

## 1. Scope

7mm

This specification applies to the Coreless DC Motor  
Model No. 7CE-1202WL-01.

## 2. Standard Operation and Conditions

- 2-1 Rated Voltage : 1.3V DC
- 2-2 Rated Speed : 7200 +1500, -2000 rpm
- 2-3 Rated Current :  $70 \pm 20$  mA
- 2-4 Direction of Rotation : Clockwise
- 2-5 Position of Motor : Regardless of output shaft direction  
( Vertical or horizontal )

\* Above measurements apply at 25°C, relative humidity 65%.

## 3. Mechanical Structures

- 3-1 Appearance : Should be free of cracks, rust, stain or dents.
- 3-2 Weight : Approximately 3.2g
- 3-3 End play of shaft : 0.3mm ~ 0.02mm

## 4. Electrical Specifications

- 4-1 Rated Speed : 7200 +1500, -2000 rpm
- 4-2 Rated Current :  $70 \pm 20$  mA
- 4-3 Min. starting voltage : 0.8 V max.
- 4-4 Starting Current :  $135 \pm 15$  mA
- 4-5 Armature Resistance :  $9.6 \pm 0.99$   $\Omega$
- 4-6 Insulation Resistance : 1 M $\Omega$  min.
- 4-7 Withstanding Voltage : 250 V DC

The leakage current shall not exceed 1 peak milliamperes.

- 4-8 Life : Perform test by undermentioned conditions and judge the deterioration of the motor by stated below.

- Condition of test : Voltage : 1.3 V DC
- : Load : With Counterweight
- : 1 cycle : 8 sec. ON, 82 sec. OFF
- : Temperature : Repetition of +50°C RH90% and -10°C  
for 2 hours each through temperature  
transition at half an hour.
- : Life : 140 hours
- Status of test : Voltage : 1.3 V DC
- : Rated Speed : 5700 rpm min.
- : Rated Current :  $70 \pm 20$  mA
- : Min. Starting Voltage : 0.8 V max.

\* Above measurements apply at 25°C, relative humidity 65%.

## 5. Environmental Specifications

7mm

Motor satisfies the characteristics specified in this specifications after exposed in the environment tests.

### 5-1 Vibration

Motor withstands 1.52 mm amplitude over frequency sweep of 10 Hz to 55 Hz for 1 minute in each of X, Y, Z axis for 10 minutes.

### 5-2 Shock Test

Motor withstands maximum of 50 G peak value and duration of 11 m/s wave form velocity change of 3.44 m/s shock from each of X, Y, Z axis.

### 5-3 Operating Temperature

△ -10°C to +60°C

### 5-4 Storage Temperature

Motor satisfies this specification after exposure to -10°C to +60°C for 96 hours and returned to normal room temperature for 24 hours.

### 5-5 Humidity Test

Motor satisfies this specification after exposure to +40°C and relative humidity 90% for 86 hours and returned to normal room temperature for 24 hours.

## 6. Cautions

### 6-1 Storage

Avoid storing in high temperature, humidity and corrosive gas environment. Not to be stored without running for more than 6 months.

### 6-2 Locked Operation

Not to be operated with shaft locked. Motor may be liable to burn out.

## 7. Notes

### 7-1

even in guaranteed period if damages are caused by mishandling or abusive usage.

### 7-2

Material and construction may be changed without advance notice but the changes are within the specification mentioned hereabove.

