# Product data sheet

Specifications



## Motor circuit breaker,TeSys Deca frame 2,3P,20-25A,thermal magnetic,push button,screw clamp terminals,bulk qty

GV2ME22TQ

## Main

| | |
|---|---|
| **Range** | TeSys Deca |
| **Product name** | TeSys GV2 |
| **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 60947-2 |
| **Motor power kW** | 11 kW at 400/415 V AC 50/60 Hz<br>15 kW at 500 V AC 50/60 Hz |
| **Breaking capacity** | 50 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>6 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>4 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>40 % 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** | 25 A |
| **Thermal protection adjustment range** | 20…25 A conforming to IEC 60947-2 |
| **Magnetic tripping current** | 388.3 A |
| **[Ith] conventional free air thermal current** | 25 A conforming to IEC 60947-2 |
| **[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 |

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

| | |
|---|---|
| **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** | Uninterrupted conforming to IEC 60947-4-1 |
| **Connections - terminals** | Power circuit: screw clamp terminal 2 cable(s) 1…6 mm² - solid<br>Power circuit: screw clamp terminal 2 cable(s) 1.5…6 mm² - flexible without cable end<br>Power circuit: screw clamp terminal 2 cable(s) 1…4 mm² - flexible with cable end |
| **Tightening torque** | 1.7 N.m - on screw clamp terminal |
| **Fixing mode** | 35 mm symmetrical DIN rail: clipped<br>Panel: screwed (with adaptor plate) |
| **Mounting position** | Horizontal<br>Vertical |
| **Width** | 45 mm |
| **Height** | 89 mm |
| **Depth** | 78.5 mm |
| **Net weight** | 0.26 kg |
| **Quantity per set** | Set of 24 |
| **Colour** | Dark grey |

## Environment

| | |
|---|---|
| **Standards** | EN/IEC 60947-2<br>EN/IEC 60947-4-1<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1<br>IEC/EN 60335-2-40:Annex JJ<br>IEC/EN 60335-1:Clause 30.2 |
| **Product certifications** | CE<br>UKCA<br>CCC<br>cULus<br>EAC<br>ATEX<br>LROS (Lloyds register of shipping)<br>BV<br>RINA<br>DNV-GL |
| **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** | 7.800 cm |
| **Package 1 Length** | 8.800 cm |
| **Package 1 Weight** | 264.000 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** | 7.250 kg |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

### Environmental footprint

| | |
|---|---|
| Total lifecycle Carbon footprint | **11 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **2 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0.1 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **9 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **0.5 kg CO2 eq.** |
| Environmental Disclosure | **Product Environmental Profile** |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **Yes** |
| SCIP Number | **04104e70-ba29-493c-b2cc-b5837d1f879b** |
| EU RoHS Directive | **Compliant By Exemption** |
| REACh Regulation | **Reference contains Substances of Very High Concern above the threshold** |

## Use Again

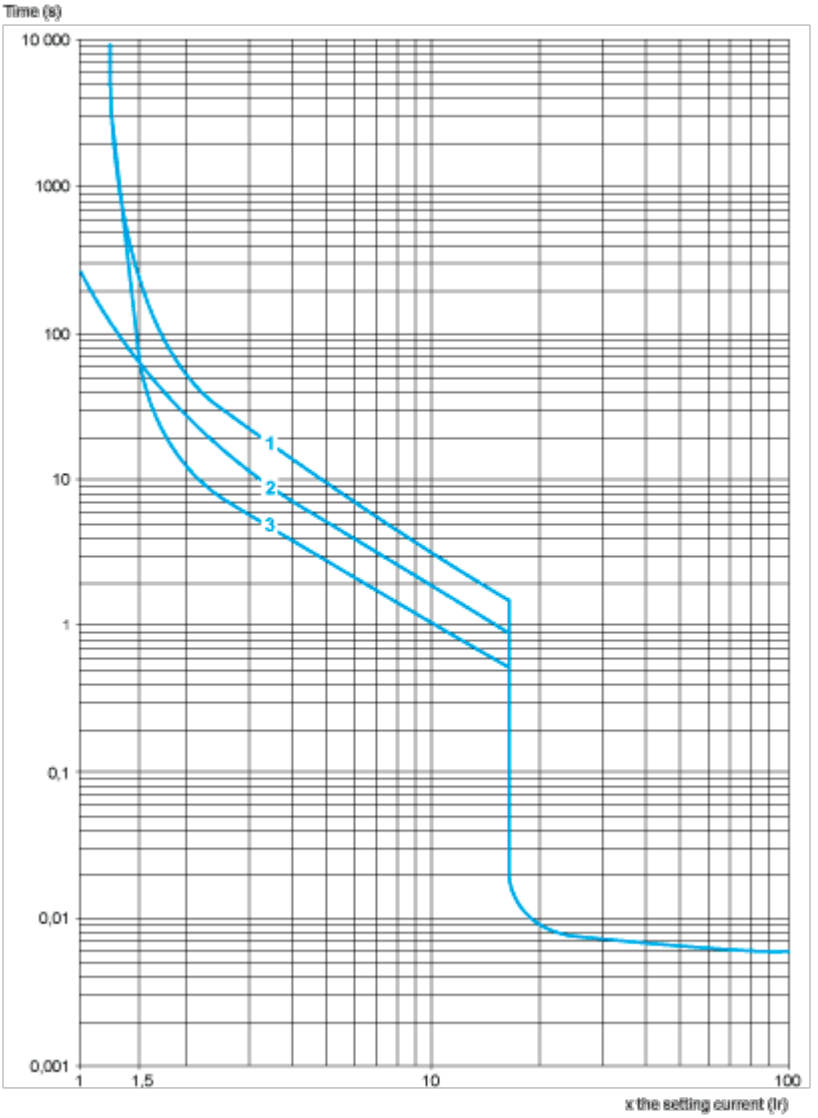
### Repack and remanufacture

| | |
|---|---|
| Recyclability potential, in % | **49** |
| End of life manual availability | **End of Life Information** |
| Take-back | **No** |
| WEEE Label | **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins** |

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

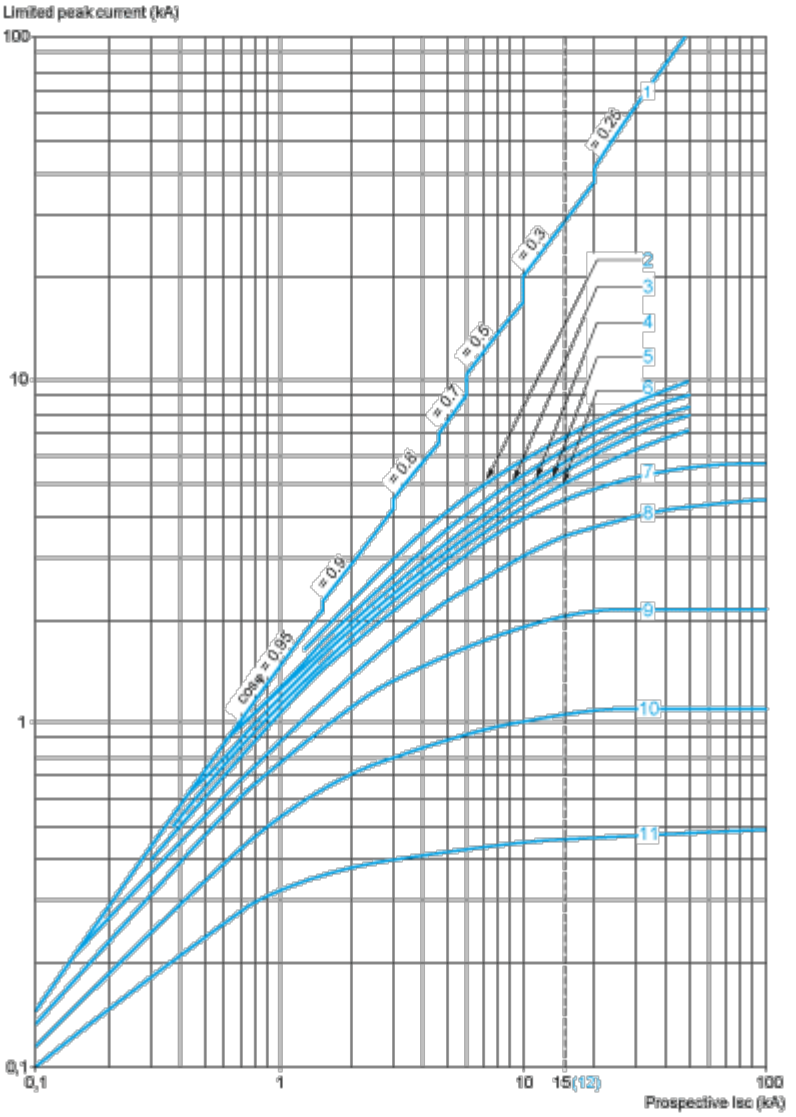
2 2 poles from cold state

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

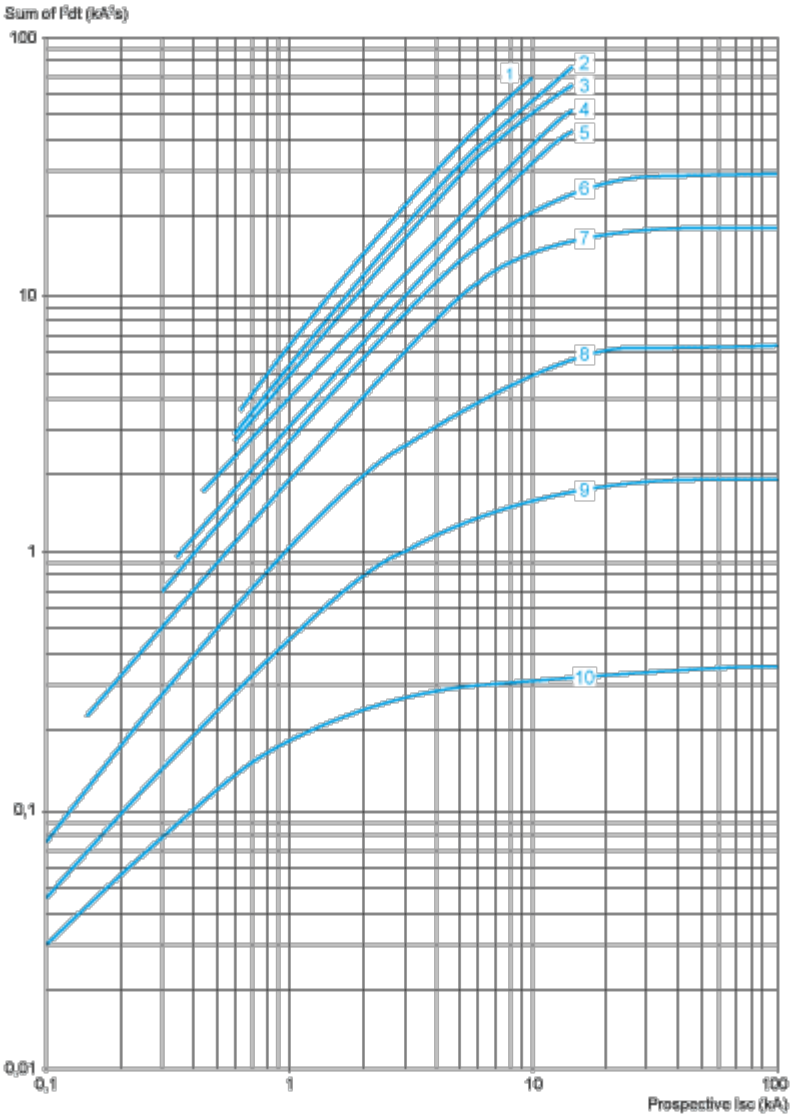
11 1-1.6 A

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

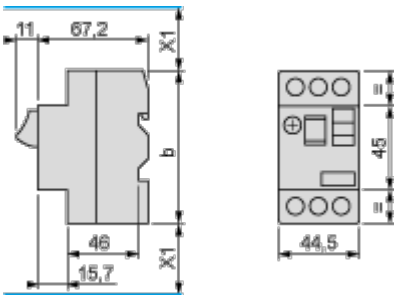
9 1.6-2.5 A

10 1-1.6 A

## Dimensions Drawings

### Dimension

**GV2ME**




(1) Maximum

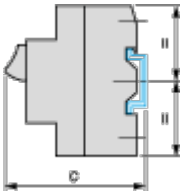
X1 Electrical clearance = 40 mm for Ue ≤ 690 V

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

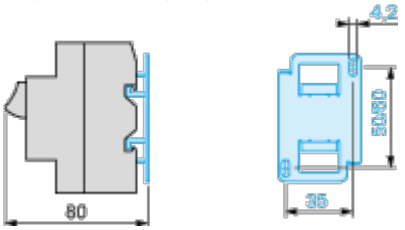
### Mounting

**GV2ME**

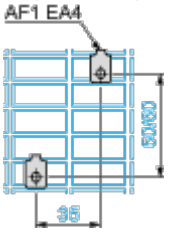
On 35 mm rail



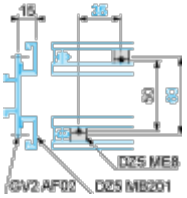

c = 78.5 on AM1 DP200 (35 x 7.5)
c = 86 on AM1 DE200, ED200 (35 x 15)
On panel with adapter plate GV2AF02



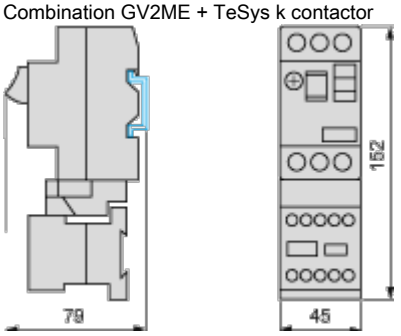

On pre-slotted plate AM1 PA



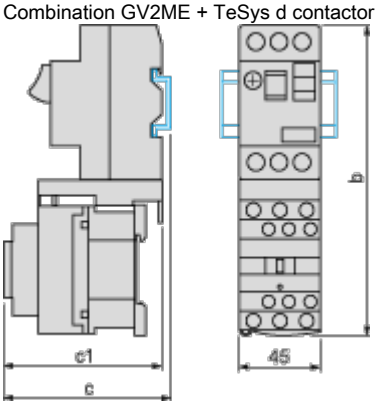

On rails DZ5 MB201




**GV2AF01**
Combination GV2ME + TeSys k contactor

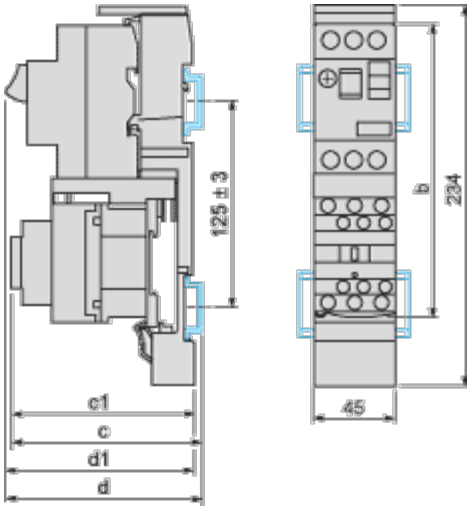



**GV2AF3**
Combination GV2ME + TeSys d contactor



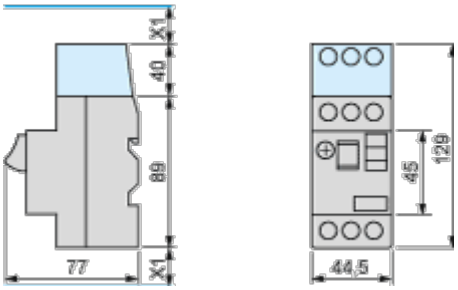

| GV2ME + | LC1D09…D18 | LC1D25 and D32 |
|---|---|---|
| b | 176.4 | 186.8 |
| c1 | 94.1 | 100.4 |
| c | 99.6 | 105.9 |

**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 |

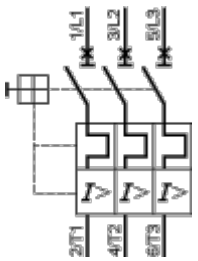
**GV2ME + GV1L3 (Current Limiter)**




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**

