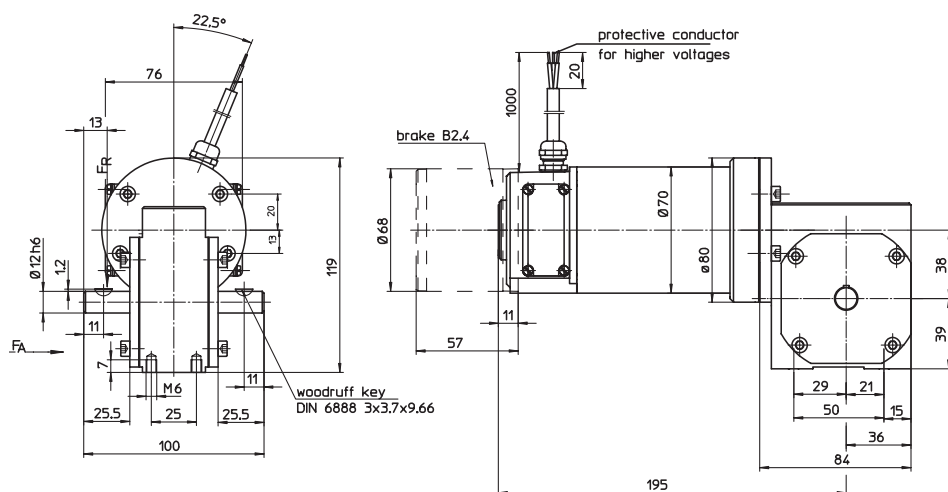


GNM 4150 - G 3.1

DC
Geared Motors
with permanent magnet field

Motor series GNM 4150
with + without parking brake
Worm gear series G 3.1
up to 13 Nm



type		GNM 4150 - G 3.1
series		A
operation acc. to standards VDE 0530		S1
isolation acc. to standards VDE 0530		F
protection acc. to standards VDE 0530		IP 54
kind of connection		cable
rotating direction		reversible
bearing (motor)		ball bearing
bearing (gear box)		ball bearing
gear box		not self-locking, low-noise
parking brake B 2:		
nominal voltage	V	24
nominal current	A	0,35
static break torque (motor shaft)	Nm	0,8
max. number of operations/h		2000

● Motors also available with DC-tachometer and/ or incremental encoder

Motor design:

Worm pinned in the motor shaft. Brush holder opening will be accessible by removing the cover plate.

Foot mounting with 4 threads, see drawing.

Rotating direction:

The rotating direction can be changed by inverting the connections.

1. Order example

Motor - gear box
GNM 4150A - G 3.1
42 V, 3000 rpm - 9,33:1

2. Order example

Motor - parking brake - gear box
GNM 4150A - B 2 - G 3.1
24 V, 1600 rpm - 24 V - 5,6:1

Special designs on request.

GNM 4150A - G 3.1

1 nominal voltage ¹⁾	2 nominal speed	3 nominal torque	4 starting torque	5 nominal torque at undulatory current	6 nominal power	7 nominal current	8 nominal current at undulatory current	9 peak current	10 power gear box input	11 nominal speed gear box input	12 ratio gear box	13 efficiency gear box	load limitations gear box			17 total weight motor + gear box	18 total weight motor + gear box + parking brake	19 F _r (allow. radial shaft load) ³⁾	20 F _a (allow. axial shaft load)
													14 max. power	15 max. cont. torque	16 max. starting torque				
V	rpm	Nm	Nm	Nm	W	A	A	A	W	rpm	i	%	W	Nm	Nm	kg	kg	N	N
24 42 180	536	1,5	8,0	1,0	87	5,5 3,1 0,71	3,9 2,2 0,50	42 24 5,4	100	3000	5,6 :1	87	100	1,8	13	3,1	3,5	200	80
24 42 180	322	2,5	13 ²⁾	1,6	85	5,5 3,1 0,71	3,9 2,2 0,50	42 ²⁾ 24 ²⁾ 5,3 ²⁾	100	3000	9,33:1	85	94	2,8	13	3,1	3,5	200	80
24 42	286	1,6	6,0	1,1	49	3,2 0,45	2,2 0,32	18 2,7	58	1600	5,6 :1	85	81	2,7	13	3,1	3,5	200	80
24 42 180	207	3,8	13 ²⁾	2,4	82	5,5 3,1 0,71	3,9 2,2 0,50	28 ²⁾ 16 ²⁾ 3,5 ²⁾	100	3000	14,5 :1	82	82	3,8	13	3,1	3,5	200	80
24 42 180	176	4,2	13 ²⁾	2,7	78	5,5 3,1 0,71	3,9 2,2 0,50	24 ²⁾ 13 ²⁾ 3,0 ²⁾	100	3000	17 :1	78	78	4,2	13	3,1	3,5	200	80
24 42 180	100	5,7 ²⁾	13 ²⁾	4,6	60	4,5 ²⁾ 2,6 ²⁾ 0,57 ²⁾	3,9 2,2 0,50	14 ²⁾ 7,8 ²⁾ 1,7 ²⁾	80	3000	30 :1	75	60	5,7	13	3,1	3,5	200	80
24 42 180	86	6,2 ²⁾	13 ²⁾	5,4	56	4,3 ²⁾ 2,4 ²⁾ 0,54 ²⁾	3,9 2,2 0,50	12 6,8 ²⁾ 1,5 ²⁾	75	3000	35 :1	75	56	6,2	13	3,1	3,5	200	80
24 42	53	7,5	13 ²⁾	4,9	42	3,2 0,45	2,2 0,32	7,7 ²⁾ 1,0 ²⁾	58	1600	30 :1	72	45	8,0	13	3,1	3,5	200	80
24 42	46	8,0 ²⁾	13 ²⁾	5,5	38	3,1 ²⁾ 0,42 ²⁾	2,2 0,32	6,6 ²⁾ 0,90 ²⁾	55	1600	35 :1	69	38	8,0	13	3,1	3,5	200	80

Tolerances ± 10 %

Columns 3 and 13

Values are valid at operating temperature after run-in period.

Columns 5 and 8

Current values should not exceeded during operation with undulatory current (single way rectification) with harmonic portion above 5%.

Columns 3, 4, 7 and 9

Values correspond with the gearbox load limitations. For high gear ratios the allowed currents may be lower than the motors rated/starting current. If so, please the current has to be limited, e.g. through adjusting the servo controller.

Columns 14, 15 and 16

To avoid gear box overload do not exceed the mentioned values. For oscillating operation the mentioned limitations must be multiplied by 0,75.

¹⁾ 180V - special voltage

²⁾ motor current must be limited to avoid excess of the mentioned value

³⁾ middle of the shaft-extension