

# 1331N7M $\varnothing 13\text{mm} \times 30.7\text{mm}$ , 贵金属电刷 Precious Metal Brushes

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.

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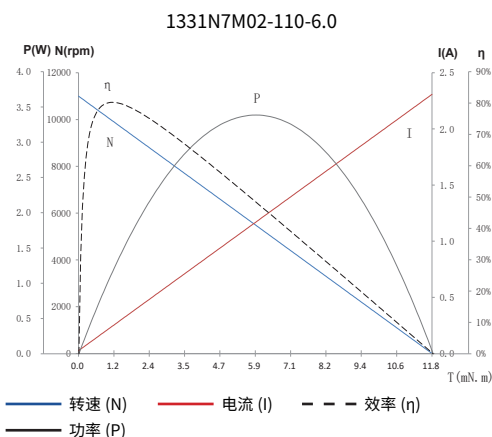
## 电机参数 / Motor Data

1	电压	Voltage	V	6.0	12.0	24.0
2	端电阻	Terminal resistance	$\Omega$	2.6	5	38
3	空载转速	No-load speed	rpm	11000	14800	9200
4	空载电流	No-load current	mA	25	40	8
5	堵转转矩	Stall torque	mNm	11.8	18.0	15.3
6	堵转电流	Stall current	mA	2310	2400	630
7	额定转矩	Nominal torque	mNm	2	4	4.0
8	额定转速	Nominal speed	rpm	9130	11510	6790
9	额定电流	Nominal current	mA	410	570	170
10	最大输出功率	Max. output power	W	3.39	6.97	3.69
11	最大效率	Max. efficiency	%	80	76	79
12	反电势常数	Back-EMF constant	mV/rpm	0.5	0.8	2.6
13	转矩常数	Torque constant	mNm/A	5.2	7.6	24.6
14	转速 / 转矩斜率	Speed/torque gradient	rpm/mNm	900	800	600
15	转子惯量	Rotor inertia	$\text{gcm}^2$	0.52	0.52	0.52
16	重量	Weight	g	20	20	20

## 热参数 / Thermal Data

17	热阻 (机壳 - 环境)	Thermal resistance housing-ambient	K/W	34.8
18	热阻 (线圈 - 机壳)	Thermal resistance winding-housing	K/W	38.6
19	热时常数 (电机)	Thermal time constant motor	s	211
20	热时常数 (线圈)	Thermal time constant winding	s	163
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	$^{\circ}\text{C}$	130

## 特性曲线 / Characteristics Curve



仅供参考, 详细了解请以产品规格书为准。  
For reference only, please refer to the product specification.

## 机械参数 / Mechanical Data

23	轴向间隙	Axial play	mm	0.02-0.15
24	径向间隙	Radial play	mm	0.014
25	动态轴向载荷	Axial load dynamic	N	0.8
26	静态轴向载荷	Axial load static	N	30
27	径向载荷 (距安装面 3mm)	Radial load at 3 mm from mounting face	N	1.4

## 其它参数 / Other Specifications

28	极对数	No. of pole pairs	1
29	含油轴承	Sleeve bearings	2
30	换向结构	Number of commutator segments	7
31	防护等级	Protection class	IP30

## 可选配置 / Options

齿轮箱: 行星齿轮

Gearbox: planetary gearbox

性能 Special coils: 连续运行范围内可定制 customizable in continuous operation range

法兰 Flange: 标准前后法兰 standard front and rear flanges / 定制法兰 custom flanges

轴 Shaft: 长度 length / 异形 shape

轴承类型 Bearing type: 含油轴承 sleeve bearings / 滚珠轴承 ball bearings

电气连接 Electrical connection: 端子或导线 connector or wire / 导线长度 lead wires length

齿轮组主要技术指标详见第 130 页

the main technical parameters are detailed on page 130

## 外观图 / Outline Drawing

