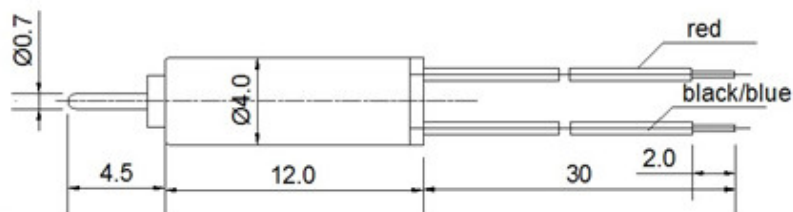


DC coreless motor 4mm / 直流空心杯馬達 4mm

Ø4mm, precious metal brushes/Ø4mm, 貴金屬電刷

Outline Drawing/外形圖



Widely used in model aircraft, electric toys, digital camera, and medical devices / 廣泛用於航模, 電動玩具, 數碼相機, 醫療器械

412 Series / 412系列	Model/型號	001	002	003	004	005	006	007
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Motor data (25°C) / 運行參數 (25°C)

1 Assigned power/標稱功率	W	0.04	0.17	0.20	0.13	0.25	0.06	
2 Nominal voltage/額定電壓	Volt	1.3	2.5	3	3	3	3	
3 Terminal resistance/端電阻	±15% Ohm	8.7	7.4	8.7	14.2	7.5	29	
4 No-Load speed/空載轉速	±12% rpm	22,800	56,300	60,000	47,000	60,000	44,000	
5 No-Load current/空載電流	≤150% mA	22	60	50	38	42	18	
6 Speed constant/速度常數	rpm/V	17,538	22,520	20,000	15,867	20,000	14,667	
7 Torque constant/轉矩常數	mNm/A	0.46	0.35	0.41	0.50	0.43	0.54	
8 Starting current/啟動電流	mA	149	338	345	211	400	103	
9 Stall torque/堵轉轉矩	mNm	0.07	0.12	0.14	0.11	0.17	0.06	
12 Max. efficiency/最大效率	%	38	33	38	33	46	34	

At max. efficiency/最大效率點

1 Current/電流	mA	60	136	125	88	150	35	
2 Torque/轉矩	mNm	0.03	0.05	0.05	0.04	0.06	0.02	
3 Speed/轉速	rpm	13,645	33,636	38,250	27,423	37,500	29,113	
4 Power /功率	W	0.04	0.167	0.204	0.126	0.252	0.057	

At max. output/最大輸出功率點

1 Current/電流	mA	85	180	200	100	210	52	
2 Torque/轉矩	mNm	0.04	0.06	0.08	0.05	0.09	0.03	
3 Speed/轉速	rpm	9,830	26,303	25,200	24,753	28,500	21,883	
4 Power /功率	W	0.041	0.173	0.215	0.130	0.268	0.064	

Additional information/其它相關信息

- Axial play/軸向間隙 0.05~0.30 mm
- Force for press-fits/最大允許安裝力
 - Radial /徑向 0.8N
 - Axial/軸向 9.8N
- Ambient temperature range/環境溫度範圍 -20~+65°C
- Max. rotor temperature/轉子承受最高溫度 +85°C
- Weight of motor/電機重量 0.8g
- Motor parameters can be made according to the request of customer/馬達參數可根據客人要求制作
- Options: Output shaft length, leadwire length, /其它可選項: 出力軸長, 引線長度,



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