

# Product datasheet

Specifications



## Motor circuit breaker, TeSys GV3, 3P, 73 A, magnetic, rotary handle, EverLink terminals

GV3L73

### 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	37 kW at 400/415 V AC 50/60 Hz 45 kW at 500 V AC 50/60 Hz 55 kW at 690 V AC 50/60 Hz
Breaking capacity	65 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 60 % at 400/415 V AC 50/60 Hz 60 % 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	73 A
Magnetic tripping current	1120 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	20000 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: 5 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	6.3 cm
Package 1 Width	14.6 cm
Package 1 Length	16.0 cm
Package 1 Weight	1.017 kg

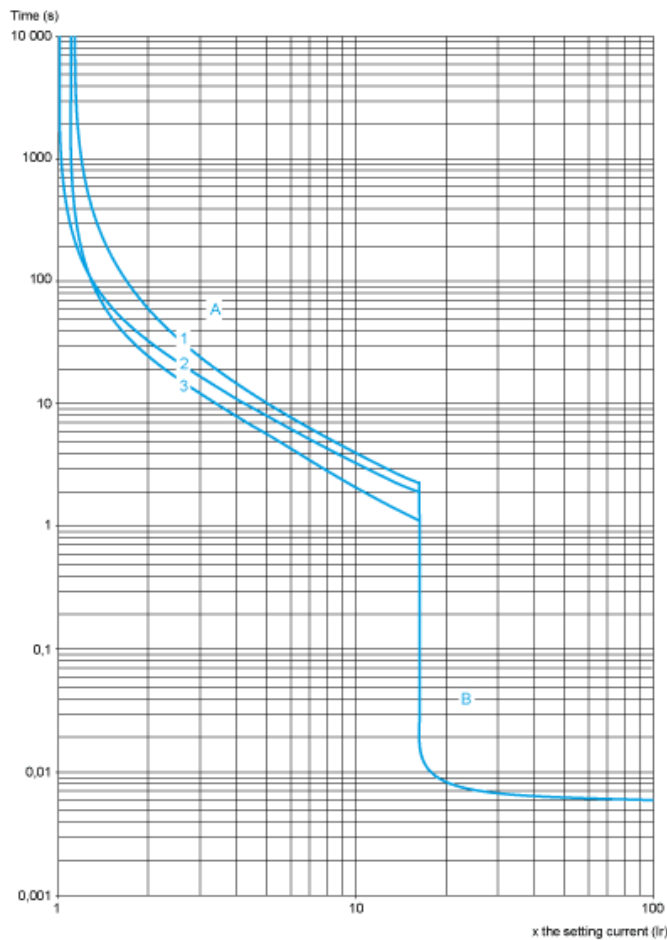
## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information
RoHS exemption information	<a href="#">Yes</a>

Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
<b>Contractual warranty</b>	
Warranty	18 months

Tripping Curves for GV3L Combined with Thermal Overload Relay LRD33

Average Operating time at 20 °C without Prior Current Flow



- 1

2

3

A

B
- 3 poles from cold state

2 poles from cold state

3 poles from hot state

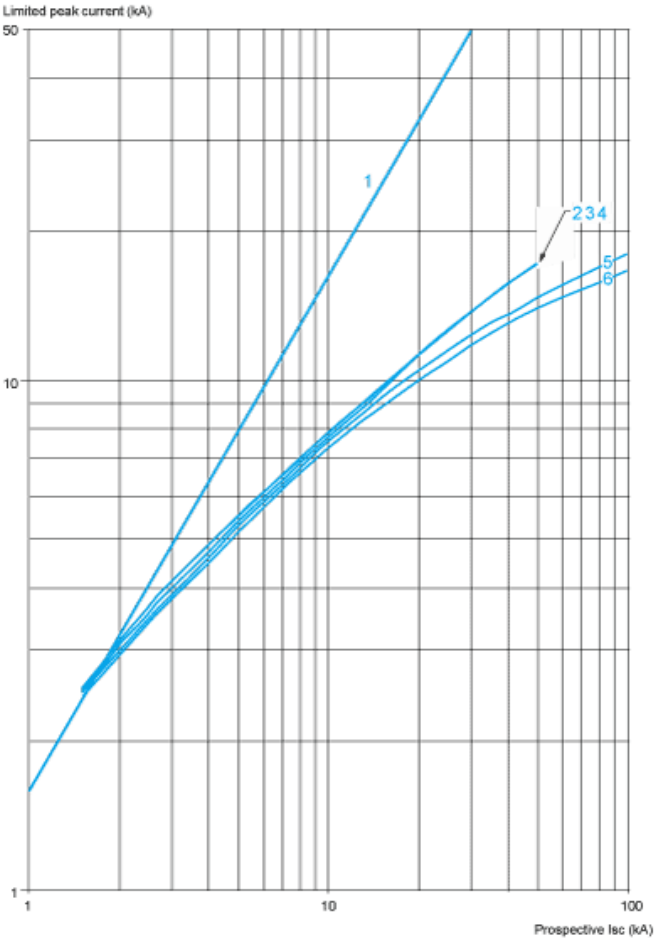
Thermal overload relay protection zone

GV3L protection zone

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

Dynamic Stress

I peak = f (prospective I<sub>sc</sub>) at 1.05 U<sub>e</sub> = 435 V

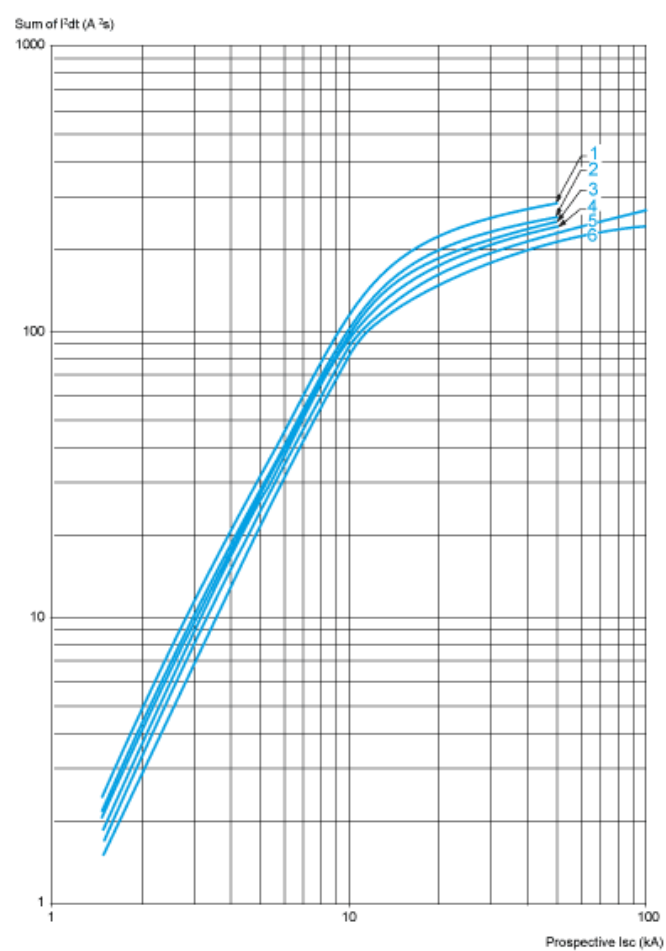


- 1 Maximum peak current
- 2 GV3L80 - GV3L73 - GV3L65
- 3 GV3L50
- 4 GV3L40
- 5 GV3L32
- 6 GV3L25

Thermal Limit on Short-Circuit for GV3L

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

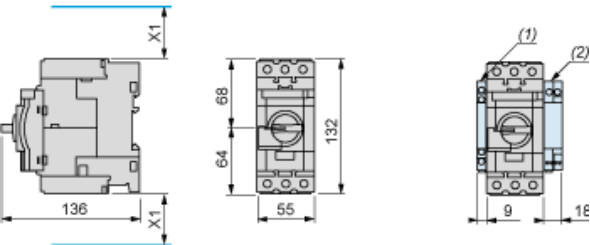
Sum of I<sup>2</sup>dt = f (prospective I<sub>sc</sub>) at 1.05 U<sub>e</sub> = 435 V



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

GV3L, GV3P

Dimensions

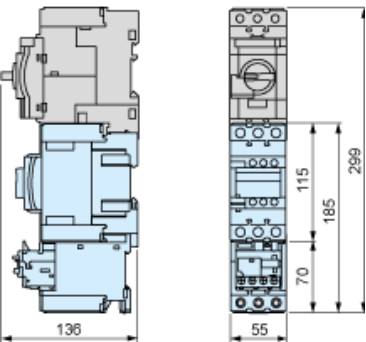


- (1) Blocks GVAN.., GVAD.. and GVAM11.
- (2) Blocks GV3AU.. and GV3AS..

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

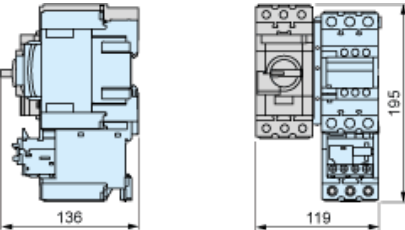
**NOTE:** Leave a space of 9 mm between 2 circuit breakers: either an empty space or side-mounting add-on contact blocks. Side by side mounting is possible up to 40 °C.

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))

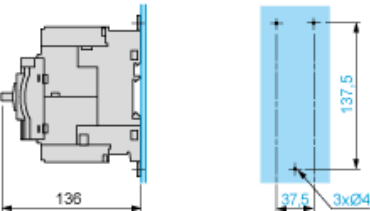


- (1) Mountings with c.b. up to GV3L73, GV3P73.

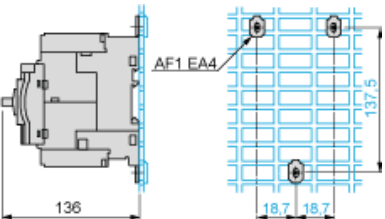
Mounting on Rail AM1 DE200 or AM1 ED201



Panel Mounting, using M4 Screws



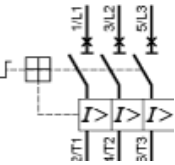
Mounting on Pre-Slotted Plate AM1 PA







GV3L••



Recommended replacement(s)