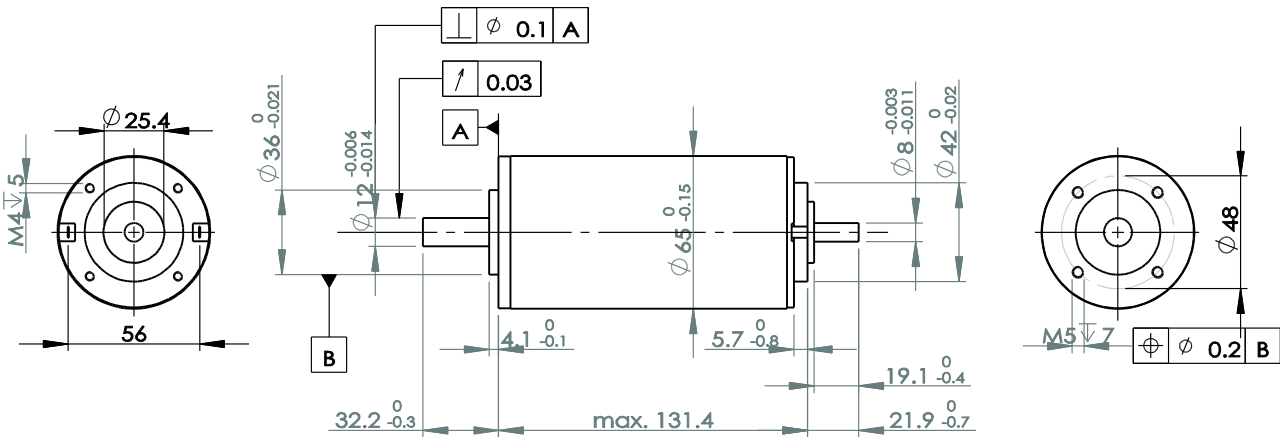
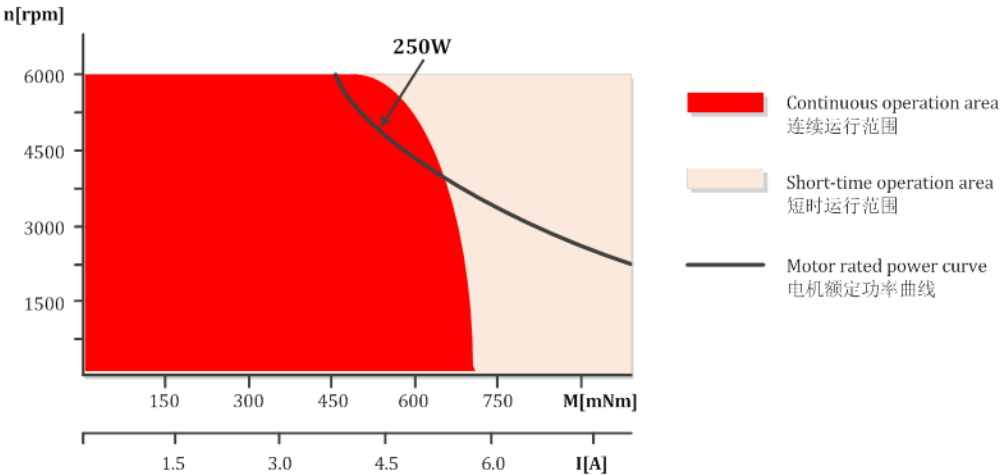


## R 65 Ø65 graphite brush 250W 石墨电刷 250W

				Order number 订货号				
				100292	100293	100294	100295	100296
<b>Motor parameters</b>								
1	Nominal voltage 额定电压	$U_N$	V	18	24	36	48	60
2	Terminal resistance 电阻	R	$\Omega$	0.061	0.0821	0.174	0.365	0.568
3	Output power 输出功率	$P_{2max}$	W	166	211	259	270	283
4	Efficiency 最大效率	$\eta_{max}$	%	90	91	91	91	91
5	No-load speed 空载转速	$n_0$	rpm	3420	3960	3850	3560	3570
6	No-load current 空载电流	$I_0$	A	0.721	0.665	0.417	0.276	0.221
7	Stall torque 堵转转矩	$M_H$	mNm	14000	16200	18000	16600	16700
8	Friction torque 摩擦转矩	$M_F$	mNm	23	20	18	12	11
9	Speed constant 速度常数	$k_n$	rpm/V	190	165	107	74	60
10	Back-EMF constant 反电动势常数	$k_E$	mV/rpm	5.25	6.05	9.33	13.45	16.77
11	Torque constant 转矩常数	$k_M$	mNm/A	50.14	57.74	89.11	128.48	160.16
12	Current constant 电流常数	$k_i$	A/mNm	0.020	0.017	0.011	0.008	0.006
13	Slope of n-M curve 转速-转矩曲线斜率	$\Delta n/\Delta M$	rpm/mNm	0.23	0.24	0.21	0.21	0.21
14	Mechanical time constant 机械时间常数	$\tau_m$	ms	3.74	3.46	3.18	3.05	3
15	Rotor inertia 转子惯量	J	gcm <sup>2</sup>	1380	1290	1380	1340	1320
16	Angular acceleration 最大角加速度	$\alpha_{max}$	10 <sup>3</sup> rad/s <sup>2</sup>	101	125	130	124	126
17	Thermal resistance 热阻	$R_{th1} / R_{th2}$	K/W	1.3 / 1.9				
18	Thermal time constant 热时间常数	$\tau_{w1} / \tau_{w2}$	s	123 / 960				
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 (15mm from bearing)		N	350				
	- axial at 3,000rpm (axial push-on only)		N	70				
	- axial at standstill (axial push-on only)		N	420				
22	Shaft play 轴间隙							
	- radial 径向	<=	mm	0.025				
	- axial 轴向	<=	mm	0				
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	2				
26	Weight 重量		g	2100				
27	Direction of rotation 旋转方向			Clockwise, viewed from the front face				
<b>Operating Data for <math>\eta_{max}</math> of Customer's Specifications</b>								
28	Output power 输出功率	$P_{2opt}$	W	146	188	239	253	267
29	Efficiency 效率	$\eta_{opt}$	%	81	83	86	88	88
30	Speed 转速	$n_{opt}$	rpm	3150	3710	3630	3340	3360
31	Load current 电流	$I_{opt}$	A	10.00	9.41	7.67	5.99	5.02
32	Operating torque 转矩	$M_{opt}$	mNm	442.0	485.0	628.0	722.0	758.0

### Recommended areas for continuous operation



Dimension 尺寸图