

型号认可证数据单
THE VALIDATION DATA SHEET

编号/No: VTC0357A

版次/Revision: 0

型别/Model:

G 4-2 R

G 4-2 RT

G 4-2 Ti

批准人/Approved By:



职务/Title: Director General of CAAC-AAD

日期/date: 2019 年 04 月 02 日

本数据单是型号认可证 (编号: VTC0357A)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认可证的产品状态和限制。

This data sheet, which is part of Validation of Type Certificate (No:VTC0357A), 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.

型号认可证持有人/Validation of Type Certificate Holder:

Trixy Aviation d.o.o.
Žiče 107, SI-3215 Loče , Slovenia

第1部分 概述（所有机型）

SECTION 1 GENERAL (ALL MODELS)

1. CAAC 认可数据单和型号合格证数据单

CAAC Validation Data Sheet and Type Certificate Data Sheet

	中国民用航空局认可数据单号、版次和颁发日期 CAAC Validation Data Sheet Number, Revision and issuance date	型号合格证数据单号、版次和颁发日期 Type Certificate Data Sheet Number, Revision and issuance date
当前 Current	0357A, Revision 0, 2019 年 4 月 2 日	16/001-AT/ULN16, Issue 2, 11.12.2017
历史 History		

2. 类别/Airworthiness Category: 初级类
超轻型自转旋翼机
Primary Category
Ultralight Gyrocopter
3. 认可当局/Validation Authority: 中国民用航空局 CAAC
审定当局/Certifying Authority: 斯洛文尼亚民航局 CAA-Slovenia
4. 型号合格证持有人/Type Certificate Holder: Trixy Aviation d.o.o.
Žiče 107, SI-3215 Loče, Slovenia
5. 制造厂/Manufacturer: Trixy Aviation d.o.o.
Žiče 107, SI-3215 Loče, Slovenia

6. CAAC 附加技术条件/CAAC Additional Technical Conditions:

6.1 依据中国民用航空规章**CCAR21.29**（五）要求，机上所有用于提示、警告和通知旅客的文字标记和标牌必须至少是中文；机上所有向旅客或者机外营救人员指示应急出口和门的位置以及开启方法的文字标记和标牌必须至少是中文；旅客可能使用的机上所有应急设备的操作说明必须至少是中文。

As per CCAR 21.29(5), all markings and placards on the airplane used for advising, warning, or notifying passengers must be at least in Chinese; all markings and placards on an airplane used for indicating passengers or outboard rescue personnel of the location of emergency exits and doors and their means of opening must be at least in Chinese; and all the operation instructions of airplane emergency equipment that may be used by passengers must be at least in Chinese.

6.2 为具备在中国运行的资格，按本型号认可证制造的每架航空器必须具有一份出口适航证，其上签注有出口国适航当局的审定声明，即：本架航空器符合 **CAAC** 所批准的型号设计，并处于可安全运行的状态。

To be considered eligible for operation in China, each aircraft manufactured under this Validation of Type Certificate must be accompanied by a certificate of airworthiness for export endorsed by Export Authority which states (in English language):This aircraft conforms to its CAAC type design and is in a condition for safe operation.

第2 部分

SECTION 2

I. 型号和型别/Type and Model:

- a) 型号 Type: **G 4-2**
- b) 型别 Model: G 4-2 R (motor/Engine: Rotax 912 ULS)
G 4-2 RT (motor/Engine: Rotax 914/UL)
G 4-2 Ti (motor/Engine: Rotax 912 Ti)

类别/ Category: 初级类 –超轻型自转旋翼机
Primary Category -Ultralight Gyrocopter

II.CAAC 型号认可审定基础/CAAC Validation Basis

CAAC 认可审定基础由斯洛文尼亚民航局审定基础和 CAAC 附加技术条件组成。/The CAAC validation Certification basis consists of the Certification basis of CAA-Slovenia and the CAAC additional technical conditions.

斯洛文尼亚民航局审定基础 / CAA-Slovenia CERTIFICATION BASIS**1.适航要求/ Airworthiness requirements:**

- a.Regulation of the Ultra-Light Devices (Official Gazette of Republic of Slovenia No. 107/2008);
- b.CERTIFICATION SPECIFICATIONS for attestation of ultralight gyrocopters (one engine) (Official Gazette of Republic of Slovenia No. 21/2016);
- c.Publication of Building Regulations for Microlight Gyroplanes (single-engine) (BUT 2012), 18. October 2012.

2.专用条件/Special conditions: 无/None**3.豁免/Exemptions: 无/None****CAAC 附加技术条件/CAAC Additional Technical Conditions:**

1. 依据中国民用航空规章CCAR21.29（五）要求，机上所有用于提示、警告和通知旅客的文字标记和标牌必须至少是中文；机上所有向旅客或者机外营救人员指示应急出口和门的位置以及开启方法的文字标记和标牌必须至少是中文；旅客可能使用的机上所有应急设备的操作说明必须至少是中文。

As per CCAR 21.29(5), all markings and placards on the airplane used for advising, warning, or notifying passengers must be at least in Chinese; all markings and placards on an airplane used

for indicating passengers or outboard rescue personnel of the location of emergency exits and doors and their means of opening must be at least in Chinese; and all the operation instructions of airplane emergency equipment that may be used by passengers must be at least in Chinese.

注释/Notes:

1.交付的产品应符合图纸目录（编号：TA-DO-D-007，修订 00C 或其后续经批准的修订）和设备清单（编号：TA-CL-P-011,Rev 00D 或其后续经批准的修订）

Each delivered product shall conform to drawing list(TA-DO-D-007,Rev.00C or its subsequent approved revision) and equipment list (TA-CL-P-011,Rev 00D or its subsequent approved revision)

2. 中文标牌和标识包含在文件《中文标牌和标记》（TA-WI-D-032 修订 00C）或后续批准的修订中。

Chinese Placards and markings are included in document< Chinese Placards and Markings > (TA-WI-D-032, Rev.00C) or its subsequent approved revision.

3. G 4-2 R、G 4-2 RT 、G 4-2 Ti 均具有“自由”和“公主”构型。

G 4-2 R, G 4-2 RT and G 4-2 Ti have <Liberty> and <Princess> configurations.

4. G 4-2 Ti 还具有“天眼”构型。

G 4-2 Ti also has <TrixyEye> configuration.

III.技术数据、性能及限制/Technical data, performances and limitations

发动机 Engine:

发动机类型/ Number and type of engine:

航空器型别 Model	G 4-2 R	G 4-2 RT	G 4-2 Ti
发动机 Engine	一台发动机 single Engine	一台发动机 single Engine	一台发动机 single Engine
发动机型号 Engine Type	Rotax 912 S/ULS	Rotax 914/ UL	Trixy 912 Ti
最大功率 Maximum power	5800RPM 时 74,0 kW (标准海平面) 74,0 kW at 5800 RPM (Standard Sea Level)	5800RPM 时 84,5 kW (标准海平面) 84,5 kW at 5800 RPM (Standard Sea Level)	5800RPM 时 95,5 kW (标准海平面) 95,5 kW at 5800 RPM (Standard Sea Level)

最大连续功率 Maximum continuous power	5500 RPM 时 69 kW (2 个汽化器) 69 kW at 5500 RPM (2CD carburettors)	5500 RPM 时 74 kW (2 个汽化器) 74 kW at 5500 RPM (2CD carburettors)	5500 RPM 时 84 kW (LAD 燃油喷射系统) 84kW at 5500 RPM (Injection LAD)
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燃油规格/Fuel specifications:

发动机 Engine	Rotax 912 ULS	Rotax 914 UL	Trixy 912 Ti
MOGAS (European standard):	EN 228 Super, EN 228 Super Plus	EN 228 Super, EN 228 Super Plus	EN 228 Super, EN 228 Super Plus
AVGAS (Aviation standard)	AVGAS 100 LL (ASTM D910)	AVGAS 100 LL (ASTM D910)	AVGAS 100 LL (ASTM D910)

发动机限制/Engine Limits:

发动机类型 Engine type	Rotax 912 ULS	Rotax 914 UL	Trixy 912 Ti
最大起飞转速限时 max Take-off RPM/Time Limit	5800 min ⁻¹ 5 min	5800 min ⁻¹ 5 min	5800 min ⁻¹ 5 min
最大持续转速 max continuous RPM	5500 min ⁻¹	5500 min ⁻¹	5500 min ⁻¹
最大汽缸头温度 Max Cylinder head temperature (CHT)	135 °C (275 °F)	135 °C (275 °F)	135 °C(275 °F)
最高排气温度 Max Exhaust gas temperature (EGT)	880 °C(1616 °F)	950 °C(1742 °F)	950°C(1742 °F)
滑油温度 Oil temperature	50° C (120 °F) ~130° C (266 °F)	50° C (120 °F) ~130° C (266 °F)	50 ° C (120 °F) ~130° C (266 °F)
最高冷却液温度 Max Coolant temperature	120 °C (248 °F)	120°C (248 °F)	120 °C(248 °F)

螺旋桨/ Propeller:

螺旋桨类型和数量/Number and Type of Propeller:

型别 Model	G 4-2 R	G 4-2 RT	G 4-2 Ti
数量 Number of propellers	1	1	1
螺旋桨类型 Propeller Type	DUC Inconel 3-Blade, ground adjustable, 3B-FC Windspoon left; NEUFORM 3-Blade, Inflight adjustable, CL3-V-70-R2;	DUC Inconel 3-Blade, ground adjustable, 3B-FC Windspoon left; NEUFORM 3-Blade, Inflight adjustable, CL3-V-70-R2;	NEUFORM 3-Blade, Inflight adjustable, TXL3-V-70-R2;

旋翼/ROTOR:

型别 model	G 4-2 R	G 4-2 RT	G 4-2 Ti
制造人 Designation	Averso	Averso	Averso
直径 Diameter	8,4 m 8,6 m	8,4 m 8,6 m	8,6 m
最大转速 Max. Number of revolutions	500 RPM 500 RPM	500 PRM 500 RPM	500 RPM
剖面参考 Profile Reference	NACA 8H12 NACA 8H12	NACA 8H12 NACA 8H12	NACA 8H12
剖面参考 Profile Thickness	26mm 26mm	26mm 26mm	26mm
剖面参考 Profile Depth	216mm 216mm	216mm 216mm	216mm
材料 Material	铝 Aluminium	铝 Aluminium	铝 Aluminium
旋翼头参考面 Reference plane for Rotor Head	水平方向座舱底板 Cabin floor horizontal	水平方向座舱底板 Cabin floor horizontal	水平方向座舱底板 Cabin floor horizontal

尺寸/DIMENSIONS:

型别 Model	G 4-2 R	G 4-2 RT	G 4-2 Ti
长度 Length	4.90 m	4.90 m	4.90 m
宽度 Width	1.85 m	1.85 m	1.85 m
高度 Height	2.80 m	2.80 m	2.80 m
旋翼面积 Rotor surface	55.4 m ² 58.0 m ²	55.4 m ² 58.0 m ²	58.0 m ²

飞行操纵面偏转/FLIGHT CONTROL DEFLECTIONS:

型别 model	G 4-2 R	G 4-2 RT	G 4-2 Ti
Rotor head rash for head tilt control KKS1	旋翼头倾转器 (KKS1)		
中立/Neutral	前向 8° 后向 0°, ± 1° /8 degree forward, 0 degree backward, ± 1 degree	前向 8° 后向 0°, ± 1° /8 degree forward, 0 degree backward, ± 1 degree	前向 8° 后向 0°, ± 1° 8 degree forward, 0 degree backward, ± 1 degree
前偏角/Forward Deflection	10 ± 1°/10 ± 1 degree	10 ± 1°/10 ± 1 degree	10 ± 1°/10 ± 1 degree
后偏角/Backward Deflection	10 ± 1°/10 ± 1 degree	10 ± 1°/10 ± 1 degree	10 ± 1°/10 ± 1 degree
右偏角/Deflection to the Right	11 ± 1°/11 ± 1 degree	11 ± 1°/11 ± 1 degree	11 ± 1°/11 ± 1 degree
左偏角/Deflection to the Left	11 ± 1°/11 ± 1 degree	11 ± 1°/11 ± 1 degree	11 ± 1°/11 ± 1 degree

型别 model	G 4-2 R	G 4-2 RT	G 4-2 Ti
Rotor head rash for head tilt control KKS1	旋翼头倾转器 (TS1)		
中立/Neutral	前向 8° 后向 0°, ± 1° / 8 degree forward, 0 degree backward, ± 1 degree	前向 8° 后向 0°, ± 1° /8 degree forward, 0 degree backward, ± 1 degree	前向 8° 后向 0°, ± 1° / 8 degree forward, 0 degree backward, ± 1 degree

前偏角/Forward Deflection	$8 \pm 1^0/8 \pm 1 \text{ degree}$	$8 \pm 1^0/8 \pm 1 \text{ degree}$	$8 \pm 1^0/8 \pm 1 \text{ degree}$
后偏角/Backward Deflection	$8 \pm 1^0/8 \pm 1 \text{ degree}$	$8 \pm 1^0/8 \pm 1 \text{ degree}$	$8 \pm 1^0/8 \pm 1 \text{ degree}$
右偏角/Deflection to the Right	$5 \pm 1^0/5 \pm 1 \text{ degree}$	$5 \pm 1^0/5 \pm 1 \text{ degree}$	$5 \pm 1^0/5 \pm 1 \text{ degree}$
左偏角/Deflection to the Left	$5 \pm 1^0/5 \pm 1 \text{ degree}$	$5 \pm 1^0/5 \pm 1 \text{ degree}$	$5 \pm 1^0/5 \pm 1 \text{ degree}$

方向舵/Rudder			
Set Angle .	$0^0/0 \text{ degree}$	$0^0/0 \text{ degree}$	$0^0/0 \text{ degree}$
右偏角/Deflection to the Right	$35 \pm 2^0/35 \pm 2 \text{ degree}$	$35 \pm 2^0/35 \pm 2 \text{ degree}$	$35 \pm 2^0/35 \pm 2 \text{ degree}$
右偏角/Deflection to the Left	$35 \pm 2^0/35 \pm 2 \text{ degree}$	$35 \pm 2^0/35 \pm 2 \text{ degree}$	$35 \pm 2^0/35 \pm 2 \text{ degree}$
方向舵参考面 Reference plane for Rudder	自转旋翼机经向轴 /Gyro longitudinal axis	自转旋翼机经向轴 /Gyro longitudinal axis	自转旋翼机经向轴 /Gyro longitudinal axis

空速限制/Airspeed Limits (IAS):

	G 4-2 R	G 4-2 RT	G 4-2 Ti
V_D : 设计速度/ Design Speed	185 km/h	185 km/h	185 km/h
V_{NE} : 不可超越速度/ Never Exceed Speed	167 km/h	167 km/h	167 km/h
V_A : 设计机动速度/ Design Maneuvering Speed	100 km/h	100 km/h	100 km/h
V_Y : 最佳爬升率速度 (基于最大起飞质量) / Best Climb Speed (MTOM)	100 km/h	100 km/h	100 km/h
V_x : 最佳爬升角速度 (基于最大起飞质量) /Best Angle Speed (MTOM)	90 km/h	90 km/h	90 km/h
V_{so} : 最小平飞速度/ Minimum Constant Speed	40 km/h	40 km/h	40 km/h

重心范围/CENTRE OF GRAVITY (C. G.) RANGE:

	G 4-2 R	G 4-2 RT	G 4-2 Ti
空机重心，基准是皮托管前缘/ Empty Weight Centre of Gravity , datum is Front edge of Pitot-Tube	2250 mm - 2400 mm	2250 mm - 2400 mm	2250 mm - 2400 mm
最大起飞质量重心，基准是皮托管前缘/ MTOM Centre of Gravity , datum is Front edge of Pitot-Tube	1900 mm - 2200 mm	1900 mm - 2200 mm	1900 mm - 2200 mm

Note:重心参考点为 皮托管前缘。

Reference point for Center of Gravity is front Edge Pitot-Tube

旋翼机姿态/Gyrocopter position :- 机舱地板水平/Cabin Floor horizontal

- 旋翼头中立/Rotor Head neutral

质量/ Masses:

型别/Model	G 4-2 R	G 4-2 RT	G 4-2 Ti
最大起飞质量/Maximum take-off mass (MTOM)	500 kg (TM2013- 2)	530 kg (TM2013-2)	560 kg (TM2013- 2)
空重/Empty Mass (according to W&B Sheet)	265 - 310 kg	265 - 310 kg	265 - 310 kg

允许过载/Permitted “G” Load

型别/Model	G 4-2 R	G 4-2 RT	G 4-2 Ti
最大允许过载/Maximum permitted “G”Load	+3g	+3g	+3g
最小允许过载（连续） /Minimum permitted “G”Load (Continuous)	+1g	+1g	+1g

最小飞行机组/ Minimum Flight Crew: 1 人

最大乘员数/ Maximum Passengers: 1 人

最大允许行李载荷/ Maximum Baggage: 10 kg (2 x Max. 5 kg)

燃油容量 FUEL CAPACITY:

型别/Model	G 4-2 R	G 4-2 RT	G 4-2 Ti
燃油箱容积/Fuel tank capacity	1 个 34L 油箱或者 2 个 34L 油箱/ 1 x 34L or 2 x 34L	1 个 34L 油箱或者 2 个 34L 油箱/ 1 x 34 L or 2 x 34L	1 个 34L 油箱或者 2 个 34L 油箱/ 1 x 34L or 2 x 34L

注：每个油箱不可用燃油量为 1,5L。

Note: 1,5 L unusable fuel in each tank.

最低设备/ Minimum Equipment:

仪表、导航和通信设备(标准设备)/ Instruments, navigation and communication equipment (Standard):

机械式空速表/Mechanical Airspeed indicator

机械式高度表/Mechanical Altimeter

升降速度表/Vertical speed indicator

水罗盘/Fluid Compass

燃油表/Fuel quantity indicator

其他设备/Other Equipments

座椅安全带/Seat safety belts and harnesses

防火墙/Firewall fire-resistant

俯仰配平/Pitch trim

防爆油箱/Fuel tank as anti explosion version

一套操纵/Single Control

手册/Manuals:

1. 操作文件(最大起飞重量 500/530/560 Kg) Operating instructions(MTOW 500/530/560 Kg):
《G4-2 R/RT/RTi 操作手册》，修订 3, 2013 年 4 月 9 日 或后续经批准版本。
Operating manual G 4-2 R/RT/RTi, Rev. 3, 09. April 2013 or its subsequent approved revision
2. 维修文件和检查要求(最大起飞重量 500/530/560 Kg) / Maintenance Instruction and inspection(MTOW 500/530/560 Kg) :
《G4-2 R/RT/RTi 维修手册》，修订 3, 2013 年 4 月 9 日 或后续经批准版本。
Maintenance manual G 4-2 R/RT/RTi, Rev. 3, 09. April 2013 or its subsequent approved revision

可选设备/Optional Equipment:

1.双操纵/Dual controls

2. 对“公主”和“天眼”构型，座舱盖可选，座舱可为敞开式。/ Open cabin, canopy optional, for models <Princess> and <TrixyEye>.

3.2 个 34L 燃油箱，其不可用燃油各为 1.5L。/2x tank 34 L,not usable each 1.5L.

4.可选没有镍基合金前缘的 DUC Windspoon 螺旋桨。/Propeller DUC Windspoon optional without Inconel-edge.

5. 对于“自由”构型，封闭式座舱，舱盖可选。/Closed cabin, canopy optional, for models <Liberty>.

6.可选带有可变斜盘旋翼头（TS1）。/Rotor head with for swash plate control TS1 optional.

7. 滚转电动配平/Electrical trim:bank.

8.对“天眼”构型，可选带有垂直调节功能的摄像平台。/Camera platform with vertical adjustment <TrixyEye>.

-结束-

-THE END-