

## Product data sheet

### Characteristics

## GV2L10

TeSys Deca, Motor circuit breaker, TeSys Deca, 3P, 6.3A, magnetic, rotary handle, screw clamp terminals



### Main

|                           |                         |
|---------------------------|-------------------------|
| Range                     | TeSys Deca              |
| Product name              | TeSys GV2<br>TeSys Deca |
| Product or component type | Motor circuit breaker   |
| Device short name         | GV2L                    |
| Device application        | Motor protection        |
| Trip unit technology      | 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<br>AC-3e conforming to IEC 60947-4-1                                                                                                                                                                                                       |
| Network frequency                                   | 50/60 Hz conforming to IEC 60947-2                                                                                                                                                                                                                                                                                  |
| Fixing mode                                         | 35 mm symmetrical DIN rail: clipped<br>Panel: screwed (with 2 x M4 screws)                                                                                                                                                                                                                                          |
| Motor power kW                                      | 2.2 kW at 400/415 V AC 50/60 Hz<br>3 kW at 500 V AC 50/60 Hz<br>4 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>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>4 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>100 % at 400/415 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 500 V AC 50/60 Hz conforming to IEC 60947-2<br>100 % at 690 V AC 50/60 Hz conforming to IEC 60947-2                        |
| Control type                                        | Rotary handle                                                                                                                                                                                                                                                                                                       |
| [In] rated current                                  | 6.3 A                                                                                                                                                                                                                                                                                                               |
| Magnetic tripping current                           | 78 A                                                                                                                                                                                                                                                                                                                |
| [Ith] conventional free air thermal current         | 6.3 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                                                                                                                                                                                                                                                                                      |
| Suitability for isolation                           | Yes conforming to IEC 60947-1 § 7-1-6                                                                                                                                                                                                                                                                               |
| Power dissipation per pole                          | 1.8 W                                                                                                                                                                                                                                                                                                               |
| Mechanical durability                               | 100000 cycles                                                                                                                                                                                                                                                                                                       |
| Electrical durability                               | 100000 Cycles for AC-3 at 415 V In<br>100000 cycles for AC-3e at 415 V In                                                                                                                                                                                                                                           |
| Rated duty                                          | Continuous conforming to IEC 60947-4-1                                                                                                                                                                                                                                                                              |

|                   |                                   |
|-------------------|-----------------------------------|
| Tightening torque | 1.7 N.m - on screw clamp terminal |
| Width             | 45 mm                             |
| Height            | 89 mm                             |
| Depth             | 97 mm                             |
| Net weight        | 0.33 kg                           |
| Colour            | Dark grey                         |

## Environment

|                                       |                                                                                                                                                             |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                             | EN/IEC 60947-2<br>EN/IEC 60947-4-1<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1                                                                                |
| Product certifications                | CCC[RETURN]UL[RETURN]CSA[RETURN]EAC[RETURN]LROS<br>(Lloyds register of shipping)[RETURN]BV[RETURN]RINA[RETURN]DNV-<br>GL[RETURN]UKCA[RETURN]IECEE CB Scheme |
| 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             | 4.700 cm   |
| Package 1 Width              | 9.300 cm   |
| Package 1 Length             | 10.000 cm  |
| Package 1 Weight             | 317.000 g  |
| Unit Type of Package 2       | S02        |
| Number of Units in Package 2 | 20         |
| Package 2 Height             | 15.000 cm  |
| Package 2 Width              | 30.000 cm  |
| Package 2 Length             | 40.000 cm  |
| Package 2 Weight             | 6.573 kg   |
| Unit Type of Package 3       | P06        |
| Number of Units in Package 3 | 320        |
| Package 3 Height             | 75.000 cm  |
| Package 3 Width              | 60.000 cm  |
| Package 3 Length             | 80.000 cm  |
| Package 3 Weight             | 113.168 kg |

## Offer Sustainability

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

Contractual warranty

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

### Tripping Curves for GV2L or LE Combined with Thermal Overload Relay LRD or LR2K

Average Operating Times at 20 °C Related to Multiples of the Setting Current

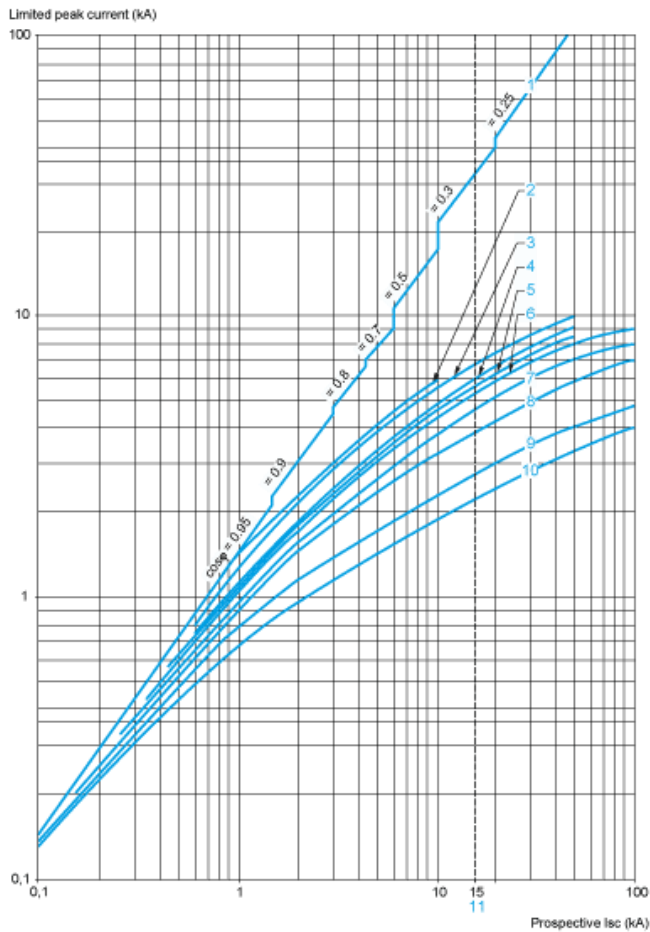


- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state

### Current Limitation on Short-Circuit for GV2L and GV2LE Only (3-Phase 400/415 V)

Dynamic Stress

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

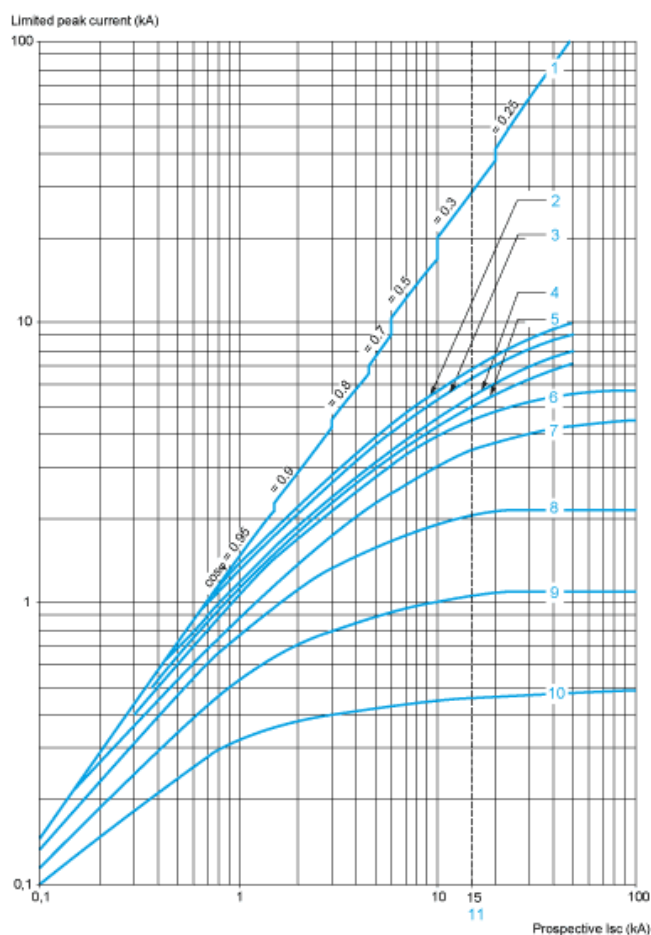


- 1 Maximum peak current
- 2 32 A
- 3 25 A
- 4 18 A
- 5 14 A
- 6 10 A
- 7 6.3 A
- 8 4 A
- 9 2.5 A
- 10 1.6 A
- 11 Limit of rated ultimate breaking capacity on short-circuit of GV2LE (14, 18, 23, and 25 A ratings).

### Current Limitation on Short-Circuit for GV2L and GV2LE + Thermal Overload Relay LRD or LR2K (3-Phase 400/415 V)

Dynamic Stress

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

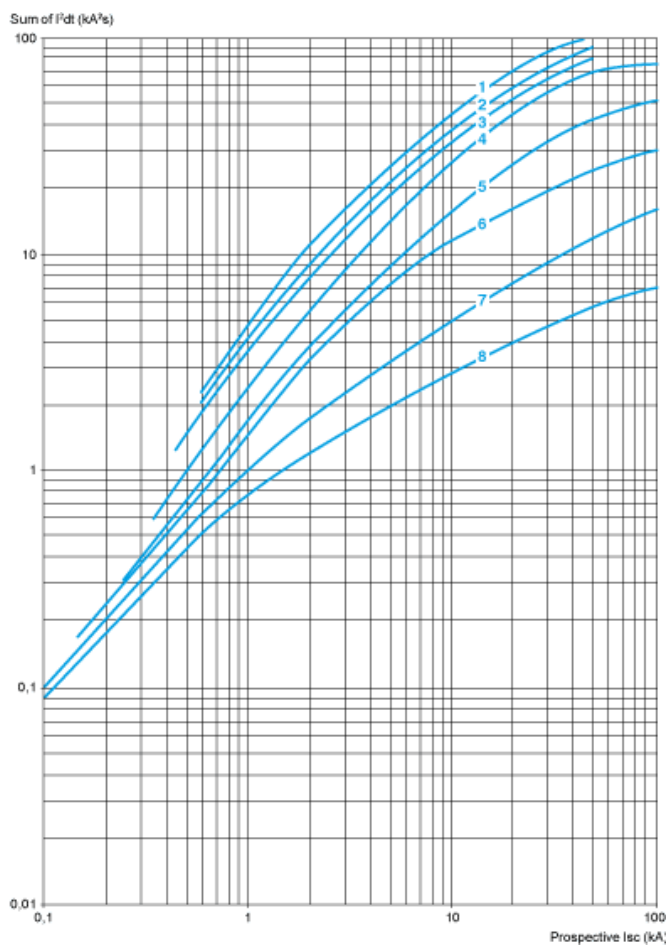


- 1 Maximum peak current
- 2 32 A
- 3 25 A
- 4 18 A
- 5 14 A
- 6 10 A
- 7 6.3 A
- 8 4 A
- 9 2.5 A
- 10 1.6 A
- 11 Limit of rated ultimate breaking capacity on short-circuit of GV2LE (14, 18, 23, and 25 A ratings).

### Thermal Limit on Short-Circuit for GV2L Only

Thermal Limit in  $\text{kA}^2\text{s}$  in the Magnetic Operating Zone

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

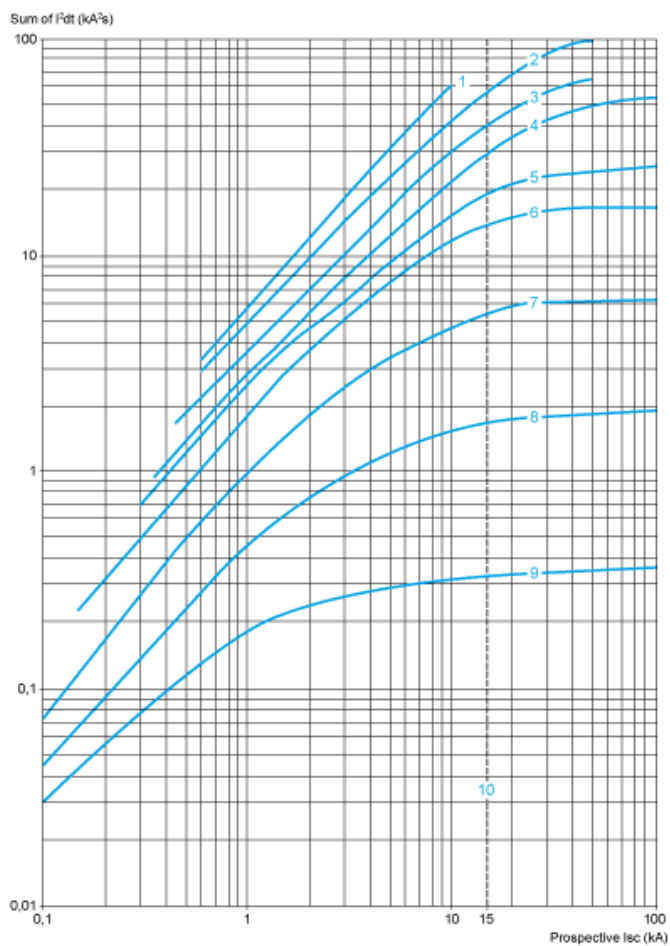


- 1 25 A and 32 A
- 2 18 A
- 3 14 A
- 4 10 A
- 5 6.3 A
- 6 4 A
- 7 2.5 A
- 8 1.6 A

### Thermal Limit on Short-Circuit for GV2L and GV2LE + Thermal Overload Relay LRD or LR2K

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

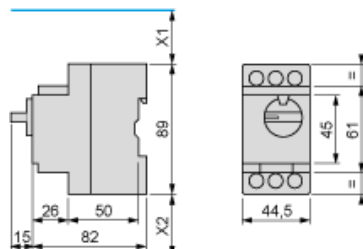
Sum of  $I^2dt = f$  (prospective Isc) at 1.05 Ue = 435 V



- 1 32 A (GV2LE32)
- 2 25 A and 32 A (GV2L32)
- 3 18 A
- 4 14 A
- 5 10 A
- 6 6.3 A
- 7 4 A
- 8 2.5 A
- 9 1.6 A
- 10 Limit of rated ultimate breaking capacity on short-circuit of GV2 LE (14, 18, 23, and 25 A ratings).

## GV2L

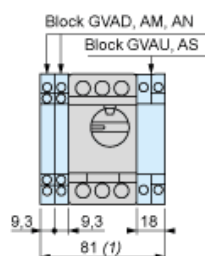
### Dimensions



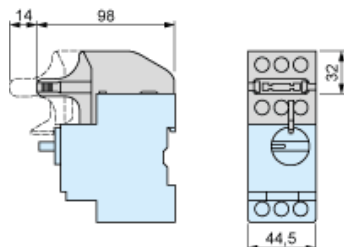
X1 Electrical clearance = 40 mm for  $U_e \leq 415$  V, or 80 mm for  $U_e = 440$  V, or 120 mm for  $U_e = 500$  and 690 V.

X2 = 40 mm.

GVAD, AM, AN, AU, AS



1 Maximum  
GV2AK00

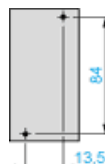


### Mounting

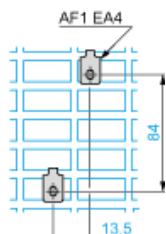
On rail AM1 DE200, AM1 ED200 (35 x 15)



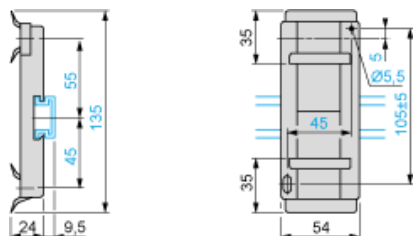
Panel mounted



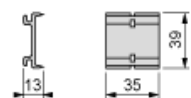
On pre-slotted mounting plate AM1 PA



## Adapter Plate GK2AF01

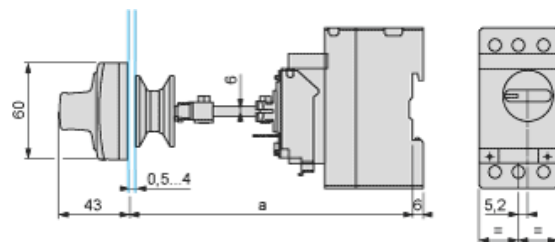


## 7.5 mm Height Compensation Plate GV1F03

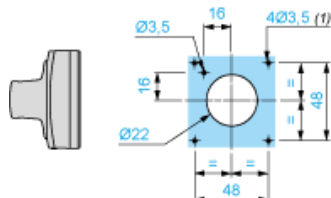


## Mounting

Mounting of External Operator GV2APN01, GV2APN02 or GV2APN04 for Motor Circuit Breakers GV2L

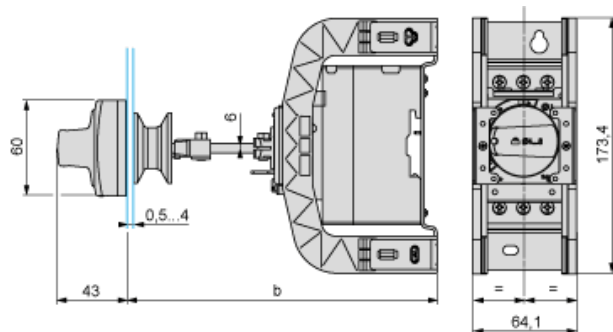


## Door cut-out



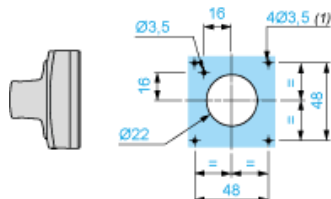
(1) For IP65 only.

Mounting of External Operator GVAPH02 for Motor Circuit Breakers GV2L



|                                  | b       |         |
|----------------------------------|---------|---------|
|                                  | Minimum | Maximum |
| GV2 APN... + GV APH02            | 151     | 250     |
| GV2 APN... + GV APH02 + GV APK11 | 250     | 445     |

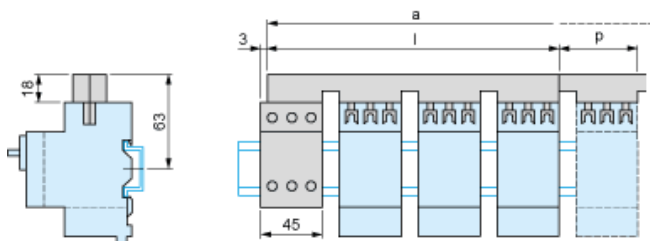
## Door cut-out



(1) For IP65 only.

## GV2L and GV2LE

Sets of busbars GV2G445, GV2G454, GV2G472, with terminal block GV2G05

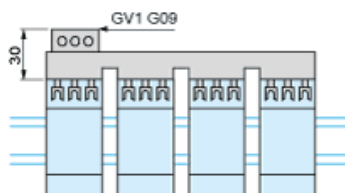


|                     | l   | p  |
|---------------------|-----|----|
| GV2G445 (4 x 45 mm) | 179 | 45 |
| GV2G454 (4 x 54 mm) | 206 | 54 |
| GV2G472 (4 x 72 mm) | 260 | 72 |

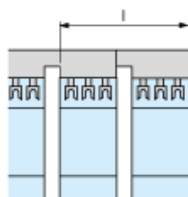
| Number of tap-offs | a   |     |     |     |
|--------------------|-----|-----|-----|-----|
|                    | 5   | 6   | 7   | 8   |
| GV2G445            | 224 | 269 | 314 | 359 |
| GV2G454            | 260 | 314 | 368 | 422 |
| GV2G472            | 332 | 404 | 476 | 548 |

Sets of Busbars for GV2L and GV2LE

Sets of busbars GV2G... with terminal block GV1G09

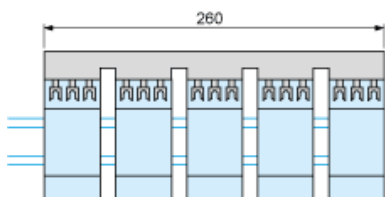


Sets of busbars GV2G245, GV2G254, GV2GR272

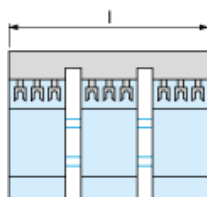


|                     | l   |
|---------------------|-----|
| GV2G245 (2 x 45 mm) | 89  |
| GV2G254 (2 x 54 mm) | 98  |
| GV2G272 (2 x 72 mm) | 116 |

Set of busbars GV2G554



Sets of busbars GV2G345 and GV2G354



|                     | l   |
|---------------------|-----|
| GV2G345 (3 x 45 mm) | 134 |
| GV2G354 (3 x 54 mm) | 152 |

GV2L••

