

# Product data sheet

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 IEC 60947-2<br>AC-3 IEC 60947-4-1   |
| Network frequency                                   | 50/60 Hz IEC 60947-4-1   |
| Fixing mode   | 35 mm symmetrical DIN rail clipped<br>Panel screwed with adaptor plate)  |
| Motor power kW                                      | 0.25 kW 400/415 V AC 50/60 Hz<br>0.55 kW 690 V AC 50/60 Hz   |
| Breaking capacity                                   | 100 kA Icu 230/240 V AC 50/60 Hz IEC 60947-2<br>100 kA Icu 400/415 V AC 50/60 Hz IEC 60947-2<br>100 kA Icu 440 V AC 50/60 Hz IEC 60947-2<br>100 kA Icu 500 V AC 50/60 Hz IEC 60947-2<br>100 kA Icu 690 V AC 50/60 Hz IEC 60947-2 |
| [Ics] rated service short-circuit breaking capacity | 100 % 230/240 V AC 50/60 Hz IEC 60947-2<br>100 % 400/415 V AC 50/60 Hz IEC 60947-2<br>100 % 440 V AC 50/60 Hz IEC 60947-2<br>100 % 500 V AC 50/60 Hz IEC 60947-2<br>100 % 690 V AC 50/60 Hz IEC 60947-2                          |
| Control type  | Push-button  |
| [In] rated current                                  | 1 A  |
| Thermal protection adjustment range                 | 0.63...1 A IEC 60947-4-1   |
| Magnetic tripping current                           | 13 A   |
| [Ith] conventional free air thermal current         | 1 A IEC 60947-4-1  |
| [Ue] rated operational voltage                      | 690 V AC 50/60 Hz IEC 60947-2  |
| [Ui] rated insulation voltage                       | 690 V AC 50/60 Hz IEC 60947-2  |

|   |   |
|---|---|
| <b>[Uimp] rated impulse withstand voltage</b> | 6 kV IEC 60947-2                            |
| <b>Phase failure sensitivity</b>              | Yes IEC 60947-4-1                           |
| <b>Suitability for isolation</b>              | Yes 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 AC-3 415 V In                 |
| <b>Rated duty</b>                             | Continuous IEC 60947-4-1                    |
| <b>Tightening torque</b>                      | 15.05 lbf.in (1.7 N.m) screw clamp terminal |
| <b>Width</b>                                  | 1.77 in (45 mm)                             |
| <b>Height</b>                                 | 3.50 in (89 mm)                             |
| <b>Depth</b>                                  | 3.09 in (78.5 mm)                           |
| <b>Net weight</b>                             | 0.62 lb(US) (0.28 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 IEC 60529  |
| <b>Climatic withstand</b>                    | IACS E10  |
| <b>Ambient air temperature for storage</b>   | -40...176 °F (-40...80 °C)  |
| <b>Fire resistance</b>                       | 1760 °F (960 °C) IEC 60695-2-11   |
| <b>Ambient air temperature for operation</b> | -4...140 °F (-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>             | 1.77 in (4.500 cm)   |
| <b>Package 1 Width</b>              | 3.35 in (8.500 cm)   |
| <b>Package 1 Length</b>             | 3.74 in (9.500 cm)   |
| <b>Package 1 Weight</b>             | 8.15 oz (231.000 g)  |
| <b>Unit Type of Package 2</b>       | S02                  |
| <b>Number of Units in Package 2</b> | 24                   |
| <b>Package 2 Height</b>             | 5.91 in (15.000 cm)  |
| <b>Package 2 Width</b>              | 11.81 in (30.000 cm) |

|                                     |                            |
|-------------------------------------|----------------------------|
| <b>Package 2 Length</b>             | 15.75 in (40.000 cm)       |
| <b>Package 2 Weight</b>             | 12.78 lb(US) (5.799 kg)    |
| <b>Unit Type of Package 3</b>       | P12                        |
| <b>Number of Units in Package 3</b> | 768                        |
| <b>Package 3 Height</b>             | 35.43 in (90.000 cm)       |
| <b>Package 3 Width</b>              | 31.50 in (80.000 cm)       |
| <b>Package 3 Length</b>             | 47.24 in (120.000 cm)      |
| <b>Package 3 Weight</b>             | 391.12 lb(US) (177.408 kg) |

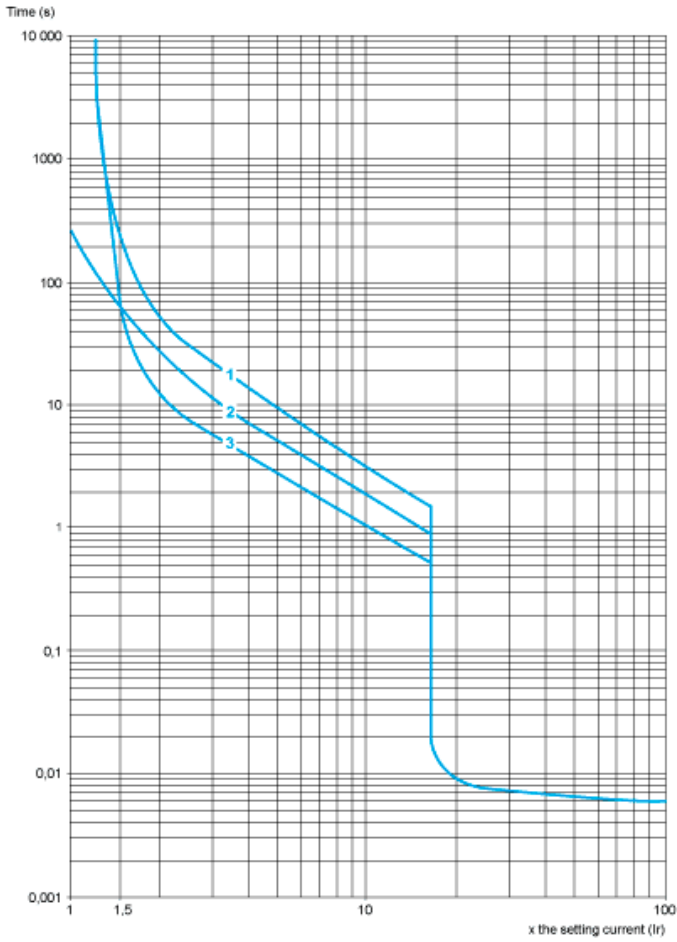
## Offer Sustainability

|                                   |   |
|-----------------------------------|---|
| <b>Sustainable offer status</b>   | Green Premium product   |
| <b>REACH Regulation</b>           | <a href="#">REACH Declaration</a>   |
| <b>EU RoHS Directive</b>          | Compliant<br><a href="#">EU RoHS Declaration</a>  |
| <b>Mercury free</b>               | Yes   |
| <b>China RoHS Regulation</b>      | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information       |
| <b>RoHS exemption information</b> | Yes   |
| <b>Environmental Disclosure</b>   | <a href="#">Product Environmental Profile</a>   |
| <b>Circularity Profile</b>        | <a href="#">End of Life Information</a>   |
| <b>WEEE</b>                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

## Contractual warranty

|                 |           |
|-----------------|-----------|
| <b>Warranty</b> | 18 months |
|-----------------|-----------|

**Thermal-Magnetic Tripping Curves for GV2ME and GV2P**  
Average Operating Times at 20 °C Related to Multiples of the Setting Current

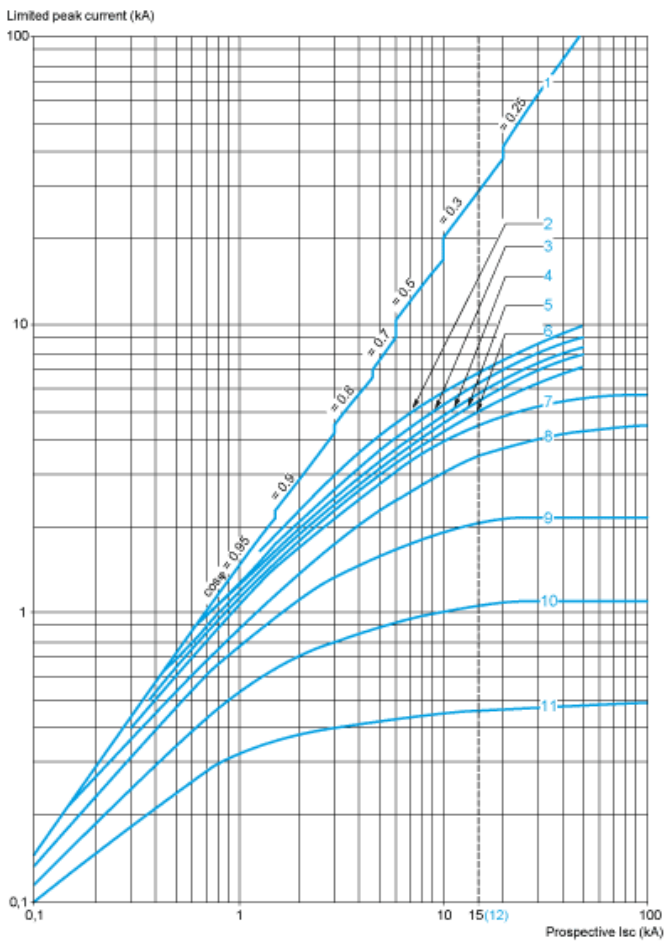


- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state

**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**

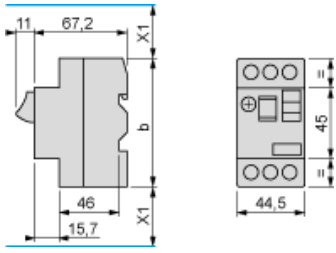
Sum of I<sup>2</sup>dt = f (prospective Isc) at 1.05 Ue = 435 V



- 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**

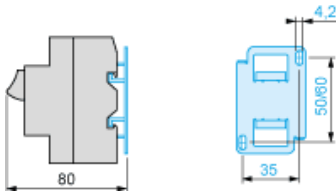
**GV2ME**

On 35 mm rail

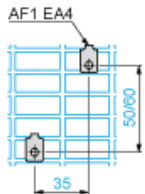


c = 78.5 on AM1 DP200 (35 x 7.5)  
c = 86 on AM1 DE200, ED200 (35 x 15)

On panel with adapter plate GV2AF02



On pre-slotted plate AM1 PA

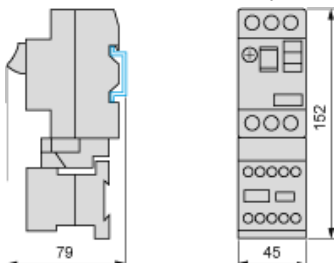


On rails DZ5 MB201



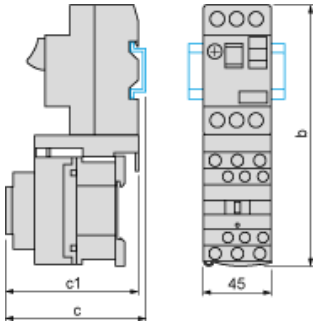
**GV2AF01**

Combination GV2ME + TeSys k contactor



**GV2AF3**

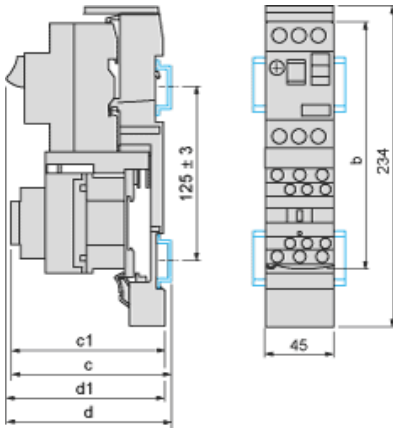
Combination GV2ME + TeSys d contactor



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

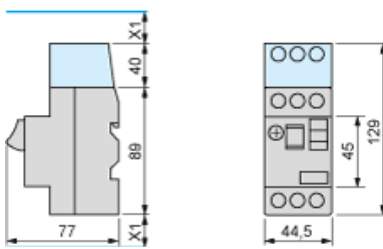
GV2AF4 + LAD311

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          |

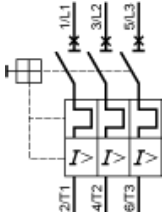
GV2ME + GV1L3 (Current Limiter)



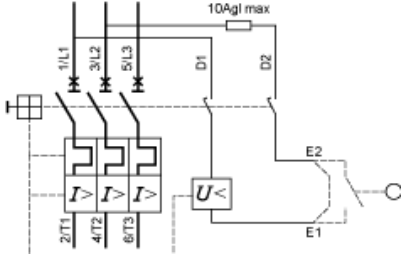
X1 = 10 mm for Ue = 230 V or 30 mm for 230 V < Ue ≤ 690 V



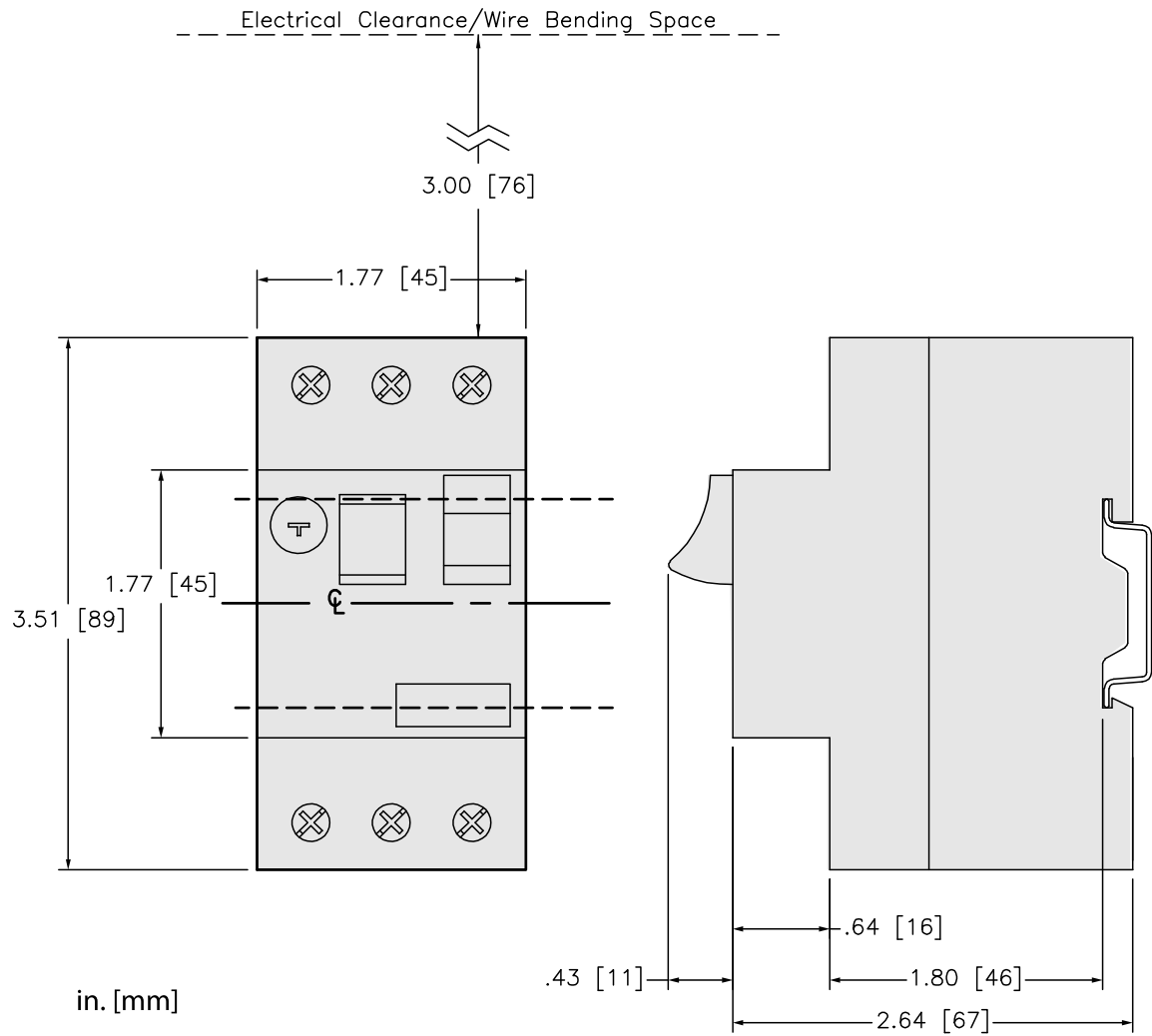
## GV2ME•• and GV2RT



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



**Dimensions**



**Recommended replacement(s)**