

Product data sheet

Specifications



Motor circuit breaker, TeSys GV4, 3P, 2A, Icu 100kA, thermal magnetic multifunction, lugs terminals

GV4PEM02S6

 **Discontinued on:** Dec 30, 2023

 **Discontinued**

Main

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

Complementary

Poles description	3P
Utilisation category	Category A IEC 60947-2 AC-3 IEC 60947-4-1
Operating position	Any position
Motor power kW	0.25 kW 400...415 V AC 50/60 Hz 0.37 kW 400...415 V AC 50/60 Hz 0.55 kW 400...415 V AC 50/60 Hz 0.75 kW 400...415 V AC 50/60 Hz 0.37 kW 500 V AC 50/60 Hz 0.55 kW 500 V AC 50/60 Hz 0.75 kW 500 V AC 50/60 Hz 1.1 kW 500 V AC 50/60 Hz 0.55 kW 660...690 V AC 50/60 Hz 0.75 kW 660...690 V AC 50/60 Hz 1.1 kW 660...690 V AC 50/60 Hz 1.5 kW 660...690 V AC 50/60 Hz
Breaking capacity	120 kA Icu 220...240 V AC 50/60 Hz IEC 60947-2 100 kA Icu 380...415 V AC 50/60 Hz IEC 60947-2 70 kA Icu 440 V AC 50/60 Hz IEC 60947-2 30 kA Icu 500 V AC 50/60 Hz IEC 60947-2 18 kA Icu 525 V AC 50/60 Hz IEC 60947-2 100 kA 208Y/120 V AC 50/60 Hz UL 60947 100 kA 240 V AC 50/60 Hz UL 60947 65 kA 480Y/277 V AC 50/60 Hz UL 60947 10 kA Icu 660...690 V AC 50/60 Hz IEC 60947-2 25 kA 600Y/347 V AC 50/60 Hz 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 IEC 60947-2
[Ui] rated insulation voltage	800 V AC 50/60 Hz IEC 60947-2

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

[Ith] conventional free air thermal current	115 A IEC 60947-4-1
[Uimp] rated impulse withstand voltage	8 kV IEC 60947-2
Power dissipation per pole	4.6 W
Mechanical durability	40000 cycles
Electrical durability	5000 cycles AC-3 415 V opening 5000 cycles AC-3 440 V closing
maximum operating rate	25 cyc/h
Rated duty	Continuous IEC 60947-4-1
Connection pitch	1.06 in (27 mm) without spreaders 1.4 in (35 mm) with spreaders
Connections - terminals	Lugs-ring terminals
Tightening torque	79.7 lbf.in (9 N.m) 0.02...0.1 in² (16...95 mm²) 44.3 lbf.in (5 N.m) 0.002...0.02 in² (1.5...10 mm²)
Mechanical robustness	Vibrations +/- 1 mm 2...13.2 Hz IEC 60068-2-6 Vibrations 0.7 gn 13.2...100 Hz IEC 60068-2-6 Shocks 15 gn 11 ms IEC 60068-2-27
Phase failure sensitivity	Yes IEC 60947-4-1
Height	6.1 in (155 mm)
Width	3.2 in (81 mm)
Depth	4.6 in (116 mm)
Net weight	3.20 lb(US) (1.45 kg)
Colour	Grey RAL 7016)
Suitability for isolation	Yes IEC 60947-1

Environment

Standards	CSA C22.2 No 60947-4-1 UL 60947-4-1 EN/IEC 60947-4-1 EN/IEC 60947-2
Product certifications	IEC UL CSA CCC EAC ATEX EU-RO MR
Climatic withstand	IACS E10
IK degree of protection	IK07 IEC 62262
Pollution degree	3
IP degree of protection	IP40 IEC 60529
Ambient air temperature for storage	-58...185 °F (-50...85 °C)
Fire resistance	1760 °F (960 °C) IEC 60695-2-11
Operating altitude	5000 m
Ambient air temperature for operation	-13...158 °F (-25...70 °C)

Packing Units

Unit Type of Package 1	PCE
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Number of Units in Package 1	1
Package 1 Height	6.7 in (17.0 cm)
Package 1 Width	4.3 in (11.0 cm)
Package 1 Length	8.7 in (22.0 cm)
Package 1 Weight	3.26 lb(US) (1.48 kg)

Contractual warranty

Warranty (in months)	18
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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 Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	1b259a2c-3a3c-401a-acdd-f0837efd4018
EU RoHS Directive	Compliant By Exemption
Halogen content performance	Halogen free plastic parts product
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
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Use Again



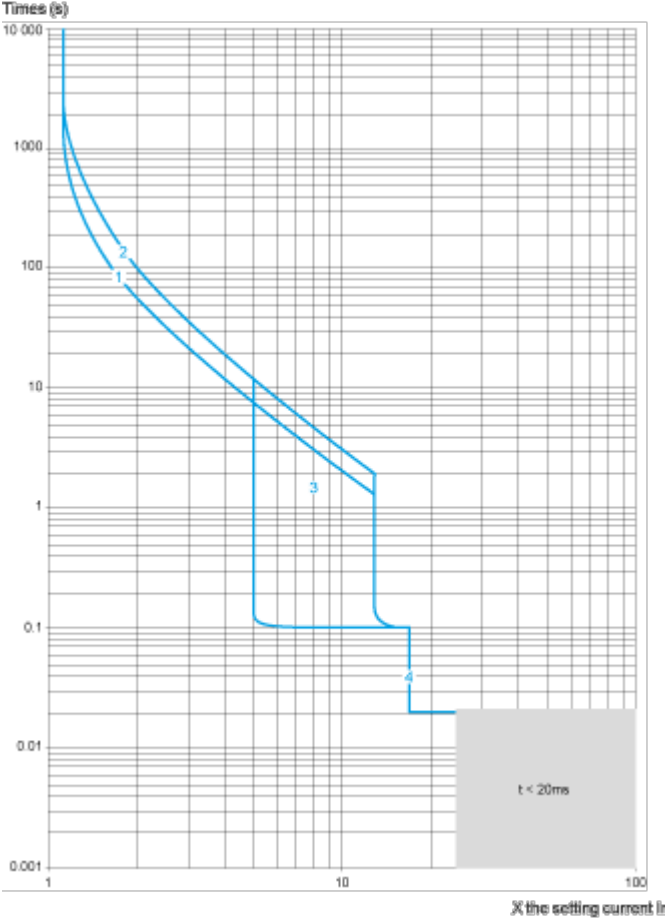
Repack and remanufacture

Circularity Profile	End of Life Information
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Performance Curves

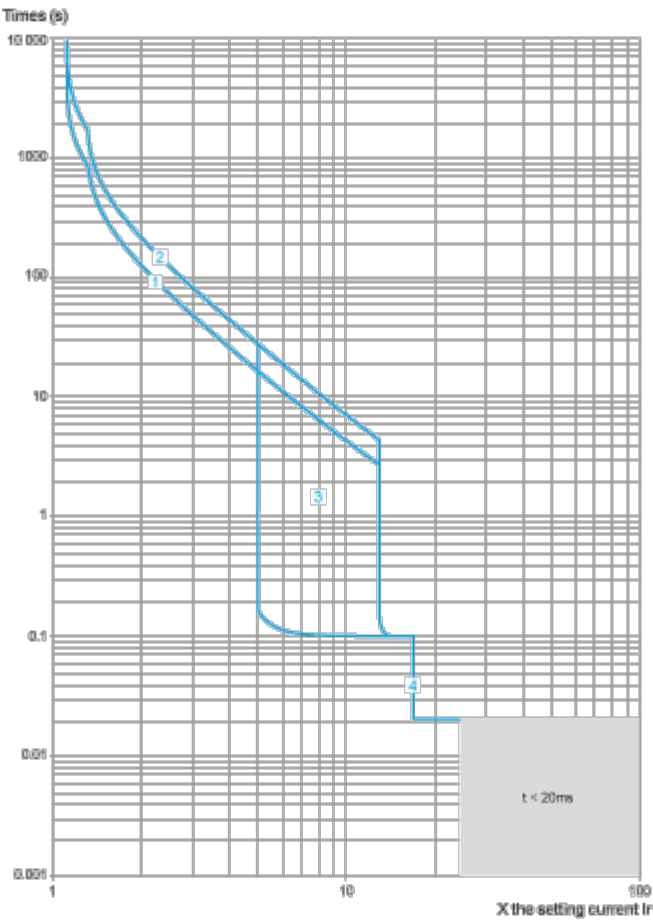
Thermal-Magnetic Tripping Curves for GV4P, GV4PE, GV4PEM
Average Operating Times at 20 °C Related to Multiples of the Setting Current

Hot state



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

Cold state

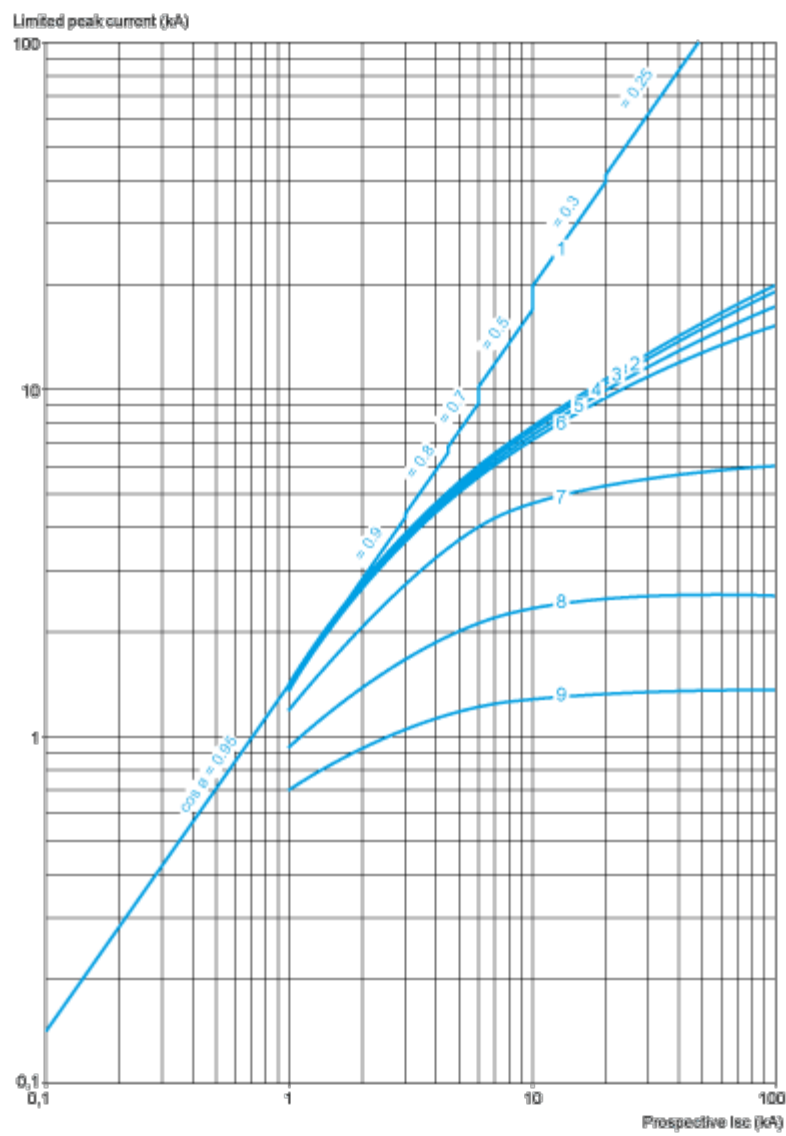


- 1 Class 10
- 2 Class 20
- 3 $I_{sd} = 5...13 \times I_r$
- 4 $I_i = 17 I_n$

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

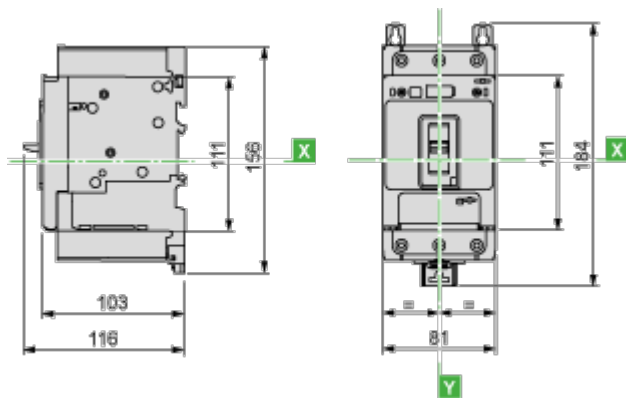
Sum of $I^2dt = f$ (prospective Isc) at $1.05 U_e = 435 \text{ V}$



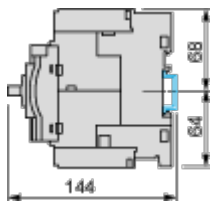
- 1 GV4P115
- 2 GV4P80
- 3 GV4P50
- 4 GV4P25
- 5 GV4P12
- 6 GV4P07
- 7 GV4P03
- 8 GV4P02

Dimensions Drawings

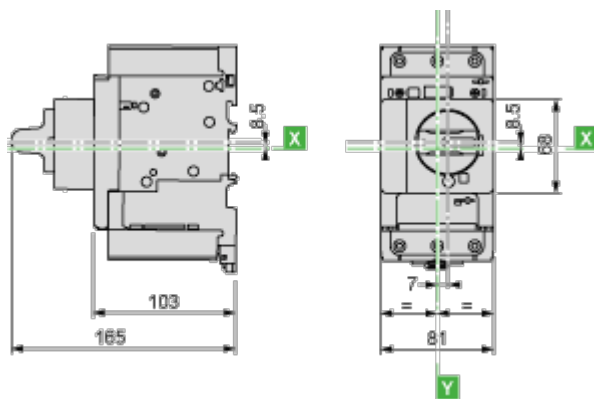
GV4 with Toggle: GV4LE, GV4PE, GV4PEM
With EverLink® Connector



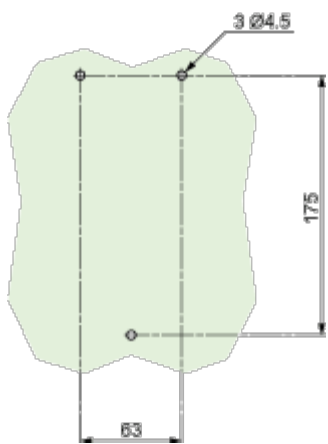
With Crimp Lug Connector



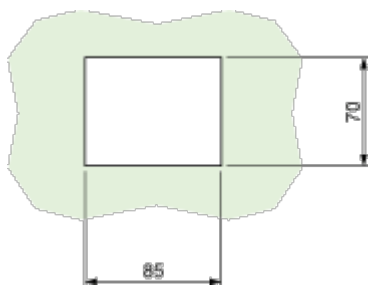
GV4 with Rotary Handle: GV4L, GV4P, or GV4LE, GV4PE, GV4PEM with GV4ADN01, GV4ADN02 Direct Mounting Rotary Handle
Dimensions



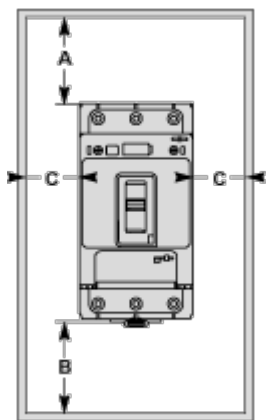
GV4L, GV4P, GV4LE, GV4PE, GV4PEM
Panel Mounting with M4 Screws



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

Magnetic Motor Circuit Breakers
GV4P, GV4PE, GV4PEM

