

## 2232N9M | 贵金属电刷 Precious Metal Commutation

应用领域：医疗、保健、汽车、机器人、工业自动化等精密驱动领域。

Applications: precision drives in medical equipment and devices, healthcare products, automotive, robotics, and industrial automation.

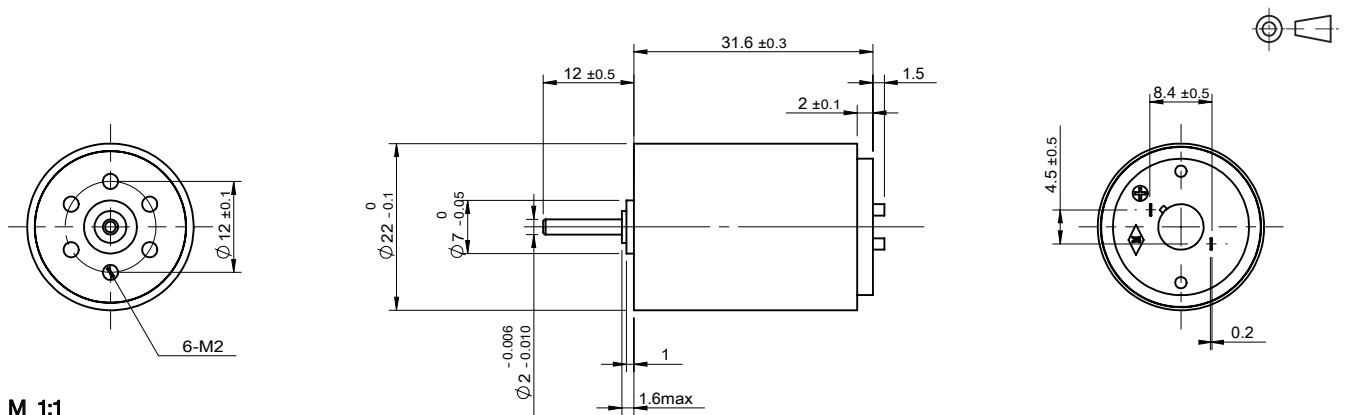
### 主要技术指标 | Characteristics

			02-60-6.8	01-110-24.0	
1	电压	Voltage	V	6.8	24.0
2	端电阻	Terminal resistance	$\Omega$	3.0	17.2
3	空载转速	No-load speed	rpm	6000	11000
4	空载电流	No-load current	mA	15	8
5	堵转转矩	Stall torque	mNm	24.2	28.8
6	堵转电流	Stall current	mA	2270	1400
7	额定转矩	Nominal torque	mNm	5.0	7.0
8	额定转速	Nominal speed	rpm	4760	8330
9	额定电流	Nominal current	mA	480	350
10	最大输出功率	Max. output power	W	3.8	8.3
11	最大效率	Max. efficiency	%	84	86
12	反电势常数	Back-EMF constant	mV/rpm	1.1	2.2
13	转矩常数	Torque constant	mNm/A	10.8	20.7
14	转速 / 转矩斜率	Speed/torque gradient	rpm/mNm	250	380
15	转子惯量	Rotor inertia	gcm <sup>2</sup>	4.4	4.4
16	重量	Weight	g	55.8	55.8
17	热阻 (机壳 - 环境)	Thermal resistance housing-ambient	K/W		19.4
18	热阻 (线圈 - 机壳)	Thermal resistance winding-housing	K/W		21.7
19	热时常数 (电机)	Thermal time constant motor	s		383
20	热时常数 (线圈)	Thermal time constant winding	s		329
21	工作温度范围	Operating temperature range	$^{\circ}\text{C}$		-20~+85
22	绕组耐温等级	Thermal class of winding	$^{\circ}\text{C}$		85
23	轴向间隙	Axial play	mm		0.02~0.15
24	径向间隙	Radial play	mm		0.025
25	动态轴向载荷	Axial load dynamic	N		3.3
26	静态轴向载荷	Axial load static	N		60
27	径向载荷 (距安装面 3mm)	Radial load at 3 mm from mounting face	N		14
28	极对数	No. of pole pairs			1
29	轴承	Bearings			2 枚含油轴承/2 sleeve bearings
30	换向结构	Commutator			贵金属 9 相/metal 9 segments
31	防护等级	Protection class			IP 30

★可选参数 Options: 导线长度 Lead wires length 轴长 Shaft length 性能 Special coils

齿轮箱 Gearheads 编码器 Encoder

### 外观图 | Outline Drawing



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