

## Product data sheet

### Characteristics

# GV2ME20

Motor circuit breaker, TeSys  
Deca, 3P, 13-18A, thermal magnetic, screw  
clamp terminals, button control



### 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                                      | 7.5 kW at 400/415 V AC 50/60 Hz<br>9 kW at 500 V AC 50/60 Hz<br>15 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>3 KA Icu at 690 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 |
| [Ics] rated service short-circuit breaking capacity | 100 % at 230/240 V AC 50/60 Hz conforming to IEC 60947-2<br>75 % at 690 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>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                       |
| Control type                                        | Push-button                                                                                                                                                                                                                                                                                                    |
| [In] rated current                                  | 18 A                                                                                                                                                                                                                                                                                                           |
| Thermal protection adjustment range                 | 13...18 A                                                                                                                                                                                                                                                                                                      |
| Magnetic tripping current                           | 223 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         | 18 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<br>At 415 V                                                                                                                                                                                                                                                                    |
| Maximum operating rate                              | 25 cyc/h                                                                                                                                                                                                                                                                                                       |
| Rated duty                                          | Continuous conforming to IEC 60947-4-1                                                                                                                                                                                                                                                                         |

|                           |                                                                                                        |
|---------------------------|--------------------------------------------------------------------------------------------------------|
| Tightening torque         | 1.7 N.m on screw clamp terminals                                                                       |
| 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                    | 89 mm                                                                                                  |
| Width                     | 45 mm                                                                                                  |
| Depth                     | 78.5 mm                                                                                                |
| Net weight                | 0.26 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             | 283.0 g    |
| Package 1 Height             | 4.5 cm     |
| Package 1 width              | 8.5 cm     |
| Package 1 Length             | 9.5 cm     |
| Unit Type of Package 2       | S02        |
| Number of Units in Package 2 | 24         |
| Package 2 Weight             | 7.044 kg   |
| Package 2 Height             | 15.0 cm    |
| Package 2 width              | 30.0 cm    |
| Package 2 Length             | 40.0 cm    |
| Unit Type of Package 3       | P06        |
| Number of Units in Package 3 | 384        |
| Package 3 Weight             | 120.704 kg |
| Package 3 Height             | 75.0 cm    |
| Package 3 width              | 80.0 cm    |
| Package 3 Length             | 60.0 cm    |

## Offer Sustainability

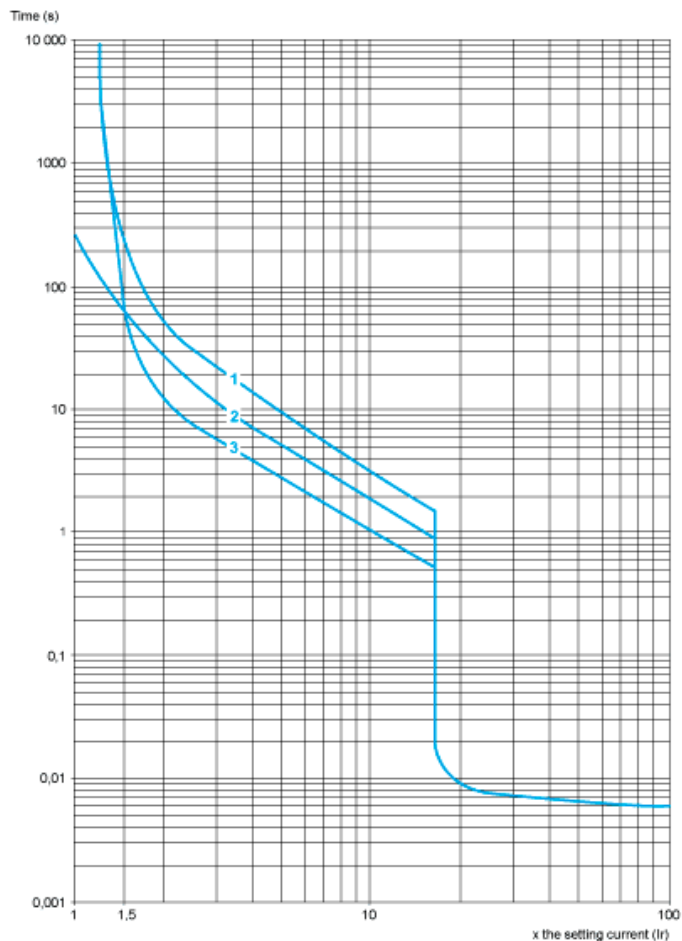
|                            |                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                           |
| REACH Regulation           |  <a href="#">REACH Declaration</a>             |
| EU RoHS Directive          | Compliant  <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>        |
| 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



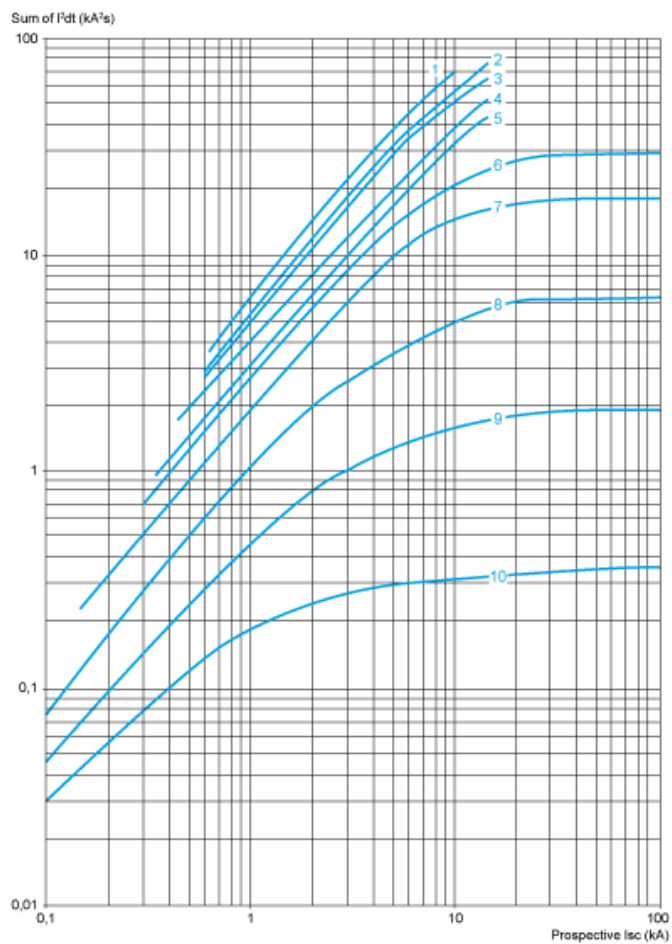
- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state

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

Dynamic Stress

$I_{peak} = f(\text{prospective } I_{sc}) \text{ at } 1.05 U_e = 435 \text{ V}$

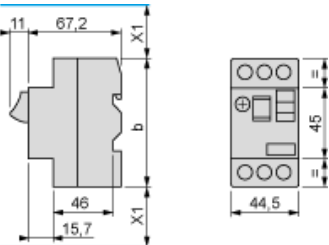




- 1 24-32 A
- 2 20-25 A
- 3 17-23 A
- 4 13-18 A
- 5 9-14 A
- 6 6-10 A
- 7 4-6.3 A
- 8 2.5-4 A
- 9 1.6-2.5 A
- 10 1-1.6 A

Dimension

GV2ME



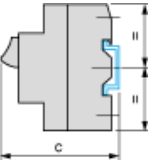
- (1) Maximum  
X1 Electrical clearance = 40 mm for  $U_e \leq 690$  V

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

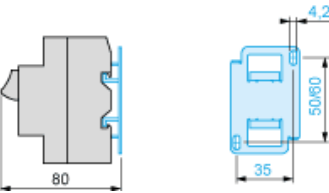
Mounting

GV2ME

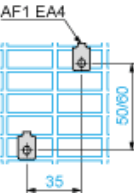
On 35 mm rail



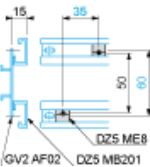
- c = 78.5 on AM1 DP200 (35 x 7.5)  
c = 86 on AM1 DE200, ED200 (35 x 15)  
On panel with adapter plate GV2AF02



On pre-slotted plate AM1 PA

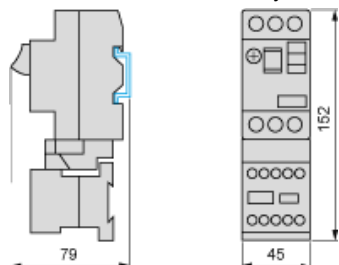


On rails DZ5 MB201



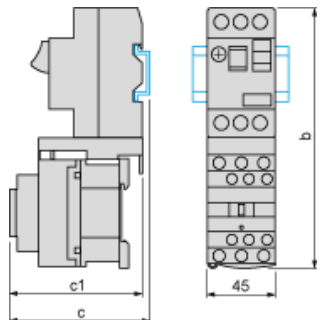
GV2AF01

### Combination GV2ME + TeSys k contactor



### GV2AF3

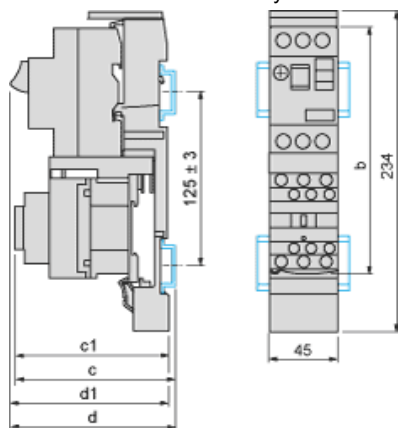
### Combination GV2ME + TeSys d contactor



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

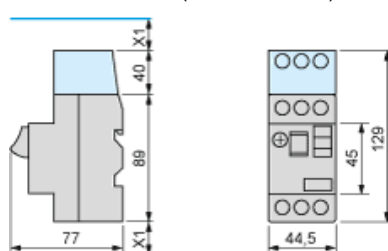
### GV2AF4 + LAD311

### 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          |

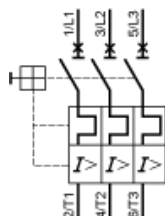
### GV2ME + GV1L3 (Current Limiter)



X1 = 10 mm for  $U_e = 230\text{ V}$  or 30 mm for  $230\text{ V} < U_e \leq 690\text{ V}$



GV2ME•• and GV2RT



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

