TeSys protection components
Thermal-magnetic motor circuit-breakers GV2 ME and GV2 P

GV2 ME

GV2 P

Thermal magnetic circuit-breakers GV2 ME and GV2 P with screw clamp terminals

GV2 ME: pushbutton control, GV2 P: control by rotary knob

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3									Setting range of thermal trips *(2)*	Magnetic tripping current Id ± 20 %	Reference	Weight
400/415 V			500 V			690 V						
P	Icu	Ics *(1)*	P	Icu	Ics *(1)*	P	Icu	Ics *(1)*				
kW	kA	%	kW	kA	%	kW	kA	%	A	A		kg
–	–	–	–	–	–	–	–	–	0.1…0.16	1.5	**GV2 ME01**	0.260
											or **GV2 P01**	0.350
0.06	★	★	–	–	–	–	–	–	0.16…0.25	2.4	**GV2 ME02**	0.260
											or **GV2 P02**	0.350
0.09	★	★	–	–	–	–	–	–	0.25…0.40	5	**GV2 ME03**	0.260
											or **GV2 P03**	0.350
0.12	★	★	–	–	–	**0.37**	★	★	0.40…0.63	8	**GV2 ME04**	0.260
											or **GV2 P04**	0.350
0.18	★	★	–	–	–	–	–	–	0.40…0.63	8	**GV2 ME04**	0.260
											or **GV2 P04**	0.350
0.25	★	★	–	–	–	**0.55**	★	★	0.63…1	13	**GV2 ME05**	0.260
											or **GV2 P05**	0.350
0.37	★	★	**0.37**	★	★	–	–	–	1…1.6	22.5	**GV2 ME06**	0.260
											or **GV2 P06**	0.350
0.55	★	★	**0.55**	★	★	**0.75**	★	★	1…1.6	22.5	**GV2 ME06**	0.260
											or **GV2 P06**	0.350
–	–	–	**0.75**	★	★	**1.1**	★	★	1…1.6	22.5	**GV2 ME06**	0.260
											or **GV2 P06**	0.350
0.75	★	★	**1.1**	★	★	**1.5**	3	75	1.6…2.5	33.5	**GV2 ME07**	0.260
0.75	★	★	**1.1**	★	★	**1.5**	8	100	1.6…2.5	33.5	**GV2 P07**	0.350
1.1	★	★	**1.5**	★	★	**2.2**	3	75	2.5…4	51	**GV2 ME08**	0.260
1.1	★	★	**1.5**	★	★	**2.2**	8	100	2.5…4	51	**GV2 P08**	0.350
1.5	★	★	**2.2**	★	★	**3**	3	75	2.5…4	51	**GV2 ME08**	0.260
1.5	★	★	**2.2**	★	★	**3**	8	100	2.5…4	51	**GV2 P08**	0.350
2.2	★	★	**3**	50	100	**4**	3	75	4…6.3	78	**GV2 ME10**	0.260
2.2	★	★	**3**	★	★	**4**	6	100	4…6.3	78	**GV2 P10**	0.350
3	★	★	**4**	10	100	**5.5**	3	75	6…10	138	**GV2 ME14**	0.260
3	★	★	**4**	50	100	**5.5**	6	100	6…10	138	**GV2 P14**	0.350
4	★	★	**5.5**	10	100	**7.5**	3	75	6…10	138	**GV2 ME14**	0.260
4	★	★	**5.5**	50	100	**7.5**	6	100	6…10	138	**GV2 P14**	0.350
5.5	15	50	**7.5**	6	75	**9**	3	75	9…14	170	**GV2 ME16**	0.260
5.5	★	★	**7.5**	42	75	**9**	6	100	9…14	170	**GV2 P16**	0.350
–	–	–	–	–	–	**11**	3	75	9…14	170	**GV2 ME16**	0.260
–	–	–	–	–	–	**11**	6	100	9…14	170	**GV2 P16**	0.350
7.5	15	50	**9**	6	75	**15**	3	75	13…18	223	**GV2 ME20**	0.260
7.5	50	50	**9**	10	75	**15**	4	100	13…18	223	**GV2 P20**	0.350
9	15	40	**11**	4	75	**18.5**	3	75	17…23	327	**GV2 ME21**	0.260
9	50	50	**11**	10	75	**18.5**	4	100	17…23	327	**GV2 P21**	0.350
11	15	40	**15**	4	75	–	–	–	20…25	327	**GV2 ME22** *(3)*	0.260
11	50	50	**15**	10	75	–	–	–	20…25	327	**GV2 P22**	0.350
15	10	50	**18.5**	4	75	**22**	3	75	24…32	416	**GV2 ME32**	0.260
15	35	50	**18.5**	10	75	**22**	4	100	24…32	416	**GV2 P32**	0.350

Thermal magnetic circuit-breakers GV2 ME with lugs

To order termal magnetic circuit-breakers with connection by lugs, add the digit **6** to the end of reference selected above. Example: **GV2 ME08** becomes **GV2 ME086**.

Thermal magnetic circuit-breakers GV2 ME with built-in auxiliary contact block

With instantaneous auxiliary contact block (composition, see page 3/53):

■ GV AE1, add suffix **AE1TQ** to the motor circuit-breaker reference selected above.
Example: **GV2 ME01AE1TQ**.

■ GV AE11, add suffix **AE11TQ** to the motor circuit-breaker reference selected above.
Example: **GV2 ME01AE11TQ**.

■ GV AN11, add suffix **AN11TQ** to the motor circuit-breaker reference selected above.
Example: **GV2 ME01AN11TQ**.

These circuit-breakers with built-in contact block are sold in lots of 20 units in a single pack.

(1) As % of Icu.
*(2) For use of **GV2 ME** in an enclosure, see page 2/10.*
*(3) Maximum rating which can be mounted in enclosures **GV2 MC** or **MP**, please consult your Regional Sales Office.*
★ > 100 kA.

Characteristics : pages 3/6 to 3/9
Dimensions : pages 3/62 to 3/64
Schemes : page 3/68

TeSys protection components
Thermal-magnetic motor circuit-breakers
GV3 ME

GV3 ME20

Thermal magnetic circuit-breakers GV3 ME with screw clamp terminals

Pushbutton control

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3									Setting range of thermal trips	Reference	Weight
400/415 V			500 V			660/690 V					
P	Icu	Ics *(1)*	P	Icu	Ics *(1)*	P	Icu	Ics *(1)*			
kW	kA	%	kW	kA	%	kW	kA	%	A		kg
0.37 **0.55**	100 100	100 100	**0.37** **0.55** **0.75**	100 100 100	100 100 100	**0.75** **1.1**	100 100	100 100	1…1.6	**GV3 ME06**	0.600
0.75	100	100	**1.1**	100	100	**1.5**	100	100	1.6…2.5	**GV3 ME07**	0.600
1.1 **1.5**	100 100	100 100	**1.5** **2.2**	100 100	100 100	**2.2** **3**	4 4	100 100	2.5…4	**GV3 ME08**	0.600
2.2	100	100	**3**	100	100	**4**	4	100	4…6	**GV3 ME10**	0.600
3 **4**	100 100	100 100	**4** **5.5**	8 8	100 100	**5.5** **7.5**	4 4	100 100	6…10	**GV3 ME14**	0.600
7.5	100	50	**9**	8	100	**9** **11**	4 4	100 100	10…16	**GV3 ME20**	0.600
9 **11**	100 100	50 50	**11** **15**	8 8	100 100	**15** **18.5**	4 4	100 100	16…25	**GV3 ME25**	0.600
15 **18.5**	35 35	50 50	**18.5** **22**	8 8	75 75	**22** **30**	4 4	75 75	25…40	**GV3 ME40** *(2)*	0.700
22 **30**	35 35	50 50	**30** **37**	8 8	75 75	**37** **45**	4 4	75 75	40…63	**GV3 ME63** *(2)*	0.700
37	15	50	**45**	4	100	**55**	2	100	56…80	**GV3 ME80** *(2)*	0.700

(1) As % of Icu.
(2) Recommended for use in association with a contactor.

Characteristics : pages 3/6 to 3/10
Dimensions : page 3/65
Schemes : page 3/69

TeSys protection components
Thermal-magnetic motor circuit-breakers GV2 P, GV3 P and GV3 ME80

GV2 P

GV3 P

Motor circuit-breakers from 0.06 to 30 kW / 400 V

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3									Setting range of thermal trips	Magnetic tripping current Id ± 20 %	Reference	Weight
400/415 V			500 V			690 V						
P	Icu	Ics (1)	P	Icu	Ics (1)	P	Icu	Ics (1)				
kW	kA	%	kW	kA	%	kW	kA	%	A	A		kg
GV2 P: control by rotary knob												
Screw clamp terminals												
–	–	–	–	–	–	–	–	–	0.1…0.16	1.5	**GV2 P01**	0.350
0.06	★	★	–	–	–	–	–	–	0.16…0.25	2.4	**GV2 P02**	0.350
0.09	★	★	–	–	–	–	–	–	0.25…0.40	5	**GV2 P03**	0.350
0.12	★	★	–	–	–	**0.37**	★	★	0.40…0.63	8	**GV2 P04**	0.350
0.18	★	★	–	–	–	–	–	–				
0.25	★	★	–	–	–	**0.55**	★	★	0.63…1	13	**GV2 P05**	0.350
0.37	★	★	**0.37**	★	★	–	–	–	1…1.6	22.5	**GV2 P06**	0.350
0.55	★	★	**0.55**	★	★	**0.75**	★	★				
0.75	★	★	**1.1**	★	★	**1.5**	8	100	1.6…2.5	33.5	**GV2 P07**	0.350
1.1	★	★	**1.5**	★	★	**2.2**	8	100	2.5…4	51	**GV2 P08**	0.350
2.2	★	★	**3**	★	★	**4**	6	100	4…6.3	78	**GV2 P10**	0.350
3	★	★	**5**	50	100	**5.5**	6	100	6…10	138	**GV2 P14**	0.350
5.5	★	★	**7.5**	42	75	**9**	6	100	9…14	170	**GV2 P16**	0.350
–	–	–	–	–	–	**11**	6	100				
7.5	50	50	**9**	10	75	**15**	4	100	13…18	223	**GV2 P20**	0.350
9	50	50	**11**	10	75	**18.5**	4	100	17…23	327	**GV2 P21**	0.350
11	50	50	**15**	10	75	–	–	–	20…25	327	**GV2 P22**	0.350
15	35	50	**18.5**	10	75	**22**	4	100	24…32	416	**GV2 P32**	0.350
GV3 P: control by rotary knob												
Connection by EverLink® BTR screw connectors *(3)*												
5.5	100	50	**7.5**	12	50	**11**	6	50	9…13	182	**GV3 P13**	1.000
7.5	100	50	**9**	12	50	**15**	6	50	12…18	252	**GV3 P18**	1.000
11	100	50	**15**	12	50	**18.5**	6	50	17…25	350	**GV3 P25**	1.000
15	100	50	**18.5**	12	50	**22**	6	50	23…32	448	**GV3 P32**	1.000
18.5	50	50	**22**	10	50	**37**	5	60	30…40	560	**GV3 P40**	1.000
22	50	50	**30**	10	50	**45**	5	60	37…50	700	**GV3 P50**	1.000
30	50	50	**45**	10	50	**55**	5	60	48…65	910	**GV3 P65**	1.000
Connection by lugs												
To order thermal magnetic circuit-breakers with connection by lugs, add the digit **6** to the end of reference selected above. Example: **GV3 P18** becomes **GV3 P186**.												
GV3 ME80: pushbutton control, screw clamp terminals												
37	15	50	**45**	4	100	**55**	2	100	56…80		**GV3 ME80** *(4)*	0.700

Motor circuit-breakers up to 50 hp / 600 V, UL 508 type E

GV2 *(5)*

To obtain a GV2 P motor circuit-breaker, UL 508 type E, combine :
- a circuit-breaker **GV2 P●●H7** (except 32 A),
- and a “Large Spacing” adapter **GV2 GH7.**

GV3 *(6)*

To obtain a motor-circuit-breaker GV3 P, UL 508 type E, use the following with the circuit-breaker:
- a “Large Spacing” cover **GV3 G66**,
- a short-circuit signalling contact **GV AM11**.

GV3 with connection by lugs *(6)*

To obtain a motor-circuit-breaker GV3 **P**, UL 508 type E, with connection by lugs, add the digit **6** to the end of reference selected above and use the following with the circuit-breaker :
- two IP 20 covers **LAD 96570**,
- a short-circuit signalling contact **GV AM11**.

(1) As % of Icu.
(2) The thermal trip setting must be within the range marked on the graduated knob.
(3) BTR screws: hexagon socket head. Require use of an insulated Allen key, in compliance with local wiring regulations.
(4) Recommended for use in association with a contactor.
(5) Accessory: see page 63.
(6) Accessories: see page 57.
★ > 100 kA.

Characteristics: pages 8 to 12
Dimensions: pages 66 to 68

TeSys protection components
Thermal-magnetic motor circuit-breakers
GV7 R

533900

GV7 RE

533901

GV7 RS

Thermal magnetic circuit-breakers GV7 R with screw clamp terminals

Control by rocker lever

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3									Setting range of thermal trips	Reference	Weight
400/415 V			500 V			660/690 V					
P	Icu	Ics *(1)*	P	Icu	Ics *(1)*	P	Icu	Ics *(1)*			
kW	kA	%	kW	kA	%	kW	kA	%	A		kg
7.5 **9**	36 36	100 100	**9** **11**	18 18	100 100	**11** **15**	8 8	100 100	12…20	**GV7 RE20**	2.010
7.5 **9**	70 70	100 100	**9** **11**	50 50	100 100	**11** **15**	10 10	100 100	12…20	**GV7 RS20**	2.010
9 **11**	36 36	100 100	**11** **15**	18 18	100 100	**15** **18.5**	8 8	100 100	15…25	**GV7 RE25**	2.010
9 **11**	70 70	100 100	**11** **15**	50 50	100 100	**15** **18.5**	10 10	100 100	15…25	**GV7 RS25**	2.010
18.5	36	100	**18.5** **22**	18 18	100 100	**22**	8	100	25…40	**GV7 RE40**	2.010
18.5	70	100	**18.5**	50	100	**22**	10	100	25…40	**GV7 RS40**	2.010
22	36	100	**30**	18	100	**30**	8	100	30…50	**GV7 RE50**	2.015
22	70	100	**30**	50	100	**30**	10	100	30…50	**GV7 RS50**	2.015
37	36	100	**45** **55**	18 18	100 100	**55**	8	100	48…80	**GV7 RE80**	2.040
37	70	100	**45** **55**	50 50	100 100	**55**	10	100	48…80	**GV7 RS80**	2.040
45	36	100	–	18	100	**75**	8	100	60…100	**GV7 RE100**	2.040
45	70	100	–	50	100	**75**	10	100	60…100	**GV7 RS100**	2.040
55 **75**	35 35	100 100	**75** **90**	30 30	100 100	**90** **110**	8 8	100 100	90…150	**GV7 RE150**	2.020
55 **75**	70 70	100 100	**75** **90**	50 50	100 100	**90** **110**	10 10	100 100	90…150	**GV7 RS150**	2.020
90 **110**	35 35	100 100	**110** **132** **160**	30 30 30	100 100 100	**160** **200**	8 8	100 100	132…220	**GV7 RE220**	2.350
90 **110**	70 70	100 100	**110** **132** **160**	50 50 50	100 100 100	**160** **200**	10 10	100 100	132…220	**GV7 RS220**	2.350

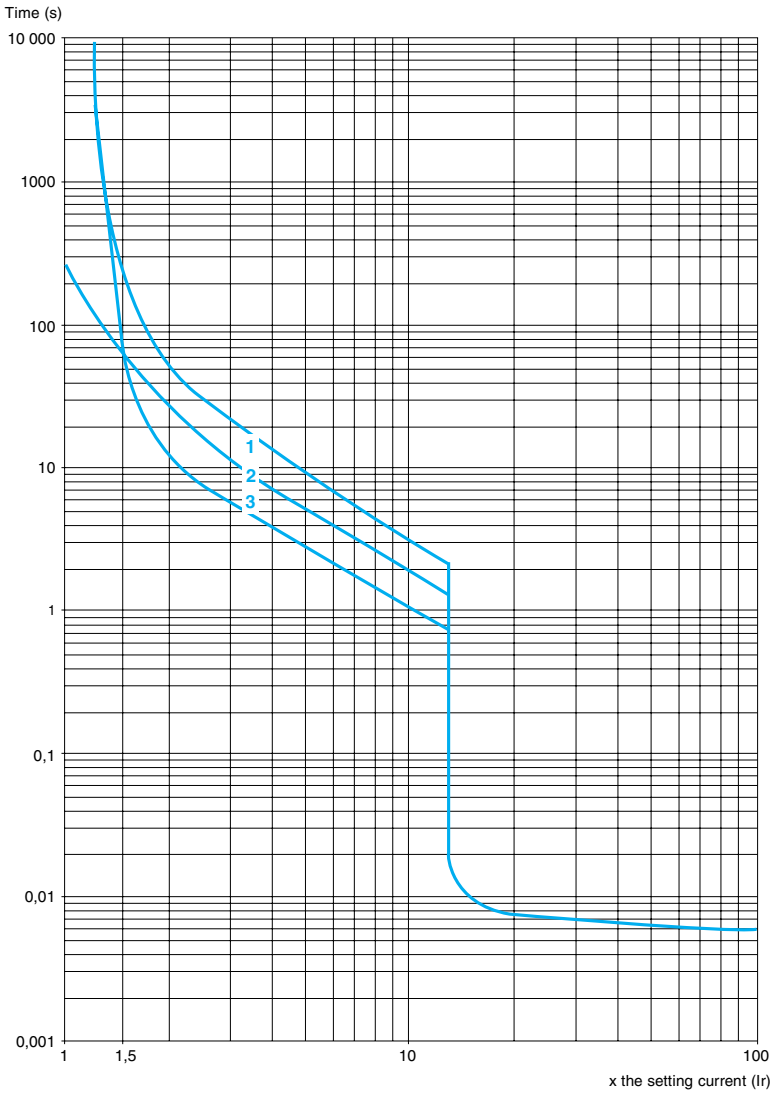
(1) As % of Icu.

Characteristics : pages 3/6 to 3/11
Dimensions : page 3/65
Schemes : page 3/69

TeSys protection components
Thermal-magnetic motor circuit-breakers
GV2 ME and GV2 P

Thermal-magnetic tripping curves for GV2 ME and GV2 P

Average operating time 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

References :
pages 3/45 and 3/46

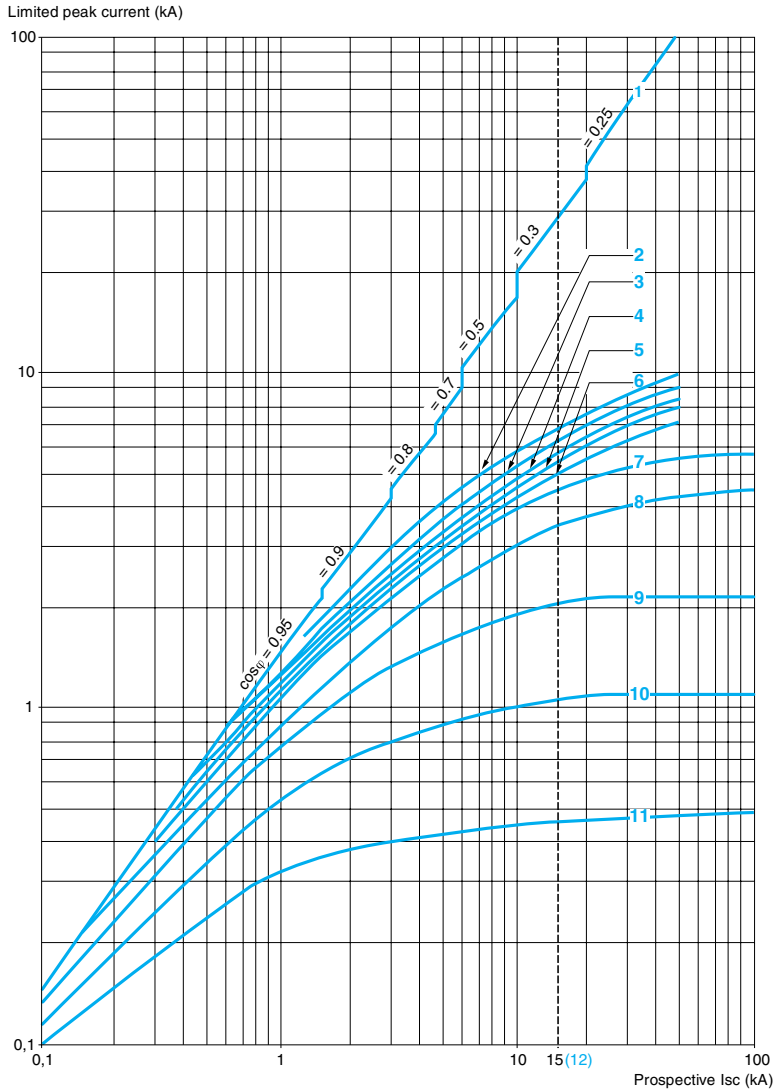
Dimensions :
pages 3/62 to 3/64

Schemes :
page 3/68

Current limitation on short-circuit for GV2 ME and GV2 P (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 GV2 ME (14, 18, 23 and 25 A ratings)

References :
pages 3/45 and 3/46

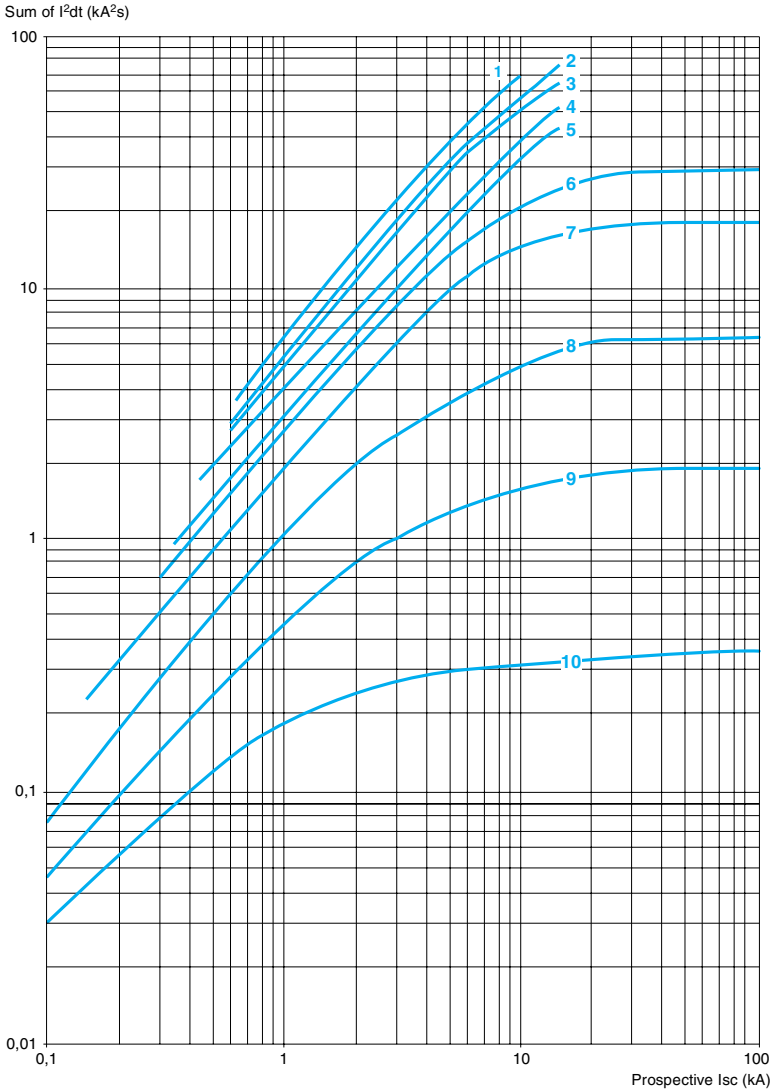
Dimensions :
pages 3/62 to 3/64

Schemes :
page 3/68

Thermal limit on short-circuit for GV2 ME

Thermal limit in kA²s 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

References :
pages 3/45 and 3/46

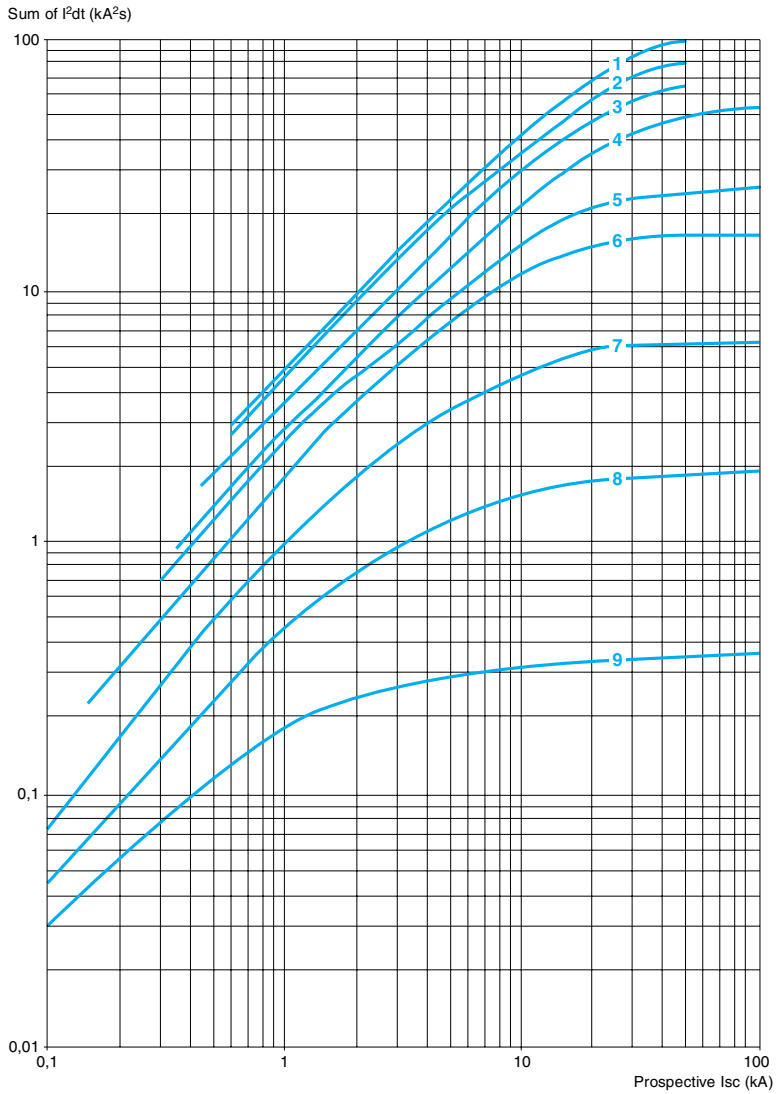
Dimensions :
pages 3/62 to 3/64

Schemes :
page 3/68

Thermal limit on short-circuit for GV2 P

Thermal limit in kA²s in the magnetic operating zone

Sum of I²dt = f (prospective Isc) at 1.05 Ue = 435 V



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

References :
pages 3/45 and 3/46

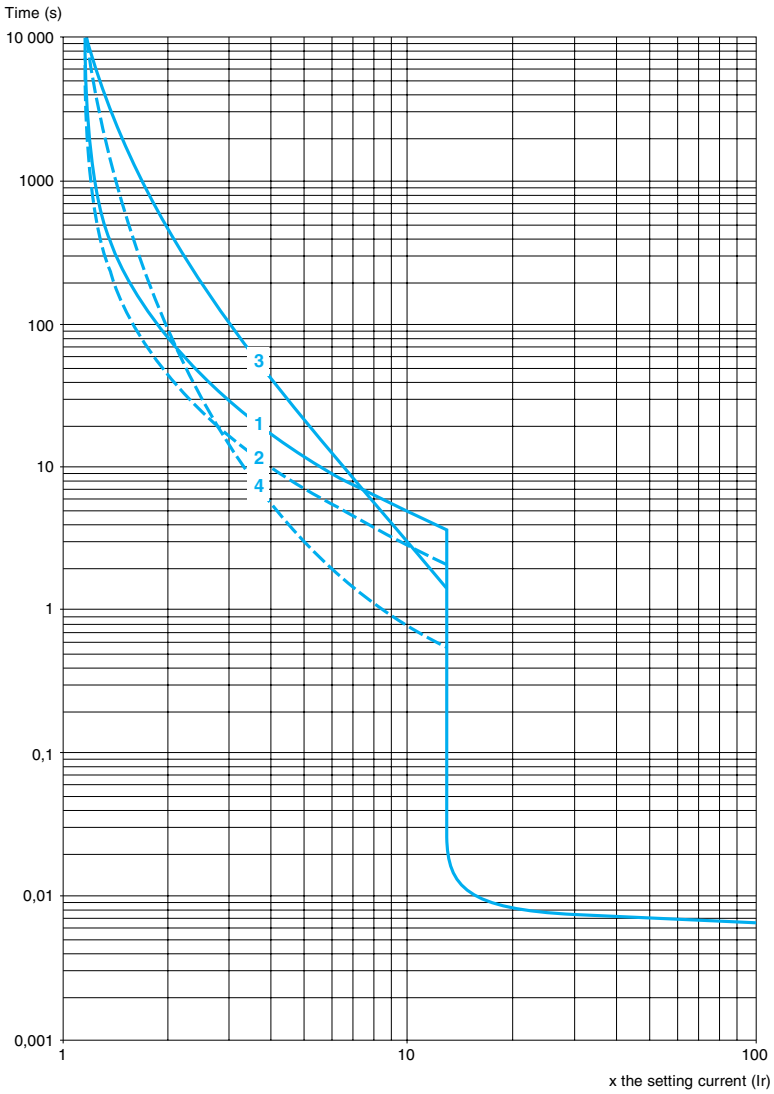
Dimensions :
pages 3/62 to 3/64

Schemes :
page 3/68

TeSys protection components
Thermal-magnetic motor circuit-breakers
GV3 ME

Thermal-magnetic tripping curves

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



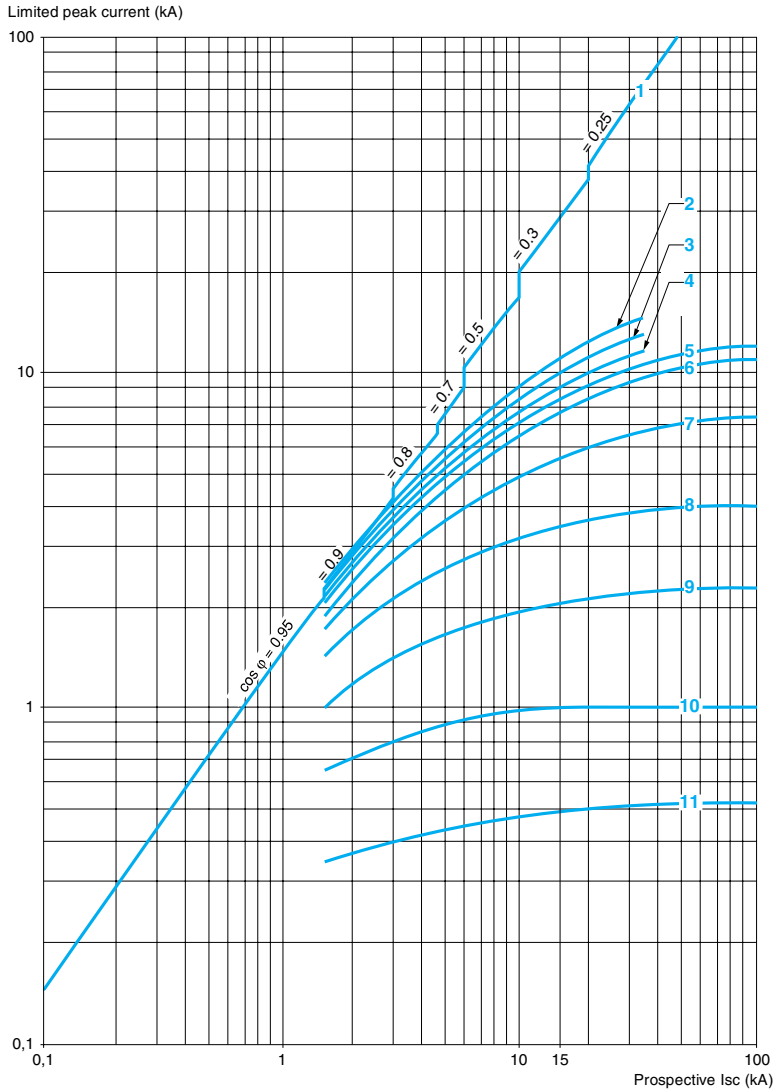
1 3 poles from cold state, 1.6…16 A rating
2 3 poles from hot state, 1.6…16 A rating
3 3 poles from cold state, 25…80 A rating
4 3 poles from hot state, 25…80 A rating

References : page 3/47
Dimensions : page 3/65
Schemes : page 3/69

Current limitation on short-circuit (3-phase 400/415 V)

Dynamic stress

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



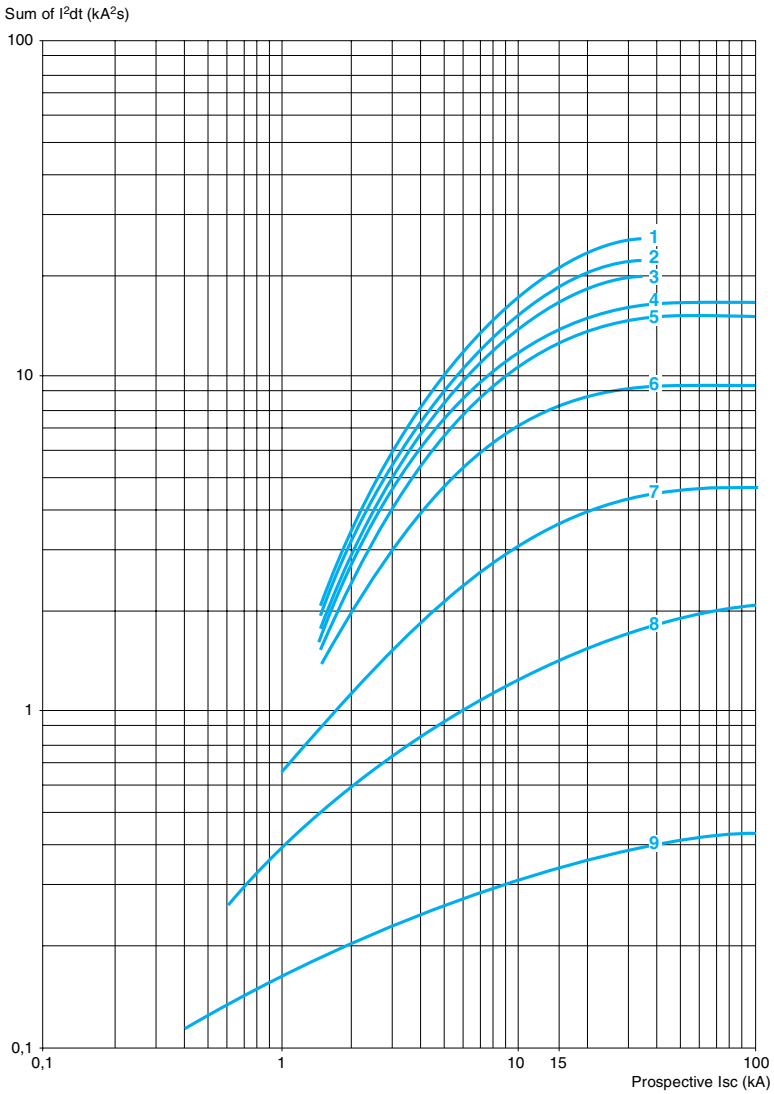
1 Maximum peak current
2 56-80 A
3 40-63 A
4 25-40 A
5 16-25 A
6 10-16 A
7 6-10 A
8 4-6 A
9 2.5-4 A
10 1.6-2.5 A
11 1-1.6 A

References : page 3/47
Dimensions : page 3/65
Schemes : page 3/69

Thermal limit on short-circuit

Thermal limit in kA²s in the magnetic operating zone

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



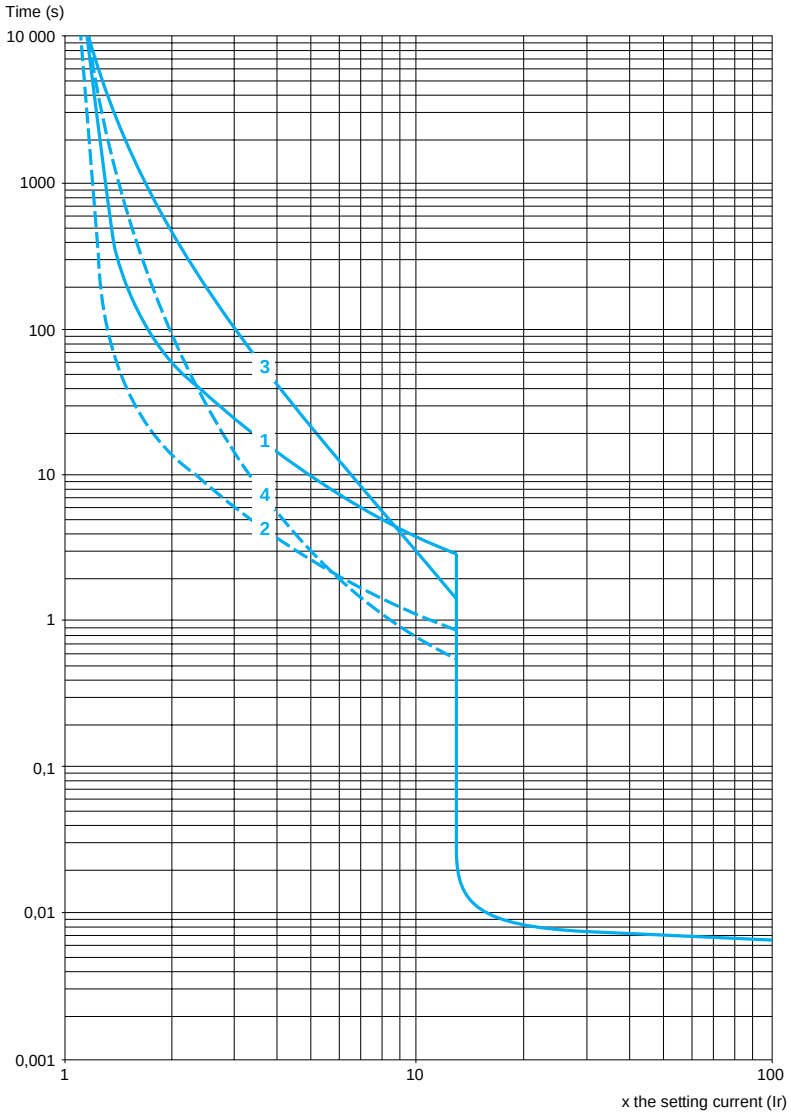
1 56 -80 A
2 40-63 A
3 25-40 A
4 16-25 A
5 10-16 A
6 6-10 A
7 4-6 A
8 2.5-4 A
9 1.6-2.5 A

References : page 3/47
Dimensions : page 3/65
Schemes : page 3/69

TeSys protection components
Thermal-magnetic motor circuit-breakers
GV3 P and GV3 ME80

Thermal-magnetic tripping curves

Average operating times at 20 °C related to multiples of the setting current



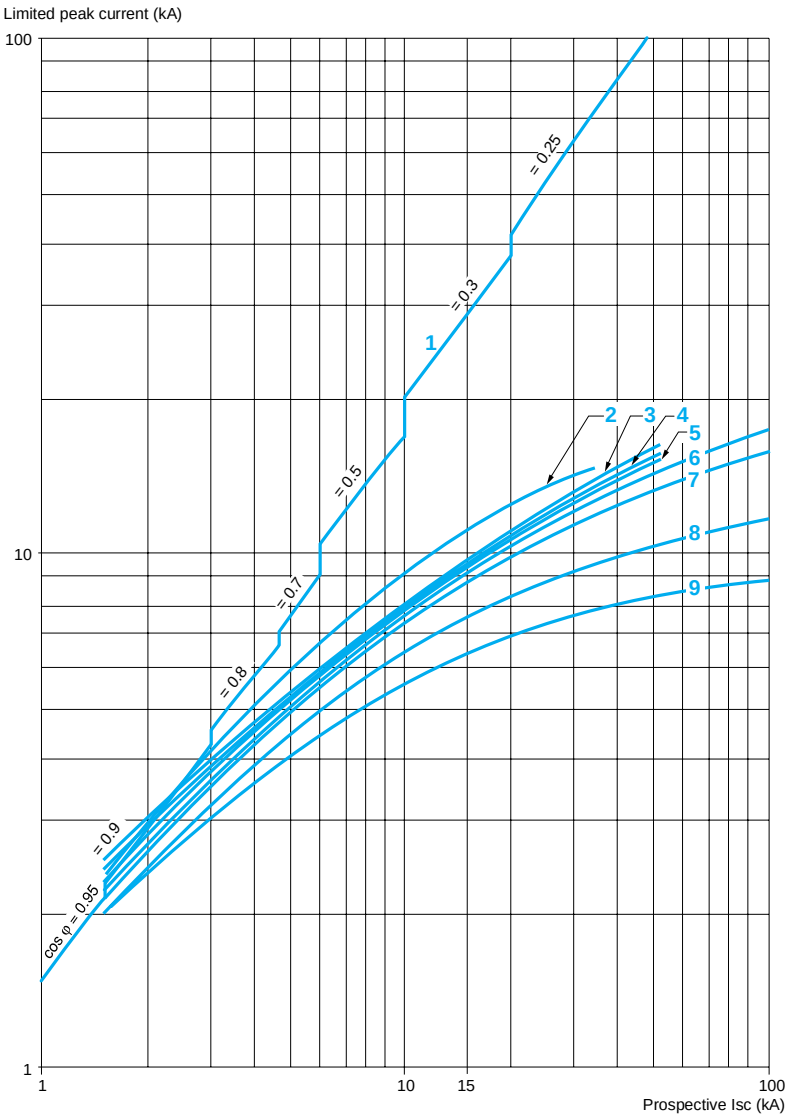
1 3 poles from cold state (GV3 P)
2 3 poles from hot state (GV3 P)
3 3 poles from cold state (GV3 ME80)
4 3 poles from hot state (GV3 ME80)

References:
page 48
Dimensions:
page 69
Schemes:
page 73

Current limitation on short-circuit (3-phase 400/415 V)

Dynamic stress

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

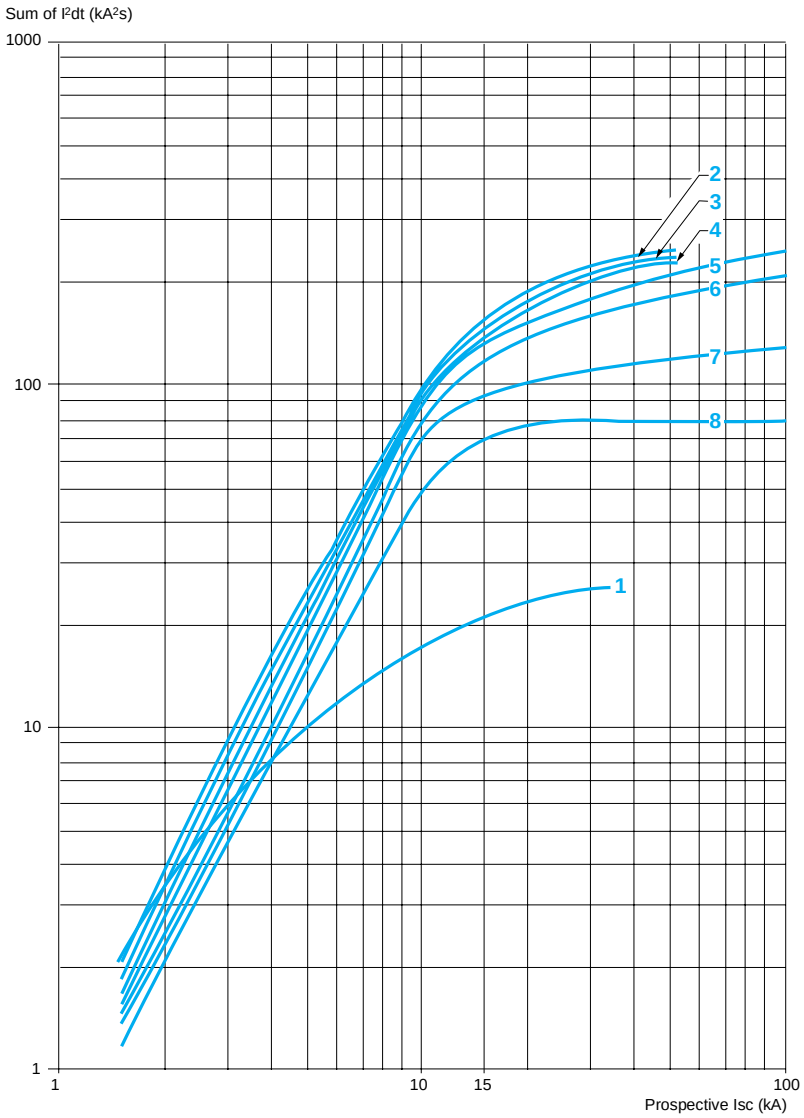


1 Maximum peak current
2 56 -80 A
3 48 -65 A
4 37 -50 A
5 30 -40 A
6 23 -32 A
7 17 -25 A
8 12 -18 A
9 9 -13 A

Maximum thermal limit on short-circuit

Thermal limit in kA²s in the magnetic operating zone

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



1 56-80 A (GV3 ME80)
2 48-65 A (GV3 P65)
3 37-50 A (GV3 P50)
4 30-40 A (GV3 P40)
5 23-32 A (GV3 P32)
6 17-25 A (GV3 P25)
7 12-18 A (GV3 P18)
8 9-13 A (GV3 P13)