

# Product data sheet

Specifications



## Motor circuit breaker, TeSys Deca, 3P, 70-80 A, thermal magnetic, EverLink terminals

GV3P80

### Main

Range of product	TeSys GV3
Range	TeSys TeSys Deca
Device short name	GV3P
Product name	TeSys GV3 TeSys Deca
Product or component type	Circuit breaker
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 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)
Operating position	Any position, no direct mounting with contactor, use cable length > 10 cm Any position, do not use with accessory GV3S
Motor power kW	45 kW at 400/415 V AC 50/60 Hz maximum peak current 750 A 45 kW at 500 V AC 50/60 Hz maximum peak current 750 A 55 kW at 690 V AC 50/60 Hz maximum peak current 750 A
Breaking capacity	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 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 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 knob
[In] rated current	80 A
Thermal protection adjustment range	70...80 A
Magnetic tripping current	1120 A

<b>[Ue] rated operational voltage</b>	690 V AC 50/60 Hz
<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>Rated duty</b>	Continuous conforming to IEC 60947-4-1
<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>Phase failure sensitivity</b>	Yes conforming to IEC 60947-4-1
<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>	Dark grey Green (SE GREEN 2)

## Environment

<b>Standards</b>	EN/IEC 60947-2 EN/IEC 60947-4-1
<b>Product certifications</b>	IECEE CB Scheme CCC EAC ATEX BV LROS (Lloyds register of shipping) DNV-GL ABS UKCA
<b>Protective treatment</b>	TC
<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>	1.026 kg
<b>Package 1 Height</b>	6.5 cm
<b>Package 1 width</b>	14.5 cm
<b>Package 1 Length</b>	16 cm

Unit Type of Package 2	CAR
Number of Units in Package 2	1
Package 2 Weight	1.031 kg
Package 2 Height	15.8 cm
Package 2 width	6.5 cm
Package 2 Length	14.6 cm
Unit Type of Package 3	S06
Number of Units in Package 3	120
Package 3 Weight	136.72 kg
Package 3 Height	73.5 cm
Package 3 width	60 cm
Package 3 Length	80 cm

## Offer Sustainability

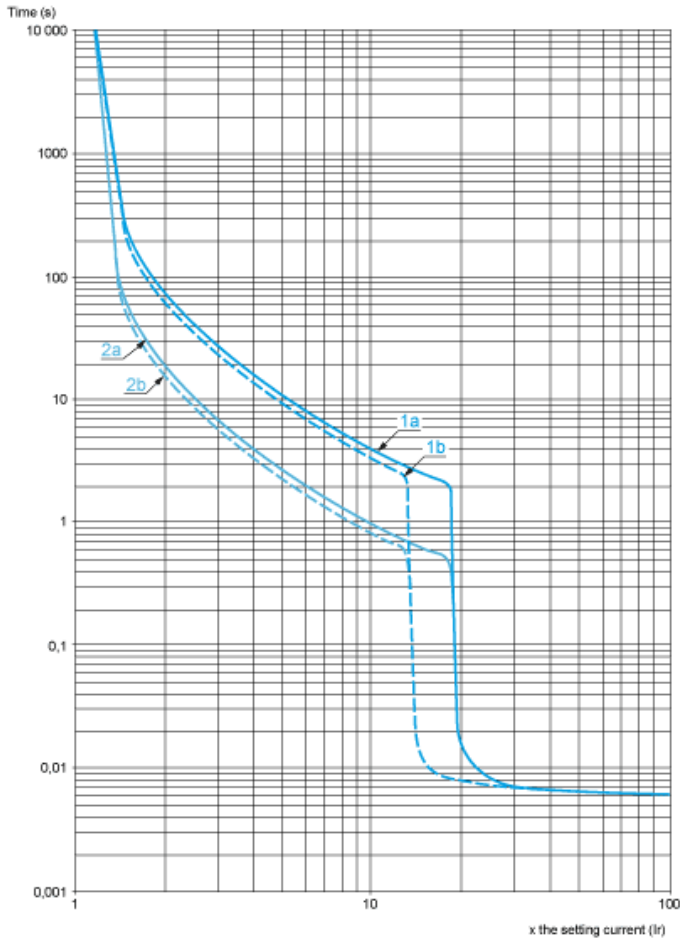
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of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

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

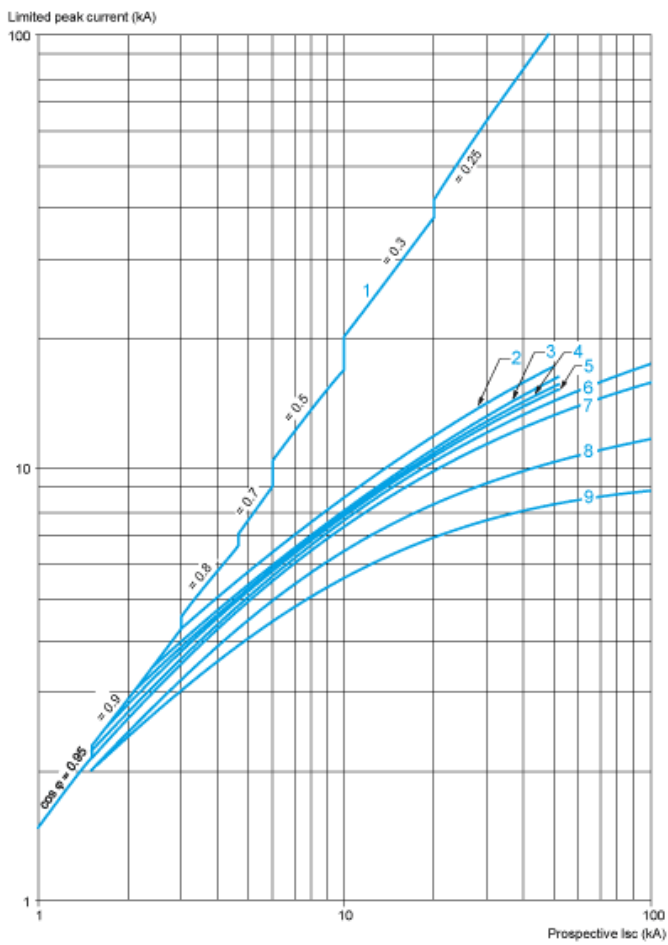


- 1a** 3 poles from cold state (Ir minimum): GV3P
- 1b** 3 poles from cold state (Ir maximum): GV3P
- 2a** 3 poles from hot state (Ir minimum): GV3P
- 2b** 3 poles from hot state (Ir maximum): GV3P

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

**Dynamic Stress**

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

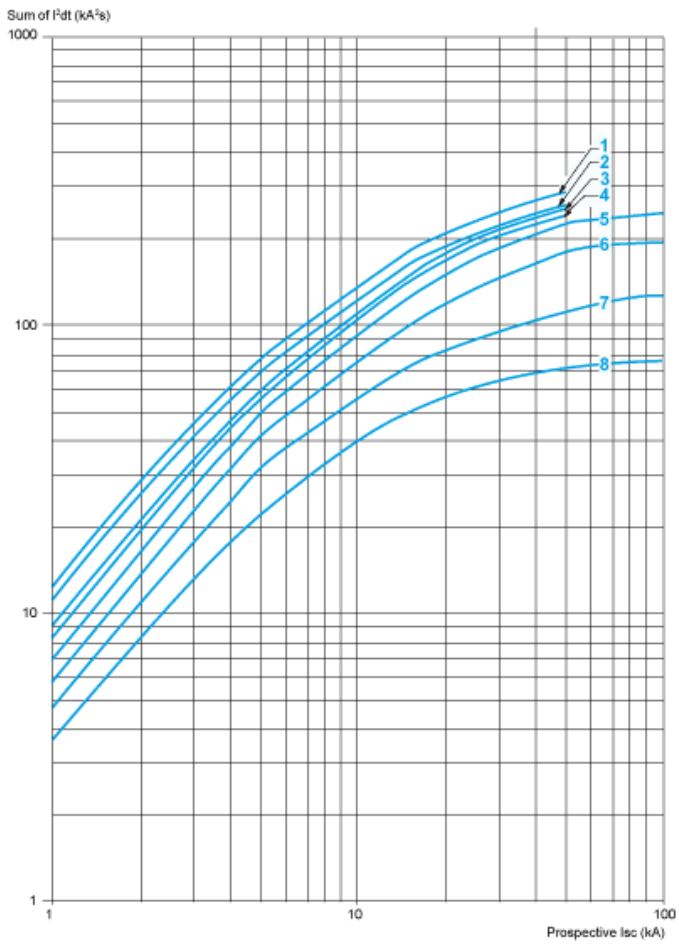


- 1 Maximum peak current
- 2 70-80 A (GV3P80), 62-73 A (GV3P73)
- 3 48-65 A (GV3P65)
- 4 37-50 A (GV3P50)
- 5 30-40 A (GV3P40)
- 6 23-32 A (GV3P32)
- 7 17-25 A (GV3P25)
- 8 12-18 A (GV3P18)
- 9 9-13 A (GV3P13)

### Maximum Thermal Limit on Short-Circuit

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

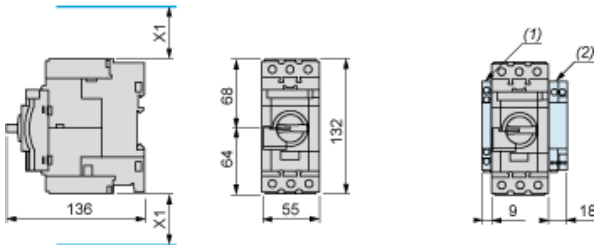
Sum of  $I^2dt = f(\text{prospective Isc})$  at  $1.05 U_e = 435 \text{ V}$



- 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)

GVI3L, GV3P

Dimensions

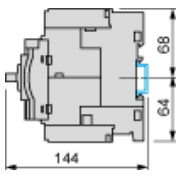


- (1) Blocks GVAN.., GVAD.. and GVAM11.
- (2) Blocks GV3AU.. and GV3AS..

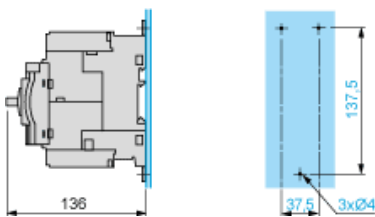
X1 = Electrical clearance (ISC max) 40 mm for  $U_e \leq 500$  V, 50 mm for  $U_e \leq 690$  V

**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.

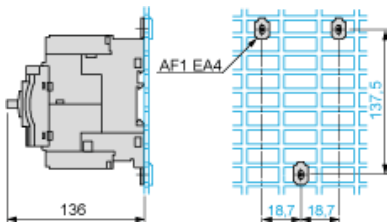
Mounting on Rail AM1 DE200 or AM1 ED201



Panel Mounting, using M4 Screws



Mounting on Pre-Slotted Plate AM1 PA



GV3P\*\*

