

# Product data sheet

Specifications



## TeSys Deca Manual Starter and Protector, thermal magnetic circuit protector, push buttons, 6...10 A, ring lug terminals

GV2ME146

**Product availability : Stock - Normally stocked in distribution facility**

### Main

Range	TeSys Deca
Product name	TeSys GV2 TeSys Deca
Product or Component Type	Motor circuit breaker
Device short name	GV2ME
Device Application	Motor protection
Trip unit technology	Thermal-magnetic

### Complementary

Poles description	3P
Network type	AC
Utilisation category	Category A IEC 60947-2 AC-3 IEC 60947-4-1
Network frequency	50/60 Hz IEC 60947-4-1
Fixing mode	35 mm symmetrical DIN rail clipped (Panel screwed with adaptor plate)
Motor power kW	3 kW 400/415 V AC 50/60 Hz 4 kW 400/415 V AC 50/60 Hz 4 kW 500 V AC 50/60 Hz 5.5 kW 500 V AC 50/60 Hz 5.5 kW 690 V AC 50/60 Hz 7.5 kW 690 V AC 50/60 Hz
Breaking capacity	100 kA Icu 230/240 V AC 50/60 Hz IEC 60947-2 100 kA Icu 400/415 V AC 50/60 Hz IEC 60947-2 15 kA Icu 440 V AC 50/60 Hz IEC 60947-2 10 kA Icu 500 V AC 50/60 Hz IEC 60947-2 3 kA Icu 690 V AC 50/60 Hz IEC 60947-2
[Ics] rated service short-circuit breaking capacity	100 % 230/240 V AC 50/60 Hz IEC 60947-2 100 % 400/415 V AC 50/60 Hz IEC 60947-2 100 % 440 V AC 50/60 Hz IEC 60947-2 100 % 500 V AC 50/60 Hz IEC 60947-2 75 % 690 V AC 50/60 Hz IEC 60947-2
Control type	Push-button
Line Rated Current	10 A
Thermal protection adjustment range	6...10 A IEC 60947-4-1
Magnetic tripping current	138 A

<b>[Ith] conventional free air thermal current</b>	10 A IEC 60947-4-1
<b>[Ue] rated operational voltage</b>	690 V AC 50/60 Hz IEC 60947-2
<b>[Ui] rated insulation voltage</b>	690 V AC 50/60 Hz IEC 60947-2
<b>[Uimp] rated impulse withstand voltage</b>	6 kV IEC 60947-2
<b>Phase failure sensitivity</b>	Yes IEC 60947-4-1
<b>Suitability for isolation</b>	Yes IEC 60947-1 § 7-1-6
<b>Power dissipation per pole</b>	2.5 W
<b>Mechanical durability</b>	100000 cycles
<b>Electrical durability</b>	100000 cycles AC-3 415 V In
<b>Rated duty</b>	Continuous IEC 60947-4-1
<b>Width</b>	1.77 in (45 mm)
<b>Height</b>	3.50 in (89 mm)
<b>Depth</b>	3.09 in (78.5 mm)
<b>Net Weight</b>	0.57 lb(US) (0.26 kg)
<b>Color</b>	Dark grey
<b>Connection pitch</b>	0.53 in (13.5 mm) without spreader

## Environment

<b>Standards</b>	EN/IEC 60947-2 EN/IEC 60947-4-1
<b>Product Certifications</b>	CCC UL CSA EAC ATEX LROS (Lloyds register of shipping) BV RINA DNV-GL UKCA
<b>IK degree of protection</b>	IK04
<b>IP degree of protection</b>	IP20 IEC 60529
<b>Climatic withstand</b>	IACS E10
<b>Ambient Air Temperature for Storage</b>	-40...176 °F (-40...80 °C)
<b>Fire resistance</b>	1760 °F (960 °C) IEC 60695-2-11
<b>Ambient air temperature for operation</b>	-4...140 °F (-20...60 °C)
<b>Mechanical robustness</b>	Shocks 30 Gn for 11 ms Vibrations 5 Gn, 5...150 Hz
<b>Operating altitude</b>	6561.68 ft (2000 m)

## Ordering and shipping details

<b>Category</b>	22367-MANUAL STR PROTECTOR - GV2
<b>Discount Schedule</b>	I11
<b>GTIN</b>	3389110609653
<b>Returnability</b>	No
<b>Country of origin</b>	FR

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.85 in (4.700 cm)
Package 1 Width	3.35 in (8.500 cm)
Package 1 Length	3.62 in (9.200 cm)
Package 1 Weight	10.02 oz (284.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	24
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	15.73 lb(US) (7.134 kg)

## Offer Sustainability

Sustainable offer status	Green Premium product
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>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information.
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

## Contractual warranty

Warranty	18 months
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**Thermal-Magnetic Tripping Curves for GV2ME and GV2P**  
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 GV2ME and GV2P (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 24-32 A
- 3 20-25 A
- 4 17-23 A
- 5 13-18 A
- 6 9-14 A
- 7 6-10 A
- 8 4-6.3 A
- 9 2.5-4 A
- 10 1.6-2.5 A
- 11 1-1.6 A
- 12 Limit of rated ultimate breaking capacity on short-circuit of GV2ME (14, 18, 23, and 25 A ratings).

### Thermal Limit on Short-Circuit for GV2ME

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

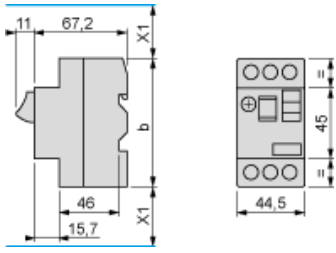
Sum of  $I^2dt = f$  (prospective Isc) at 1.05 Ue = 435 V



- 1 24-32 A
- 2 20-25 A
- 3 17-23 A
- 4 13-18 A
- 5 9-14 A
- 6 6-10 A
- 7 4-6.3 A
- 8 2.5-4 A
- 9 1.6-2.5 A
- 10 1-1.6 A

**Dimension**

**GV2ME**



(1) Maximum  
X1 Electrical clearance = 40 mm for  $U_e \leq 690$  V

	b
GV2ME..	89
GV2ME..3	101

**Mounting**

**GV2ME**

On 35 mm rail



$c = 78.5$  on AM1 DP200 (35 x 7.5)  
 $c = 86$  on AM1 DE200, ED200 (35 x 15)

On panel with adapter plate GV2AF02



On pre-slotted plate AM1 PA



On rails DZ5 MB201



**GV2AF01**

Combination GV2ME + TeSys k contactor



**GV2AF3**

Combination GV2ME + TeSys d contactor



GV2ME +	LC1D09...D18	LC1D25 and D32
b	176.4	186.8
c1	94.1	100.4
c	99.6	105.9

GV2AF4 + LAD311

Combination GV2ME + TeSys d contactor



GV2ME +	LC1D09...D18	LC1D25 and D32
b	176.4	186.8
c1	103.1	136.4
c	135.6	141.9
d1	107	107
d	112.5	112.5

GV2ME + GV1L3 (Current Limiter)



X1 = 10 mm for Ue = 230 V or 30 mm for 230 V < Ue ≤ 690 V



## GV2ME•• and GV2RT



### Connection of Undervoltage Trip for Dangerous Machines (Conforming to INRS) on GV2ME Only



### Recommended replacement(s)