



MP JET ELECTROMOTOR AC 22/7-45 D Heli

We thank you for having bought our product and hope that it will quite comply with your requirements. We recommend you to study this instruction. Observance of the directions stated here will ensure you operating without problems, achieving of a good output and a corresponding service life of the engine.

TECHNICAL SPECIFICATION OF ELECTROMOTOR

- three-phase AC brushless motor
- recommended for helicopters
- recommended for model kits, for direct drive
- with external rotor
- FeNdB magnets
- winding impregnated high-temperature epoxy resin
- dual ball bearing with long life grease
- high speed ball bearings
- rotor turned from bar stock on CNC machine
- heat treated shaft 3 mm dia
- recommended connectors MP JET 1,8 mm size

Recommend regulator: three-phase, sensorless (with EMF detection version), suitable version 12A.

MOUNTING DRIVE UNIT TO HELICOPTER

Mounting the pinion wheels (MPJ 20470 - MPJ 20475) to shaft of electromotor. The package of pinion wheels is include the hexagon socket set screws M2x2,5. The correct hexagon wrench key has Cat.No.MPJ 0906. Please start from pinion wheels with smaller number of teeth and always control the current!

The electromotor mounting to helicopters with two socket head screw M2,5x5. Choose for mounting the correct couple of holes in front part of electromotor (size for one couple is 16 mm, for second 17 mm).

Cat.No.	Items	Qty.
MPJ 20470	Pinion wheel 22 tooth, 3 mm dia, modul 0,4	1 pc
MPJ 20471	Pinion wheel 25 tooth, 3 mm dia, modul 0,4	1 pc
MPJ 20472	Pinion wheel 28 tooth, 3 mm dia, modul 0,4	1 pc
MPJ 20473	Pinion wheel 31 tooth, 3 mm dia, modul 0,4	1 pc
MPJ 20474	Pinion wheel 35 tooth, 3 mm dia, modul 0,4	1 pc
MPJ 20475	Pinion wheel 33 tooth, 3 mm dia, modul 0,4	1 pc
MPJ 0446	Hexagon socket set screw M2x2,5	4 pcs
MPJ 0906	Hexagon wrench key 0,9 mm	1 pc

MOUNTING DRIVE UNIT TO MODEL KIT

The electromotor mounting on the firewall with two the hexagon socket set screws M2x2,5, the firewall must be rigid. Please make the holes in the front of the motor cover for air ventilation for cooling the electromotor.

The mounting of the propeller:

For folding propeller use one of the propeller spinners with a collet 3 mm dia, for non folding propeller a collet prop adapter MPJ 4698.

CONNECTING ELECTROMOTOR TO REGULATOR

The electromotor has cable wires with male parts of connectors MP JET 1,8. Female parts with shrinking isolations are included in the package and must be soldered to regulator output cables. Connectors must be disconnected by being pulled from the connector parts, without applying any force on the cable (or being pulled from the motor unit).

For change of the direction of run change please two from three cables between ESC and electromotor.

COOLING

It is necessary to ensure cooling - inlet and outlet holes. The outlet holes must be approx. 1,5 bigger than the inlet ones.

MAINTENANCE OF ELECTROMOTOR

The ball bearings have a longlife high quality grease, they can be changed if necessary. Avoid penetration of magnetic parts, dirt or water into the electromotor.

IMPORTANT SAFETY ADVICE

- the propeller must be undamaged and balanced
- propeller driver must be useful type, with sizes for used propeller
- make sure that the onlookers stay at a safe distance when the motor runs
- use only propellers recommended for this power
- first switch on your transmitter, check the position of the throttle stick (and related switches if there are any). Only then connect your power pack to the speed controller and switch on the receiver.
- follow the manual of your regulator
- do not use the motor for other applications (non modeling use).
- this position product and this manual are subject to change without notice

GUARANTEES

All electromotors are controlled and tested before purchase. Full guarantee for manufacturing and material defects is valid one year from the purchase date. The guarantee covers none of the following:

- improper mounting and overheating
- using the motor for other purposes than recommended
- periodic maintenance and repair or replacement of parts due to normal wear
- repair costs by non-authorized services or the customer himself

Number of cells LiPoL	2
RPM per Volt	1400
Maximum recommend speed (min ⁻¹)	12000
Maximum speed (min ⁻¹)	15000
Maximum efficiency (%)	approx. 77
Current for maximum efficiency (A)	to 8
Short time current (A)	10
Internal resistance (mΩ)	200
Dimensions - diameter/ length (mm)	28/24
Shaft diameter (mm)	3
Number of turns	45
Weight of electromotor (g)	32
Recommend weight of helicopters (g)	to 350
Maximum weight of acrobatic model (g)	to 300
Recommend propeller range	7/3 - 9/6