

# GV3P73

Motor circuit breaker, TeSys GV3, 3P, 62-73 A, thermal magnetic, EverLink terminals



## Main

|                      |                  |
|----------------------|------------------|
| Range                | TeSys            |
| Product name         | TeSys GV3        |
| Device short name    | GV3P             |
| Device application   | Motor            |
| Trip unit technology | Thermal-magnetic |

## Complementary

|                                                     |                                                                                                                                                                               |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Poles description                                   | 3P                                                                                                                                                                            |
| Network type                                        | AC                                                                                                                                                                            |
| Utilisation category                                | AC-3 conforming to IEC 60947-4-1<br>Category A conforming to IEC 60947-2                                                                                                      |
| Network frequency                                   | 50/60 Hz                                                                                                                                                                      |
| Fixing mode                                         | 35 mm symmetrical DIN rail: clipped<br>Panel: screwed (with 3 x M4 screws)                                                                                                    |
| Operating position                                  | Any position                                                                                                                                                                  |
| Motor power kW                                      | 37 kW at 400/415 V AC 50/60 Hz<br>55 kW at 690 V AC 50/60 Hz<br>45 kW at 500 V AC 50/60 Hz                                                                                    |
| Breaking capacity                                   | 50 kA Icu at 400/415 V AC 50/60 Hz<br>50 kA Icu at 440 V AC 50/60 Hz<br>12 kA Icu at 500 V AC 50/60 Hz<br>6 kA Icu at 690 V AC 50/60 Hz<br>65 kA Icu at 230/240 V AC 50/60 Hz |
| [Ics] rated service short-circuit breaking capacity | 100 % at 230/240 V AC 50/60 Hz<br>60 % at 400/415 V AC 50/60 Hz<br>60 % at 440 V AC 50/60 Hz<br>50 % at 500 V AC 50/60 Hz<br>50 % at 690 V AC 50/60 Hz                        |
| Control type                                        | Rotary knob                                                                                                                                                                   |
| [In] rated current                                  | 73 A                                                                                                                                                                          |
| Thermal protection adjustment range                 | 62...73 A                                                                                                                                                                     |

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Magnetic tripping current              | 1120 A                                                                                                                                                                                                                                                                                                                                                                                                               |
| [Ue] rated operational voltage         | 690 V AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                    |
| [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                                                                                                                                                                                                                                                                                                                                                                                                     |
| Power dissipation per pole             | 8 W                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Mechanical durability                  | 50000 cycles                                                                                                                                                                                                                                                                                                                                                                                                         |
| Electrical durability                  | 20000 cycles for AC-3 at 415 V In                                                                                                                                                                                                                                                                                                                                                                                    |
| Maximum operating rate                 | 25 cyc/h                                                                                                                                                                                                                                                                                                                                                                                                             |
| Rated duty                             | Continuous conforming to IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                               |
| Connections - terminals                | EverLink BTR screw connectors 2 cable(s) 1...25 mm² solid<br>EverLink BTR screw connectors 2 cable(s) 1...25 mm² flexible with cable end<br>EverLink BTR screw connectors 1 cable(s) 1...35 mm² solid<br>EverLink BTR screw connectors 1 cable(s) 1...35 mm² flexible with cable end<br>EverLink BTR screw connectors 2 cable(s) 1...25 mm² flexible<br>EverLink BTR screw connectors 1 cable(s) 1...35 mm² flexible |
| Tightening torque                      | 5 N.m on EverLink BTR screw connectors for cable 25 mm²<br>8 N.m on EverLink BTR screw connectors for cable 35 mm²                                                                                                                                                                                                                                                                                                   |
| Mechanical robustness                  | Shocks: 30 Gn for 11 ms opened conforming to IEC 60068-2-27<br>Vibrations: 4 Gn, 5...300 Hz conforming to IEC 60068-2-6<br>Shocks: 5 Gn for 11 ms closed conforming to IEC 60068-2-27                                                                                                                                                                                                                                |
| Suitability for isolation              | Yes conforming to IEC 60947-1                                                                                                                                                                                                                                                                                                                                                                                        |
| Phase failure sensitivity              | Yes conforming to IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                      |
| Height                                 | 132 mm                                                                                                                                                                                                                                                                                                                                                                                                               |
| Width                                  | 55 mm                                                                                                                                                                                                                                                                                                                                                                                                                |
| Depth                                  | 136 mm                                                                                                                                                                                                                                                                                                                                                                                                               |
| Product weight                         | 0.96 kg                                                                                                                                                                                                                                                                                                                                                                                                              |
| Colour                                 | Grey (SE GREY 6)<br>Green (SE GREEN 2)                                                                                                                                                                                                                                                                                                                                                                               |

## Environment

|                                       |                                                                                                                 |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Standards                             | EN/IEC 60947-2<br>EN/IEC 60947-4-1<br>CSA C22.2 No 60947-4-1<br>UL 60947-4-1                                    |
| Product certifications                | IECEE CB Scheme<br>UL<br>CSA<br>CCC<br>EAC<br>ATEX<br>BV<br>LROS (Lloyds register of shipping)<br>DNV-GL<br>ABS |
| Protective treatment                  | TC                                                                                                              |
| 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                                                                                                      |

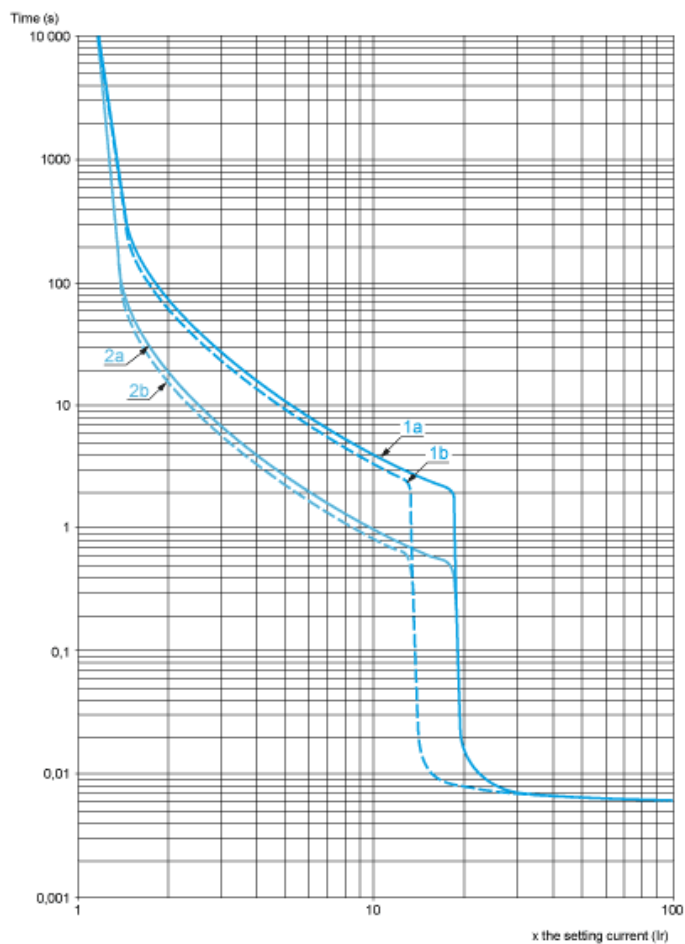
## Offer Sustainability

|                            |                                                  |
|----------------------------|--------------------------------------------------|
| Sustainable offer status   | Green Premium product                            |
| REACH Regulation           | <a href="#">REACH Declaration</a>                |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes                                              |
| RoHS exemption information | <a href="#">Yes</a>                              |

|                                 |                                                                                                                             |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| China RoHS Regulation           | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information       |
| Environmental Disclosure        | <a href="#">Product Environmental Profile</a>                                                                               |
| Circularity Profile             | No need of specific recycling operations                                                                                    |
| WEEE                            | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| <br><b>Contractual warranty</b> |                                                                                                                             |
| Warranty                        | 18 months                                                                                                                   |

### Thermal-Magnetic Tripping Curves

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

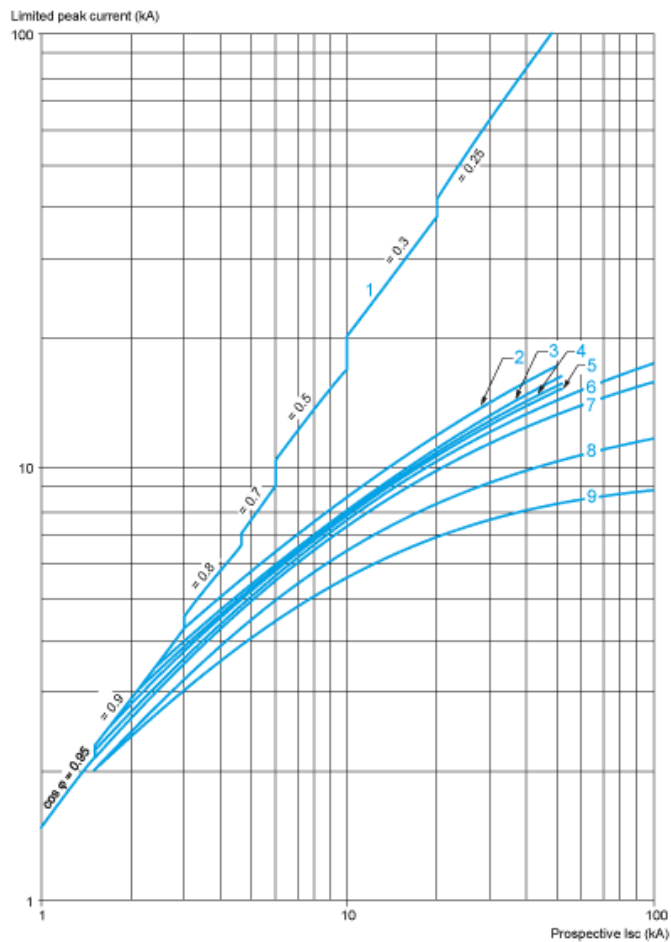


- 1a 3 poles from cold state (Ir minimum): GV3P
- 1b 3 poles from cold state (Ir maximum): GV3P
- 2a 3 poles from hot state (Ir minimum): GV3P
- 2b 3 poles from hot state (Ir maximum): GV3P

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

Dynamic Stress

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

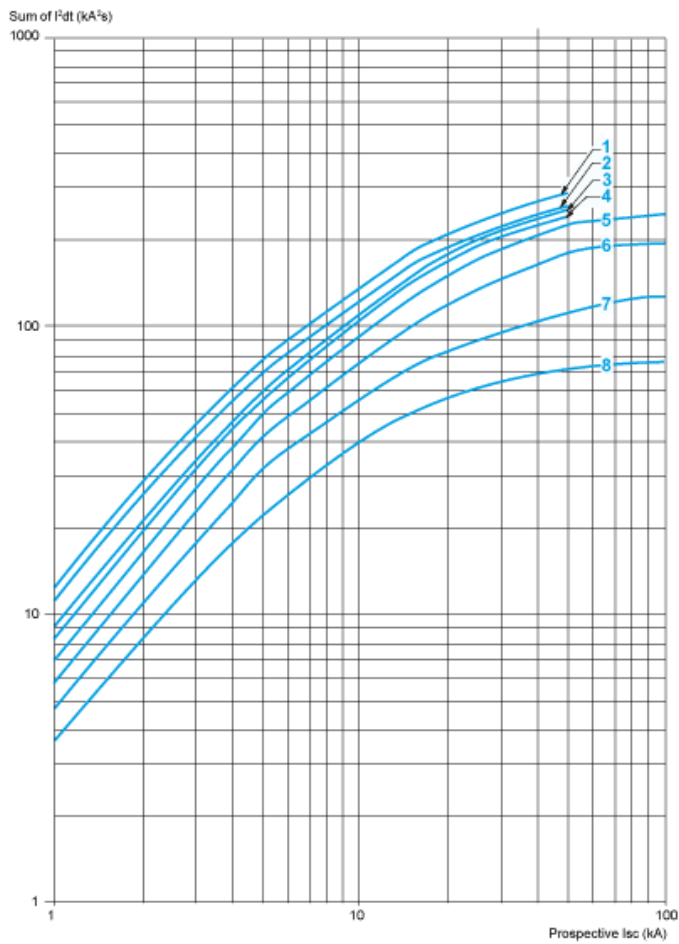


- 1 Maximum peak current
- 2 70-80 A (GV3P80), 62-73 A (GV3P73)
- 3 48-65 A (GV3P65)
- 4 37-50 A (GV3P50)
- 5 30-40 A (GV3P40)
- 6 23-32 A (GV3P32)
- 7 17-25 A (GV3P25)
- 8 12-18 A (GV3P18)
- 9 9-13 A (GV3P13)

### Maximum Thermal Limit on Short-Circuit

Thermal Limit in  $\text{kA}^2\text{s}$  in the Magnetic Operating Zone

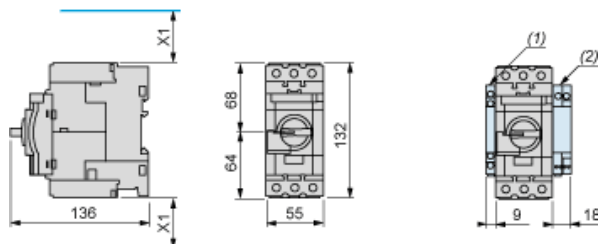
Sum of  $I^2dt = f$  (prospective  $I_{sc}$ ) at  $1.05 U_e = 435 \text{ V}$



- 1 70-80 (GV3P80) - 62-73 (GV3P73)
- 2 48-65 A (GV3P65)
- 3 37-50 A (GV3P50)
- 4 30-40 A (GV3P40)
- 5 23-32 A (GV3P32)
- 6 17-25 A (GV3P25)
- 7 12-18 A (GV3P18)
- 8 9-13 A (GV3P13)

## GV13L, GV3P

### Dimensions



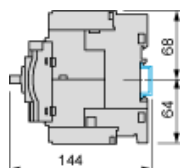
(1) Blocks GVAN..., GVAD... and GVAM11.

(2) Blocks GV3AU... and GV3AS...

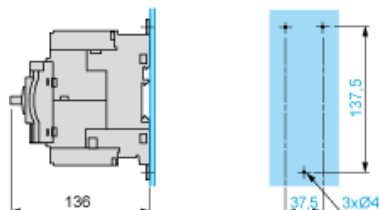
X1 = Electrical clearance (ISC max) 40 mm for  $U_e \leq 500$  V, 50 mm for  $U_e \leq 690$  V

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.

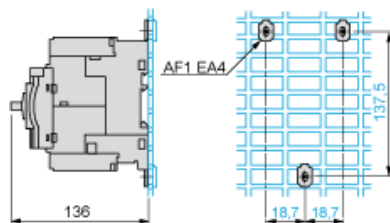
### Mounting on Rail AM1 DE200 or AM1 ED201



### Panel Mounting, using M4 Screws



### Mounting on Pre-Slotted Plate AM1 PA



GV3P..

