

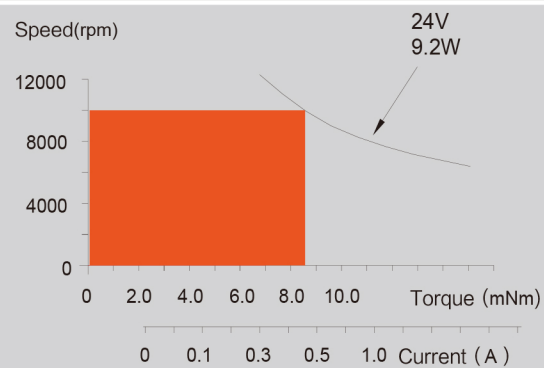
Motor Data

Motor model			DR233209B	DR233212B	DR233224B
1 Nominal voltage	V	V	9	12	24
2 No load speed	rpm	Wnl	12500	11000	12150
3 No load current	mA	Inl	35	25	15
4 Nominal speed	rpm	Wc	9200	9450	10000
5 Nominal torque	mNm	Tc	11.7	9	8.7
6 Nominal current	A	Ic	1.72	0.89	0.48
7 Output power	W	Pc	11.3	8.9	9.2
8 Stall torque	mNm	Tmax	42.8	36.4	33
9 Stall current	A	I <sub>max</sub>	6.3	3.6	2
10 Max. efficiency	%	η <sub>max</sub>	85	80	80
11 Terminal resistance	Ω	R <sub>t</sub>	1.42	3.3	12
12 Torque constant	mNm / A	K <sub>t</sub>	6.8	10.3	18.7
13 Speed constant	rpm / V	K <sub>n</sub>	1388	920	506
14 Speed torque gradient	rpm / mNm	Δn / ΔT	282	172	247
15 Terminal inductance	mH	L	0.07	0.18	0.87
16 Rotor inertia	gcm <sup>2</sup>	J	4.7	4.7	4.8

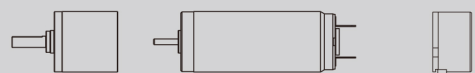
Specifications

1 ambient temperature	T <sub>a</sub>	-20~+65 °C
2 max. winding temperature	T <sub>coilmax</sub>	+125 °C
3 max. speed	N <sub>max</sub>	13750 rpm
4 axial play	Δt	0.05-0.15 mm
5 number of pole pairs	2p	1
6 number of commutator segments		5
7 weight of motor	W <sub>t</sub>	56 g
8 Max. axial load (dynamic)		3N
9 Max. force for press fits (static)		45N
10 Max. radial load, 4 mm from flange		12N

Operating Range



SMJ Modular System



Planetary Gearhead  
 Model number P22H  
 Outside Diameter φ22  
 Torque 0.021~1.2N·m  
 See page 49

Encoder  
 1000 CPT  
 3 Channels  
 see page 46