Product datasheet
Characteristics

GV2ME20
Motor circuit breaker, TeSys GV2, 3P, 13-18 A, thermal magnetic, screw clamp terminals

Main

Range	TeSys
Product name	TeSys GV2
Device short name	GV2ME
Device application	Motor
Trip unit technology	Thermal-magnetic

Complementary

Poles description	3P
Network type	AC
Utilisation category	AC-3 conforming to IEC 60947-4-1 Category A conforming to IEC 60947-2
Network frequency	50/60 Hz conforming to IEC 60947-4-1
Fixing mode	35 mm symmetrical DIN rail: clipped Panel: screwed (with adaptor plate)
Operating position	Any position
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 3 kA Icu at 690 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 8 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2 6 kA Icu at 500 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 75 % at 690 V AC 50/60 Hz conforming to IEC 60947-2 75 % at 500 V AC 50/60 Hz conforming to IEC 60947-2 50 % 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
Control type	Push-button
[In] rated current	18 A

Thermal protection adjustment range	13…18 A
Magnetic tripping current	223 A
[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
[Ith] conventional free air thermal current	18 A conforming to IEC 60947-4-1
[Uimp] rated impulse withstand voltage	IEC 60947-2 6 kV
Power dissipation per pole	2.5 W
Mechanical durability	100000 cycles
Electrical durability	100000 cycles for AC-3 at 440 V
Maximum operating rate	25 cyc/h
Rated duty	Continuous conforming to IEC 60947-4-1
Connections - terminals	Screw clamp terminals 2 cable(s) 1…6 mm² solid Screw clamp terminals 2 cable(s) 1.5…6 mm² flexible without cable end Screw clamp terminals 2 cable(s) 1…4 mm² flexible with cable end
Tightening torque	1.7 N.m on screw clamp terminals
Suitability for isolation	Yes conforming to IEC 60947-1
Phase failure sensitivity	Yes conforming to IEC 60947-4-1
Height	89 mm
Width	45 mm
Depth	78.5 mm
Net weight	0.26 kg

Environment

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

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	Product Environmental Profile

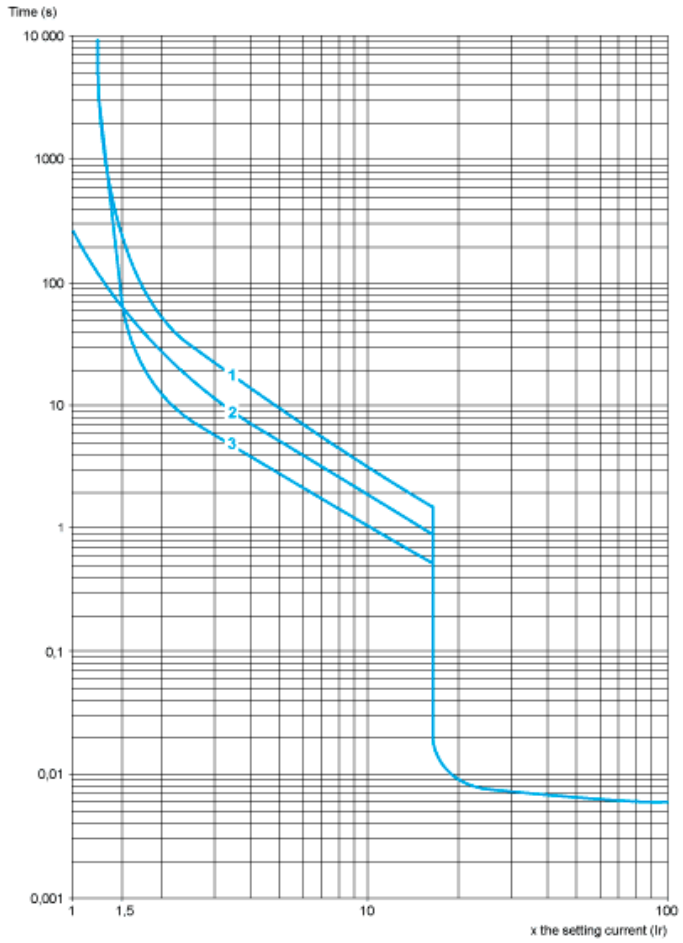
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

Warranty	18 months

Thermal-Magnetic Tripping Curves for GV2ME and GV2P

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

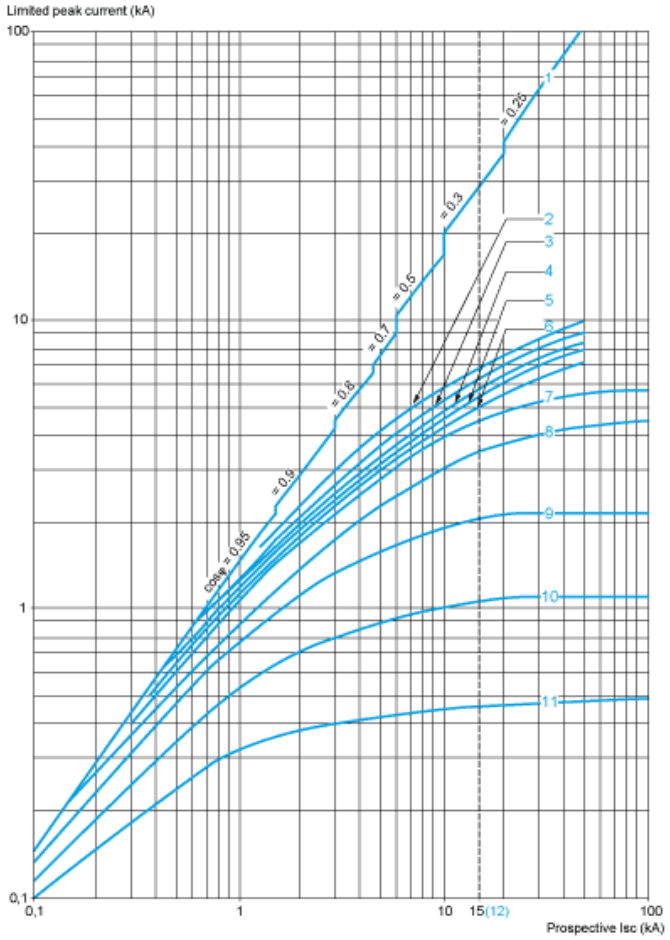


1 3 poles from cold state
2 2 poles from cold state
3 3 poles from hot state

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

Dynamic Stress

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

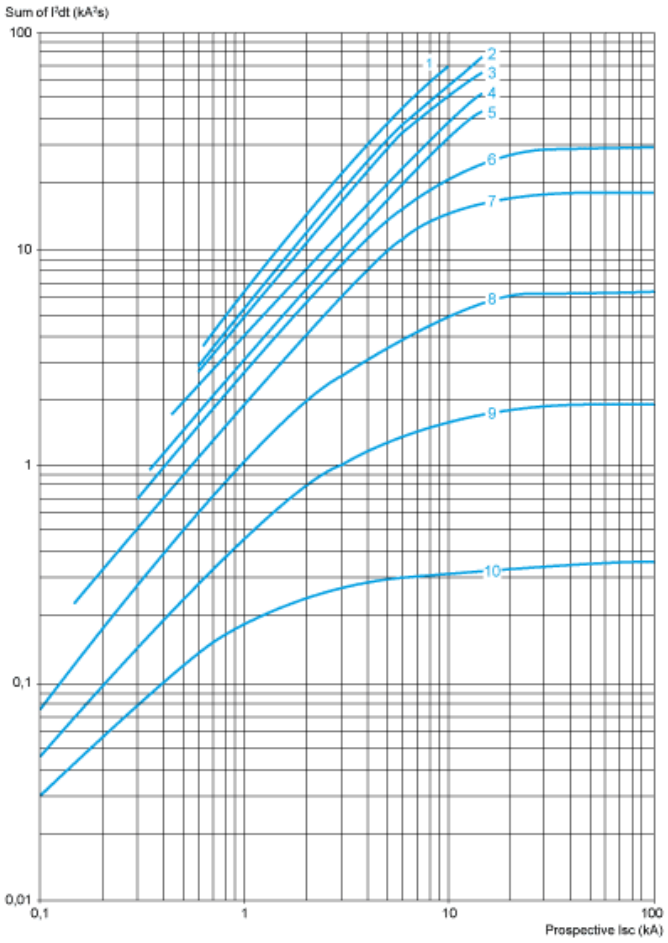


1	Maximum peak current
2	24-32 A
3	20-25 A
4	17-23 A
5	13-18 A
6	9-14 A
7	6-10 A
8	4-6.3 A
9	2.5-4 A
10	1.6-2.5 A
11	1-1.6 A
12	Limit of rated ultimate breaking capacity on short-circuit of GV2ME (14, 18, 23, and 25 A ratings).

Thermal Limit on Short-Circuit for GV2ME

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

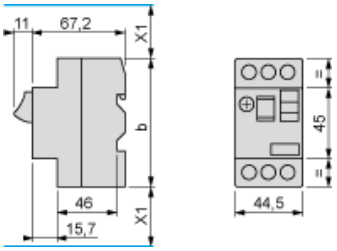
Sum of I^2dt = f (prospective Isc) at 1.05 Ue = 435 V



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



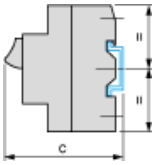
(1) Maximum
X1 Electrical clearance = 40 mm for Ue ≤ 690 V

	b
GV2ME••	89
GV2ME••3	101

Mounting

GV2ME

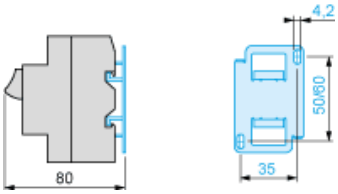
On 35 mm rail



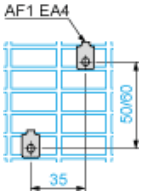
c = 78.5 on AM1 DP200 (35 x 7.5)

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

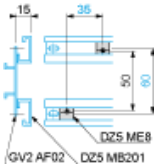
On panel with adapter plate GV2AF02



On pre-slotted plate AM1 PA

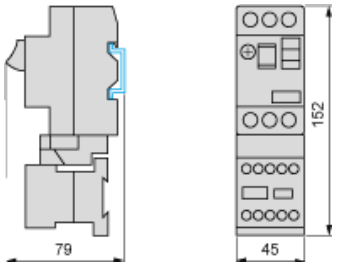


On rails DZ5 MB201



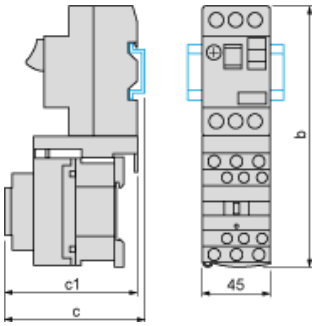
GV2AF01

Combination GV2ME + TeSys k contactor



GV2AF3

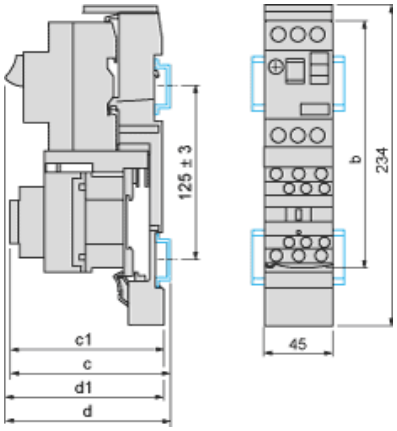
Combination GV2ME + TeSys d contactor



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

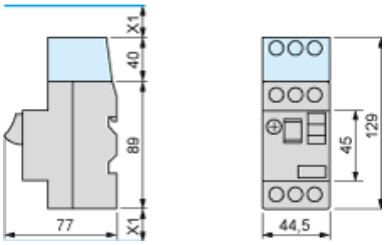
GV2AF4 + LAD311

Combination GV2ME + TeSys d contactor



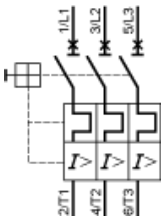
GV2ME +	LC1D09…D18	LC1D25 and D32
b	176.4	186.8
c1	103.1	136.4
c	135.6	141.9
d1	107	107
d	112.5	112.5

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