Product data sheet

Specifications

Motor circuit breaker, TeSys GV4, 3P, 12.5A, Icu 50kA, thermal magnetic multifunction, Everlink terminals

GV4PEM12N

Product availability: Non-Stock - Not normally stocked in distribution facility

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	Electronic Thermal-magnetic

Complementary

Poles description	3P
Utilisation category	Category A IEC 60947-2 AC-3 IEC 60947-4-1
Operating position	Any position
Motor power kW	3 kW 400...415 V AC 50/60 Hz 3 kW 500 V AC 50/60 Hz 4 kW 500 V AC 50/60 Hz 5.5 kW 660...690 V AC 50/60 Hz 7.5 kW 660...690 V AC 50/60 Hz 4 kW 400...415 V AC 50/60 Hz 5.5 kW 400...415 V AC 50/60 Hz 5.5 kW 500 V AC 50/60 Hz 7.5 kW 500 V AC 50/60 Hz 9 kW 660...690 V AC 50/60 Hz 11 kW 660...690 V AC 50/60 Hz
Breaking capacity	100 kA Icu 220...240 V AC 50/60 Hz IEC 60947-2 50 kA Icu 380...415 V AC 50/60 Hz IEC 60947-2 50 kA Icu 440 V AC 50/60 Hz IEC 60947-2 15 kA Icu 525 V AC 50/60 Hz IEC 60947-2 65 kA 208Y/120 V AC 50/60 Hz UL 60947 65 kA 240 V AC 50/60 Hz UL 60947 35 kA 480Y/277 V AC 50/60 Hz UL 60947 8 kA Icu 660...690 V AC 50/60 Hz IEC 60947-2 25 kA Icu 500 V AC 50/60 Hz IEC 60947-2 18 kA 600Y/347 V AC 50/60 Hz UL 60947
Control Type	Toggle
Line Rated Current	12.5 A
Magnetic tripping current	212 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

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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	40000 cycles AC-3 440 V In/2 40000 cycles AC-3 440 V In
maximum operating rate	25 cyc/h
Rated duty	Continuous IEC 60947-4-1
Connections - terminals	EverLink BTR screw connectors top) 1 0.002…0.1 in² (1.5…70 mm²) - solid EverLink BTR screw connectors top) 1 0.002…0.08 in² (1.5…50 mm²) - flexible EverLink BTR screw connectors bottom) 1 0.004…0.1 in² (2.5…95 mm²) - solid EverLink BTR screw connectors bottom) 1 0.004…0.1 in² (2.5…70 mm²) - flexible
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)
color	Gray 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)

Ordering and shipping details

Category	US10I1122365

Discount Schedule	0I11
GTIN	3606481310828
Returnability	No
Country of origin	PL

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	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 weight(Lbs)	3.68 lb(US) (1.67 kg)
Unit Type of Package 2	S03
Number of Units in Package 2	5
Package 2 Height	11.8 in (30 cm)
Package 2 Width	11.8 in (30 cm)
Package 2 Length	15.7 in (40 cm)
Package 2 Weight	19.4 lb(US) (8.8 kg)

Contractual warranty

Warranty (in months)	18

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

Carbon footprint (kg CO2 eq, Total Life cycle)	**90**
Environmental Disclosure	**Product Environmental Profile**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
EU RoHS Directive	**Compliant with Exemptions**
SCIP Number	**1b259a2c-3a3c-401a-acdd-f0837efd4018**
REACh Regulation	**REACh Declaration**
California proposition 65	**WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov**
Halogen content performance	**Halogen free plastic parts product**
PVC free	**Yes**

Use Again

Repack and remanufacture

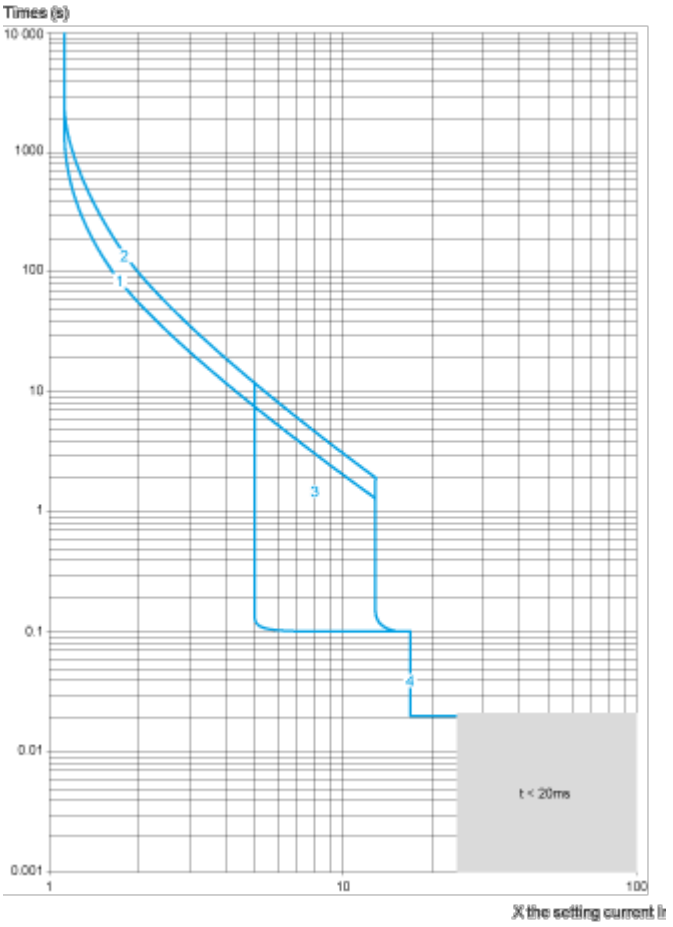
Circularity Profile	**End of Life Information**
Take-back	**No**
WEEE Label	**The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.**

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



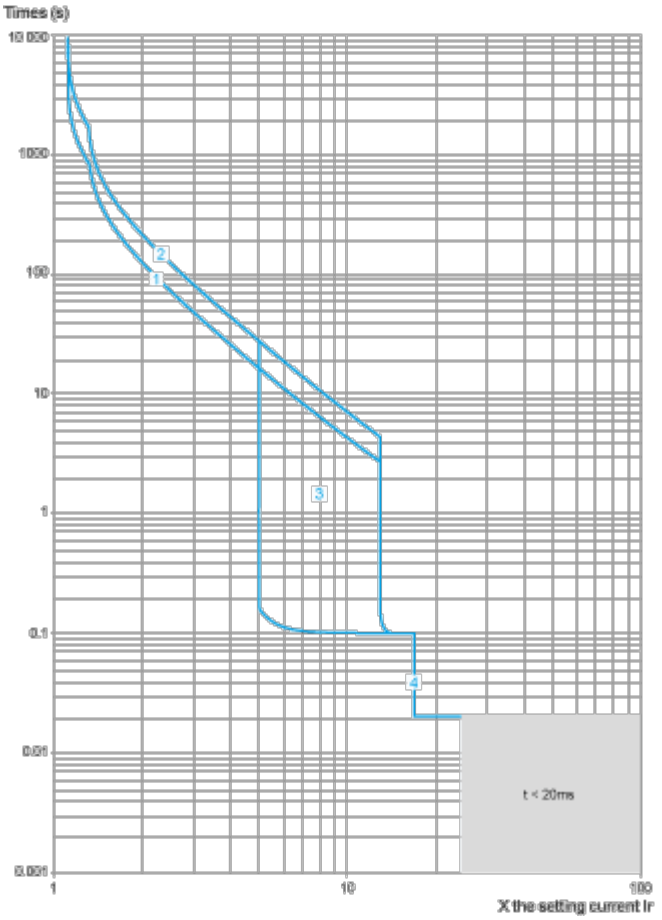
1 Class 10

2 Class 20

3 Isd = 5...13x Ir

4 Ii = 17 In

Cold state



1 Class 10

2 Class 20

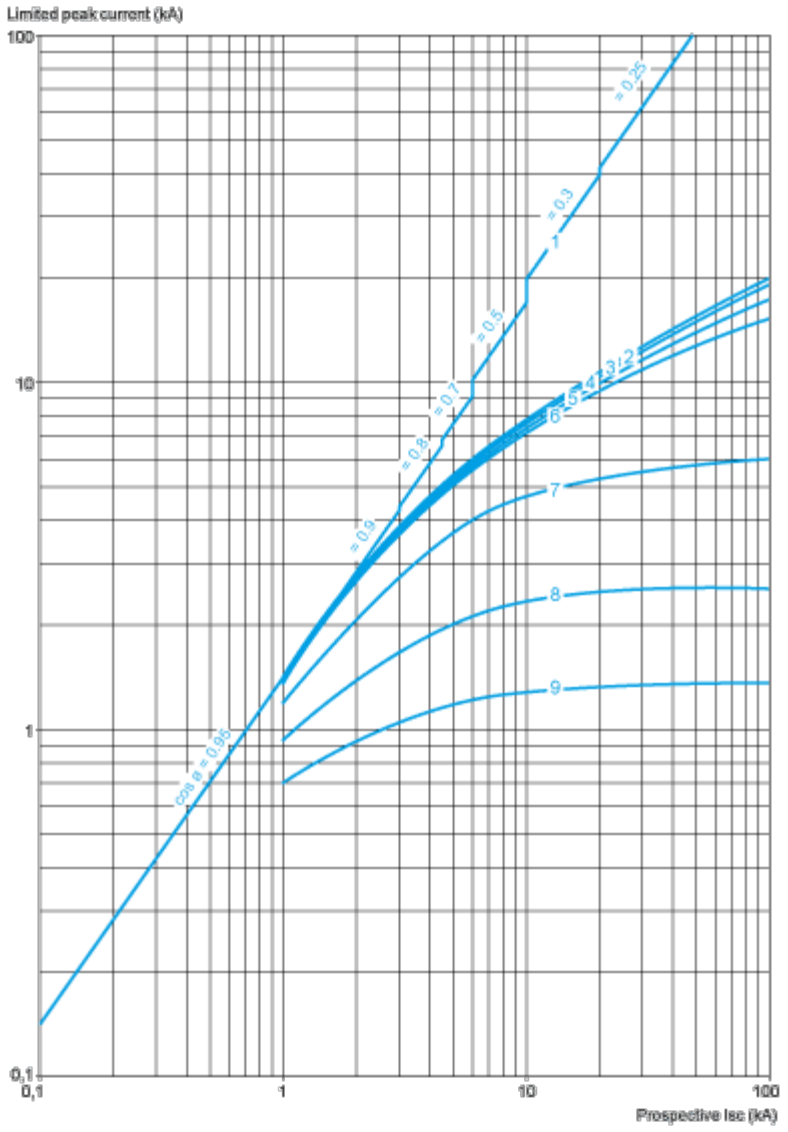
3 Isd = 5...13x Ir

4 Ii = 17 In

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

Dynamic Stress

I peak = f (prospective Isc) at 1.05 Ue = 435 V



1 Maximum peak current

2 GV4P115

3 GV4P80

4 GV4P50

5 GV4P25

6 GV4P12

7 GV4P07

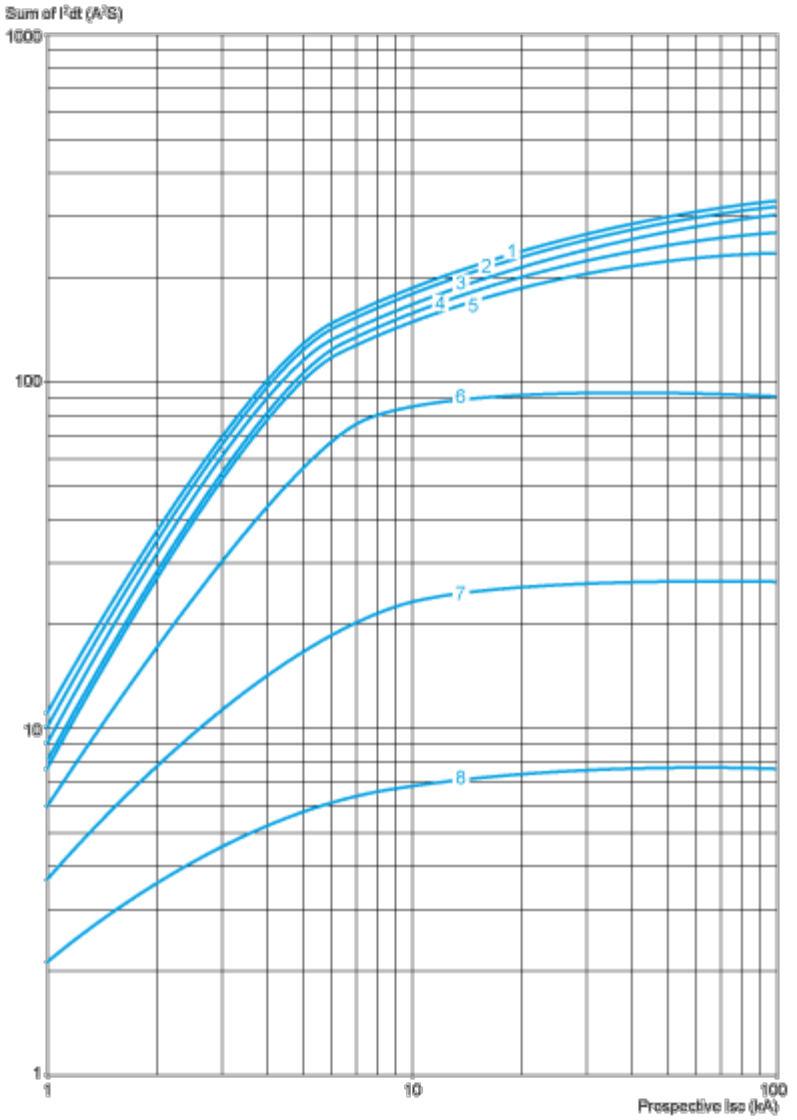
8 GV4P03

9 GV4P02

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

Thermal Limit in $kA^2 2s$ 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

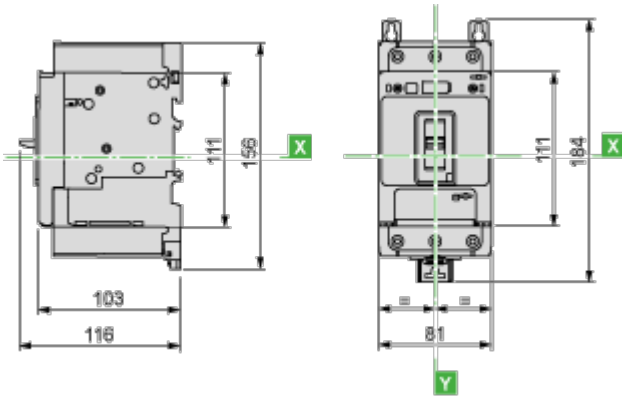
7 GV4P03

8 GV4P02

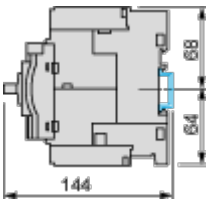
Dimensions Drawings

GV4 with Toggle: GV4LE, GV4PE, GV4PEM

With EverLink® Connector

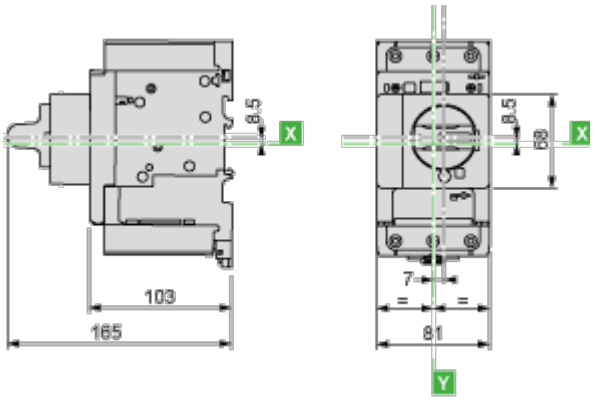


With Crimp Lug Connector



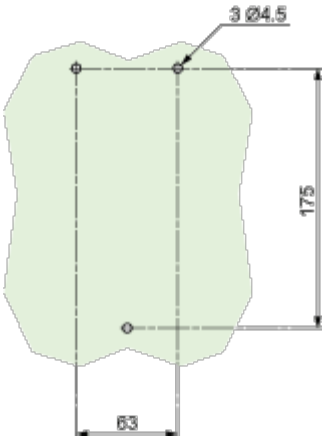
GV4 with Rotary Handle: GV4L, GV4P, or GV4LE, GV4PE, GV4PEM with GV4ADN01, GV4ADN02 Direct Mounting Rotary Handle

Dimensions

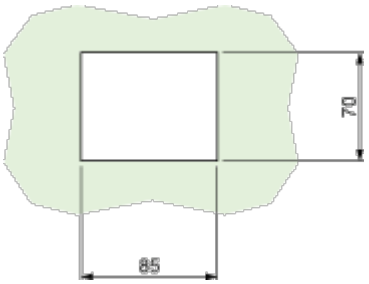


GV4L, GV4P, GV4LE, GV4PE, GV4PEM

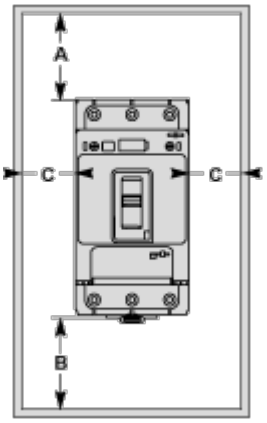
Panel Mounting with M4 Screws



Door Cut-Out for Rotary Handle



Minimum Safety Clearance

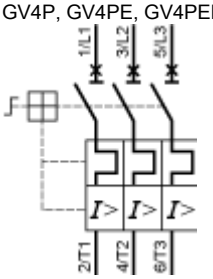


Toggle-type, rotary handle-type: identical clearance values.

Safety Clearance (mm)						
	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



Offer Marketing Illustration

Product benefits / Features

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Product benefits / Features