



References:
p. B6/37

Characteristics:
p. B6/120 to B6/123

Curves:
p. B6/129 to B6/131

Dimensions:
p. B6/134 to B6/135

Schemes:
p. B6/137



GV4P



GV4PE

Motor
circuit
breakers

Standard version

Protection

Settings are made using dials.

Overload or thermal protection (I_r)

Inverse-time thermal protection against overloads with adjustable pick-up I_r .

Wide range setting made in amperes.

The tripping curve for the thermal protection, which indicates the time delay t_r before tripping, is defined by the selected trip class.

Trip class (class)

The class is selected as a function of the normal motor starting time.

■ Class 10: starting time less than 10 s.

■ Class 20: starting time less than 20 s.

For a given class, it is necessary to check that all motor-feeder components are sized to carry the $7.2 I_r$ starting current without excessive temperature rise during the time corresponding to the class.

Short time delay protection (I_{sd})

Short time delay protection (around 100 ms) to let through motor starting currents, but to protect cables and motor starter devices and allow not to oversize them (particularly useful for wide range settings circuit breakers).

Fixed pick-up $I_{sd} = 13 I_r$.

Short-circuit protection (I_i)

Instantaneous protection with non-adjustable pick-up $I_i = 17 I_n$.

Phase unbalance or phase loss (I_{unbal} , I_{tunbal})

This function opens the circuit breaker if a phase unbalance occurs:

■ that is greater than the 30 % of I_{rms} (fixed pick-up): **I_{unbal}**

■ following the non-adjustable time delay (**I_{tunbal}**) equal to:

□ 0.7 s during starting

□ 4 s during normal operation.

Phase loss is an extreme case of phase unbalance and leads to tripping under the same conditions.

Ground-fault protection (I_g , t_g)

Residual type ground-fault protection:

■ fixed pick-up $I_g = I_n$

■ fixed time delay $t_g = 0.1$ s.

Indications

Front indications

■ Green "Ready" LED: flashes slowly when the circuit breaker is ready to trip in the event of an abnormal deviation in engine operating conditions.

■ Red alarm LED: goes ON when the thermal image of the motor is greater than 95 % of the permissible temperature rise.

Standards and certifications

IEC/EN 60947-1, IEC/EN 60947-2, IEC/EN 60947-4-1, UL 60497-4-1, CSA 22.2 n° 60497-4-1, CCC, EAC, CSA (cCSAus).



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Thermal-magnetic motor circuit breakers from 0.25 to 55 kW

Standard power ratings of 3-phase motors - 50 / 60 Hz in category AC-3									Thermal setting range (Ir)	Reference with EverLink terminals	
400/415 V			500 V			690 V				with toggle	with rotary handle
P kW	Icu kA	Ics ⁽¹⁾ %	P kW	Icu kA	Ics ⁽¹⁾ %	P kW	Icu kA	Ics ⁽¹⁾ %			
0.25... 0.75	25	100	0.37... 1.1	10	100	0.55... 1.5	-	-	0.8... 2	-	-
	50	100		25	100		8	25		GV4PE02N	GV4P02N
	100	100		30	100		10	25		GV4PE02S	-
0.55... 1.5	25	100	0.75... 1.5	10	100	1.1... 2.2	-	-	1.4... 3.5	-	-
	50	100		25	100		8	25		GV4PE03N	GV4P03N
	100	100		30	100		10	25		GV4PE03S	-
1.5... 3	25	100	2.2... 4	10	100	3... 7.5	-	-	2.9... 7	-	-
	50	100		25	100		8	25		GV4PE07N	GV4P07N
	100	100		30	100		10	25		GV4PE07S	-
3... 5.5	25	100	3... 7.5	10	100	5.5... 11	-	-	5... 12.5	-	-
	50	100		25	100		8	25		GV4PE12N	GV4P12N
	100	100		30	100		10	25		GV4PE12S	-
5.5... 11	25	100	7.5... 15	10	100	7.5... 18.5	-	-	10... 25	GV4PE25B	GV4P25B
	50	100		25	100		8	25		GV4PE25N	GV4P25N
	100	100		30	100		10	25		GV4PE25S	-
11... 22	25	100	15... 30	10	100	18.5... 45	-	-	20... 50	GV4PE50B	GV4P50B
	50	100		25	100		8	25		GV4PE50N	GV4P50N
	100	100		30	100		10	25		GV4PE50S	-
22... 37	25	100	30... 55	10	100	37... 55	-	-	40... 80	GV4PE80B	GV4P80B
	50	100		25	100		8	25		GV4PE80N	GV4P80N
	100	100		30	100		10	25		GV4PE80S	GV4P80S
37... 55	25	100	45... 75	10	100	75... 90	-	-	65... 115	GV4PE115B	GV4P115B
	50	100		25	100		8	25		GV4PE115N	GV4P115N
	100	100		30	100		10	25		GV4PE115S	GV4P115S

Thermal-magnetic motor circuit breakers from 3/4 to 75 HP / 480 V

Single-Phase 120 V				3-Phase								Rating	Reference with EverLink terminals	
Power HP	FLA A	240 V Power Hp	FLA A	208 V Power Hp	FLA A	240 V Power Hp	FLA A	480 V Power Hp	FLA A	600 V Power Hp	FLA A	A	with toggle	with rotary handle
-	-	1/10	1.5	-	-	-	-	3/4	1.6	1	1.7	2	-	-
													GV4PE02N	GV4P02N
													GV4PE02S	-
1/10	3	1/4	2.9	1/2	2.4	3/4	3.2	2	3.4	2	2.7	3.5	-	-
													GV4PE03N	GV4P03N
													GV4PE03S	-
1/4	5.8	3/4	6.9	1-1/2	6.6	2	6.8	3	4.8	5	6.1	7	-	-
													GV4PE07N	GV4P07N
													GV4PE07S	-
1/2	9.8	1-1/2	10	3	10.6	3	9.6	7-1/2	11	10	11	12.5	-	-
													GV4PE12N	GV4P12N
													GV4PE12S	-
1-1/2	20	3	17	5	16.7	7-1/2	22	15	21	20	22	25	GV4PE25B	GV4P25B
													GV4PE25N	GV4P25N
													GV4PE25S	-
3	34	7-1/2	40	10	30.8	15	42	30	40	40	41	50	GV4PE50B	GV4P50B
													GV4PE50N	GV4P50N
													GV4PE50S	-
7-1/2	80	15	68	25	74.8	30	80	60	77	75	77	80	GV4PE80B	GV4P80B
													GV4PE80N	GV4P80N
													GV4PE80S	GV4P80S
10	100	20	88	30	88	40	104	75	96	100	99	115	GV4PE115B	GV4P115B
													GV4PE115N	GV4P115N
													GV4PE115S	GV4P115S

Connection by lugs

To order circuit breakers with connection by lugs, add the digit **6** to the end of reference selected above. Example: **GV4PE02N** becomes **GV4PE02N6**.

⁽¹⁾ As % of Icu.

Motor
circuit
breakers

GV4LE50B6	GV4PB80S	GV4PEM115S	GVAED101
GV4LE50N	GV4PE02N	GV4PEM115S6	GVAED1013
GV4LE50N6	GV4PE02N6	GV4PEM12N	GVAM11
GV4LE50S	GV4PE02S	GV4PEM12N6	GVAN11
GV4LE50S6	GV4PE02S6	GV4PEM12S	GVAN113
GV4LE80B	GV4PE03N	GV4PEM12S6	GVAN20
GV4LE80B6	GV4PE03N6	GV4PEM25B	GVAN203
GV4LE80N	GV4PE03S	GV4PEM25B6	GVAPBPHP
GV4LE80N6	GV4PE03S6	GV4PEM25N	GVAPH02
GV4LE80S	GV4PE07N	GV4PEM25N6	GVAPK11
GV4LE80S6	GV4PE07N6	GV4PEM25S	GVAPYPHP
GV4LUG	GV4PE07S	GV4PEM25S6	GVAS025
GV4P02N	GV4PE07S6	GV4PEM50B	GVAS026
GV4P02N6	GV4PE115B	GV4PEM50B6	GVAS055
GV4P03N	GV4PE115B6	GV4PEM50N	GVAS115
GV4P03N6	GV4PE115N	GV4PEM50N6	GVAS116
GV4P07N	GV4PE115N6	GV4PEM50S	GVAS207
GV4P07N6	GV4PE115S	GV4PEM50S6	GVAS225
GV4P115B	GV4PE115S6	GV4PEM80B	GVAS226
GV4P115B6	GV4PE12N	GV4PEM80B6	GVAS385
GV4P115N	GV4PE12N6	GV4PEM80N	GVAS415
GV4P115N6	GV4PE12S	GV4PEM80N6	GVAU025
GV4P115S	GV4PE12S6	GV4PEM80S	GVAU055
GV4P12N	GV4PE25B	GV4PEM80S6	GVAU115
GV4P12N6	GV4PE25B6	GV5AP03	GVAU116
GV4P25B	GV4PE25N	GV5P150F	GVAU125
GV4P25B6	GV4PE25N6	GV5P150H	GVAU207
GV4P25N	GV4PE25S	GV5P220F	GVAU225
GV4P25N6	GV4PE25S6	GV5P220H	GVAU226
GV4P50B	GV4PE50B	GV6AP03	GVAU385
GV4P50B6	GV4PE50B6	GV6P320F	GVAU386
GV4P50N	GV4PE50N	GV6P320H	GVAU415
GV4P50N6	GV4PE50N6	GV6P500F	GVAU416
GV4P80B	GV4PE50S	GV6P500H	GVAU505
GV4P80B6	GV4PE50S6	GV7AC01	GVAX115
GV4P80N	GV4PE80B	GV7AC021	GVAX116
GV4P80N6	GV4PE80B6	GV7AC022	GVAX225
GV4P80S	GV4PE80N	GV7AC03	GVAX226
GV4PB02N	GV4PE80N6	GV7AC04	GVAX385
GV4PB02S	GV4PE80S	GV7AC05	GVAX386
GV4PB03N	GV4PE80S6	GV7AC06	GVAX415
GV4PB03S	GV4PEM02N	GV7AC08	LA9E07
GV4PB07N	GV4PEM02N6	GV7AP01	LAD311
GV4PB07S	GV4PEM02S	GV7AP02	LAD96590
GV4PB115B	GV4PEM02S6	GV7AP04	LAD96595
GV4PB115N	GV4PEM03N	GV7AP05	LV429385
GV4PB115S	GV4PEM03N6	GVAD0101	LV429386
GV4PB12N	GV4PEM03S	GVAD0110	LV429387
GV4PB12S	GV4PEM03S6	GVAD1001	LV429388
GV4PB25B	GV4PEM07N	GVAD1010	LV429405
GV4PB25N	GV4PEM07N6	GVAE1	LV429406
GV4PB25S	GV4PEM07S	GVAE11	LV429407
GV4PB50B	GV4PEM07S6	GVAE113	LV429408
GV4PB50N	GV4PEM115B	GVAE20	
GV4PB50S	GV4PEM115B6	GVAE203	
GV4PB80B	GV4PEM115N	GVAED011	
GV4PB80N	GV4PEM115N6	GVAED0113	