Specifications



(!) Discontinued

# Motor circuit breaker, TeSys GV4, 3P, 2A, Icu 50kA, magnetic, lugs terminals

GV4LE02N6

Uiscontinued on: Aug 31, 2023

#### Main

| Range Of Product          | TeSys GV4             |
|---------------------------|-----------------------|
| Range                     | TeSys Deca            |
|                           | TeSys Deca            |
| Device Short Name         | GV4L                  |
| Product Name              | TeSys GV4             |
|                           | TeSys Deca            |
| Product Or Component Type | Motor circuit breaker |
| Device Application        | Motor protection      |
| Trip Unit Technology      | Magnetic              |
|                           | Electronic            |

#### Complementary

| Poles Description                              | 3P   |
|--|--|
| Utilisation Category                           | Category A conforming to IEC 60947-2                         |
|  | AC-3 conforming to IEC 60947-4-1                             |
| Operating Position                             | Any position   |
| Motor Power Kw                                 | 0.25 kW at 400415 V AC 50/60 Hz                              |
|  | 0.37 kW at 400415 V AC 50/60 Hz                              |
|  | 0.55 kW at 400415 V AC 50/60 Hz                              |
|  | 0.75 kW at 400415 V AC 50/60 Hz                              |
|  | 0.37 kW at 500 V AC 50/60 Hz                                 |
|  | 0.55 kW at 500 V AC 50/60 Hz                                 |
|  | 0.75 kW at 500 V AC 50/60 Hz                                 |
|  | 1.1 kW at 500 V AC 50/60 Hz                                  |
|  | 0.55 kW at 660690 V AC 50/60 Hz                              |
|  | 0.75 kW at 660690 V AC 50/60 Hz                              |
|  | 1.1 kW at 660690 V AC 50/60 Hz                               |
|  | 1.5 kW at 660690 V AC 50/60 Hz                               |
| Breaking Capacity                              | 100 kA Icu at 220240 V AC 50/60 Hz conforming to IEC 60947-2 |
|  | 50 kA Icu at 380415 V AC 50/60 Hz conforming to IEC 60947-2  |
|  | 50 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2     |
|  | 15 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2     |
|  | 8 kA Icu at 660690 V AC 50/60 Hz conforming to IEC 60947-2   |
|  | 25 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2     |
| Control Type                                   | Toggle   |
| [In] Rated Current                             | 2 A  |
| Magnetic Tripping Current                      | 1228 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<br>Thermal Current | 115 A conforming to IEC 60947-4-1                            |

| [Uimp] Rated Impulse Withstand<br>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>40000 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 1695 mm <sup>2</sup><br>5 N.m for cable 1.510 mm <sup>2</sup>  |  |  |  |  |
| Mechanical Robustness                     | Vibrations: +/- 1 mm 213.2 Hz conforming to IEC 60068-2-6<br>Vibrations: 0.7 gn 13.2100 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<br>Storage   | -5085 °C                            |
| Fire Resistance                          | 960 °C conforming to IEC 60695-2-11 |
| Operating Altitude                       | 5000 m                              |
| Ambient Air Temperature For<br>Operation | -2570 °C                            |

# **Packing Units**

| Unit Type Of Package 1       | PCE      |
|------------------------------|----------|
| Number Of Units In Package 1 | 1        |
| Package 1 Height             | 16.5 cm  |
| Package 1 Width              | 11 cm    |
| Package 1 Length             | 22 cm    |
| Package 1 Weight             | 1.488 kg |

# **Contractual warranty**

Warranty

18 months

#### Sustainability

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass 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 >



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Transparency RoHS/REACh

#### Well-being performance

Mercury Free
Rohs Exemption Information Yes
Pvc Free
Halogen Free Plastic Parts Product

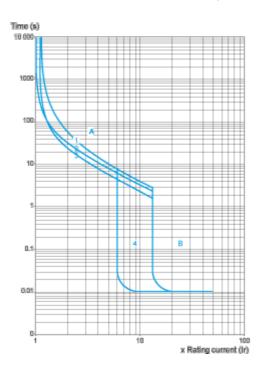
#### **Certifications & Standards**

| Reach Regulation         | REACh Declaration   |
|--------------------------|---|
| Eu Rohs Directive        | Compliant with Exemptions   |
| China Rohs Regulation    | China RoHS declaration<br>Product out of China RoHS scope. Substance declaration for your information                       |
| Environmental Disclosure | Product Environmental Profile   |
| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile      | End of Life Information   |

#### Performance Curves

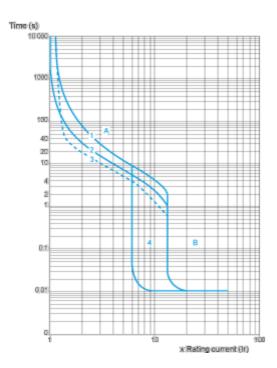
Tripping Curves for GV4L and GV4LE Combined with Thermal Overload Relay LRD or LR9

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



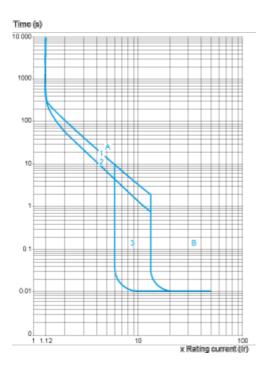
- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state
- 4 6...14 lr
- A Thermal overload relay protection zone
- B GV4L protection zone

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



- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state
- 4 6...14 lr
- A Thermal overload relay protection zone
- B GV4L protection zone

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

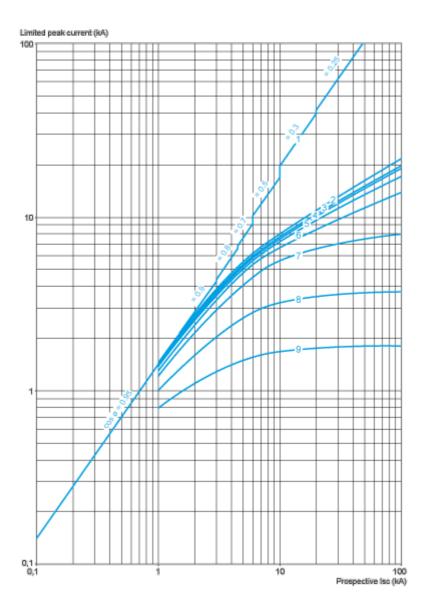


- 1 Cold state curve
- 2 Hot state curve
- 3 6...14 lr

#### 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

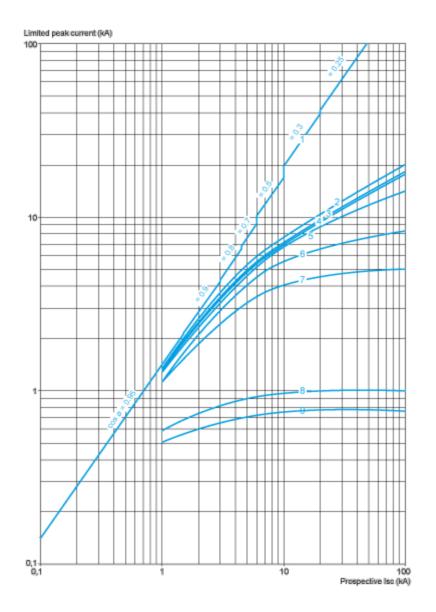
- 2 GV4L115
- 3 GV4L80
- 4 GV4L50
- 5 GV4L25
- 6 GV4L12
- 7 GV4L07
- 8 GV4L03
- 9 GV4L02

# 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

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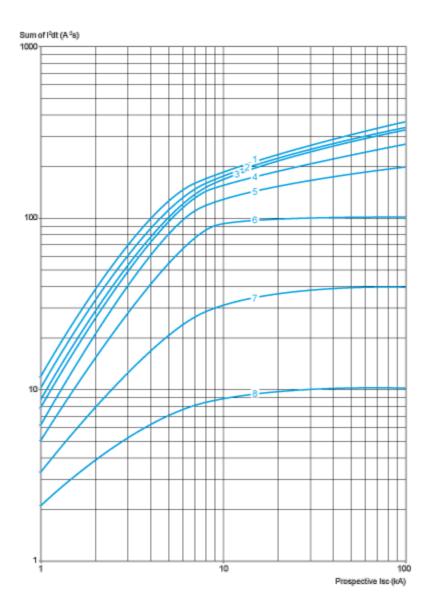


- 1 Maximum peak current
- 2 GV4L115 + LR9D5367 or LR9F5367
- 3 GV4L80 + LRD3361
- 4 GV4L50 + LRD340
- 5 GV4L25 + LRD325
- 6 GV4L12 + LRD313
- 7 GV4L07 + LRD12
- 8 GV4L03 + LRD07
- 9 GV4L02 + LRD07

#### Thermal Limit on Short-Circuit for GV4L, GV4LE

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

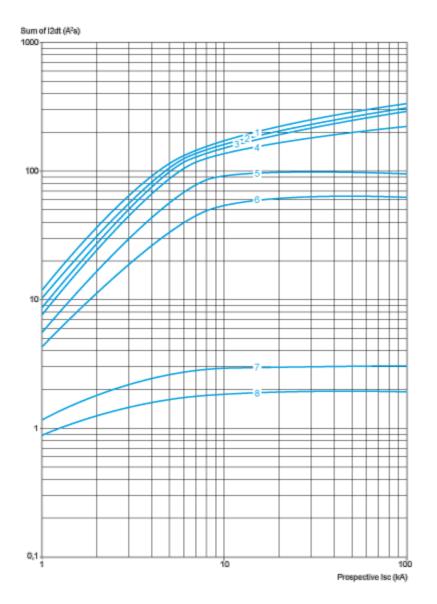
Sum of  $I^2$ dt = f (prospective Isc) at 1.05 Ue = 435 V



- 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

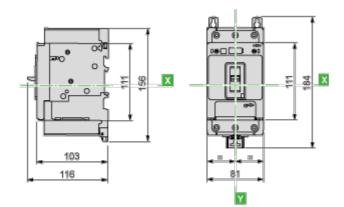
Thermal Limit in kA in the Magnetic Operating Zone Sum of  $I^2$ dt = f (prospective Isc) at 1.05 Ue = 435 V



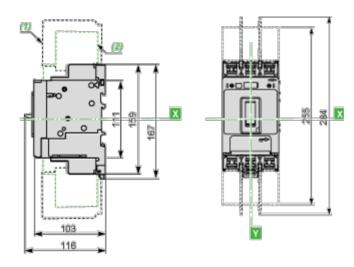
- 1 GV4L115 + LR9D5367 or LR9F5367
- 2 GV4L80 + LRD3361
- 3 GV4L50 + LRD340
- 4 GV4L25 + LRD325
- 5 GV4L12 + LRD313
- 6 GV4L07+ LRD12
- 7 GV4L03+ LRD07
- 8 GV4L02 + LRD07

# GV4 with Toggle: GV4LE, GV4PE, GV4PEM

With EverLink<sup>®</sup> Connector



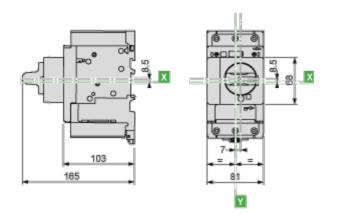
#### With Crimp Lug Connector



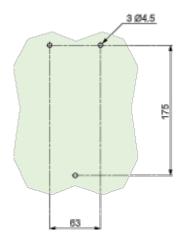
(1) Interphases barriers

(2) Long terminal shield

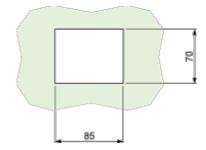
GV4 with Rotary Handle: GV4L, GV4P, or GV4LE, GV4PE, GV4PEM with GV4ADN01, GV4ADN02 Direct Mounting Rotary Handle Dimensions



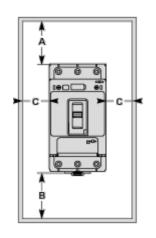
GV4L, GV4P, GV4LE, GV4PE, GV4PEM Panel Mounting with M4 Screws



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 |   |   |
|----------------------|---------------------|---|---|------------------|---|---|
|                      | А                   | В | С | А                | В | С |
| 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 |

Connections and Schema

Magnetic Motor Circuit Breakers GV4L, GV4LE

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