

DC-Gearmotors

30 mNm

Precious Metal Commutation

Series 1512 ... SR

	1512 U	003 SR	006 SR	012 SR	
Nominal voltage	U _N	3	6	12	Volt
Terminal resistance	R	13,6	60,5	156	Ω
Output power	P _{2 max.}	0,15	0,15	0,22	W
No-load speed (motor)	n ₀	11 100	11 980	12 800	rpm
Speed constant	k _n	3 884	2 053	1 107	rpm/V
Back-EMF constant	k _E	0,257	0,487	0,903	mV/rpm
Torque constant	k _M	2,46	4,65	8,63	mNm/A
Current constant	k _I	0,407	0,215	0,116	A/mNm
Slope of n-M curve	Δn/ΔM	21 330	24 135	19 947	rpm/mNm
Rotor inductance	L	275	1 157	3 550	μH
Rotor inertia	J	0,08	0,08	0,08	gcm ²

Housing material		plastic		
Geartrain material		metal		
Backlash, at no-load	≤	4		°
Bearings on output shaft		plastic / brass bearing		
Shaft load max.:				
– radial (5 mm from mounting face)	≤	1,4		N
– axial	≤	1		N
Shaft press fit force, max.	≤	15		N
Shaft play:				
– radial (5 mm from mounting face)	≤	0,08		mm
– axial	≤	0,25		mm
Operating temperature range		– 25 ... + 80		°C

Specifications

reduction ratio (rounded)	output speed up to n _{max} rpm	weight with motor g	output torque		direction of rotation (reversible)	efficiency %
			continuous operation M _{max} mNm	intermittent operation M _{max} mNm		
6 : 1	779	6,9	1,4	3	=	81
13 : 1	372	7,0	2,8	5	≠	73
39 : 1	129	7,2	7,0	10	=	60
112 : 1	45	7,4	19,8	30	≠	59
324 : 1	15	7,7	30,0	50	=	53

Note: output speed at 5000 rpm input speed. Based on motor 1506 ... SR.

