



## 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 conforming to IEC 60947-2<br>AC-3 conforming to IEC 60947-4-1  |
| 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)  |
| Motor power kW                                      | 9 kW at 400/415 V AC 50/60 Hz<br>11 kW at 500 V AC 50/60 Hz<br>18.5 kW at 690 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                                  | 23 A  |
| Thermal protection adjustment range                 | 17...23 A conforming to IEC 60947-4-1   |
| Magnetic tripping current                           | 327 A   |
| [Ith] conventional free air thermal current         | 23 A conforming to IEC 60947-4-1  |
| [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 § 7-1-6   |
| Power dissipation per pole                          | 2.5 W   |
| Mechanical durability                               | 100000 cycles   |
| Electrical durability                               | 100000 cycles for AC-3 at 415 V In  |
| Rated duty  | Continuous conforming to IEC 60947-4-1  |
| Width   | 45 mm   |
| Height  | 89 mm   |

|                  |                          |
|------------------|--------------------------|
| Depth            | 78.5 mm                  |
| Product weight   | 0.26 kg                  |
| Colour           | Dark grey                |
| Connection pitch | 13.5 mm without spreader |

## Environment

|                                       |   |
|---------------------------------------|---|
| Standards                             | EN/IEC 60947-2<br>EN/IEC 60947-4-1  |
| Product certifications                | CCC<br>UL<br>CSA<br>EAC<br>ATEX<br>LROS (Lloyds register of shipping)<br>BV<br>RINA<br>DNV-GL<br>UKCA |
| 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             | 4.7 cm   |
| Package 1 Width              | 9.5 cm   |
| Package 1 Length             | 8.5 cm   |
| Package 1 Weight             | 293.0 g  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 24       |
| Package 2 Height             | 15.0 cm  |
| Package 2 Width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 7.334 kg |

## 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   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>  |
| RoHS exemption information | <a href="#">Yes</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   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

## Contractual warranty

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|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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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  $kA^2s$  in the Magnetic Operating Zone

Sum of  $I^2dt = f(\text{prospective } I_{sc})$  at  $1.05 U_e = 435 V$



- 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          |

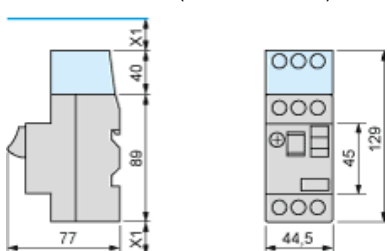
GV2AF4 + LAD311

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

