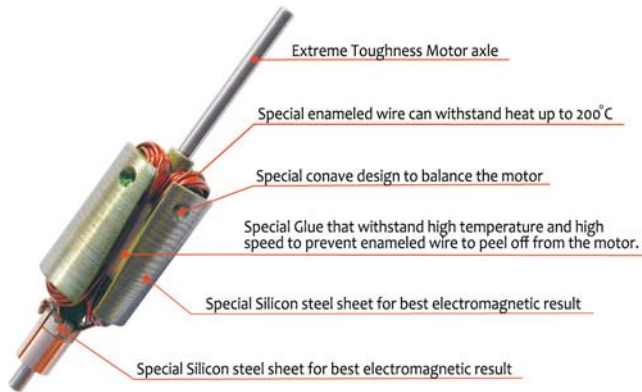


**Product specification**

LONEX motor series using heat resistance enameled wire, up to 200°C, to build the core of the motor. This helps the motor to maintain the temperature at an efficient level, even under the full power, also it greatly increases the durability of the motor and battery consumptions. A set of ball bearings are installed at both ends of the motor, not only improves the rotations but also further improves the energy consumption. The front end of the motor has an aluminum cage to improve the rotations, and a high durability nylon cover at the rear end to withstand the high temperature and extreme wear of the motor. Lastly, the motor pinion gear uses high density steel that can endure the extreme rotation and pressure under high torque or high speed set up.



**ROHS approved**

Test Items	Method(Refer to)	Result No.1	MDL
Cadmi um(Cd)	Determination of Cadmium by ICP-AES.	n.d.	2
Lead(Pb)	Determination of Lead by ICP-AES.	n.d.	2
Mercury(Hg)	Determination of Mercury by ICP-AES.	n.d.	2
Hexavalent Chr omi um Cr (VI) by alkaline extraction	Determination of Hexavalent Chromium by UV/Vis Spectrometry.	n.d.	2



**Warning:**

Spring Motor	M90SP	M100SP	M110SP	M120SP	M130SP	M140SP	M150SP	M170SP
A1	⊗	⊗	▲	▲	○	○	○	○
A2	⊗	⊗	▲	▲	○	○	○	○
A3	⊗	⊗	▲	○	○	○	○	▲
A4	○	○	▲	▲	⊗	⊗	⊗	⊗
A5	○	○	○	○	▲	▲	⊗	⊗

○ RECOMMEND ▲ AVAILABLE ⊗ NOT AVAILABLE

**Installation Warning:**

LONEX A1 · A2 · A3 motors are designed for high speed and high torque AEG setups. Using 100 M / S or below setups will damage the internal vparts of the gearbox. Please seek professional aids when installing the motors.

**Inertial Dynamometers**

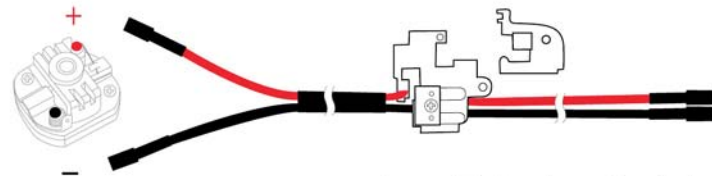
**Motor performance report**



	A 0 1	A 0 2	A 0 3
<b>At no load</b>			
Speed RPM	3 9 7 1 5	3 5 7 9 9	3 7 5 0 4
Current A	4 . 2 2 5	3 . 9 9 8	4 . 0 6 6
Torque Kgcm	2 . 0 3	2 . 0 6	2 . 0 3 Z
<b>Max Efficiency</b>			
Torque Kgcm	0 . 4 5	0 . 4 2	0 . 4 1
Speed RPM	3 0 9 7 8	2 8 3 5 3	2 9 9 2 8
Current A	1 9 . 0 8 7	1 7 . 1 7 5	1 7 . 9 5
Efficiency	6 1 %	6 0 . 8 6 %	6 0 . 8 8 %
Power output	1 2 7 W	1 2 1 W	1 2 7 W
<b>Max Power</b>			
Torque Kgcm	0 . 9 1	1 . 0 1	1 . 0 2
Speed RPM	1 9 1 4 3	1 7 7 5 6	1 8 8 2 7
Current A	3 9	3 5 . 9	3 8
Efficiency	4 7 %	4 6 %	4 6 %
Power output	1 9 3 W	1 8 6 W	1 9 6 W

**Motor power cord installation**

Red power cord (positive) should be installed on the red dot of the motor (positive).  
 Black power cord (negative) should be installed on the black dot of the motor (negative).  
 Warning: Failed to install the power cords correctly can cause failure of the motor.



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