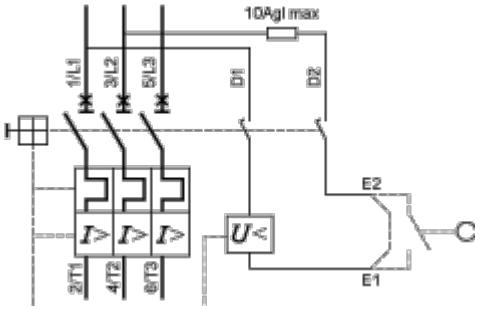



X1 = 10 mm for Ue = 230 V or 30 mm for 230 V < Ue ≤ 690 V

## Connections and Schema

**GV2ME•• and GV2RT**




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