

Prezes Urzędu Lotnictwa Cywilnego
President of the Civil Aviation Authority

ŚWIADECTWO UZNANIA ZATWIERDZENIA TYPU
Type Approval Recognition Certificate

NUMER: UL.A.00 – 002/2023
Reference:

Niniejsze świadectwo uznania zatwierdzenia typu zaświadcza, że określony typ/model ultralekiego 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 i 2185).

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 3rd, 2002 (JL. 2022, item 1235, 1715, 1846 and 2185).

Państwo projektu <i>State of Design</i>	Czech Republic
Państwo produkcji <i>State of Manufacture</i>	Czech Republic
Posiadacz zatwierdzenia typu <i>Type Approval Holder</i>	Vanessa design s.r.o. Kornická 86, 570 01 Litomyšl, Czech Republic
Wytwórca <i>Manufacturer</i>	JMB Aircraft s.r.o. Nádražní 635, 565 01 Choceň, Czech Republic
Oznaczenie typu produktu <i>Product Type Designation</i>	VL-3
Numer zatwierdzenia typu <i>Type Approval Number</i>	ULL 02/2019
Arkusze danych do zatwierdzenia typu <i>Type Certificate Data Sheet</i>	ULL 02/2019
Przyjęte wymagania techniczne <i>Type Certification Basis</i>	UL 2 – Part I, issue I 2019
Uwagi <i>Remarks</i>	Approved by the Technical Committee of LAA Czech Republic on 04.04.2019 EZD ref. LTT-4.5460.9.2022
Z upoważnienia Prezesa Urzędu Lotnictwa Cywilnego <i>On behalf of President of the Civil Aviation Authority</i> Marcin Perkowski Zastępca Dyrektora Departamentu Techniki Lotniczej <i>Deputy Director, Aviation Technical Department</i> (pismo zostało wydane w postaci elektronicznej i opatrzone kwalifikowanym podpisem elektronicznym) <i>(the letter was published in electronic form and signed with a qualified electronic signature)</i>	
Data pierwszego wydania: <i>Date of original issue:</i>	12.01.2023
Data ostatniej zmiany: <i>Date of last revision:</i>	--



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-seat, single-engine, aerodynamically controlled, all-composite low wing aircraft – Sport Flying Equipment.

Type designation: **VL-3 E,F,TE-915**

Maximum take off mass 600 kg including the ballistic recovery parachute.

Detailed technical specification is stated in the Data Sheet.

Supplement a) dated January 20, 2022 - engine Rotax 915 iS
- new propellers

Type certificate holder:

Vanessa Design s.r.o.
Kornická 86
570 01 Litomyšl
Czech Republic

ID: 28846737

Approved by the LAA CR Technical commission on:

April 4, 2019

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

ULL 02 / 2019

Letecká amatérská asociace ČR
Ke Káblu 289
102 00 Praha 10
TEL: 242 403 274

LAA CR Chief Technical Inspector: ing. Petr Tax



Number of the type certificate:	ULL – 02 / 2019
Holder of the type certificate:	Vanessa design s.r.o.
Type of the Sport Flying device:	VL-3 E,F,TE-915
Date of issue of the enclosure:	08.04.2019
Release date of Supplement a):	20.1.2022

ENCLOSURE TO THE TYPE CERTIFICATE No.: ULL 02 / 2019

I.General

1. Type designation: **VL-3 E,F,VL-3TE-915**
2. Category: Sport flying device (SFD), ultralight aerodynamically controlled airplane
3. Holder of the type certificate: **VL-3 E,F,TE-915 Vanessa design s.r.o.**
Kornická 86, 570 01 Litomyšl, Česká republika
4. Producer from the year 2012: **JMB Aircraft s.r.o.**
Nádražní 635, 565 01 Choceň
5. Date of homologation: **04.04.2019**
6. Supplement (a): Extension to include the Rotax 915 iS engine and associated propellers.

II. Regulation basis

1. Requirement of airworthiness: UL 2-part I. edition 1. 2019, Requirement of airworthiness of SFD, Ultralight aerodynamically controlled airplanes.
2. Special conditions: None
3. Exceptions: None



Vertical tail units	
Area	0.876
Rudder	+/-30°
Main wheels track.....	1,83 m
Wheels base	1,56 m
Dimensions of landing gear wheels	350x150 main wheels 300x100 front wheel
Pressure in the tires.....	1.6 bar
Brakes.....	hydraulic, discs
Springing of the main landing gear	tyres, elasticity of the landing legs
Springing of the front wheel.....	rubber silent block
Engines	Rotax 912 UL, Rotax 914, Rotax 915

5. Weights

Max. take-off weight	600 kg including rescue system
Empty weight	298 kg up to 382 kg
Maximum useful load	263 kg
Minimum weight of the crew	60 kg
Maximum weight of the luggage	15 kg
Fuel tanks	volume
	2 x 60 = 120 l
	volume
	2 x 70 = 140 l

6. Speeds and performance

The following data on performance are valid for airplane VL-3E under ISA conditions.
 Engine Rotax 912 ULS (73,5 kW/100 hp) Rotax 914UL (84 kW/115HP)
 Propeller WOODCOMP SR 3000 2-blade, diameter 1700 mm.

	Rotax 912 ULS	Rotax 914 UL
Flight speeds CAS:		
Stall speed with extended flaps V_{SO}	78,6 km/h	78,6 km/h
Stall speed with closed wing flaps and retracted landing gear V_{S1}	92,0 km/h	92,0 km/h
Max. speed with extended flaps V_{FE}	133 km/h	133 km/h
Manoeuvring speed V_A	190 km/h	190 km/h
Max. speed in horizontal flight V_H	260 km/h	278 km/h
Never exceed speed V_{NE}	303 km/h	303 km/h
Design speed V_D	350 km/h	350 km/h
Take-off distance against 15 m barrier	449 m	354 m
Climb performance	5,0 m/sec at 145 km/h	5,9 m/sec at 145 km/h

The following data on performance are valid for airplane VL-3TE-915 under ISA conditions.
 Engine Rotax 915iS (104 kW/142 hp).
 Propeller WOODCOMP KW30.

Flight speeds CAS:	
Stall speed with extended flaps V_{SO}	78,6 km/h
Stall speed with closed wing flaps and retracted landing gear V_{S1}	92,0 km/h
Max. speed with extended flaps V_{FE}	141 km/h
Manoeuvring speed V_A	191 km/h
Max. speed in horizontal flight V_H	310 km/h
Never exceed speed V_{NE}	340 km/h
Design speed V_D	380 km/h
Take-off distance against 15 m barrier	350 m
Climb performance	10,1 m/sec at 145 km/h

7. Centre-of-gravity (CG) position range:

Extreme front operation CG position: 20% MAC
 Extreme rear operation CG position: 35% MAC
 Reference plane: Reference plane is leading edge of wing
 Mean aerodynamic chord: 1,236 m

8. Operational multiples

Maximal positive / negative +4,0 / -2,0.

9. Engine:

Rotax 912 ULS or Rotax 914 UL

Operating limitations of the engine: Rotax 912 ULS:

Maximum take-off power 73,5 kW/5800 min⁻¹ (time 5 min.)

Maximum continuous power 69 kW/5500 min⁻¹

Rotax 914 UL:

Maximum take-off power 84,5 kW/5800 min⁻¹ (time 5 min.)

Maximum continuous power 73,5 kW/5500 min⁻¹

Rotax 915 iS:

Maximální vzletový výkon 104 kW/ 5800 min⁻¹ (time 5 min.)

Maximální trvalý výkon 99 kW/5500 min⁻¹

10. Propeller and its limitations:

Rotax 912 S/ULS: Woodcomp SR3000-2blades (φ1,73m)
 Woodcomp SR3000-3blades (φ1,73m)
 Woodcomp KW20-2blades (φ1,73m)

Rotax 914 UL: Woodcomp SR3000-2blades (φ1,75m)
 Woodcomp KW20-2blades (φ1,75m)

Rotax 915 iS: Woodcomp KW30-3blades(φ1,75m)
 DUC FlashBlack-3-R-3blades (φ1,7m)
 DUC Swirl-4-PV-D-4blades (φ1,66m)



11. Fuel: EUROSUPER RON 95 unleaded according to DIN 51607, Ö-NORM 1100 AVGAS 100 LL.
Fuel recommended for the Czech Republic is BA 95 Natural
12. Oil: Oil of API classification SF(SG) or higher, intended for 4-stroke motorcycles (with additives for gear lubrication).

IV. Instructions for operation and maintenance

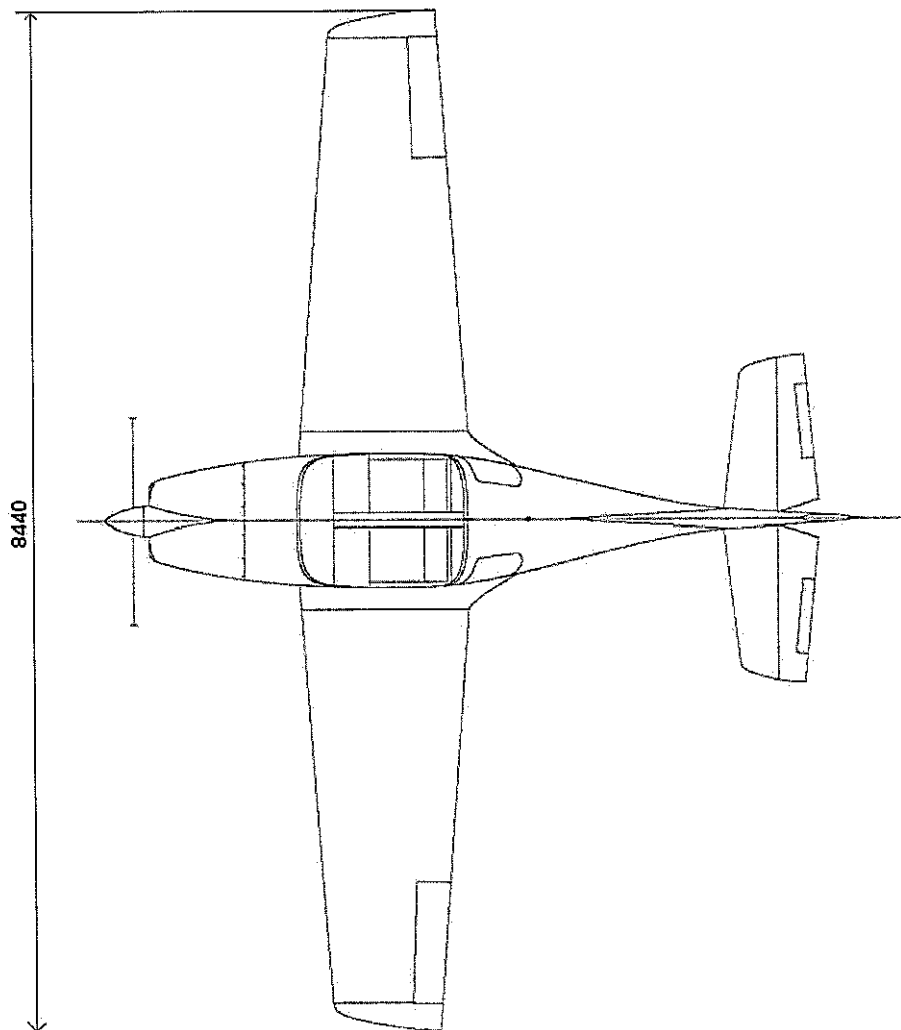
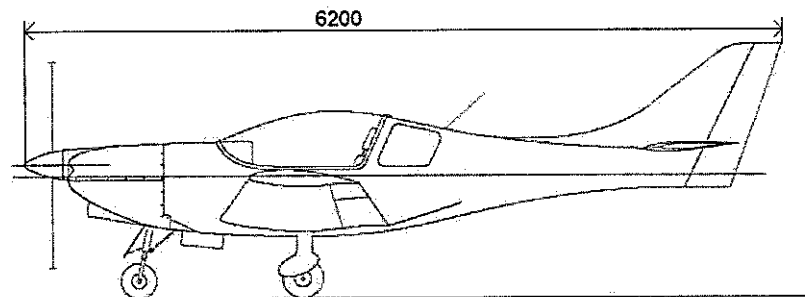
- Flight and operation manual for airplane VL-3.
+ supplements resulting from optional installation of equipment
- Operating instructions Rotax 912 ULS, Rotax 914 UL and Rotax 915iS
- Technical description and operation manual for installed propeller
- Operation instruction for the rescue system (in case it has been installed)
- Operating instructions for individual pieces of equipment installed on of the customer wishes

V. Supplements:

Notice:

1. Each airplane presented for issue of Certificate of airworthiness of SFD must be provided with up-to-date Weighing protocol and estimation of centre of gravity with a list of equipment included into the weight of an empty airplane.
2. The plane must be equipped with inscriptions and labels listed in the Pilot Operating Handbook.

Dimensional drawing of the airplane:



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