

# Product datasheet

Specifications



## Motor circuit breaker, TeSys GV2, 3P, 2.5-4 A, thermal magnetic, spring terminals

Local distributor code: 381806716    GV2ME083

### Main

|                           |                          |
|---------------------------|--------------------------|
| Range of product          | TeSys GV2                |
| Range                     | TeSys Deca<br>TeSys Deca |
| Device short name         | GV2ME                    |
| Product name              | TeSys GV2<br>TeSys Deca  |
| Product or component type | Motor circuit breaker    |
| Device application        | Motor protection         |
| Trip unit technology      | Thermal-magnetic         |

### Complementary

|                                                     |                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Poles description                                   | 3P                                                                                                                                                                                                                                                                                                                  |
| Network type                                        | AC                                                                                                                                                                                                                                                                                                                  |
| Utilisation category                                | AC-3 conforming to IEC 60947-4-1<br>Category A conforming to IEC 60947-2                                                                                                                                                                                                                                            |
| 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)                                                                                                                                                                                                                                          |
| Operating position                                  | Any position                                                                                                                                                                                                                                                                                                        |
| Motor power kW                                      | 1.1 kW at 400/415 V AC 50/60 Hz<br>1.5 kW at 400/415 V AC 50/60 Hz<br>1.5 kW at 500 V AC 50/60 Hz<br>2.2 kW at 500 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>3 kA Icu at 690 V AC 50/60 Hz conforming to IEC 60947-2 |
| [Ics] rated service short-circuit breaking capacity | 100 % at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>100 % at 230/240 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 400/415 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                                  | 4 A                                                                                                                                                                                                                                                                                                                 |
| Thermal protection adjustment range                 | 2.5...4 A                                                                                                                                                                                                                                                                                                           |
| Magnetic tripping current                           | 51 A                                                                                                                                                                                                                                                                                                                |

|                                             |                                                                                                        |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------|
| [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                                                            |
| [Ith] conventional free air thermal current | 4 A conforming to IEC 60947-4-1                                                                        |
| [Uimp] rated impulse withstand voltage      | 6 kV conforming to IEC 60947-2                                                                         |
| Power dissipation per pole                  | 2.5 W                                                                                                  |
| Mechanical durability                       | 100000 cycles                                                                                          |
| Electrical durability                       | 100000 cycles for AC-3 at 415 V at 415 V                                                               |
| Maximum operating rate                      | 25 cyc/h                                                                                               |
| Rated duty                                  | Continuous conforming to IEC 60947-4-1                                                                 |
| Mechanical robustness                       | Shocks: 30 Gn conforming to IEC 60068-2-27<br>Vibrations: 5 Gn, 5...150 Hz conforming to IEC 60068-2-6 |
| Phase failure sensitivity                   | Yes conforming to IEC 60947-4-1                                                                        |
| Height                                      | 101 mm                                                                                                 |
| Width                                       | 45 mm                                                                                                  |
| Depth                                       | 78.5 mm                                                                                                |
| Net weight                                  | 0.28 kg                                                                                                |
| Colour                                      | Dark grey                                                                                              |
| Suitability for isolation                   | Yes conforming to IEC 60947-1 § 7-1-6                                                                  |

## Environment

|                                       |                                                                                                       |
|---------------------------------------|-------------------------------------------------------------------------------------------------------|
| Standards                             | EN/IEC 60947-2<br>EN/IEC 60947-4-1                                                                    |
| Product certifications                | CCC<br>UL<br>CSA<br>EAC<br>ATEX<br>BV<br>LROS (Lloyds register of shipping)<br>UKCA<br>DNV-GL<br>RINA |
| Climatic withstand                    | conforming to IACS E10                                                                                |
| IK degree of protection               | IK04                                                                                                  |
| IP degree of protection               | IP20 conforming to IEC 60529                                                                          |
| Ambient air temperature for storage   | -40...80 °C                                                                                           |
| Fire resistance                       | 960 °C conforming to IEC 60695-2-11                                                                   |
| Operating altitude                    | 2000 m                                                                                                |
| Ambient air temperature for operation | -20...60 °C                                                                                           |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Weight             | 293.0 g |
| Package 1 Height             | 5.5 cm  |
| Package 1 width              | 11 cm   |
| Package 1 Length             | 8.5 cm  |

|                              |          |
|------------------------------|----------|
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 20       |
| Package 2 Weight             | 6.112 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

### Offer Sustainability

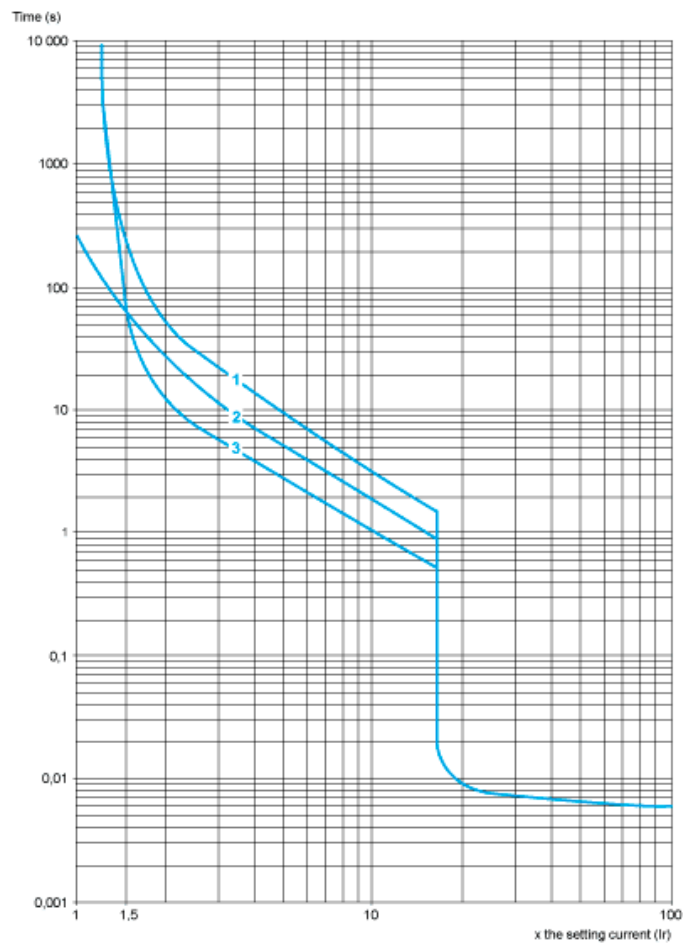
|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                         |
| 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>                                                                               |
| 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

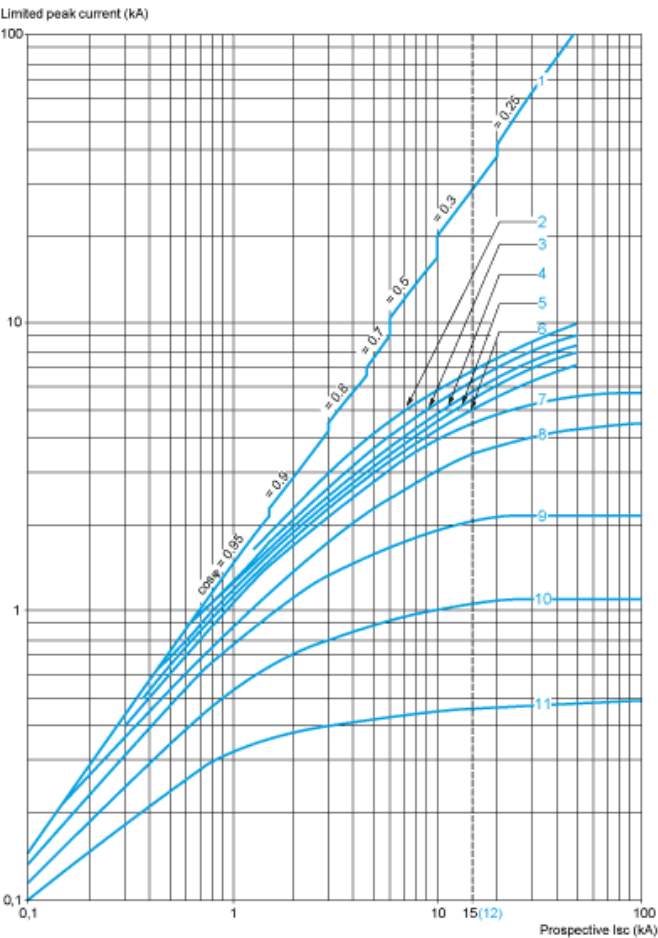
2 poles from cold state
- 3

3 poles from hot state

Current Limitation on Short-Circuit for GV2ME and GV2P (3-Phase 400/415 V))

Dynamic Stress

I peak = f (prospective I<sub>sc</sub>) at 1.05 U<sub>e</sub> = 435 V

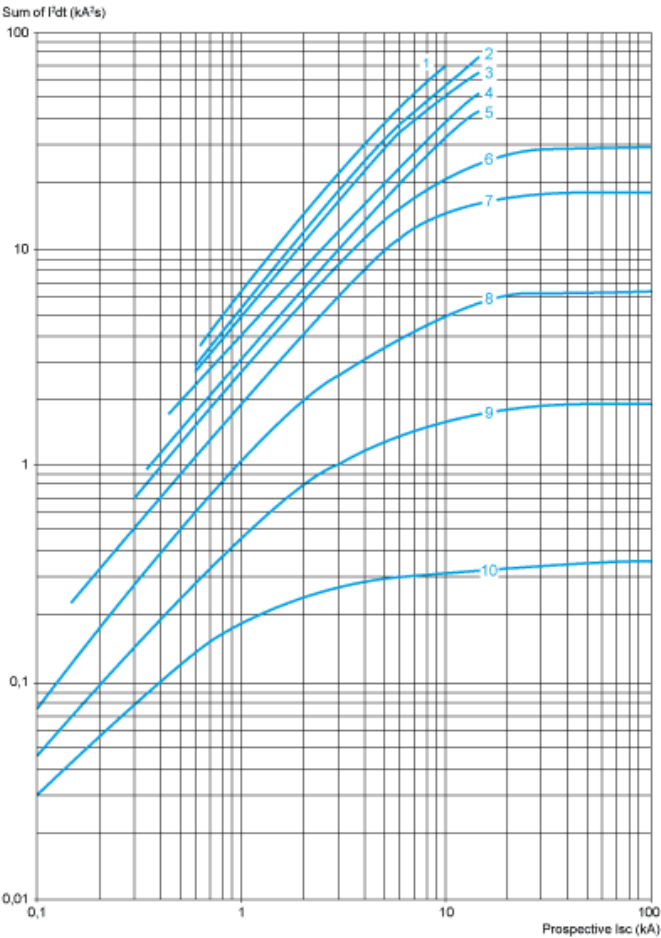


- 1 Maximum peak current
- 2 24-32 A
- 3 20-25 A
- 4 17-23 A
- 5 13-18 A
- 6 9-14 A
- 7 6-10 A
- 8 4-6.3 A
- 9 2.5-4 A
- 10 1.6-2.5 A
- 11 1-1.6 A
- 12 Limit of rated ultimate breaking capacity on short-circuit of GV2ME (14, 18, 23, and 25 A ratings).

Thermal Limit on Short-Circuit for GV2ME

Thermal Limit in kA<sup>2</sup>s in the Magnetic Operating Zone

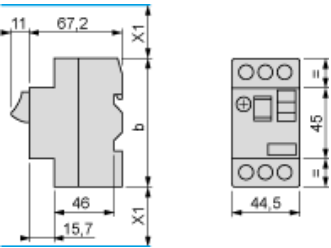
Sum of I<sup>2</sup>dt = f (prospective Isc) at 1.05 Ue = 435 V



- 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

Dimension

GV2ME



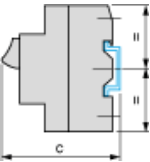
(1) Maximum  
X1 Electrical clearance = 40 mm for Ue ≤ 690 V

|          | b   |
|----------|-----|
| GV2ME..  | 89  |
| GV2ME..3 | 101 |

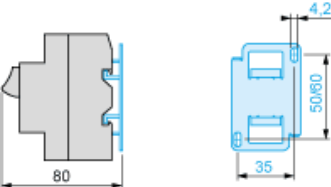
Mounting

GV2ME

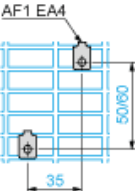
On 35 mm rail



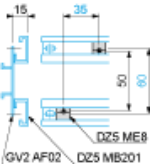
c = 78.5 on AM1 DP200 (35 x 7.5)  
c = 86 on AM1 DE200, ED200 (35 x 15)  
On panel with adapter plate GV2AF02



On pre-slotted plate AM1 PA

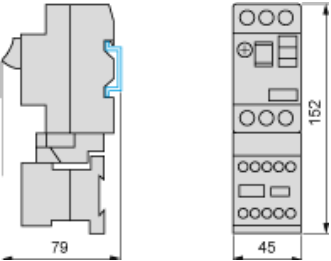


On rails DZ5 MB201



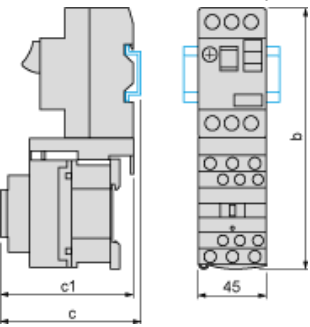
GV2AF01

Combination GV2ME + TeSys k contactor



GV2AF3

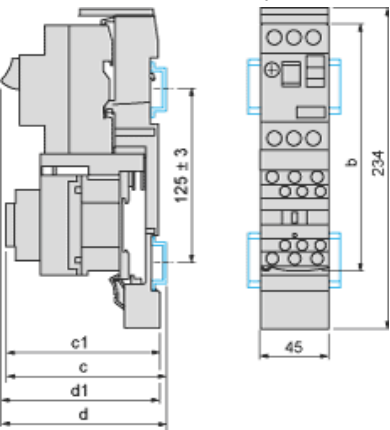
Combination GV2ME + TeSys d contactor



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

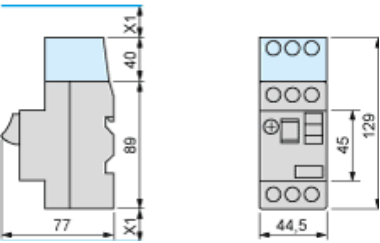
GV2AF4 + LAD311

Combination GV2ME + TeSys d contactor



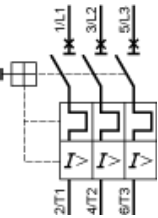
| GV2ME + | LC1D09...D18 | LC1D25 and D32 |
|---------|--------------|----------------|
| b       | 176.4        | 186.8          |
| c1      | 103.1        | 136.4          |
| c       | 135.6        | 141.9          |
| d1      | 107          | 107            |
| d       | 112.5        | 112.5          |

GV2ME + GV1L3 (Current Limiter)



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

GV2ME•• and GV2RT



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

