

# Product datasheet

Specifications



Motor circuit breaker. TeSys GV2.  
3P. 18 A. magnetic. rotary handle.  
screw clamp terminals

GV2L20

Price: 2,369.89 ZAR

## 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                                      | 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>50 kA Icu at 400/415 V AC 50/60 Hz conforming to IEC 60947-2<br>20 kA Icu at 440 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>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>50 % at 400/415 V AC 50/60 Hz conforming to IEC 60947-2<br>75 % 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>100 % at 690 V AC 50/60 Hz conforming to IEC 60947-2                        |
| Control Type                                        | Rotary handle                                                                                                                                                                                                                                                                                                    |
| [In] Rated Current                                  | 18 A                                                                                                                                                                                                                                                                                                             |
| Magnetic Tripping Current                           | 223 A                                                                                                                                                                                                                                                                                                            |
| [Ith] Conventional Free Air Thermal Current         | 18 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                                                                                                                                                                                                                                                                            |

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                            |                                                                           |
|----------------------------|---------------------------------------------------------------------------|
| 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                                                               |
| Product Certifications                | CCC<br>UL<br>CSA<br>EAC<br>LROS (Lloyds register of shipping)<br>BV<br>RINA<br>DNV-GL<br>UKCA<br>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             | 9.300 cm  |
| Package 1 Width              | 4.600 cm  |
| Package 1 Length             | 10.000 cm |
| Package 1 Weight             | 330.000 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 | 6.930 kg  |

## Contractual warranty

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

Sustainability



**Green Premium™ label** is Schneider Electric’s commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product’s sustainability >](#)



Transparency   RoHS/REACH

## Well-being performance

 Mercury Free

 RoHS Exemption Information   [Yes](#)

## Certifications & Standards

|                          |                                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Reach Regulation         | <a href="#">REACH Declaration</a>                                                                                           |
| Eu Rohs Directive        | Compliant with Exemptions                                                                                                   |
| 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 |
| Circularity Profile      | <a href="#">End of Life Information</a>                                                                                     |

Performance Curves

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

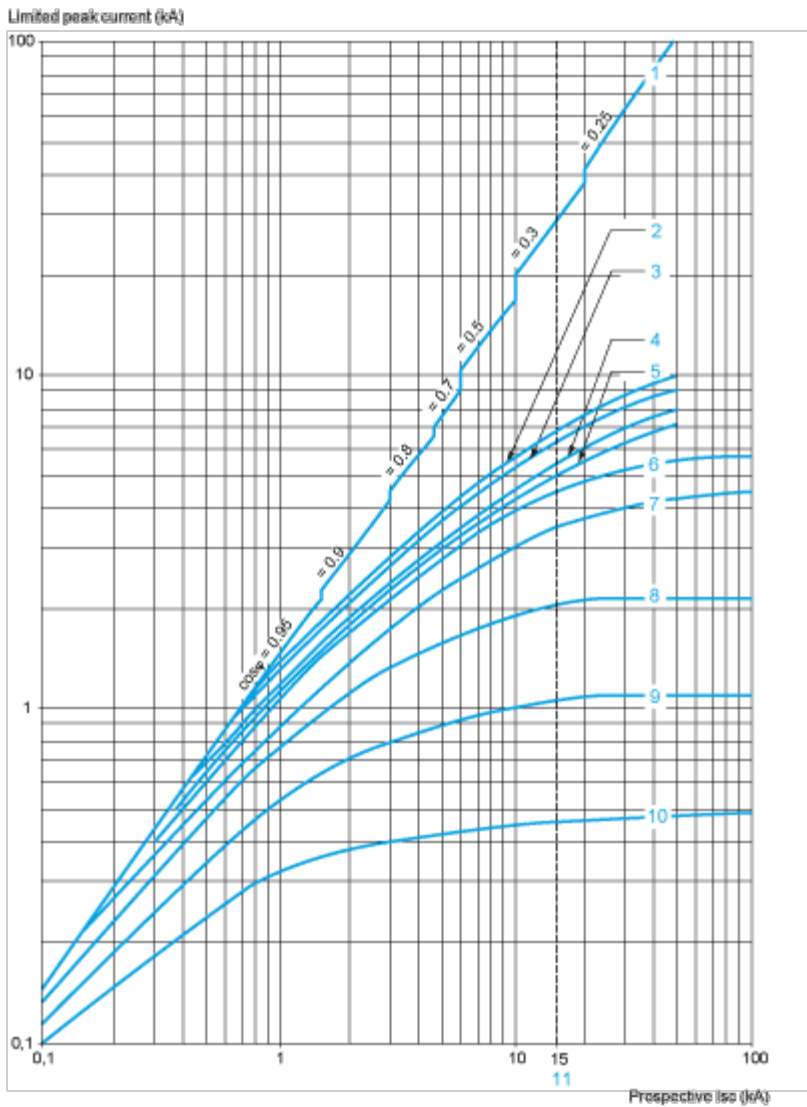
$I_{peak} = f(\text{prospective } I_{sc}) \text{ at } 1.05 U_e = 435 \text{ V}$



- 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 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

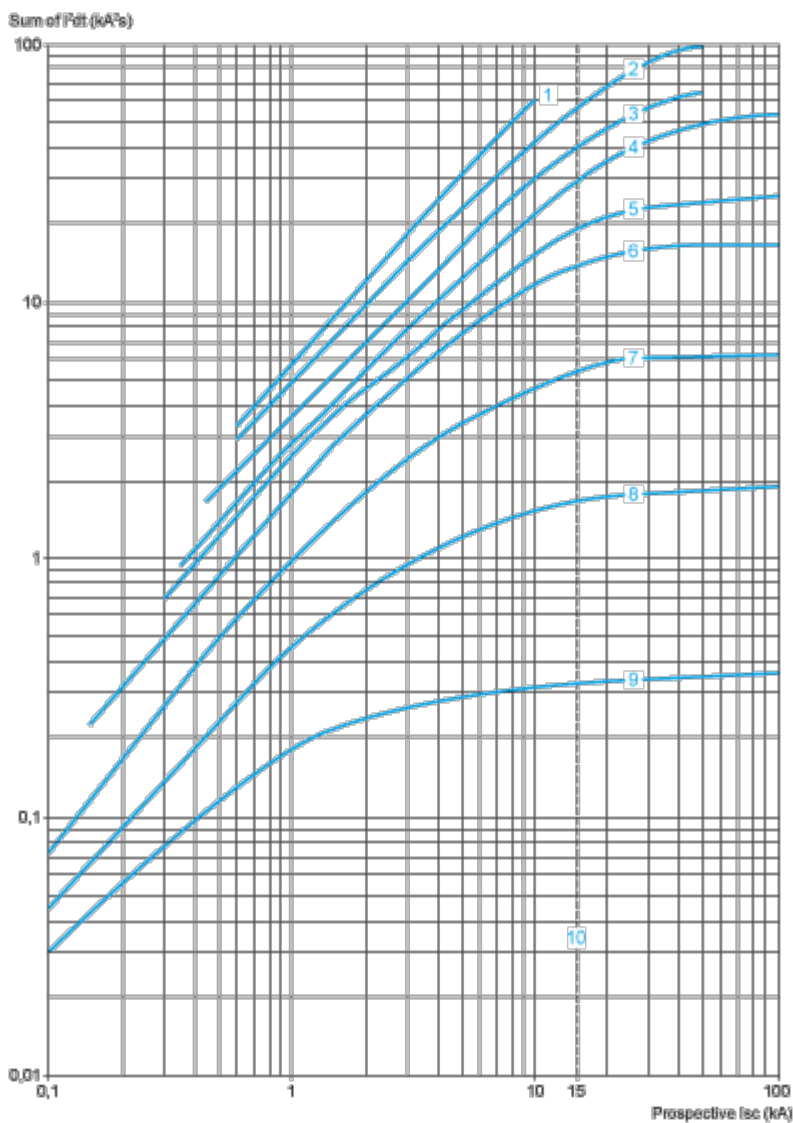


- 1 25 A and 32 A
- 2 18 A
- 3 14 A
- 4 10 A
- 5 6.3 A
- 6 4 A
- 7 2.5 A
- 8 1.6 A

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

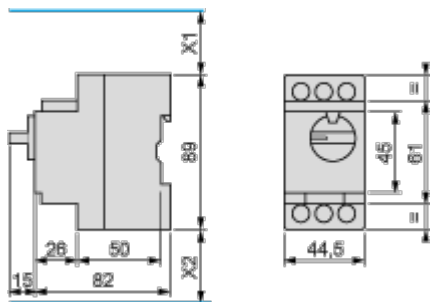


- 1 32 A (GV2LE32)
- 2 25 A and 32 A (GV2L32)
- 3 18 A
- 4 14 A
- 5 10 A
- 6 6.3 A
- 7 4 A
- 8 2.5 A
- 9 1.6 A
- 10 Limit of rated ultimate breaking capacity on short-circuit of GV2 LE (14, 18, 23, and 25 A ratings).

Dimensions Drawings

GV2L

Dimensions



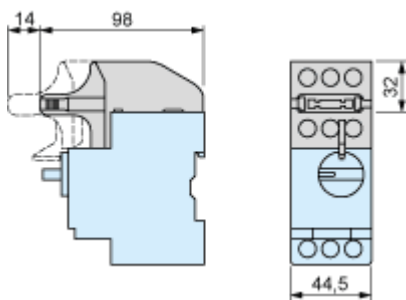
X1 Electrical clearance = 40 mm for  $U_e \leq 415\text{ V}$ , or 80 mm for  $U_e = 440\text{ V}$ , or 120 mm for  $U_e = 500$  and  $690\text{ V}$ .  
X2 = 40 mm.

GVAD, AM, AN, AU, AS



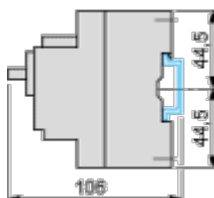
1 Maximum

GV2AK00

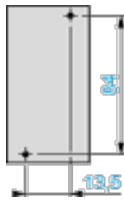


Mounting

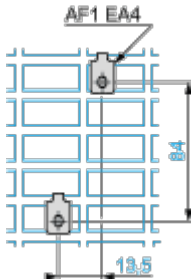
On rail AM1 DE200, AM1 ED200 (35 x 15)



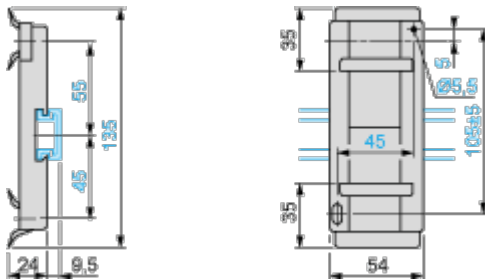
Panel mounted



On pre-slotted mounting plate AM1 PA



## Adapter Plate GK2AF01

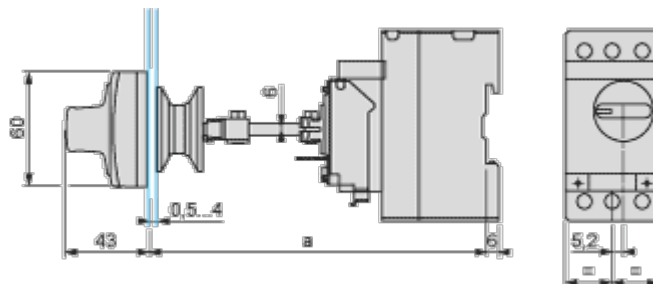


### 7.5 mm Height Compensation Plate GV1F03

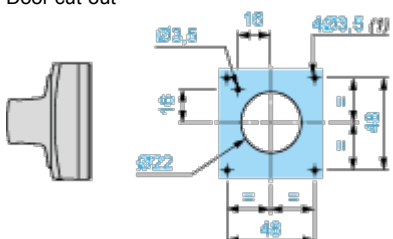


## Mounting

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

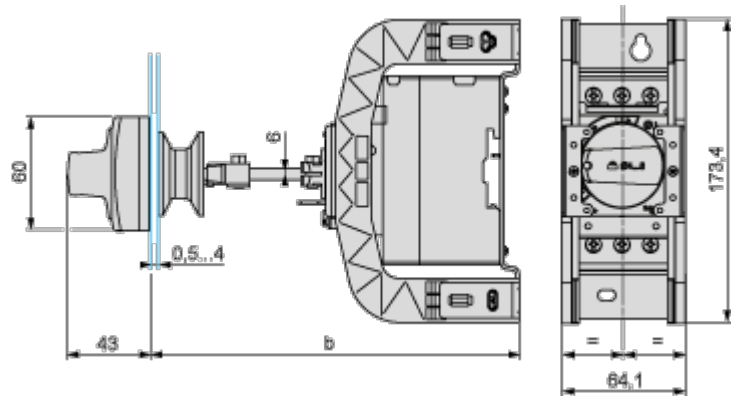


Door cut-out



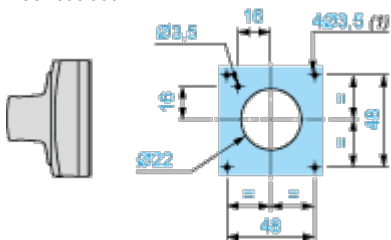
(1) For IP65 only.

Mounting of External Operator GVAPH02 for Motor Circuit Breakers GV2L



|                                              | b       |         |
|----------------------------------------------|---------|---------|
|                                              | Minimum | Maximum |
| GV2 APN <sub>...</sub> + GV APH02            | 151     | 250     |
| GV2 APN <sub>...</sub> + GV APH02 + GV APK11 | 250     | 445     |

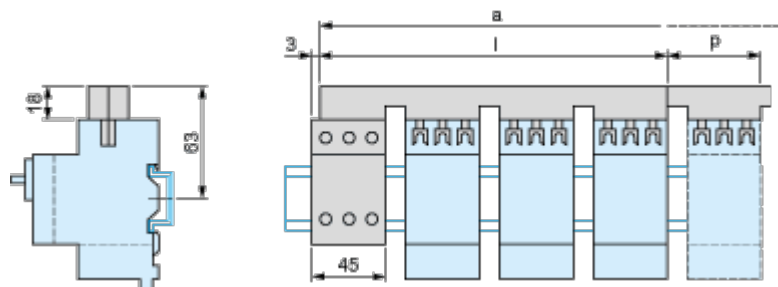
Door cut-out



(1) For IP65 only.

GV2L and GV2LE

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

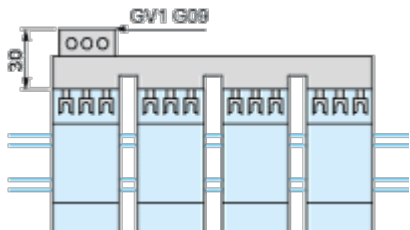


|                     | l   | p  |
|---------------------|-----|----|
| GV2G445 (4 x 45 mm) | 179 | 45 |
| GV2G454 (4 x 54 mm) | 206 | 54 |
| GV2G472 (4 x 72 mm) | 260 | 72 |

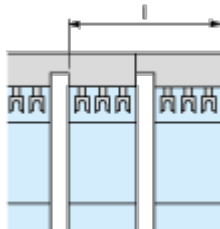
| Number of tap-offs | a   |     |     |     |
|--------------------|-----|-----|-----|-----|
|                    | 5   | 6   | 7   | 8   |
| GV2G445            | 224 | 269 | 314 | 359 |
| GV2G454            | 260 | 314 | 368 | 422 |
| GV2G472            | 332 | 404 | 476 | 548 |

Sets of Busbars for GV2L and GV2LE

Sets of busbars GV2G... with terminal block GV1G09

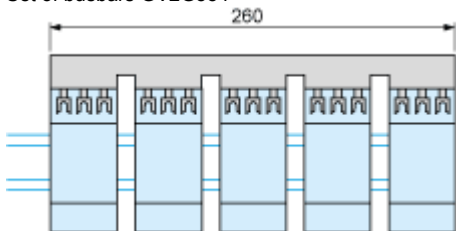


Sets of busbars GV2G245, GV2G254, GV2GR272

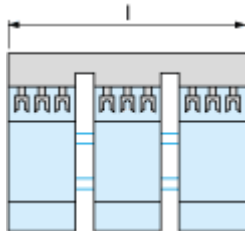


|                     | l   |
|---------------------|-----|
| GV2G245 (2 x 45 mm) | 89  |
| GV2G254 (2 x 54 mm) | 98  |
| GV2G272 (2 x 72 mm) | 116 |

Set of busbars GV2G554



Sets of busbars GV2G345 and GV2G354



|                     | l   |
|---------------------|-----|
| GV2G345 (3 x 45 mm) | 134 |

|                     |     |
|---------------------|-----|
|                     | I   |
| GV2G354 (3 x 54 mm) | 152 |

Connections and Schema

---

GV2L••

