

# Product datasheet

Specifications



## TeSys GV2-Circuit breaker-thermal-magnetic - 17...23 A - screw clamp terminals

GV2ME21

### Main

Range	TeSys Deca
Product name	TeSys GV2
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 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	9 kW at 400/415 V AC 50/60 Hz 11 kW at 500 V AC 50/60 Hz 18.5 kW at 690 V AC 50/60 Hz
Breaking capacity	50 kA Icu at 230/240 V AC 50/60 Hz conforming to IEC 60947-2 15 kA Icu at 400/415 V AC 50/60 Hz conforming to IEC 60947-2 6 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 4 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2 3 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 40 % at 400/415 V AC 50/60 Hz conforming to IEC 60947-2 50 % 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 75 % at 690 V AC 50/60 Hz conforming to IEC 60947-2
Control type	Push-button
[In] rated current	23 A
Thermal protection adjustment range	17...23 A conforming to IEC 60947-2
Magnetic tripping current	341 A
[Ith] conventional free air thermal current	23 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
Phase failure sensitivity	Yes conforming to IEC 60947-4-1
Suitability for isolation	Yes conforming to IEC 60947-1

<b>Power dissipation per pole</b>	2.5 W
<b>Mechanical durability</b>	100000 cycles
<b>Electrical durability</b>	100000 cycles for AC-3 at 415 V In 100000 cycles for AC-3e at 415 V In
<b>Rated duty</b>	Uninterrupted conforming to IEC 60947-4-1
<b>Connections - terminals</b>	Power circuit: screw clamp terminal 2 cable(s) 1...6 mm <sup>2</sup> solid Power circuit: screw clamp terminal 2 cable(s) 1.5...6 mm <sup>2</sup> flexible without cable end Power circuit: screw clamp terminal 2 cable(s) 1...4 mm <sup>2</sup> flexible with cable end
<b>Tightening torque</b>	1.7 N.m - on screw clamp terminal
<b>Fixing mode</b>	35 mm symmetrical DIN rail: clipped Panel: screwed (with adaptor plate)
<b>Mounting position</b>	Horizontal Vertical
<b>Width</b>	45 mm
<b>Height</b>	89 mm
<b>Depth</b>	78.5 mm
<b>Net weight</b>	0.26 kg
<b>Colour</b>	Dark grey

## Environment

<b>Standards</b>	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 IEC/EN 60335-1:Clause 30.2
<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 conforming to IEC 60529
<b>Climatic withstand</b>	conforming to IACS E10
<b>Ambient air temperature for storage</b>	-40...80 °C
<b>Fire resistance</b>	960 °C conforming to IEC 60695-2-11
<b>Ambient air temperature for operation</b>	-20...60 °C
<b>Mechanical robustness</b>	Shocks: 30 Gn for 11 ms Vibrations: 5 Gn, 5...150 Hz
<b>Operating altitude</b>	<= 2000 m

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	8.000 cm
<b>Package 1 Width</b>	4.500 cm

<b>Package 1 Length</b>	9.000 cm
<b>Package 1 Weight</b>	281.000 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	24
<b>Package 2 Height</b>	15.000 cm
<b>Package 2 Width</b>	30.000 cm
<b>Package 2 Length</b>	40.000 cm
<b>Package 2 Weight</b>	7.127 kg
<b>Unit Type of Package 3</b>	P12
<b>Number of Units in Package 3</b>	768
<b>Package 3 Height</b>	75.000 cm
<b>Package 3 Width</b>	80.000 cm
<b>Package 3 Length</b>	120.000 cm
<b>Package 3 Weight</b>	239.000 kg

## Contractual warranty

<b>Warranty (in months)</b>	18
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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	43 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Carbon footprint of the manufacturing phase [A1 to A3]	1 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	40 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.7 kg CO2 eq.

### Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	04104e70-ba29-493c-b2cc-b5837d1f879b

### Use Longer



### Lifetime extension

Repair	No
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### Use Again

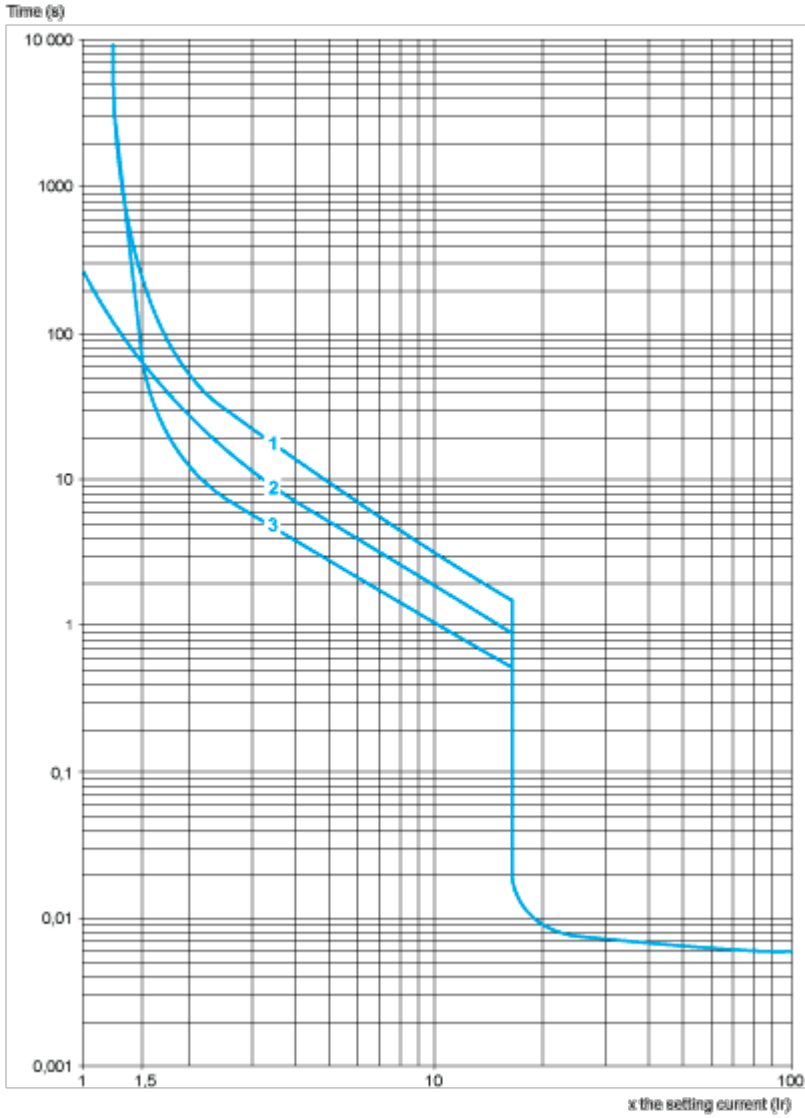


### Repack and remanufacture

Recyclability potential, in %	63
End of life manual availability	<a href="#">End of Life Information</a>
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 GV2ME and GV2P**  
 Average Operating Times at 20 °C Related to Multiples of the Setting Current

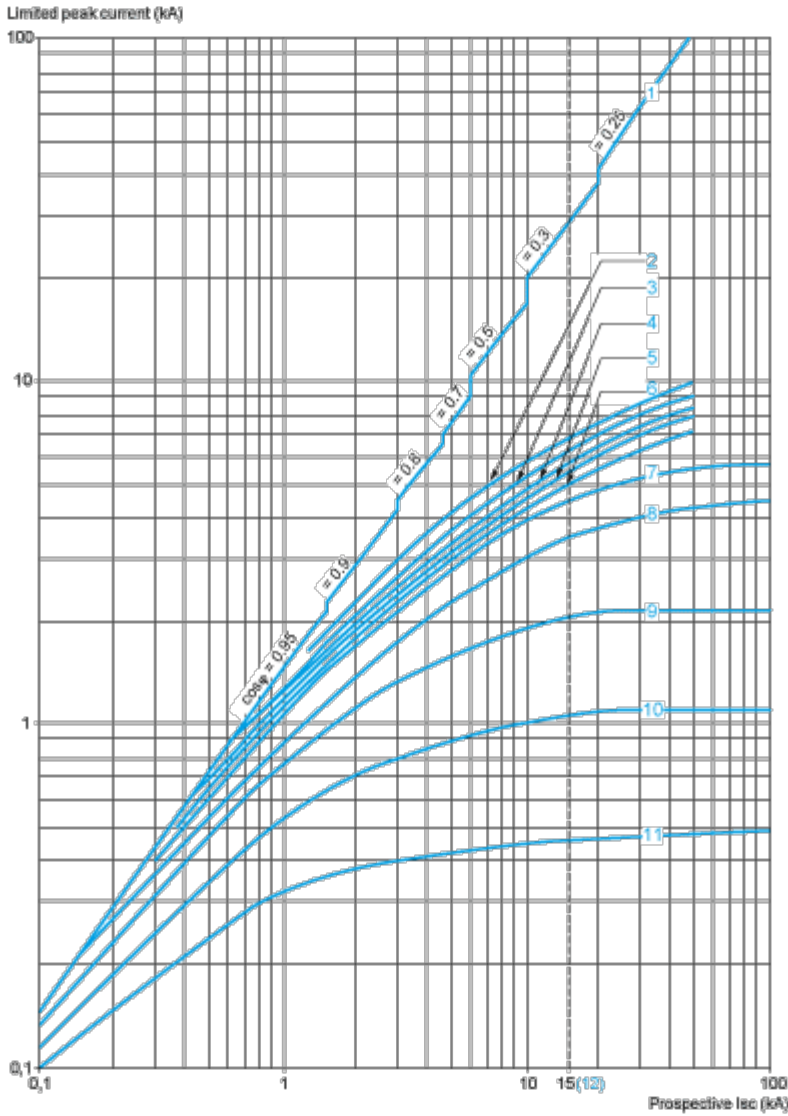


- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state

**Current Limitation on Short-Circuit for GV2ME and GV2P (3-Phase 400/415 V)**

**Dynamic Stress**

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

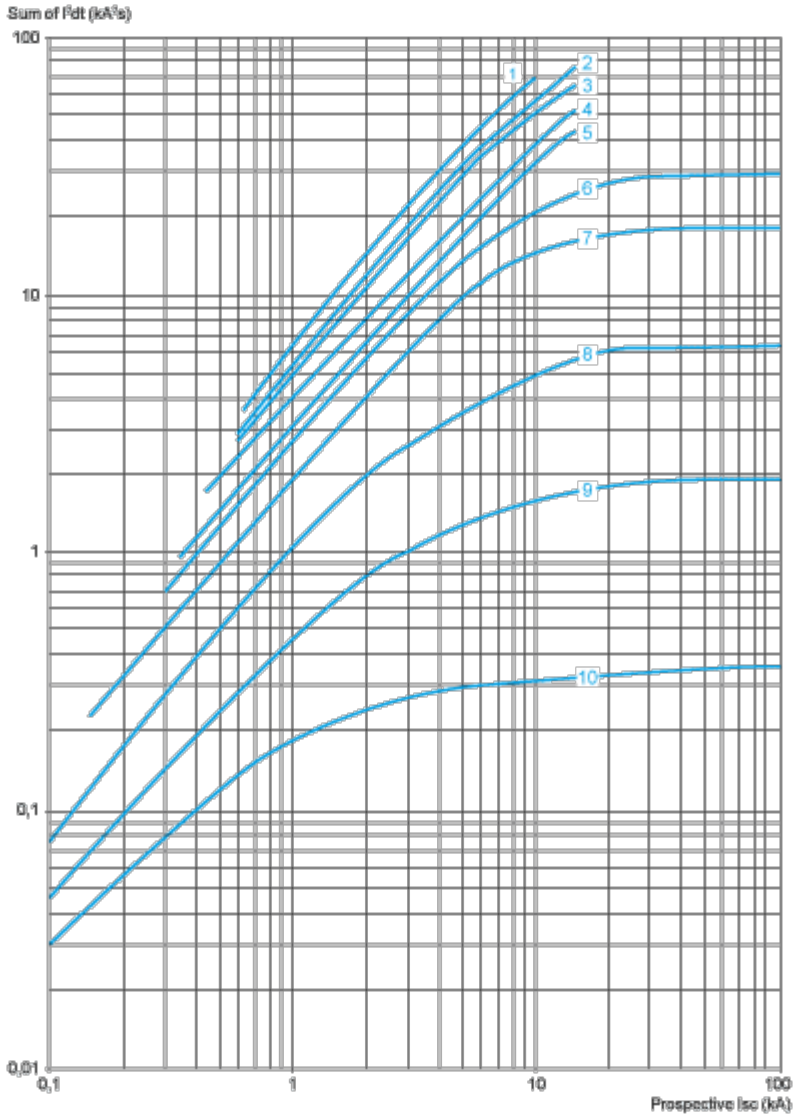


- 1 Maximum peak current
- 2 24-32 A
- 3 20-25 A
- 4 17-23 A
- 5 13-18 A
- 6 9-14 A
- 7 6-10 A
- 8 4-6.3 A
- 9 2.5-4 A
- 10 1.6-2.5 A
- 11 1-1.6 A
- 12 Limit of rated ultimate breaking capacity on short-circuit of GV2ME (14, 18, 23, and 25 A ratings).

**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

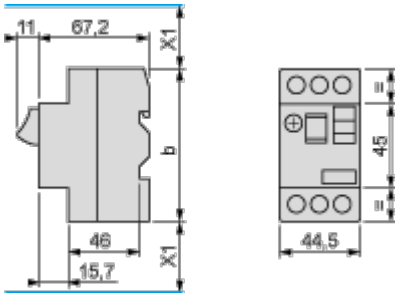


- 1 24-32 A
- 2 20-25 A
- 3 17-23 A
- 4 13-18 A
- 5 9-14 A
- 6 6-10 A
- 7 4-6.3 A
- 8 2.5-4 A
- 9 1.6-2.5 A
- 10 1-1.6 A

Dimensions Drawings

Dimension

GV2ME



(1) Maximum

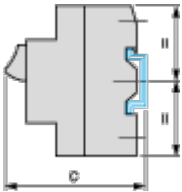
X1 Electrical clearance = 40 mm for  $U_e \leq 690$  V

	b
GV2ME $\bullet\bullet$	89
GV2ME $\bullet\bullet$ 3	101

Mounting

GV2ME

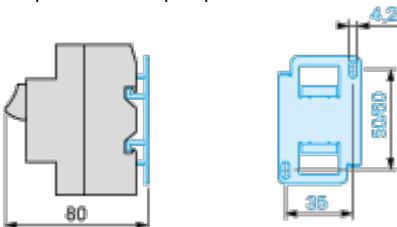
On 35 mm rail



c = 78.5 on AM1 DP200 (35 x 7.5)

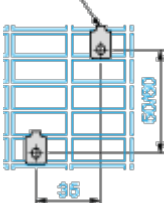
c = 86 on AM1 DE200, ED200 (35 x 15)

On panel with adapter plate GV2AF02

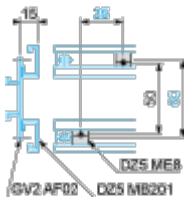


On pre-slotted plate AM1 PA

AF1 EA4

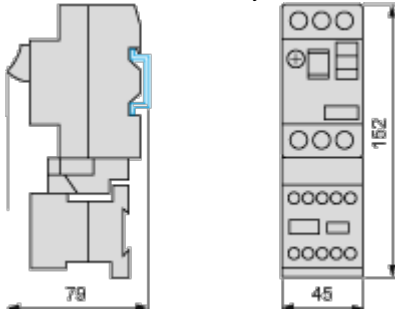


On rails DZ5 MB201



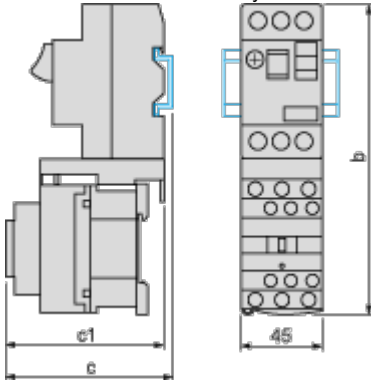
**GV2AF01**

Combination GV2ME + TeSys k contactor



**GV2AF3**

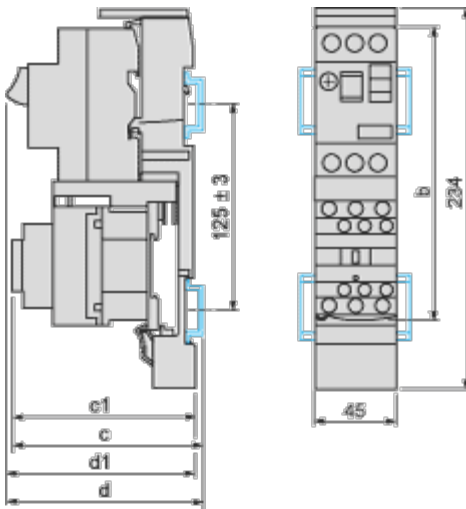
Combination GV2ME + TeSys d contactor



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

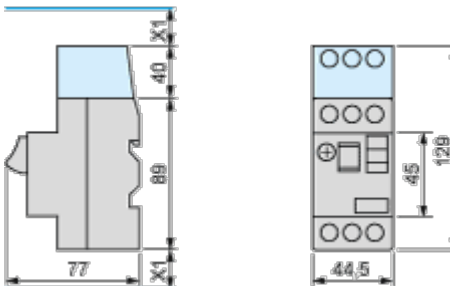
**GV2AF4 + LAD311**

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)

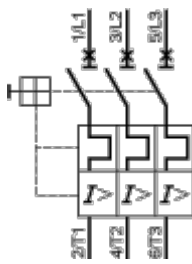


X1 = 10 mm for Ue = 230 V or 30 mm for 230 V < Ue ≤ 690 V

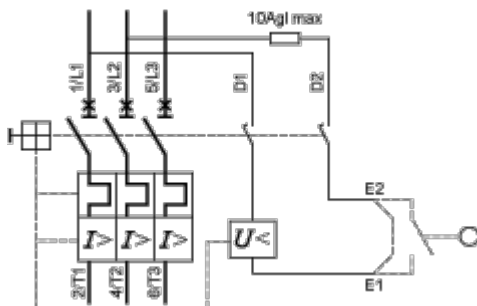
Connections and Schema

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GV2ME•• and GV2RT



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

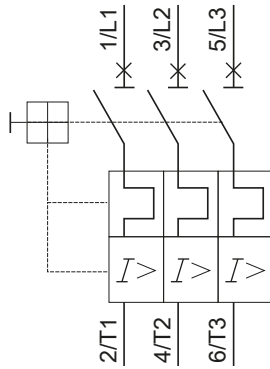


Technical Illustration

Wiring diagram

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GV2ME~~XX~~



REFER TO TECHNICAL DRAWINGS AND DOCUMENTATION FOR COMPLETE INFORMATION.

Offer Marketing Illustration

Product benefits / Features

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## TeSys Deca Motor Circuit Breakers



**Universal Integration**

Can be used for all type of applications across industry, infrastructure and buildings.



**Complete protection**

Provide short circuit protection, overload protection, motor (ON/OFF) control, all in a single product.



**Standard Sync**

Compliant to motor control and protection, in accordance with standards.



Offer Marketing Illustration

Product benefits / Features

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**TeSys Deca Motor Circuit Breakers**  
Range Accessories

Energy Sensor

Mounting and adapters

Terminal block

Combination block

Motor starter adapter plate

Current limiter

Comb busbar

Auxiliary contact blocks

The image displays a collection of accessories for TeSys Deca Motor Circuit Breakers. At the top left, a large black motor circuit breaker is shown against a green circular background. Below it, the title 'TeSys Deca Motor Circuit Breakers' is written in a bold, dark grey font, with 'Range Accessories' in a green font underneath. The accessories are arranged in two rows of four. Each accessory is accompanied by a small image and a label: Energy Sensor (a white rectangular device with a cable), Mounting and adapters (two grey metal brackets), Terminal block (a black plastic block with three terminals), Combination block (a black plastic block with four terminals), Motor starter adapter plate (a black metal plate with four terminals), Current limiter (a black metal component with two terminals), Comb busbar (a long black metal bar with multiple terminals), and Auxiliary contact blocks (two black plastic blocks with multiple terminals).

Offer Marketing Illustration

Product benefits / Features

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The image shows a TeSys Deca Motor Circuit Breaker, a black rectangular device with a red handle and a green indicator. It has three terminals on top labeled 1, 2, and 3, and three terminals on the bottom labeled 2, 4, and 6. The handle is in the 'OFF' position. The device is set against a green circular background.

### TeSys Deca Motor Circuit Breakers

#### Technical Benefits

- High breaking capacity up to 100 kA.
- Screw clamp for the connection, with lug and spring terminals.
- Easily identify the tripped breaker.
- Padlockable in all versions.
- Sealable thermal overload settings without additional accessories.
- Short circuit indication for better diagnostics when a trip occurs.
- Maximum 15 current ratings to cover from 0.1 A to 32 A motor current with a IP20 level for finger safety.

Offer Marketing Illustration

Product benefits / Features

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## TeSys Deca Motor Circuit Breakers

Range Accessories



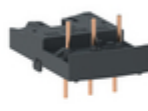
Energy Sensor



Mounting and adapters



Terminal block



Combination block



Motor starter  
adapter plate



Current limiter



Comb busbar



Auxiliary  
contact blocks

Offer Marketing Illustration

Product benefits / Features

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## TeSys Deca Motor Circuit Breakers



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Provide short circuit protection, overload protection, motor (ON/OFF) control, all in a single product.



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Offer Marketing Illustration

Product benefits / Features

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## TeSys Deca Motor Circuit Breakers

### Technical Benefits

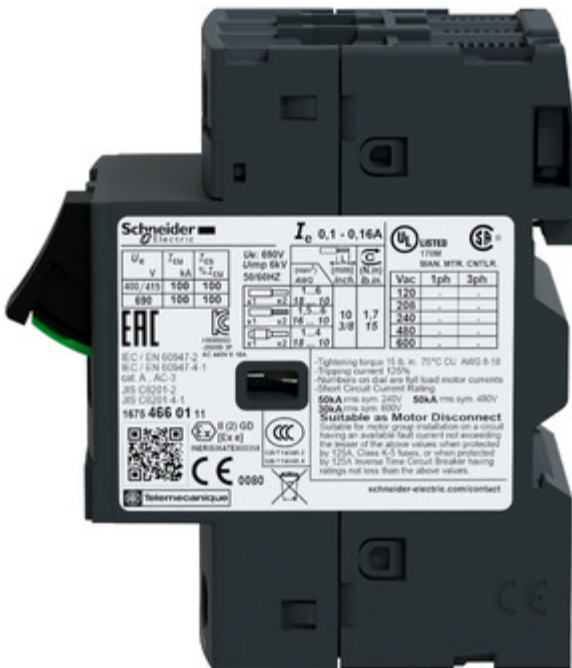
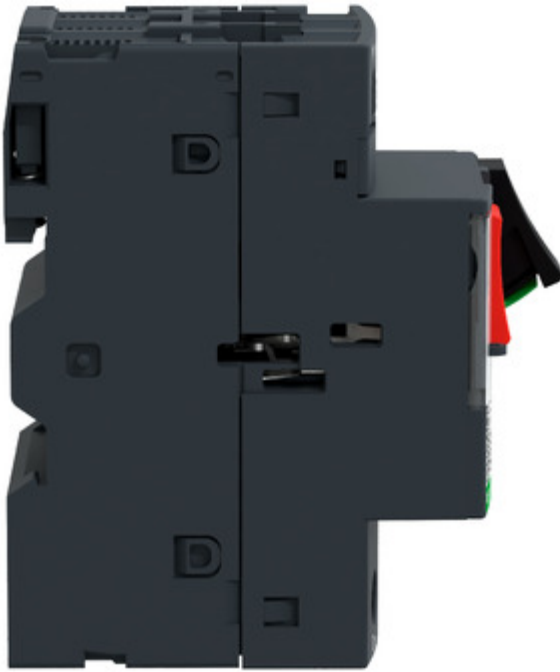


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Image of product / Alternate images

Alternative

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**Schneider Electric**

**I<sub>e</sub> 0,1 - 0,16A**

**UL LISTED** 17000  
SEAN MTR. CNTLR.

U <sub>e</sub>	I <sub>cu</sub>	I <sub>cs</sub>	U <sub>imp</sub> 6kV	50/60Hz	1.1A	1.5A	2A	3A	4A	6A	10A	15A	20A	25A	30A	35A	40A	45A	50A	60A	75A	100A
400/415	100	100	100		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
690	100	100	100		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

U<sub>e</sub>: 690V  
U<sub>imp</sub> 6kV  
50/60Hz

Lightning torque 15 lb. in. 70°C CU: 800 9-10  
Tipping current 1250A  
Numbers on dial are full load motor currents  
Short Circuit Current Rating:  
50kA rms sym 240V 50kA rms sym 480V  
30kA rms sym 600V

**Suitable as Motor Disconnect**  
Suitable for motor group installation on a circuit having an available fault current not exceeding the lesser of the above values when protected by 125A Class K-3 fuses, or when protected by 125A Inverse Time Circuit Breaker having ratings not less than the above values.

schneider-electric.com/contact

