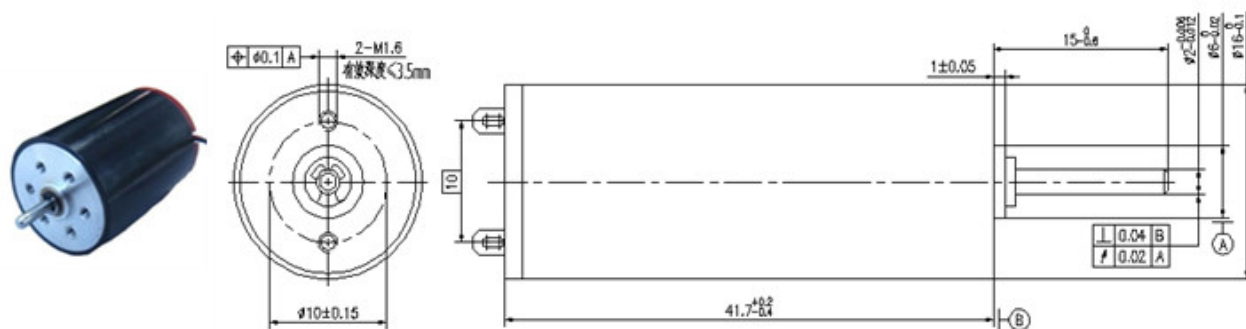


# DC coreless motor 16mm / 直流空心杯馬達 16mm

Ø16mm, precious metal brushes/Ø16mm, 貴金屬電刷

**Typical Applications** Laser Swinger, Dental Instrument  
**Medical Equipment, Offset Printing Machine**  
**典型應用** 激光掃平儀, 牙科設備, 醫療設備, 膠印機

## Outline Drawing/外形圖



1643 Series / 1643系列	Model/型號	001	002	003	004	005	006	007
<b>Motor data (25℃) / 運行參數 (25℃)</b>								
1 Assigned power/標稱功率	W	1.5	1.8	1.9	1.9	1.5	2.5	1.8
2 Nominal voltage/額定電壓	Volt	3	4.5	6	9	12	18	24
3 Terminal resistance/端電阻	±15% Ohm	0.658	1.17	2.45	6.10	13.4	20.2	50.5
4 No-Load speed/空載轉速	±12% rpm	8,400	8,450	8,700	8,580	8,570	8,530	8,640
5 No-Load current/空載電流	≤150% mA	70.0	55.8	36.7	22.8	13.40	12.10	8.9
6 Speed constant/速度常數	rpm/V	2,800	1,878	1,450	953	714	474	360
7 Torque constant/轉矩常數	mNm/A	3.36	5.01	6.49	9.87	13.18	19.89	26.04
8 Starting current/啟動電流	mA	4,559	3,846	2,449	1,475	896	891	475
9 Stall torque/堵轉轉矩	mNm	15.32	19.29	15.89	14.56	11.80	17.72	12.38
10 Mechanical time constant/機械時間常數	ms	11	8	8	7	7	7	7.7
11 Rotor inertia/轉動慣量	gcm <sup>2</sup>	1.860	1.690	1.370	1.080	0.882	1.350	1.030
12 Max. efficiency/最大效率	%	77	77	77	77	77	78	75

## Limits for continuous operating/電機連續運行區域上限

1 Max. continuous current/最大連續工作電流	mA	582	460	381	260	155	178	95
2 Max. continuous torque/最大連續工作轉矩	mNm	1.96	2.31	2.47	2.57	2.04	3.54	2.47
3 Nominal speed/最大連續工作電流下的轉速	rpm	7,328	7,439	7,346	7,068	7,087	6,826	6,913
4 Max. continuous power/最大連續輸出功率	W	1.50	1.796	1.90	1.898	1.515	2.529	1.79

## Additional information/其它相關信息

- Axial play (measured at 4N axial force)/軸向間隙 (沿軸向施加4N力時的間隙) 0.05~0.15 mm
- Max. sleeve bearing loads/滑動軸承最大載荷
  - Axial (dynamic)/軸向(動態) 0.8N
  - Radial (4 mm from jamming ring)/徑向 (卡簧外4mm) 1.4 N
  - Force for press-fits (static)/最大允許安裝力(靜態) 15N
- Max. radial play sleeve bearing/滑動軸承最大徑向間隙 0.02 mm
- Ambient temperature range/環境溫度範圍 -20~+65℃
- Max. rotor temperature/轉子承受最高溫度 +85℃
- Weight of motor/電機重量 35g
- Options: gearbox/其它可選項: 減速器



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