

PGV2 & PGV3

Manual Motor Starter



Application

- 1.1 Standard: IEC / EN 60947-4-1, IEC 60947-2
- 1.2 Protection class: IP20
- 1.3 Electric rating: AC 50/60Hz, AC 690V

Normal operating condition and installation condition

- 2.1 Ambient air temperature: -5...+ 40℃
- 2.2 Relative humidity: ≤90%
- 2.3 Pollution degree: III
- 2.4 Product should be installed and operated at a place without obvious shake, impact or vibration.

Main technical parameter

- 3.1 Rated insulation voltage U_i : 690V
- 3.2 Rated operating voltage U_e : 230/240V, 400/415V, 440V, 500V, 690V
- 3.3 Rated impulse withstand voltage U_{imp} : 8000V
- 3.4 Rated current: up to 32A for PGV2; up to 80A for PGV3
- 3.5 Protection reference to see below:

Overload protection reference

Table 1

No.	Applied current	Initial status	Time		Expected results	Ambient temperature
1	1.05 In	cold status	t≥2 hours		no tripping	+20℃ ± 2℃
2	1.20 In	heat status (right after test No.1)	t<2 hours		tripping	
3	1.50 In	heat status (right after test No.1)	tripping class	(10A) t<2 min (10A) t<4 min		
4	7.20 In	cold status	tripping class	(10A) 2 s<t ≤10 s (10A) 4 s<t ≤10 s		

Phase failure protection reference

Table 2

No.	Applied current		Initial status	Time	Expected results	Ambient temperature
	any 2 phase	Other phases				
1	1.0	0.9	cold status	$t \geq 2$ hours	no tripping	+20℃ ± 2℃
2	1.15	0	heat status (right after test No.1)	$t < 2$ hours	tripping	

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Table 3

No.	Applied current	Initial status	Time	Expected results	Ambient temperature
1	1.0 I _n	cold status	t ≥ 2 hours	no tripping	+40 ℃ ± 2 ℃
2	1.20 I _n	heat status (right after test No.1)	t < 2 hours	tripping	
3	1.05 I _n	cold status	t ≥ 2 hours	no tripping	-5 ℃ ± 2 ℃
4	1.30 I _n	heat status (right after test No.1)	t < 2 hours	tripping	

The technical data of PGV2 please see below Table 4 and Table 5

Table 4

Model	Range of setting current (A)	Rated current (A)	Electromagnetic tripping current (A)	Matched three phase motor				
				220V	400V	440V	500V	690V
PGV2-M01	0.10~0.16	0.16	1.50	--	--	--	--	--
PGV2-M02	0.16~0.25	0.25	2.40	--	--	--	--	--
PGV2-M03	0.25~0.40	0.40	5.00	--	--	--	--	--
PGV2-M04	0.40~0.63	0.63	8.00	--	--	--	--	0.37
PGV2-M05	0.63~1.00	1.00	13.0	--	--	0.37	0.37	0.55
PGV2-M06	1.00~1.60	1.60	22.5	--	0.37	0.55	0.75	1.10
PGV2-M07	1.60~2.50	2.50	33.5	0.37	0.75	1.10	1.10	1.50
PGV2-M08	2.50~4.00	4.00	51	0.75	1.50	1.50	2.20	3.00
PGV2-M10	4.00~6.30	6.30	78	1.10	2.20	3.00	3.70	4.00
PGV2-M14	6.00~10.00	9.00	138	2.20	4.00	4.00	5.50	7.50
PGV2-M16	9.00~14.00	13.00	170	3.00	5.50	7.50	7.50	9.00
PGV2-M20	13.00~18.00	17.00	223	4.00	7.50	9.00	9.00	11.00
PGV2-M21	17.00~23.00	21.00	327	5.50	11.00	11.00	11.00	15.00
PGV2-M22	20.00~25.00	23.00	327	5.50	11.00	11.00	15.00	18.50
PGV2-M32	24.00~32.00	24.00	416	7.50	15.00	15.00	18.50	26.00

Table 5

Model	Rated ultimate short-circuit breaking capacity I _{cu} (kA)					Rated service short-circuit breaking capacity I _{cs} (kA)					Fuse				
	220V	400V	440V	500V	690V	220V	400V	440V	500V	690V	220V	400V	440V	500V	690V
PGV2-M01	100	100	100	100	100	100	100	100	100	100	*	*	*	*	*
PGV2-M02	100	100	100	100	100	100	100	100	100	100	*	*	*	*	*
PGV2-M03	100	100	100	100	100	100	100	100	100	100	*	*	*	*	*
PGV2-M04	100	100	100	100	100	100	100	100	100	100	*	*	*	*	*
PGV2-M05	100	100	100	100	100	100	100	100	100	100	*	*	*	*	*
PGV2-M06	100	100	100	100	100	100	100	100	100	100	*	*	*	*	*
PGV2-M07	100	100	100	100	3	100	100	100	100	2.25	*	*	*	*	20
PGV2-M08	100	100	100	100	3	100	100	100	100	2.25	*	*	*	*	32
PGV2-M10	100	100	100	100	3	100	100	50	50	2.25	*	*	63	63	40
PGV2-M14	100	100	100	100	3	100	100	15	10	2.25	*	*	63	63	40
PGV2-M16	100	15	8	6	3	100	7.50	4	4.50	2.25	*	80	63	63	50
PGV2-M20	100	15	8	6	3	100	7.50	4	4.50	2.25	*	80	63	63	50
PGV2-M21	50	15	6	4	3	50	6	3	3	2.25	100	100	80	63	50
PGV2-M22	50	15	6	4	3	50	6	3	3	2.25	100	100	80	63	50
PGV2-M32	30	10	6	4	3	30	10	4.50	3	2.25	100	100	80	63	50

Remarks: * means fuse is not required.

The technical data of PGV3 please see below Table 6 and Table 7:

Table 6

Model	Range of setting current (A)	Rated current (A)	Electromagnetic tripping current (A)	Matched three phase motor				
				220V	400V	440V	500V	690V
PGV3-M06	1.00~1.60	1.6	19.2	--	0.37	0.55	0.75	1.10
PGV3-M07	1.60~2.50	2.5	30	0.37	0.75	1.10	1.10	1.50
PGV3-M08	2.50~4.00	4	48	0.75	1.50	1.50	2.20	3.00
PGV3-M10	4.00~6.00	6	72	1.10	2.20	3.00	3.70	4.00
PGV3-M14	6.00~10.00	10	120	2.20	4.00	4.00	5.50	7.50
PGV3-M20	10.00~16.00	16	192	4.00	7.50	7.50	10.00	11.00
PGV3-M25	16.00~25.00	25	300	5.50	11.00	11.00	15.00	18.50
PGV3-M40	25.00~40.00	40	480	11.00	22.00	22.00	25.00	33.00
PGV3-M63	40.00~63.00	63	756	15.00	33.00	33.00	40.00	55.00
PGV3-M80	56.00~80.00	80	960	22.00	45.00	45.00	55.00	63.00

Table 7

Model	Rated ultimate short-circuit breaking capacity Icu (kA)					Rated service short-circuit breaking capacity Ics (kA)					Fuse				
	220V	400V	440V	500V	690V	220V	400V	440V	500V	690V	220V	400V	440V	500V	690V
PGV3-M06	100	60	60	20	3	75	30	30	10	1.5	*	*	*	*	*
PGV3-M07	100	60	60	20	3	75	30	30	10	1.5	*	*	*	*	10
PGV3-M08	100	60	60	20	3	75	30	30	10	1.5	*	*	*	*	32
PGV3-M10	100	60	60	20	3	75	30	30	10	1.5	*	*	63	63	40
PGV3-M14	100	60	60	20	3	75	30	30	10	1.5	*	*	63	63	40
PGV3-M20	100	35	25	10	4	75	17.5	12.5	5	2	*	80	63	63	63
PGV3-M25	100	35	25	8	4	75	17.5	12.5	4	2	*	80	63	63	50
PGV3-M40	100	35	25	8	4	75	17.5	12.5	4	2	*	315	315	200	200
PGV3-M63	100	35	25	8	4	75	17.5	12.5	4	2	*	400	400	250	250
PGV3-M80	100	35	25	8	4	75	17.5	12.5	4	2	*	400	400	250	250

Remarks: * means fuse is not required.

Accessories

Auxiliary contact

Model	Rated insulation voltage Ui (V)	Conventional thermal current Ith (A)	Configuration
PGV2-AE11	250	2.50	1 NO + 1 NC
PGV2-AE20	250	2.50	2 NO
PGV2-AN11	690	6.0	1 NO + 1 NC
PGV2-AN20	690	6.0	2 NO
PGV3-A01	690	6.0	1 NO + 1 NC
PGV3-A02	690	6.0	2 NO

Under-voltage release

Model	Rated insulation voltage Ui (V)	Voltage range of operation	Specification
PGV2-AU115	690	0.35-0.7Ue	110-115V/50Hz
PGV2-AU115	690	0.35-0.7Ue	127V/60Hz
PGV2-AU225	690	0.35-0.7Ue	220-240V/50Hz
PGV2-AU225	690	0.35-0.7Ue	380-440V/50Hz
PGV2-AU385	690	0.35-0.7Ue	440V/60Hz

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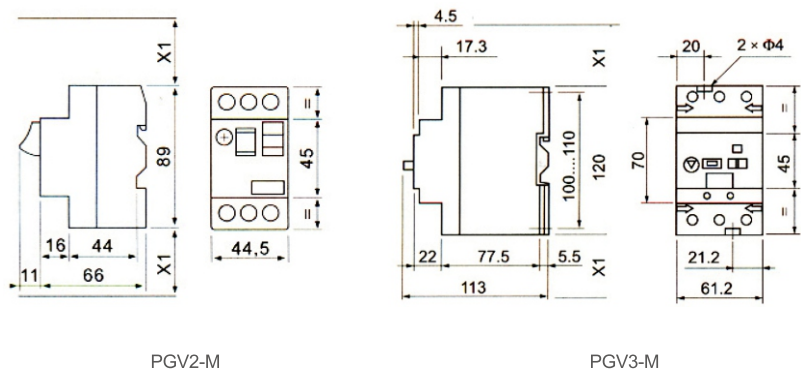
Shunt release

Model	Rated insulation voltage U_i (V)	Voltage range of operation	Specification
PGV2-AS115	690	0.70-1.1U _e	110-115V/50Hz
PGV2-AS115	690	0.70-1.1U _e	127V/60Hz
PGV2-AS225	690	0.70-1.1U _e	220-240V/50Hz
PGV2-AS225	690	0.70-1.1U _e	380-440V/50Hz
PGV2-AS385	690	0.70-1.1U _e	440V/60Hz

Fault signal contact and instantaneous auxiliary contact

Model	Rated insulation voltage U_i (V)	Conventional thermal current I_{th} (A)		Configuration
		Auxiliary contact	Fault signal contact	
PGV2-AD0110	690	6.0	2.5	1 NC + 1 NO
PGV2-AD0101	690	6.0	2.5	1 NC + 1 NC
PGV2-AD1010	690	6.0	2.5	1 NO + 1 NO
PGV2-AD1001	690	6.0	2.5	1 NO + 1 NC

Dimensions



Drawing for enclosure

