

型号认可证数据单

TYPE VALIDATION CERTIFICATE DATA SHEET

编号/No: VTC0368A

版次/Revision: 0

型别/Type:

Magnus Fusion

批准人/Approved By:

职务/Title: Director General of CAAC-AAD

日期/Date: 2021-12-21

本数据单是型号认可证（编号 VTC0368A）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 a part of Validation Type Certificate (No: VTC0368A), prescribes conditions and limitations 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:

Magnus Aircraft Zrt.
H-6000 Kecskernét, Külső Szegedi út 9
Hungary

第1部分 概述

SECTION 1 GENERAL

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	VTC0368A, Revision 0, 2021年12月21日	HGCAA No. UL-05-2014, 20.05.2015

2. 类别/Category: 超轻型飞机/ Ultralight Aeroplane
3. 认可当局/Validation Authority: 中国民用航空局/CAAC
4. 审定当局/Certifying Authority: 匈牙利民航局/HGCAA
5. 型号合格证持有人/Type Certificate Holder: Magnus Aircraft Zrt.
H-6000 Kecskernét, Külső Szegedi út 9
Hungary
6. 制造厂/Manufacturer: Magnus Aircraft Zrt.
H-6000 Kecskernét, Külső Szegedi út 9
Hungary

第 2 部分

SECTION 2

I. 基本信息/General Information

飞机类型/Aircraft denomination: UL A2超轻型飞机, 空气动力操纵/
UL A2 Superlight airplane, aerodynamically controlled

型号/Type: Magnus Fusion
*equip with Rotax 912 ULS

型号合格证持有人 Magnus Aircraft Zrt

/Type Certificate Holder H-6000 Kecskernét, Külső Szegedi út 9; Hungary

审定期间参考的型号合格证/Reference type certificate used during validation:

DULV Kennblatt Nr 937-14 1 and Nr 937-14 2 (03.04.2014) type certificate and data sheet

批准和修订时使用的标准（审定基础）/Standard used during approval and revision (certification basis):

LTF-UL, 2003/01/30, 空气动力操纵超轻型飞机适航要求

Lufttüchtigkeitsforderungen für aerodynamisch gesteuerte Ultraleichtflugzeuge LTF-UL vom 30 Januar 2003.

噪声排放标准/Noise emission standards:

2004/08/01 LVI/ LVI- vom 1. 8.2004

II. 基本技术数据General technical data

1. 类型/Classification: UL A2 空气动力操纵超轻型飞机/
UL A2 Ultralight airplane, aerodynamically controlled
2. 结构特征/framework features:
- 制造方法/Building mode: 复合材料:
Composite: coal- and fibre-optic composite structure
- 机翼结构/Wing structure: 下单翼/Cantilever low wing
- 尾翼布局/Empennage layout: 安定面, 安装在后机身/stabilizing surfaces are at the back
- 尾翼形状/Form of tail: 传统的, 垂直和水平安定面/traditional, vertical and
horizontal stabilizers
- 起落架/Undercarriage: 经典固定三点式前起落架和主起落架结构/classical fixed
tricycle nose gear and main gear structure
- 发动机配置/Engine arrangement: 牵引式发动机/tractor
- 座椅数量/Number of seats. 两个并排座椅/two seats side by side

3.主要尺寸/Main dimensions:

翼展/Wingspan:	8,33 m
机翼面积/Wing surface:	10,59 m ²
飞机长度/Airplane length:	6,62 m
飞机高度/Airplane height:	2,40 m

4.操纵面偏转/Deflection of control surfaces:**副翼/Aileron (on wings)**

中立位置/Neutral position:	0°	
上偏转/Upward deflection:	20°	+/- 2°
下偏转/Downward deflection:	20°	+/- 2°
距测量点距离/Distance from the measurement point:	-mm	

方向舵/Rudder

右侧偏转Right-hand deflection:	25°	+/- 2°
左侧偏转Left-hand deflection:	25°	+/- 2°
距测量点距离/Distance from the measurement point:	-mm	

升降舵偏转/Elevator deflection

向上/Upwards:	21°	+/- 2°
向下/Downwards:	19°	+/- 2°
距测量点距离/Distance from the measurement point:	-mm	

襟翼/Flaps

基准位置/Base position:	0°
最大偏转/Maximum deflection:	40°

5. 发动机参数/Engine variants

5.1 a) Rotax 912发动机/Motor Rotax 912

型号/Type:	Rotax 912 ULS
模式/Mode:	4冲程/4-stroke
最大性能/Maximum performance:	73.6kW/73,6 kW
混合气形成/Formation of mixture:	2个定压化油器/2 pieces of fixed pressure carburetor
进气消声器/Intake silencer:	Rotax Airbox
消声器/Muffler.	Rotax
消声器/Silencer:	

5.1 b) 变速箱/Gearbox

型号/Type:	Rotax
特征/Feature	齿轮型/Gear type
传动比/Gear ratio:	2.43:1/2,43: 1

5.1.c) 螺旋桨/Propeller

型号/Type:	Woodcomp Varia 3000
桨叶数量/Number of blades:	3
桨叶材料/Blade material:	CFK
直径/Diameter.	1,70 m
桨距/Pitch:	19°
桨叶宽度/Blade width:	93 mm (638 mm. 75% Radius)

6. 飞行速度/Flight speeds:

设计俯冲速度/Design dive speed:	$V_D = 350$ km/h
不可超越速度/Never exceed speed:	$V_{NE} = 280$ km/h
最大平飞速度/Maximum horizontal speed:	$V_H = 240$ km/h
最大阵风强度下许用速度/Allowed speed for maximum gust intensity:	$V_B = 230$ km/h
机动速度/Manoeuvring speed:	$V_A = 204$ km/h
着陆构型失速速度/Stall speed in landing configuration:	$V_{s0} = 67$ km/h

7. 爬升/噪声/Climb / Noise (MTOM)

7.1 Rotax 912

最佳爬升率/Best rate of climb.	5.2m/s
最佳爬升速度/Speed of best rate of climb	110 km/h
噪声排放/Noise emission:	59.6 dBA (LVL vom 1. 82004)
螺旋桨转速/Propeller RPM:	2100 U/min

8. 重量数据、重心及载重/Weight data, centre of gravity and load:

正过载系数/Positive load factor	+6 g
负过载系数/Negative load factor:	-3 g
空重/Empty weight:	298.5 kg (typical)
最大有效载重/Maximum useful load:	174 kg
最大起飞重量/Maximum Take Off Mass:	450 kg
内置救生系统的最大起飞重量/ Maximum Take Off Mass with inbuilt recovery system	472.5 kg
运行重心范围/Operating range of centre of gravity	
重心前缘/Maximum front:	322 mm
重心后缘/Maximum back:	470 mm
空重重心范围 /Empty centre of gravity range:	290kg重心范围为222 - 256 mm, 350kg重心范围为 264 - 267 mm, 插值 at 290 kg: 222 - 256 mm; at 350 kg: 264 - 267mm; interpolated
参考基准/Base of reference:	翼根处机翼前缘/Wing leading edge, at wing-root
水平基准/Levelling reference:	座舱横梁/Canopy frame

9.燃油量/Amount of fuel 机身内90L油箱/90 Litre tank in the fuselage

10.救生系统
/Recovery system BRS 6-1050 Softpack (DAeC-Kennblattnr.
61503.1) Junkers Magnum Light Speed Softpack
(DULV-Kennblatt nr. R28/05-8)

IV. 接受/批准的文件/**Accepted / approved documents**

1. 图纸文件（主要的复合材料承载部件）：

Draw documents (main composite loadbearing subassemblies):

名称/Name		日期/Date	版本/Revision
Fuselage	53000101X00	14.11.2011	01
Fuselage frame front	53000201X00	08.05.2013	01
Fuselage frame middle	53000202X00	08.05.2013	01
Fuselage frame rear	53000205X00	08.05.2013	01
Horizontal stabilizer lower-upper - skin	55100101X00 — 0102X00	15.11.2011	01
Horizontal stabilizer main spar	55100201X00	01.12.2011	01
Elevator left upper skin	55200101X100	15.11.2011	01
Elevator main spar	55200201X00	16.11.2011	01
Vertical stabilizer left-right skin	5530020X100 — 0102X00	29.11.2011	01
Vertical stabilizer main spar	55300201X00	21.11.2011	01
Rudder left-right skin	55400101X00 — 0102X00	22.11.2011	01
Rudder main spar	55400201X00	02.04.2012	01
Wing skin left-right	57100101X00 — 0103X00	07.12.2011	01
Wing main spar	57100201X00	16.12.2011	01
Wing rib	57100204X00	08.05.2013	01
Aileron skin	57600101X00	15.11.2011	01
Aileron main spar	57600201X00	21.11.2011	01

2. 原材料/Basic materials:

物料清单/Material list — production part CORVUS FUSION (01 October 2012)

3. 设备/Eqnt:

ILLUSTRATED PARTS CATALOG CORVUS FUSION CH-II (Revision 00, 14-10-2012)

MAGNUS FUSION Flight Manual Ultralight Aircraft equipped Rotax 912 ULS engine (Edition 2, 05.05.2015)

4. 空中运行/Air operations:

批准的型号版本/Approved for the designated type

-MAGNUS FUSION Flight Manual Ultralight Aircraft equipped Rotax 912 ULS engine (Edition 2, 05.05.2015)

5. 勤务、维护和适航修订/Service, maintenance and airworthiness revisions:

批准的型号版本/Approved for variant of a type

- MAGNUS FUSION Flight Manual Ultralight Aircraft equipped Rotax 912 ULS engine (Edition 2, 05.05.2015)

- Maintenance Manual Corvus Fusion (1. rev 10-10-2013)

V. 认可审定基础/Validation Basis

CAAC型号认可审定基础/CAAC Validation Basis

CAAC型号认可审定基础由匈牙利民用航空局审定基础和CAAC附加技术条件组成。/The CAAC validation Certification basis consists of the Certification basis of HGCAA and CAAC additional technical conditions.

匈牙利民用航空局审定基础/ Certification basis of HGCAA:

LTF-UL, 2003/01/30, 空气动力操纵超轻型飞机适航要求

Lufttüchtigkeitsforderungen für aerodynamisch gesteuerte Ultraleichtflugzeuge LTF-UL vom 30 Januar 2003.

专用条件/Special conditions: 无/None

豁免/Exemptions: 无/None

CAAC附加技术条件/ CAAC additional technical conditions

中国民用航空规章CCAR21.29 (e) 要求:

下列各项应当至少有中文表述:

1. 机上所有对旅客进行的提示、警告和通知的文字标记和标牌;
2. 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;
3. 旅客可能使用的机上所有应急设备的操作、使用说明。

Per CCAR21.29(e), all the literal markings or placards of tips, warnings and notifications to the passengers on board; all the literal markings or placards indicating the location of emergency exits and doors and the way to open them to passengers on board or rescuer out of the aircraft; and the operation instructions of all emergency set that the passengers might use must be presented in the Chinese language at least.