

# Product datasheet

Specifications



## Motor circuit breaker, TeSys GV4, 3P, 2A, Icu 50kA, thermal magnetic multifunction, lugs terminals

GV4PEM02N6

### Main

Range of product	TeSys GV4
Range	TeSys Deca
Device short name	GV4PEM
product name	TeSys GV4
Product or component type	Motor circuit breaker
Device application	Motor protection
Trip unit technology	Electronic Thermal-magnetic

### Complementary

Poles description	3P
Utilisation category	Category A conforming to IEC 60947-2 AC-3 conforming to IEC 60947-4-1
Operating position	Any position
Motor power kW	0.25 kW at 400...415 V AC 50/60 Hz 0.37 kW at 400...415 V AC 50/60 Hz 0.55 kW at 400...415 V AC 50/60 Hz 0.75 kW at 400...415 V AC 50/60 Hz 0.37 kW at 500 V AC 50/60 Hz 0.55 kW at 500 V AC 50/60 Hz 0.75 kW at 500 V AC 50/60 Hz 1.1 kW at 500 V AC 50/60 Hz 0.55 kW at 660...690 V AC 50/60 Hz 0.75 kW at 660...690 V AC 50/60 Hz 1.1 kW at 660...690 V AC 50/60 Hz 1.5 kW at 660...690 V AC 50/60 Hz
Breaking capacity	100 kA Icu at 220...240 V AC 50/60 Hz conforming to IEC 60947-2 50 kA Icu at 380...415 V AC 50/60 Hz conforming to IEC 60947-2 50 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 15 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2 65 kA at 208Y/120 V AC 50/60 Hz conforming to UL 60947 65 kA at 240 V AC 50/60 Hz conforming to UL 60947 35 kA at 480Y/277 V AC 50/60 Hz conforming to UL 60947 8 kA Icu at 660...690 V AC 50/60 Hz conforming to IEC 60947-2 25 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2 18 kA at 600Y/347 V AC 50/60 Hz conforming to UL 60947
Control type	Toggle
[In] rated current	2 A
Magnetic tripping current	34 A
[Ue] rated operational voltage	690 V AC 50/60 Hz conforming to IEC 60947-2
[Ui] rated insulation voltage	800 V AC 50/60 Hz conforming to IEC 60947-2
[Ith] conventional free air thermal current	115 A conforming to IEC 60947-4-1

<b>[Uimp] rated impulse withstand voltage</b>	8 kV conforming to IEC 60947-2
<b>Power dissipation per pole</b>	4.6 W
<b>Mechanical durability</b>	40000 cycles
<b>Electrical durability</b>	40000 cycles for AC-3 at 440 V In/2 40000 cycles for AC-3 at 440 V In
<b>Maximum operating rate</b>	25 cyc/h
<b>Rated duty</b>	Continuous conforming to IEC 60947-4-1
<b>Connection pitch</b>	27 mm without spreaders 35 mm with spreaders
<b>Connections - terminals</b>	Lugs-ring terminals
<b>Tightening torque</b>	9 N.m for cable 16...95 mm <sup>2</sup> 5 N.m for cable 1.5...10 mm <sup>2</sup>
<b>Mechanical robustness</b>	Vibrations: +/- 1 mm 2...13.2 Hz conforming to IEC 60068-2-6 Vibrations: 0.7 gn 13.2...100 Hz conforming to IEC 60068-2-6 Shocks: 15 gn 11 ms conforming to IEC 60068-2-27
<b>Phase failure sensitivity</b>	Yes conforming to IEC 60947-4-1
<b>Height</b>	155 mm
<b>Width</b>	81 mm
<b>Depth</b>	116 mm
<b>Net weight</b>	1.45 kg
<b>Colour</b>	Grey (RAL 7016)
<b>Suitability for isolation</b>	Yes conforming to IEC 60947-1

## Environment

<b>Standards</b>	CSA C22.2 No 60947-4-1 UL 60947-4-1 EN/IEC 60947-4-1 EN/IEC 60947-2
<b>Product certifications</b>	IEC UL CSA CCC EAC ATEX EU-RO MR
<b>Climatic withstand</b>	conforming to IACS E10
<b>IK degree of protection</b>	IK07 conforming to IEC 62262
<b>pollution degree</b>	3
<b>IP degree of protection</b>	IP40 conforming to IEC 60529
<b>Ambient air temperature for storage</b>	-50...85 °C
<b>Fire resistance</b>	960 °C conforming to IEC 60695-2-11
<b>Operating altitude</b>	5000 m
<b>Ambient air temperature for operation</b>	-25...70 °C

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	17.0 cm

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Package 1 Width	11.0 cm
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Package 1 Length	22.0 cm
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Package 1 Weight	1.478 kg
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## Contractual warranty

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Warranty	18 months
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## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Environmental footprint

[Environmental Disclosure](#)

[Product Environmental Profile](#)

## Use Better

### Materials and Packaging

Recycled metal content at CR level **0**

Packaging made with recycled cardboard **Yes**

Packaging without single use plastic **No**

[EU RoHS Directive](#) **Compliant with Exemptions**

SCIP Number **1b259a2c-3a3c-401a-acdd-f0837efd4018**

REACH Regulation **[REACH Declaration](#)**

Halogen content performance **Halogen free plastic parts product**


PVC free **Yes**

## Use Again

### Repack and remanufacture

[Circularity Profile](#) **[End of Life Information](#)**

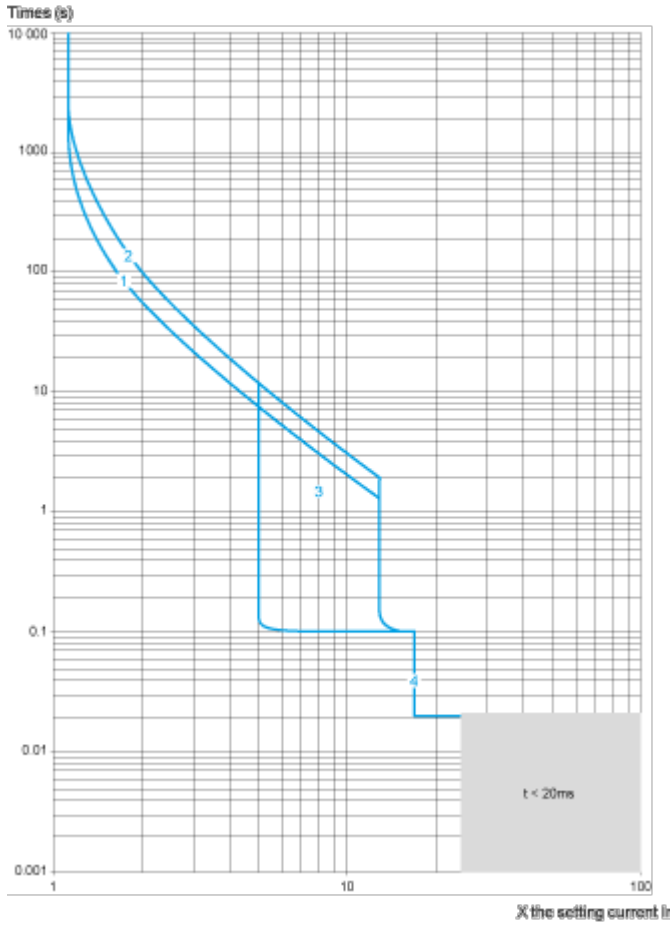
Take-back **No**

WEEE  **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins**

Performance Curves

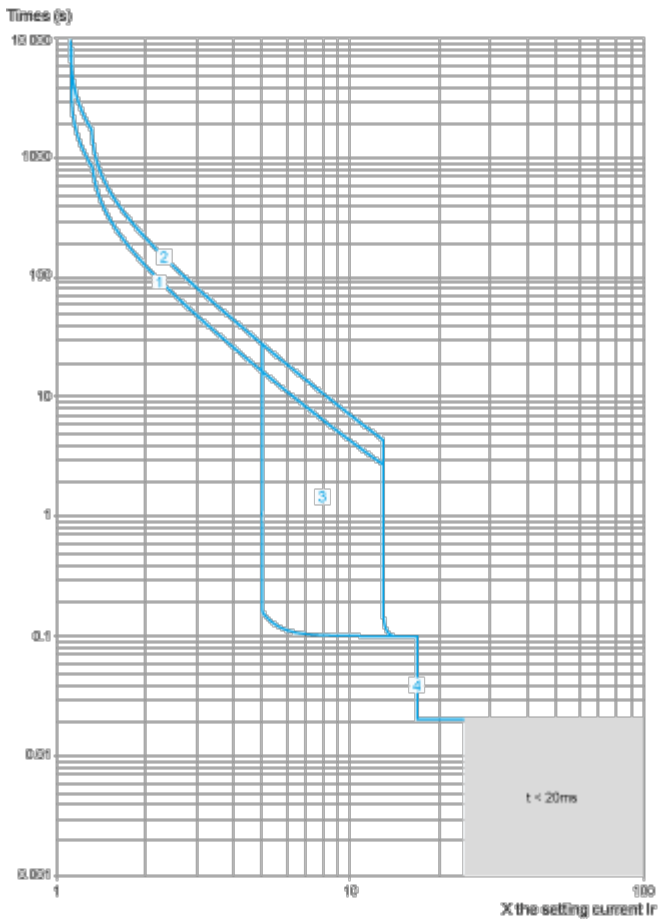
**Thermal-Magnetic Tripping Curves for GV4P, GV4PE, GV4PEM**  
**Average Operating Times at 20 °C Related to Multiples of the Setting Current**

Hot state



- 1 Class 10
- 2 Class 20
- 3  $I_{sd} = 5 \dots 13 \times I_r$
- 4  $I_i = 17 I_n$

Cold state

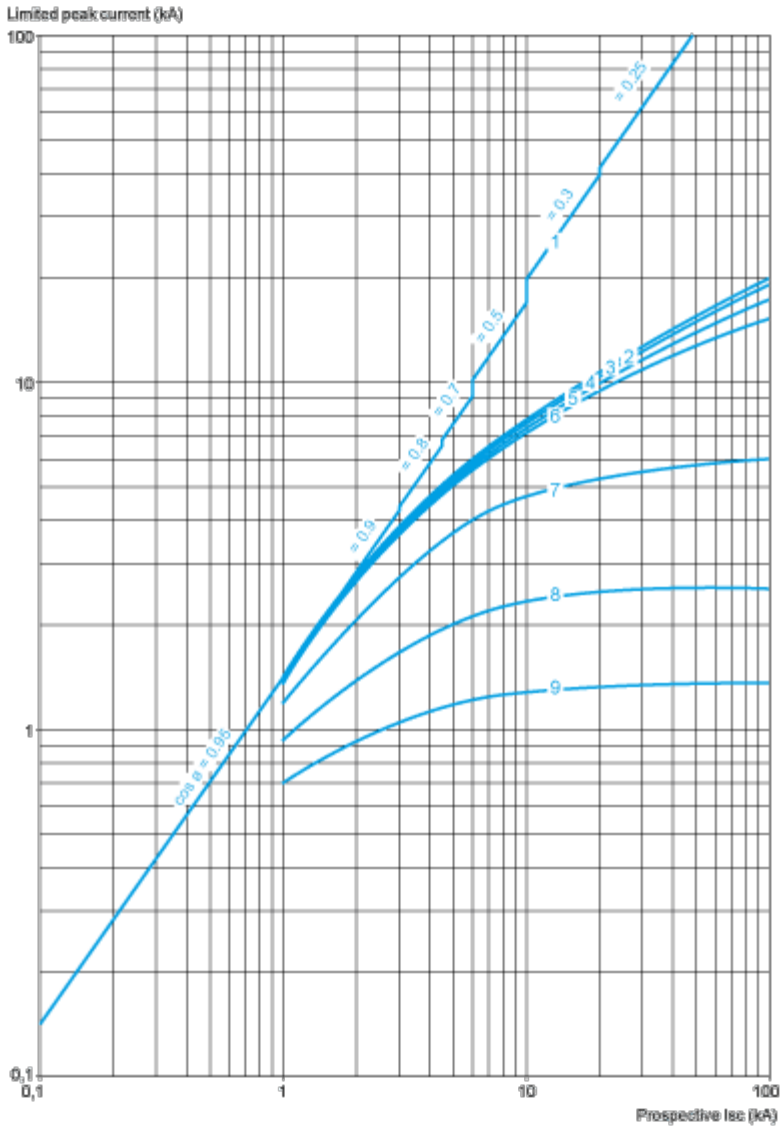


- 1 Class 10
- 2 Class 20
- 3  $I_{sd} = 5 \dots 13 \times I_r$
- 4  $I_i = 17 I_n$

**Current Limitation on Short-Circuit for GV4P, GV4PE, GV4PEM (3-Phase 400/415 V)**

**Dynamic Stress**

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

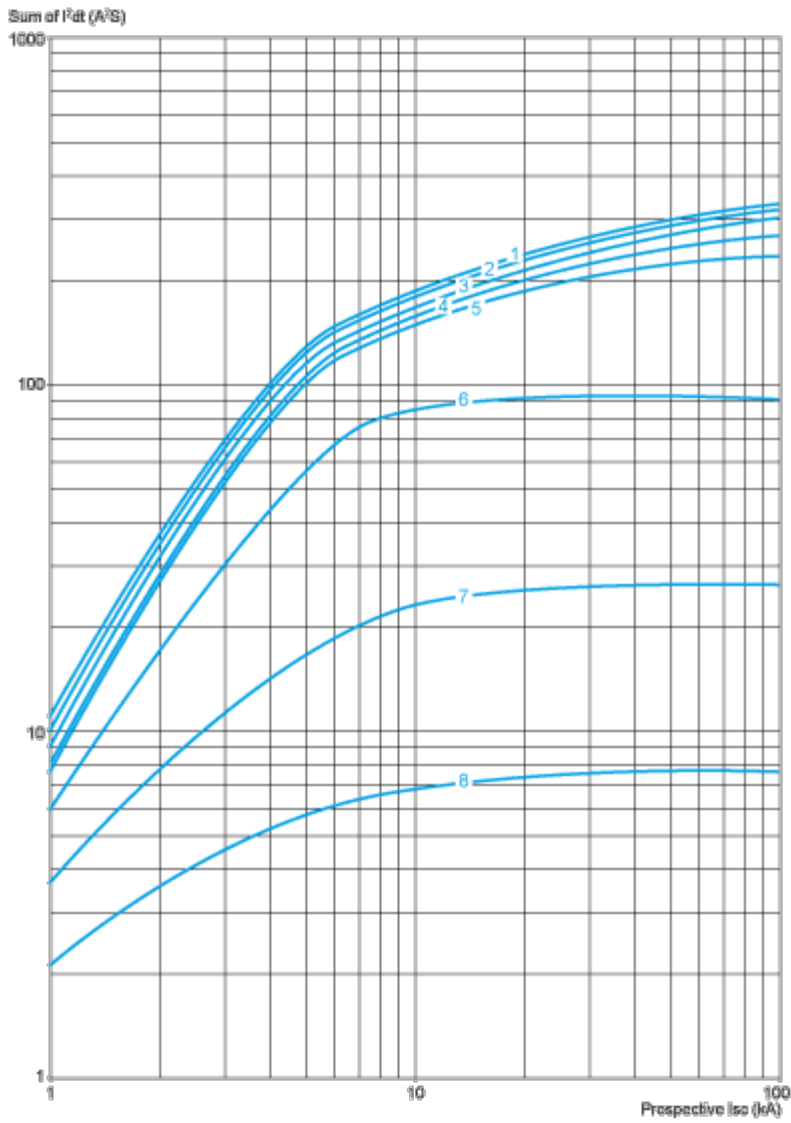


- 1 Maximum peak current
- 2 GV4P115
- 3 GV4P80
- 4 GV4P50
- 5 GV4P25
- 6 GV4P12
- 7 GV4P07
- 8 GV4P03
- 9 GV4P02

**Thermal Limit on Short-Circuit for GV4P, GV4PE, GV4PEM**

Thermal Limit in  $kA^2s$  in the Magnetic Operating Zone

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



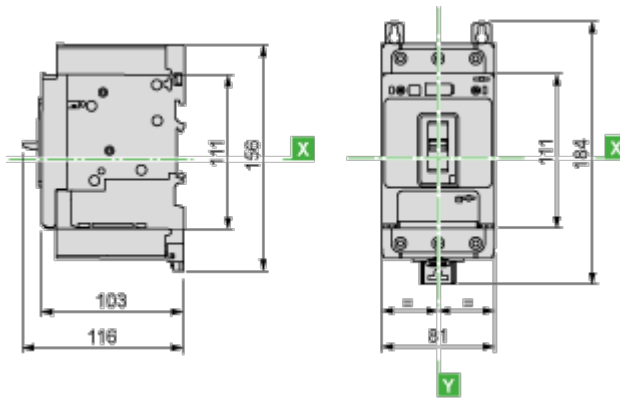
- 1 GV4P115
- 2 GV4P80
- 3 GV4P50
- 4 GV4P25
- 5 GV4P12
- 6 GV4P07
- 7 GV4P03
- 8 GV4P02



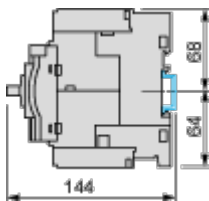
Dimensions Drawings

GV4 with Toggle: GV4LE, GV4PE, GV4PEM

With EverLink® Connector

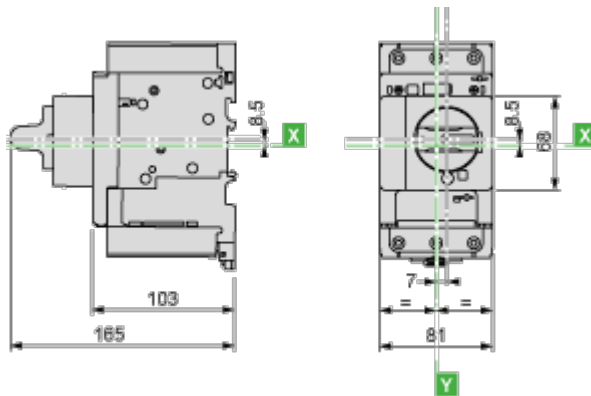


With Crimp Lug Connector



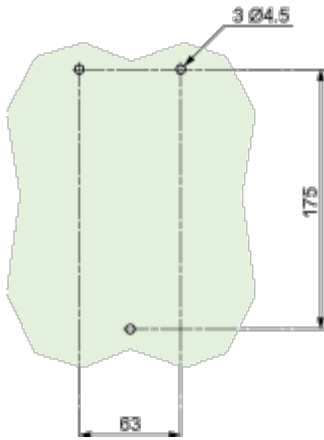
GV4 with Rotary Handle: GV4L, GV4P, or GV4LE, GV4PE, GV4PEM with GV4ADN01, GV4ADN02 Direct Mounting Rotary Handle

Dimensions

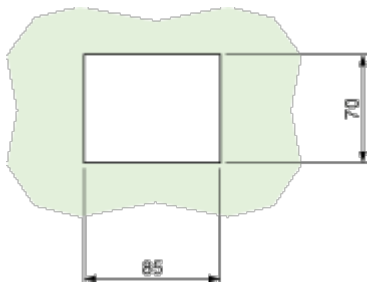


GV4L, GV4P, GV4LE, GV4PE, GV4PEM

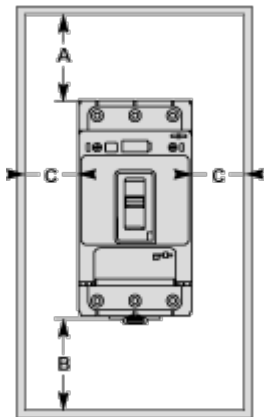
Panel Mounting with M4 Screws



Door Cut-Out for Rotary Handle



Minimum Safety Clearance



Toggle-type, rotary handle-type: identical clearance values.

	Painted Sheet Metal			Bare Sheet Metal		
	A	B	C	A	B	C
No accessory	30	0	0	40	0	5
Interphase barriers	0	0	0	0	0	5
Long terminal shield	0	0	0	0	0	5

Connections and Schema

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**Magnetic Motor Circuit Breakers**  
GV4P, GV4PE, GV4PEM

