Product datasheet

Specifications



Motor circuit breaker, TeSys GV2, 3P, 18 A, magnetic, rotary handle, screw clamp terminals

GV2L20

Main

Range	TeSys Deca
Product name	TeSys GV2
Product or component type	Motor circuit breaker
Device short name	GV2L
Device application	Motor protection
Trip unit technology	Magnetic

Complementary

Poles description	3P
Network type	AC
Utilisation category	Category A conforming to IEC 60947-2 AC-3 conforming to IEC 60947-4-1 AC-3e conforming to IEC 60947-4-1
Network frequency	50/60 Hz conforming to IEC 60947-2
Motor power kW	7.5 kW at 400/415 V AC 50/60 Hz 9 kW at 500 V AC 50/60 Hz 15 kW at 690 V AC 50/60 Hz
Breaking capacity	100 kA Icu at 230/240 V AC 50/60 Hz conforming to IEC 60947-2 50 kA Icu at 400/415 V AC 50/60 Hz conforming to IEC 60947-2 20 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 10 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2 4 kA Icu at 690 V AC 50/60 Hz conforming to IEC 60947-2
[Ics] rated service short-circuit breaking capacity	100 % at 230/240 V AC 50/60 Hz conforming to IEC 60947-2 50 % at 400/415 V AC 50/60 Hz conforming to IEC 60947-2 75 % at 440 V AC 50/60 Hz conforming to IEC 60947-2 75 % at 500 V AC 50/60 Hz conforming to IEC 60947-2 100 % at 690 V AC 50/60 Hz conforming to IEC 60947-2
Control type	Rotary handle
[In] rated current	18 A
Magnetic tripping current	341 A
[Ith] conventional free air thermal current	18 A conforming to IEC 60947-2
[Ue] rated operational voltage	690 V AC 50/60 Hz conforming to IEC 60947-2
[Ui] rated insulation voltage	690 V AC 50/60 Hz conforming to IEC 60947-2
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947-2
Suitability for isolation	Yes conforming to IEC 60947-1
Power dissipation per pole	1.8 W
Mechanical durability	100000 cycles

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

Electrical durability	100000 cycles for AC-3 at 415 V In 100000 cycles for AC-3e at 415 V In
Rated duty	Uninterrupted conforming to IEC 60947-4-1
Connections - terminals	Power circuit: screw clamp terminal 2 cable(s) 1…6 mm²solid Power circuit: screw clamp terminal 2 cable(s) 1.5…6 mm²flexible without cable end Power circuit: screw clamp terminal 2 cable(s) 1…4 mm²flexible with cable end
Tightening torque	1.7 N.m - on screw clamp terminal
Fixing mode	35 mm symmetrical DIN rail: clipped Panel: screwed (with 2 x M4 screws)
Mounting position	Horizontal Vertical
Width	45 mm
Height	89 mm
Depth	97 mm
Net weight	0.33 kg
Colour	Dark grey

Environment

Standards	EN/IEC 60947-2 EN/IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC/EN 60335-2-40:Annex JJ
Product certifications	CCC UL CSA EAC LROS (Lloyds register of shipping) BV RINA DNV-GL UKCA IECEE CB Scheme
IK degree of protection	IK04
IP degree of protection	IP20 conforming to IEC 60529
Climatic withstand	conforming to IACS E10
Ambient air temperature for storage	-40…80 °C
Fire resistance	960 °C conforming to IEC 60695-2-11
Ambient air temperature for operation	-20…60 °C
Mechanical robustness	Shocks: 30 Gn for 11 ms Vibrations: 5 Gn, 5...150 Hz
Operating altitude	<= 2000 m

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	9.300 cm
Package 1 Width	4.600 cm
Package 1 Length	10.000 cm
Package 1 Weight	330.000 g

Unit Type of Package 2	S02
Number of Units in Package 2	20
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	6.930 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

Total lifecycle Carbon footprint	8

Use Better

Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Compliant with Exemptions
SCIP Number	Cd9afc97-b700-4c24-8c5a-04f31f2d7dd2
REACh Regulation	REACh Declaration

Use Again

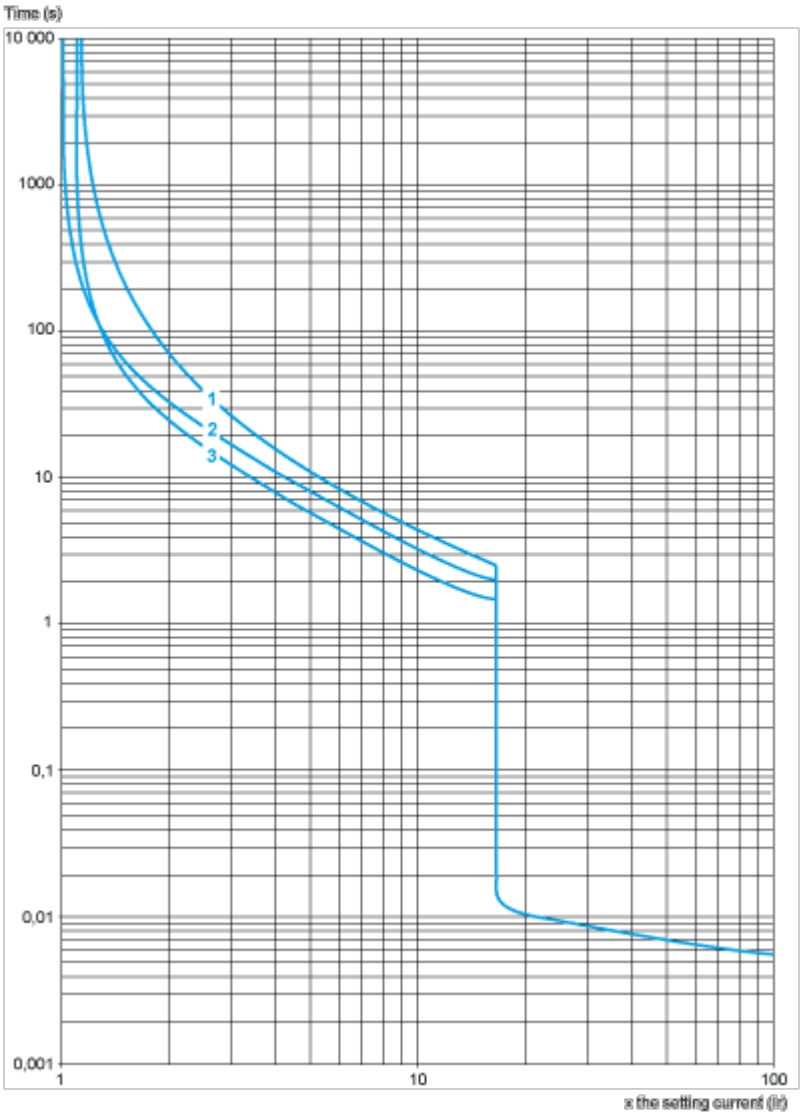
Repack and remanufacture

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 GV2L or LE Combined with Thermal Overload Relay LRD or LR2K

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



1 3 poles from cold state

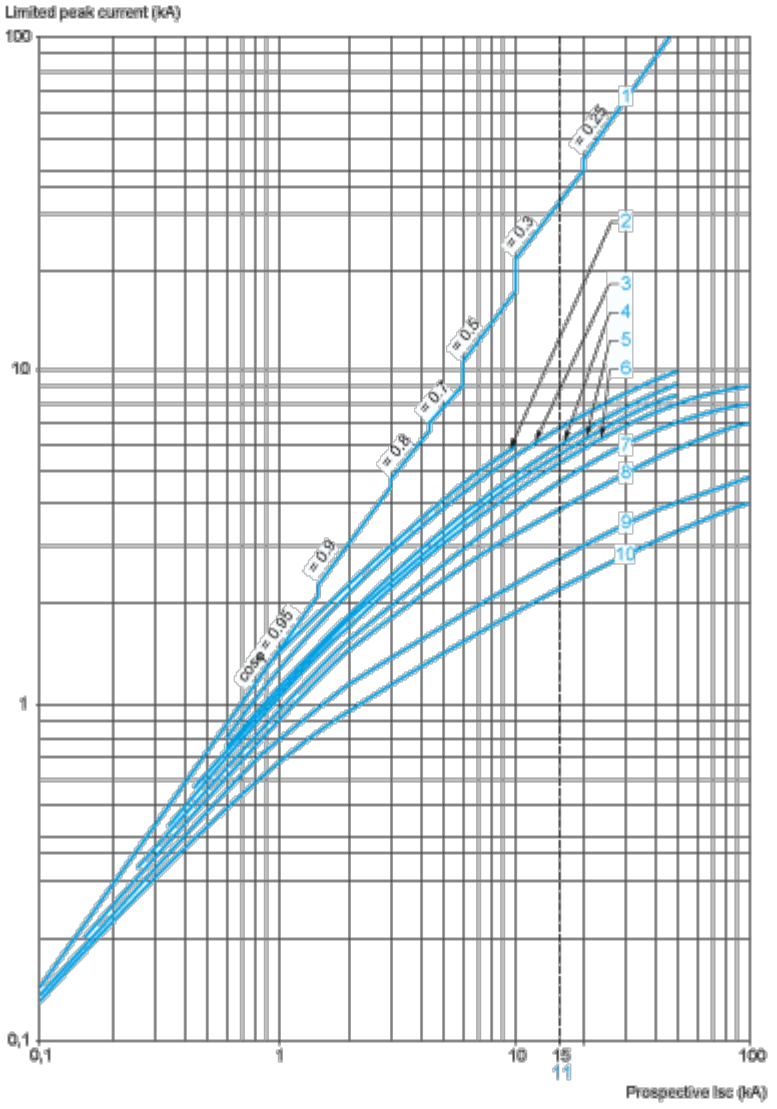
2 2 poles from cold state

3 3 poles from hot state

Current Limitation on Short-Circuit for GV2L and GV2LE Only (3-Phase 400/415 V)

Dynamic Stress

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



1 Maximum peak current

2 32 A

3 25 A

4 18 A

5 14 A

6 10 A

7 6.3 A

8 4 A

9 2.5 A

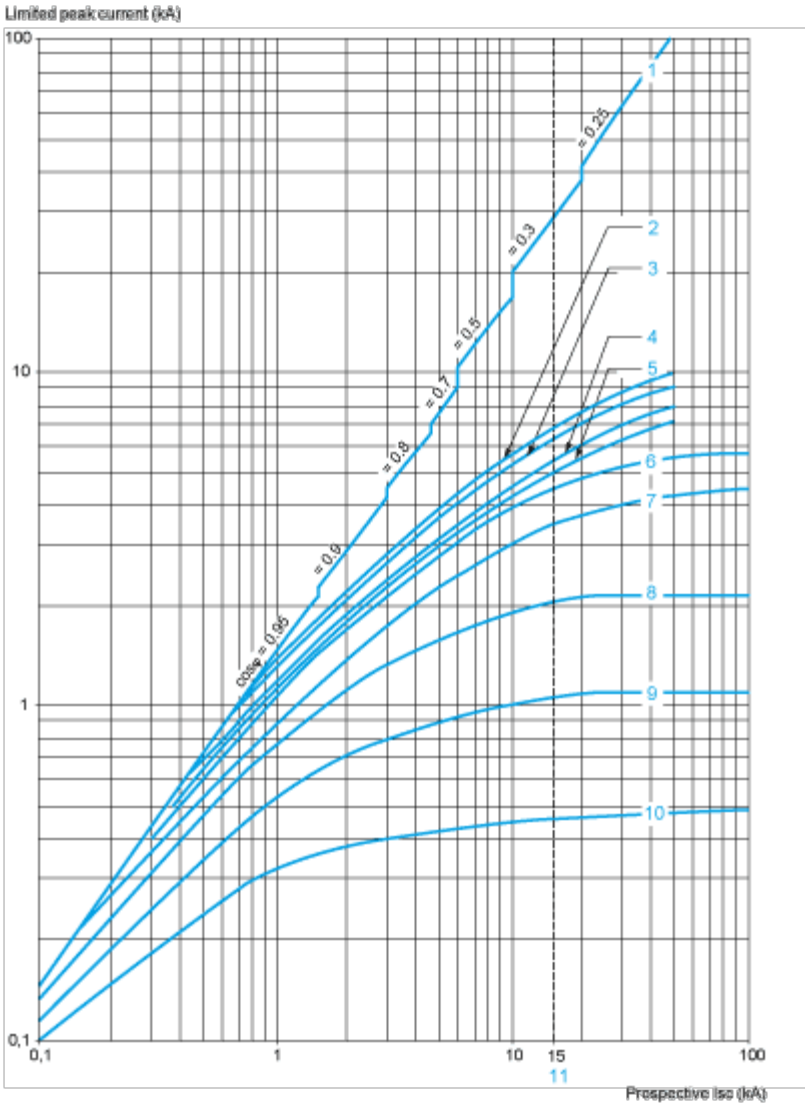
10 1.6 A

11 Limit of rated ultimate breaking capacity on short-circuit of GV2LE (14, 18, 23, and 25 A ratings).

Current Limitation on Short-Circuit for GV2L and GV2LE + Thermal Overload Relay LRD or LR2K (3-Phase 400/415 V)

Dynamic Stress

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



1 Maximum peak current

2 32 A

3 25 A

4 18 A

5 14 A

6 10 A

7 6.3 A

8 4 A

9 2.5 A

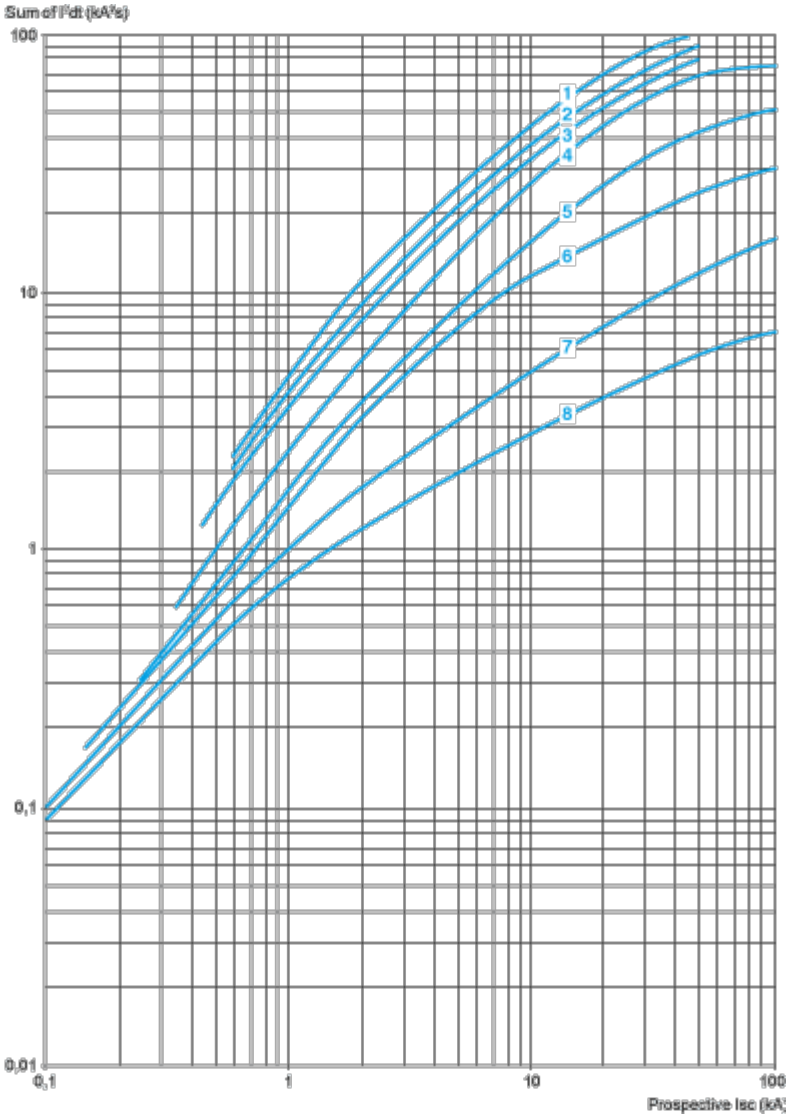
10 1.6 A

11 Limit of rated ultimate breaking capacity on short-circuit of GV2LE (14, 18, 23, and 25 A ratings).

Thermal Limit on Short-Circuit for GV2L Only

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

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



1 25 A and 32 A

2 18 A

3 14 A

4 10 A

5 6.3 A

6 4 A

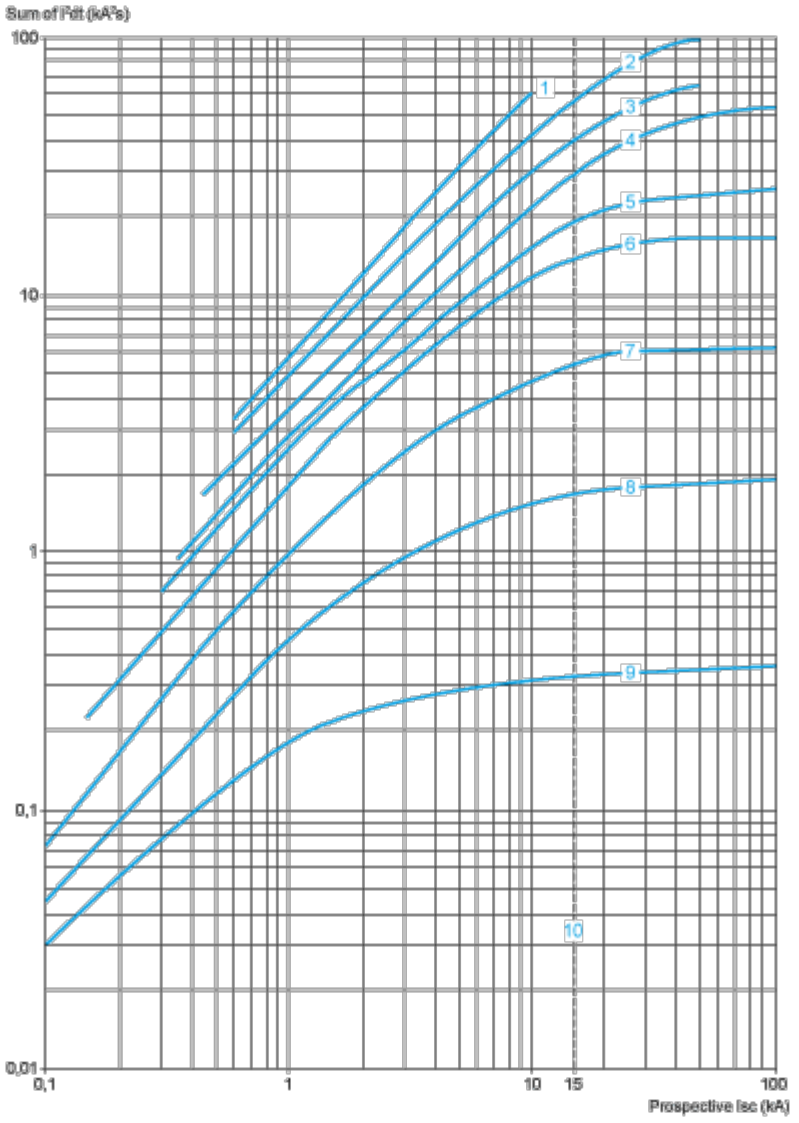
7 2.5 A

8 1.6 A

Thermal Limit on Short-Circuit for GV2L and GV2LE + Thermal Overload Relay LRD or LR2K

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

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



1 32 A (GV2LE32)

2 25 A and 32 A (GV2L32)

3 18 A

4 14 A

5 10 A

6 6.3 A

7 4 A

8 2.5 A

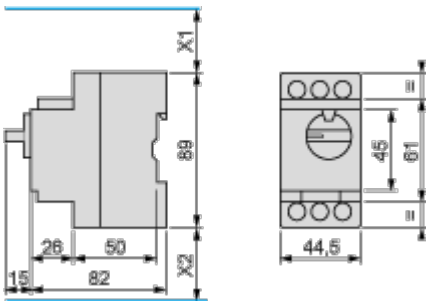
9 1.6 A

10 Limit of rated ultimate breaking capacity on short-circuit of GV2 LE (14, 18, 23, and 25 A ratings).

Dimensions Drawings

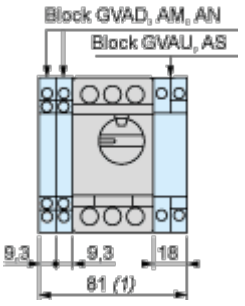
GV2L

Dimensions



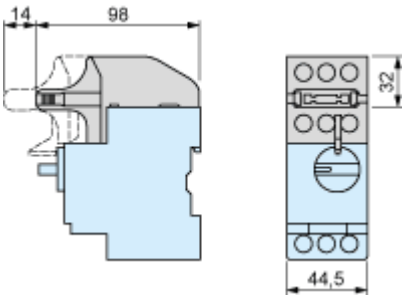
X1 Electrical clearance = 40 mm for Ue ≤ 415 V, or 80 mm for Ue = 440 V, or 120 mm for Ue = 500 and 690 V.
X2 = 40 mm.

GVAD, AM, AN, AU, AS



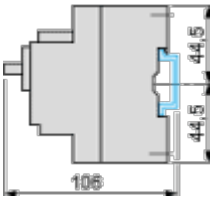
1 Maximum

GV2AK00

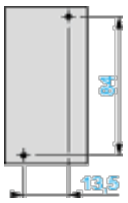


Mounting

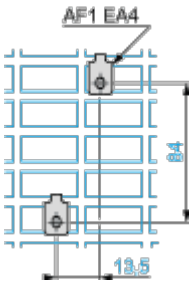
On rail AM1 DE200, AM1 ED200 (35 x 15)



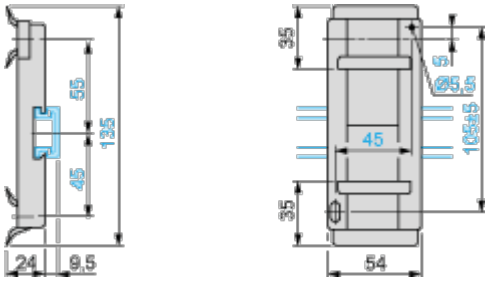
Panel mounted



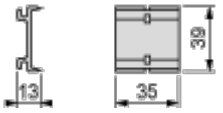
On pre-slotted mounting plate AM1 PA



Adapter Plate GK2AF01

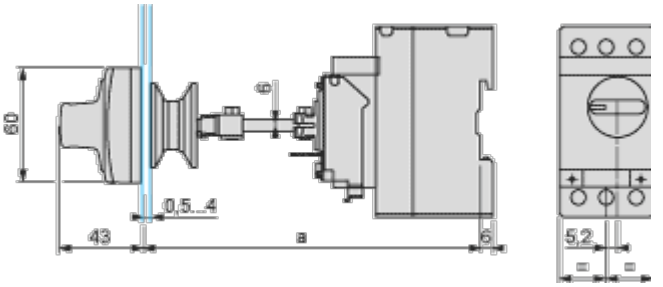


7.5 mm Height Compensation Plate GV1F03

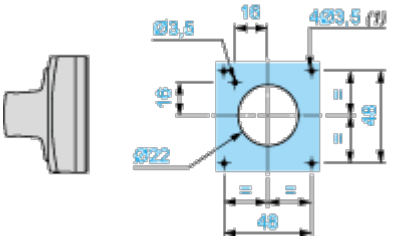


Mounting

Mounting of External Operator GV2APN01, GV2APN02 or GV2APN04 for Motor Circuit Breakers GV2L

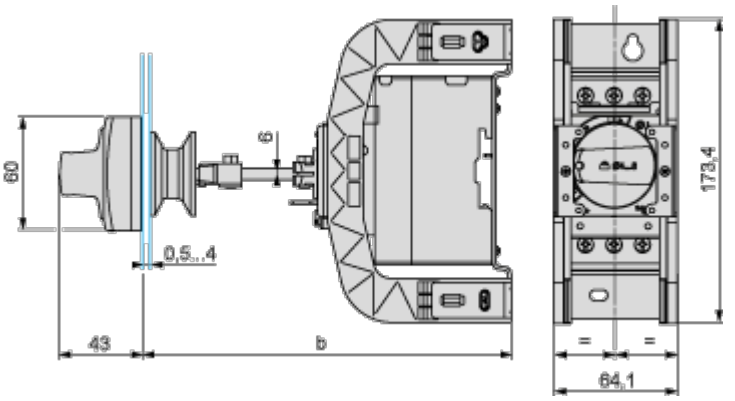


Door cut-out



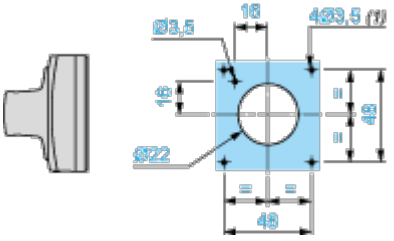
(1) For IP65 only.

Mounting of External Operator GVAPH02 for Motor Circuit Breakers GV2L



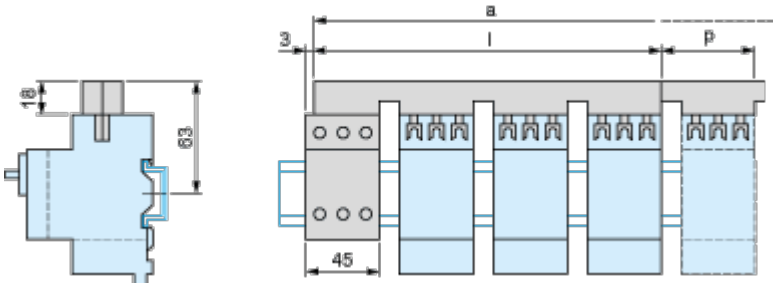
	b	
	Minimum	Maximum
GV2 APN•• + GV APH02	151	250
GV2 APN•• + GV APH02 + GV APK11	250	445

Door cut-out



(1) For IP65 only.

GV2L and GV2LE
Sets of busbars GV2G445, GV2G454, GV2G472, with terminal block GV2G05

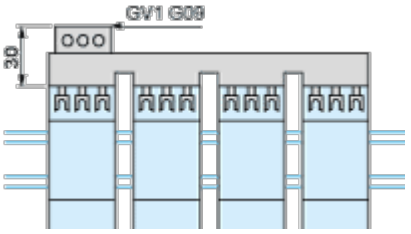


	l	p
GV2G445 (4 x 45 mm)	179	45
GV2G454 (4 x 54 mm)	206	54
GV2G472 (4 x 72 mm)	260	72

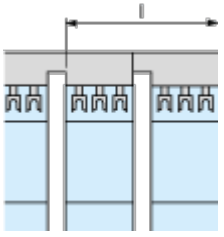
Number of tap-offs	a			
	5	6	7	8
GV2G445	224	269	314	359
GV2G454	260	314	368	422
GV2G472	332	404	476	548

Sets of Busbars for GV2L and GV2LE

Sets of busbars GV2G••• with terminal block GV1G09

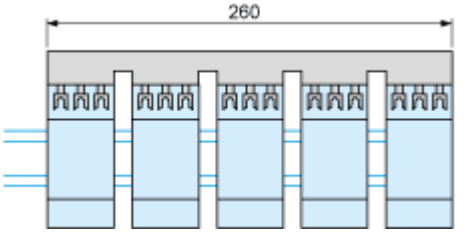


Sets of busbars GV2G245, GV2G254, GV2GR272

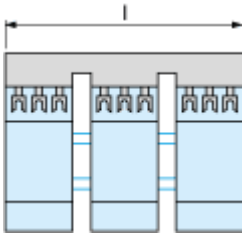


	l
GV2G245 (2 x 45 mm)	89
GV2G254 (2 x 54 mm)	98
GV2G272 (2 x 72 mm)	116

Set of busbars GV2G554



Sets of busbars GV2G345 and GV2G354

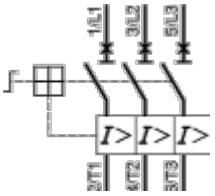


	l
GV2G345 (3 x 45 mm)	134

	I
GV2G354 (3 x 54 mm)	152

Connections and Schema

GV2L••



Offer Marketing Illustration

Product benefits / Features



Offer Marketing Illustration

Product benefits / Features



Offer Marketing Illustration

Product benefits / Features

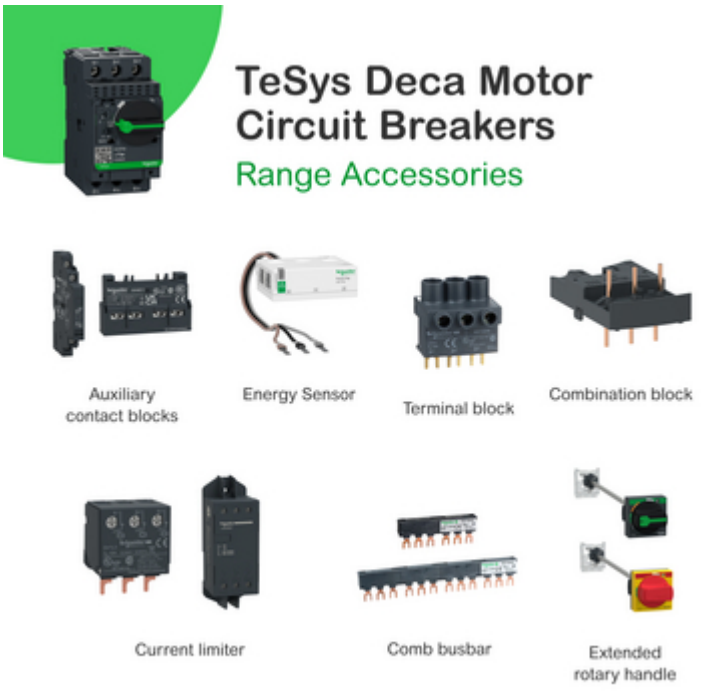
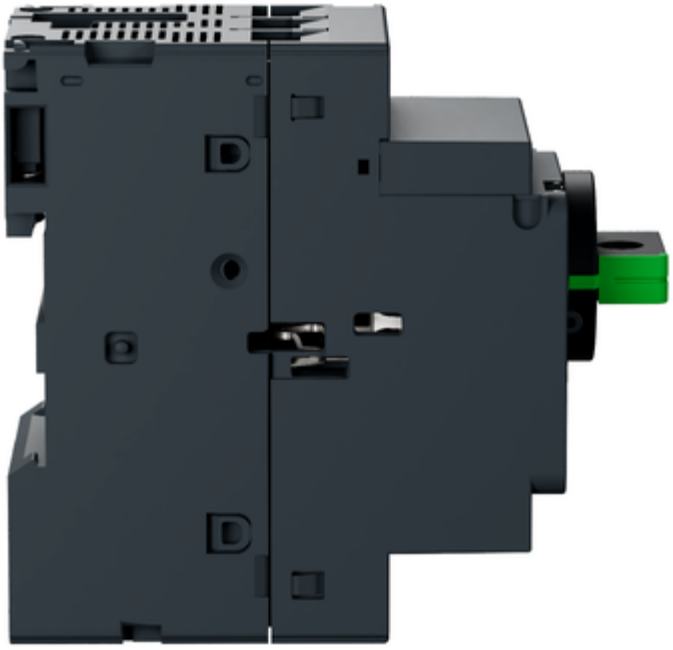
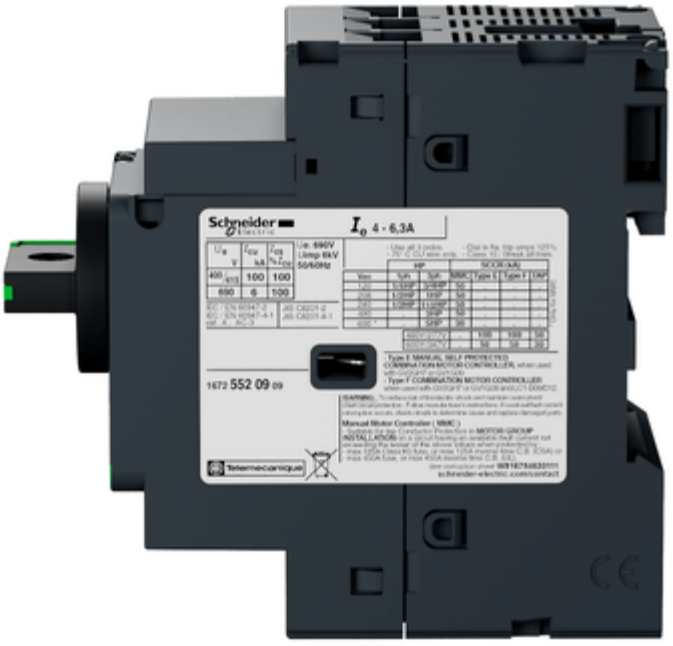


Image of product / Alternate images

Alternative

Product datasheet GV2L20







Technical Illustration

Assembly's dimensions

