

BS5016NFL $\varnothing$ 50mm*23.5mm, 内转子有槽无传感器 Inner Rotor, Slotted, Sensorless

应用领域：协作机器人、机器人关节、工业自动化设备等领域。

Applications: cooperative robotic, robotic joint, industrial automation, etc.

				-29-48.0																																																																						
电机参数 / Motor Data																																																																										
1	电压	Voltage	V	48.0																																																																						
2	线电阻	Line resistance	Ω	2.5																																																																						
3	线电感	Line inductance	mH	1.3																																																																						
4	空载转速	No-load speed	rpm	2880																																																																						
5	空载电流	No-load current	A	0.15																																																																						
6	堵转转矩	Stall torque	N.m	3																																																																						
7	堵转电流	Stall current	A	19.2																																																																						
8	额定转矩	Nominal torque	N.m	0.5																																																																						
9	额定转速	Nominal speed	rpm	2125																																																																						
10	额定电流	Nominal current	A	3.1																																																																						
11	最大输出功率	Max.output power	W	223																																																																						
12	最大效率	Max.efficiency	%	86																																																																						
13	反电势常数	Back-EMF constant	mV/rpm	16.5																																																																						
14	转矩常数	Torque constant	Nm/A	0.15																																																																						
15	KV 值	KV Value	rpm/V	60																																																																						
16	转速 / 转矩斜率	Speed/torque gradient	rpm/Nm	974																																																																						
17	转子惯量	Rotor inertia	gcm ²	61																																																																						
18	重量	Weight	g	138																																																																						
热参数 / Thermal Data				特性曲线 / Characteristics Curve																																																																						
19	热阻 (线圈 - 环境)	Thermal resistance winding-ambient	K/W	3.3	BS5016NFL-29-48.0 Pin(W) U(V) I(A) Pout(W) N(r/min) Eff(%) <table><thead><tr><th>Pin(W)</th><th>U(V)</th><th>I(A)</th><th>Pout(W)</th><th>N(r/min)</th><th>Eff(%)</th></tr></thead><tbody><tr><td>220.0</td><td>55.0</td><td>4.5</td><td>220.0</td><td>3500</td><td>100</td></tr><tr><td>198.0</td><td>49.5</td><td>4.0</td><td>198.0</td><td>3150</td><td>90</td></tr><tr><td>176.0</td><td>44.0</td><td>3.6</td><td>176.0</td><td>2800</td><td>80</td></tr><tr><td>154.0</td><td>38.5</td><td>3.1</td><td>154.0</td><td>2450</td><td>70</td></tr><tr><td>132.0</td><td>33.0</td><td>2.7</td><td>132.0</td><td>2100</td><td>60</td></tr><tr><td>110.0</td><td>27.5</td><td>2.3</td><td>110.0</td><td>1750</td><td>50</td></tr><tr><td>88.0</td><td>22.0</td><td>1.8</td><td>88.0</td><td>1400</td><td>40</td></tr><tr><td>66.0</td><td>16.5</td><td>1.4</td><td>66.0</td><td>1050</td><td>30</td></tr><tr><td>44.0</td><td>11.0</td><td>0.9</td><td>44.0</td><td>700</td><td>20</td></tr><tr><td>22.0</td><td>5.5</td><td>0.5</td><td>22.0</td><td>350</td><td>10</td></tr></tbody></table> 功率 (W) 电压 (V) 电流 (A) 输出功率 (W) 转速 (r/min) 效率 (%)				Pin(W)	U(V)	I(A)	Pout(W)	N(r/min)	Eff(%)	220.0	55.0	4.5	220.0	3500	100	198.0	49.5	4.0	198.0	3150	90	176.0	44.0	3.6	176.0	2800	80	154.0	38.5	3.1	154.0	2450	70	132.0	33.0	2.7	132.0	2100	60	110.0	27.5	2.3	110.0	1750	50	88.0	22.0	1.8	88.0	1400	40	66.0	16.5	1.4	66.0	1050	30	44.0	11.0	0.9	44.0	700	20	22.0	5.5	0.5	22.0	350	10
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20	热时常数 (线圈)	Thermal time constant winding	s	120																																																																						
21	绝缘等级	Insulation class		B																																																																						
22	工作温度范围	Operating temperature range	°C	-40~+100																																																																						
23	绕组耐温等级	Thermal class of winding	°C	180																																																																						
其它参数 / Other Specifications																																																																										
24	绕组联结	Circuit type	Y																																																																							
25	耐电压	Puncture	500VAC / 5mA / 1s																																																																							
26	绝缘电阻	Insulation Resistance	100MΩ / 500VDC																																																																							
27	极对数	No. of pole pairs	10																																																																							
28	槽数	No. of slots	18																																																																							
29	换向结构	Commutation structure	sensorless																																																																							
30	防护等级	Protection class	IP20																																																																							
				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.																																																																						

可选配置 / Options		端子定义 / Connection	
性能 Special coils: 连续运行范围内可定制 customizable in continuous operation range		无传感器 /sensorless	
传感器 Sensor: 无传感器 sensorless/ 霍尔传感器 hall sensor		AWG 24	
驱动器 Driver: 可定制 customizable upon request		Pin1	U red
电气连接 Electrical connection: 端子或导线 connector or wire / 导线长度 lead wires length		Pin2	V yellow
		Pin3	W black

外观图 /Outline Drawing	
M 1:1.5	