## MiniScience Inc.

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# **SPECIFICATION**

Model No.: RF-370CA-12540

#### **1.EASURING CONDITIONS**

1.1.Rated voltage: 8 V DC

1.2.Motor Position: To be measured with motor horizontally held.

1.3.Environmental temperature:  $+5^{\circ}\text{C} \sim +35^{\circ}\text{C}$ .

1.4. Environmental humidity: 40%~85%RH.

1.5.Staring Valtage: ≤0.8 V.

## 2.ELECTRICAL CHARACTERISTICS (At initial stage after 30 seconds run-in):

2.1.At No load

2.1.1.Speed: 2400 ±10%rpm 2.1.2.Current: 0.01 A(max 0.02A)

2.2.At Max Efficiency

2.2.1.Torque: 13.9 g.cm 2.2.2.Speed: 2039 ±10% rpm 2.2.3.Current: 0.06 A(max 0.09A)

2.3.At Stall

2.3.1.Torque: 92.3 g.cm

2.3.2.Current: 0.32 A(max 0.48 A)

2.4. Direction of Rotation: CCW (Counter-Clockwise when viewing from the output shaft end

with positive voltage applied to positive terminal.

#### **3.ECHANICAL CHARACTERISTICS**

3.1. Dimension drawing: See<OUTLINE>.

3.2.End Play:  $0.05\sim0.45$ mm.

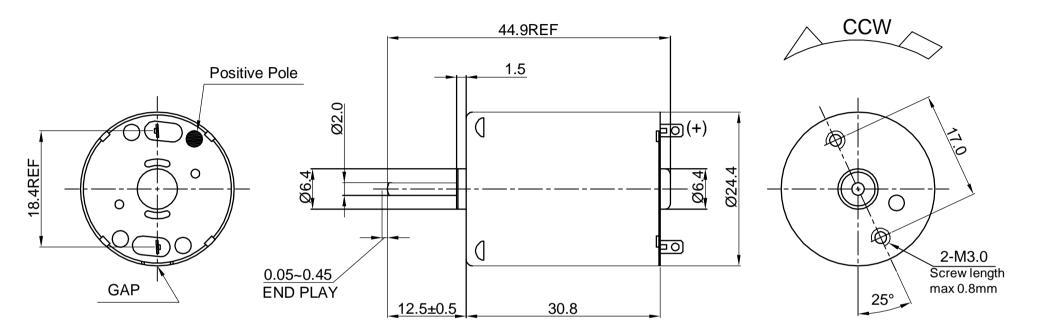
3.3. Operating Temperture:  $0^{\circ}$ C ~ +45 $^{\circ}$ C

#### PERFORMANCE CURVE

#### Constant voltage:8V Rotation:CCW N:Speed 1:Current $P_0$ **EF** Т Ν P:Out power EF: Efficiency 100 1000 2700 0.5 500 1350 [W] [%] [mA]r/min 0 20 40 60 100 Torque [g.cm]

Note: The above performance and characteristics are measured based on limited motor samples only.

OUTLINE
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### **General Instructions for Use of Motor:**

1. DON'T store motors under environmental conditions of high temperature and extreme humidity or in an atmosphere where corrosive gas may be present, as it may result in malfunction.

Recommended environmental conditions: temperature of +10 $\sim$ +30 degrees C and relative humidity of 30% $\sim$ 95%.

- 2.DON'T leave motor shaft locked while power is applied, as even a short-time lock-up may cause excess heat build up resulting in burning damage to the motor depending on its specifications.
- 3. Motor life mainly depends on the operating state (mounted state, load, and environmental temperature etc.)
- 4. Motor life may be affected adversely by heavy radial load such as produced by rotating eccentric cams, etc., and also by vibration given from outside. DO check over such negative

factors by testing the motors to the actual operating conditions in your application products. 5.Make sure the screw length not exceed the Max usable mechanical value.

- 6. Be careful and prevent any liquid from flowing into the motor. The inflow might cause a failure such as defective starting.
- 7. If other problems appeared in application, please contact the technical person for help.

REV.	DESCRIPTION BY							
ALL DI	L DIMENSIONS MILLIMETERS							
	DWN BY CHKD BY			MiniScience, Inc.				
NAME	Tony Guan							
DATE		12/18/2012		SIZE: A4	Model No.			
					DE 2700 A 4	0E 40		
TOLERANCE				SCALE 2:1	RF-370CA-12540			
X.	X.XX	X.XXX	Angle		DWG No.			
±0.5	±0.05	±N.A.	±1°		S 11 G 110.			