

# Product data sheet

Specifications



## Motor circuit breaker, TeSys Deca, 3P, 6.3 A, magnetic, rotary handle, screw clamp terminals

GV2L10

### Main

Range of product	TeSys GV2 TeSys Deca
Range	TeSys TeSys Deca
Device short name	GV2L
Product name	TeSys GV2 TeSys Deca
Product or component type	Circuit breaker
Device application	Motor
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
Network frequency	50/60 Hz conforming to IEC 60947-2
Fixing mode	35 mm symmetrical DIN rail: clipped Panel: screwed (with 2 x M4 screws)
Operating position	Any position
Motor power kW	2.2 kW at 400/415 V AC 50/60 Hz 3 kW at 500 V AC 50/60 Hz 4 kW at 690 V AC 50/60 Hz
Breaking capacity	100 kA Icu at 230/240 V AC 50/60 Hz conforming to IEC 60947-2 100 kA Icu at 400/415 V AC 50/60 Hz conforming to IEC 60947-2 100 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 100 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 690 V AC 50/60 Hz conforming to IEC 60947-2 100 % at 500 V AC 50/60 Hz conforming to IEC 60947-2 100 % at 230/240 V AC 50/60 Hz conforming to IEC 60947-2 100 % at 440 V AC 50/60 Hz conforming to IEC 60947-2 100 % at 400/415 V AC 50/60 Hz conforming to IEC 60947-2
Control type	Rotary knob
[In] rated current	6.3 A
Magnetic tripping current	78 A
[Ue] rated operational voltage	690 V AC 50/60 Hz conforming to IEC 60947-2

<b>[Ui] rated insulation voltage</b>	690 V AC 50/60 Hz conforming to IEC 60947-2
<b>[Uimp] rated impulse withstand voltage</b>	6 kV conforming to IEC 60947-2
<b>Power dissipation per pole</b>	1.8 W
<b>Mechanical durability</b>	100000 cycles
<b>Electrical durability</b>	100000 cycles for AC-3 at 415 V
<b>Maximum operating rate</b>	40 cyc/h
<b>Rated duty</b>	Continuous conforming to IEC 60947-4-1
<b>Tightening torque</b>	1.7 N.m on screw clamp terminals
<b>Mechanical robustness</b>	Shocks: 30 Gn conforming to IEC 60068-2-27 Vibrations: 5 Gn, 5...150 Hz conforming to IEC 60068-2-6
<b>Suitability for isolation</b>	Yes conforming to IEC 60947-1
<b>Height</b>	89 mm
<b>Width</b>	45 mm
<b>Depth</b>	97 mm
<b>Net weight</b>	0.33 kg

## Environment

<b>Standards</b>	EN/IEC 60947-2 EN/IEC 60947-4-1 CSA C22.2 No 60947-4-1 UL 60947-4-1
<b>Product certifications</b>	IECEE CB Scheme UL CSA CCC EAC RINA LROS (Lloyds register of shipping) DNV-GL BV UKCA
<b>Protective treatment</b>	TH
<b>IP degree of protection</b>	IP20 conforming to IEC 60529
<b>IK degree of protection</b>	IK04
<b>Ambient air temperature for operation</b>	-20...60 °C
<b>Ambient air temperature for storage</b>	-40...80 °C
<b>Fire resistance</b>	960 °C conforming to IEC 60695-2-1
<b>Operating altitude</b>	0...2000 m

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	319 g
<b>Package 1 Height</b>	4.6 cm
<b>Package 1 width</b>	9.3 cm
<b>Package 1 Length</b>	10 cm
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	20
<b>Package 2 Weight</b>	6.714 kg

Package 2 Height	15 cm
Package 2 width	30 cm
Package 2 Length	40 cm
Unit Type of Package 3	P06
Number of Units in Package 3	320
Package 3 Weight	122.34 kg
Package 3 Height	77 cm
Package 3 width	60 cm
Package 3 Length	80 cm

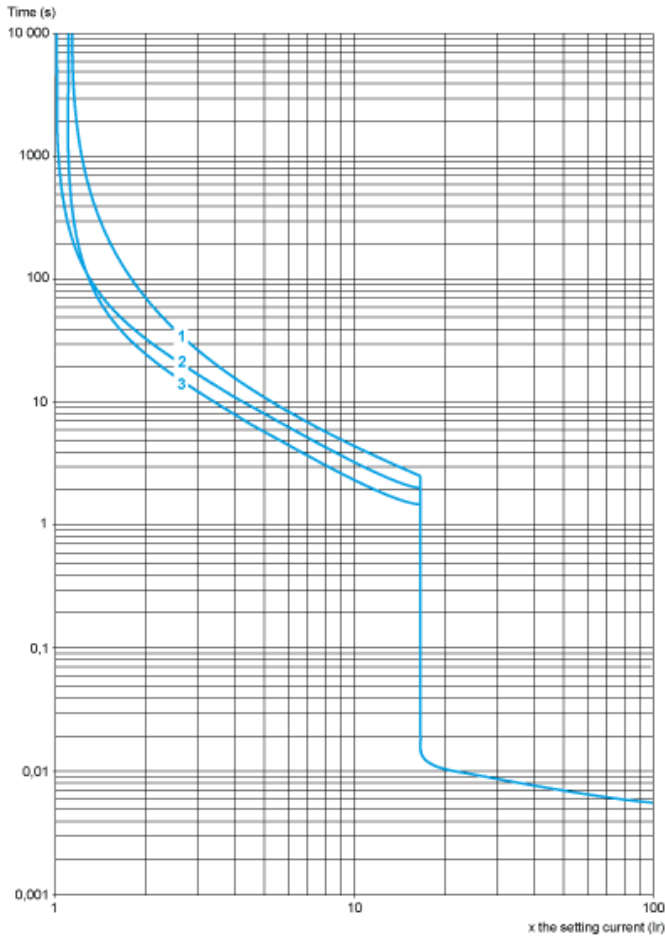
## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

## Contractual warranty

Warranty	18 months
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**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

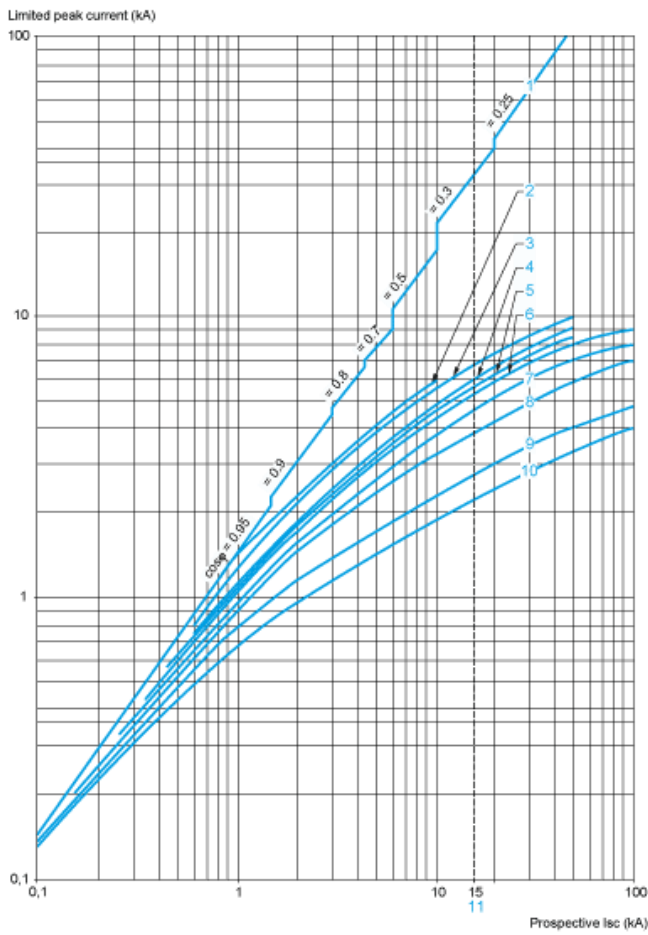


- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state

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

**Dynamic Stress**

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

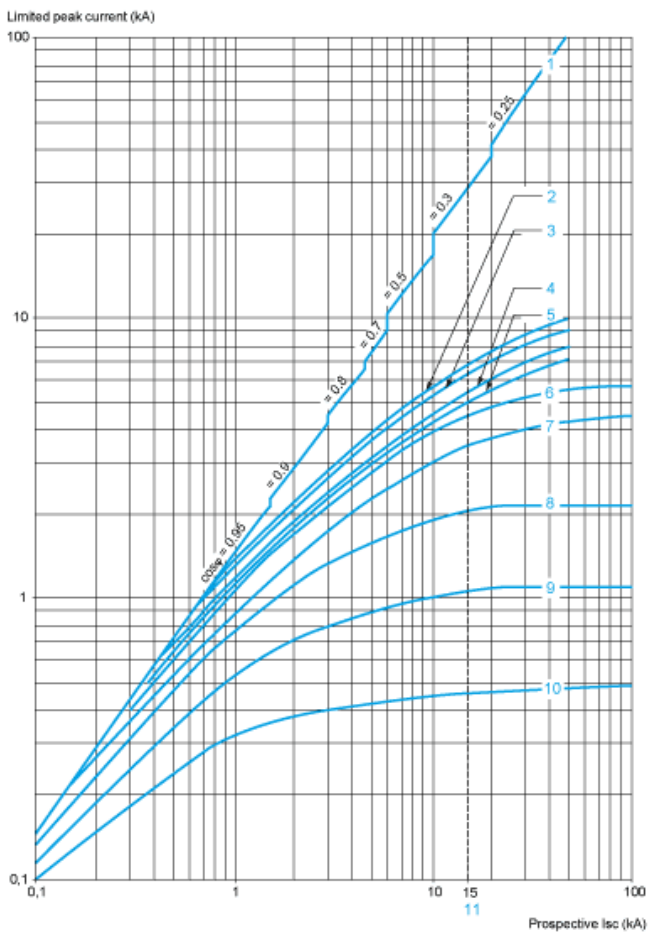


- 1 Maximum peak current
- 2 32 A
- 3 25 A
- 4 18 A
- 5 14 A
- 6 10 A
- 7 6.3 A
- 8 4 A
- 9 2.5 A
- 10 1.6 A
- 11 Limit of rated ultimate breaking capacity on short-circuit of GV2LE (14, 18, 23, and 25 A ratings).

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

**Dynamic Stress**

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

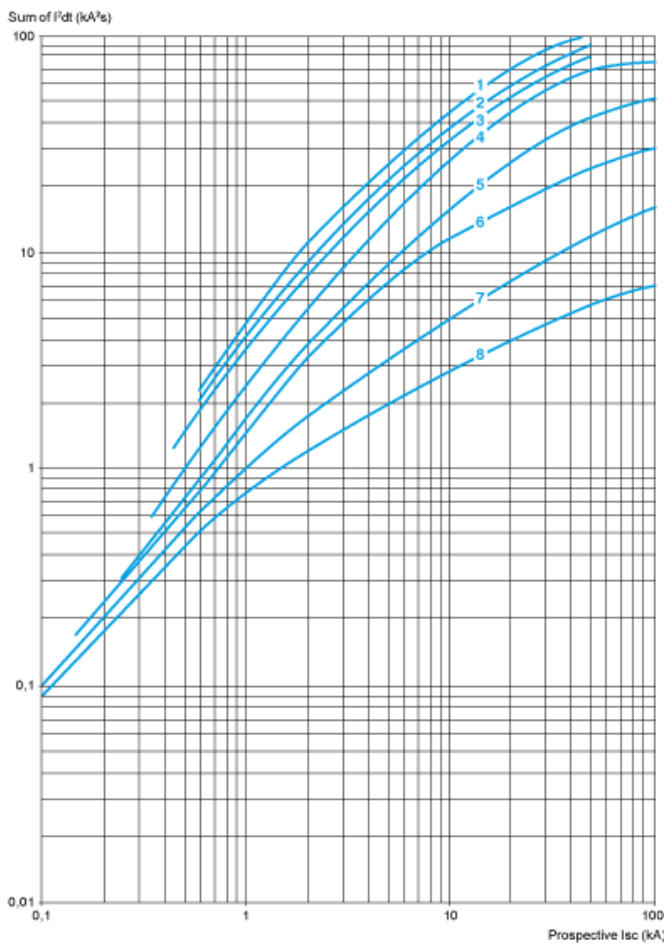


- 1 Maximum peak current
- 2 32 A
- 3 25 A
- 4 18 A
- 5 14 A
- 6 10 A
- 7 6.3 A
- 8 4 A
- 9 2.5 A
- 10 1.6 A
- 11 Limit of rated ultimate breaking capacity on short-circuit of GV2LE (14, 18, 23, and 25 A ratings).

**Thermal Limit on Short-Circuit for GV2L Only**

**Thermal Limit in kA<sup>2</sup>s in the Magnetic Operating Zone**

Sum of I<sup>2</sup>dt = f (prospective Isc) at 1.05 Ue = 435 V

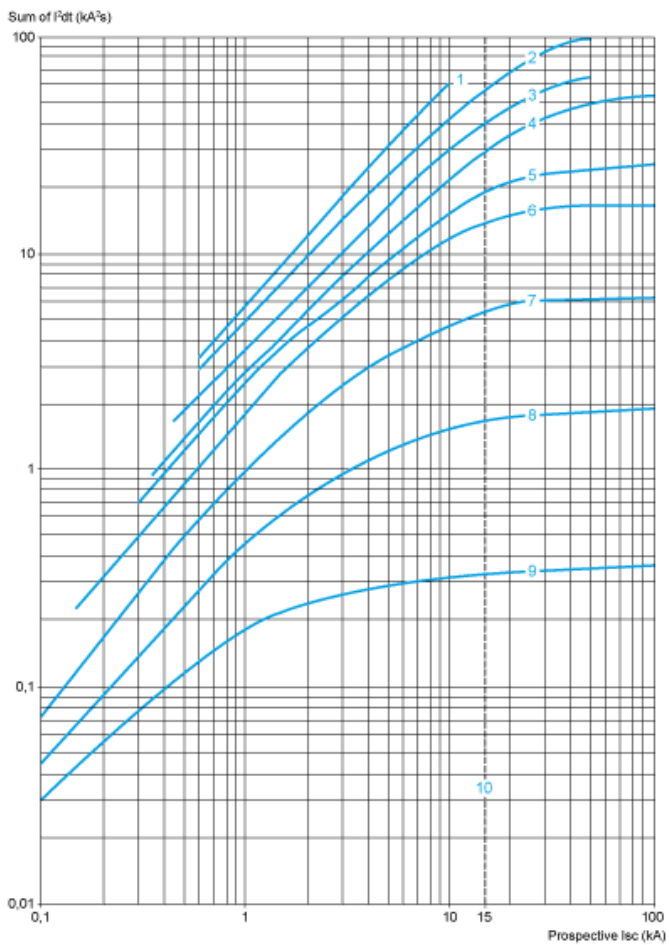


- 1 25 A and 32 A
- 2 18 A
- 3 14 A
- 4 10 A
- 5 6.3 A
- 6 4 A
- 7 2.5 A
- 8 1.6 A

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

**Thermal Limit in kA<sup>2</sup>s in the Magnetic Operating Zone**

Sum of I<sup>2</sup>dt = f (prospective I<sub>sc</sub>) at 1.05 U<sub>e</sub> = 435 V

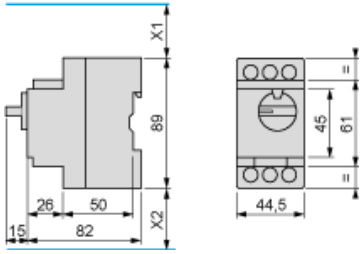


- 1 32 A (GV2LE32)
- 2 25 A and 32 A (GV2L32)
- 3 18 A
- 4 14 A
- 5 10 A
- 6 6.3 A
- 7 4 A
- 8 2.5 A
- 9 1.6 A
- 10 Limit of rated ultimate breaking capacity on short-circuit of GV2 LE (14, 18, 23, and 25 A ratings).



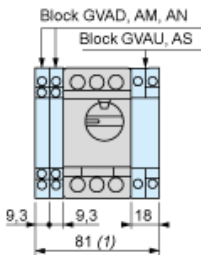
**GV2L**

**Dimensions**

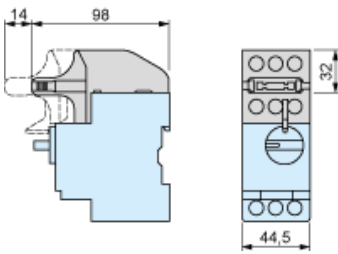


X1 Electrical clearance = 40 mm for  $U_e \leq 415$  V, or 80 mm for  $U_e = 440$  V, or 120 mm for  $U_e = 500$  and 690 V.  
X2 = 40 mm.

**GVAD, AM, AN, AU, AS**

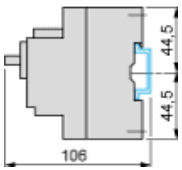


**1 Maximum GV2AK00**

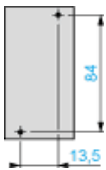


**Mounting**

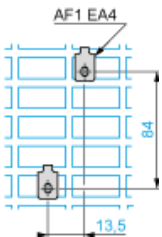
On rail AM1 DE200, AM1 ED200 (35 x 15)



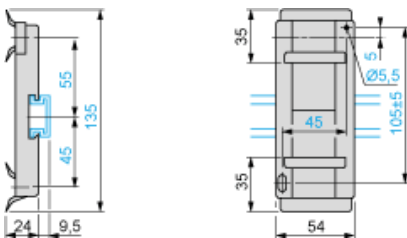
Panel mounted



On pre-slotted mounting plate AM1 PA



**Adapter Plate GK2AF01**

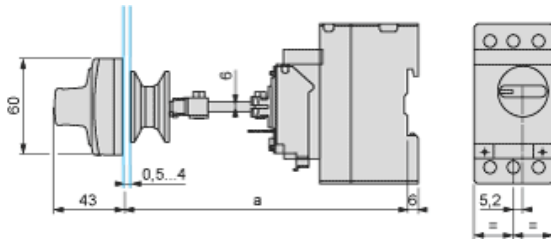


**7.5 mm Height Compensation Plate GV1F03**

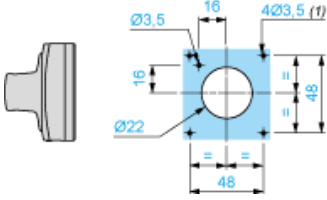


## Mounting

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

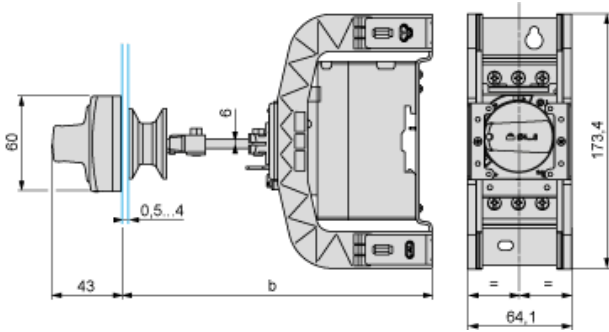


#### Door cut-out



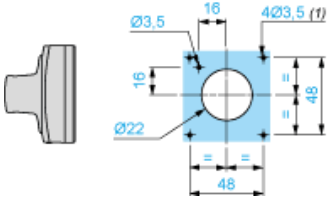
(1) For IP65 only.

### 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

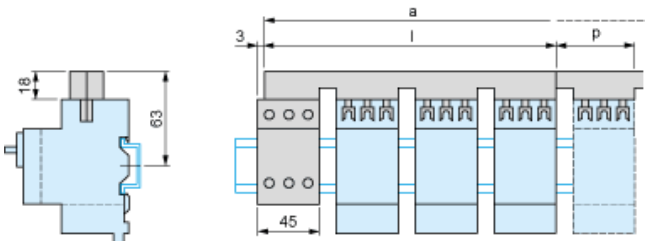
#### Door cut-out



(1) For IP65 only.

## GV2L and GV2LE

Sets of busbars GV2G445, GV2G454, GV2G472, with terminal block GV2G05



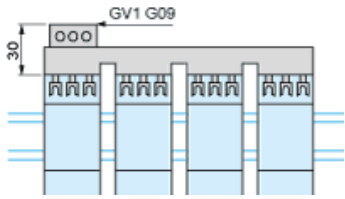
	l	p
GV2G445 (4 x 45 mm)	179	45
GV2G454 (4 x 54 mm)	206	54
GV2G472 (4 x 72 mm)	260	72

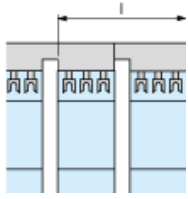
Number of tap-offs	a			
	5	6	7	8
GV2G445	224	269	314	359
GV2G454	260	314	368	422
GV2G472	332	404	476	548

### Sets of Busbars for GV2L and GV2LE

Sets of busbars GV2G... with terminal block GV1G09

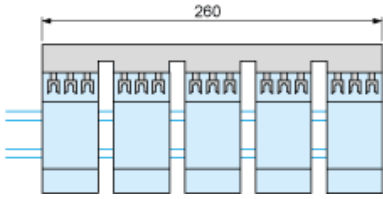


Sets of busbars GV2G245, GV2G254, GV2GR272

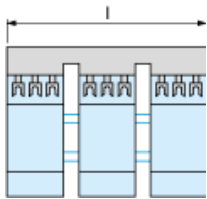


	l
GV2G245 (2 x 45 mm)	89
GV2G254 (2 x 54 mm)	98
GV2G272 (2 x 72 mm)	116

Set of busbars GV2G554



Sets of busbars GV2G345 and GV2G354



	l
GV2G345 (3 x 45 mm)	134
GV2G354 (3 x 54 mm)	152

GV2L••

