

# Product datasheet

Specifications



## Motor circuit breaker, TeSys GV4, 3P, 25 A, Icu 100 kA, magnetic, lugs terminals

GV4LE25S6

### Main

|                           |                          |
|---------------------------|--------------------------|
| Range of product          | TeSys GV4                |
| Range                     | TeSys Deca<br>TeSys Deca |
| Device short name         | GV4L                     |
| Product name              | TeSys GV4<br>TeSys Deca  |
| Product or component type | Motor circuit breaker    |
| Device application        | Motor protection         |
| Trip unit technology      | Magnetic<br>Electronic   |

### Complementary

|                                |   |
|--------------------------------|---|
| Poles description              | 3P  |
| Utilisation category           | Category A conforming to IEC 60947-2<br>AC-3 conforming to IEC 60947-4-1  |
| Operating position             | Any position  |
| Motor power kW                 | 7.5 kW at 660...690 V AC 50/60 Hz<br>5.5 kW at 400...415 V AC 50/60 Hz<br>7.5 kW at 500 V AC 50/60 Hz<br>9 kW at 660...690 V AC 50/60 Hz<br>11 kW at 660...690 V AC 50/60 Hz<br>7.5 kW at 400...415 V AC 50/60 Hz<br>9 kW at 400...415 V AC 50/60 Hz<br>11 kW at 400...415 V AC 50/60 Hz<br>9 kW at 500 V AC 50/60 Hz<br>11 kW at 500 V AC 50/60 Hz<br>15 kW at 500 V AC 50/60 Hz<br>15 kW at 660...690 V AC 50/60 Hz<br>18.5 kW at 660...690 V AC 50/60 Hz |
| Breaking capacity              | 120 kA Icu at 220...240 V AC 50/60 Hz conforming to IEC 60947-2<br>100 kA Icu at 380...415 V AC 50/60 Hz conforming to IEC 60947-2<br>70 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>30 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>18 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>10 kA Icu at 660...690 V AC 50/60 Hz conforming to IEC 60947-2  |
| Control type                   | Toggle  |
| [In] rated current             | 25 A  |
| Magnetic tripping current      | 150...350 A   |
| [Ue] rated operational voltage | 690 V AC 50/60 Hz conforming to IEC 60947-2   |
| [Ui] rated insulation voltage  | 800 V AC 50/60 Hz conforming to IEC 60947-2   |

|   |  |
|---|--|
| [Ith] conventional free air thermal current | 115 A conforming to IEC 60947-4-1  |
| [Uimp] rated impulse withstand voltage      | 8 kV conforming to IEC 60947-2   |
| Power dissipation per pole                  | 6.1 W  |
| Mechanical durability                       | 40000 cycles   |
| Electrical durability                       | 40000 cycles for AC-3 at 440 V In/2<br>20000 cycles for AC-3 at 440 V In   |
| Maximum operating rate                      | 25 cyc/h   |
| Rated duty                                  | Continuous conforming to IEC 60947-4-1   |
| Connection pitch                            | 27 mm without spreaders<br>35 mm with spreaders  |
| Connections - terminals                     | Lugs-ring terminals  |
| Tightening torque                           | 9 N.m for cable 16...95 mm <sup>2</sup><br>5 N.m for cable 1.5...10 mm <sup>2</sup>  |
| Mechanical robustness                       | Vibrations: +/- 1 mm 2...13.2 Hz conforming to IEC 60068-2-6<br>Vibrations: 0.7 gn 13.2...100 Hz conforming to IEC 60068-2-6<br>Shocks: 15 gn 11 ms conforming to IEC 60068-2-27 |
| Height                                      | 155 mm   |
| Width                                       | 81 mm  |
| Depth                                       | 116 mm   |
| Net weight                                  | 1.5 kg   |
| Colour                                      | Grey (RAL 7016)  |
| Suitability for isolation                   | Yes conforming to IEC 60947-1  |

## Environment

|                                       |                                     |
|---------------------------------------|-------------------------------------|
| Standards                             | EN/IEC 60947-4-1<br>EN/IEC 60947-2  |
| Product certifications                | IEC<br>CCC<br>EAC<br>EU-RO MR       |
| Climatic withstand                    | conforming to IACS E10              |
| IK degree of protection               | IK07 conforming to IEC 62262        |
| Pollution degree                      | 3                                   |
| IP degree of protection               | IP40 conforming to IEC 60529        |
| Ambient air temperature for storage   | -50...85 °C                         |
| Fire resistance                       | 960 °C conforming to IEC 60695-2-11 |
| Operating altitude                    | 5000 m                              |
| Ambient air temperature for operation | -25...70 °C                         |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 12.5 cm  |
| Package 1 Width              | 9 cm     |
| Package 1 Length             | 22 cm    |
| Package 1 Weight             | 1.494 kg |

Offer Sustainability

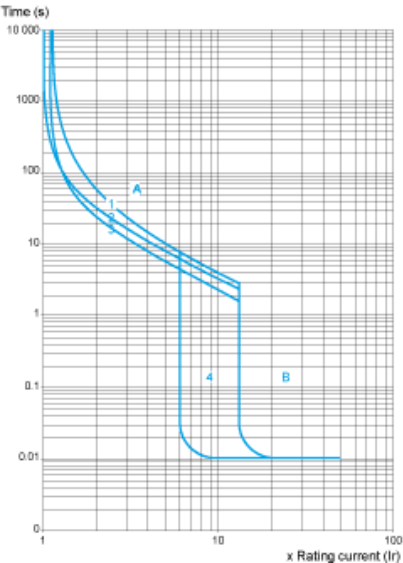
|                             |   |
|-----------------------------|---|
| REACH Regulation            | <a href="#">REACH Declaration</a>   |
| EU RoHS Directive           | Compliant<br><a href="#">EU RoHS Declaration</a>  |
| Mercury free                | Yes   |
| China RoHS Regulation       | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information       |
| RoHS exemption information  | <a href="#">Yes</a>   |
| WEEE                        | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| PVC free                    | Yes   |
| Halogen content performance | Halogen free plastic parts product  |

Contractual warranty

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

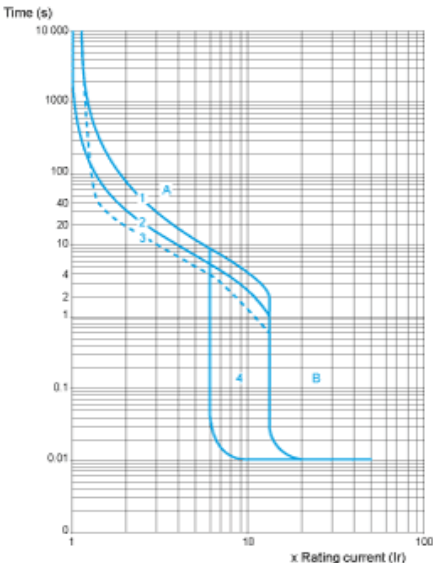
Tripping Curves for GV4L and GV4LE Combined with Thermal Overload Relay LRD or LR9

Average Operating Times at 20 °C Related to Multiples of the Setting Current  
GV4L02 and GV4LE02 to 12 with LRD05 to LRD14, GV4L80 and GV4LE80 with LRD3363



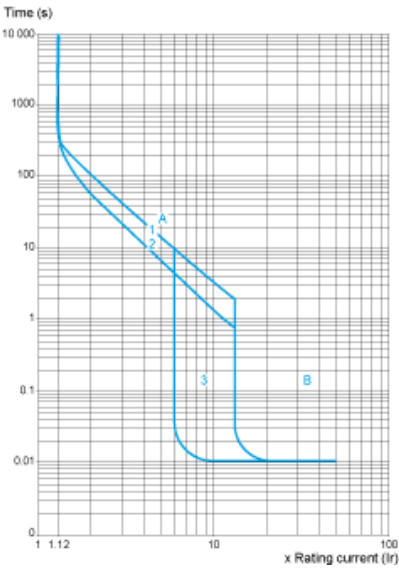
- 13 poles from cold state
- 22 poles from cold state
- 33 poles from hot state
- 46...14 Ir
- A Thermal overload relay protection zone
- B GV4L protection zone

GV4L25 and GV4LE25 with LRD 318, LRD325 GV4L50 AND GV4LE50 with LRD 332, LRD 340, LRD 350



- 13 poles from cold state
- 22 poles from cold state
- 33 poles from hot state
- 46...14 Ir
- A Thermal overload relay protection zone
- B GV4L protection zone

GV4L115 and GV4LE115 with Class 10 LR9F5367, LR9D5369 and Class 20 LR9D5567, LR9F5569

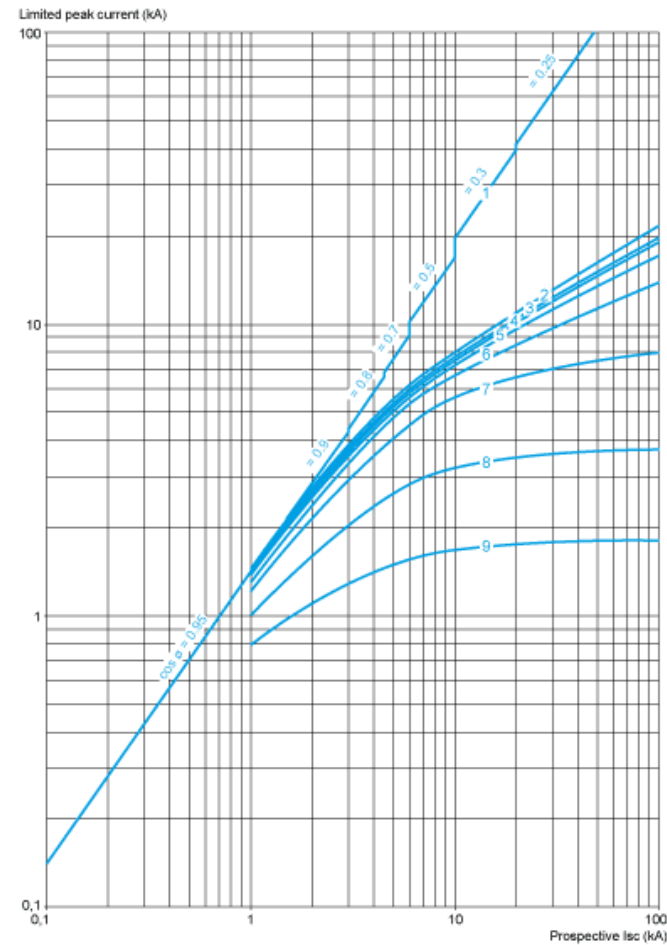


- 1 Cold state curve
- 2 Hot state curve
- 3 6...14 Ir

### Current Limitation on Short-Circuit for GV4L, GV4LE (3-Phase 400/415 V)

#### Dynamic Stress

I peak = f (prospective Isc) at 1.05 Ue = 435 V

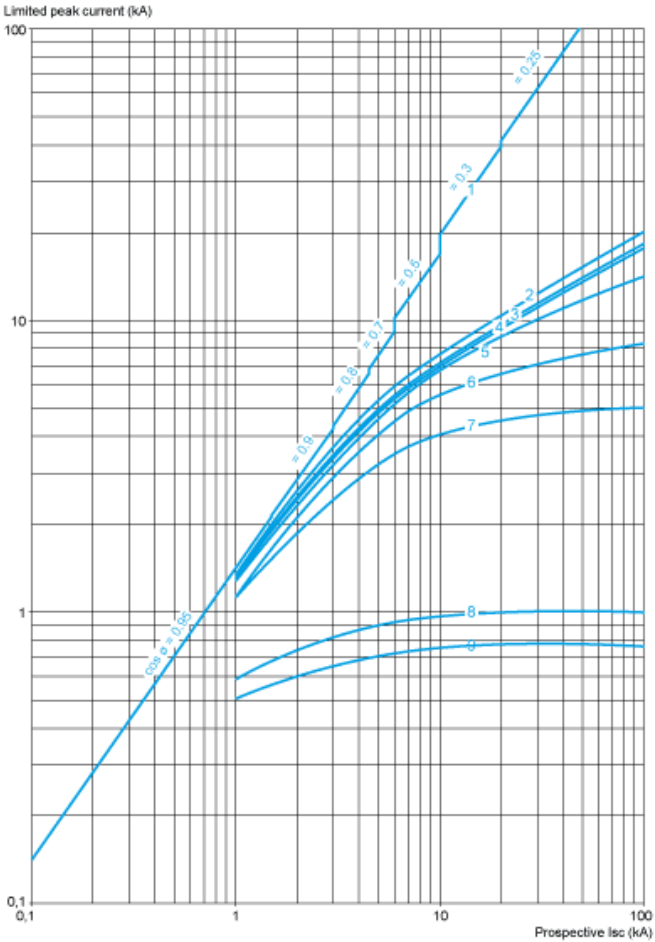


- 1 Maximum peak current
- 2 GV4L115
- 3 GV4L80
- 4 GV4L50
- 5 GV4L25
- 6 GV4L12
- 7 GV4L07
- 8 GV4L03
- 9 GV4L02

### Current Limitation on Short-Circuit for GV4L, GV4LE + Thermal Overload Relay LRD or LR9 (3-Phase 400/415 V)

#### Dynamic Stress

I peak = f (prospective Isc) at 1.05 Ue = 435 V

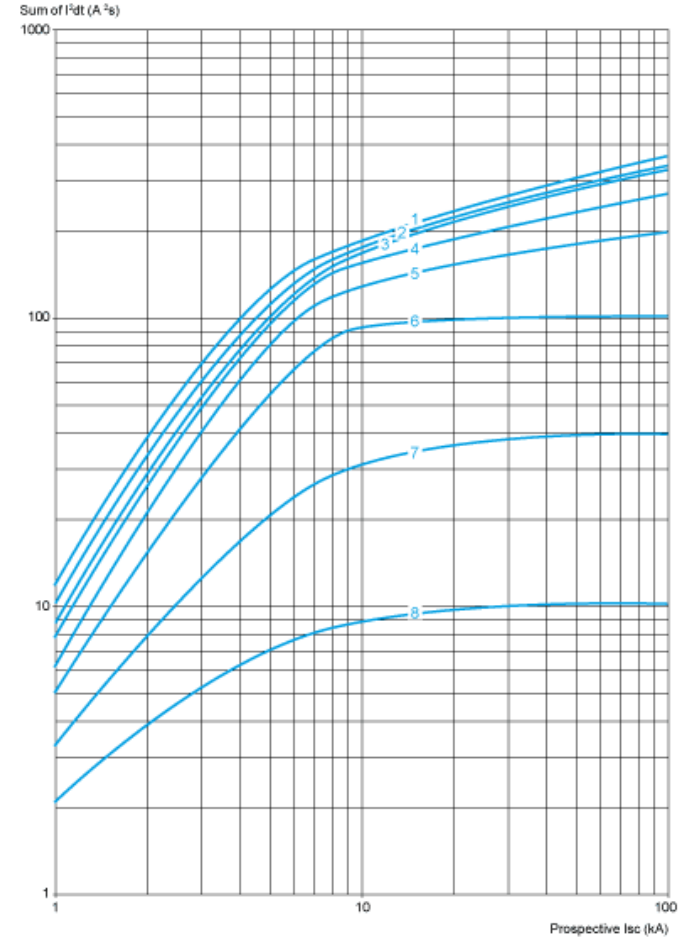


- 1 Maximum peak current
- 2 GV4L115 + LR9D5367 or LR9F5367
- 3 GV4L80 + LRD3361
- 4 GV4L50 + LRD340
- 5 GV4L25 + LRD325
- 6 GV4L12 + LRD313
- 7 GV4L07 + LRD12
- 8 GV4L03 + LRD07
- 9 GV4L02 + LRD07

Thermal Limit on Short-Circuit for GV4L, GV4LE

Thermal Limit in A<sup>2</sup>s

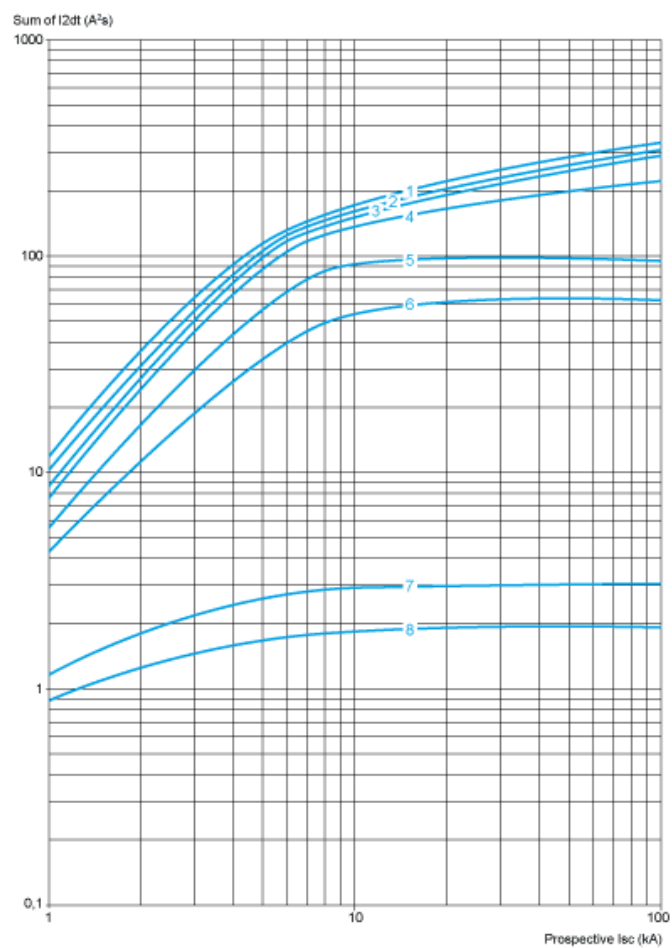
Sum of I<sup>2</sup>dt = f (prospective Isc) at 1.05 Ue = 435 V



- 1 GV4L115
- 2 GV4L80
- 3 GV4L50
- 4 GV4L25
- 5 GV4L12
- 6 GV4L07
- 7 GV4L03
- 8 GV4L02

**Current Limitation on Short-Circuit for GV4L, GV4LE + Thermal Overload Relay LRD or LR9**  
**Thermal Limit in kA in the Magnetic Operating Zone**

Sum of I²dt = f (prospective Isc) at 1.05 Ue = 435 V

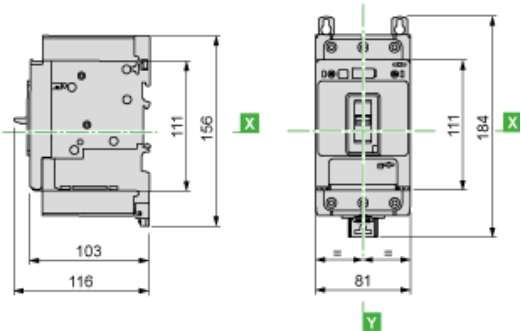


- 1 GV4L115 + LR9D5367 or LR9F5367
- 2 GV4L80 + LRD3361
- 3 GV4L50 + LRD340
- 4 GV4L25 + LRD325
- 5 GV4L12 + LRD313
- 6 GV4L07+ LRD12
- 7 GV4L03+ LRD07
- 8 GV4L02 + LRD07

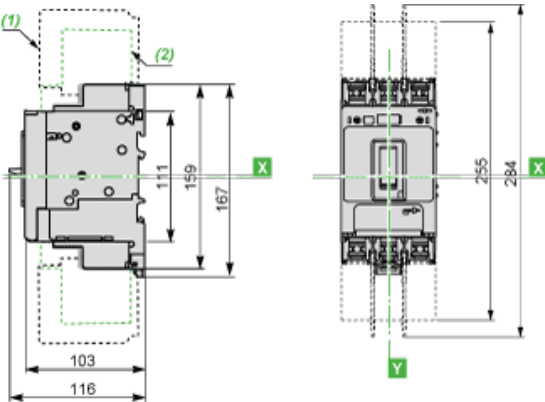


GV4 with Toggle: GV4LE, GV4PE, GV4PEM

With EverLink® Connector



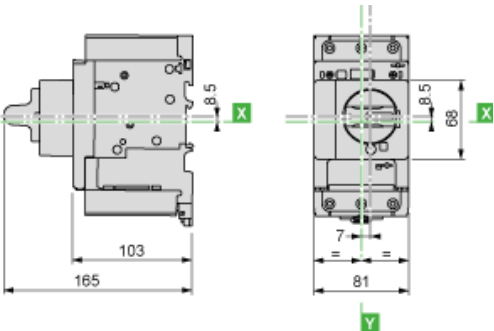
With Crimp Lug Connector



- (1) Interphases barriers
- (2) Long terminal shield

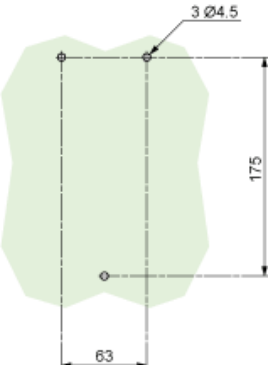
GV4 with Rotary Handle: GV4L, GV4P, or GV4LE, GV4PE, GV4PEM with GV4ADN01, GV4ADN02 Direct Mounting Rotary Handle

Dimensions

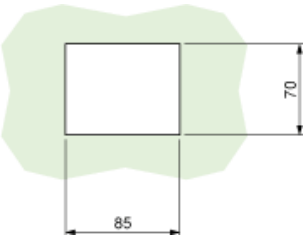


GV4L, GV4P, GV4LE, GV4PE, GV4PEM

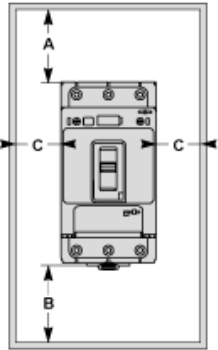
Panel Mounting with M4 Screws



Door Cut-Out for Rotary Handle



Minimum Safety Clearance

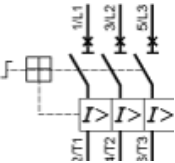


Toggle-type, rotary handle-type: identical clearance values.

| Safety Clearance (mm) |                     |   |   |                  |   |   |
|-----------------------|---------------------|---|---|------------------|---|---|
|                       | Painted Sheet Metal |   |   | Bare Sheet Metal |   |   |
|                       | A                   | B | C | A                | B | C |
| No accessory          | 30                  | 0 | 0 | 40               | 0 | 5 |
| Interphase barriers   | 0                   | 0 | 0 | 0                | 0 | 5 |
| Long terminal shield  | 0                   | 0 | 0 | 0                | 0 | 5 |

Magnetic Motor Circuit Breakers

GV4L, GV4LE



Recommended replacement(s)