

Product datasheet

Specifications



Motor circuit breaker, TeSys GV3, 3P, 40 A, magnetic, rotary handle, EverLink terminals

GV3L40

Main

| | |
|---------------------------|-------------------------|
| Range | TeSys Deca |
| Product name | TeSys GV3 TeSys Deca |
| Product or component type | Motor circuit breaker |
| Device short name | GV3L |
| Device application | Motor protection |
| Trip unit technology | Magnetic |

Complementary

| | |
|---|--|
| Poles description | 3P |
| Network type | AC |
| Utilisation category | Category A conforming to IEC 60947-2 |
| Network frequency | 50/60 Hz |
| Fixing mode | 35 mm symmetrical DIN rail: clipped Panel: screwed (with 3 x M4 screws) |
| Motor power kW | 18.5 kW at 400/415 V AC 50/60 Hz 22 kW at 500 V AC 50/60 Hz 37 kW at 690 V AC 50/60 Hz |
| Breaking capacity | 100 kA Icu at 230/240 V AC 50/60 Hz 50 kA Icu at 400/415 V AC 50/60 Hz 50 kA Icu at 440 V AC 50/60 Hz 12 kA Icu at 500 V AC 50/60 Hz 6 kA Icu at 690 V AC 50/60 Hz |
| [Ics] rated service short-circuit breaking capacity | 100 % at 230/240 V AC 50/60 Hz 100 % at 400/415 V AC 50/60 Hz 100 % at 440 V AC 50/60 Hz 50 % at 500 V AC 50/60 Hz 50 % at 690 V AC 50/60 Hz |
| Control type | Rotary handle |
| [In] rated current | 40 A |
| Magnetic tripping current | 560 A |
| [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 |

| | |
|----------------------------|-----------------------------------|
| Power dissipation per pole | 8 W |
| Mechanical durability | 50000 cycles |
| Electrical durability | 50000 cycles for AC-3 at 415 V In |
| Tightening torque | 5 N.m - on screw clamp terminal |
| Width | 55 mm |
| Height | 132 mm |
| Depth | 136 mm |
| Net weight | 0.96 kg |
| Colour | Dark grey |

Environment

| | |
|---------------------------------------|--|
| Standards | EN/IEC 60947-2 EN/IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 |
| Product certifications | CCC UL CSA EAC LROS (Lloyds register of shipping) BV ABS DNV-GL UKCA |
| 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: 15 Gn for 11 ms contactor open Shocks: 30 Gn for 11 ms contactor closed Vibrations: 4 Gn, 5...300 Hz |
| Operating altitude | 3000 m |

Packing Units

| | |
|------------------------------|------------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 16.000 cm |
| Package 1 Width | 6.500 cm |
| Package 1 Length | 14.500 cm |
| Package 1 Weight | 975.000 g |
| Unit Type of Package 2 | P06 |
| Number of Units in Package 2 | 120 |
| Package 2 Height | 75.000 cm |
| Package 2 Width | 60.000 cm |
| Package 2 Length | 80.000 cm |
| Package 2 Weight | 130.000 kg |

Offer Sustainability

| | |
|--------------------------|-----------------------|
| Sustainable offer status | Green Premium product |
|--------------------------|-----------------------|

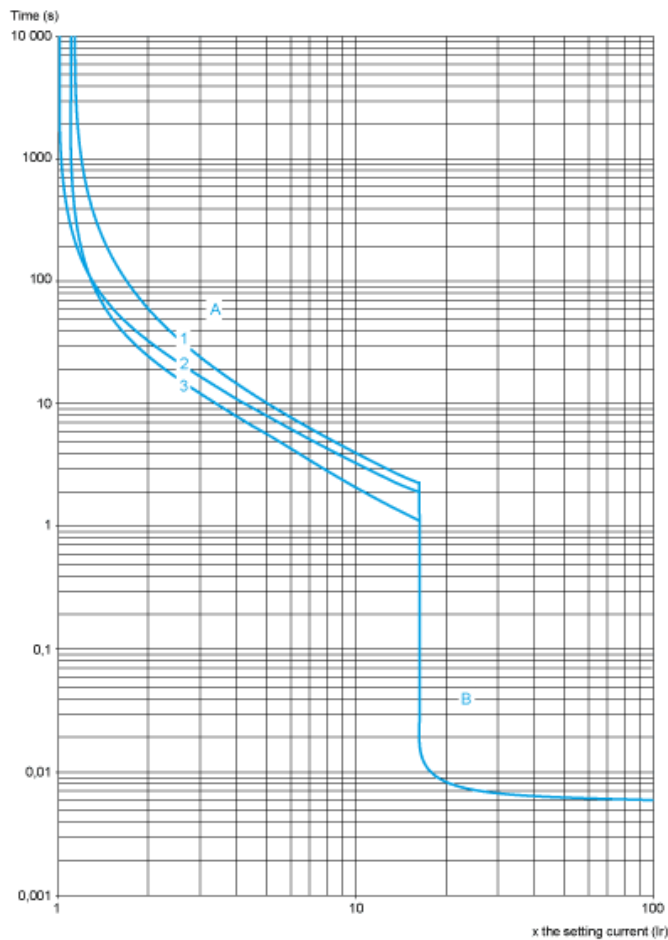
| | |
|----------------------------|---|
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Compliant EU RoHS Declaration |
| Mercury free | Yes |
| China RoHS Regulation | China RoHS declaration Product out of China RoHS scope. Substance declaration for your information |
| RoHS exemption information | Yes |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |
| 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 GV3L Combined with Thermal Overload Relay LRD33

Average Operating time at 20 °C without Prior Current Flow



- 1

3 poles from cold state
- 2

2 poles from cold state
- 3

3 poles from hot state
- A

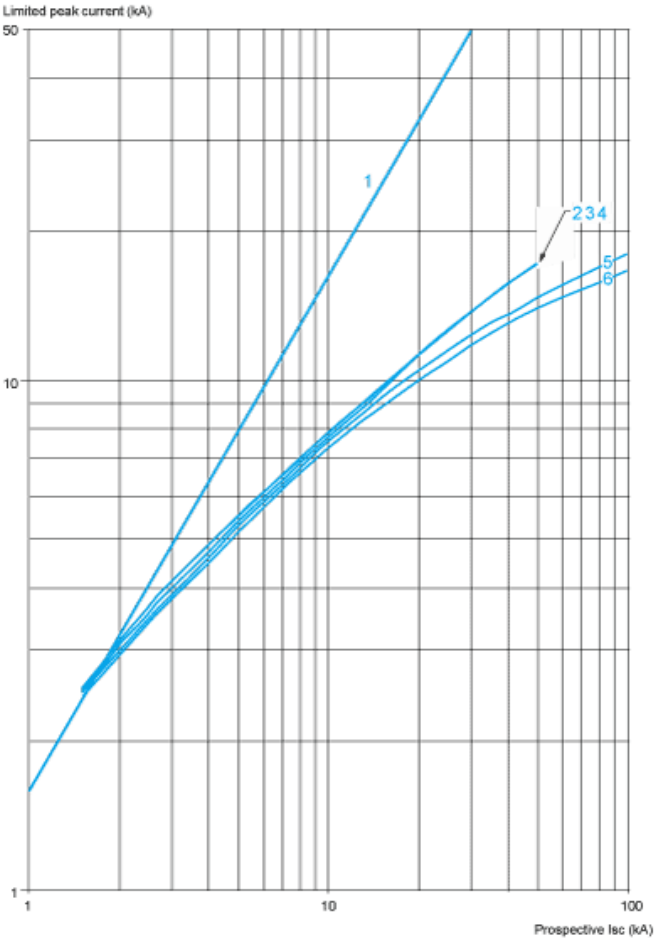
Thermal overload relay protection zone
- B

GV3L protection zone

Current Limitation on Short-Circuit for GV3L (3-Phase 400/415 V)

Dynamic Stress

I peak = f (prospective I_{sc}) at 1.05 U_e = 435 V

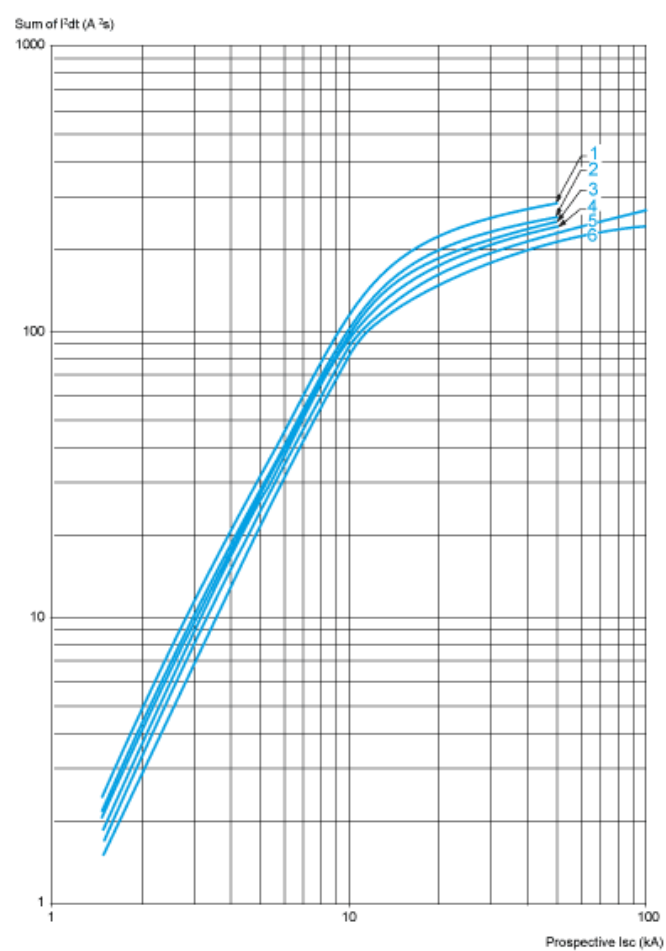


- 1 Maximum peak current
- 2 GV3L80 - GV3L73 - GV3L65
- 3 GV3L50
- 4 GV3L40
- 5 GV3L32
- 6 GV3L25

Thermal Limit on Short-Circuit for GV3L

Thermal Limit in A²s

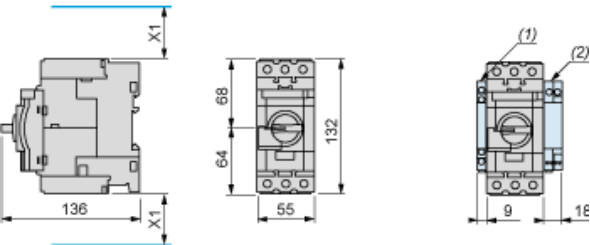
Sum of I²dt = f (prospective I_{sc}) at 1.05 U_e = 435 V



- 1 GV3L73 - GV3L80
- 2 GV3L65
- 3 GV3L50
- 4 GV3L40
- 5 GV3L32
- 6 GV3L25

GV3L, GV3P

Dimensions

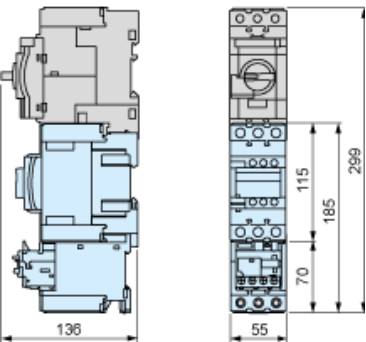


- (1) Blocks GVAN.., GVAD.. and GVAM11.
(2) Blocks GV3AU.. and GV3AS..

X1 = Electrical clearance (ISC max) 40 mm for Ue ≤ 500 V, 50 mm for Ue ≤ 690 V

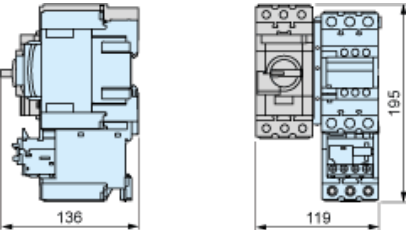
NOTE: Leave a space of 9 mm between 2 circuit breakers: either an empty space or side-mounting add-on contact blocks. Side by side mounting is possible up to 40 °C.

Mounting with Tesys contactor LC1D40A...D80A and relay LR3D313...380 (1) (2) (3)



- (1) Mountings with c.b. up to GV3L73, GV3P73.
(2) For GV3L80, GV3P80 use cable between components for dissipating heat. Consult online datasheets for values.
(3) S-shape busbar system suitable up to 73 A.

Side by side mounting with Tesys contactor LC1D40A...D73A (S-shape busbar system GV3S⁽¹⁾)

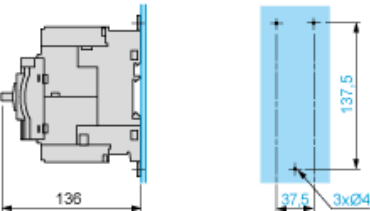


- (1) Mountings with c.b. up to GV3L73, GV3P73.

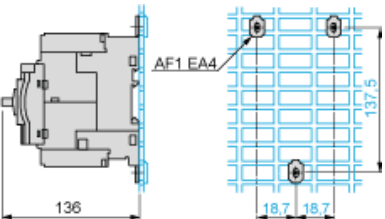
Mounting on Rail AM1 DE200 or AM1 ED201



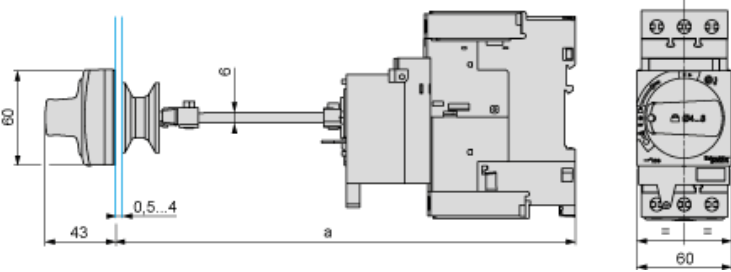
Panel Mounting, using M4 Screws



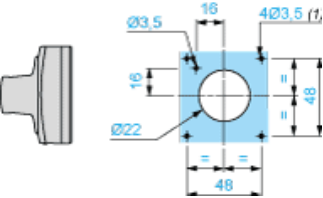
Mounting on Pre-Slotted Plate AM1 PA



Mounting of External Operator GV3APN01, GV3APN02 or GV3APN04 for Motor Circuit Breakers GV3L

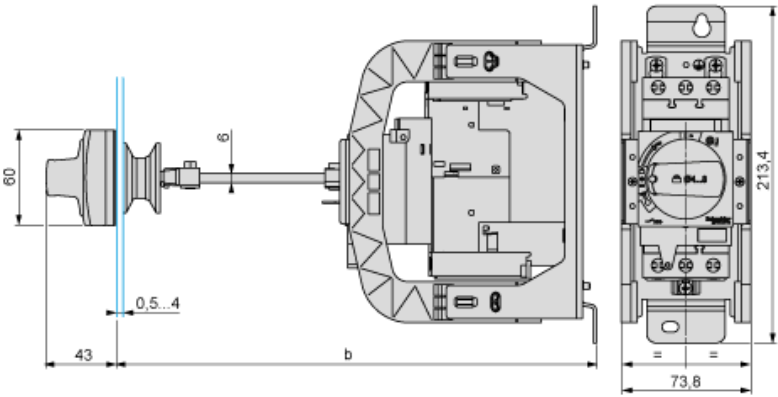


Door cut-out



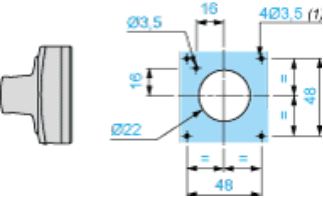
(1) For IP65 only.

Mounting of External Operator GVAPH03 for Motor Circuit Breakers GV3L



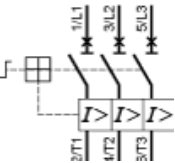
| | b | |
|------------------------------|---------|---------|
| | Minimum | Maximum |
| GV3APN.. + GVAPH03 | 200 | 300 |
| GV3APN.. + GVAPH03 + GVAPK12 | 300 | 492 |

Door cut-out



(1) For IP65 only.

GV3L••



Recommended replacement(s)