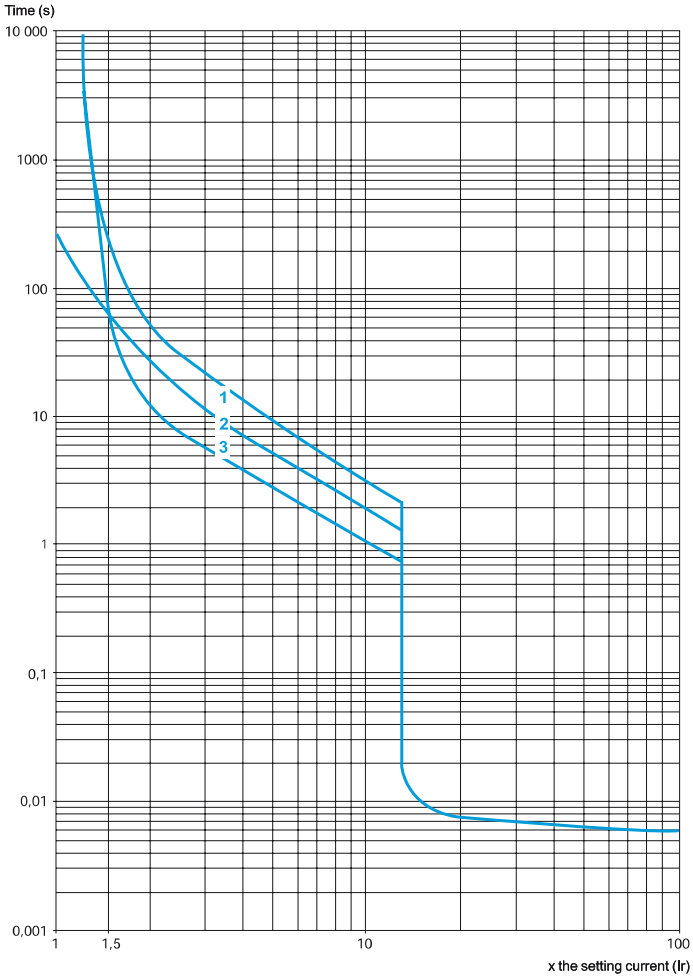
3

Thermal-magnetic tripping curves for GV2 ME and GV2 P

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

References:
pages 3/48 and 3/49

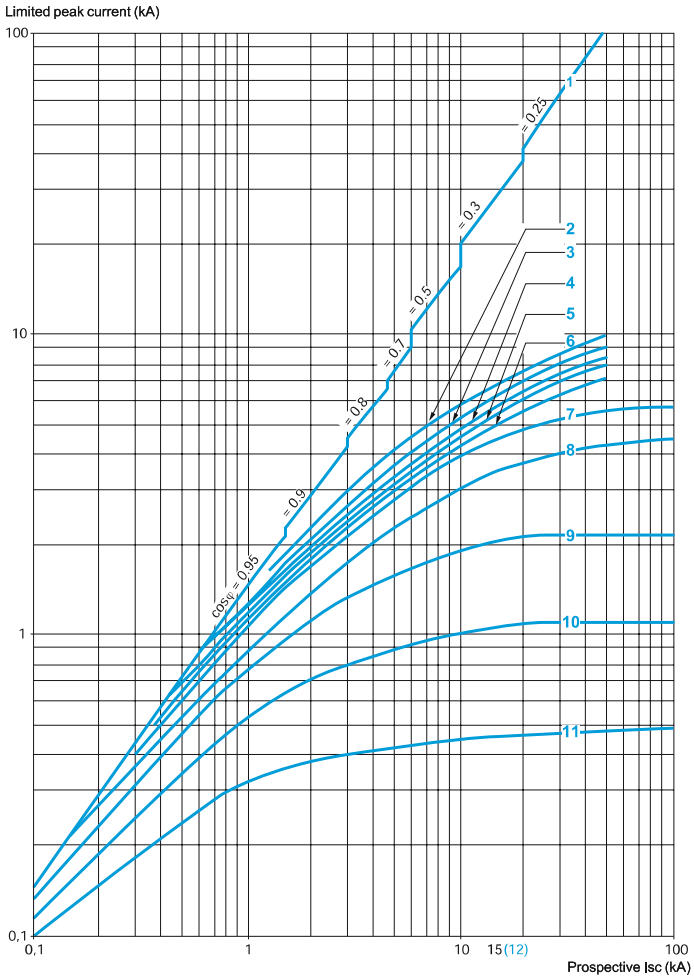
Dimensions:
pages 3/70 to 3/72

Schemes:
page 3/76

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

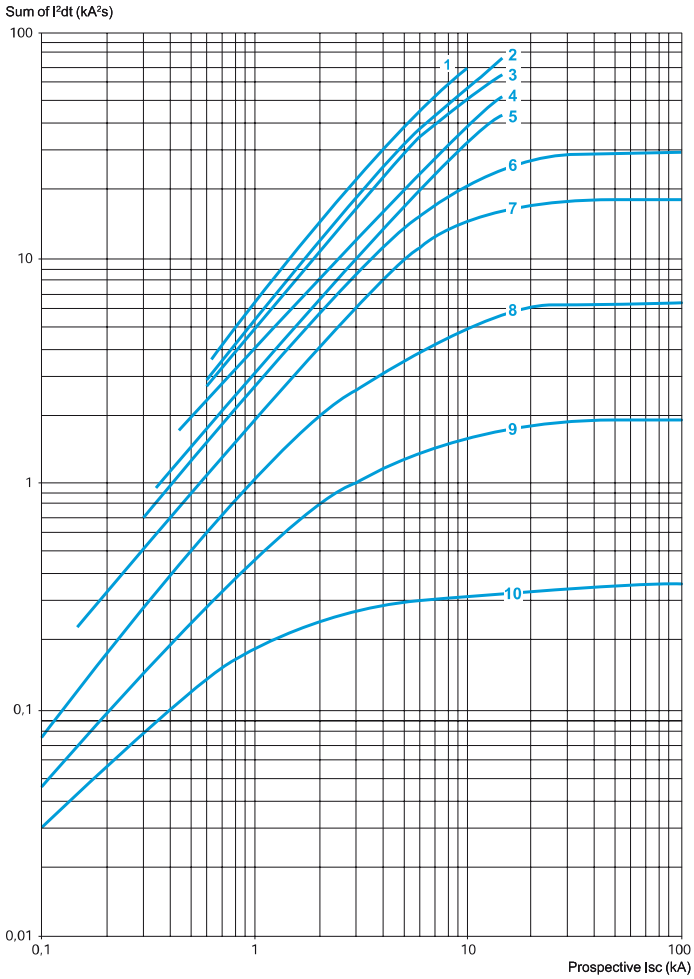


1 Maximum peak current
2 24 -32 A
3 20 -25 A
4 17 -23 A
5 13 -18 A
6 9 -14 A
7 6 -10 A
8 4 -6.3 A
9 2.5 -4 A
10 1.6 -2.5 A
11 1 -1.6 A
12 Limit of rated ultimate breaking capacity on short-circuit of GV2 ME (14, 18, 23 and 25 A ratings)

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 3/48 and 3/49

Dimensions:
pages 3/70 to 3/72

Schemes:
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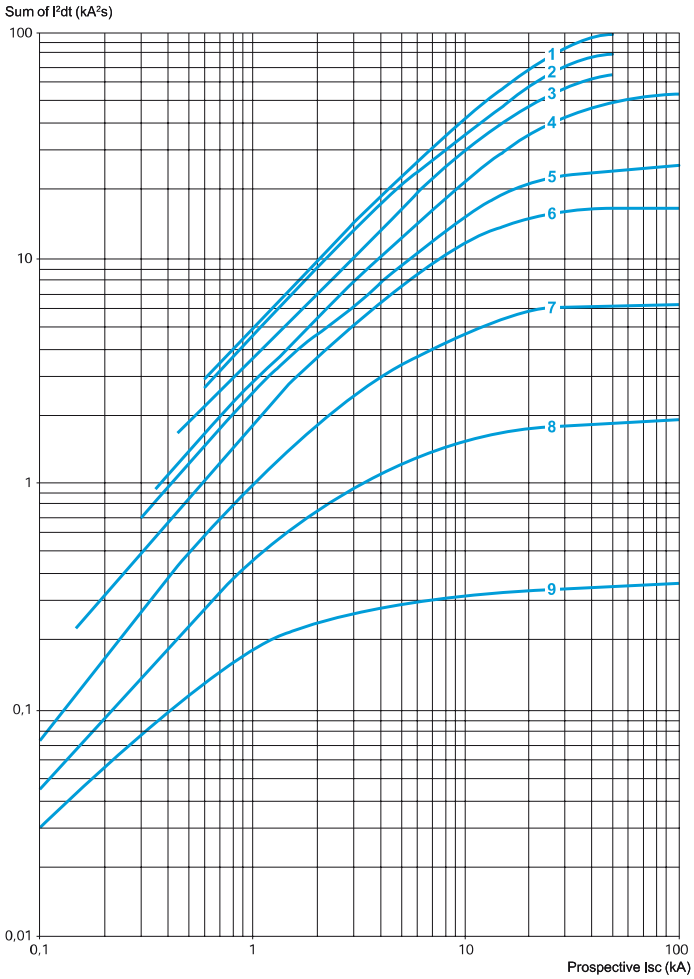
Thermal limit on short-circuit for GV2 P

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
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 3/48 and 3/49

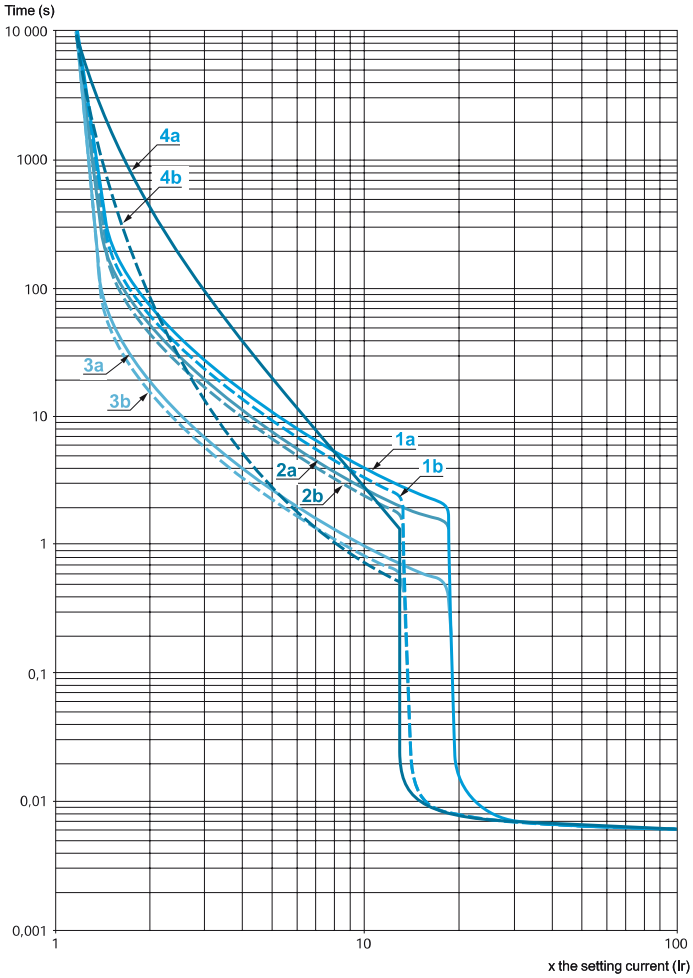
Dimensions:
pages 3/70 to 3/72

Schemes:
page 3/76

3

Thermal-magnetic tripping curves

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

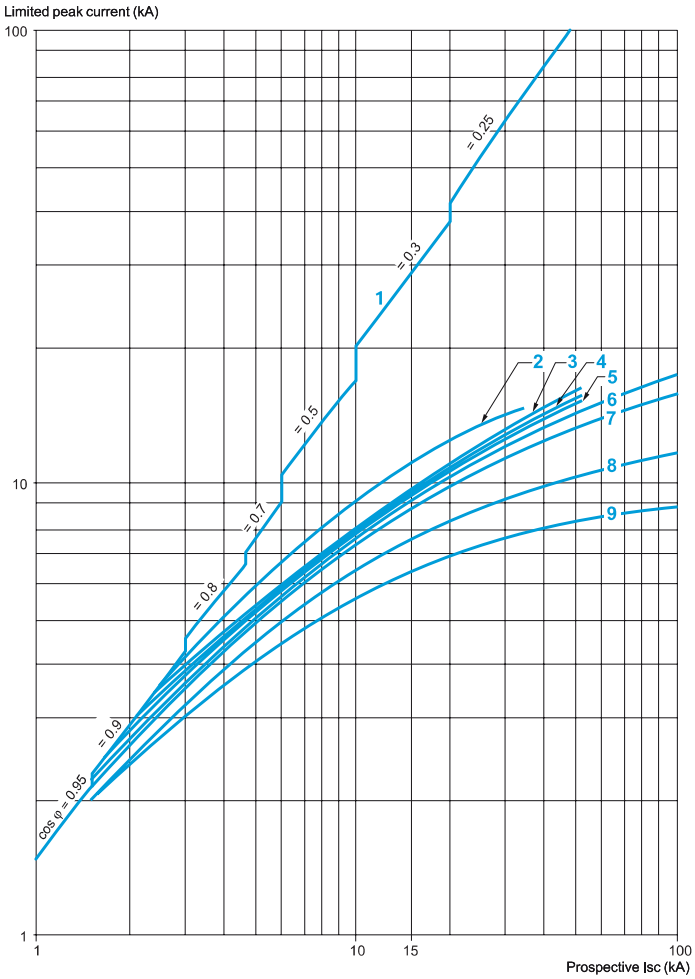


1a 3 poles from cold state (Ir mini.) : GV3 P
1b 3 poles from cold state (Ir maxi.) : GV3 P
2a 2 poles from cold state (Ir mini.) : GV3 ME80
2b 2 poles from cold state (Ir maxi.) : GV3 ME80
3a 3 poles from hot state (Ir mini.) : GV3 P
3b 3 poles from hot state (Ir maxi.) : GV3 P
4a 3 poles from hot state (Ir mini.) : GV3 ME80
4b 3 poles from hot state (Ir maxi.) : GV3 ME80

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

Dynamic stress

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

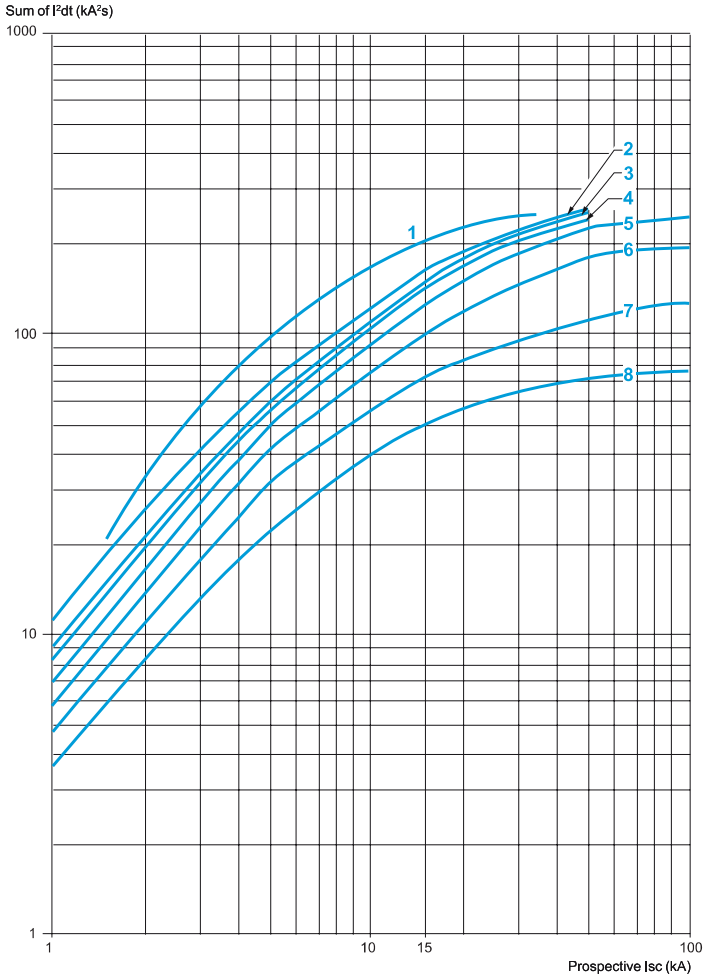


1 Maximum peak current
2 56 -80 A
3 48 -65 A
4 37 -50 A
5 30 -40 A
6 23 -32 A
7 17 -25 A
8 12 -18 A
9 9 -13 A

Maximum thermal limit on short-circuit

Thermal limit in kA²s in the magnetic operating zone

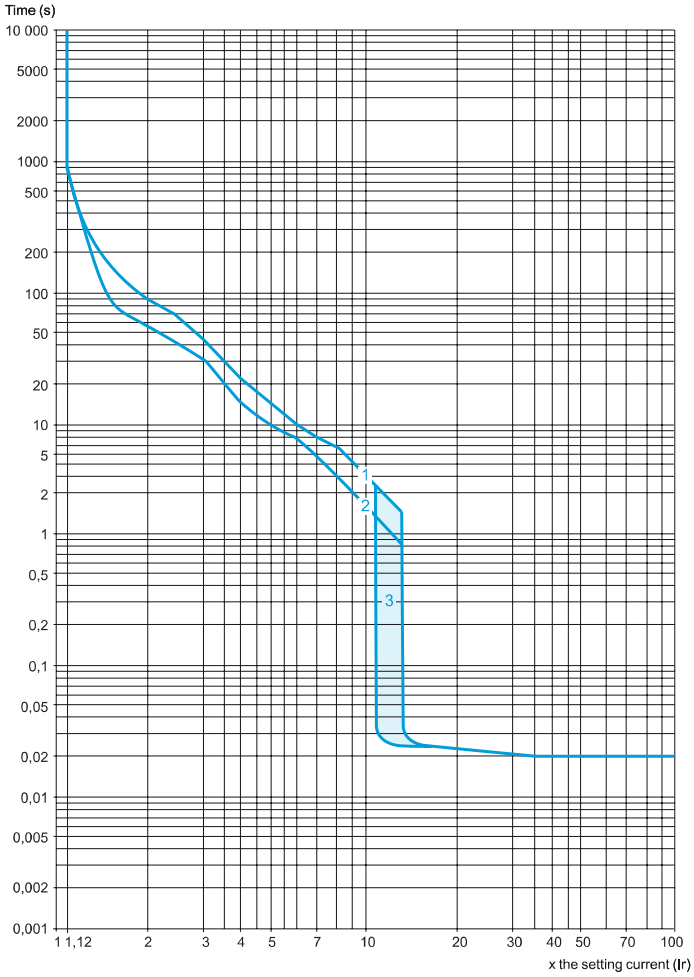
Sum of I^2dt = f (prospective Isc) at 1.05 Ue = 435 V



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)

Thermal-magnetic tripping curves for GV7 R

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



1 Cold state curve
2 Cold state curve
3 12…14 Ir
In the event of total phase failure, tripping occurs after 4 s ± 20 %

References:
page 3/49

Dimensions:
page 3/73

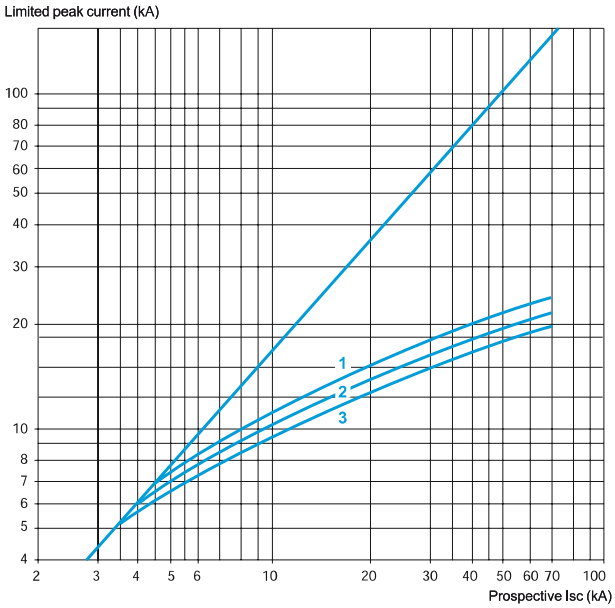
Schemes:
page 3/77

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

Dynamic stress

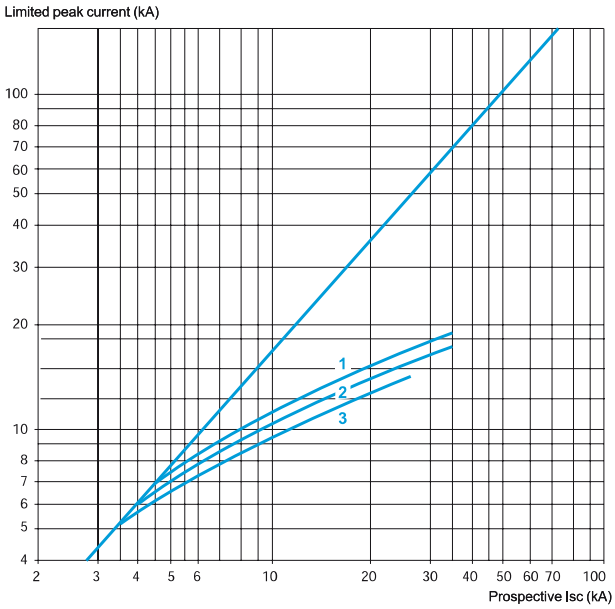
I peak = f (prospective Isc)

For GV7 RE only



1 GV7 RE220
2 GV7 RE150
3 GV7 RE100

For GV7 RS only



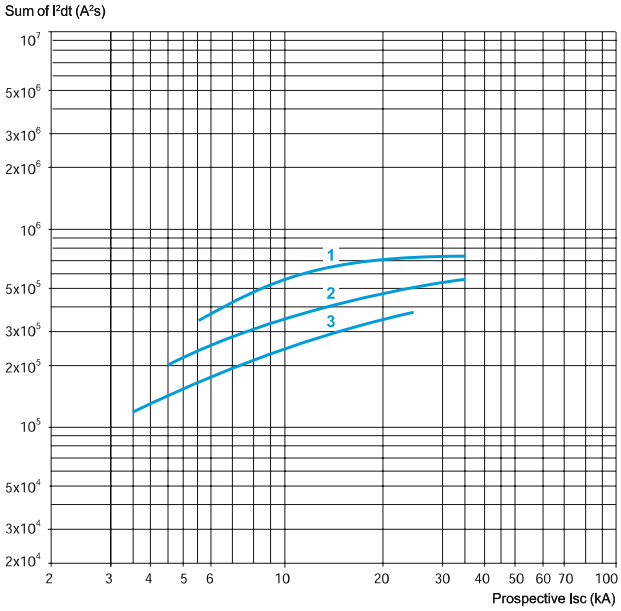
1 GV7 RS220
2 GV7 RS150
3 GV7 RS100

Thermal limit (3-phase 400/415 V)

Thermal limit

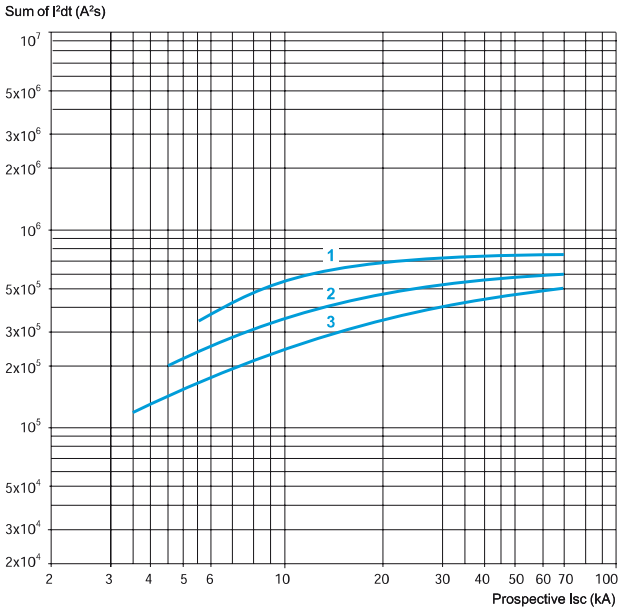
Sum of I^2dt = f (prospective Isc)

For GV7 RE only



1 GV7 RE220
2 GV7 RE150
3 GV7 RE100

For GV7 RS only



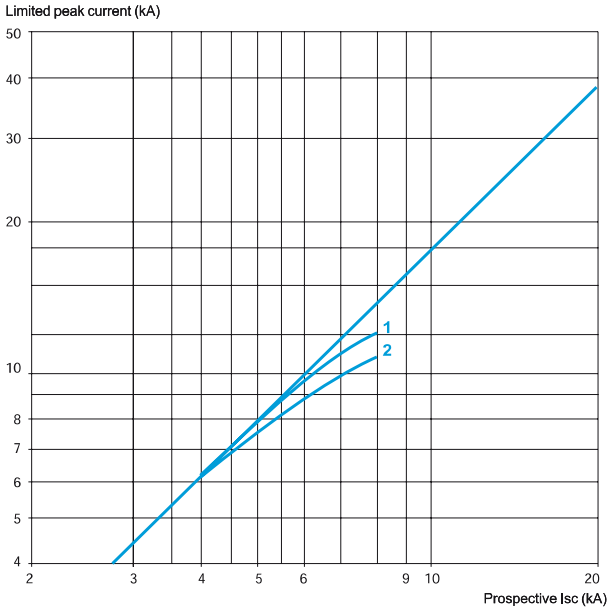
1 GV7 RS220
2 GV7 RS150
3 GV7 RS100

Current limitation on short-circuit (3-phase 690 V)

Dynamic stress

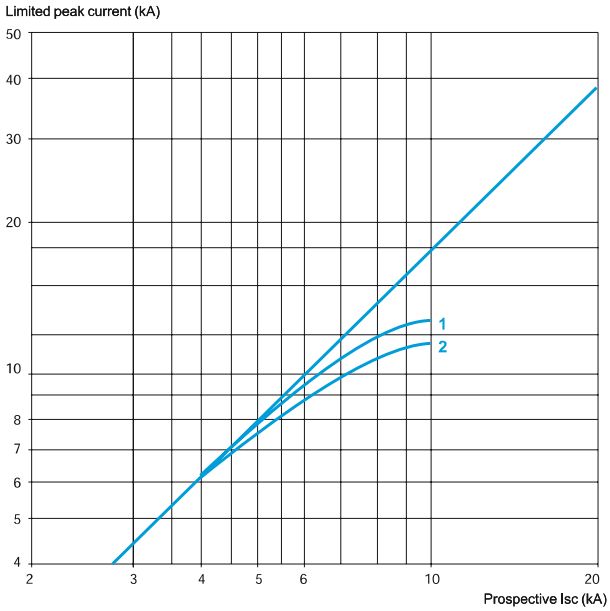
I peak = f (prospective Isc)

For GV7 RE only



1 GV7 RE220
2 GV7 RE150 and GV7 RE100

For GV7 RS only



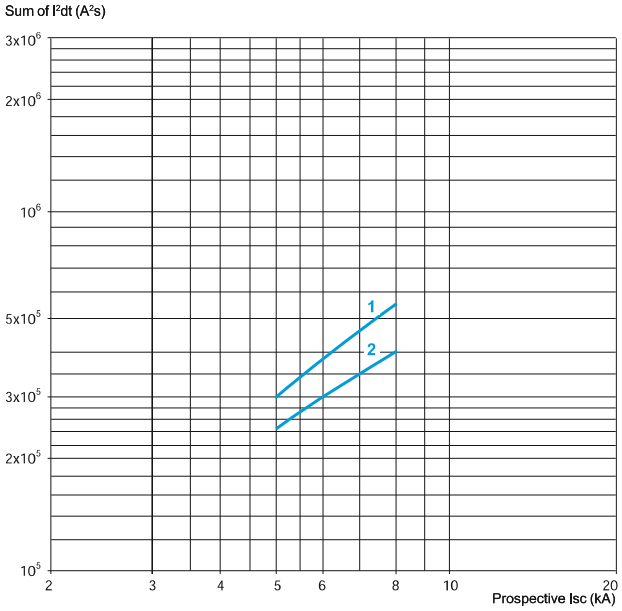
1 GV7 RS220
2 GV7 RS150 and GV7 RS100

Thermal limit on short-circuit (3-phase 690 V)

Thermal limit

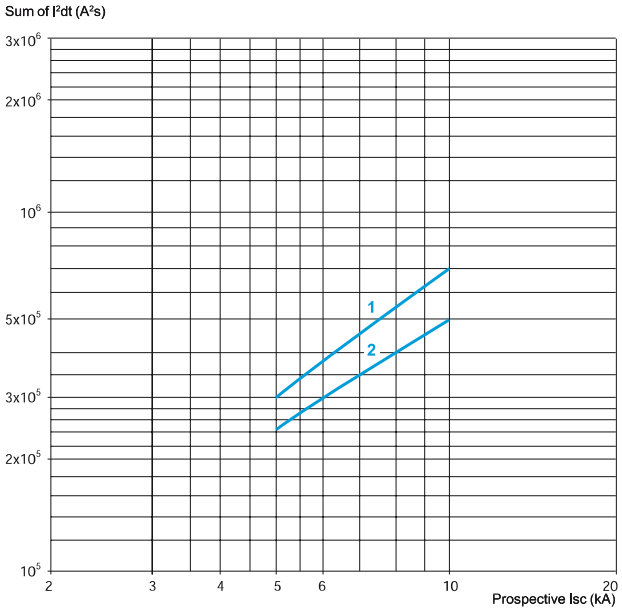
Sum of I^2dt = f (prospective Isc)

For GV7 RE only



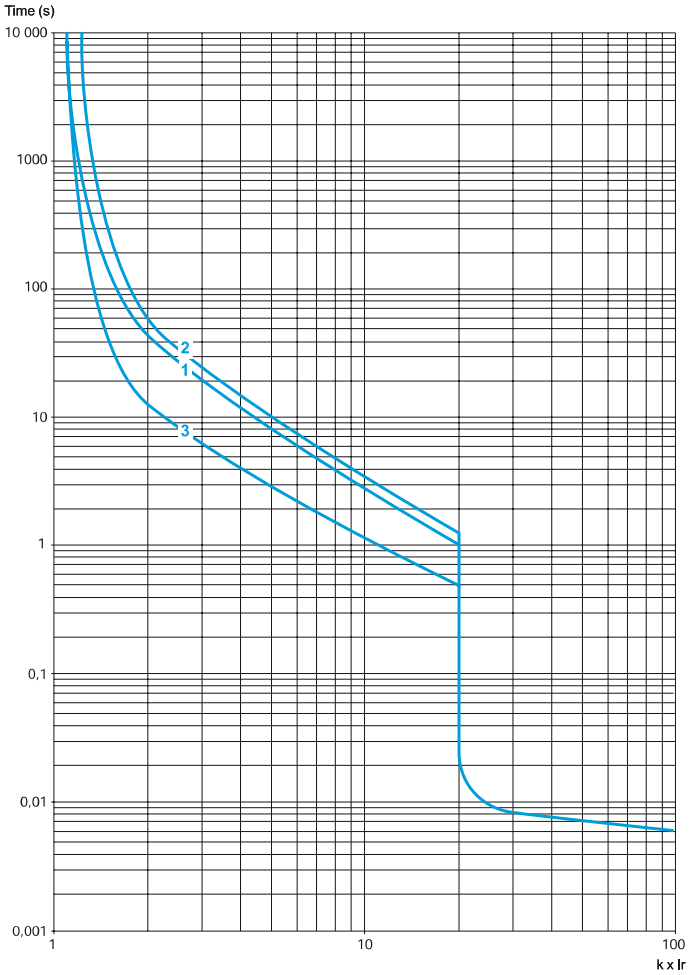
1 GV7 RE220
2 GV7 RE150 and GV7 RE100

For GV7 RS only



1 GV7 RS220
2 GV7 RS150 and GV7 RS100

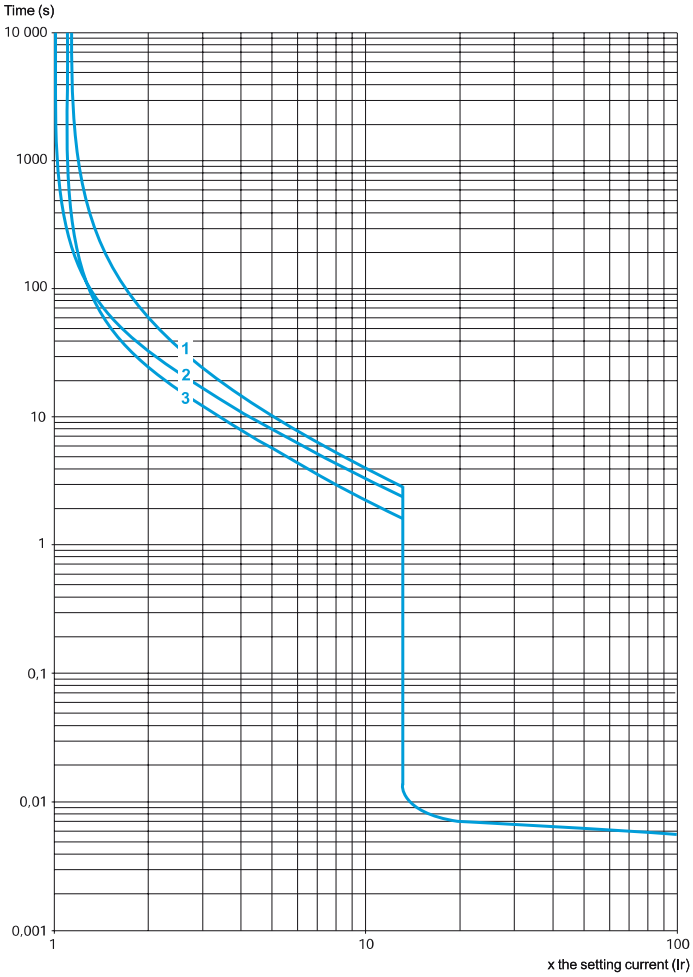
Thermal-magnetic tripping curves for GV2 RT



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 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

References:
pages 3/52 and 3/53

Dimensions:
page 3/84

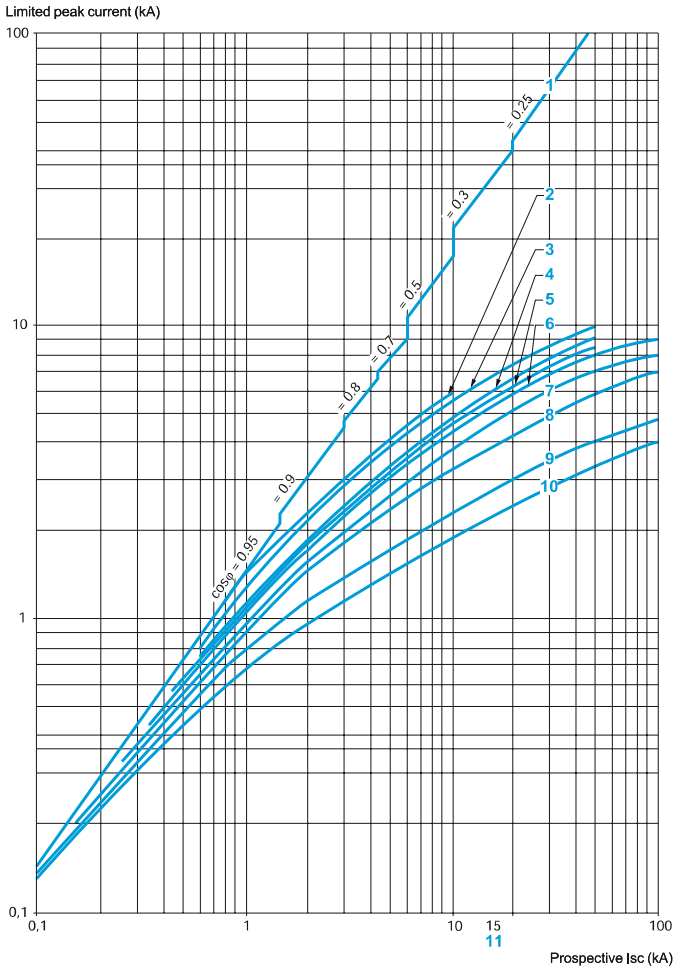
Schemes:
page 3/85

3

Current limitation on short-circuit for GV2 L and GV2 LE only (3-phase 400/415 V)

Dynamic stress

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

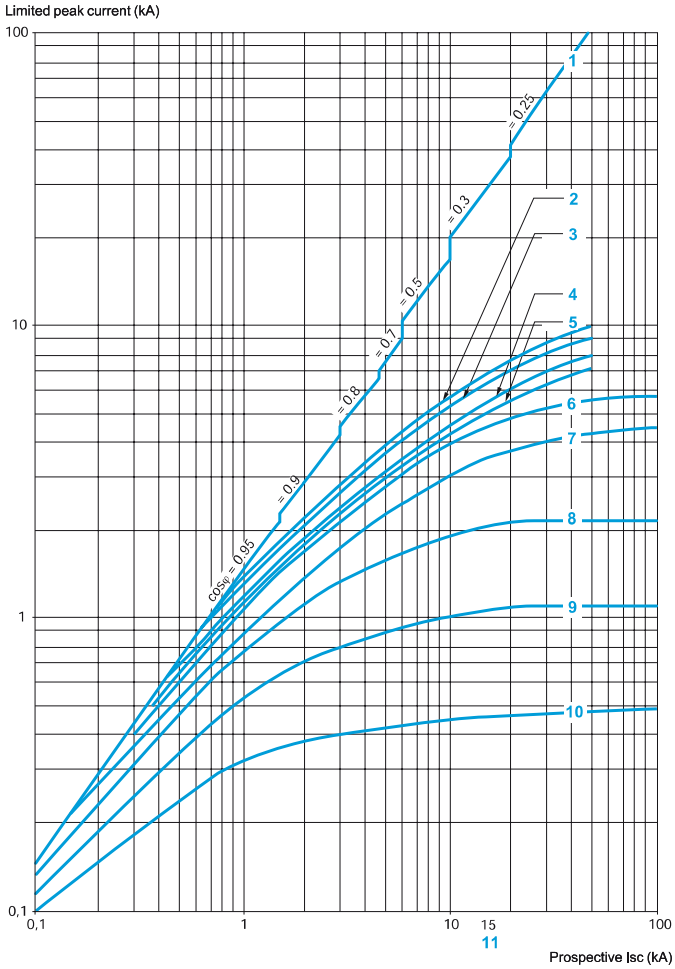


1 Maximum peak current
2 32 A
3 25 A
4 18 A
5 14 A
6 10 A
7 6.3 A
8 4 A
9 2.5 A
10 1.6 A
11 Limit of rated ultimate breaking capacity on short-circuit of GV2 LE (14, 18, 23 and 25 A ratings).

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 (prospective Isc) at 1.05 Ue = 435 V

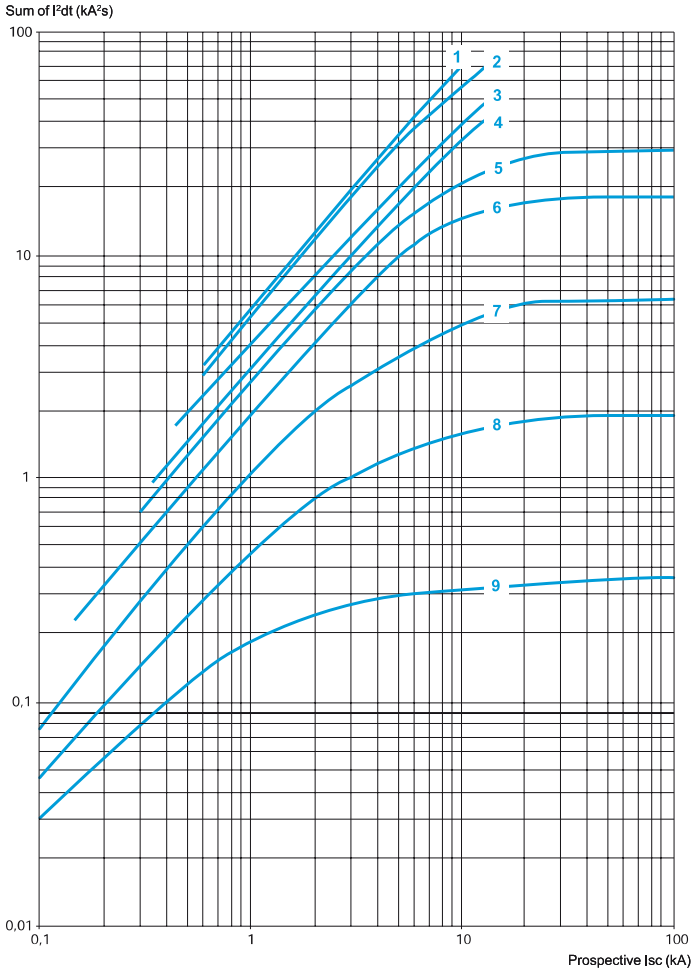


1 Maximum peak current
2 32 A
3 25 A
4 18 A
5 14 A
6 10 A
7 6.3 A
8 4 A
9 2.5 A
10 1.6 A
11 Limit of rated ultimate breaking capacity on short-circuit of GV2 LE (14, 18, 23 and 25 A ratings).

Thermal limit on short-circuit for GV2 LE only

Thermal limit in kA²s in the magnetic operating zone

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

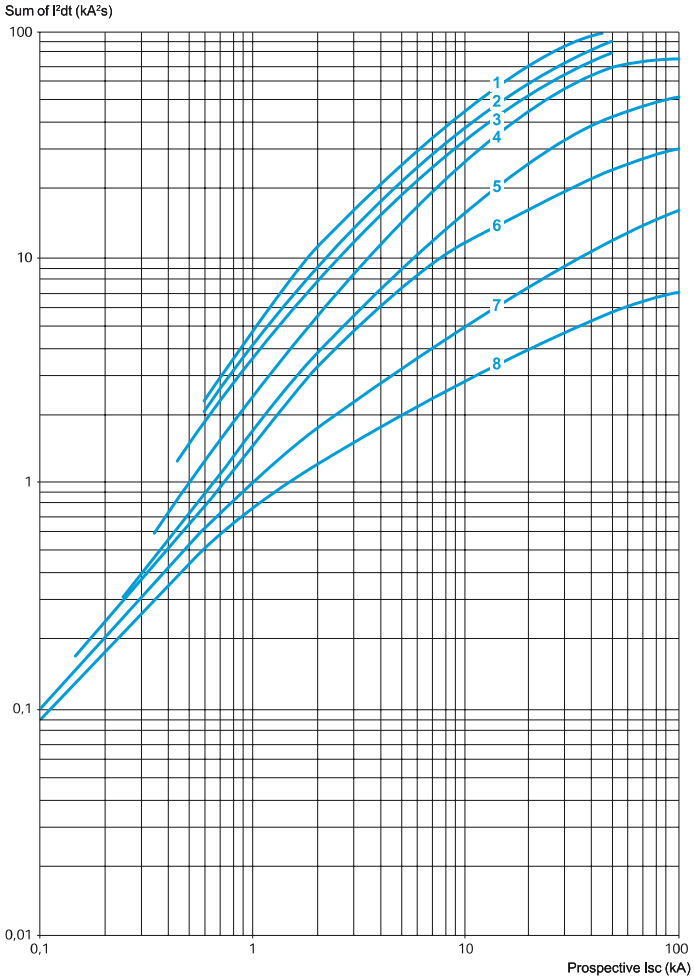


1 32 A
2 25 A
3 18 A
4 14 A
5 10 A
6 6.3 A
7 4 A
8 2.5 A
9 1.6 A

Thermal limit on short-circuit for GV2 L only

Thermal limit in kA²s in the magnetic operating zone

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



1 25 A and 32 A
2 18 A
3 14 A
4 10 A
5 6.3 A
6 4 A
7 2.5 A
8 1.6 A

References:
pages 3/52 and 3/53

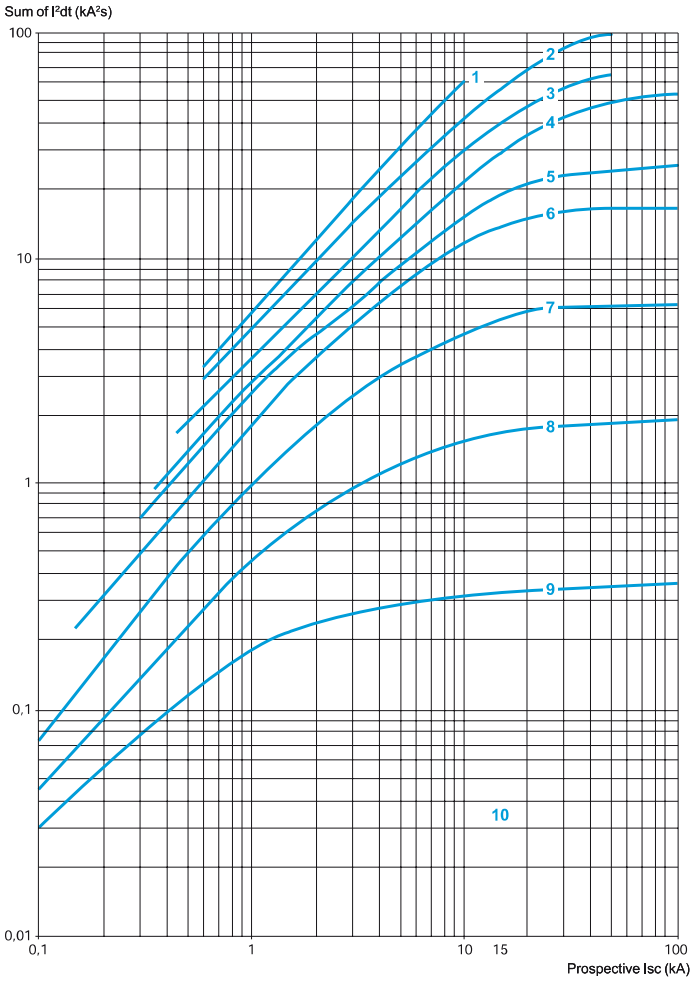
Dimensions:
page 3/84

Schemes:
page 3/85

Thermal limit on short-circuit for GV2 L and GV2 LE + thermal overload relay LRD or LR2 K

Thermal limit in kA²s in the magnetic operating zone

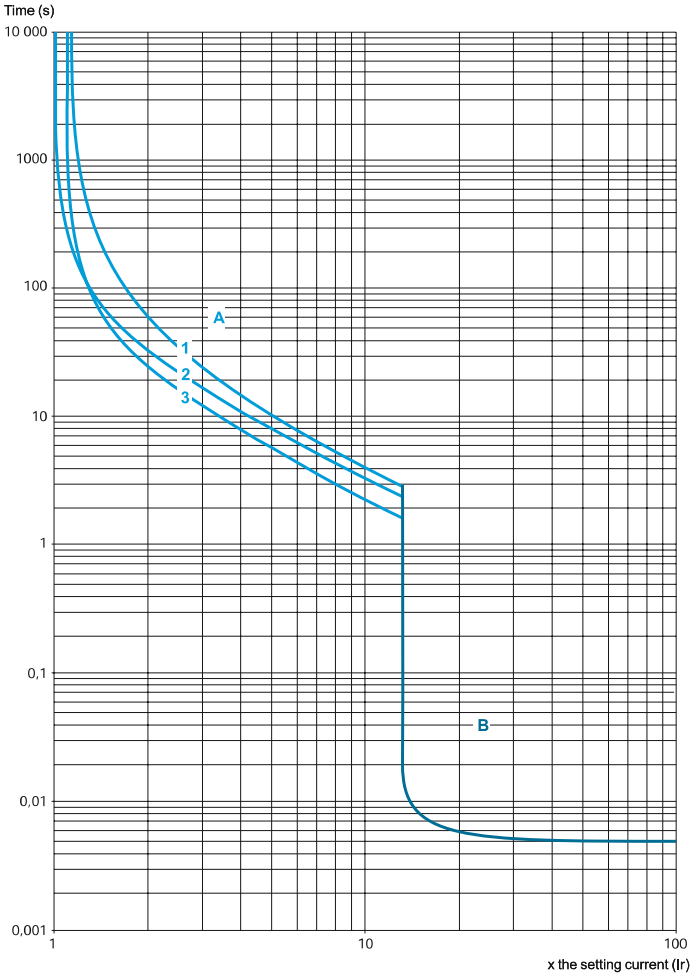
Sum of I^2dt = f (prospective Isc) at 1.05 Ue = 435 V



1 32 A (GV2 LE32)
2 25 A and 32 A (GV2 L32)
3 18 A
4 14 A
5 10 A
6 6.3 A
7 4 A
8 2.5 A
9 1.6 A
10 Limit of rated ultimate breaking capacity on short-circuit of GV2 LE (14, 18, 23 and 25 A ratings).

Tripping curves for GV3 L and GK3 EF80 combined with thermal overload relay LRD 33

Average operating time at 20 °C without prior current flow



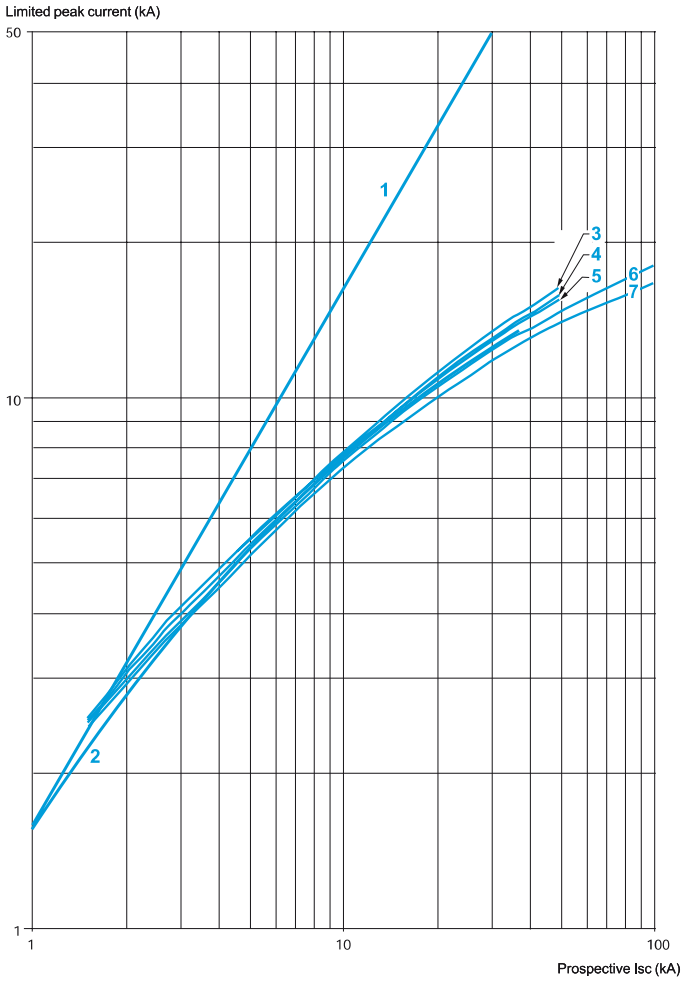
1 3 poles from cold state
2 2 poles from cold state
3 3 poles from hot state

A Thermal overload relay protection zone
B GK3 EF80 and GV3 L protection zone

Current limitation on short-circuit for GV3 L and GK3 EF80 (3-phase 400/415 V)

Dynamic stress

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

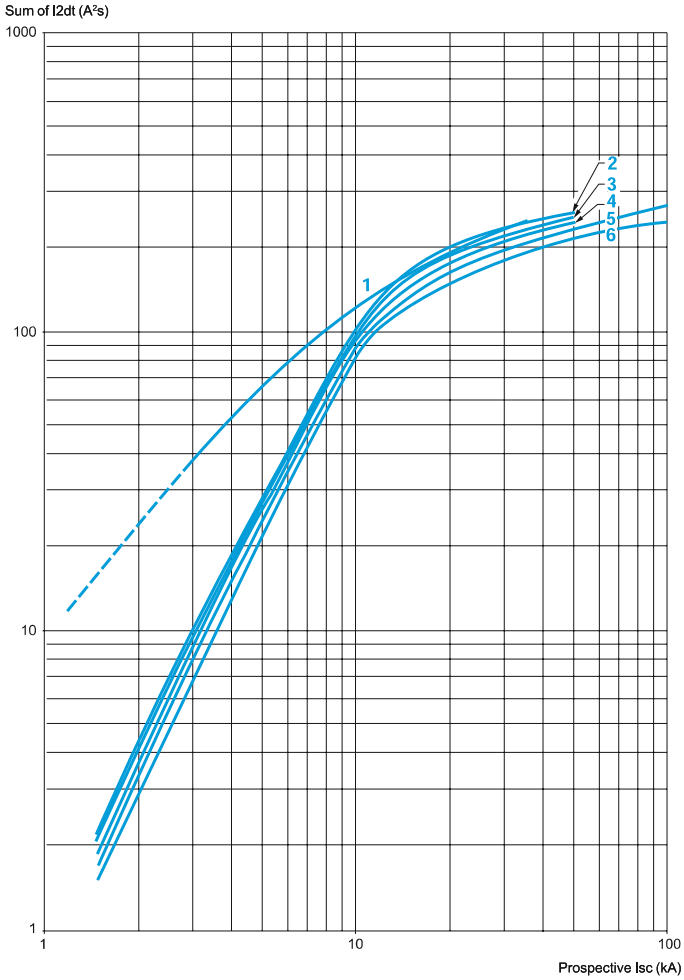


1 Maximum peak current
2 GK3 EF80
3 GV3 L65
4 GV3 L50
5 GV3 L40
6 GV3 L32
7 GV3 L25

Thermal limit on short-circuit for GV3 L and GK3 EF80

Thermal limit in A^2s

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



1 GK3 EF80
2 GV3 L65
3 GV3 L50
4 GV3 L40
5 GV3 L32
6 GV3 L25