

# GV2ME14

Motor circuit breaker, TeSys GV2, 3P, 6-10 A, thermal magnetic, screw clamp terminals



## Main

|                      |                  |
|----------------------|------------------|
| Range                | TeSys            |
| Product name         | TeSys GV2        |
| Device short name    | GV2ME            |
| Device application   | Motor            |
| 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                                      | 3 kW at 400/415 V AC 50/60 Hz<br>4 kW at 400/415 V AC 50/60 Hz<br>4 kW at 500 V AC 50/60 Hz<br>5.5 kW at 690 V AC 50/60 Hz<br>7.5 kW at 690 V AC 50/60 Hz<br>5.5 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>3 kA Icu at 690 V AC 50/60 Hz conforming to IEC 60947-2<br>10 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>15 kA Icu at 440 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                          | 10 A                                                                                                                                                                                                                                  |
| Thermal protection adjustment range         | 6...10 A                                                                                                                                                                                                                              |
| Magnetic tripping current                   | 138 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 | 10 A conforming to IEC 60947-4-1                                                                                                                                                                                                      |
| [Uimp] rated impulse withstand voltage      | IEC 60947-2 6 kV                                                                                                                                                                                                                      |
| Power dissipation per pole                  | 2.5 W                                                                                                                                                                                                                                 |
| Mechanical durability                       | 100000 cycles                                                                                                                                                                                                                         |
| Electrical durability                       | 100000 cycles for AC-3 at 440 V                                                                                                                                                                                                       |
| Maximum operating rate                      | 25 cyc/h                                                                                                                                                                                                                              |
| Rated duty                                  | Continuous conforming to IEC 60947-4-1                                                                                                                                                                                                |
| Connections - terminals                     | Screw clamp terminals 2 cable(s) 1...6 mm <sup>2</sup> solid<br>Screw clamp terminals 2 cable(s) 1.5...6 mm <sup>2</sup> flexible without cable end<br>Screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible with cable end |
| Tightening torque                           | 1.7 N.m on screw clamp terminals                                                                                                                                                                                                      |
| Suitability for isolation                   | Yes conforming to IEC 60947-1                                                                                                                                                                                                         |
| 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                                                                                                                                                                                                                               |

## Environment

|                                       |                                                                                                                  |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Standards                             | EN/IEC 60947-2<br>EN/IEC 60947-4-1<br>CSA C22.2 No 60947-4-1<br>UL 60947-4-1                                     |
| Product certifications                | IECEE CB Scheme<br>UL<br>CSA<br>CCC<br>EAC<br>ATEX<br>BV<br>LROS (Lloyds register of shipping)<br>DNV-GL<br>RINA |
| Protective treatment                  | TH                                                                                                               |
| IP degree of protection               | IP20 conforming to IEC 60529                                                                                     |
| IK degree of protection               | IK04                                                                                                             |
| Ambient air temperature for operation | -20...60 °C                                                                                                      |
| Ambient air temperature for storage   | -40...80 °C                                                                                                      |
| Fire resistance                       | 960 °C conforming to IEC 60695-2-1                                                                               |
| Operating altitude                    | 2000 m                                                                                                           |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 277.33 g |
| Package 1 Height             | 4.5 cm   |
| Package 1 width              | 8.5 cm   |
| Package 1 Length             | 9.3 cm   |

## Offer Sustainability

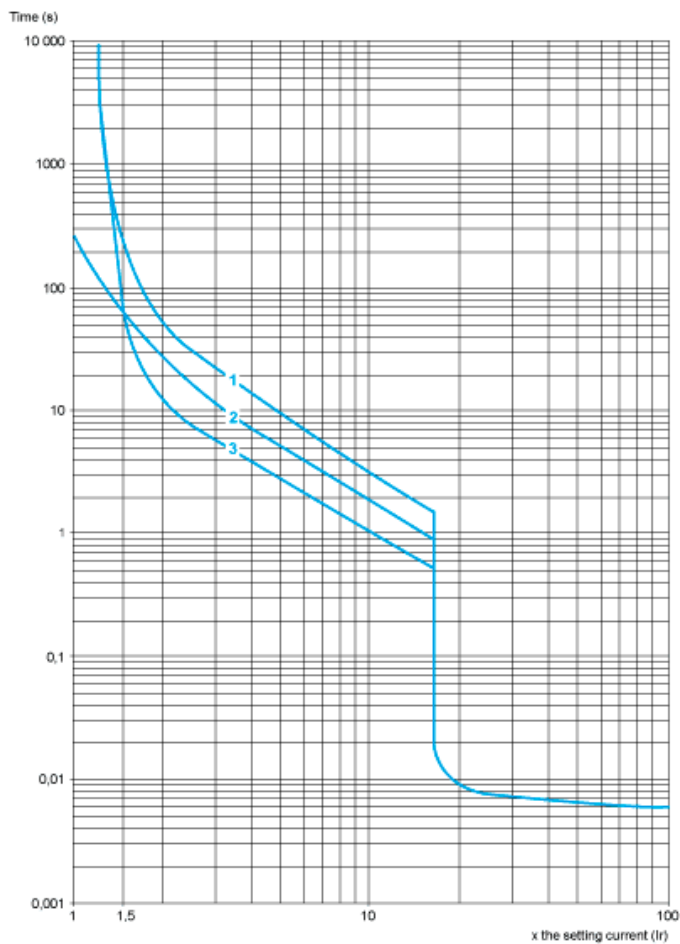
|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 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>                                                                               |
| 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

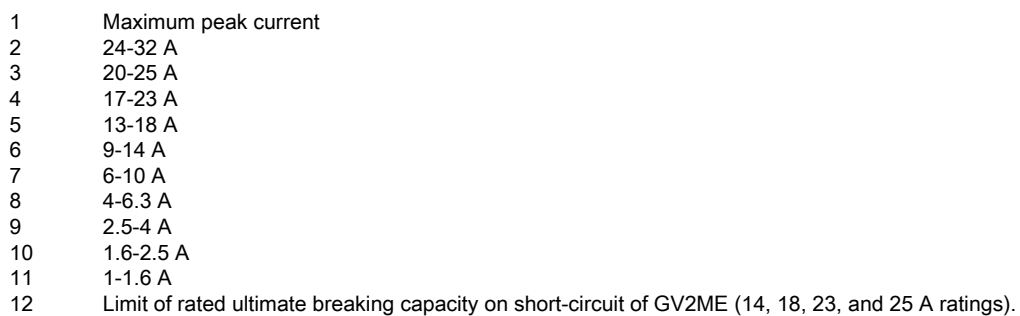


- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state

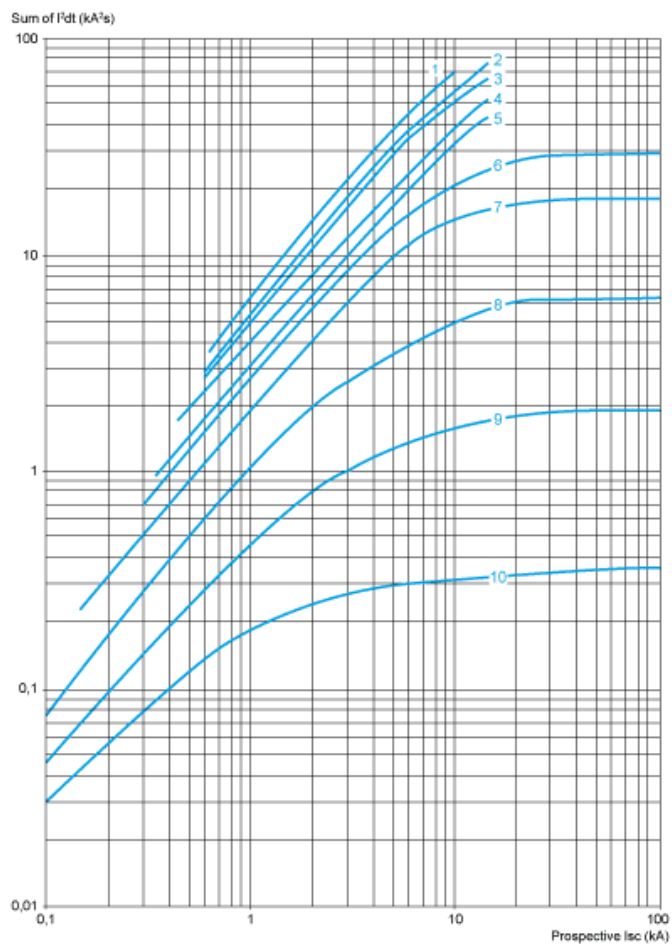
## Current Limitation on Short-Circuit for GV2ME and GV2P (3-Phase 400/415 V))

Dynamic Stress

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



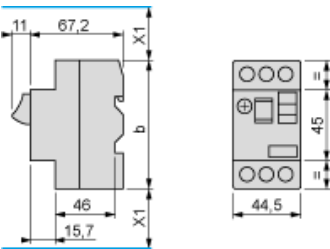
Sum of  $I^2 dt = f$  (prospective Isc) at 1.05 Ue = 435 V



- |    |           |
|----|-----------|
| 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



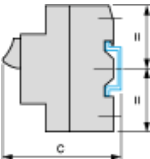
- (1) Maximum  
X1 Electrical clearance = 40 mm for Ue ≤ 690 V

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

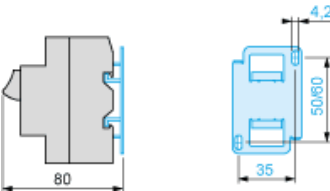
Mounting

GV2ME

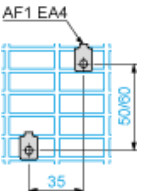
On 35 mm rail



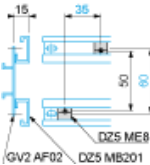
- c = 78.5 on AM1 DP200 (35 x 7.5)  
c = 86 on AM1 DE200, ED200 (35 x 15)  
On panel with adapter plate GV2AF02



On pre-slotted plate AM1 PA

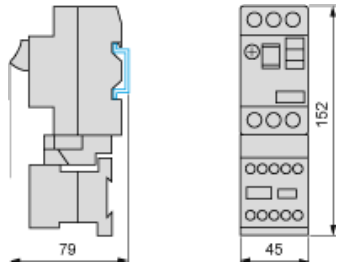


On rails DZ5 MB201



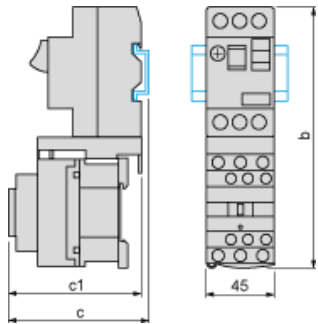
## GV2AF01

Combination GV2ME + TeSys k contactor



## GV2AF3

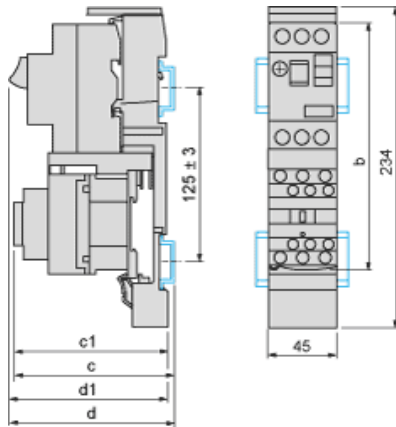
Combination GV2ME + TeSys d contactor



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

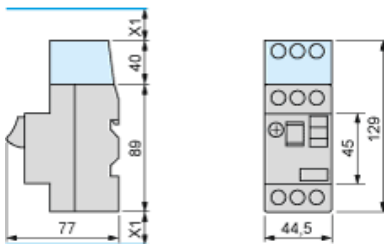
## GV2AF4 + LAD311

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)



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

