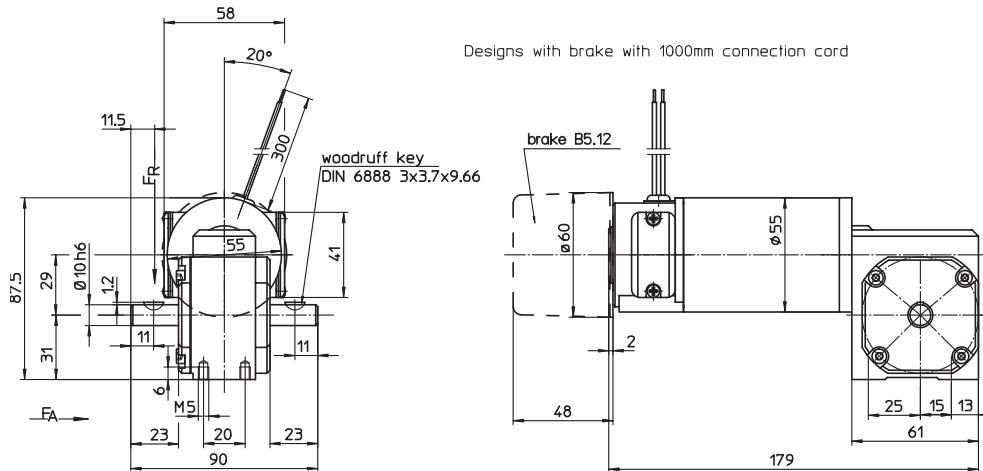


## GNM 3150 - G 2.6

### DC Geared Motors with permanent magnet field

Motor series GNM 3150  
with + without parking brake  
Worm gear series G 2.6  
**up to 8 Nm**



type series	GNM 3150 - G 2.6
operation acc. to standards VDE 0530	-
isolation acc. to standards VDE 0530	S1
protection acc. to standards VDE 0530	F
kind of connection	IP 41
rotating direction	free leads
bearing (motor)	reversible
bearing (gear box)	ball bearing
gear box	ball bearing
<b>parking brake B 5.12</b>	not self-locking, low noise
nominal voltage	V
nominal current	A
static brake torque (motor shaft)	Nm
max. number of operations/h	24 0,3 0,5 2000

- Motors also available with DC-tachometer and/ or incremental encoder
- Motors also available in protection IP 54 and/ or with device plug DIN 43650
- Design with brake in protection IP 54 and with cable connection

#### Motor design:

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

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 3150	- G 2.6
24 V, 4000 rpm	- 4,8:1

2. Order example

Motor	- gear box	- DC-tachometer
GNM 3150	- G 2.8 *)	- T 9.05
42 V, 3000 rpm	- 9,33:1	- 5 V / 1000 rpm

Special designs on request.

- \*) For motor combinations with DC-tachometer the description of the gear box will be changed; thereby the motor- and gear box ratings will be left unchanged.

From GNM 3150 - G 2.6 to GNM 3150 - G 2.8.

edition 01.11

**ENGEL ElektroMotoren GmbH · Am Klingenweg 7 · D-65396 Walluf**

Telefon: +49(0)6123994400 · Telefax: +49(0)6123994410 · E-Mail: kontakt@engel-elektromotoren.de · www.engel-elektromotoren.de

# GNM 3150 - G2.6

load limitations gear box																			
1 nominal voltage	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	14 max. power	15 max. cont. torque	16 max. starting torque	17 total weight motor + gear box	18 total weight motor + gear box + parking brake	19 F <sub>x</sub> (allow. radial shaft load)	20 F <sub>y</sub> (allow. axial shaft load) <sup>1)</sup>
V	rpm	Nm	Nm	Nm	W	A	A	A	rpm	i	%	W	Nm	Nm	kg	kg	N	N	
24	833	0,66	2,9	0,43	57	3,9	2,7	24	70	4000	4,8 :1	82	61	0,70	7,0	1,6	2,0	150	60
24	625	0,69	2,5	0,45	45	3,1	2,2	17	55	3000	4,8 :1	82	46	0,70	7,0	1,6	2,0	150	60
42						1,8	1,3	11											
24	429	1,2	5,6	0,82	56	3,9	2,7	24	70	4000	9,33:1	80	58	1,3	7,0	1,6	2,0	150	60
24	333	1,6	7,0 <sup>2)</sup>	1,0	56	3,9	2,7	24 <sup>2)</sup>	70	4000	12 :1	80	56	1,6	7,0	1,6	2,0	150	60
24	322	1,3	4,9	0,83	43	3,1	2,2	17	55	3000	9,33:1	78	44	1,3	7,0	1,6	2,0	150	60
42						1,8	1,3	11											
24	276	1,9	7,0 <sup>2)</sup>	1,3	56	3,9	2,7	20 <sup>2)</sup>	70	4000	14,5 :1	80	56	1,95	7,0	1,6	2,0	150	60
24	250	1,6	6,3	1,1	43	3,1	2,2	17	55	3000	12 :1	78	43	1,65	8,0	1,6	2,0	150	60
42						1,8	1,3	11											
24	207	2,0	7,0 <sup>2)</sup>	1,3	43	3,1	2,2	16 <sup>2)</sup>	55	3000	14,5 :1	78	43	2,0	7,0	1,6	2,0	150	60
42						1,8	1,3	9,1 <sup>2)</sup>											
24	200	2,3	8,0 <sup>2)</sup>	1,5	49	3,9	2,7	16 <sup>2)</sup>	70	4000	20 :1	70	50	2,4	8,0	1,6	2,0	150	60
24	160	2,7 <sup>2)</sup>	8,0 <sup>2)</sup>	1,8	45	3,8 <sup>2)</sup>	2,7	13 <sup>2)</sup>	69	4000	25 :1	66	45	2,7	8,0	1,6	2,0	150	60
24	150	2,3	8,0 <sup>2)</sup>	1,5	37	3,1	2,2	13 <sup>2)</sup>	55	3000	20 :1	67	36	2,3	8,0	1,6	2,0	150	60
42						1,8	1,3	7,6 <sup>2)</sup>											
24	133	3,0 <sup>2)</sup>	7,0 <sup>2)</sup>	2,2	42	3,5 <sup>2)</sup>	2,7	9,9 <sup>2)</sup>	63	4000	30 :1	67	42	3,0	7,0	1,6	2,0	150	60
24	120	2,6 <sup>2)</sup>	8,0 <sup>2)</sup>	1,9	33	2,9 <sup>2)</sup>	2,2	11 <sup>2)</sup>	50	3000	25 :1	66	33	2,6	8,0	1,6	2,0	150	60
42						1,7 <sup>2)</sup>	1,3	6,1 <sup>2)</sup>											
24	111	2,5 <sup>2)</sup>	5,0 <sup>2)</sup>	2,5	29	2,7 <sup>2)</sup>	2,7	6,2 <sup>2)</sup>	46	4000	36 :1	63	29	2,5	5,0	1,6	2,0	150	60
24	100	3,2 <sup>2)</sup>	7,0 <sup>2)</sup>	2,3	34	2,9 <sup>2)</sup>	2,2	7,8 <sup>2)</sup>	51	3000	30 :1	66	34	3,2	7,0	1,6	2,0	150	60
42						1,7 <sup>2)</sup>	1,3	4,5 <sup>2)</sup>											
24	83	2,4 <sup>2)</sup>	5,0 <sup>2)</sup>	2,4	21	2,1 <sup>2)</sup>	2,1	4,8 <sup>2)</sup>	34	3000	36 :1	62	21	2,4	5,0	1,6	2,0	150	60
42						1,2 <sup>2)</sup>	1,2	2,8 <sup>2)</sup>											

Tolerances ± 10 %

Columns 3 and 13

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

Columns 5 and 8

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

Columns 4 and 9

Figures correspond with the gearbox load limitations. For high gear ratios the allowed currents may be lower than the motors rated 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.

<sup>1)</sup> middle of the shaft-extension

<sup>2)</sup> motor current must be limited to avoid excess of the mentioned value