

R 30 Ø30 graphite brush 60W 石墨电刷 60W

				Order number 订货号				
				100265	100266	100267	100268	100269
Motor parameters								
1	Nominal voltage 额定电压	U_N	V	12	18	24	36	48
2	Terminal resistance 电阻	R	Ω	0.196	0.358	0.611	1.43	2.45
3	Output power 输出功率	P_{2max}	W	45	66	76	75	76
4	Efficiency 最大效率	η_{max}	%	86	87	87	87	88
5	No-load speed 空载转速	n_0	rpm	8170	8590	8810	8590	8490
6	No-load current 空载电流	I_0	A	0.305	0.213	0.165	0.106	0.079
7	Stall torque 堵转转矩	M_H	mNm	852	1000	1020	1000	1050
8	Friction torque 摩擦转矩	M_F	mNm	1.2	1.2	1.2	1.2	1.2
9	Speed constant 速度常数	k_n	rpm/V	684	479	369	240	178
10	Back-EMF constant 反电动势常数	k_E	mV/rpm	1.46	2.09	2.71	4.17	5.63
11	Torque constant 转矩常数	k_M	mNm/A	13.96	19.93	25.90	39.85	53.77
12	Current constant 电流常数	k_i	A/mNm	0.072	0.050	0.039	0.025	0.019
13	Slope of n-M curve 转速-转矩曲线斜率	$\Delta n/\Delta M$	rpm/mNm	9.61	8.61	8.69	8.60	8.09
14	Mechanical time constant 机械时间常数	τ_m	ms	3.4	3.24	3.05	2.98	2.94
15	Rotor inertia 转子惯量	J	gcm ²	33.7	35.9	33.5	33.1	34.7
16	Angular acceleration 最大角加速度	α_{max}	10 ³ rad/s ²	252	278	304	302	302
17	Thermal resistance 热阻	R_{th1} / R_{th2}	K/W	1.7 / 6				
18	Thermal time constant 热时间常数	τ_{w1} / τ_{w2}	s	16.9 / 593				
19	Operating temperature range 工作温度范围		°C	-30 ... +85				
20	Shaft bearings 轴承			Preloaded ball 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	260				
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	41	63	72	71	73
29	Efficiency 效率	η_{opt}	%	84	86	86	86	86
30	Speed 转速	n_{opt}	rpm	7630	7910	8050	7840	7760
31	Load current 电流	I_{opt}	A	4.09	4.06	3.52	2.31	1.77
32	Operating torque 转矩	M_{opt}	mNm	51.6	75.5	85.6	86.6	89.7

Recommended areas for continuous operation

