

型号合格证数据单

TYPE CERTIFICATE DATA SHEET

编号/No: TC0095A

版次/Revision: 0

型别/Model:

RX4E

批准人/Approved By:



职务/Title: 副司长

日期/date: 2024-12-29

本数据单是型号合格证（编号：TC0095A）的组成部分，它规定了符合中国民用航空局的适航要求所颁发此型号合格证的产品的状态和限制。

This data sheet, which is part of Type Certificate (No: TC0095A), prescribes condition and limitation under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Chinese Civil Aviation Regulation.

型号合格证持有人/Type Certificate Holder:

辽宁通用航空研究院，辽宁省沈阳市道义经济开发区道义南大街 37 号 110136

Liaoning General Aviation Academy, No.37 Daoyi South Avenue, Daoyi Development District, Shenyang, Liaoning Province 110136

第一部分：RX4E 型别技术数据/ SECTION A: Model RX4E TECHNICAL DATA

A I. 产品型别概述/Model General

产品型别 Model	类别 Category	型号合格证申请日期 Application Date	型号合格证批准日期 Approval Date
RX4E	正常类飞机 Normal Category Airplane	2019年11月4日 4.Nov.2019	2024年12月29日 29 Dec.2024

A II. 生产依据/ Production Basis

生产依据/Production Basis	生产许可证编号：待定。 Production Certificate No.TBD.
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A III. 审定基础/ Certification Basis

审定基础/ Certification Basis	
适航标准/Airworthiness standard	《正常类、实用类、特技类和通勤类飞机适航规定》（CCAR-23-R3） 《正常类飞机适航规定》（CCAR-23-R4）中第23.2320条、第23.2515条、 第23.2520条、第23.2700条、第23.2705条、第23.2710条
专用条件/Special Conditions	《RX4E型飞机电推进系统（EPU）专用条件》（SC-23-17），2023年7月24日
等效安全/ELOS	第23.1545 条的等效安全，2023年3月6日
豁免/Exemption	无
环保要求/Environmental Standards including Noise	《航空器型号和适航合格审定噪声规定》（CCAR-36-R2）

A IV. 技术特征和使用限制/Technical Characteristics and Operational Limitations

型号设计定义/Type Design Definition:

《RX4E 四座电动飞机构型定义文件》（R4TC-03HZ033 C 版及后续经批准的版本）
《RX4E Configuration Definition for Four Seats Electric Aircraft》(R4TC-03HZ033, Rev C and subsequent approved revision)

电动机/Electric Engine:

1 台斯洛文尼亚 EMRAX 公司生产的 EMRAX 348-DW 电动机
The Single Electric Engine, EMRAX 348-DW, Manufactured by EMRAX Corporation, Slovenia

电动机工作限制/Electric Engine Limits:

温度限制/Temperature Limits:
最高工作温度（内部）/Maximum Operating Temperature (Inside): 120℃
最大表显功率/ Maximum Displayed Power: 155kW

螺旋桨/Propeller:

1 副美国 Sensenich 螺旋桨公司生产的 2 叶螺旋桨
One (1) Sensenich Propeller Company, U.S.A, Two-blade Propeller
型号/Type: W80CM8
CAAC 型号认可证号/ CAAC VTC No.: VTC0375P 数据单版次: R0

螺旋桨限制/Propeller Limits:

最大转速/Maximum Speed: 2700rpm

电机控制器/Motor Controller:

2 台德国 Unitek 公司生产的 BamocarPG D3-400-400 RS 电机控制器
 2 Motor Controller, BamocarPG D3-400-400 RS, Manufacturer by Unitek Co. Ltd, Germany

电机控制器工作限制/Motor Controller Limits:

温度限制/Temperature Limits:

最高工作温度（内部）/Maximum Operating Temperature (Inside): 80℃

锂电池/Li-ion Battery:

2 组荣盛盟固利新能源科技有限公司生产的 MDEE03451002 锂电池
 2 Li-ion Battery Pack, MDEE03451002, Manufacturer by Rise Sun MGL

锂电池总容量/Li-ion Battery Pack Capacity: 69.12kWh

锂电池工作限制/Li-ion Battery Limits:

温度限制/Temperature Limits:

最高工作温度/Maximum Operating Temperature: 60℃

最低工作温度/Minimum Operating Temperature: 0℃

空速限制/Airspeed Limits:

V_{NE} 不可超越速度/Never Exceed Speed: 149 KIAS

V_{NO} 最大结构巡航速度/Maximum Structural Cruising Speed: 117 KIAS

V_O 使用机动速度/Operating Maneuvering: 117 KIAS

V_{FE} 最大襟翼展态速度（起飞）/Maximum Flap Extension Speed 99 KIAS
 (Take-off):

最大襟翼展态速度（着陆）/Maximum Flap Extension Speed 100 KIAS

(Landing):

见注释 1/SeeNote1

最大重量/Maximum Weights:

最大起飞重量/Maximum Take-off Gross Weight: 1260kg

最大着陆重量/Maximum Landing Gross Weight: 1260kg

重心范围/CG Range:

重心包线/CG Envelope	重量/Weight	重心/CG
小重量前重心/Forward Light	1029kg	26.68%MAC
中间重量前重心/Forward Intermediate	1132kg	26.68%MAC
中间重量后重心/After Intermediate	1194kg	36.75 %MAC
大重量前重心/Forward Gross	1260kg	33.40%MAC
大重量后重心/After Gross	1260kg	36.75 %MAC

测量基准/Datum:

距左、右机翼外露根弦展向方向 700mm 处的前缘点。

The leading edge point located 700mm in the spanwise direction from the exposed root chord of the left and right wings.

水平测量措施/Leveling Means:

横向水平调整: 1) 在机头正前方放置水准仪, 调整水准仪水平线在机翼下方; 2) 在左右

机翼根弦前缘点处吊一铅垂线，分别读取铅垂线在水准仪水平线的读数，若两者读数误差在 $\pm 2\text{mm}$ 以内，认为飞机横向水平；

纵向水平调整：1) 将水准仪放置在机身左侧，调整其光线高度到机身后水平测量点的位置；2) 观察水准仪光线与机身前水平测量点的相对位置，当机身前后水平测量点高度差在 $\pm 2\text{mm}$ 内时，认为飞机纵向水平。

Horizontal adjustment: 1) Place a level directly in front of the nose and adjust the horizontal line of the level to be below the wing; 2) Hang a plumb line at the leading edge of the root chord of the left and right wings, and read the readings of the plumb line on the horizontal line of the level. If the reading error between the two is within $\pm 2\text{mm}$, it is considered that the aircraft is horizontally level;

Vertical horizontal adjustment: 1) Place the level on the left side of the body and adjust its light height to the position of the horizontal measurement point behind the body; 2) Observe the relative position between the level light and the horizontal measurement point in front of the aircraft. When the height difference between the horizontal measurement points in front and behind the aircraft is within $\pm 2\text{mm}$, it is considered that the aircraft is longitudinally horizontal.

最小飞行机组/Minimum Crew:

1

最大座位数量/Maximum Number of Seats:

4

最大行李/货物/Maximum Baggage/Cargo:

行李舱最大装载重量/Maximum loading Weight of Luggage Compartment: 5kg

最大使用高度/Maximum Operating Altitude:

10000ft(标准气压高度)

操纵面运动/Control Surface Movements:

副翼/Aileron	上偏 Up $20^\circ \pm 1^\circ$	下偏 Down $20^\circ \pm 1^\circ$
升降舵/Elevator	上偏 Up $30^\circ \pm 1^\circ$	下偏 Down $20^\circ \pm 1^\circ$
升降舵调整片/Elevator Trim	上偏 Up $20^\circ \pm 1^\circ$	下偏 Down $20^\circ \pm 1^\circ$
方向舵/Rudder	右偏 Right $25^\circ \pm 1^\circ$	左偏 Left $25^\circ \pm 1^\circ$
襟翼/Flaps	$0^\circ / 10^\circ / 25^\circ (\pm 1^\circ)$	

运行限制/Operational Limits

允许昼间目视飞行/Approved for day VFR

禁止在已知结冰条件下飞行/Flight into known icing conditions is prohibited

禁止特技和尾旋飞行/Acrobatc maneuvers and spins are prohibited

最大使用相对着陆机场高度为 6561ft (2000m) /The maximum relative landing airport height for use is 6561ft (2000m)

运行范围以合适机场为中心半径 10km/The operating range is centered around suitable airport with a radius of 10km

必要设备/Required Equipment:

在适用的适航规章（见审定基础）中规定的基本必备设备，必须安装在审定的飞机上。

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis), must be installed in the aircraft for certification.

A V. 批准的技术资料/Approved Technical Documents

型别	已批准出版物
RX4E	(1)飞机飞行手册 R4TC-14SM001, B 版及后续经批准的版本 Airplane Flight Manual, R4TC-14SM001, Rev.B and subsequent approved revision. (2)飞机维护手册 R4TC-14SM002 第 04 章-适航限制, H 版及后续经批准的版本 Chapter 04, Airworthiness Limitations in Airplane Maintenance Manual, R4TC-14SM002, Rev.H and subsequent approved revision.

A VI. 注释/Notes

注释/NOTE 1: 经 CAAC 批准的飞机飞行手册、适用的运行规章或审定基础要求的标牌必须安装在飞机上。

All placards required by either the CAAC-Approved AFM, the applicable operating rules, or the Certification Basis must be installed in the aircraft.

第二部分：管理信息/SECTION C: ADMINISTRATIVE INFORMATION

B I.型号持有人记录/Type Certificate Holder Record

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辽宁省沈阳市道义经济开发区道义南大街 37 号
Liaoning General Aviation Academy
No.37 Daoyi South Avenue, Daoyi Development District, Shenyang, Liaoning Province

B II.修订记录/Change Records

数据单版次信息/Revision of the Type Certificate Data Sheet

	数据单编号、版次和颁发日期 Type Certificate Data Sheet Number, Revision and issuance date
当前 Current	编号 TC0095A，版次0，2024年12月29日 No. TC0095A, Revision 0, 29 Dec.2024

数据单修订记录/ Change Record of the Type Certificate Data Sheet

版次/Revision	相对上一版的修订记录 Change Record	备注 Remark
	无/None	

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