

R 35 Ø35 graphite brush 70W 石墨电刷 70W

				Order number 订货号				
				100270	100271	100272	100273	100274
Motor parameters								
1	Nominal voltage 额定电压	U_N	V	15	24	48	48	48
2	Terminal resistance 电阻	R	Ω	0.314	0.583	3.05	4.69	11.4
3	Output power 输出功率	P_{2max}	W	55	79	71	57	35
4	Efficiency 最大效率	η_{max}	%	85	87	86	85	83
5	No-load speed 空载转速	n_0	rpm	7180	7740	7300	5980	3820
6	No-load current 空载电流	I_0	A	0.287	0.189	0.078	0.06	0.035
7	Stall torque 堵转转矩	M_H	mNm	929	1200	980	776	498
8	Friction torque 摩擦转矩	M_F	mNm	1.5	1.5	1.5	1.5	1.5
9	Speed constant 速度常数	k_n	rpm/V	482	324	153	125	80
10	Back-EMF constant 反电动势常数	k_E	mV/rpm	2.08	3.09	6.54	7.98	12.46
11	Torque constant 转矩常数	k_M	mNm/A	19.83	29.47	62.48	76.20	118.99
12	Current constant 电流常数	k_i	A/mNm	0.050	0.034	0.016	0.013	0.008
13	Slope of n-M curve 转速-转矩曲线斜率	$\Delta n/\Delta M$	rpm/mNm	7.63	6.41	7.46	7.71	7.69
14	Mechanical time constant 机械时间常数	τ_m	ms	5.65	5.44	5.34	5.35	5.36
15	Rotor inertia 转子惯量	J	gcm ²	68.1	79.2	67.9	65.6	65.9
16	Angular acceleration 最大角加速度	α_{max}	10 ³ rad/s ²	136	151	144	118	75
17	Thermal resistance 热阻	R_{th1} / R_{th2}	K/W	2 / 6.2				
18	Thermal time constant 热时间常数	τ_{w1} / τ_{w2}	s	30.2 / 644				
19	Operating temperature range 工作温度范围		°C	-30 ... +85				
20	Shaft bearings 轴承			Sleeve bearing				
21	Shaft load max 轴载荷							
	- radial at 3,000rpm (5mm from bearing)		N	28				
	- axial at 3,000rpm (axial push-on only)		N	5.6				
	- axial at standstill (axial push-on only)		N	100				
22	Shaft play 轴间隙							
	- radial 径向	<=	mm	0.025				
	- axial 轴向	<=	mm	0.15				
23	Magnet material 永磁材料			Sintered Nd-Fe-B				
24	Housing material 外壳材料			Steel, black coated				
25	Pole pairs 极对数		p	1				
26	Weight 重量		g	340				
27	Direction of rotation 旋转方向			Clockwise, viewed from the front face				
Operating Data for η_{max} of Customer's Specifications								
28	Output power 输出功率	P_{2opt}	W	50	74	68	55	33
29	Efficiency 效率	η_{opt}	%	82	84	84	81	74
30	Speed 转速	n_{opt}	rpm	6500	7000	6530	5180	2990
31	Load current 电流	I_{opt}	A	4.05	3.67	1.69	1.41	0.94
32	Operating torque 转矩	M_{opt}	mNm	73.1	101.0	99.4	101.0	106.0

Recommended areas for continuous operation

