

DC-Gearmotors

100 mNm

Precious Metal Commutation

Series 2619 ... SR

Values at 22°C and nominal voltage		2619 S	006 SR	012 SR	024 SR	
Nominal voltage	U_N		6	12	24	Volt
Terminal resistance	R		8,2	36,5	128	Ω
No-load speed (motor)	n_o		6 600	5 900	6 200	min^{-1}
Speed constant	k_n		1 111	500	261	min^{-1}/V
Back-EMF constant	k_E		0,9	2	3,83	$\text{mV}/\text{min}^{-1}$
Torque constant	k_M		8,59	19,09	36,54	mNm/A
Current constant	k_I		0,116	0,052	0,027	A/mNm
Slope of n-M curve	$\Delta n/\Delta M$		1 055	957	917	$\text{min}^{-1}/\text{mNm}$
Rotor inductance	L		465	2 200	8 400	μH
Rotor inertia	J		0,68	0,68	0,68	gcm^2

Housing material		plastic		
Geartrain material		metal		
Backlash, at no-load	\leq	4		$^\circ$
Bearings on output shaft		brass / ceramic bearings	ball bearings, preloaded	
Shaft load max.:		(standard)	(optional)	
- radial (5 mm from mounting face)	\leq	3,5	10,5	N
- axial	\leq	2	5	N
Shaft press fit force, max.	\leq	10	10	N
Shaft play:				
- radial (5 mm from mounting face)	\leq	0,07	0,03	mm
- axial	\leq	0,25	0	mm
Operating temperature range		- 25 ... + 80		$^\circ\text{C}$

Specifications

reduction ratio (rounded)	output speed up to n_{max} min^{-1}	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	\neq	73
33 : 1	151	26	30	100	=	66
112 : 1	44	27	93	180	\neq	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^{-1} input speed. Based on motor 2607 ... SR.

