



PUIaudio



Data Sheet

HD-EMC0803-LW20-2-R

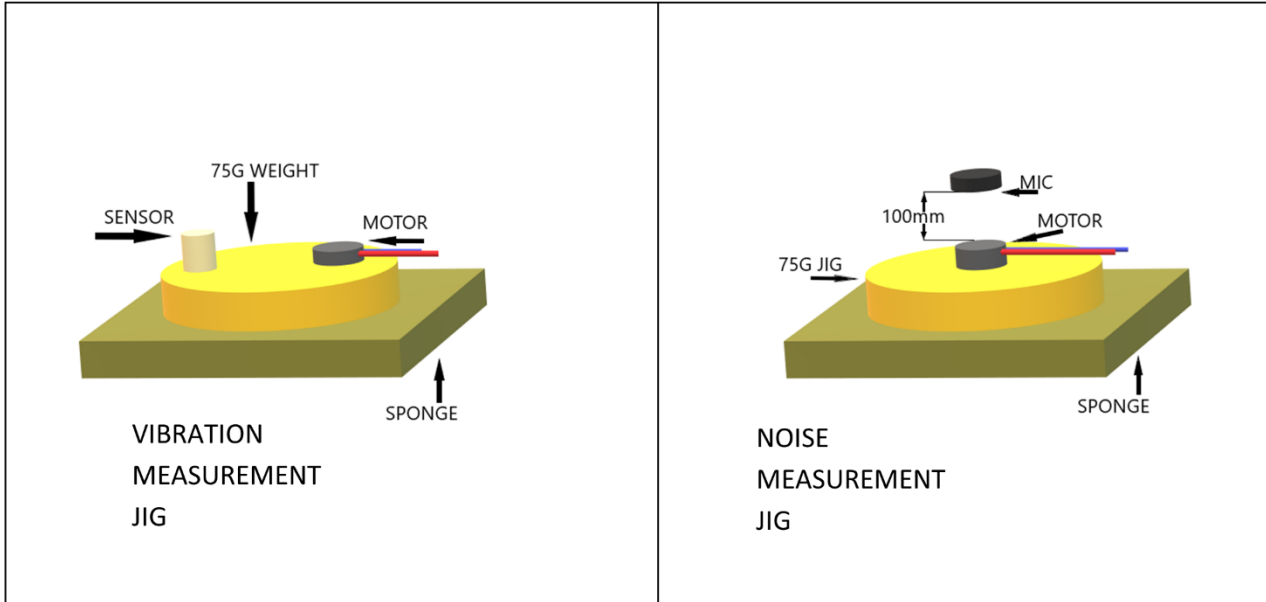
Features:

- Designed to be driven with a 3.0V DC signal
- Convenient 20mm lead wires and double-sided adhesive for easy implementation
- Generates 12,000 rpm with less than 50dB mechanical noise

Specifications

Parameters	Values	Units
Input Voltage (DC)	3.0	V _{DC}
Starting Voltage (DC)	2.4	V _{DC}
Operating Voltage Range (DC)	2.6 ~ 3.6	V _{DC}
Direction of Rotation	CW/CCW	-
Rated Speed	12,000 ± 3,000	RPM
Rated Current (Max at 3.6 V _{DC})	85	mA
Locked Current (Max at 2.4 V _{DC})	140	mA
Terminal Resistance	1 Phase: 30 ± 20% 2 Phase: 60 ± 20%	Ohms
Shaft Pull Strength (Min)	3	Kg
Shaft End Play (Max)	0.3	mm
Mechanical Noise (Max)	50	dBA
Environmental Compliances	RoHS/REACH	-
Weight	(approx.) 1	Grams
Storage Temperature	-40 ~ +85	°C
Operating Temperature	-20 ~ +60	°C

Measurement Methods (Temperature: 25±2°C; RH: 45 ~ 85%; Motor Position: Horizontally locked)



Reliability Testing

Type of Test	Test Specifications
High Temperature Test	Temperature: +85±2°C Test Duration Time: 96 hours
Low Temperature Test	Temperature: -40±2°C Test Duration Time: 96 hours
Humidity Test	Temperature: 70°C Relative Humidity: 90% Test Duration Time: 96 hours
Thermal Shock Test	Temperature Cycle: -40 to +85°C Cycle Time: 1 hour Test Repetition: 24 cycles (24 hours total)
Temperature Cycle Testing	Drive motor for 2 seconds on, 2 seconds off at rated voltage Repeat cycle shown 2 times (8 hours total)
Vibration Test	Vibration: 3mm, 1000cpm Test Axis: XYZ Test Repetition: 10 minutes per axis (30 minutes total)
Drop Test	Drop Condition: 1.5m onto iron plate at weight 150g Test Repetition: 6 times per side (36 total)
Load Test	60,000 operating cycles at room temperature Test Cycle: 2 seconds on, 2 seconds off

Rated current, speed, starting voltage, and mechanical noise must meet specifications after allowing the device to rest for 12 hours after test.