

中国民用航空局

CIVIL AVIATION ADMINISTRATION OF CHINA

型号合格证数据单

TYPE Certificate DATA SHEET

编号/No.: TC0029A-DB

(原TDA016-DB)

版次/Revision: 11

型别/Model: RX1E

RX1E-A

批准人/Approved By:



日期/Date: 2025 年 12 月 22 日

本数据单是型号合格证（编号：TC0029A-DB）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状态和限制。

This data sheet, which is part of Type Certificate (No: TC0029A-DB), 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:

零重力航空科技（沈阳）有限公司/ Zero-Gravity Aerospace Technology (Shenyang) Co., Ltd.

辽宁省沈阳市通用航空产业基地/ General Aviation Industry Base, Shenyang, Liaoning Province

邮政编码: 110167/ Postcode: 110167

2025年12月22日前/

Before 22, December

2025:

辽宁通用航空研究院/ Liaoning General Aviation Academy

辽宁沈阳道义经济开发区道义南大街37号/ No. 37 Daoyi South Avenue, Daoyi Development District, Shenyang, Liaoning Province

邮政编码: 110136/ Postcode: 110136

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IA. RX1E型飞机（轻型运动类），2015年02月06日批准 / Model RX1E (Light Sport Aircraft), Approved February 6, 2015**1 运行类别和使用限制/Type of Operation and Operating Limitations**

运行类别/Type of Operation	昼间非特技目视飞行/Day VFR Non-Aerobatic Operation Only
允许机动/Allowed Maneuver	正常飞行中遇到的任何机动 / All Normal Flight Maneuvers 失速 / Stalling 坡度不大于60°的缓8字飞行、急上升转弯和急转弯/ Lazy Eight, Chandelles and Steep Turns in which the angle of bank is not more than 60 degrees.
禁止机动/Prohibited Maneuver	故意的尾旋 / Intentional Spinning

2 重量平衡/Weight and Balance

最大起飞重量/Maximum Take-off Weight	500kg
最大着陆重量/Maximum Landing Weight	500kg
飞机重心测量基准面/ Measuring Datum Plane of Aircraft C. G.	过左右机翼根部前缘作垂直于X轴的平面（距飞机坐标原点1720mm） / The Datum Plane is a plane which is normal to the aircraft's X axis and on which the root leading edges of the left and right wing are (1720mm from origin of body axis).
重心前限/Most Forward C. G.	飞机重心测量基准面后276mm（28%MAC） / 276mm After The Measuring Datum Plane of Aircraft C. G.
重心后限/Most Rearward C. G.	飞机重心测量基准面后363mm（38%MAC） / 363mm After The Measuring Datum Plane of Aircraft C. G.

3 电力装置数据/Electric Power-plant Data

电动机制造商/Electric Motor Manufacturer	Sineton d. o. o.
电动机型号/ Electric Motor Model	A37K154
控制器制造商/Controller Manufacturer	Unitek Co. Ltd.
控制器型号/Controller Model	Bamocar D3
锂离子电池制造商/ Li-ion Battery Pack Manufacturer	Kokam Co. Ltd.
锂离子电池型号/ Li-ion Battery Pack Model	RX-BATTERY88
锂离子电池总容量/ Li-ion Battery Pack Capacity	8.88kWh
锂离子电池标称电压/ Li-ion Battery Pack Nominal Voltage	355V
锂离子电池满充电状态电压/ Li-ion Battery Pack Voltage in 100% SoC	403V
锂离子电池允许最低电压/ Li-ion Battery Pack Lower Limit Voltage	288V
起飞操纵/Take-off Operation	
电动机最大转速限制/Electric Motor Maximum Power RPM Limit	2200rpm
电动机最大功率时间限制/Electric Motor Maximum Power Time Limit	90s
电动机最大起飞功率/ Electric Motor Maximum Take-off Power	40kW
电动机最大连续功率/ Electric Motor Maximum Continuous Power	30kW
温度限制/Temperature Limitations	
控制器最高工作温度（内部）/Controller Maximum Operating Temperature (Inside)	80°C
电动机最高工作温度/ Electric Motor Maximum Operating Temperature	140°C
锂离子电池最高工作温度/ Li-ion Battery Maximum Operating Temperature	60°C

锂离子电池最低工作温度/ Li-ion Battery Maximum Operating Temperature 10℃

4 螺旋桨数据/Propeller Data

制造商/Manufacturer	辽宁锐翔通用飞机制造有限公司 /Liaoning Ruixiang General Aircraft Manufacturing Co. Ltd.
型号/Model	RX-1E1600F
螺旋桨数量/桨叶数量/ Propeller Number /Blades Number	1/2
直径/Diameter	1600mm
材料/Material	黄桦木 (Beech)
桨距/Pitch	1250mm
螺旋桨最大转速/Maximum Propeller Rotational Speed	2200rpm

5 性能概述/Summary of Performance

不可超越速度 V_{NE} /Never Exceed Speed V_{NE}	160km/h
最大巡航速度 V_C /Maximum Cruising Speed V_C	147 km/h
最大机动速度 V_A /Maximum Maneuvering Speed V_A	147km/h
扰流板展开时最大速度 V_{SP} / Maximum Spoiler Extended Speed V_{SP}	110 km/h
失速速度 V_{S1} /Stalling Speed V_{S1}	73 km/h

5.1 起飞距离/Take-off Distance

起飞滑跑距离/Take-off Run Distance	160m
越过15米高度的起飞距离/Take-off Distance to Clear a 15m Obstacle	330m

5.2 着陆距离/Landing Distance

着陆滑跑距离/Landing Run Distance	150m
从15米高度着陆距离/Landing Distance from 15 m above Ground	310m
起飞或着陆时最大侧风速度/ Maximum Demonstration Crosswind Strength for Take-off or Landing	6m/s

5.3 使用升限/Service Ceiling 海拔/A.S.L. 1400m

6 操纵面偏度/Control Surface Movements

升降舵/ Elevator	上偏/ Up	30° (±1°)	下偏/ Down	20° (±1°)
副翼/ Aileron	上偏/ Up	25° (±1°)	下偏/ Down	25° (±1°)
方向舵/ Rudder	左偏/ Left	20° (±1°)	右偏/ Right	20° (±1°)

7 操纵面配平/Control Surface Balancing

操纵面/Control Surface	铰链力矩限制/Limiting Hinge Moment
方向舵/Rudder	0.12kg · m
升降舵/Elevator	0.93kg · m
副翼/Aileron	0.96kg · m

8 飞机尺寸/Aircraft Dimensions

机长/Length	6.58m
机高/High	2.45m
翼展/Wingspan	14.5m
平均气动弦长/Mean Aerodynamic Chord	0.868m
机翼面积/Wing Area	12m ²

9 最小飞行机组/Minimum Flight Crew

1 名飞行员/1 Pilot.

10 制造序列号/Manufacturer's Serial Numbers:

01001 至 01004/01001 through 01004.

IB. RX1E型飞机（轻型运动类），2016年11月28日批准 / Model RX1E (Light-sport Category), Approved
November 28, 2016

1 运行类别和使用限制/Type of Operation and Operating Limitations

运行类别/Type of Operation	昼间非特技目视飞行/Day VFR Non-Aerobatic Operation Only
允许机动/Allowed Maneuver	正常飞行中遇到的任何机动 / All Normal Flight Maneuvers 失速 / Stalling 坡度不大于60°的缓8字飞行、急上升转弯和急转弯/ Lazy Eight, Chandelles and Steep Turns in which the angle of bank is not more than 60 degrees.
禁止机动/Prohibited Maneuver	故意的尾旋 / Intentional Spinning

2 重量平衡/Weight and Balance

最大起飞重量/Maximum Take-off Weight	500kg
最大着陆重量/Maximum Landing Weight	500kg
飞机重心测量基准面/ Measuring Datum Plane of Aircraft C. G.	过左右机翼根部前缘作垂直于X轴的平面（距飞机坐标原点1720mm） / The Datum Plane is a plane which is normal to the aircraft's X axis and on which the root leading edges of the left and right wing are (1720mm from origin of body axis).
重心前限/Most Forward C. G.	飞机重心测量基准面后276mm（28%MAC） / 276mm After The Measuring Datum Plane of Aircraft C. G.
重心后限/Most Rearward C. G.	飞机重心测量基准面后363mm（38%MAC） / 363mm After The Measuring Datum Plane of Aircraft C. G.

3 电力装置数据/Electric Power-plant Data

电动机/Electric Motor	Sineton d. o. o.制造的A37K154型电动机或辽宁通用航空研究院制造的A37K154(RS)型电动机。 / Electric Motor Model A37K154 manufactured by Sineton d. o. o. or Electric Motor Model A37K154(RS) manufactured by Liaoning General Aviation Academy.
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控制器制造商/Controller Manufacturer	Unitek Co. Ltd.
控制器型别/Controller Model	Bamocar D3
锂离子电池制造商/ Li-ion Battery Pack Manufacturer	中信国安盟固利动力科技有限公司 /CITIC GUOAN MGL
锂离子电池型别/ Li-ion Battery Pack Model	MDEP3550251
锂离子电池总容量/ Li-ion Battery Pack Capacity	8.88kWh
锂离子电池标称电压/ Li-ion Battery Pack Nominal Voltage	350.4V
锂离子电池满充电状态电压/ Li-ion Battery Pack Voltage in 100% SoC	403V
锂离子电池允许最低电压/ Li-ion Battery Pack Lower Limit Voltage	259.2V

起飞操纵/Take-off Operation

电动机最大转速限制/Electric Motor Maximum Power RPM Limit	2200rpm
电动机最大功率时间限制/Electric Motor Maximum Power Time Limit	90s
电动机最大起飞功率/ Electric Motor Maximum Take-off Power	40kW
电动机最大连续功率/ Electric Motor Maximum Continuous Power	30kW

温度限制/Temperature Limitations

控制器最高工作温度（内部）/Controller Maximum Operating Temperature (Inside)	80℃
电动机最高工作温度/ Electric Motor Maximum Operating Temperature	140℃
锂离子电池最高工作温度/ Li-ion Battery Maximum Operating Temperature	60℃
锂离子电池最低工作温度/ Li-ion Battery Minimum Operating Temperature	10℃

4 螺旋桨数据/Propeller Data

4.1 RX-1E1600F 型木制螺旋桨/Model RX-1E1600F wooden propeller

制造商/Manufacturer	辽宁锐翔通用飞机制造有限公司 /Liaoning Ruixiang General Aircraft Manufacturing Co. Ltd.
型别/Model	RX-1E1600F
螺旋桨数量/桨叶数量/ Propeller Number /Blades Number	1/2
直径/Diameter	1600mm
材料/Material	黄桦木 (Beech)
桨距/Pitch	1250mm
螺旋桨最大转速/Maximum Propeller Rotational Speed	2200rpm

4.2 PROC01-1600A 型碳纤维螺旋桨/ Model PROC01-1600A carbon fiber propeller

设计单位/Designed by	辽宁通用航空研究院/ Liaoning General Aviation Academy
制造商/Manufacturer	安徽卓尔航空科技有限公司/ Anhui XOAR Aero Tech. Ltd.
型别/Model	PROC01-1600A
螺旋桨数量/桨叶数量/ Propeller Number /Blades Number	1/2
直径/Diameter	1600mm
材料/Material	碳纤维/ Carbon Fiber
桨距/Pitch	1290mm
螺旋桨最大转速/Maximum Propeller Rotational Speed	2400rpm

5 性能概述/Summary of Performance

不可超越速度 V_{NE} /Never Exceed Speed V_{NE}	160km/h
最大巡航速度 V_C /Maximum Cruising Speed V_C	147 km/h
最大机动速度 V_A /Maximum Maneuvering Speed V_A	147km/h
扰流板展开时最大速度 V_{SP} / Maximum Spoiler Extended Speed V_{SP}	110 km/h
失速速度 V_{SI} /Stalling Speed V_{SI}	73 km/h

5.1 起飞距离/Take-off Distance

起飞滑跑距离/Take-off Run Distance	160m
越过15米高度的起飞距离/Take-off Distance to Clear a 15m Obstacle	330m

5.2 着陆距离/Landing Distance

着陆滑跑距离/Landing Run Distance	150m
从15米高度着陆距离/Landing Distance from 15 m above Ground	310m
起飞或着陆时最大侧风速度/ Maximum Demonstration Crosswind Strength for Take-off or Landing	6m/s

5.3 使用升限/Service Ceiling

海拔/A.S.L.1400m

6 操纵面偏度/Control Surface Movements

升降舵/ Elevator	上偏/ Up	30° ($\pm 1^\circ$)	下偏/ Down	20° ($\pm 1^\circ$)
副翼/ Aileron	上偏/ Up	25° ($\pm 1^\circ$)	下偏/ Down	25° ($\pm 1^\circ$)
方向舵/ Rudder	左偏/ Left	20° ($\pm 1^\circ$)	右偏/ Right	20° ($\pm 1^\circ$)

7 操纵面配平/Control Surface Balancing

操纵面/Control Surface	铰链力矩限制/Limiting Hinge Moment
方向舵/Rudder	0.12kg · m
升降舵/Elevator	0.93kg · m
副翼/Aileron	0.96kg · m

8 飞机尺寸/Aircraft Dimensions

机长/Length	6.58m
机高/High	2.45m
翼展/Wingspan	14.5m
平均气动弦长/Mean Aerodynamic Chord	0.868m
机翼面积/Wing Area	12m ²

9 最小飞行机组/Minimum Flight Crew

1 名飞行员/1 Pilot.

10 制造序列号/ Manufacturer's Serial Numbers:

02002 至 02004。执行服务通告 SB-RX1E-2016-002 后, 制造序列号 01001 至 01004 也适用。/ 02002 through 02004. Serial Numbers 01001 through 01004 are eligible if Service Bulletin SB-RX1E-2016-002 has been incorporated.

IC. RX1E型飞机（轻型运动类），2018年02月26日批准 / Model RX1E (Light-sport Category), Approved February 26, 2018**1 运行类别和使用限制/Type of Operation and Operating Limitations**

运行类别/Type of Operation	昼间非特技目视飞行/Day VFR Non-Aerobatic Operation Only
允许机动/Allowed Maneuver	正常飞行中遇到的任何机动 / All Normal Flight Maneuvers 失速 / Stalling 坡度不大于60°的缓8字飞行、急上升转弯和急转弯/ Lazy Eight, Chandelles and Steep Turns in which the angle of bank is not more than 60 degrees.
禁止机动/Prohibited Maneuver	故意的尾旋 / Intentional Spinning

2 重量平衡/Weight and Balance

最大起飞重量/Maximum Take-off Weight	500kg
最大着陆重量/Maximum Landing Weight	500kg
飞机重心测量基准面/ Measuring Datum Plane of Aircraft C. G.	过左右机翼根部前缘作垂直于X轴的平面（距飞机坐标原点1720mm）/ The Datum Plane is a plane which is normal to the aircraft's X axis and on which the root leading edges of the left and right wing are (1720mm from origin of body axis).
重心前限/Most Forward C. G.	飞机重心测量基准面后276mm（28%MAC）/276mm After The Measuring Datum Plane of Aircraft C. G.
重心后限/Most Rearward C. G.	飞机重心测量基准面后363mm（38%MAC）/363mm After The Measuring Datum Plane of Aircraft C. G.

3 电力装置数据/Electric Power-plant Data

电动机/Electric Motor	Sineton d. o. o.制造的A37K154型电动机或辽宁通用航空研究院制造的A37K154(RS)型电动机。/ Electric Motor Model A37K154 manufactured by Sineton d. o. o. or Electric Motor Model A37K154(RS) manufactured by Liaoning General Aviation Academy.	
控制器制造商/Controller Manufacturer	Unitek Co. Ltd.	
控制器型别/Controller Model	Bamocar D3	
锂离子电池制造商/ Li-ion Battery Pack Manufacturer	中信国安盟固利动力科技有限公司 /CITIC GUOAN MGL	
锂离子电池型别/ Li-ion Battery Pack Model	MDEP3550321	
锂离子电池总容量/ Li-ion Battery Pack Capacity	11.36kWh	
锂离子电池标称电压/ Li-ion Battery Pack Nominal Voltage	350V	
锂离子电池满充电状态电压/ Li-ion Battery Pack Voltage in 100% SoC	403V	
锂离子电池允许最低电压/ Li-ion Battery Pack Lower Limit Voltage	240V	

起飞操纵/Take-off Operation

电动机最大转速限制/Electric Motor Maximum Power RPM Limit	2200rpm
电动机最大功率时间限制/Electric Motor Maximum Power Time Limit	90s
电动机最大起飞功率/ Electric Motor Maximum Take-off Power	40kW

电动机最大连续功率/ Electric Motor Maximum Continuous Power 30kW

温度限制/Temperature Limitations

控制器最高工作温度（内部）/Controller Maximum Operating Temperature (Inside) 80℃
 电动机最高工作温度/ Electric Motor Maximum Operating Temperature 140℃
 锂离子电池最高工作温度/ Li-ion Battery Maximum Operating Temperature 60℃
 锂离子电池最低工作温度/ Li-ion Battery Minimum Operating Temperature 10℃

4 螺旋桨数据/Propeller Data

4.1 RX-1E1600F 型木制螺旋桨/ Model RX-1E1600F wooden propeller

制造商/Manufacturer 辽宁锐翔通用飞机制造有限公司
 /Liaoning Ruixiang General Aircraft
 Manufacturing Co. Ltd.
 型别/Model RX-1E1600F
 螺旋桨数量/桨叶数量/ Propeller Number /Blades Number 1/2
 直径/Diameter 1600mm
 材料/Material 黄桦木（Beech）
 桨距/Pitch 1250mm
 螺旋桨最大转速/Maximum Propeller Rotational Speed 2200rpm

4.2 PROC01-1600A 型碳纤维螺旋桨/ Model PROC01-1600A carbon fiber propeller

设计单位/Designed by 辽宁通用航空研究院/ Liaoning
 General Aviation Academy
 制造商/Manufacturer 安徽卓尔航空科技有限公司/ Anhui
 XOAR Aero Tech. Ltd.
 型别/Model PROC01-1600A
 螺旋桨数量/桨叶数量/ Propeller Number /Blades Number 1/2
 直径/Diameter 1600mm
 材料/Material 碳纤维/ Carbon Fiber
 桨距/Pitch 1290mm
 螺旋桨最大转速/Maximum Propeller Rotational Speed 2400rpm

5 性能概述/Summary of Performance

不可超越速度 V_{NE} /Never Exceed Speed V_{NE} 160km/h
 最大巡航速度 V_C /Maximum Cruising Speed V_C 147 km/h
 最大机动速度 V_A /Maximum Maneuvering Speed V_A 147km/h
 扰流板展开时最大速度 V_{SP} / Maximum Spoiler Extended Speed V_{SP} 110 km/h
 失速速度 V_{SI} /Stalling Speed V_{SI} 73 km/h

5.1 起飞距离/Take-off Distance

起飞滑跑距离/Take-off Run Distance 160m
 越过15米高度的起飞距离/Take-off Distance to Clear a 15m Obstacle 330m

5.2 着陆距离/Landing Distance

着陆滑跑距离/Landing Run Distance 150m
 从15米高度着陆距离/Landing Distance from 15 m above Ground 310m

起飞或着陆时最大侧风速度/

6m/s

Maximum Demonstration Crosswind Strength for Take-off or Landing

5.3 使用升限/Service Ceiling

海拔/ASL 1400m

6 操纵面偏度/Control Surface Movements

升降舵/ Elevator	上偏/ Up	30° (±1°)	下偏/ Down	20° (±1°)
副翼/ Aileron	上偏/ Up	25° (±1°)	下偏/ Down	25° (±1°)
方向舵/ Rudder	左偏/ Left	20° (±1°)	右偏/ Right	20° (±1°)

7 操纵面配平/Control Surface Balancing

操纵面/Control Surface

铰链力矩限制/Limiting Hinge Moment

方向舵/Rudder

0.12kg · m

升降舵/Elevator

0.93kg · m

副翼/Aileron

0.96kg · m

8 飞机尺寸/Aircraft Dimensions

机长/Length

6.58m

机高/High

2.45m

翼展/Wingspan

14.5m

平均气动弦长/Mean Aerodynamic Chord

0.868m

机翼面积/Wing Area

12m²

9 最小飞行机组/Minimum Flight Crew

1 名飞行员/1 Pilot.

10 制造序列号/Manufacturer's Serial Numbers:

03001 以后/ 03001 and up.

II. RX1E-A 型飞机（轻型运动类），2018年10月19日批准 / Model RX1E-A (Light-sport Category), Approved October 19, 2018

1 运行类别和使用限制/Type of Operation and Operating Limitations

运行类别/Type of Operation

昼间非特技目视飞行/Day VFR Non-Aerobatic Operation Only

允许机动/Allowed Maneuver

正常飞行中遇到的任何机动 / All Normal Flight Maneuvers

失速 / Stalling

坡度不大于60°的缓8字飞行、急上升转弯和急转弯/ Lazy

Eight, Chandelles and Steep Turns in which the angle of bank is not more than 60 degrees.

禁止机动/Prohibited Maneuver

故意的尾旋 / Intentional Spinning

2 重量平衡/Weight and Balance

最大起飞重量/Maximum Take-off Weight

630kg

最大着陆重量/Maximum Landing Weight	630kg		
空机重量/Empty Weight	470kg		
商载/Load Capacity	160kg		
飞机重心测量基准面/ Measuring Datum Plane of Aircraft C. G.	过左右机翼根部前缘作垂直于X轴的平面（距飞机坐标原点1481.5mm） / The Datum Plane is a plane which is normal to the aircraft's X axis and on which the root leading edges of the left and right wing are (1481.5mm from origin of body axis).		
重心前限/Most Forward C. G.	飞机重心测量基准面后302mm（31%MAC） /302mm After The Measuring Datum Plane of Aircraft C. G.		
重心后限/Most Rearward C. G.	飞机重心测量基准面后363mm（38%MAC） /363mm After The Measuring Datum Plane of Aircraft C. G.		
3 电动力装置数据/Electric Power-plant Data			
电动机制造商/ Electric Motor Manufacturer	辽宁通用航空研究院/ Liaoning General Aviation Academy		
电动机型号/ Electric Motor Model	A37K154(RS)-R		
控制器构型/ Controller Configurations	构型 I / Configuration I	构型 II/ Configuration II	
控制器制造商/Controller Manufacturer	Unitek Co. Ltd.	湖南力行动力科技有限公司/Hunan Power Action Power Technology Co.,Ltd.	
控制器型号/Controller Model	Bamocar PG D3-400-400RS	tDriver-FM8	
锂蓄电池构型/ Li-ion Battery Configurations	构型I / Configuration I	构型 II/ Configuration II	构型 III/ Configuration III
锂蓄电池制造商/ Li-ion Battery Pack Manufacturer	荣盛盟固利新能源 科技有限公司 /Rise Sun MGL	荣盛盟固利新能源 科技有限公司 /Rise Sun MGL	江苏正力新能电池 技术股份有限公司 /Jiangsu Zenergy Battery Technologies Group Co.,Ltd
锂蓄电池型号/ Li-ion Battery Pack Model	MDEP3550802	MDEP3451002	TP Li 30.51-343.68
锂蓄电池总容量/ Li-ion Battery Pack Capacity	28.4kWh	34.56kWh	28.03kWh
锂蓄电池标称电压/ Li-ion Battery Pack Nominal Voltage	350V	345V	339.8V
锂蓄电池满充电状态电压/ Li-ion Battery Pack Voltage in 100% SoC	398V	412.8V	408V
锂蓄电池允许最低电压/ Li-ion Battery Pack Lower Limit Voltage	240V	240V	240V
起飞操纵/Take-off Operation			
电动机最大转速限制/Electric Motor Maximum Power RPM Limit			2400rpm
电动机最大功率时间限制/Electric Motor Maximum Power Time Limit			90s
电动机最大起飞功率/ Electric Motor Maximum Take-off Power			50kW
电动机最大连续功率/ Electric Motor Maximum Continuous Power			30kW

温度限制/Temperature Limitations

控制器最高工作温度 (内部) /Controller Maximum Operating Temperature (Inside)	80℃
电动机最高工作温度/ Electric Motor Maximum Operating Temperature	140℃
锂蓄电池最高工作温度/ Li-ion Battery Maximum Operating Temperature	60℃
锂蓄电池最低工作温度/ Li-ion Battery Minimum Operating Temperature	10℃

4 螺旋桨数据/Propeller Data

设计单位/Designed by	辽宁通用航空研究院/ Liaoning General Aviation Academy	
螺旋桨构型/ Propeller Configurations	构型 I / Configuration I	构型 II / Configuration II
制造商/Manufacturer	安徽卓尔航空科技有限公司/ Anhui XOAR Aero Tech. Ltd.	沈阳斯塔娜航空科技有限公司 /Shenyang Sterna Aero Tech.Ltd.
型别/Model	PROC01-1600A	PROC02-1600A
螺旋桨数量/桨叶数量/ Propeller Number /Blades Number	1/2	1/2
直径/Diameter	1600mm	1600mm
材料/Material	碳纤维/ Carbon Fiber	碳纤维/ Carbon Fiber
桨距/Pitch	1290mm	1290mm
螺旋桨最大转速/ Maximum Propeller Rotational Speed	2400rpm	2600rpm

5 性能概述/Summary of Performance

不可超越速度 V_{NE} /Never Exceed Speed V_{NE}	180km/h
最大巡航速度 V_C /Maximum Cruising Speed V_C	147 km/h
最大机动速度 V_A /Maximum Maneuvering Speed V_A	166km/h
扰流板展开时最大速度 V_{SP} / Maximum Spoiler Extended Speed V_{SP}	120 km/h
失速速度 V_{S1} /Stalling Speed V_{S1}	83 km/h
起飞或着陆时最大侧风速度/ Maximum Demonstration Crosswind Strength for Take-off or Landing	6m/s

5.1 起飞距离/Take-off Distance

	标准构型 Standard Configuration	雪橇板改装构型 (冰面) Snowboard Modification Configuration(Ice Surface)	雪橇板改装构型 (陆地) Snowboard Modification Configuration(Land)
起飞滑跑距离 Take-off Run Distance	281 m	260 m	281 m
越过15米高度的起飞距离 Take-off Distance to Clear a 15m Obstacle	499 m	318m	499 m

5.2 着陆距离/Landing Distance

	标准构型 Standard Configuration	雪橇板改装构型 (冰面) Snowboard Modification Configuration(Ice Surface)	雪橇板改装构型 (陆地) Snowboard Modification Configuration(Land)
着陆滑跑距离 Landing Run Distance	208 m	450 m	208 m
越过15米高度的着陆距离	550 m	666 m	550 m

Landing Distance from 15m above Ground

5.3 使用升限/Service Ceiling

海拔/A.S.L. 3000m

6 操纵面偏度/Control Surface Movements

升降舵/ Elevator	上偏/ Up	30° (±1°)	下偏/ Down	20° (±1°)
副翼/ Aileron	上偏/ Up	25° (±1°)	下偏/ Down	25° (±1°)
方向舵/ Rudder	左偏/ Left	25° (±1°)	右偏/ Right	25° (±1°)

7 操纵面配平/Control Surface Balancing

操纵面/Control Surface	铰链力矩限制/Limiting Hinge Moment
方向舵/Rudder	6.58kg · m
升降舵/Elevator	3.34kg · m
副翼/Aileron	2.94kg · m

8 飞机尺寸/Aircraft Dimensions

机长/Length	6.58m
机高/High	2.45m
翼展/Wingspan	14.5m
平均气动弦长/Mean Aerodynamic Chord	0.868m
机翼面积/Wing Area	12m ²

9 最小飞行机组/Minimum Flight Crew

1 名飞行员/1 Pilot.

10 制造序列号/Manufacturer's Serial Numbers:

0101 以后。/ 0101 and up.

11 选装构型/Optional Configuration:

雪橇板改装构型已被批准, 该构型对应两种运行场景: 陆地和冰面。/The modified configuration of the snowboard has been approved, and this configuration corresponds to two operating scenarios: land and ice surface. 在陆地运行时飞行性能不变, 包括起飞和着陆距离。/The flight performance remains unchanged during land operation, including the takeoff and landing distances.

在冰面运行时, 起飞滑跑距离和着陆滑跑距离发生改变, 具体见5.1节、5.2节。运行限制见CAAC批准的《RX1E-A双座电动飞机飞行员使用手册》(RX1E-A-12SM001, F版或后续批准版)。/During ice surface operation, the takeoff run distance and landing run distance change, with details provided in Sections 5.1 and 5.2. Operational limitations are specified in the CAAC-approved Pilot's Operating Handbook RX1E-A Document No. RX1E-A-12SM001, Revision F or later approved revisions.

所有机型相关数据/ DATA PERTINENT TO ALL MODELS

1 机体详细数据/Airframe Details

类型/Type	上单翼, 牵引式螺旋桨/High Wing, Traction Propeller
座椅数/Number of Seats	2
结构材料/Structure Material	复合材料/Composite
起落架/Landing Gear	前三点固定式/Fixed Tricycle

增阻装置/High Drag Device	扰流板/Spoiler
纵向操纵/Longitudinal Control	升降舵/Elevator
航向操纵/Directional Control	方向舵/Rudder
横向操纵/Lateral Control	副翼/Ailerons
地面操纵/Steering on the ground	可操纵前轮/Steerable Nose Wheel
刹车/Braking	主轮刹车/Main Wheel Brake

2 水平测量方法/Leveling Means

纵向/Longitudinal

对于RX1E型飞机 / RX1E Aircraft:

将气泡式水平仪置于垂直安定面下方的水平边缘上/ Place the bubble level on the lower horizontal edge of vertical stabilizer.

对于RX1E-A型飞机 / RX1E-A Aircraft:

打开飞机左侧舱门, 将水准仪放在机身左侧, 调整机身, 使水准仪光线同时通过机头水平测量点与机尾水平测量点。/ Open the left cabin door of the aircraft. Put the spirit-level on the left side of the fuselage. Adjusting the fuselage make the light of the spirit-level pass through the horizontal measurement points of the nose and the tail.

横向/Lateral

从距左、右机翼外露根弦330mm处的前缘点各吊一铅锤, 然后测量左右机翼各自该前缘点到地面的距离, 两者距离值相等或两者距离差值在5mm内是可以接受/Suspend plumbs respectively and symmetrically at the leading edge points of the left and right wings. The distance between the plumb and the exposed root chord is 330mm. Measure the heights from the suspending points to the ground. It is acceptable that the difference between 2 heights is less than or equal to 5mm.

3 审定基础/ Certification Basis

对于安装 RX-BATTERY88 或者 MDEP3550251 型锂蓄电池的 RX1E 飞机, 审定基础是 CCAR-21-R3 §21.25 和 AC-21-AA-2009-25。/ Certification basis consists of CCAR-21-R3 §21.25 and AC-21-AA-2009-25, for RX1E aircraft equipped with Li-ion battery Model RX-BATTERY88 or MDEP3550251.

对于安装 MDEP3550321 型锂蓄电池的 RX1E 飞机, 审定基础是 CCAR-21-R4 §21.26 和 AC-21-AA-2015-25R1。/ Certification basis consists of CCAR-21-R4 §21.26 and AC-21-AA-2015-25R1, for RX1E aircraft equipped with Li-ion battery Model MDEP3550321.

对于 RX1E-A 型飞机, 审定基础是 CCAR-21-R4 §21.26 和 AC-21-AA-2015-25R1/ Certification basis consists of CCAR-21-R4 §21.26 and AC-21-AA-2015-25R1, for RX1E-A aircraft.

(a) 适用的 ASTM 标准/ Applicable ASTM Standards

对于 RX1E 型飞机 / RX1E Aircraft:

ASTM F2245-11	轻型运动飞机设计和性能标准规范/ Standard Specification for Design and Performance of a Light Sport Airplane;
ASTM F2279-10	固定翼轻型运动飞机制造质量保证标准/ Standard Practice for Quality Assurance in the Manufacture of Fixed Wing Light Sport Aircraft;
ASTM F2295-10	轻型运动飞机持续运行安全监控标准实施/ Standard Practice for Continued Operational Safety Monitoring of a Light Sport

ASTM F2483-05	Aircraft; 轻型运动飞机维修通则和维修手册编制标准实施/ Standard Practice for Maintenance and the Development of Maintenance Manuals for Light Sport Aircraft;
ASTM F2506-10	轻型运动飞机定距/地面可调螺旋桨设计和试验标准规范/ Standard Specification for Design and Testing of Fixed-Pitch or Ground Adjustable Light Sport Aircraft Propellers;
ASTM F2746-09	轻型运动飞机驾驶员操作手册 (POH) 标准规范/ Standard Specification for Pilot's Operating Handbook(POH) for Light Sport Airplane;
ASTM F2840-11	轻型运动飞机电动力推进系统设计与制造标准/ Standard Practice for Design and Manufacture of Electric Propulsion Units for Light Sport Aircraft.
<u>对于 RX1E-A 型飞机 / RX1E-A Aircraft:</u>	
ASTM F2245-14	轻型运动飞机设计和性能标准规范/ Standard Specification for Design and Performance of a Light Sport Airplane;
ASTM F2972-14e1	轻型运动飞机制造商质量保证系统标准/ Standard Specification for Light Sport Aircraft Manufacture's Quality Assurance System;
ASTM F2295-10	轻型运动飞机持续运行安全监控标准实施/ Standard Practice for Continued Operational Safety Monitoring of a Light Sport Aircraft;
ASTM F2483-12	轻型运动飞机维修通则和维修手册编制标准实施/ Standard Practice for Maintenance and the Development of Maintenance Manuals for Light Sport Aircraft;
ASTM F2506-13	轻型运动飞机定距/地面可调螺旋桨设计和试验标准规范/ Standard Specification for Design and Testing of Fixed-Pitch or Ground Adjustable Light Sport Aircraft Propellers;
ASTM F2746-14	轻型运动飞机驾驶员操作手册 (POH) 标准规范/ Standard Specification for Pilot's Operating Handbook(POH) for Light Sport Airplane;
ASTM F2840-14	轻型运动飞机电动力推进系统设计与制造标准/ Standard Practice for Design and Manufacture of Electric Propulsion Units for Light Sport Aircraft;
ASTMF2316-12(2014)	机体应急伞标准/ Standard Specification for Airframe Emergency Parachutes;
ASTM F3035-13	固定翼轻型运动飞机生产接收标准/ Standard Practice for Production Acceptance in Manufacture of a Fixed Wing Light Sport Aircraft.

(b) 等效安全/Equivalent Safety Findings

无/None

(c) 专用条件/Special Conditions

对于 RX1E 型 IB 和 IC 构型的飞机和 RX1E-A 型飞机, 专用条件是 SC-LSA-F2840-001 《RX1E 系列

电动飞机使用锂离子动力电池》(2021年12月30日颁发)。/ SC-LSA-F2840-001 *RX1E Series Electrical Aircraft Using Lithium-ion Power Batteries* (Issued on Dec. 30, 2021), for RX1E configuration IB and IC and RX1E-A aircraft.

(d) 豁免/Exemptions

无/None

4 生产依据/ Production Basis

PC0028A 号生产许可证/ CAAC Production Certificate Number PC0028A.

5 设备/ Equipment

适用的适航规章(见审定基础)所要求的基本设备必须安装在航空器上以满足型号合格审定的要求。此外,下列设备也是必须的。/ The basic required equipment prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane. In addition, the following equipment is also required:

对于安装RX-BATTERY88型锂蓄电池的RX1E飞机,使用CAAC批准的《RX1E双座电动飞机飞行员使用手册》(RX1E-12SM001, B版或后续批准版)。/ CAAC approved Pilot's Operating Handbook RX1E, Document No. RX1E-12SM001, revision B, or later approved revision, for RX1E aircraft equipped with Li-ion battery Model RX-BATTERY88.

对于安装MDEP3550251或者MDEP3550321型锂蓄电池的RX1E飞机,使用CAAC批准的《RX1E双座电动飞机飞行员使用手册》(RX1E-12SM011, A版或后续批准版)。/ CAAC approved Pilot's Operating Handbook RX1E, Document No. RX1E-12SM011, revision A, or later approved revision, for RX1E aircraft equipped with Li-ion battery Model MDEP3550251 or MDEP3550321.

对于RX1E-A飞机,使用CAAC批准的《RX1E-A双座电动飞机飞行员使用手册》(RX1E-A-12SM001A, 或后续批准版)。/ CAAC approved Pilot's Operating Handbook RX1E-A, Document No. RX1E-A-12SM001A, revision A, or later approved revision, for RX1E-A Aircraft.

飞行员使用手册所要求的设备和标牌必须安装在飞机上。/ Equipment and placards required by Pilot's Operating Handbook must be installed on the aircraft.

-- 完 / END --