

# 850MX(490KV/4535) MOTOR USERMANUAL 馬達說明書 ALIGN

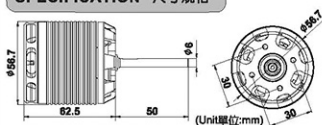
## 850MX MOTOR 關於850MX馬達



Power and torque requirements of enthusiasts, the high output 850MX motor was born in Align's R&D lab. With dramatic increase in torque and power output, capable of 5100 watts continuous power output and 11000 watts of burst power! 850MX Motor has passed various thorough inspections made by our technical department, including motive testing, static testing, magnetic field testing, heat resistance and magnetic loss testing, running balance and vibration testing, noise testing, and many hours of actual loading and flying testing, etc. Align is proud to provide the latest innovations in RC Modeling to its consumers. Please enjoy your Align products safely.

亞拓特別針對玩家大動力、高扭力的需求，研發設計出為極致動力而生的850MX馬達，動力輸出與扭力表現大幅提升，持續輸出功率達5100W，瞬間最大輸出功率可達11000W。本公司生產的高扭力高轉速850MX馬達，適用於RC電動商品，其高功率高效率輸出特性，適合電動飛機/電動直升機之高扭力高轉速驅動動力用途，速度控制可採本公司或市售現格無刷電子變速器。轉子採用高磁性材料紋磁鐵精製而成，定子採用本廠NC自動繞線與高強度樹脂成型保護，耐高溫低震動。心軸採用高硬度高彈性軸承鋼及雙ZZ高速精密軸承設計，且經由亞拓獨立開發設計技術，使用壽命長、效率高、耐震不易變形、低磁損、高效率850型無刷馬達。該項新商品已通過本廠技術單位，實際精密嚴格動、靜態，磁場特性、強磁耐高溫磁損、運轉平衡震動及噪音、負載實際飛行動態性能等全項嚴格檢測。

## SPECIFICATION 尺寸規格



## ILLUSTRATION 接線示意圖



The motor rotates in different direction with different brand ESCs. If the wrong rotating direction happens, please switch any two cables to make the motor rotates in right direction.

由於各品牌電子變速器的馬達旋轉方向不盡相同，若發生轉向錯誤時，請將馬達與電子變速器的接線任兩條對調即可。

KV KV值	490KV(RPM/V)	Input voltage 輸入電壓	12S
Stator Diameter 定子外徑	45 mm	Stator Thickness 定子厚度	35mm
Stator Arms 矽鋼片槽數	12	Magnet Poles 磁鐵極數	10
Max continuous current 最大持續電流	115A	Max instantaneous current 最大瞬間電流	250A(2sec/2秒)
Max continuous power 最大持續功率	5100W	Max instantaneous power 最大瞬間功率	11000W(2sec/2秒)
Dimension 尺寸	Shaft 軸 $\phi 6 \times 56.7 \times 112.5$ mm	Weight 重量	Approx. 約 570g

## FEATURES 特性說明

- 850MX features high efficiency, superior power, excellent torque, low current draw and low temperature; It's capable of maintaining consistent torque and head speed through continuous 3D maneuvers.
- Due to the 850MX's high efficiency and low current draw, the standard equipment 120A electronic speed controller are sufficient to experience the power of this motor, and extend battery longevity.
- The 850MX motor armature had a special balance adjust to improve the serious shaking problem.
- Maintenance free, high torque, high efficiency, stable and quiet.
- High-speed ball bearings, powerful magnetic outrunner rotor.
- Suitable for T-REX 700E、T-REX800E 3D series helicopters and other 700 level models.

**Caution:** When using the motor on T-REX 800E, please use 112T main gear with 12T motor pinion. Set the head speed at 1900RPM and collective pitch at  $\pm 12^\circ$ .

- 850MX 馬達有著高效率、大動力、高扭力、低耗電流與低溫的表現，持續性的3D動作可以感受靈活扭力輸出，整段飛行都能維持一致的動力輸出，主要其幾乎是維持在固定轉速，不掉轉。
- 850MX 馬達的高效率、低電流表現，電子變速器只需要原廠120A的標準配備，就能完全展現馬達的威力，並延長電池的使用壽命。
- 850MX 馬達轉子皆經過特殊平衡校正，改善一般無外殼外轉馬達平衡不佳，易產生嚴重震動的缺失。
- 免保養、高扭力、高效率、低噪音、低溫昇、控制穩定。
- 高速滾珠軸承、高磁通外轉子。
- 適用 T-REX 700E/800E 3D 全系列機型，及其它 700 級機型。

**注意：**使用800E機型時，主齒輪與馬達齒輪配合必須更改為112T/12T，主旋翼轉速設定為1900rpm，集體螺距為 $\pm 12^\circ$ 。