

# Product data sheet

Specifications



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

GV3L73

### Main

Range of product	TeSys GV3 TeSys Deca
Range	TeSys TeSys Deca
Device short name	GV3L
Product name	TeSys GV3 TeSys Deca
Product or component type	Circuit breaker
Device application	Motor
Trip unit technology	Magnetic

### Complementary

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
Fixing mode	35 mm symmetrical DIN rail: clipped Panel: screwed (with 3 x M4 screws)
Operating position	Any position
Motor power kW	37 kW at 400/415 V AC 50/60 Hz 55 kW at 690 V AC 50/60 Hz 45 kW at 500 V AC 50/60 Hz
Breaking capacity	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 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 50 % at 500 V AC 50/60 Hz 50 % at 690 V AC 50/60 Hz 60 % at 400/415 V AC 50/60 Hz 60 % at 440 V AC 50/60 Hz
Control type	Rotary knob
[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

<b>[Ui] rated insulation voltage</b>	690 V AC 50/60 Hz conforming to IEC 60947-2
<b>[Uimp] rated impulse withstand voltage</b>	6 kV conforming to IEC 60947-2
<b>Power dissipation per pole</b>	8 W
<b>Mechanical durability</b>	50000 cycles
<b>Electrical durability</b>	20000 cycles for AC-3 at 415 V In
<b>Maximum operating rate</b>	25 cyc/h
<b>Tightening torque</b>	5 N.m on EverLink BTR screw connectors for cable 25 mm <sup>2</sup> 8 N.m on EverLink BTR screw connectors for cable 35 mm <sup>2</sup>
<b>Mechanical robustness</b>	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 Shocks: 5 Gn for 11 ms closed conforming to IEC 60068-2-27
<b>Suitability for isolation</b>	Yes conforming to IEC 60947-1
<b>Height</b>	132 mm
<b>Width</b>	55 mm
<b>Depth</b>	136 mm
<b>Net weight</b>	0.96 kg
<b>Colour</b>	Grey (SE GREY 6) Green (SE GREEN 2)

## Environment

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

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	1.017 kg
<b>Package 1 Height</b>	6.3 cm
<b>Package 1 width</b>	14.6 cm
<b>Package 1 Length</b>	16 cm

## Offer Sustainability

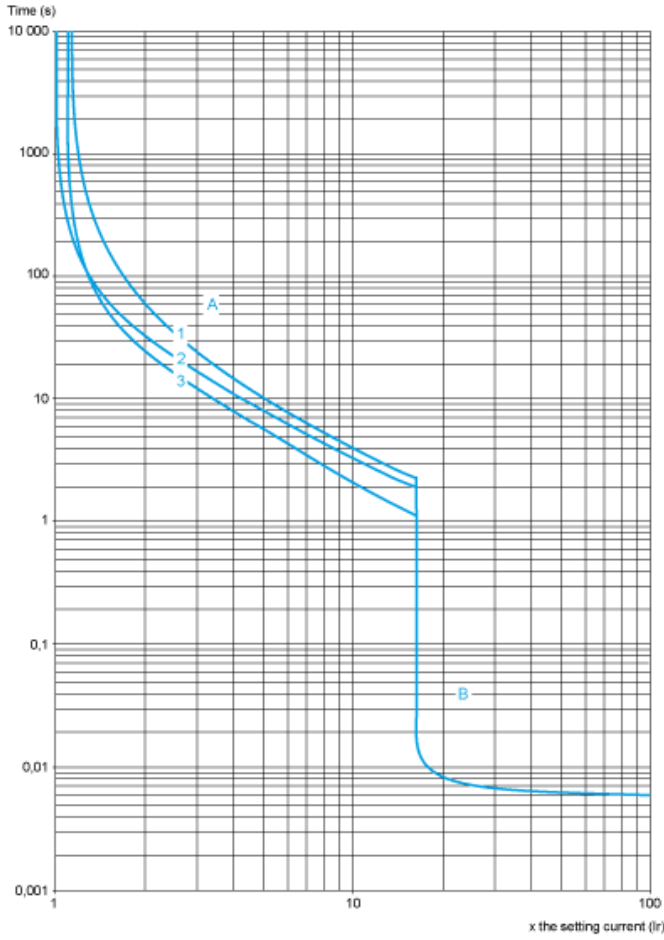
<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>EU RoHS Directive</b>	Compliant <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>RoHS exemption information</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>
<b>WEEE</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

## Contractual warranty

<b>Warranty</b>	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

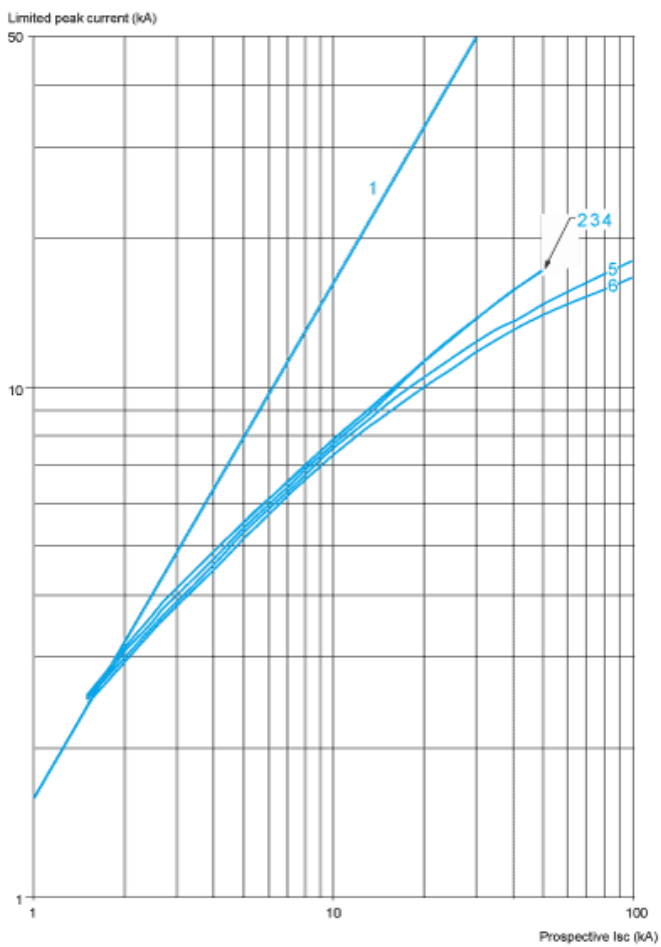


- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state
- A Thermal overload relay protection zone
- B GV3L protection zone

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

Dynamic Stress

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

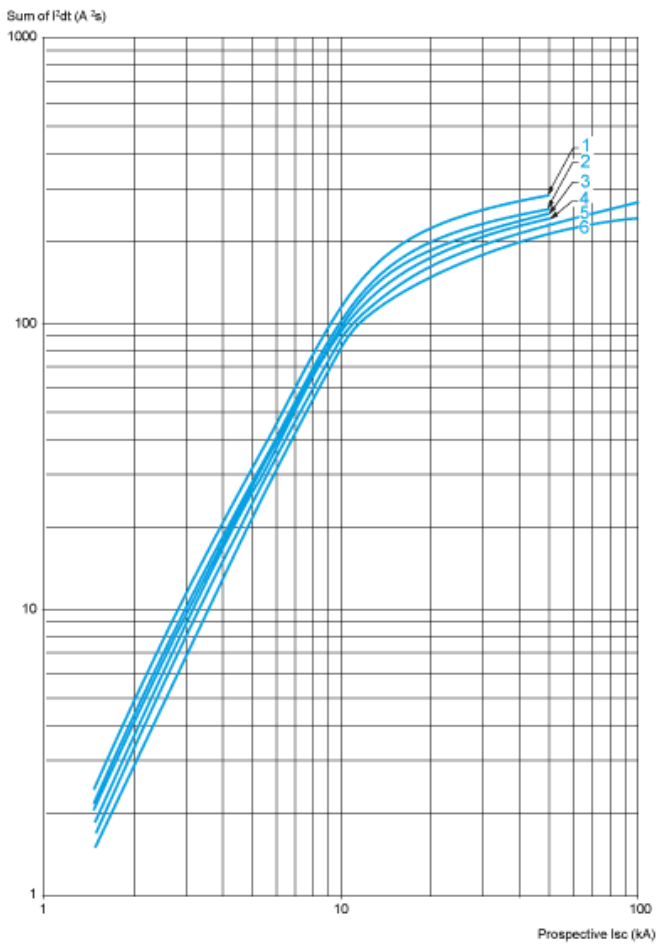


- 1 Maximum peak current
- 2 GV3L80 - GV3L73 - GV3L65
- 3 GV3L50
- 4 GV3L40
- 5 GV3L32
- 6 GV3L25

### Thermal Limit on Short-Circuit for GV3L

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

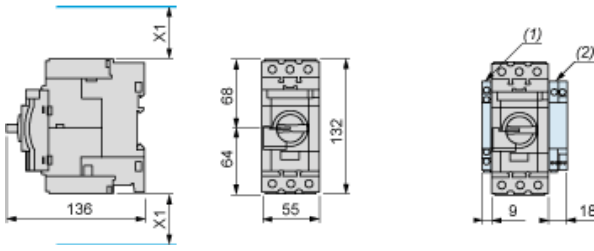
Sum of  $I^2dt = f$  (prospective Isc) at 1.05 Ue = 435 V



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

**GV3L, GV3P**

**Dimensions**

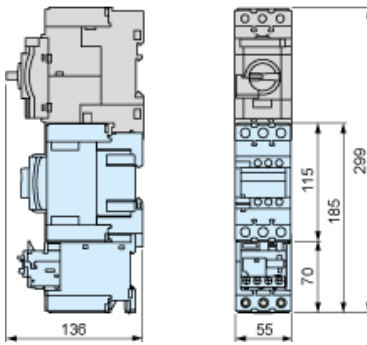


- (1) Blocks GVAN.., GVAD.. and GVAM11.
- (2) Blocks GV3AU.. and GV3AS..

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

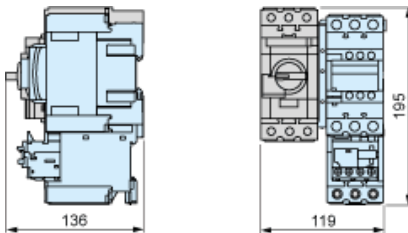
**NOTE:** Leave a space of 9 mm between 2 circuit breakers: either an empty space or side-mounting add-on contact blocks. Side by side mounting is possible up to 40 °C.

**Mounting with Tesys contactor LC1D40A...D80A and relay LR3D313...380** <sup>(1) (2) (3)</sup>



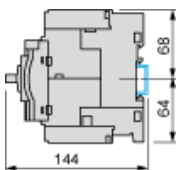
- (1) Mountings with c.b. up to GV3L73, GV3P73.
- (2) For GV3L80, GV3P80 use cable between components for dissipating heat. Consult online datasheets for values.
- (3) S-shape busbar system suitable up to 73 A.

**Side by side mounting with Tesys contactor LC1D40A...D73A (S-shape busbar system GV3S<sup>(1)</sup>)**

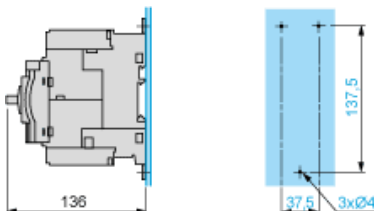


- (1) Mountings with c.b. up to GV3L73, GV3P73.

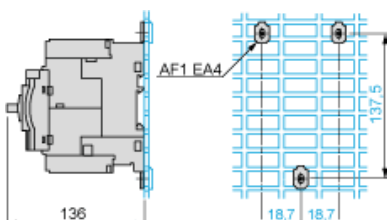
**Mounting on Rail AM1 DE200 or AM1 ED201**



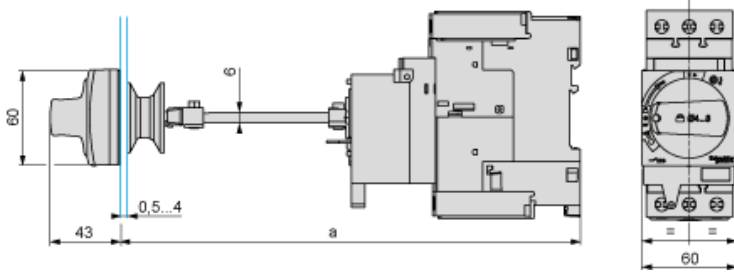
**Panel Mounting, using M4 Screws**



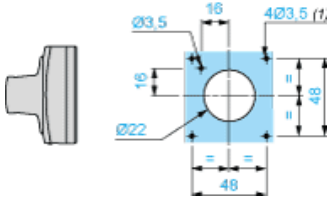
**Mounting on Pre-Slotted Plate AM1 PA**



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

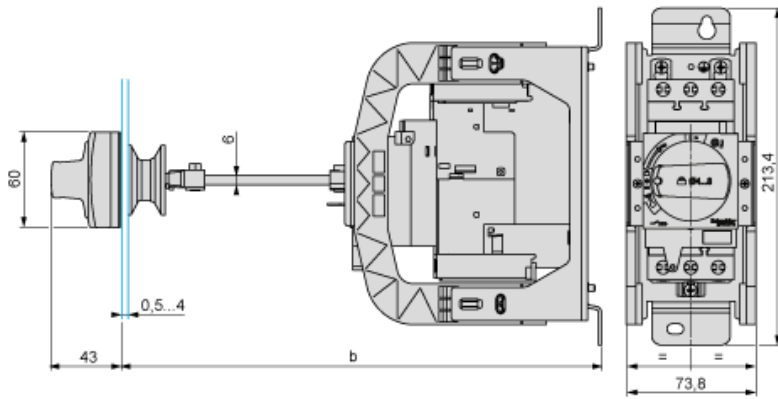


Door cut-out



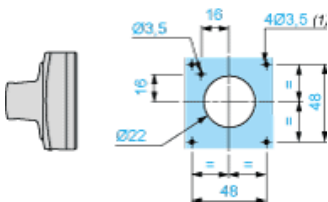
(1) For IP65 only.

**Mounting of External Operator GVAPH03 for Motor Circuit Breakers GV3L**



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

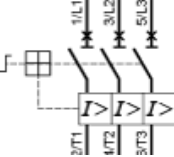
Door cut-out



(1) For IP65 only.



GV3L••



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