



Main

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|---------------------------------------|--|
| Range | TeSys |
| Product name | TeSys GV4 |
| Device short name | GV4L |
| Product or component type | Circuit breaker |
| Device application | Motor |
| Poles description | 3P |
| Utilisation category | Category A |
| Trip unit technology | Magnetic |
| Protection type | Short-circuit |
| [In] rated current | 12.5 A |
| Breaking capacity | [Icu] : 100 kA at 220...240 V AC 50/60 Hz according to IEC 60947-2 [Icu] : 50 kA at 380...415 V AC 50/60 Hz according to IEC 60947-2 [Icu] : 50 kA at 440 V AC 50/60 Hz according to IEC 60947-2 [Icu] : 15 kA at 525 V AC 50/60 Hz according to IEC 60947-2 [Icu] : 8 kA at 660...690 V AC 50/60 Hz according to IEC 60947-2 [Icu] : 25 kA at 500 V AC 50/60 Hz according to IEC 60947-2 |
| [Ics] rated service breaking capacity | 100 kA : at 220...240 V AC 50/60 Hz according to IEC 60947-2 50 kA : at 380...415 V AC 50/60 Hz according to IEC 60947-2 50 kA : at 440 V AC 50/60 Hz according to IEC 60947-2 25 kA : at 500 V AC 50/60 Hz according to IEC 60947-2 15 kA : at 525 V AC 50/60 Hz according to IEC 60947-2 2 kA : at 660...690 V AC 50/60 Hz according to IEC 60947-2 |
| Magnetic setting range | 75...175 A |
| Control type | Toggle |

Complementary


| | |
|--------------------------------|--|
| [Ue] rated operational voltage | 690 V AC 50/60 Hz conforming to IEC 60947-2 |
| Motor power kW | 3.7 kW at 500 V AC 50/60 Hz 3.7 kW at 400...415 V AC 50/60 Hz 11 kW at 660...690 V AC 50/60 Hz 3 kW at 400...415 V AC 50/60 Hz 3 kW at 500 V AC 50/60 Hz |

| | |
|--|--|
| | 9 kW at 660...690 V AC 50/60 Hz 7.5 kW at 500 V AC 50/60 Hz 7.5 kW at 660...690 V AC 50/60 Hz 5.5 kW at 400...415 V AC 50/60 Hz 5.5 kW at 500 V AC 50/60 Hz 5.5 kW at 660...690 V AC 50/60 Hz |
| [Uimp] rated impulse withstand voltage | 8 kV according to IEC 60947-2 |
| [Ui] rated insulation voltage | 800 V according to IEC 60947-2 |
| Mounting mode | By screws By clips |
| Mounting support | 75 mm symmetrical DIN rail Plate 35 mm symmetrical DIN rail |
| Suitability for isolation | Yes according to IEC 60947-1 |
| Mechanical durability | 40000 cycles |
| Electrical durability | 40000 cycles for AC-3 at 440 V In/2 40000 cycles for AC-3 at 440 V In |
| Local signalling | Green flag for presence of auxiliary contacts |
| Number of slots | 1 slot(s) for alarm switch fault signalling contact (plug-in) 1 slot(s) for voltage release electrical remote tripping (plug-in) 1 slot(s) for auxiliary switch open/close contact (plug-in) |
| Connection pitch | 27 mm |
| Connections - terminals | EverLink BTR screw connectors - location: top socket 1 cable(s) 1.5...70 mm ² (solid) EverLink BTR screw connectors - location: top socket 1 cable(s) 1.5...50 mm ² (flexible) EverLink BTR screw connectors - location: bottom socket 1 cable(s) 2.5...95 mm ² (solid) EverLink BTR screw connectors - location: bottom socket 1 cable(s) 2.5...70 mm ² (flexible) |
| Tightening torque | 9 N.m for 16...95 mm ² 5 N.m for 1.5...10 mm ² |
| Wire stripping length | 20 mm |
| Quality labels | CE |
| Standards | EN/IEC 60947-4-1 EN/IEC 60947-2 |
| Height | 155 mm |
| Width | 81 mm |
| Depth | 116 mm |
| Product weight | 1.5 kg |
| Colour | Grey RAL 7016 |

Environment

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|---------------------------------------|--|
| Product certifications | IEC |
| Tropicalisation | 2 according to IEC 68-2 |
| IP degree of protection | IP40 (front face) according to IEC 60529 |
| IK degree of protection | IK07 according to IEC 62262 |
| Pollution degree | 3 according to IEC 60947-1 |
| Mechanical robustness | Shocks 15 Gn for 11 ms according to IEC 60068-2-27 Vibrations +/- 1 mm for 2...13.2 Hz according to IEC 60068-2-6 Vibrations 0.7 gn for 13.2...100 Hz according to IEC 60068-2-6 |
| Ambient air temperature for operation | -25...70 °C |
| Ambient air temperature for storage | -50...85 °C |
| Operating altitude | > 2000...5000 m with derating 2000 m without derating |

Offer Sustainability

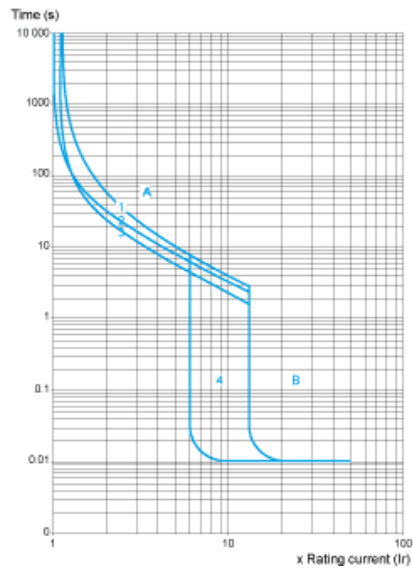
| | |
|--------------------------|---|
| Sustainable offer status | Green Premium product |
| RoHS (date code: YYWW) | Compliant - since 1736 - Schneider Electric declaration of conformity  Schneider Electric declaration of conformity |
| REACH | Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold |

| | |
|----------------------------------|--|
| Product environmental profile | Available Product Environmental Profile |
| Product end of life instructions | Available End of Life Information |

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

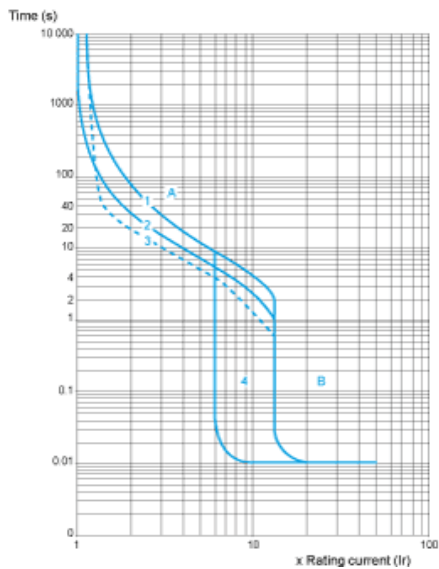
Average Operating Times at 20 °C Related to Multiples of the Setting Current

GV4L02 and GV4LE02 to 12 with LRD05 to LRD14, GV4L80 and GV4LE80 with LRD3363



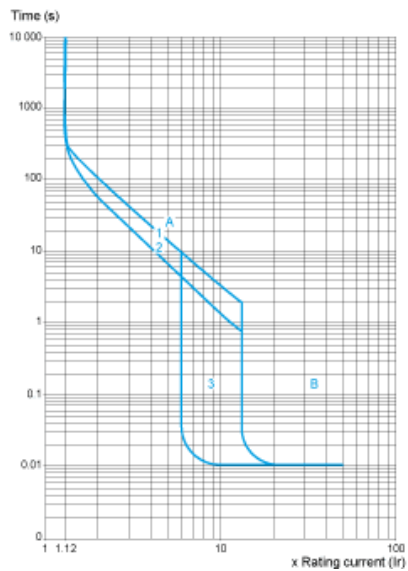
- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state
- 4 6...14 Ir
- A Thermal overload relay protection zone
- B GV4L protection zone

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



- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state
- 4 6...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

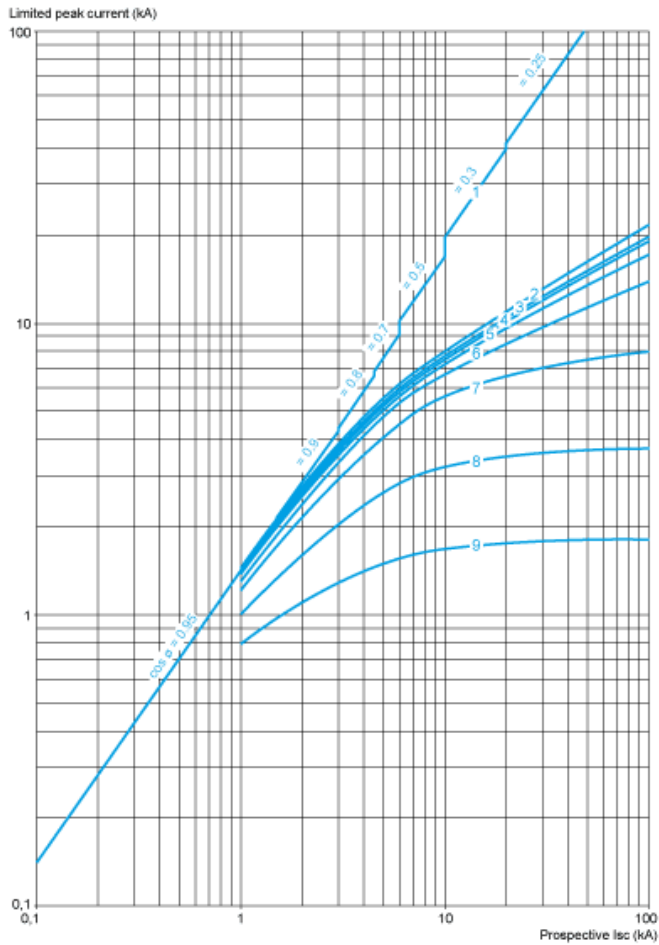


- 1 Cold state curve
- 2 Hot state curve
- 3 6...14 Ir

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

Dynamic Stress

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

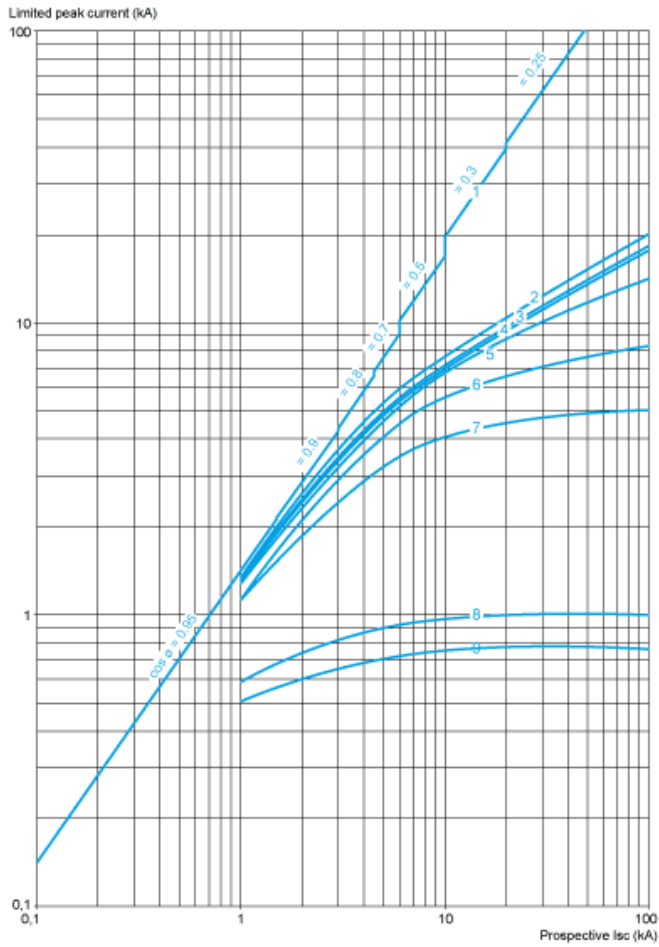


- 1 Maximum peak current
- 2 GV4L115
- 3 GV4L80
- 4 GV4L50
- 5 GV4L25
- 6 GV4L12
- 7 GV4L07
- 8 GV4L03
- 9 GV4L02

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

Dynamic Stress

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

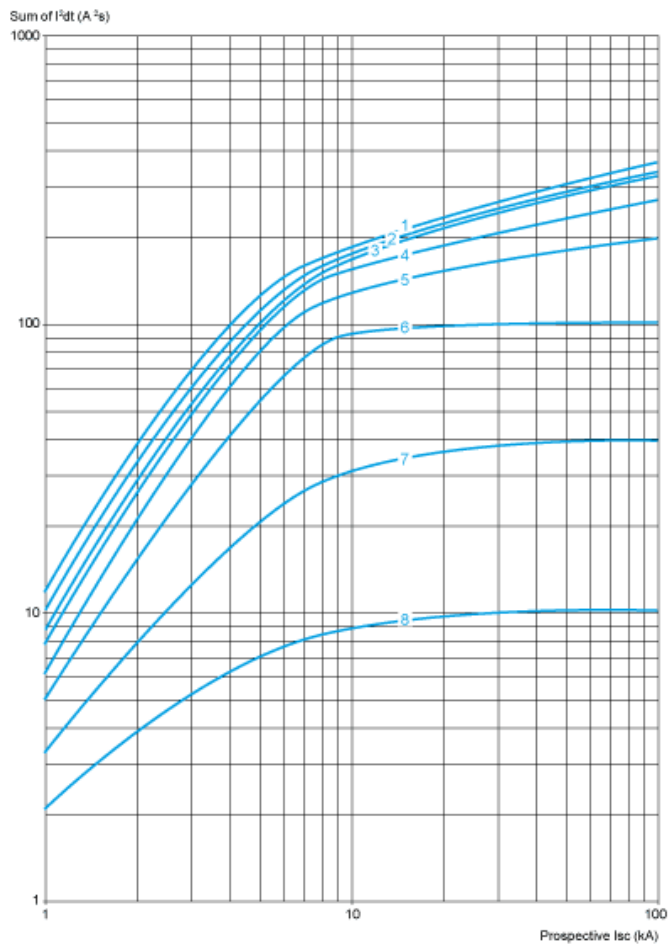


- 1 Maximum peak current
- 2 GV4L115 + LR9D5367 or LR9F5367
- 3 GV4L80 + LRD3361
- 4 GV4L50 + LRD340
- 5 GV4L25 + LRD325
- 6 GV4L12 + LRD313
- 7 GV4L07 + LRD12
- 8 GV4L03 + LRD07
- 9 GV4L02 + LRD07

Thermal Limit on Short-Circuit for GV4L, GV4LE

Thermal Limit in A²s

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

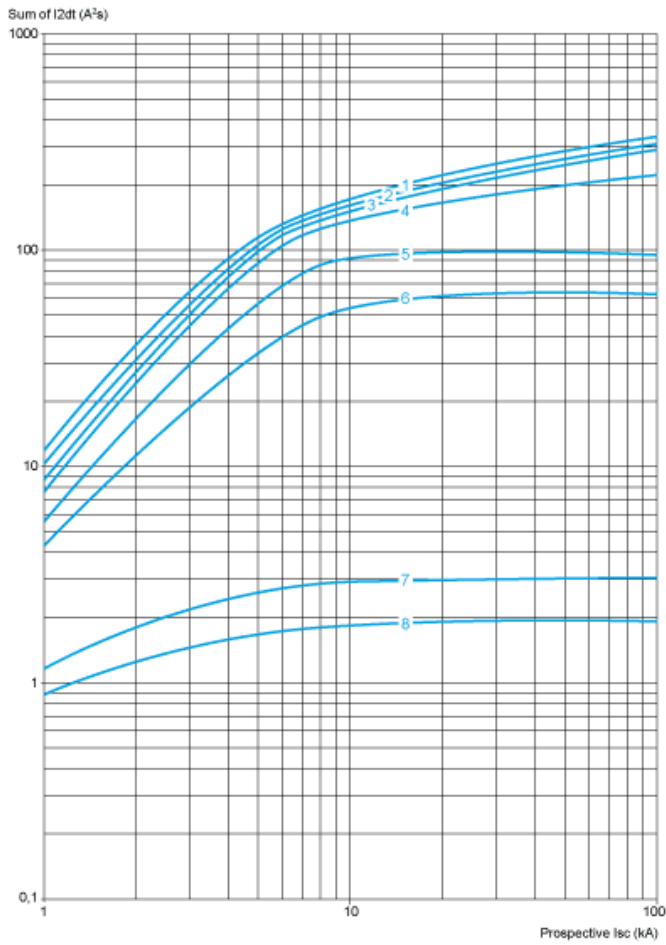


- 1 GV4L115
- 2 GV4L80
- 3 GV4L50
- 4 GV4L25
- 5 GV4L12
- 6 GV4L07
- 7 GV4L03
- 8 GV4L02

Current Limitation on Short-Circuit for GV4L, GV4LE + Thermal Overload Relay LRD or LR9

Thermal Limit in kA in the Magnetic Operating Zone

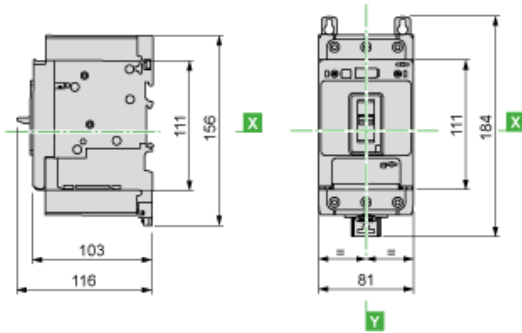
Sum of $I^2dt = f(\text{prospective Isc})$ at $1.05 U_e = 435 \text{ V}$



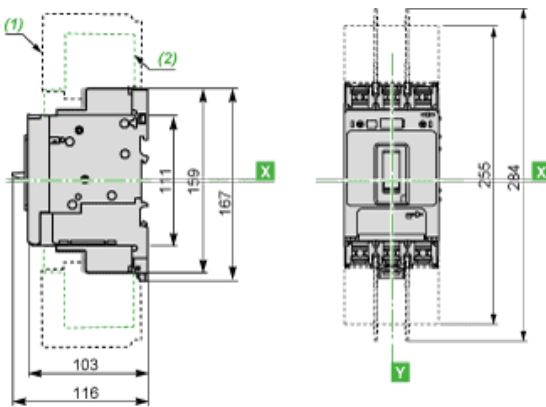
- 1 GV4L115 + LR9D5367 or LR9F5367
- 2 GV4L80 + LRD3361
- 3 GV4L50 + LRD340
- 4 GV4L25 + LRD325
- 5 GV4L12 + LRD313
- 6 GV4L07+ LRD12
- 7 GV4L03+ LRD07
- 8 GV4L02 + LRD07

GV4 with Toggle: GV4LE, GV4PE, GV4PEM

With EverLink® Connector



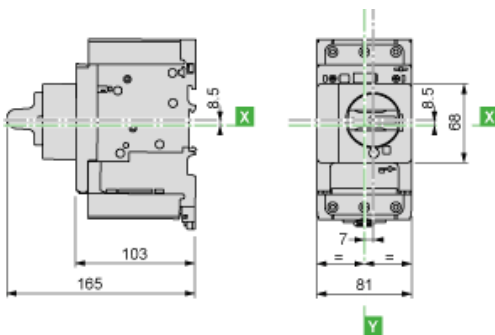
With Crimp Lug Connector



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

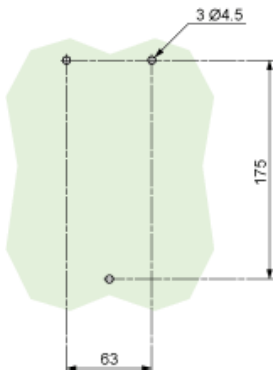
GV4 with Rotary Handle: GV4L, GV4P, or GV4LE, GV4PE, GV4PEM with GV4ADN01, GV4ADN02 Direct Mounting Rotary Handle

Dimensions

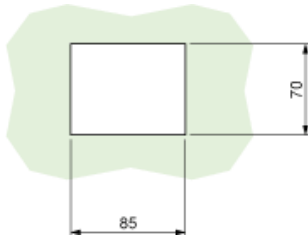


GV4L, GV4P, GV4LE, GV4PE, GV4PEM

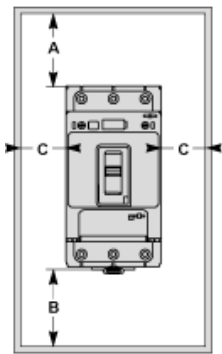
Panel Mounting with M4 Screws



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

