MP JET ELECTROMOTOR AC 26/45-20 D - version with gearbox

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
- dual ball bearing with long life grease
- high speed ball bearings
- two pole rotor - single piece FeNdB type
- FeNdB magnet
- toroidal Delta coil winding
- winding directly under alluminium body for better cooling
- one part body turned from bar stock on CNC machine
- black anodized surface
- heat treated shaft
- high quality MP JET gold 2,5 mm connectors

Recommend regulator: three-phase, sensorless (with EMF detection version), suitable version 40A, 30A partially.

TECHNICAL SPECIFICATION OF GEARBOX

- single stage gearbox with inner-driven gear construction
- closed type gearbox
- the gear ratio 2,8:1 (MPJ 8210)
- hardened main shaft in two ball bearings
- metal pinion wheel
- two possibilities of mounting (front adapter or lugs)
- outside shape like standard MP JET gearboxes size 500-650

MOUNTING DRIVE UNIT TO MODEL KIT

The drive unit could be mounted using two methods:
1. standard mounting on the firewall with three radial lugs - three PAN HEAD screws 2,9x13.
2. like standard electromotor - the complete gearbox with the front adapter is mounted like the standard electromotor on the firewall in the side fuselage, use the PAN HEAD screws 2,9x9,5.
Please make the holes in the front of the fuselage for air ventilation for cooling the electromotor. The firewall must be rigid.

The mounting of the propeller:
For folding propeller use one of the propeller spinners with a collet 4 mm dia, for non folding propeller a collet prop adapter MPJ 4703.

CONNECTING ELECTROMOTOR TO REGULATOR

The electromotor has cable wires or terminal connectors with male part of connectors (MPJ 21020). 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).

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 dirt or water into the electromotor.

MAINTENANCE OF GEARBOX

Lubricate the ball bearings with light machine oil, for gears quality machine grease is recommended. Please do not use the silicone type grease (or with PTFE), it would shorten the durability of the metal pinion wheel. Keep the gearboxes clean from dust.

IMPORTANT SAFETY ADVICE

- the propeller must be undamaged and balanced
- propeller driver must be all metal, collet type. The type with socket head screws is not recommended.
- 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-authorised services or the customer himself

NOTICE

The electromotor has a relative high rpm per Volt. Therefore, do not connect this motor without load to voltage bigger then 15 V because it could be damaged easily when exceeding maximum rpm.

Number of cells	6-10
RPM per Volt	3000
Maximum recommend speed (min^{-1})	40000
Maximum speed (min^{-1})	45000
Maximum efficiency (%)	approx. 81
Current for maximum efficiency (A)	15-28
Short time current (A)	38
Internal resistance (mΩ)	45
Dimensions - diameter/ length (mm)	26/45
Shaft diameter (mm)	4
Number of turns	20
Weight of electromotor (g)	123
Weight of drive unit (g)	162
Recommend gearboxes	MPJ 8210
Recomm.propeller range with gearbox 2,8:1 for glider	10/5 - 12/7
Recomm.propeller range with gearbox 2,8:1 for acrobatic	8/5 - 10/6
Optimum weight of glider (g)	1500
Maximum weight of glider (g)	2000
Optimum weight of acrobatic model (g)	1250
Maximum weight of acrobatic model (g)	1500

MP JET s.r.o.
Lazenská 578
CZ - 373 11 Ledenice
CZECH REPUBLIC

Phone/fax: 420 387 410 167
Fax: 420 387 412 187
e-mail: sale@mpjet.com
http://www.mpjet.com