

# Brushless DC-Gearmotors

## 4 Pole Technology

100 mNm

### Series 2622 ... B

Values at 22°C and nominal voltage		2622 S	006 B	012 B	
1	Nominal voltage	$U_N$	6	12	V
2	Terminal resistance, phase-phase	$R$	6,97	28,2	$\Omega$
3	Efficiency, max.	$\eta_{max}$	79	79	%
4	No-load speed	$n_o$	6 400	6 400	min <sup>-1</sup>
5	No-load current, typ.	$I_o$	0,01	0,005	A
6	Stall torque	$M_H$	7,543	7,453	mNm
7	Friction torque, static	$C_o$	0,035	0,035	mNm
8	Friction torque, dynamic	$C_v$	$8,85 \cdot 10^{-6}$	$8,85 \cdot 10^{-6}$	mNm/min <sup>-1</sup>
9	Speed constant	$k_n$	1 085	543	min <sup>-1</sup> /V
10	Back-EMF constant	$k_E$	0,922	1,842	mV/min <sup>-1</sup>
11	Torque constant	$k_M$	8,8	17,6	mNm/A
12	Current constant	$k_I$	0,114	0,057	A/mNm
13	Slope of n-M curve	$\Delta n / \Delta M$	859	870	min <sup>-1</sup> /mNm
14	Terminal inductance, phase-phase	$L$	486	1 945	$\mu H$
15	Mechanical time constant	$\tau_m$	71	72	ms
16	Rotor inertia	$J$	7,9	7,9	gcm <sup>2</sup>
17	Angular acceleration	$\alpha_{max}$	9	9	$\cdot 10^3$ rad/s <sup>2</sup>
18	Thermal resistance	$R_{th1} / R_{th2}$	33 / 27		K/W
19	Thermal time constant	$\tau_{w1} / \tau_{w2}$	23,6 / 222		s

### Integrated Gearhead

Housing material		plastic	
Geartrain material		metal	
Backlash, at no-load	≤	4	°
Bearings on output shaft		ball bearing	
Shaft load max.:			
– radial (5 mm from mounting face)	≤	15	N
– axial	≤	5	N
Shaft press fit force, max.	≤	10	N
Shaft play:			
– radial (5 mm from mounting face)	≤	0,03	mm
– axial	≤	0,25	mm
Operating temperature range		– 25 ... + 80 °C	

### Specifications

reduction ratio (rounded)	output speed up to $n_{max}$ min <sup>-1</sup>	weight with motor g	output torque		direction of rotation (reversible)	efficiency %
			continuous operation $M_{max}$ mNm	intermittent operation $M_{max}$ mNm		
8 : 1	635	25	9	30	=	81
22 : 1	223	26	23	75	≠	73
33 : 1	151	26	30	100	=	60
112 : 1	44	27	93	180	≠	59
207 : 1	24	27	100	180	=	53
361 : 1	14	27	100	180	=	53
814 : 1	6	28	100	180	=	43
1 257 : 1	4	29	100	180	=	43

Note: output speed at 5000 min<sup>-1</sup> input speed. Based on motor 2610 ... B.

