

Product data sheet

Specifications



Motor circuit breaker, TeSys GV4, 3P, 12.5A, Icu 50kA, magnetic, EverLink terminals

GV4L12N

Main

Range of product	TeSys GV4
Range	TeSys Deca
Device short name	GV4L
Product name	TeSys GV4
Product or component type	Motor circuit breaker
Device application	Motor protection
Trip unit technology	Magnetic Electronic

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	3 kW at 400...415 V AC 50/60 Hz 3 kW at 500 V AC 50/60 Hz 4 kW at 500 V AC 50/60 Hz 5.5 kW at 660...690 V AC 50/60 Hz 7.5 kW at 660...690 V AC 50/60 Hz 4 kW at 400...415 V AC 50/60 Hz 5.5 kW at 400...415 V AC 50/60 Hz 5.5 kW at 500 V AC 50/60 Hz 7.5 kW at 500 V AC 50/60 Hz 9 kW at 660...690 V AC 50/60 Hz 11 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 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
Control type	Rotary handle
[In] rated current	12.5 A
Magnetic tripping current	75...175 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
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947-2
Power dissipation per pole	6.1 W

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

Mechanical durability	40000 cycles
Electrical durability	40000 cycles for AC-3 at 440 V In/2 40000 cycles for AC-3 at 440 V In
maximum operating rate	25 cyc/h
Rated duty	Continuous conforming to IEC 60947-4-1
Connections - terminals	EverLink BTR screw connectors (top) 1 cable(s) 1.5...70 mm² - solid EverLink BTR screw connectors (top) 1 cable(s) 1.5...50 mm² - flexible EverLink BTR screw connectors (bottom) 1 cable(s) 2.5...95 mm² - solid EverLink BTR screw connectors (bottom) 1 cable(s) 2.5...70 mm² - flexible
Tightening torque	9 N.m for cable 16...95 mm² 5 N.m for cable 1.5...10 mm²
Mechanical robustness	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
Height	155 mm
Width	81 mm
Depth	165 mm
Net weight	1.65 kg
Colour	Grey (RAL 7016)
Suitability for isolation	Yes conforming to IEC 60947-1

Environment

Standards	EN/IEC 60947-4-1 EN/IEC 60947-2
Product certifications	IEC CCC EAC EU-RO MR
Climatic withstand	conforming to IACS E10
IK degree of protection	IK07 conforming to IEC 62262
Pollution degree	3
IP degree of protection	IP40 conforming to IEC 60529
Ambient air temperature for storage	-50...85 °C
Fire resistance	960 °C conforming to IEC 60695-2-11
Operating altitude	5000 m
Ambient air temperature for operation	-25...70 °C

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	10.900 cm
Package 1 Width	21.300 cm
Package 1 Length	22.100 cm
Package 1 Weight	1.826 kg
Unit Type of Package 2	S03
Number of Units in Package 2	3

Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	9.500 kg

Contractual warranty

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	
Total lifecycle Carbon footprint	114
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
SCIP Number	1b259a2c-3a3c-401a-acdd-f0837efd4018
REACH Regulation	REACH Declaration
Halogen-free status	Halogen free plastic parts product
PVC free	Yes

Use Again

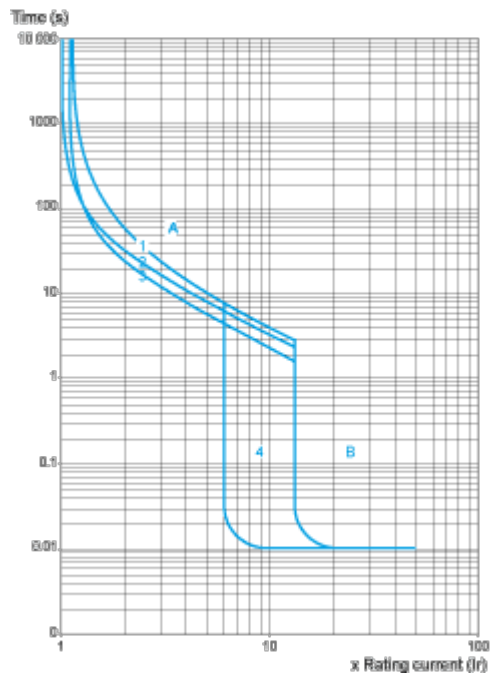
Repack and remanufacture	
End of life manual availability	End of Life Information
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Performance Curves

Tripping Curves for GV4L and GV4LE Combined with Thermal Overload Relay LRD or LR9

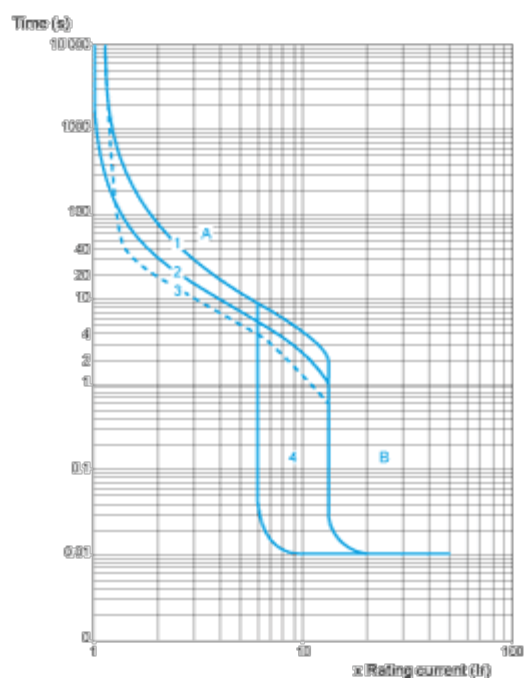
Average Operating Times at 20 °C Related to Multiples of the Setting Current

GV4L02 and GV4LE02 to 12 with LRD05 to LRD14, GV4L80 and GV4LE80 with LRD3363



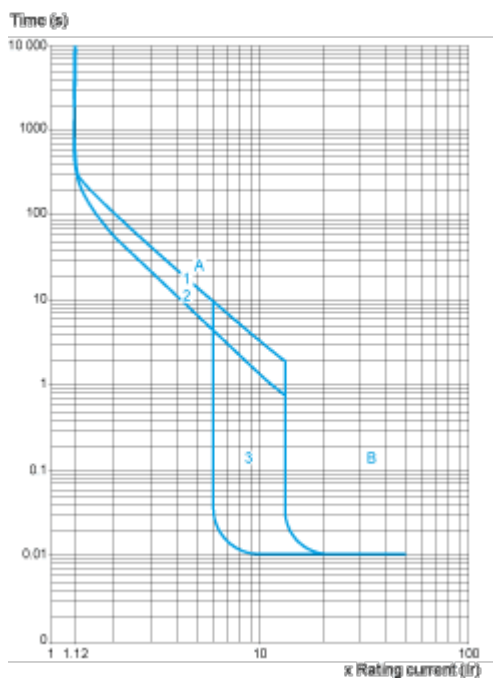
- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state
- 4 6...14 Ir
- A Thermal overload relay protection zone
- B GV4L protection zone

GV4L25 and GV4LE25 with LRD 318, LRD325 GV4L50 AND GV4LE50 with LRD 332, LRD 340, LRD 350



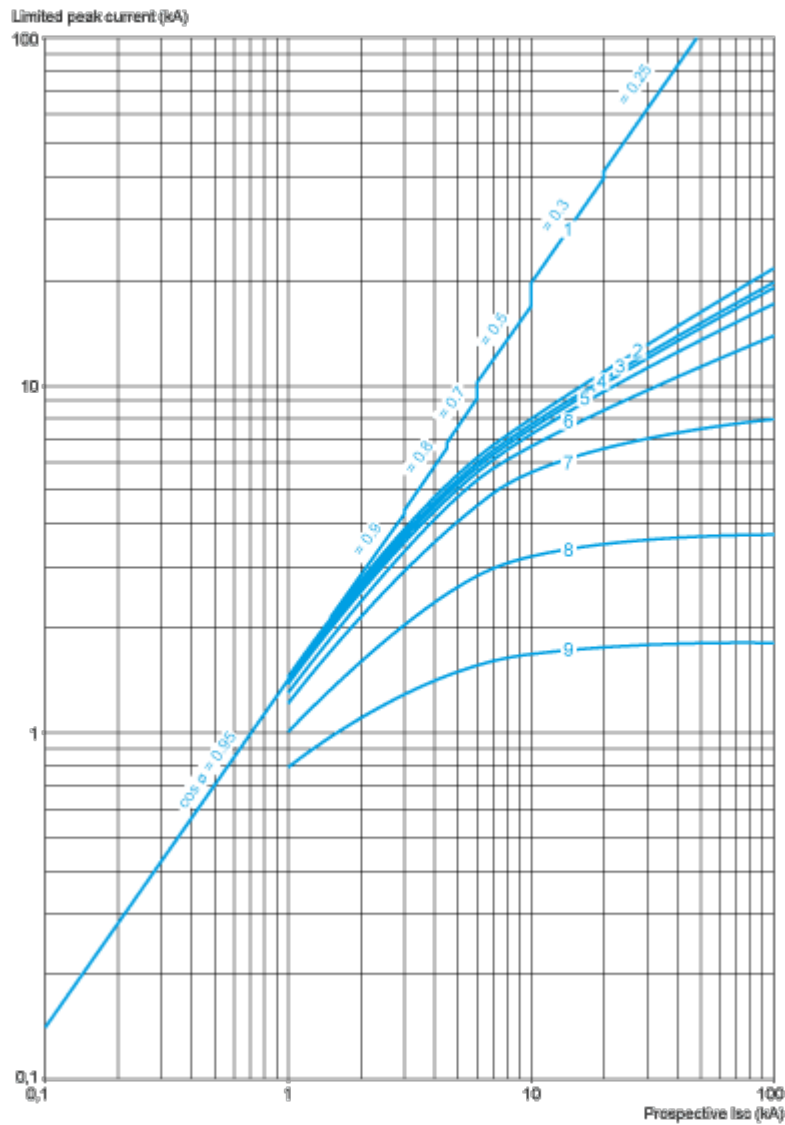
- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state
- 4 6...14 Ir
- A Thermal overload relay protection zone
- B GV4L protection zone

GV4L115 and GV4LE115 with Class 10 LR9F5367, LR9D5369 and Class 20 LR9D5567, LR9F5569



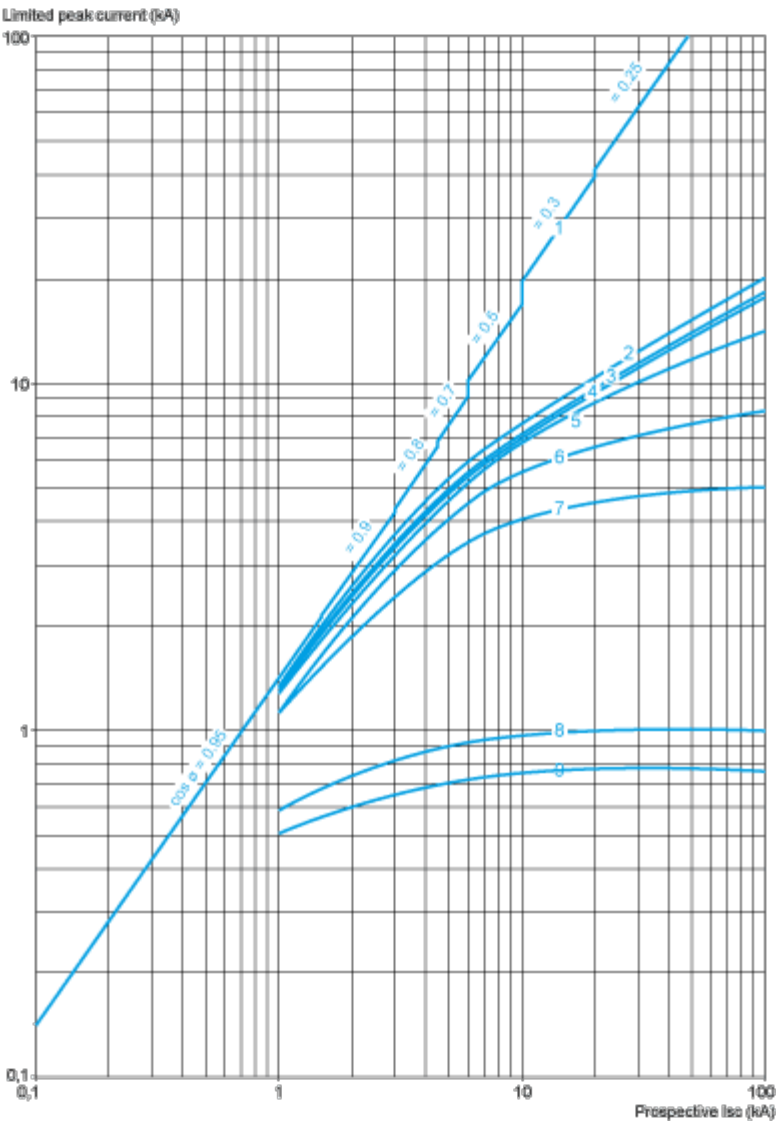
- 1 Cold state curve
- 2 Hot state curve
- 3 6...14 Ir

Current Limitation on Short-Circuit for GV4L, GV4LE (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 GV4L115
- 3 GV4L80
- 4 GV4L50
- 5 GV4L25
- 6 GV4L12
- 7 GV4L07
- 8 GV4L03
- 9 GV4L02

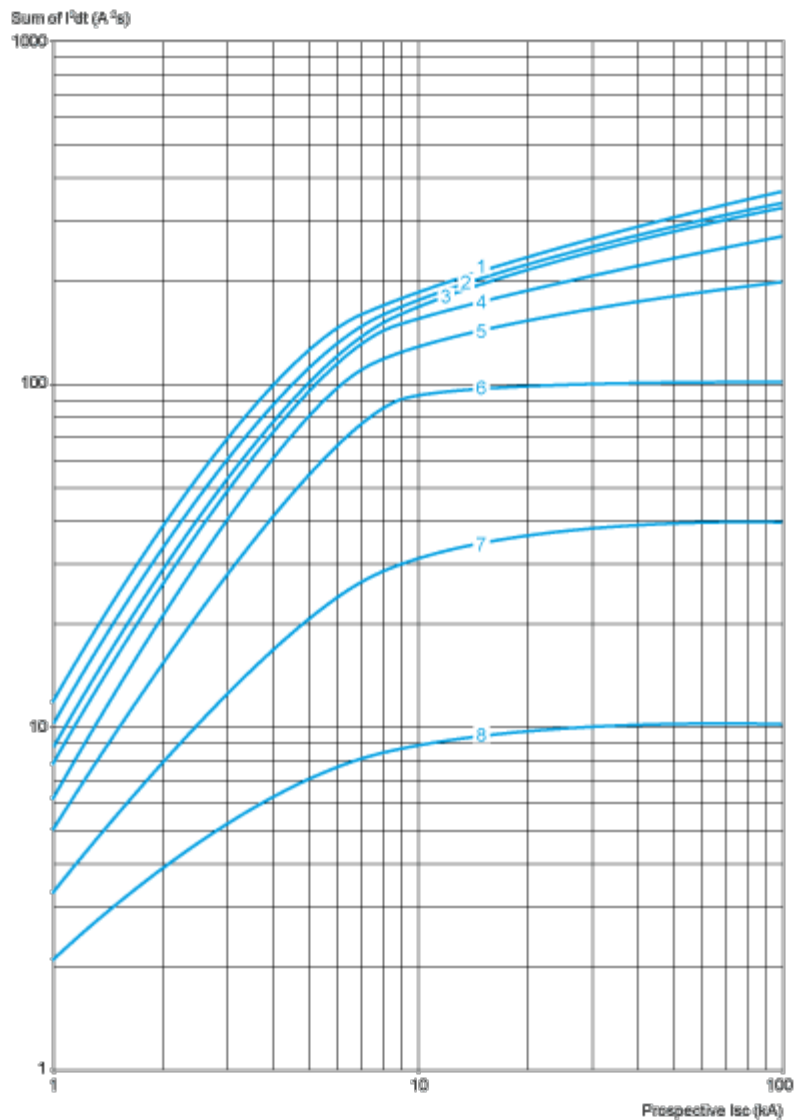
Current Limitation on Short-Circuit for GV4L, GV4LE + Thermal Overload Relay LRD or LR9 (3-Phase 400/415 V)
Dynamic Stress
 $I_{peak} = f(\text{prospective } I_{sc}) \text{ at } 1.05 U_e = 435 \text{ V}$



Thermal Limit on Short-Circuit for GV4L, GV4LE

Thermal Limit in A²s

Sum of I²dt = f (prospective Isc) at 1.05 Ue = 435 V

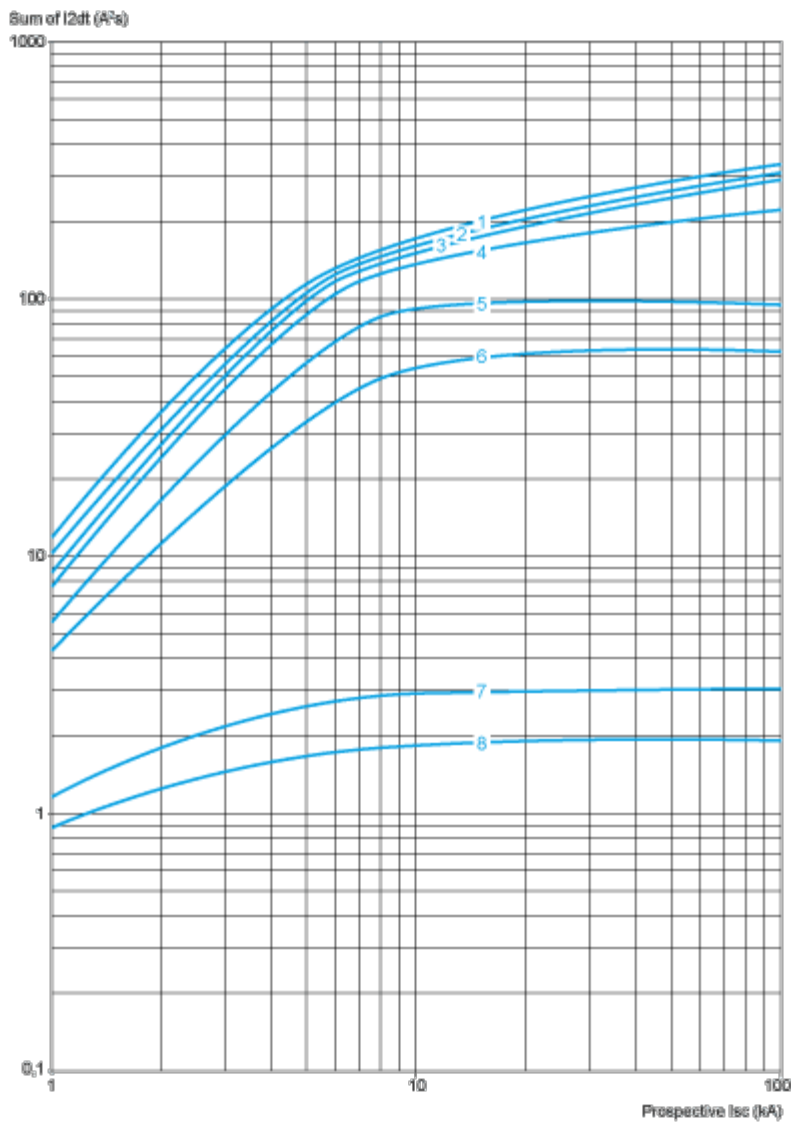


- 1 GV4L115
- 2 GV4L80
- 3 GV4L50
- 4 GV4L25
- 5 GV4L12
- 6 GV4L07
- 7 GV4L03
- 8 GV4L02

Current Limitation on Short-Circuit for GV4L, GV4LE + Thermal Overload Relay LRD or LR9

Thermal Limit in kA in the Magnetic Operating Zone

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

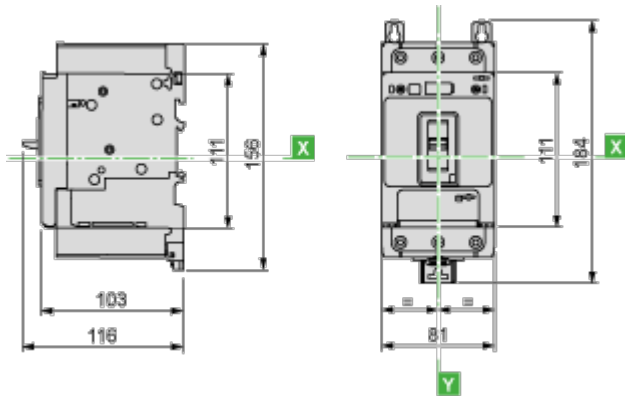


- 1 GV4L115 + LR9D5367 or LR9F5367
- 2 GV4L80 + LRD3361
- 3 GV4L50 + LRD340
- 4 GV4L25 + LRD325
- 5 GV4L12 + LRD313
- 6 GV4L07+ LRD12
- 7 GV4L03+ LRD07
- 8 GV4L02 + LRD07

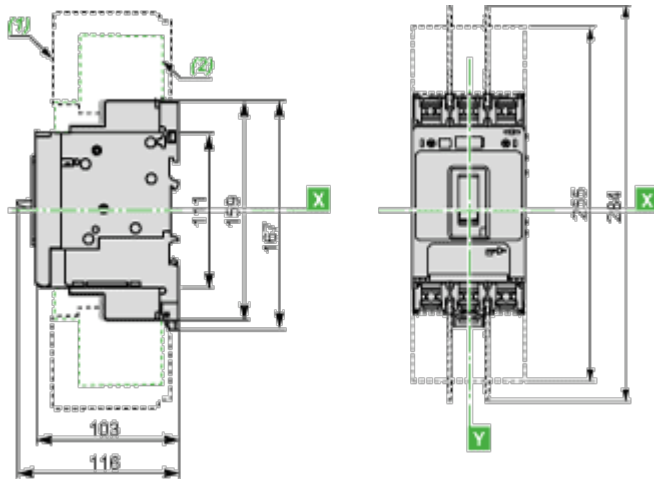
Dimensions Drawings

GV4 with Toggle: GV4LE, GV4PE, GV4PEM

With EverLink® Connector

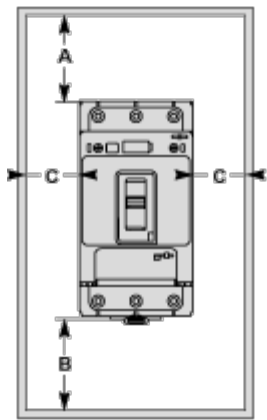


With Crimp Lug Connector



- (1) Interphase barriers
- (2) Long terminal shield

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

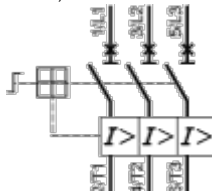


Toggle-type, rotary handle-type: identical clearance values.

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
GV4L, GV4LE



Offer Marketing Illustration

Product benefits / Features



Offer Marketing Illustration

Product benefits / Features

TeSys Deca Motor Circuit Breakers

Technical Benefits

A black TeSys Deca Motor Circuit Breaker with green terminal covers and a large black handle. It is shown against a green circular background.

- Combines a circuit breaker and overload relay in a single device.
- Gives great detection accuracy, as well as alarming and advanced protections for refs.
- Magnetic, electronic thermal-magnetic, or electronic thermal magnetic versions with advanced protection.
- Patented EverLink creep-compensating technology.
- Spring-based system ensures a long lasting connection.
- Electronic core for high-accuracy, wide settings, dual motor class 10/20.

Offer Marketing Illustration

Product benefits / Features

TeSys Deca

Motor Circuit Breakers



Increase safety

Featuring EverLink technology, double rotary contact system, and Reflex tripping mechanism to ensure your operations run smoothly and securely.



Improve efficiency

With a compact design, hassle-free installation with one-click spring terminal accessories, while easy monitoring with visible auxiliaries.



Save time

Simple to specify, install and use for all applications and easy access to facilitate maintenance on site.

