

**Prezes Urzędu Lotnictwa Cywilnego**  
*President of the Civil Aviation Authority*

**ŚWIADECTWO UZNANIA ZATWIERDZENIA TYPU**  
*Type Approval Recognition Certificate*

**NUMER:** **UL.A.00 – 004/2023**  
*Reference:*

Niniejsze świadectwo uznania zatwierdzenia typu zaświadcza, że określony typ/model ultralekkiego statku powietrznego został uznany za akceptowalny w Rzeczypospolitej Polskiej zgodnie z obowiązującymi przepisami polskiego lotnictwa cywilnego i pozostaje w mocy przez czas nieokreślony, chyba że zatwierdzenie zostanie zrzucone, zawieszono lub cofnięte oraz że został wpisany na listę typów zatwierdzonych prowadzoną przez Prezesa Urzędu Lotnictwa Cywilnego, o której mowa w przepisach wydanych na podstawie art. 33 ust. 2 i 4 ustawy – Prawo lotnicze (Dz.U. z 2022 r. poz. 1235, 1715, 1846, 2185 i 2642).

*This Type Approval Recognition Certificate certifies that the ultralight aircraft type/model specified has been found acceptable in Republic of Poland in accordance with the applicable Polish Civil Aviation regulations and shall remain as such for an unlimited duration unless the approval is surrendered, suspended or revoked and has been entered on the list of approved flying device types managed by the President of the Civil Aviation Authority, referred to in the regulations issued on the basis of Art. 33 para 2 and 4 of the Aviation Law Act dated July 3<sup>rd</sup>, 2002 (JL. 2022, item 1235, 1715, 1846, 2185 and 2642).*

Państwo projektu  
*State of Design*

**Czech Republic**

Państwo produkcji  
*State of Manufacture*

**Czech Republic**

Posiadacz zatwierdzenia typu  
*Type Approval Holder*

**TL ULTRALIGHT s.r.o.**  
**Letiste 515, Pouchov, 503 41 Hradec Kralove, Czech Republic**

Wytwórca  
*Manufacturer*

**TL ULTRALIGHT s.r.o.**  
**Letiste 515, Pouchov, 503 41 Hradec Kralove, Czech Republic**

Oznaczenie typu produktu  
*Product Type Designation*

**TL 3000 Sirius/600**

Numer zatwierdzenia typu  
*Type Approval Number*

**ULL 05/2019**

Arkusz danych do zatwierdzenia typu  
*Type Certificate Data Sheet*

**ULL 05/2019**

Przyjęte wymagania techniczne  
*Type Certification Basis*

**UL 2 – Part I, issue I 2019**

Uwagi  
*Remarks*

Approved by LAA CR the Technical Commission on: 11.07.2019  
EZD ref. LTT-4.5460.1.2023

**Z upoważnienia Prezesa Urzędu Lotnictwa Cywilnego**  
*On behalf of President of the Civil Aviation Authority*

**Marcin Perkowski**

**Zastępca Dyrektora Departamentu Techniki Lotniczej**  
*Deputy Director, Aviation Technical Department*

(pismo zostało wydane w postaci elektronicznej  
i opatrzone kwalifikowanym podpisem elektronicznym)

*(the letter was published in electronic form  
and signed with a qualified electronic signature)*

Data pierwszego wydania: **24.01.2023**

*Date of original issue:*

Data ostatniej zmiany: --

*Date of last revision:*



**Letecká amatérská asociace ČR – Light Aircraft Association of the Czech Republic**

## Type Certificate

Issued by the Light Aircraft Association of the Czech Republic (hereinafter LAA CR), based on the delegation by the Ministry of Transport to perform the state administration in the matters of sports flying equipment in accordance with the Section 82, Subsection 1 of Act No. 49/1997 Coll. On civil aviation and amending and supplementing Act No. 455/1991 Coll. On Trade Licensing (The Trade Licensing Act), as amended by later regulations of the Ministry of Transport

### Aircraft type designation:

Two-seated, single-engine, aerodynamically controlled, full composite high-wing ultralight Aircraft – Sport Flying Equipment

Type designation: **TL 3000 Sirius/600**

Maximum take off mass 600 kg with integrated parachute recovery  
Detailed Technical Specification is stated in the Type Certificate Data Sheet.  
The aircraft comply with requirements for UL 2 – part I Issue 01.2019

### Type certificate holder:

**TL-ULTRALIGHT s.r.o.**

Letiště 515, Pouchov  
603 41 Hradec Králové

Approved by the LAA CR Technical commission on:

11.7. 2019

The Type certificate is registered at the LAA CR under the reference:

**ULL 05 / 2019**

LAA CR Chief Technical Inspector: **ing. Václav Chvála**

Letecká amatérská asociace ČR  
Ke Kablo 289  
102 00 Praha 10  
TEL.: 242 403 587

Type certificate no.:	<b>ULL – 05 / 2019</b>
Type certificate holder:	<b>TL ULTRALIGHT s.r.o.</b>
Typ of aircraft:	<b>TL 3000 Sirius/600</b>
Issue date of attachment:	<b>16.7.2019</b>

**TYPE CERTIFICATE ATTACHEMENT no. ULL - 05 / 2019.**

**I.Generaly**

1. Indication type: **TL 3000 Sirius/600**
2. Category: Sport plane, aerodynamically controlled ultralight aircraft
3. Type certificate holder: TL ULTRALIGHT s.r.o.  
Letiště 515, Pouchov,  
503 41 Hradec Králové  
Czech Republic
4. Manufacturer: according to 3. Type certificate holder
5. Application date: 2.4.2019
6. Approved on: 15.7.2019

**II. Regulation base**

1. Airworthiness requirements: UL 2 - part I., issue 01. 2019, Airworthiness requirements of UL aircraft, Aerodynamically controlled ultralight aircraft
2. Special requirements: None
3. Exceptions: None

### III. Technical datas, performance and operation limits

#### 1. Type of definition:

Type is defined by drawing documentation and by Aircraft type design.

#### 2. Description:

TL 3000 Sirius/600 is dual seater, single engine, high strut wing aircraft with side by side crew. The aircraft construction is made of glass fibre and carbon fibre composit materials.

The wing is in the middle part of a rectangular ground plan with trapezoidal ends and has an all-composite sandwich coating, carbon-glass. The wing rail has carbon composite flanges. The wing is equipped with a folding flap with a maximum deflection of  $40^{\circ}$ . The fuselage is all composite. The tail surfaces are classic, similar construction as the wing. The chassis is a three-wheel with suspension nose wheel, and main wheels with hydraulic disc brakes. The main landing gear legs are made of a composite spring.

#### 3. Equipment:

In order to issue the SLZ airworthiness certificate, the basic equipment corresponding to the airworthiness requirements specified in Chapter II shall be installed on each aircraft manufactured. Regulatory base.

#### 4. Basic Technical datas:

Wing span .....	9,4 m
Lenght .....	6,75 m
Hight .....	2,25 m
Wing	
Wing area.....	11,154 m <sup>2</sup>
Depth of root profile.....	1,3 m
Dept of end profile.....	0,9 m
Slenderness wings .....	7,92 m
Area load at maximum take-off weight.....	600kg = 53,8 kg/m <sup>2</sup>
Airelon lenght.....	1,87 m
Airelon span.....	0,51 m <sup>2</sup>
Airelon deflection.....up..	11,5 <sup>0</sup>
down	7,5 <sup>0</sup>
Flap lenght.....	2,07 m
Flap area.....	0,66 m <sup>2</sup>
Flap deflections..... take off.....	10,5 <sup>0</sup>
landing.....	40 <sup>0</sup>

Elevator	
Span.....	3 m
Area.....	2,01 m <sup>2</sup>
Elevator rudder deflection.....up / down...	19,5 <sup>0</sup> / 11 <sup>0</sup>
Rudder	
Area.....	1,45 m <sup>2</sup>
Area.....	0,414 m <sup>2</sup>
Rudder deflection.....	+/- 20 <sup>0</sup>
Track of main wheels.....	2,17 m
Wheelbase.....	1,53 m
Dimension of main undercarriage wheels....	360 x125
Dimension of nose gear wheel.....	290x100
Tire pressure.....	2,0 bar
Brakes.....	Hydraulic disc
Main gear suspension.....	Tires, main gear legs flexibility
Nose gear suspension.....	Coil spring
Engine.....	Rotax 912 UL, Rotax 912 ULS, Rotax 912 iS, Rotax 914

## 5. Weights

MTOW	600 kg including rescue system
Empty weight	330 till 382 kg depending on specification
Max. crew weight	200 kg
Min. crew weight	60 kg
Max. baggage weight	25 kg
Fuel in wing tanks 2x	65 l total 130 l

## 6. Speed and performance

The specified performances are intended for TL 3000 Sirius / 600 aircraft under MSA conditions.

Engine ROTAX 912 ULS (73.5 kW / 100 hp)

Propeller PowerMax 3 blade composite, diameter 1748 mm adjustable in flight.

	MTOW 600 kg
CAS flight speeds:	
Stall speed with VSO flaps extended	74,0 km/h
Stall speed with VS1 flaps retracted	83,0 km/h
Max. speed with flaps VFE extended	120 km/h
Design turnover rate VA	160 km/h
Max. speed in horizontal flight VH	225 km/h
Max. Unmatched speed VNE	253 km/h
Take-off distance over 15 m obstacle	385 m
Gradability	4,5 m/sec while 110 km/hod

**7. Center of gravity range:**

Extreme Front operating c.g.: 22,0% bSAT

Extreme Rear operating c.g.: 32,5% bSAT

The reference plane is the leading edge of the wing

Central aerodynamic chord: Depth of central aerodynamic chord bSAT = 1.23 m

**8. Operating multiples:**

Maximum positive / negative ..... +4.0 / -2.0.

**9. Engine:** Rotax 912 UL, 912 ULS, 912 iS, 914.

**10. Engine operational limits:**

Rotax 912 UL: Maximum take-off power 59.6 kW / 5800 rpm (for 5 minutes)

Maximum continuous power 58 k kW / 5500 rpm

Rotax 912 ULS: Maximum take-off power 73.5 kW / 5800 rpm (for 5 minutes)

Maximum continuous power 69 kW / 5500 rpm

Rotax 912 iS: Maximum take-off power 73.5 kW / 5800 rpm (for 5 minutes)

Maximum continuous power 69.0 kW / 5500 rpm

**11. Propeller and its limitation:**

Type: PowerMax

Manufacturer: TL-ULTRALIGHT s.r.o.

Description: in flight adjustable, composite, 3-bladed

Diameter: 1748 mm.

Type: DUC Hélices Swirl

Manufacturer: DUC Hélices France

Description: ground adjustable, composite, 3-bladed

Diameter: 1740 mm.

**12. Fuel:**

EUROSUPER RON 95 lead-free to DIN 51607, Ö-NORM 1100 AVGAS 100 LL

BA 95 Natural gasoline is recommended for the Czech Republic

**13. Oil:**

Rotax 912: API SF (SG) or higher oil designed for 4-stroke motorcycles

(with gear lubrication additives)

#### **IV. Materials for operation and maintenance**

Flight and Operations Manual for TL 3000 Sirius/600.

+ additions resulting from installation of optional equipment

ROTAX 912 Series Instruction Manual

Technical description and operating instructions for installed propeller

Instructions for use of the rescue system (in case of its installation)

Manuals for optional equipment installed on request

#### **V. Additions: None**

Comment:

(1) Each aircraft presented for issue of the Technical Specifications Certificate shall be equipped with an up-to-date weighing and positioning report containing a list of equipment included in the empty airplane mass.

(2) The airplane must be equipped with the inscriptions and labels specified in the Flight Manual.

.....End.....

### Three-view UL TL 3000 Sirius / 600

