



Main

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|---|--|
| Range | TeSys |
| Product name | TeSys GV3 |
| Product or component type | Circuit breaker |
| Device short name | GV3L |
| Device application | Motor |
| Poles description | 3P |
| Network type | AC |
| Utilisation category | Category A conforming to IEC 60947-2 AC-3 conforming to IEC 60947-4-1 |
| Network frequency | 50/60 Hz |
| Breaking capacity | 100 KA Icu at 230/240 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 50 kA Icu at 400/415 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 |
| Trip unit technology | Magnetic |
| Magnetic tripping current | 560 A |

Complementary

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| Fixing mode | 35 mm symmetrical DIN rail: clipped Panel: screwed (with 3 x M4 screws) |
| Operating position | Any position |
| 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 |
| Control type | Rotary knob |
| [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 | IEC 60947-2 6 kV |
| Mechanical durability | 50000 cycles |
| Electrical durability | 50000 cycles for AC-3 at 415 V |
| Maximum operating rate | 25 cyc/h |
| Connections - terminals | EverLink BTR screw connectors 1 cable(s) 1...35 mm ² solid EverLink BTR screw connectors 2 cable(s) 1...25 mm ² solid EverLink BTR screw connectors 1 cable(s) 1...35 mm ² flexible without cable end EverLink BTR screw connectors 2 cable(s) 1...25 mm ² flexible without cable end EverLink BTR screw connectors 1 cable(s) 1...35 mm ² flexible with cable end EverLink BTR screw connectors 2 cable(s) 1...25 mm ² flexible with cable end |
| Tightening torque | 5 N.M on EverLink BTR screw connectors for cable 25 mm ² 8 N.m on EverLink BTR screw connectors for cable 35 mm ² |
| Mechanical robustness | Shocks: 15 Gn for 11 ms closed conforming to IEC 60068-2-27 Shocks: 30 Gn for 11 ms opened conforming to IEC 60068-2-27 Vibrations: 4 Gn, 5...300 Hz conforming to IEC 60068-2-6 |
| Suitability for isolation | Yes conforming to IEC 60947-1 |
| Height | 132 mm |
| Width | 55 mm |

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|------------|---------|
| Depth | 136 mm |
| Net weight | 0.96 kg |

Environment

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|---------------------------------------|---|
| Standards | EN/IEC 60947-2 EN/IEC 60947-4-1 CSA C22.2 No 60947-4-1 UL 60947-4-1 |
| Product certifications | IECEE CB Scheme UL CSA CCC EAC ABS LROS (Lloyds register of shipping) DNV-GL BV |
| Protective treatment | TH |
| IP degree of protection | IP20 conforming to IEC 60529 |
| IK degree of protection | IK09 |
| Ambient air temperature for operation | -20...60 °C |
| Ambient air temperature for storage | -40...80 °C |
| Fire resistance | 960 °C conforming to IEC 60695-2-1 |
| Operating altitude | 0...3000 m |

Packing Units

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|------------------------------|---------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 975 g |
| Package 1 Height | 6.5 cm |
| Package 1 width | 14.5 cm |
| Package 1 Length | 16 cm |
| Unit Type of Package 2 | CAR |
| Number of Units in Package 2 | 1 |
| Package 2 Weight | 978 g |
| Package 2 Height | 16 cm |
| Package 2 width | 6.5 cm |
| Package 2 Length | 14.5 cm |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 120 |
| Package 3 Weight | 130 kg |
| Package 3 Height | 80 cm |
| Package 3 width | 80 cm |
| Package 3 Length | 60 cm |

Offer Sustainability

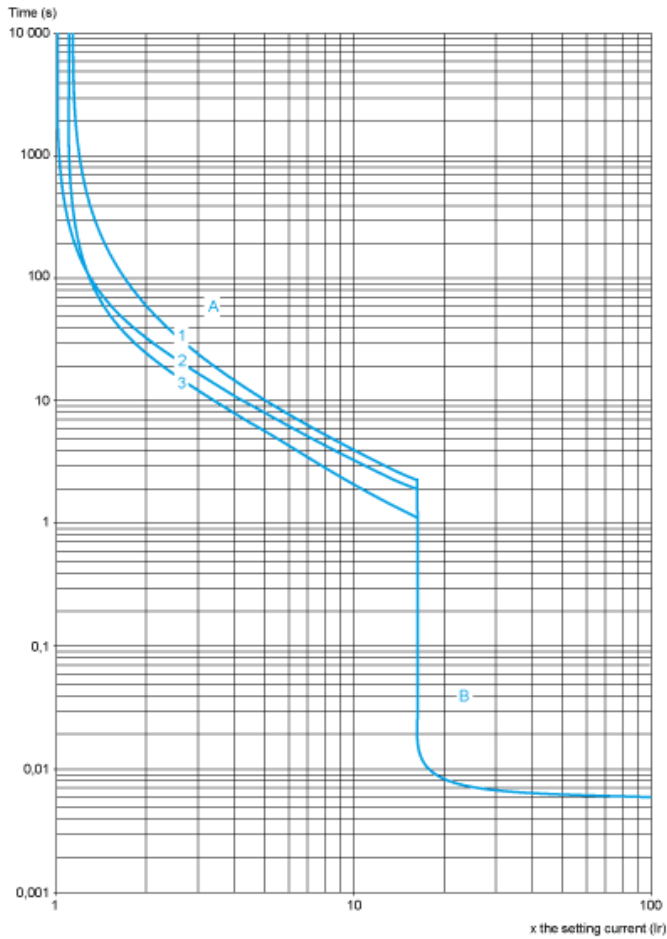
| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation |  REACH Declaration |
| EU RoHS Directive | Compliant  EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information |  Yes |
| China RoHS Regulation |  China RoHS Declaration |
| 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 |

Contractual warranty

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| Warranty | 18 months |
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Tripping Curves for GV3L Combined with Thermal Overload Relay LRD33

Average Operating time at 20 °C without Prior Current Flow

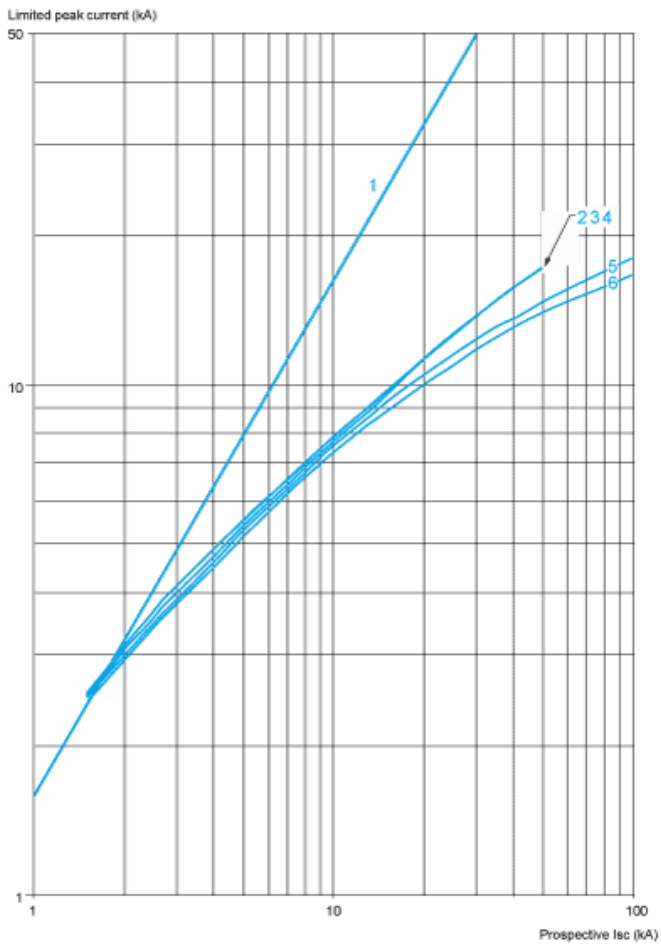


- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state
- A Thermal overload relay protection zone
- B GV3L protection zone

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

Dynamic Stress

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

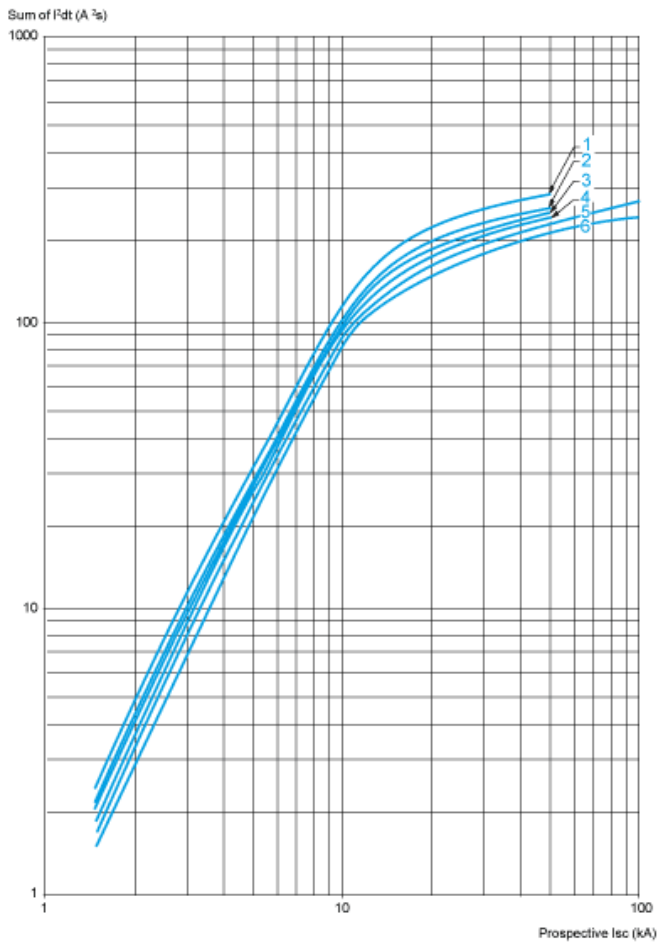


- 1 Maximum peak current
- 2 GV3L80 - GV3L73 - GV3L65
- 3 GV3L50
- 4 GV3L40
- 5 GV3L32
- 6 GV3L25

Thermal Limit on Short-Circuit for GV3L

Thermal Limit in A^2s

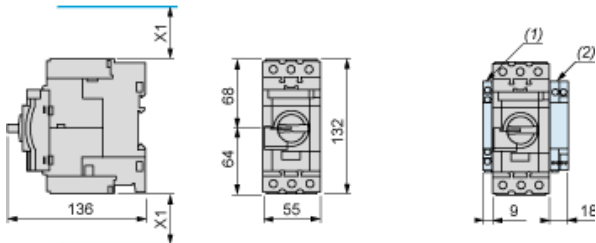
Sum of $I^2dt = f$ (prospective Isc) at $1.05 U_e = 435 V$



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

GV3L, GV3P

Dimensions

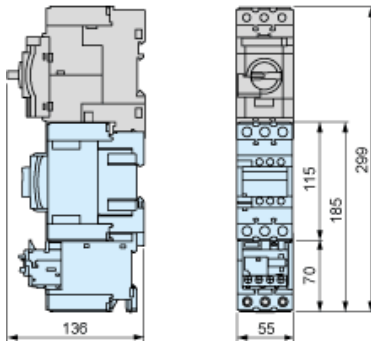


- (1) Blocks GVAN.., GVAD.. and GVAM11.
- (2) Blocks GV3AU.. and GV3AS..

X1 = Electrical clearance (ISC max) 40 mm for $U_e \leq 500$ V, 50 mm for $U_e \leq 690$ V

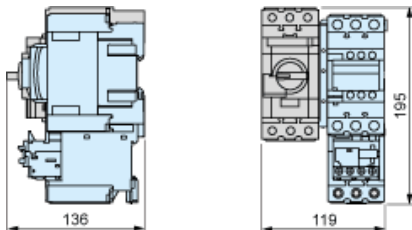
NOTE: Leave a space of 9 mm between 2 circuit breakers: either an empty space or side-mounting add-on contact blocks. Side by side mounting is possible up to 40 °C.

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



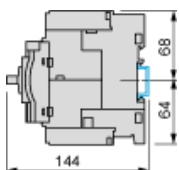
- (1) Mountings with c.b. up to GV3L73, GV3P73.
- (2) For GV3L80, GV3P80 use cable between components for dissipating heat. Consult online datasheets for values.
- (3) S-shape busbar system suitable up to 73 A.

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

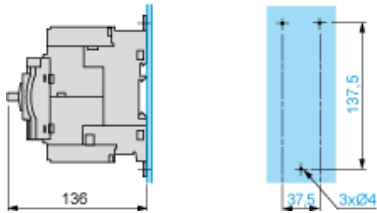


- (1) Mountings with c.b. up to GV3L73, GV3P73.

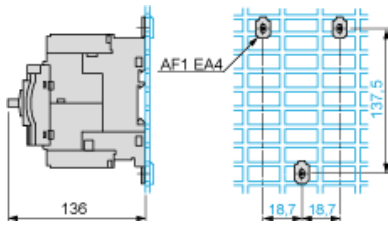
Mounting on Rail AM1 DE200 or AM1 ED201



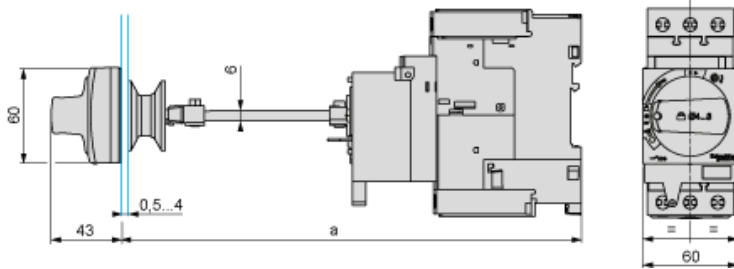
Panel Mounting, using M4 Screws



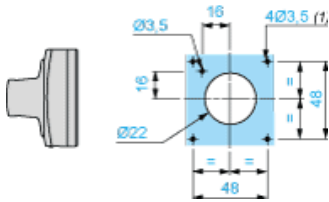
Mounting on Pre-Slotted Plate AM1 PA



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

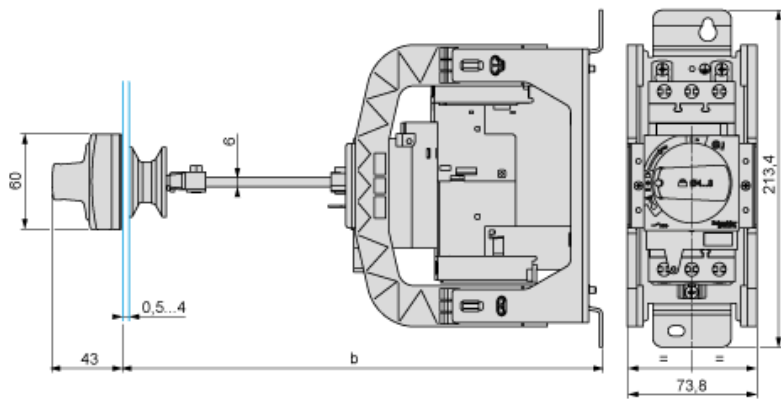


Door cut-out



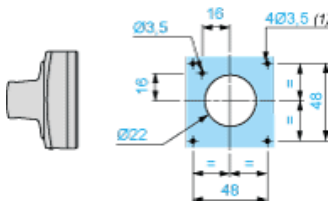
(1) For IP65 only.

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••

