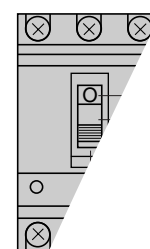




impact and independent



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elements inc
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d operational current of the

onnel protection is also provided. All liv

the addition of an undervoltage trip allows the circu
condition. The user is therefore protected against sudden
the Start button "I" has to be pressed to restart the motor.

With the addition of a shunt trip, de-energisation of the unit ca re

The operators on both open-mounted and enclosed motor circ
to 3 padlocks.

Because they are suitable for isolation, these circuit-breakers, in tl
and indicate the actual position of the moving contacts by the pos.

Special features

These motor circuit-breakers are easily installed in any configurati
fixing or clip-on mounting on symmetrical, asymmetrical or combin

Coordination (according to standard IEC/EN 60947-4-1)

The standard defines the degree of acceptable damage to the equipment following a short-circuit.
Standard IEC/EN 60947-4-1 (motor-starters) defines 2 types

Type 1 coordination	Damage to motor-starter components is accepted.	The fault current has been successfully interrupted. No damage has been caused to persons or to installations.
Type 2 coordination	Welding of the contactor or motor-starter contacts is accepted providing they can be easily separated.	

Coordination table for GV2 + contactors: see pages 1/40 to 1/43.

I_q = rated conditional short-circuit current (kA)
 - that the circuit-breaker can interrupt
 - that the associated motor-starter components can withstand without damage.

Suitability for isolation

According to standard IEC/EN 60947-1, sub-clause 7-1-6 (additional safety requirements for equipment suitable for isolation):

Equipment suitable for isolation shall provide in the open position and isolating distance in accordance with the requirements necessary to satisfy the isolating function and shall be fitted with an indicating device indicating the position of the moving contacts. This position indicator shall be connected to the moving contacts in a reliable way; the handle may form such an indicator, providing it cannot indicate the open position when released unless all the moving contacts are in the open position.

Breaking capacity (according to standard IEC/EN 60947-2)**Icu: Rated ultimate short-circuit breaking capacity**

Breaking capacity for which the prescribed conditions according to a specified test sequence do not include the capability of the circuit-breaker to carry its rated current continuously following the sequence of operations)O-t-CO.

Ics: Rated service short-circuit breaking capacity

Breaking capacity for which the prescribed conditions according to a specified test sequence include the capability of the circuit-breaker to carry its rated current continuously following the sequence of operations O-t-CO-t-CO.

It is expressed as a percentage of Icu (25, 50, 75 or 100%).

In operational conditions, the short-circuit currents normally encountered rarely exceed 25 to 50% of the prospective short-circuit current at the point of installation of the circuit-breaker.

Other definitions**Discrimination** (selectivity)

Discrimination of protective devices requires that protection against a fault arising at any point of the network is effected by the nearest device on the supply side of the fault.

Discrimination may be total or partial. In the latter case the overcurrent limit must be defined.
See pages 3/20 to 3/24.

Cascading

Where two separate protective devices in series operate at the same time under short circuit fault conditions, the breaking capacity Icu of the downstream device is increased.
See page 3/20.

Current limiting

By the use of additional poles operating in series with the main poles, the overall breaking capacity Icu of a motor circuit-breaker is substantially increased. A single current limiting block may be used in conjunction with a number of motor circuit-breakers up to the 63 A thermal limit.
See page 3/6.

Sensitivity to phase loss (according to standard IEC/EN 60947-4-1, sub-clause 7.2.1.5.2)

Limits of operation of 3-pole thermal overload relays energised on two poles: With the overload relay energised on two poles at 1.0 times the current setting (I_r) and on one pole at 0.9 I_r , tripping shall not occur in less than 2 hours starting from the cold state at 20 °C.

When the value I_r flowing in two poles is increased to 1.15 I_r and the third pole is de-energised, tripping shall occur in less than 2 hours. See curves, pages 3/8 to 3/10.

TeSys circuit-breakers

Thermal-magnetic motor circuit-breakers

types GV2-ME and GV2-P

(Also applies to GV2-RT. Use GV2-ME table
eg: for GV2-RT14 use GV2-ME14 data)

Breaking capacity of GV2-ME and GV2-P

Circuit-breaker type				GV2-									GV2-											
				ME01 to ME06	ME07	ME08	ME10	ME14	ME16	ME20	ME21 and ME22	ME32	P01 to P06	P07	P08	P10	P14	P16	P20	P21 and P22	P32			
Rating			A	0.1 to 1.6	2.5	4	6.3	10	14	18	23 and 25	32	0.1 to 1.6	2.5	4	6.3	10	14	18	23 and 25	32			
Breaking capacity conforming to IEC/EN 60947-2	230/ 240 V	Icu	kA	★	★	★	★	★	★	★	50	50	★	★	★	★	★	★	★	★	★			
		Ics % (1)		★	★	★	★	★	★	★	100	100	★	★	★	★	★	★	★	★	★			
	400/ 415 V	Icu	kA	★	★	★	★	★	15	15	15	10	★	★	★	★	★	★	★	50	50	50		
		Ics % (1)		★	★	★	★	★	50	50	40	50	★	★	★	★	★	★	★	50	50	50		
	440 V	Icu	kA	★	★	★	50	15	8	8	6	6	★	★	★	★	★	★	50	20	20	20		
		Ics % (1)		★	★	★	100	100	50	50	50	50	★	★	★	★	★	★	75	75	75	75		
	500 V	Icu	kA	★	★	★	50	10	6	6	4	4	★	★	★	★	★	50	42	10	10	10		
		Ics % (1)		★	★	★	100	100	75	75	75	75	★	★	★	★	★	100	75	75	75	75		
	690 V	Icu	kA	★	3	3	3	3	3	3	3	3	★	8	8	6	6	6	6	4	4	4		
		Ics % (1)		★	75	75	75	75	75	75	75	75	★	100	100	100	100	100	100	100	100	100		
Associated fuses (if required) if I _{sc} > breaking capacity I _{cu} conforming to IEC/EN 60947-2			230/ 240 V	aM	A	★	★	★	★	★	★	★	80	80	★	★	★	★	★	★	★	★		
				gG	A	★	★	★	★	★	★	★	100	100	★	★	★	★	★	★	★	★	★	
			400/ 415 V	aM	A	★	★	★	★	★	63	63	80	80	★	★	★	★	★	★	★	100	100	100
				gG	A	★	★	★	★	★	80	80	100	100	★	★	★	★	★	★	★	125	125	125
			440 V	aM	A	★	★	★	50	50	50	50	63	63	★	★	★	★	★	★	50	63	80	80
				gG	A	★	★	★	63	63	63	63	80	80	★	★	★	★	★	★	63	80	100	100
			500 V	aM	A	★	★	★	50	50	50	50	50	50	★	★	★	★	★	50	50	50	50	50
				gG	A	★	★	★	63	63	63	63	63	63	★	★	★	★	★	63	63	63	63	63
			690 V	aM	A	★	16	25	32	32	40	40	40	40	★	20	25	40	40	50	50	50	50	50
				gG	A	★	20	32	40	40	50	50	50	50	★	25	32	50	50	63	63	63	63	63

★ > 100 kA.

(1) As % of I_{cu}.

TeSys circuit-breakers

Thermal-magnetic motor circuit-breakers
types GV2-ME and GV2-P
(Also applies to GV2-RT. Use GV2-ME table
eg: for GV2-RT14 use GV2-ME14 data)

Breaking capacity of GV2-ME and GV2-P (used in association with current limiter GV1-L3)

Circuit-breaker type	GV2-		ME01 to ME06	ME07	ME08	ME10	ME14	ME16	ME20	ME21	ME22	ME32
Rating		A	0.1...1.6	2.5	4	6.3	10	14	18	23	25	32
Breaking capacity conforming to IEC/EN 60947-2	230/240 V	Icu	kA	★	★	★	★	★	★	★	★	★
		Ics % (1)		★	★	★	★	★	★	★	★	★
	400/	Icu	kA	★	★	★	★	★	100	100	100	

Breaking capacity of GV2-LE and GV2-L

Type				GV2-LE03 to LE06										GV2-L03 to L06									
				LE03 to LE06	LE07	LE08	LE10	LE14	LE16	LE20	LE22	LE32	L03 to L06	L07	L08	L10	L14	L16	L20	L22	L32		
Rating			A	0.4 to 1.6	2.5	4	6.3	10	14	18	25	32	0.4 to 1	2.5	4	6.3	10	14	18	25	32		
Breaking capacity to IEC/EN 60947-2	230/ 240 V	Icu	kA	★	★	★	★	★	★	★	50	50	★	★	★	★	★	★	★	50	50		
		Ics % (1)		★	★	★	★	★	★	★	★	100	100	★	★	★	★	★	★	★	100	100	
	400/ 415 V	Icu	kA	★	★	★	★	★	15	15	15	10	★	★	★	★	★	★	50	50	50	50	
		Ics % (1)		★	★	★	★	★	50	50	40	50	★	★	★	★	★	★	50	50	50	50	
	440 V	Icu	kA	★	★	★	50	15	8	8	6	6	★	★	★	★	20	20	20	20	20		
		Ics % (1)		★	★	★	100	100	50	50	50	50	★	★	★	★	75	75	75	75	75		
	500 V	Icu	kA	★	★	★	50	10	6	6	4	4	★	★	★	★	10	10	10	10	10		
		Ics % (1)		★	★	★	100	100	75	75	75	75	★	★	★	★	100	75	75	75	75		
	690 V	Icu	kA	★	3	3	3	3	3	3	3	3	★	4	4	4	4	4	4	4	4		
		Ics % (1)		★	75	75	75	75	75	75	75	75	★	100	100	100	100	100	100	100	100		
	Associated fuses (if required) If Isc > breaking capacity Icu to IEC/EN 60947-2																						
	230/ 240 V	aM	A	★	★	★	★	★	★	★	80	80	★	★	★	★	★	★	★	100	100		
		gG	A	★	★	★	★	★	★	★	100	100	★	★	★	★	★	★	★	125	125		
	400/ 415 V	aM	A	★	★	★	★	★	63	63	80	80	★	★	★	★	★	80	100	100	100		
		gG	A	★	★	★	★	★	80	80	100	100	★	★	★	★	★	100	125	125	125		
	440 V	aM	A	★	★	★	50	50	50	50	63	63	★	★	★	★	50	63	80	80	80		
gG		A	★	★	★	63	63	63	63	80	80	★	★	★	★	63	80	100	100	100			
500 V	aM	A	★	★	★	50	50	50	50	50	50	★	★	★	★	50	50	50	50	50			
	gG	A	★	★	★	63	63	63	63	63	63	★	★	★	★	63	63	63	63	63			
690 V	aM	A	★	16	25	32	32	40	40	40	40	★	20	25	40	40	50	50	50	50			
	gG	A	★	20	32	40	40	50	50	50	50	★	25	32	50	50	63	63	63	63			
Cable protection against thermal stress in the event of short-circuit (PVC insulated copper cables)																							
Minimum c.s.a. protected at 40 °C and at Isc max	1 mm²	kA	●	●	●	≤ 10	≤ 6	(2)	(2)	(2)	(2)	●	●	●	≤ 10	≤ 6	(2)	(2)	(2)	(2)			
	1.5 mm²	kA	●	●	●	≤ 20	≤ 10	(2)	(2)	(2)	(2)	●	●	●	≤ 20	≤ 10	(2)	(2)	(2)	(2)			
	2.5 mm²		●	●	●	●	●	●	●	●	(2)	●	●	●	●	●	●	●	●	(2)			
	4...6 mm²		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			

Cable protection against thermal stress in the event of short-circuit (PVC insulated copper cables)

Minimum c.s.a. protected at 40 °C and at Isc max	1 mm ²	kA	●	●	●	≤ 10	≤ 6	(2)	(2)	(2)	(2)	●	●	●	≤ 10	≤ 6	(2)	(2)	(2)	(2)		
	1.5 mm ²	kA	●	●	●	≤ 20	≤ 10	(2)	(2)	(2)	(2)	●	●	●	≤ 20	≤ 10	(2)	(2)	(2)	(2)		
	2.5 mm ²		●	●	●	●	●	●	●	●	(2)	●	●	●	●	●	●	●	●	●	(2)	
	4...6 mm ²		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	

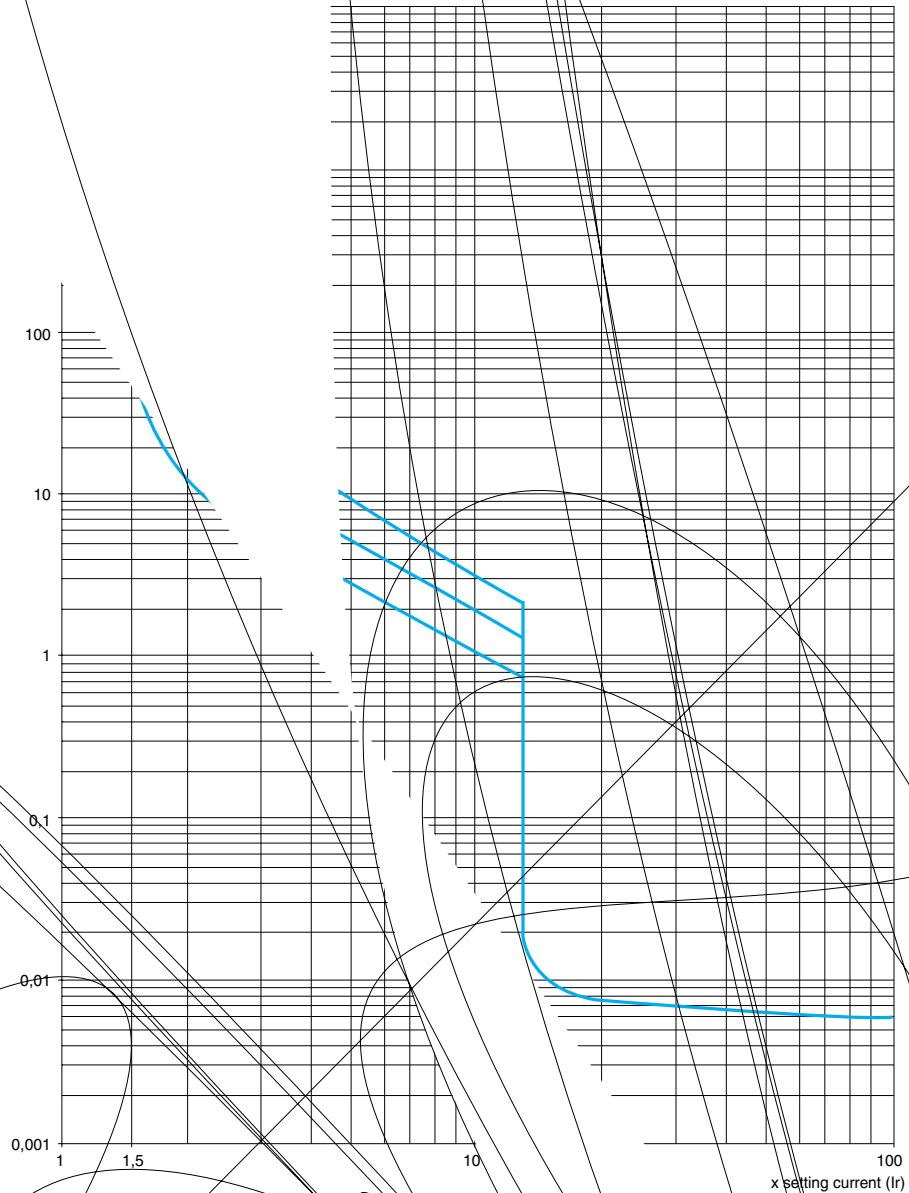
★ > 100 kA
(1) As % of Icu
(2) Cable c.s.a. not protected
● Cable c.s.a. protected

circuit-breakers

magnetic motor circuit-breakers
-ME and GV2-P

g curves for GV2-ME and GV2-P

ording to multiples of the setting current



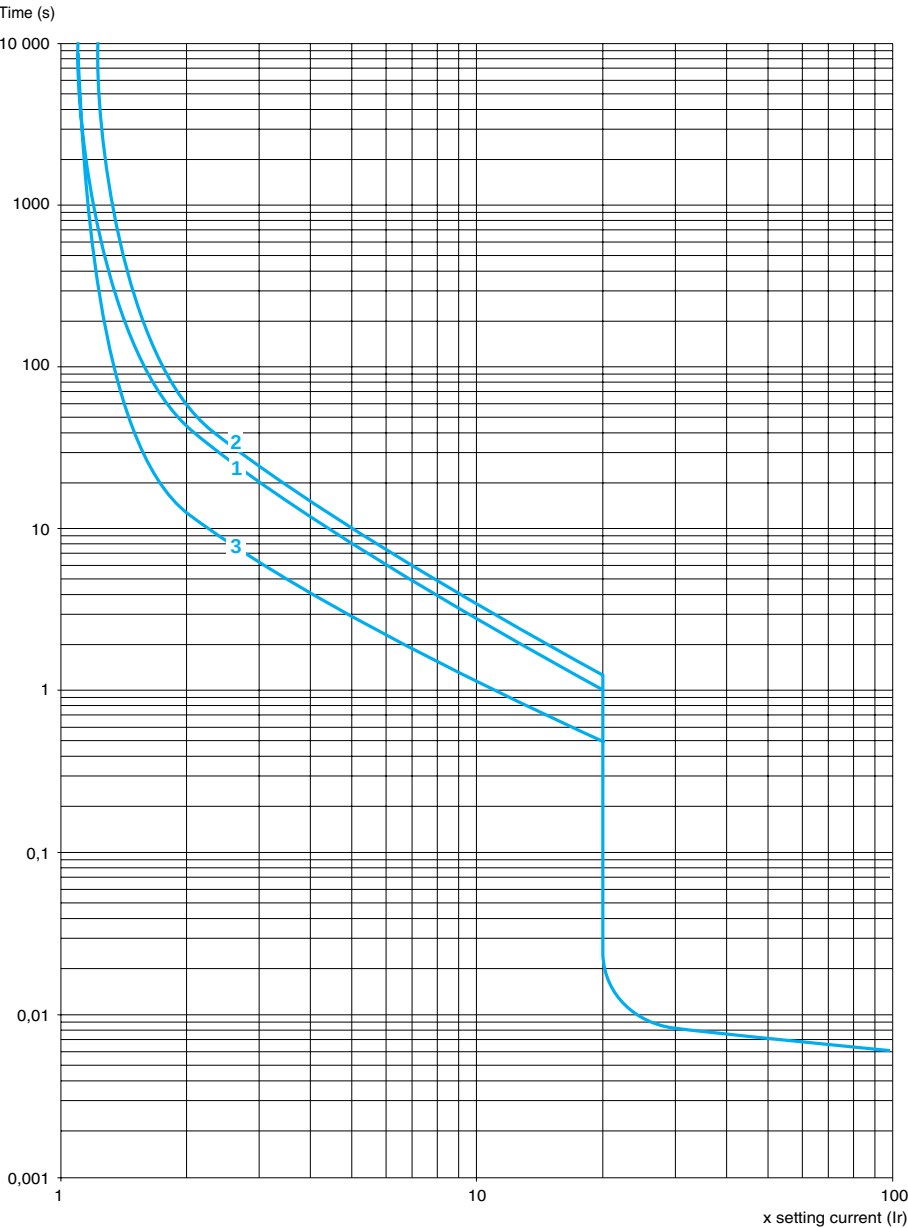
- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state

References:
pages 3/31 to 3/32

Dimensions:
pages 3/43 to 3/48

Schemes:
pages 3/49 to 3/51

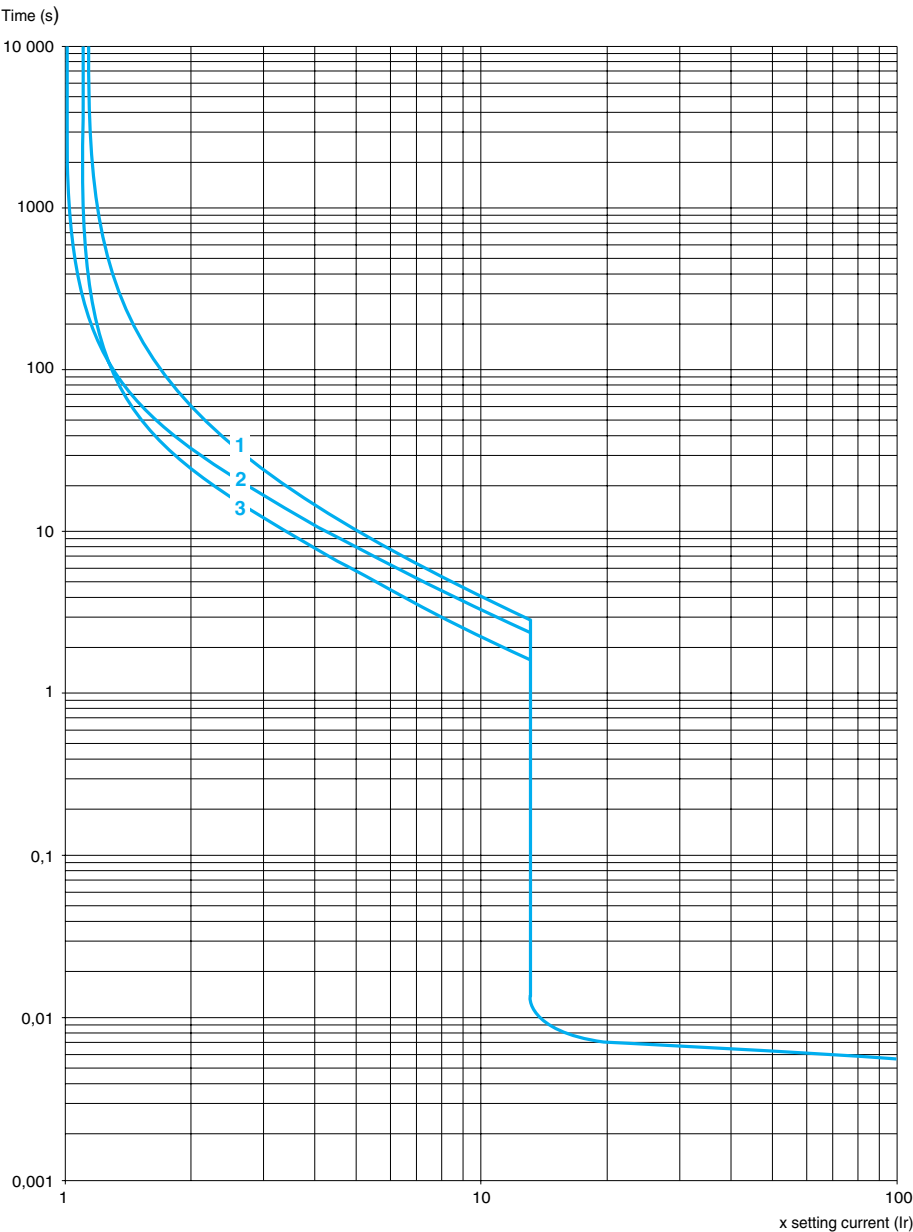
Thermal-magnetic tripping curves for GV2-RT



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

Tripping curves for GV2-L or LE combined with thermal overload relay LRD or LR2-K

Average operating time at 20°C according to multiples of the setting current



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

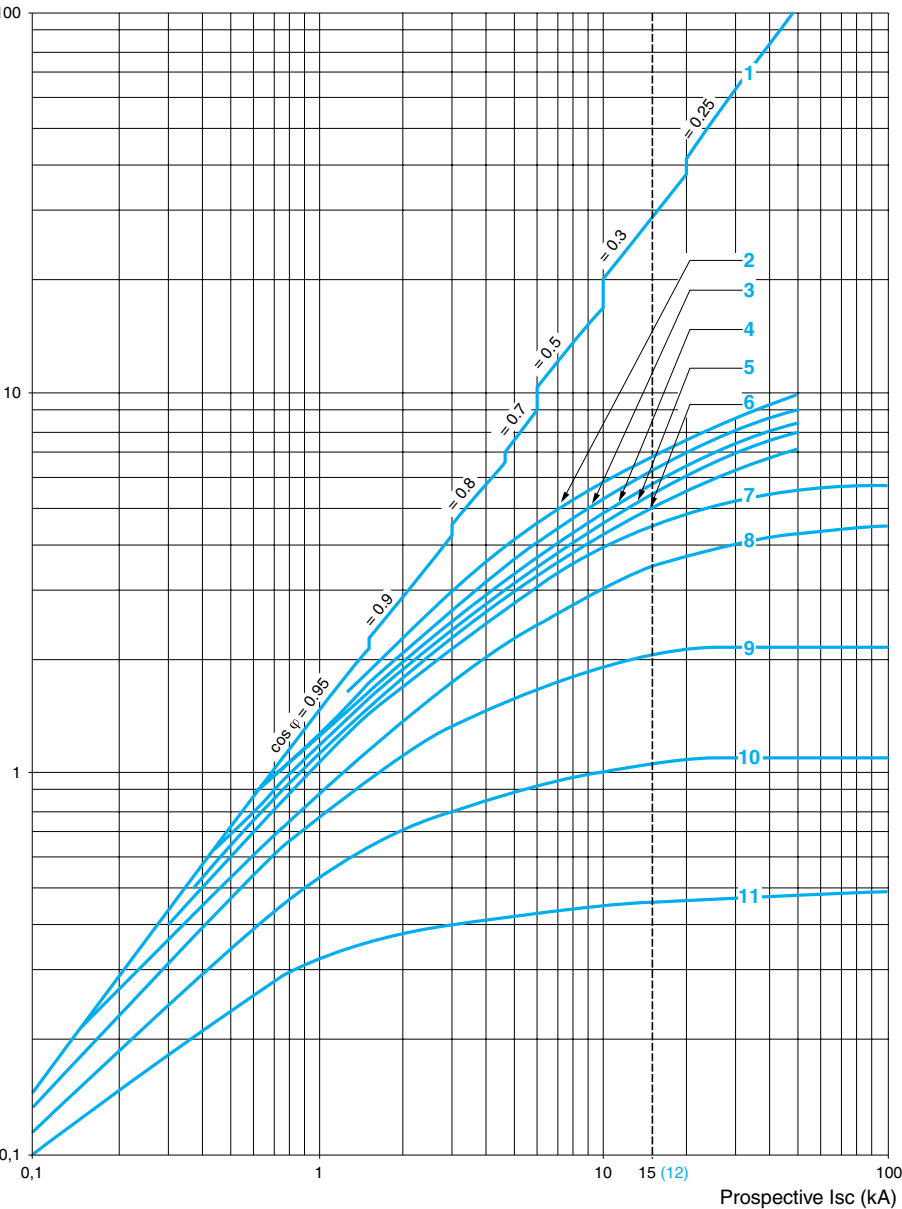
Current limitation on short-circuit for GV2-ME, GV2-P and GV2-RT

3-phase 400/415 V

Dynamic stress

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

Limited peak current (kA)



- 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 GV2-ME (14, 18, 23 and 25 A ratings)

Current limitation on short-circuit

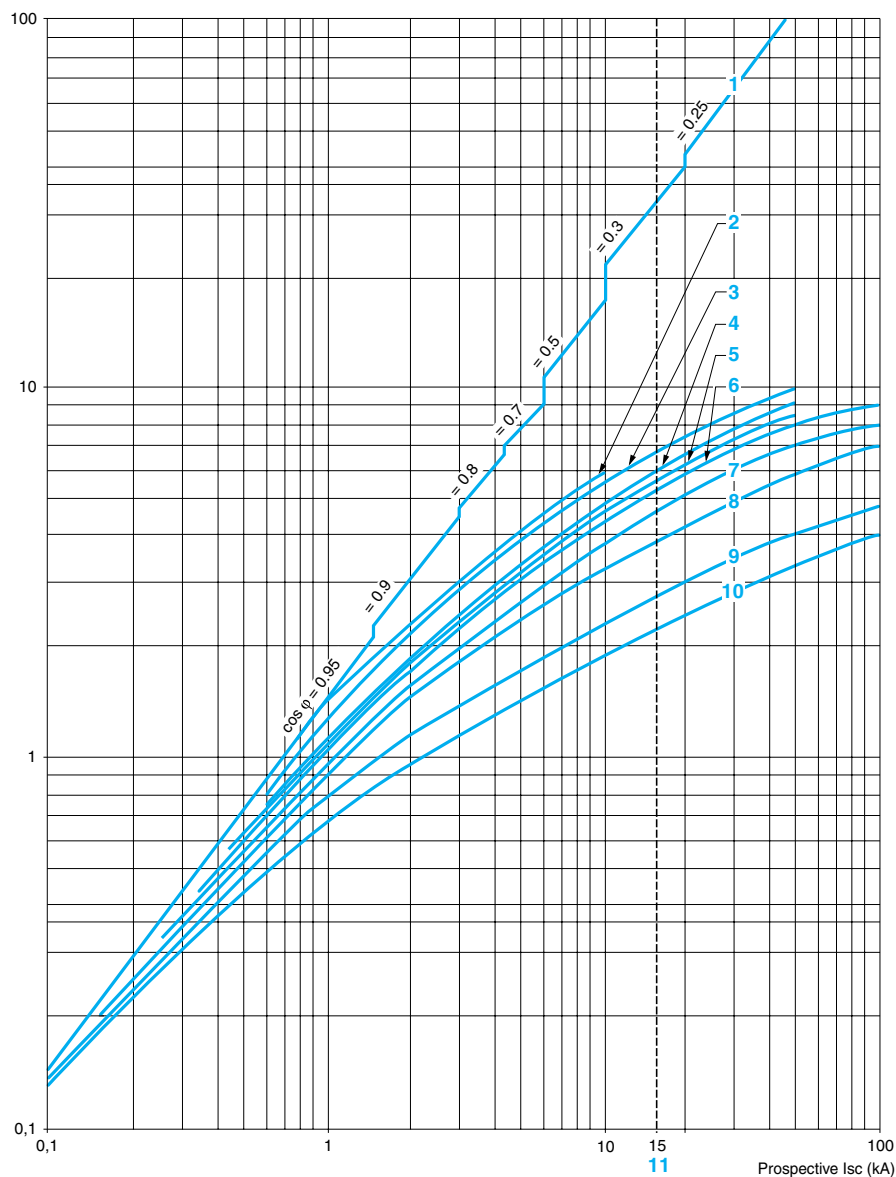
For GV2-L and GV2-LE only

3-phase 400/415 V

Dynamic stress

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

Limited peak current (kA)



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 GV2-LE
(14, 18 and 25 A ratings)

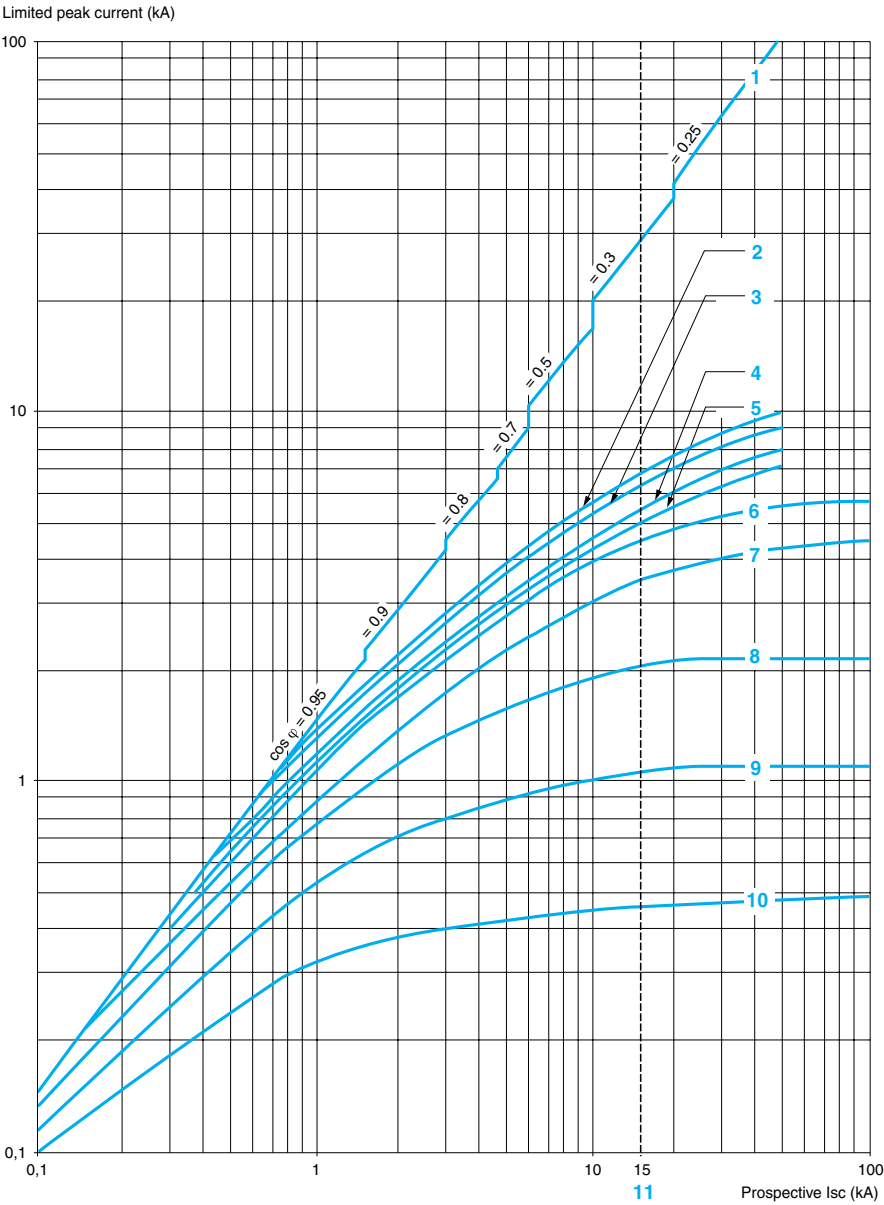
Current limitation on short-circuit

For GV2-L and GV2-LE + thermal overload relay LRD or LR2-K

3-phase 400/415 V

Dynamic stress

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

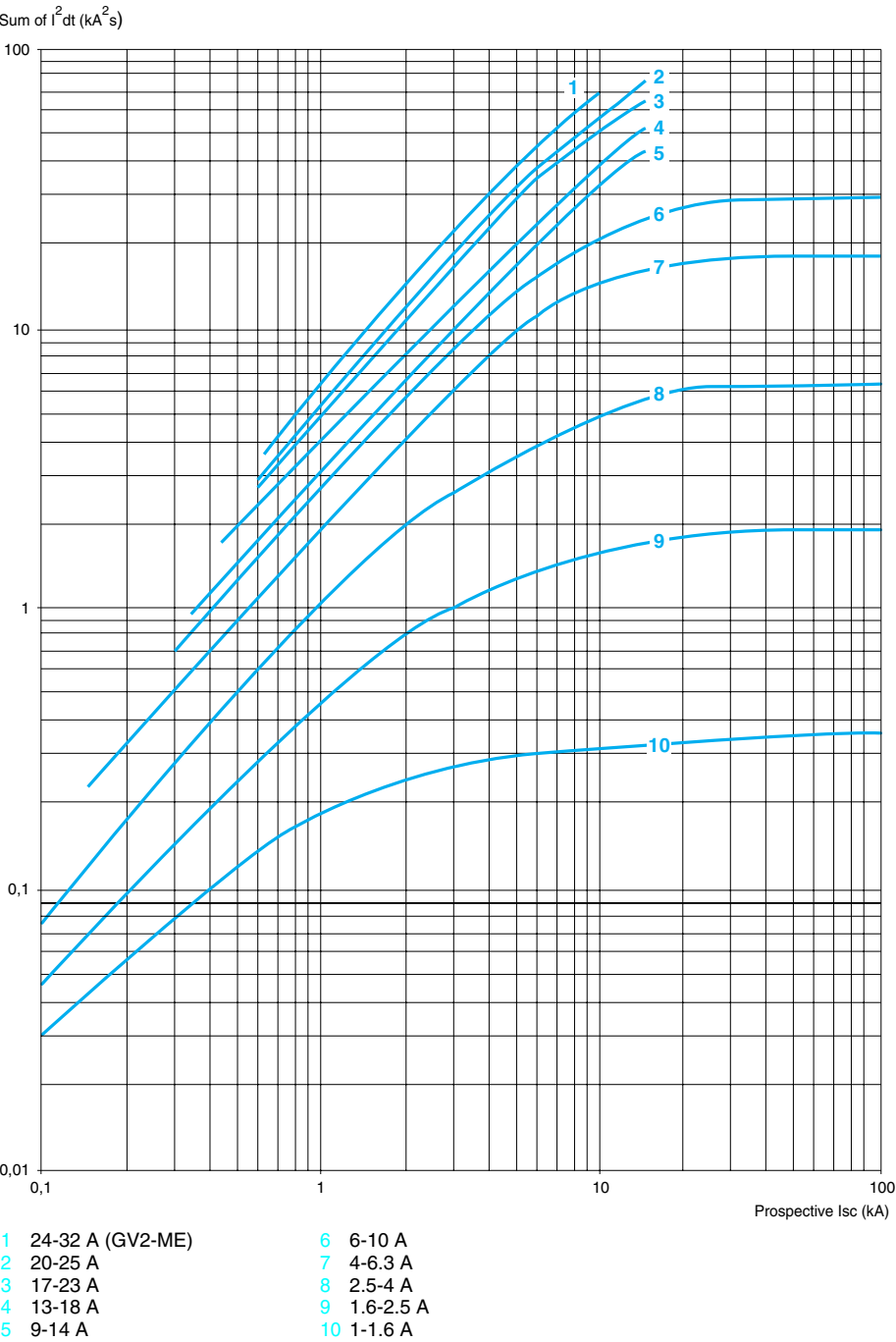


- | | | | |
|---|----------------------|----|--|
| 1 | Maximum peak current | 6 | 10 A |
| 2 | 32 A | 7 | 6.3 A |
| 3 | 25 A | 8 | 4 A |
| 4 | 18 A | 9 | 2.5 A |
| 5 | 14 A | 10 | 1.6 A |
| | | 11 | Limit of rated ultimate breaking capacity on short-circuit of GV2-LE (14, 18 and 25 A ratings) |

Thermal limit on short-circuit for GV2-ME and GV2-RT

Thermal limit in KA² s in the magnetic operating zone

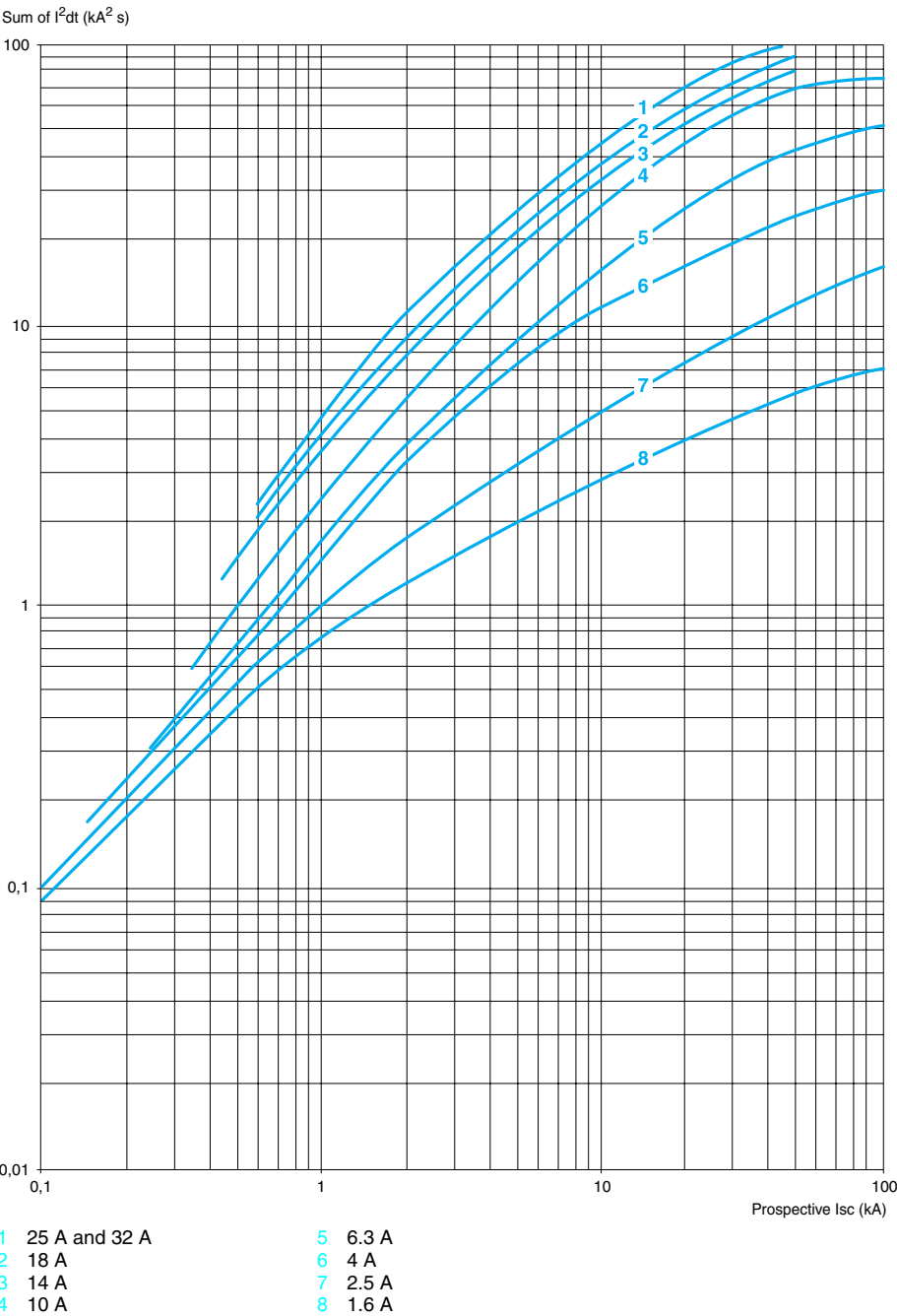
Sum of I²dt = f (prospective I_{sc}) at 1.05 U_e = 435 V



Thermal limit on short-circuit for GV2-L

Thermal limit in $\text{kA}^2 \text{ s}$ in the magnetic operating zone

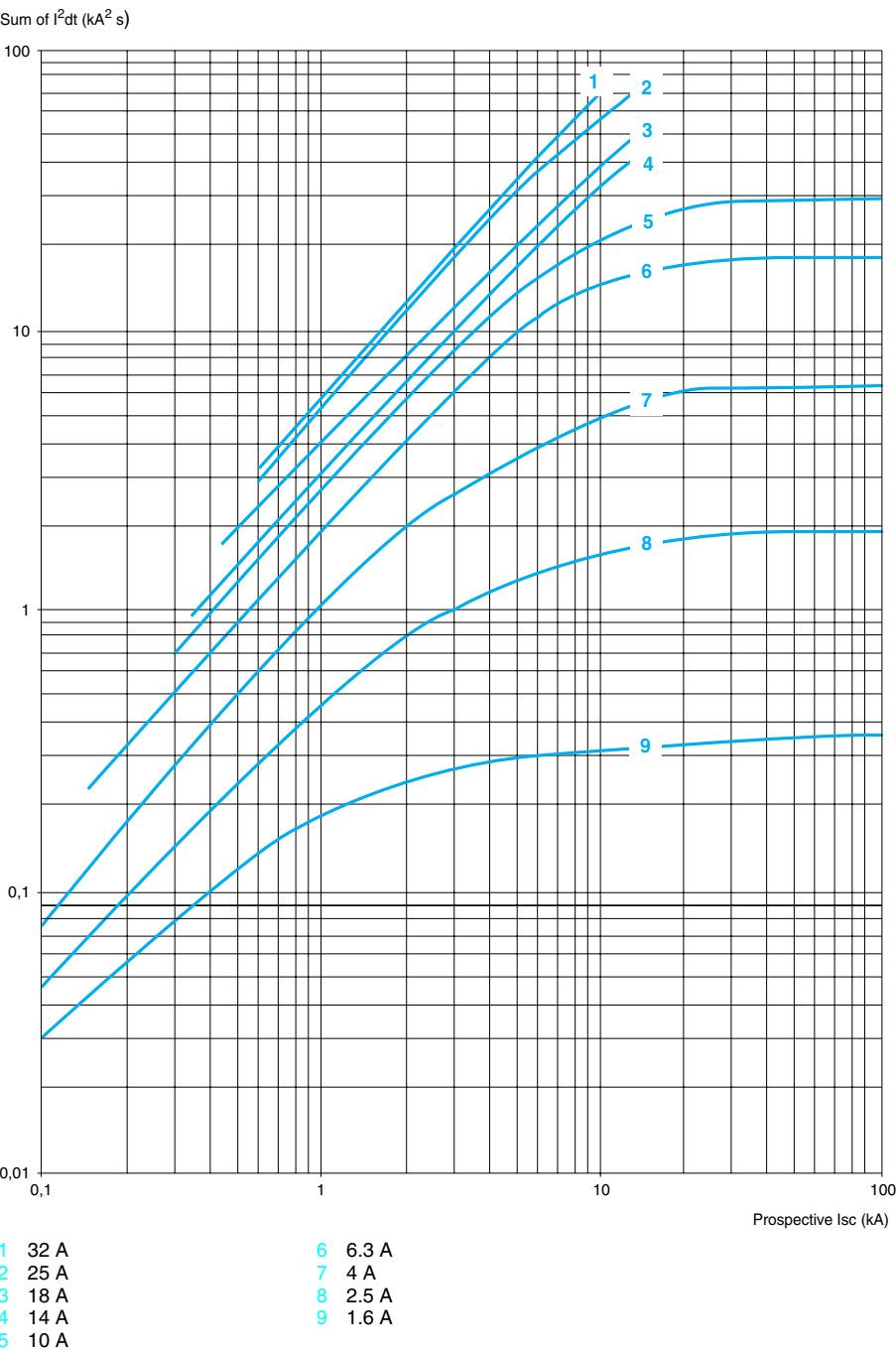
Sum of $I^2 dt = f$ (prospective I_{sc}) at $1.05 U_e = 435 \text{ V}$



Thermal limit on short-circuit for GV2-LE

Thermal limit in $\text{kA}^2 \text{s}$ in the magnetic operating zone

Sum of $I^2 dt = f$ (prospective I_{sc}) at $1.05 U_e = 435 \text{ V}$

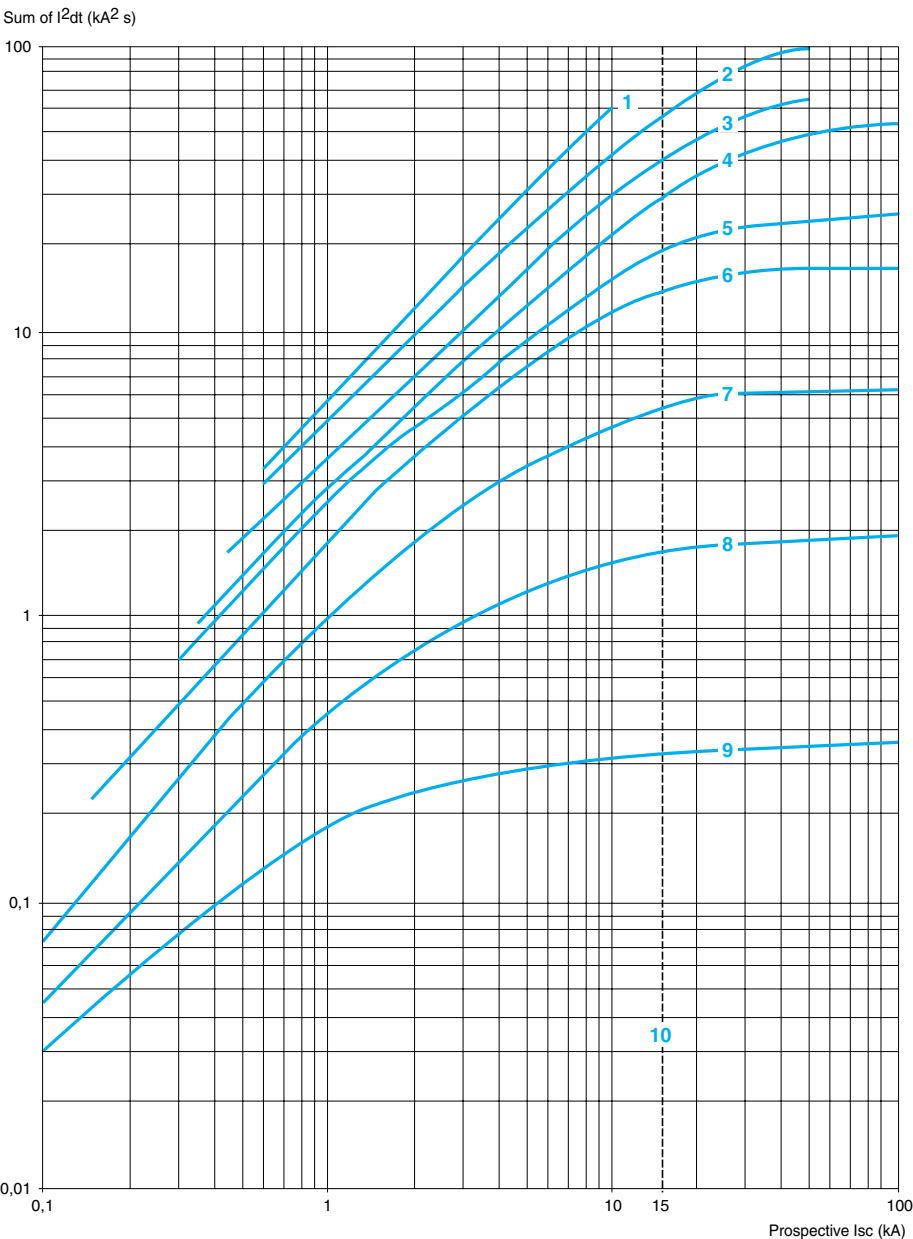


Thermal limit on short-circuit

For GV2-L and GV2-LE + thermal overload relay LRD or LR2-K

Thermal limit in kA² s in the magnetic operating zone

Sum of I²dt = f (prospective I_{sc}) at 1.05 U_e = 435 V



- | | |
|---------------------------|---|
| 1 32 A (GV2-LE32) | 7 4 A |
| 2 25 A and 32 A (GV2-L32) | 8 2.5 A |
| 3 18 A | 9 1.6 A |
| 4 14 A | 10 Limit of rated ultimate breaking capacity on short-circuit of GV2-LE (14, 18 and 25 A ratings) |
| 5 10 A | |
| 6 6.3 A | |

Maximum Earth Fault Loop Impedance Z_s for 0.4s disconnection time with U_0 230V ⁽¹⁾

Reference	Thermal Adjustment Range I_n (A)	Magnetic Tripping Current I_m (A)	Tolerance $I_m+20\%$ (A)	Maximum Loop Impedance Z_s (Ω)
GV2-ME01	0.1...0.16	1.50	1.80	127.78
GV2-ME02	0.16...0.25	2.40	2.88	79.86
GV2-ME03	0.25...0.4	5.00	6.00	38.33
GV2-ME04	0.4...0.63	8.00	9.60	23.96
GV2-ME05	0.63...1	13.00	15.60	14.74
GV2-ME06	1...1.6	22.50	27.00	8.52
GV2-ME07	1.6...2.5	33.50	40.20	5.72
GV2-ME08	2.5...4	51.00	61.20	3.76
GV2-ME10	4...6.3	78.00	93.60	2.46
GV2-ME14	6...10	138.00	165.60	1.39
GV2-ME16	9...14	170.00	204.00	1.13
GV2-ME20	13...18	223.00	267.60	0.86
GV2-ME21	17...23	327.00	392.40	0.59
GV2-ME22	20...25	327.00	392.40	0.59
GV2-ME32	24...32	416.00	499.20	0.46
GV2-P01	0.1...0.16	1.50	1.80	127.78
GV2-P02	0.16...0.25	2.40	2.88	79.86
GV2-P03	0.25...0.4	5.00	6.00	38.33
GV2-P04	0.4...0.63	8.00	9.60	23.96
GV2-P05	0.63...1	13.00	15.60	14.74
GV2-P06	1...1.6	22.50	27.00	8.52
GV2-P07	1.6...2.5	33.50	40.20	5.72
GV2-P08	2.5...4	51.00	61.20	3.76
GV2-P10	4...6.3	78.00	93.60	2.46
GV2-P14	6...10	138.00	165.60	1.39
GV2-P16	9...14	170.00	204.00	1.13
GV2-P20	13...18	223.00	267.60	0.86
GV2-P21	17...23	327.00	392.40	0.59
GV2-P22	20...25	327.00	392.40	0.59
GV2-L03	0.4	5.00	6.00	38.33
GV2-L04	0.63	8.00	9.60	23.96
GV2-L05	1	13.00	15.60	14.74
GV2-L06	1.6	22.50	27.00	8.52
GV2-L07	2.5	33.50	40.20	5.72
GV2-L08	4	51.00	61.20	3.76
GV2-L10	6.3	78.00	93.60	2.46
GV2-L14	10	138.00	165.60	1.39
GV2-L16	14	170.00	204.00	1.13
GV2-L20	18	223.00	267.60	0.86
GV2-L22	25	327.00	392.40	0.59
GV2-LE03	0.4	5.00	6.00	38.33
GV2-LE04	0.63	8.00	9.60	23.96
GV2-LE05	1	13.00	15.60	14.74
GV2-LE06	1.6	22.50	27.00	8.52
GV2-LE07	2.5	33.50	40.20	5.72
GV2-LE08	4	51.00	61.20	3.76
GV2-LE10	6.3	78.00	93.60	2.46
GV2-LE14	10	138.00	165.60	1.39
GV2-LE16	14	170.00	204.00	1.13
GV2-LE20	18	223.00	267.60	0.86
GV2-LE22	25	327.00	392.40	0.59
GV2-LE32	32	416.00	499.20	0.46
GV2-RT03	0.25...0.4	8.00	9.60	23.96
GV2-RT04	0.4...0.63	13.00	15.60	14.74
GV2-RT05	0.63...1	22.00	26.40	8.71
GV2-RT06	1...1.6	33.00	39.60	5.81
GV2-RT07	1.6...2.5	51.00	61.20	3.76
GV2-RT08	2.5...4	78.00	93.60	2.46
GV2-RT10	4...6.3	138.00	165.60	1.39
GV2-RT14	6...10	200.00	240.00	0.96
GV2-RT16	9...14	280.00	336.00	0.68
GV2-RT20	13...18	400.00	480.00	0.48
GV2-RT21	17...23	400.00	480.00	0.48

(1) Whilst the IEE Regulations provide for a disconnection time of 5s for fixed equipment, the value of impedance obtained will limit the current to a level which may affect the starting characteristics of the motor.

Cascading

Upstream circuit-breaker	NSC100N	NS100N	NS100H	NS100L
Breaking capacity kA rms	18	25	70	150
Downstream circuit-breaker	Breaking capacity (kA rms)			
GV2-ME ≥ 14 A	18	25	50	50
GV2-L ≥ 18 A			70	150
GV2-P ≥ 18 A			70	150

GV2-L or GV2-LE upstream circuit-breaker

Upstream circuit-breaker trip unit		L14 LE14	L16 LE16	L20 LE20	L22 LE22
Rating (A)		10	14	18	25
Downstream circuit-breaker	Rating (A)	Discrimination (A)			
GV2-ME01	0.16				
GV2-ME02	0.25				
GV2-ME03	0.4				
GV2-ME04	0.63				
GV2-ME05	1	10000			
GV2-ME06	1.6	150	300	400	900
GV2-ME07	2.5	100	150	200	400
GV2-ME08	4			150	200
GV2-ME10	6.3				
GV2-ME14	10				
GV2-ME16	14				
GV2-ME20	18				
GV2-ME21	23				
GV2-ME22	25				
GV2-ME32	32				
GV2-P01	0.16				
GV2-P02	0.25				
GV2-P03	0.4				
GV2-P04	0.63				
GV2-P05	1	10000			
GV2-P06	1.6	150	300	400	900
GV2-P07	2.5	100	150	200	400
GV2-P08	4			150	200
GV2-P10	6.3				
GV2-P14	10				
GV2-P16	14				
GV2-P20	18				
GV2-P21	23				
GV2-P22	25				
GV2-L03	0.4				
GV2-L04	0.63				
GV2-L05	1	10000			
GV2-L06	1.6	150	300	400	900
GV2-L07	2.5	100	150	200	400
GV2-L08	4			150	200
GV2-L10	6.3				
GV2-L14	10				
GV2-L16	14				
GV2-L20	18				
GV2-L22	25				
GV2-LE03	0.4				
GV2-LE04	0.63				
GV2-LE05	1	10000			
GV2-LE06	1.6	150	300	400	900
GV2-LE07	2.5	100	150	200	400
GV2-LE08	4			150	200
GV2-LE10	6.3				
GV2-LE14	10				
GV2-LE16	14				
GV2-LE20	18				
GV2-LE22	25				
GV2-LE32	32				

	Total discrimination zone
150	Partial discrimination limited to 150 kA
	No discrimination

Compact NS100 or NS160N/H/L upstream circuit-breaker with TM-D trip unit

Upstream circuit-breaker			NS100N/H/L				NS160N/H/L	
Trip unit			TM-D				TM-D	
Rating (A)			16	25	40	63	80	100
Downstream	Thermal circuit-breaker overload relay	Rating (A)	Discrimination (kA)					
GV2-ME01	Built-in	0.1...0.16						
GV2-ME02	Built-in	0.16...0.25						
GV2-ME03	Built-in	0.25...0.40						
GV2-ME04	Built-in	0.40...0.63						
GV2-ME05	Built-in	0.63...1						
GV2-ME06	Built-in	1...1.6						
GV2-ME07	Built-in	1.6...2.5						
GV2-ME08	Built-in	2.5...4	2	2	2	10		
GV2-ME10	Built-in	4...6.3		1	2	2		
GV2-ME14	Built-in	6...10			1	1		
GV2-ME16	Built-in	9...14				1		
GV2-ME20	Built-in	13...18					10	10
GV2-ME21	Built-in	17...23					5	6
GV2-ME22	Built-in	20...25					4	6
GV2-ME32	Built-in	24...32					3	5
GV2-P01	Built-in	0.1...0.16						
GV2-P02	Built-in	0.16...0.25						
GV2-P03	Built-in	0.25...0.40						
GV2-P04	Built-in	0.40...0.63						
GV2-P05	Built-in	0.63...1						
GV2-P06	Built-in	1...1.6						
GV2-P07	Built-in	1.6...2.5						
GV2-P08	Built-in	2.5...4	2	2	10	10		
GV2-P10	Built-in	4...6.3		1	2	2		
GV2-P14	Built-in	6...10			1	1		
GV2-P16	Built-in	9...14				1		
GV2-P20	Built-in	13...18				1	10	
GV2-P21	Built-in	17...23					5	10
GV2-P22	Built-in	20...25					4	6
GV2-L03	LR2-D1303	0.25...0.4						
GV2-L04	LR2-D1304	0.4...0.63						
GV2-L05	LR2-D1305	0.63...1						
GV2-L06	LR2-D1306	1...1.6						
GV2-L07	LR2-D1307	1.6...2.5						
GV2-L08	LR2-D1308	2.5...4	2	2	10	10		
GV2-L10	LR2-D1310	4...6		1	2	2		
GV2-L14	LR2-D1312	5.5...8			1	1		
GV2-L16	LR2-D1316	9...13			1	1		
GV2-L20	LR2-D1321	12...18				1	10	
GV2-L22	LR2-D1322	17...25					4	6
GV2-LE03	LR2-K0302	0.16...0.23						
GV2-LE03	LR2-K0303	0.23...0.36						
GV2-LE03	LR2-K0304	0.36...0.54						
GV2-LE04	LR2-K0304	0.36...0.54						
GV2-LE04	LR2-K0305	0.54...0.80						
GV2-LE05	LR2-K0305	0.54...0.80						
GV2-LE05	LR2-K0306	0.8...1.2						
GV2-LE06	LR2-K0306	0.8...1.2						
GV2-LE06	LR2-K0307	1.2...1.8						
GV2-LE07	LR2-K0307	1.2...1.8						
GV2-LE07	LR2-K0308	1.8...2.6						
GV2-LE08	LR2-K0310	2.6...3.7	2	2	10	10		
GV2-LE08	LR2-K0312	3.7...5.5	2	2	10	10		
GV2-LE10	LR2-K0312	3.7...5.5		1	2	2		
GV2-LE10	LR2-K0314	5.5...8		1	2	2		
GV2-LE14	LR2-K0314	5.5...8			1	1		
GV2-LE14	LR2-K0316	8...11.5			1	1		
GV2-LE14	LR2-D1314	7...10			1	1		
GV2-LE16	LR2-D1316	9...13			1	1		
GV2-LE20	LR2-D1321	12...18				1	10	
GV2-LE22	LR2-D1322	17...25					4	6
GV2-LE32	LR2-D2353	23...32					3	5

	Total discrimination
6	Partial discrimination limited to 6 kA
	No discrimination

Compact NS160 or 250N/H/L upstream circuit-breaker with TM-D trip unit

Upstream circuit-breaker			NS160N/H/L		NS250N/H/L		
Trip unit			TM-D		TM-D		
Rating (A)			125	160	160	200	250
Downstream circuit-breaker	Thermal overload relay	Rating (A)	Discrimination (kA)				
GV2-ME01	Built-in	0.1...0.16					
GV2-ME02	Built-in	0.16...0.25					
GV2-ME03	Built-in	0.25...0.40					
GV2-ME04	Built-in	0.40...0.63					
GV2-ME05	Built-in	0.63...1					
GV2-ME06	Built-in	1...1.6					
GV2-ME07	Built-in	1.6...2.5					
GV2-ME08	Built-in	2.5...4					
GV2-ME10	Built-in	4...6.3					
GV2-ME14	Built-in	6...10					
GV2-ME16	Built-in	9...14					
GV2-ME20	Built-in	13...18					
GV2-ME21	Built-in	17...23					
GV2-ME22	Built-in	20...25					
GV2-ME32	Built-in	24...32					
GV2-P01	Built-in	0.1...0.16					
GV2-P02	Built-in	0.16...0.25					
GV2-P03	Built-in	0.25...0.40					
GV2-P04	Built-in	0.40...0.63					
GV2-P05	Built-in	0.63...1					
GV2-P06	Built-in	1...1.6					
GV2-P07	Built-in	1.6...2.5					
GV2-P08	Built-in	2.5...4					
GV2-P10	Built-in	4...6.3					
GV2-P14	Built-in	6...10					
GV2-P16	Built-in	9...14					
GV2-P20	Built-in	13...18					
GV2-P21	Built-in	17...23					
GV2-P22	Built-in	20...25					
GV2-L03	LR2-D1303	0.25...0.4					
GV2-L04	LR2-D1304	0.4...0.63					
GV2-L05	LR2-D1305	0.63...1					
GV2-L06	LR2-D1306	1...1.6					
GV2-L07	LR2-D1307	1.6...2.5					
GV2-L08	LR2-D1308	2.5...4					
GV2-L10	LR2-D1310	4...6					
GV2-L14	LR2-D1312	5.5...8					
GV2-L16	LR2-D1316	9...13					
GV2-L20	LR2-D1321	12...18					
GV2-L22	LR2-D1322	17...25					
GV2-LE03	LR2-K0302	0.16...0.23					
GV2-LE03	LR2-K0303	0.23...0.36					
GV2-LE03	LR2-K0304	0.36...0.54					
GV2-LE04	LR2-K0304	0.36...0.54					
GV2-LE04	LR2-K0305	0.54...0.80					
GV2-LE05	LR2-K0305	0.54...0.80					
GV2-LE05	LR2-K0306	0.8...1.2					
GV2-LE06	LR2-K0306	0.8...1.2					
GV2-LE06	LR2-K0307	1.2...1.8					
GV2-LE07	LR2-K0307	1.2...1.8					
GV2-LE07	LR2-K0308	1.8...2.6					
GV2-LE08	LR2-K0310	2.6...3.7					
GV2-LE08	LR2-K0312	3.7...5.5					
GV2-LE10	LR2-K0312	3.7...5.5					
GV2-LE10	LR2-K0314	5.5...8					
GV2-LE14	LR2-K0314	5.5...8					
GV2-LE14	LR2-K0316	8...11.5					
GV2-LE14	LR2-D1314	7...10					
GV2-LE16	LR2-D1316	9...13					
GV2-LE20	LR2-D1321	12...18					
GV2-LE22	LR2-D1322	17...25					
GV2-LE32	LR2-D2353	23...32					

	Total discrimination
6	Partial discrimination limited to 6 kA
	No discrimination

Compact NS100N/H/L upstream circuit-breaker with STR22SE trip unit

Upstream circuit-breaker			NS100N/H/L			
Trip unit			STR22SE			
Rating (A)			25	40	63	100
Downstream	Thermal	Rating	Discrimination (kA)			
circuit-breaker	overload relay	(A)				
GV2-ME01	Built-in	0.1...0.16				
GV2-ME02	Built-in	0.16...0.25				
GV2-ME03	Built-in	0.25...0.40				
GV2-ME04	Built-in	0.40...0.63				
GV2-ME05	Built-in	0.63...1				
GV2-ME06	Built-in	1...1.6				
GV2-ME07	Built-in	1.6...2.5	1	1		
GV2-ME08	Built-in	2.5...4	0.5	0.5	5	5
GV2-ME10	Built-in	4...6.3	0.5	0.5	2	2
GV2-ME14	Built-in	6...10		0.5	1.2	1.2
GV2-ME16	Built-in	9...14			1.2	1.2
GV2-ME20	Built-in	13...18				1.2
GV2-ME21	Built-in	17...23				1.2
GV2-ME22	Built-in	20...25				1.2
GV2-ME32	Built-in	24...32				1.2
GV2-P01	Built-in	0.1...0.16				
GV2-P02	Built-in	0.16...0.25				
GV2-P03	Built-in	0.25...0.40				
GV2-P04	Built-in	0.40...0.63				
GV2-P05	Built-in	0.63...1				
GV2-P06	Built-in	1...1.6				
GV2-P07	Built-in	1.6...2.5	1	1		
GV2-P08	Built-in	2.5...4	0.5	0.5	10	10
GV2-P10	Built-in	4...6.3	0.5	0.5	2	2
GV2-P14	Built-in	6...10		0.5	1.2	1.2
GV2-P16	Built-in	9...14			1.2	1.2
GV2-P20	Built-in	13...18			1.2	1.2
GV2-P21	Built-in	17...23				1.2
GV2-P22	Built-in	20...25				1.2
GV2-L03	LR2-D1303	0.25...0.4				
GV2-L04	LR2-D1304	0.4...0.63				
GV2-L05	LR2-D1305	0.63...1				
GV2-L06	LR2-D1306	1...1.6				
GV2-L07	LR2-D1307	1.6...2.5	1	1		
GV2-L08	LR2-D1308	2.5...4	0.5	0.5	10	10
GV2-L10	LR2-D1310	4...6	0.5	0.5	2	2
GV2-L14	LR2-D1312	5.5...8		0.5	1.2	1.2
GV2-L16	LR2-D1316	9...13			1.2	1.2
GV2-L20	LR2-D1321	12...18			1.2	1.2
GV2-L22	LR2-D1322	17...25				1.2
GV2-LE03	LR2-K0302	0.16...0.23				
GV2-LE03	LR2-K0303	0.23...0.36				
GV2-LE03	LR2-K0304	0.36...0.54				
GV2-LE04	LR2-K0304	0.36...0.54				
GV2-LE04	LR2-K0305	0.54...0.80				
GV2-LE05	LR2-K0305	0.54...0.80				
GV2-LE05	LR2-K0306	0.8...1.2				
GV2-LE06	LR2-K0306	0.8...1.2				
GV2-LE06	LR2-K0307	1.2...1.8				
GV2-LE07	LR2-K0307	1.2...1.8	1	1		
GV2-LE07	LR2-K0308	1.8...2.6	1	1		
GV2-LE08	LR2-K0310	2.6...3.7	0.5	0.5	10	10
GV2-LE08	LR2-K0312	3.7...5.5	0.5	0.5	10	10
GV2-LE10	LR2-K0312	3.7...5.5	0.5	0.5	2	2
GV2-LE10	LR2-K0314	5.5...8	0.5	0.5	2	2
GV2-LE14	LR2-K0314	5.5...8		0.5	1.2	1.2
GV2-LE14	LR2-K0316	8...11.5		0.5	1.2	1.2
GV2-LE14	LR2-D1314	7...10		0.5	1.2	1.2
GV2-LE16	LR2-D1316	9...13			1.2	1.2
GV2-LE20	LR2-D1321	12...18			1.2	1.2
GV2-LE22	LR2-D1322	17...25				1.2
GV2-LE32	LR2-D2353	23...32				1.2

Total discrimination

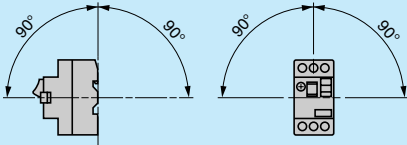
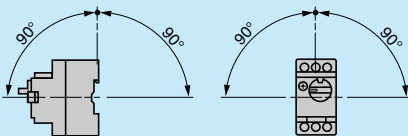
6 Partial discrimination limited to 6 kA

No discrimination

Compact NS160...630N/H/L upstream circuit-breaker with STR●●●E trip unit

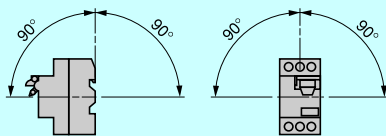
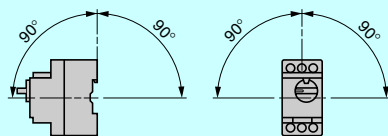
Upstream circuit-breaker			NS160N/H/L	NS250N/H/L		NS400 or 630N/H/L	
Trip unit			STR22SE	STR22SE		STR23SE/53UE	
Rating (A)			160	160	250	400	630
Downstream circuit-breaker	Thermal overload relay	Rating (A)	Discrimination (kA)				
GV2-ME01	Built-in	0.1...0.16					
GV2-ME02	Built-in	0.16...0.25					
GV2-ME03	Built-in	0.25...0.40					
GV2-ME04	Built-in	0.40...0.63					
GV2-ME05	Built-in	0.63...1					
GV2-ME06	Built-in	1...1.6					
GV2-ME07	Built-in	1.6...2.5					
GV2-ME08	Built-in	2.5...4					
GV2-ME10	Built-in	4...6.3					
GV2-ME14	Built-in	6...10					
GV2-ME16	Built-in	9...14					
GV2-ME20	Built-in	13...18					
GV2-ME21	Built-in	17...23					
GV2-ME22	Built-in	20...25					
GV2-ME32	Built-in	24...32					
GV2-P01	Built-in	0.1...0.16					
GV2-P02	Built-in	0.16...0.25					
GV2-P03	Built-in	0.25...0.40					
GV2-P04	Built-in	0.40...0.63					
GV2-P05	Built-in	0.63...1					
GV2-P06	Built-in	1...1.6					
GV2-P07	Built-in	1.6...2.5					
GV2-P08	Built-in	2.5...4					
GV2-P10	Built-in	4...6.3					
GV2-P14	Built-in	6...10					
GV2-P16	Built-in	9...14					
GV2-P20	Built-in	13...18					
GV2-P21	Built-in	17...23					
GV2-P22	Built-in	20...25					
GV2-L03	LR2-D1303	0.25...0.4					
GV2-L04	LR2-D1304	0.4...0.63					
GV2-L05	LR2-D1305	0.63...1					
GV2-L06	LR2-D1306	1...1.6					
GV2-L07	LR2-D1307	1.6...2.5					
GV2-L08	LR2-D1308	2.5...4					
GV2-L10	LR2-D1310	4...6					
GV2-L14	LR2-D1312	5.5...8					
GV2-L16	LR2-D1316	9...13					
GV2-L20	LR2-D1321	12...18					
GV2-L22	LR2-D1322	17...25					
GV2-LE03	LR2-K0302	0.16...0.23					
GV2-LE03	LR2-K0303	0.23...0.36					
GV2-LE03	LR2-K0304	0.36...0.54					
GV2-LE04	LR2-K0304	0.36...0.54					
GV2-LE04	LR2-K0305	0.54...0.80					
GV2-LE05	LR2-K0305	0.54...0.80					
GV2-LE05	LR2-K0306	0.8...1.2					
GV2-LE06	LR2-K0306	0.8...1.2					
GV2-LE06	LR2-K0307	1.2...1.8					
GV2-LE07	LR2-K0307	1.2...1.8					
GV2-LE07	LR2-K0308	1.8...2.6					
GV2-LE08	LR2-K0310	2.6...3.7					
GV2-LE08	LR2-K0312	3.7...5.5					
GV2-LE10	LR2-K0312	3.7...5.5					
GV2-LE10	LR2-K0314	5.5...8					
GV2-LE14	LR2-K0314	5.5...8					
GV2-LE14	LR2-K0316	8...11.5					
GV2-LE14	LR2-D1314	7...10					
GV2-LE16	LR2-D1316	9...13					
GV2-LE20	LR2-D1321	12...18					
GV2-LE22	LR2-D1322	17...25					
GV2-LE32	LR2-D2353	23...32					

	Total discrimination
6	Partial discrimination limited to 6 kA
	No discrimination

Circuit-breaker type		GV2-ME		GV2-P				
Environment								
Conforming to standards		IEC/EN 60947-1, 60947-2, 60947-4-1, UL 508, CSA C22-2 N° 14, NF C 63-650, NF C 63-120, 79-130, VDE 0113, 0660.						
Product approvals		CSA, CEBEC, GOST, TSE, UL, BV, GL, LROS, DNV, PTB, EZU, SETI, RINA		CSA, UL, PTB, EZU, GOST, TSE, DNV, LROS, GL, BV, RINA				
Protective treatment		“TH”		“TH”				
Degree of protection conforming to IEC/EN 60529		Basic unit: IP 20 In enclosure GV2-M●01 : IP 41 In enclosure GV2-M●02 : IP 55		Basic unit: IP 20 — —				
Shock resistance conforming to IEC/EN 60068-2-27		30 gn - 11 ms		30 gn - 11 ms				
Vibration resistance conforming to IEC/EN 60068-2-6		5 gn (5 to 150 Hz)		5 gn (5 to 150 Hz)				
Ambient air temperature - storage	°C	- 40...+ 80		- 40...+ 80				
- operation	°C	- 20...+ 60 in open air	- 20...+ 40 in enclosure	- 20...+ 60 In open air				
Temperature compensation	°C	- 20...+ 60 in free air		- 20...+ 60				
Flame resistance conforming to IEC/EN 60695-2-1	°C	960		960				
Maximum operating altitude	m	2000		2000				
Operating positions in relation to normal vertical mounting position								
Cabling Number of conductors and c.s.a.		GV2-ME		GV2-ME●●3				
		Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	
	Solid cable	mm ²	2 x 6	2 x 1	2 x 6	2 x 1 (1)	2 x 6	2 x 1
	Flexible cable without cable end	mm ²	2 x 6	2 x 1.5	2 x 4	2 x 1.5 (1)	2 x 6	2 x 1.5
Flexible cable with cable end	mm ²	2 x 4	2 x 1	—		2 x 4	2 x 1	
Suitable for isolation conforming to IEC/EN 60947-1 § 7-1-6		Yes		Yes				
Tightening torque	N.m	1.7		1.7				
Resistance to mechanical impact	J	0.5		0.5				
		Enclosed: 6		—				
Sensitivity to phase failure		Yes, conforming to IEC/EN 60947-4-1 § 7-2-1-5-2						

(1) For c.s.a. of 1 to 1.5 mm², use cable end reducer LA9-D99.

Circuit-breaker type		GV2-ME	GV2-P
Technical characteristics			
Utilisation category conforming to IEC/EN 60947-2		A	A
conforming to IEC/EN 60947-4-1		AC-3	AC-3
Rated operational voltage (U_e) conforming to IEC/EN 60947-2	V	690	690
Rated insulation voltage (U_i) conforming to IEC/EN 60947-2	V	690	690
conforming to CSA C22-2 n° 14, UL 508	V	600	600
Rated operational frequency conforming to IEC/EN 60947-2	Hz	50/60	50/60
Rated impulse withstand voltage (U_{imp}) conforming to IEC/EN 60947-2	kV	6	6
Total power dissipated per pole	W	2.5	2.5
Mechanical durability (C.O.: Closing, Opening)	C.O.	100,000	100,000
Electrical durability for AC-3 duty 440 V In/2	C.O.	100,000	100,000
Duty class (maximum operating rate)	C.O./h	25	25
Rated duty conforming to IEC/EN 60947-4-1		Uninterrupted duty	Uninterrupted duty
Maximum conventional rated thermal current (I_{th}) conforming to IEC/EN 60947-4-1	A	0.16...32	0.16...32

Circuit-breaker type		GV2-LE	GV2-L			
Environment						
Conforming to standards		IEC/EN 60947-1, IEC/EN 60947-2, NF C 63-650, NF C 63-120, NF C 79-130, VDE 0113, VDE 0660				
Approvals pending		BV, GL, LROS, DNV, TSE, UL, CSA	BV, GL, LROS, DNV, EZU, GOST, TSE, UL, CSA			
Protective treatment		“TH”	“TH”			
Shock resistance to IEC/EN 60068-2-27		30 gn	30 gn			
Vibration resistance to IEC/EN 60068-2-6		5 gn (5 to 150 Hz)	5 gn (5 to 150 Hz)			
Ambient air temperature - storage	°C	- 40...+ 80	- 40...+ 80			
	°C	- 20...+ 60	- 20...+ 60			
- operation	°C	- 20...+ 60	- 20...+ 60			
Flame resistance to IEC/EN 60695-2-1	°C	960	960			
Maximum operating altitude	m	2000	2000			
Operating position						
Cabling Number of conductors and c.s.a.		Max	Min	Max	Min	
	Solid cable	mm²	2 x 6	2 x 1	2 x 6	2 x 1
	Flexible cable without cable end	mm²	2 x 6	2 x 1.5	2 x 6	2 x 1.5
	Flexible cable with cable end	mm²	2 x 4	2 x 1	2 x 4	2 x 1
Suitability for isolation conforming to IEC/EN 60947-1 § 7-1-6		Yes		Yes		
Tightening torque	N.m	1.7		1.7		
Resistance to mechanical impact	J	0.5		0.5		
Utilisation category conforming to IEC/EN 60947-2		A		A		
	conforming to IEC/EN 60947-4-1	AC-3		AC-3		
Rated operational voltage (Ue) conforming to IEC/EN 60947-2	V	690		690		
Rated insulation voltage (Ui) conforming to IEC/EN 60947-2	V	690		690		
Rated operational frequency conforming to IEC/EN 60947-2	Hz	50/60		50/60		
Rated impulse withstand voltage (U imp) to IEC/EN 60947-2	kV	6		6		
Total power dissipated per pole	W	1.8		1.8		
Mechanical durability (C.O.: closing, opening)	C.O.	100,000		100,000		
Electrical durability for AC-3 duty	C.O.	100,000		100,000		
Duty class (maximum operating rate)	C.O./h	40		40		
Rated duty to IEC/EN 60947-4-1		Continuous duty		Continuous duty		

Trip type		GV-AU	GV-AX (1)	GV-AS
Characteristics of electric trips				
Rated insulation voltage (Ui) conforming to IEC/EN 60947-1	V	690	500	690
	conforming to CSA C22-2 n° 14, UL 508	600	—	600
Operational voltage conforming to IEC/EN 60947-1	V	0.85...1.1 Un		0.7...1.1 Un
Drop-out voltage	V	0.7...0.35 Un		0.75...0.2 Un
Inrush consumption	~	VA	12	14
	≡	W	8	10.5
Sealed consumption	~	VA	3.5	5
	≡	W	1.1	1.6
Operating time conforming to IEC/EN 60947-1	ms	From the moment the voltage reaches its operational value until opening of the circuit-breaker. 10...15		
On-load factor		100 %		
Cabling				
Number of conductors		1 or 2		
Solid cable	mm ²	1...2.5		
Flexible cable without cable end	mm ²	0.75...2.5		
Flexible cable with cable end	mm ²	0.75...1.5		
Tightening torque	N.m	1.4 max		
Mechanical durability (C.O.: Closing-Opening)	C.O.	100,000		

(1) Wiring scheme of undervoltage trip for dangerous machines (conforming to INRS) on GV2-ME only, see page 3/49.

Contact type		Instantaneous auxiliary GV-AN, GV-AD							Fault signalling GV-AD, GV-AM11 (1)				Instantaneous auxiliary GV-AE												
Rated insulation voltage (Ui) (associated insulation coordination) to IEC/EN 60947-1 to CSA C22-2 n° 14 and UL 508	V	690							690				250 (690 in relation to main circuit)												
	V	600							300				300												
Conventional rated thermal current (Ith) to IEC/EN 60947-5-1 to CSA C22-2 n° 14 and UL 508	A	6							2.5				2.5												
	A	5							1				1												
Mechanical durability	C.O.	100,000							1000				100,000												
Operational power and current to IEC/EN 60947-5-1, a.c. operation		AC-15/100,000 C.O.							AC-14/1000 C.O.				AC-15/100,000 C.O.												
Rated operational voltage (Ue)	V	48	110 127	230 240	380 415	440	500	690	24	48	110 127	230 240	24	48	110 127	230 240									
Operational power, normal conditions	VA	300	500	720	850	650	500	400	36	48	72	72	48	60	120	120									
Occasional breaking and making capacities, abnormal conditions	VA	3000	7000	13,000	15,000	13,000	12,000	9000	220	300	450	450	480	600	1270	2400									
Rated operational current (Ie)	A	6	4.5	3.3	2.2	1.5	1	0.6	1.5	1	0.5	0.3	2	1.25	1	0.5									
Operational power and current to IEC/EN 60947-5-1, d.c. operation		DC-13/100,000 C.O.							DC-13/1000 C.O.				DC-13/100,000 C.O.												
Rated operational voltage (Ue)	V	24	48	60	110	240 (2)	–	–	24	48	60	–	24	48	60	–									
Operational power, normal conditions	W	140	240	180	140	120	–	–	24	15	9	–	24	15	9	–									
Occasional breaking and making capacities, abnormal conditions	W	240	360	240	210	180	–	–	100	50	50	–	100	50	50	–									
Rated operational current (Ie)	A	6	5	3	1.3	0.5	–	–	1	0.3	0.15	–	1	0.3	0.15	–									
Low level switching contact reliability		GV-AE: Number of failures for for “n” million operating cycles (17 V-5 mA): = 10 ⁻⁶																							
Minimum operational conditions d.c. operation	V	17																							
	mA	5																							
Short-circuit protection		By GB2-CB●● circuit-breaker (rating according to operational current for Ue ≤ 415 V) or by gG fuse 10 A max											GB2-CB06 or gG fuse 10 A max												
Cabling, screw clamp terminals																									
Number of conductors		1			2																				
Solid cable	mm ²	1...2.5			1...2.5																				
Flexible cable without cable end	mm ²	0.75...2.5			0.75...2.5																				
Flexible cable with cable end	mm ²	0.75...1.5			0.75...1.5																				
Tightening torque	N.m	1.4 max			1.4 max																				
Cabling, spring terminal connections																									
Flexible cable without cable end	mm ²	GV-AN only 0.75...2.5			0.75...2.5				–				0.75...1.5												
Contact operation, instantaneous auxiliary contacts	Power pole																								
	GV-AN20	N/O																Operation of fault signalling contacts GV-AM11 Change of state following tripping on short-circuit. GV-AD10●● and GV-AD01●● Change of state following tripping on short-circuit, overload or undervoltage.							
		N/O																							
	GV-AN11	N/O																							
		N/C																							
	GV-AE1	N/O																							
		N/C																							
	GV-AE20	N/O																							
		N/O																							
	GV-AE11	N/O																							
	N/C																								
GV-AD●●10	N/O																								
GV-AD●●01	N/C																								

(1) For application example of fault signalling contact and short-circuit signalling contact, see page 3/49.

(2) Add an RC circuit type LA4-D to the load terminals, see page 2/87.

Characteristics of 3-pole busbars GV2-G●●●

Rated insulation voltage (Ui)	To IEC/EN 60947-1	V	690
Conventional rated thermal current (Ith)	To IEC/EN 60439-1	A	63
Permissible peak current (I peak)		kA	11
Permissible thermal limit (I²t)		kA²s	104
Degree of protection	To IEC/EN 60529		IP 20

Characteristics of terminal blocks GV2-G05 and GV1-G09

Rated insulation voltage (Ui)	To IEC/EN 60947-1	V	690
Conventional rated thermal current (Ith)	To IEC/EN 60947-5-1	A	63
Degree of protection	To IEC/EN 60529		IP 20
Cabling	Solid cable	mm²	1 x 1.5 to 25 conductor or 2 x 1.5 to 10 conductors
	Flexible cable without cable end	mm²	1 x 1.5 to 25 conductor or 2 x 2.5 to 10 conductors
	Flexible cable with cable end	mm²	1 x 1.5 to 16 conductor or 2 x 1.5 to 4 conductors
Tightening torque	Connector	N.m	2.2
	Screw clamp	N.m	1.7

Characteristics of current limiters (GV2-ME and GV2-P)

Type			GV1-L3		LA9-LB920	
Rated insulation voltage (Ui)	To IEC/EN 60947-1	V	690		690	
Conventional rated thermal current (Ith)	To IEC/EN 60947-1	A	63		63	
Operating threshold	rms current	A	1500 (non adjustable threshold)		1000 (non adjustable threshold)	
Cabling			1 conductor	2 conductors	1 conductor	2 conductors
	Solid cable	mm²	1.5...25	1.5...10	1.5...25	1.5...10
	Flexible cable without cable end	mm²	1.5...25	2.5...10	1.5...25	1.5...10
	Flexible cable with cable end	mm²	1.5...16	1.5... 4	1.5...16	1.5... 4
Tightening torque		N.m	2.2			