

THERMOMAGNETIC CIRCUIT BREAKER GV2/GV3



Denor thermal-magnetic motor circuit-breakers type GV2-M series are designed for control and protection of induction motors from overload, overheat or short circuit. The overload motor protection is carried out by the built in the breaker thermal elements, and the short circuit protection is carried out by the magnetic elements. These magnetic elements allow the adjustment of the current leakage which is 13 times the maximum current of the thermal protection. The overload protection elements include automatic compensation for the ambient temperature changes. In combination with under voltage release the thermal-magnetic breaker GV2-M also provides protection of the motors from fall out of a phase from the power supply. The choice of a suitable protection prevents motor's operation at unusual temperature conditions and guarantees maximum constant operation.

TECHNICAL DATA:

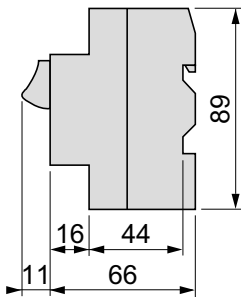
- rated operating voltage: up to 690V AC
- rated operating current range: from 0.1 to 80A according to the type in table 1
- insulation voltage: 690V
- surge voltage wear resistance: $\geq 6000V$
- joining terminal: screw terminal
- electrical wear resistance (number of cycles): ≥ 1000000
- mechanical wear resistance (number of cycles): ≥ 10000000
- Indication for protection activating
- Possibility for range adjustment of the protection activating
- possibility for operation at higher frequency
- possibility for independent operation or as an element of an automation system
- tripping category: class 10A

FUNCTIONS:

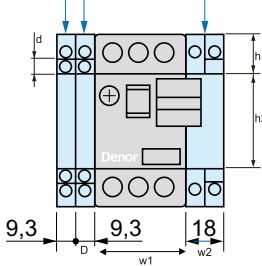
- protects the motor at lack/lowering of the phase voltage (if there is under voltage release)
- used as a protective operating element in control panels of induction motors
- remarkable with high reliability of current characteristics
- possibility for change/choice of the protection current (according to the operating current of the motor)
- automatic compensation of the ambient temperature

MOUNTING:

- mounting to DIN-rail
- mounting : vertical gradient – maximum $\pm 5^\circ$
- plastic: wear resistance of UV rays and nonflammable (self-extinguishing material)
- ambient temperature: $-10^\circ C + 65^\circ C$
- altitude: up to 2000m



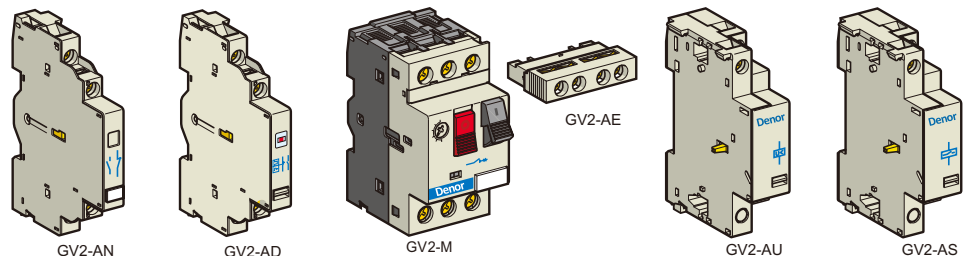
GV2-AD, AM, AN, AU, AS, AX
Block GV2-AD, AM, AN
Block GV2-AU, AS, AX



Dimensions (mm)

H	I1	I2	d	D
89	16	50	10	9,2
w1	w2	h1	h2	
44,5	18	22	45	

Denor code	Rated capacity of three-phase motor in AC-3 category					Instantaneous short-circuit release(A)	Current setting range (A)	Thermal current Ith GV2 protective enclosure(A)
	220V 230V	400V 410V	440V	500V	690V			
GV2-M01	-	-	-	-	-	1.5	0.1 - 0.16	0.16
GV2-M02	-	0.06	0.06	-	-	2.4	0.16 - 0.25	0.25
GV2-M03	0.06	0.09	0.09	-	-	5.0	0.25 - 0.40	0.40
GV2-M04	-	0.12	0.18	-	0.37	8.0	0.40 - 0.63	0.63
GV2-M05	0.09	0.25	0.25	0.37	0.55	13.0	0.63 - 1.00	1
GV2-M06	0.18	0.37	0.37	0.37	0.75	22.5	1 - 1.60	1.6
GV2-M07	0.37	0.75	0.75	1.10	1.50	33.5	1.6 - 2.50	2.5
GV2-M08	0.55	1.10	1.50	1.50	2.20	51.0	2.5 - 4.00	4
GV2-M10	1.10	2.20	2.20	3.00	4.00	78.0	4 - 6.30	6.3
GV2-M14	1.50	3.00	4.00	4.00	5.50	138	6 - 10.0	9
GV2-M16	2.20	5.50	5.50	7.50	9.00	170	9 - 14.0	13
GV2-M20	4.00	7.50	7.50	9.00	15.0	223	13 - 18.0	17
GV2-M21	5.50	9.00	11.0	11.0	18.5	327	17 - 23.0	21
GV2-M22	5.50	11.0	11.0	15.0	22.0	327	20 - 25.0	23
GV2-M32	7.50	15.0	15.0	18.5	22.0	416	24 - 32.0	24
GV3-M40	11.0	18.5	22.0	25.0	33.0	480	25 - 40.0	32
GV3-M63	15.0	30.0	33.0	40.0	55.0	550	40 - 63.0	50
GV3-M80	22.0	40.0	45.0	55.0	63.0	665	56 - 80.0	64



THERMOMAGNETIC AUTOMATIC BREAKER GV2/GV3



GV2-AE

Contact blocks for GV2

Description	Mounting	Contact types	Denor code	Weight kg
Instantaneous auxiliary contacts	Front (1) (1 block per breaker)	N/O or N/C (2)	GV2-AE1	0.015
		N/O + N/C	GV2-AE11	0.020
		N/O + N/O	GV2-AE20	0.020
	Side (up to 2 blocks on LH side of breaker)	N/O + N/C	GV2-AN11	0.050
		N/O + N/O	GV2-AN20	0.050
Fault signalling contact + instantaneous auxiliary contact	Side (3) (1 block on LH side of breaker)	Fault Instantaneous N/O + N/O	GV2-AD1010	0.055
		N/O + N/C	GV2-AD1001	0.055
		N/C + N/O	GV2-AD0110	0.055
		N/C + N/C	GV2-AD0101	0.055



GV2-AN



GV2-AD

Electric trips for GV2

Mounting	Type	Voltage	Denor code	Weight kg
Side (1 block on RH side of breaker)	Undervoltage trip	110...115 V 50 Hz	GV2-AU115	0.105
		60 Hz	GV2-AU116	0.105
		220...240 V 50 Hz	GV2-AU225	0.105
		60 Hz	GV2-AU226	0.105
		380...400 V 50 Hz	GV2-AU385	0.105
		60 Hz	GV2-AU386	0.105
		415...440 V 50 Hz	GV2-AU415	0.105
		440 V 60 Hz	GV2-AU385	0.105
		500 V 50 Hz	GV2-AU505	0.105
		600 V 60 Hz	GV2-AU505	0.105
	Shunt trip	110...115 V 50 Hz	GV2-AS115	0.105
		60 Hz	GV2-AS116	0.105
		220...240 V 50 Hz	GV2-AS225	0.105
		60 Hz	GV2-AS226	0.105
		380...400 V 50 Hz	GV2-AS385	0.105
		60 Hz	GV2-AS386	0.105
		415...440 V 50 Hz	GV2-AS415	0.105
		440 V 60 Hz	GV2-AS385	0.105
		500 V 50 Hz	GV2-AS505	0.105
		600 V 60 Hz	GV2-AS606	0.105



GV2-AU



GV2-AS

Waterproof Box GV2-MC for GV2

Specially designed plastic box with silicon screen for increasing the IP code from dust and moisture to IP 55.
Designed for thermal-magnetic circuit breakers of up to 32A

MOUNTING:

- mounting position: vertical gradient – maximum ± 5°
 - mounted to horizontal surfaces (walls) with bolts
- Plastic: wear resistance of UV rays and non-flammable (self-extinguishing material)



IP degree	Denor code
IP 41	GV2-MC01
IP 55	GV2-MC02

