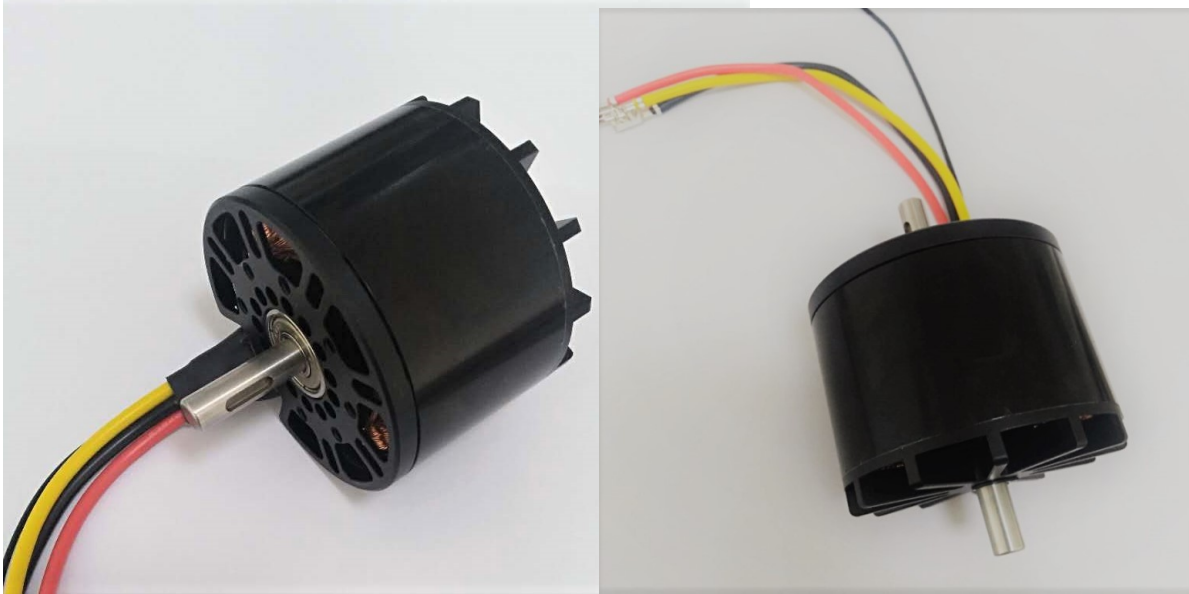


OUTRUNNER SL6235 BLDC MOTOR SPECIFICATION



**SL6235 Outrunner motor is designed for healthy equipment electric skateboard
48V 1500W high torque, high power BLDC motor with temperature sensors**

1. Stator : OD62X35mm height 24 slots lamination 20JNE1200 powder spraying 800V
Rotor : Neodymium Magnet N45USH 28 FLOW COGGING DESIGN
Shaft : SUS420 D8 keyslots 3mmX 12mm
Tempered steel Total 100mm Front 27mm from Flange rear shaft 73mm
Dimension: OD71mmX56mm
Color : Black Powder spraying or by customs

2. ELECTRIC CHARACTERISTICS

- 2.1 Max Voltage 48V **High Volt test 580V less than 9.5mV/INSULATION**
- 2.2 KV:90-100RPM/V 99
- 2.3 Maximum constant current 35A
 - 2.3.1 Test at 25A with locked rotor until thermal equilibrium
- 2.4 Phase resistance : <0.037Ohm lesser the better
- 2.5 Class F 155 Degree C OR H 180 Degree C windings
- 2.6 N 45UH Magnets high magnetized and high temperature tolerance
- 2.7 minimize cogging Torque
 - 2.7.1 28 magnets 24 stator teeth and has excellent fluidity
- 2.8 Minimize torque resistant to open phase(to minimize minimum current unload probably the requirement coincides with the previous one)

3. CHARACTERISTICS PULLEY COUPLING

- 3.1 Seat for rounded key section 3X3 length 12.5mm depth of the keyway must be according to regulations(around 1.8mm)

4. CONSTRUCTION FEATURES

- 4.1 Motor mounting Flange with M4 threaded Holes with thread at least 5mm depth
- 4.2 limit radial and axial play and uncontrolled rotations of rotor to stator
- 4.3 Take care of assembly avoiding scratching of the windings insulation
- 4.4 Qual radial force on 25KG shaft at a distance of 10mm from shaft.

- 4.5 preferring mechanical joining elements (keys thread grains) to gluing
- 4.6 If adhesives are present , guarantee resistance to temperatures > 100 C
- 4.7 Check and correct static (and possibly dynamic) balance of the motor.
- 4.8 General constructive guarantee infinite life to mechanics at torque of 2.5NM
- 4.9 Minimize moment of inertia of the motor, lightening the rotor where possible.

4.10 Mechanic dimension must conform to the 3D STEP Nov.26, 2020

5. MANAGEMENT AND THERMAL DISSIPATION

- 5.1 NTC thermistor temperature sensor resistance to ambient temperature of 10Kohm
- 5.2 Create rear ventilation holes.
- 5.3 Create can pass area near gap maximize the thermal contact
can pass area maximize the thermal contact with the support of the motor.
- 5.4 the r with the motor support for thermal dissipation.

6. CABLES

- 6.1 output cable 14AWG length 190mm Crimp DF22A-1416SCT
- 6.2 Temperature SENSOR NTC10K B3950 28AWG 255mm CRIPM SPH-002T-P0.5S
- 6.3 Insulation in the wire connection Area with epoxy glue to avoid contact between copper phases and stator frame**

7. MARKING

- 7.1 marking text to be defined



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