

Issued on behalf of the UK CAA by the BMAA, UK CAA organisation approval ref. DAI/8909/84

TYPES:**TL-3000 SIRIUS 600**

(1)	MANUFACTURER:	TL-Ultralight s.r.o., Letiste, Pouchov 515 50341 Hradec Kralove Approval Ref: DAI/9974/21
(2)	UK IMPORTER:	TL-Sting (UK) Ltd
(3)	CERTIFICATION:	Czech UL2 part 1 Issue 01.2019 & BCAR Section S Issue 8, TBC2022 Consultation Document.
(4)	DEFINITION OF BASIC STANDARD:	TL-3000-UL2/2019-1 (issue: 15.3.2019) ¹
(5)	COMPLIANCE WITH THE MICROLIGHT DEFINITION	
	(a) MTOW	600kg
	(b) No. Seats	2
	(c) Maximum Wing Loading	53.29 kg/m ²
	(d) V _{so}	40 kt CAS
	(e) Permitted range of pilot weights	60 – 200 kg total, Max 100 kg per seat
	(f) Typical Empty Weight (ZFW)	350 kg (912ULS) 356 kg (912iS Sport)
	(g) ZFW + 200 kg crew + 1 hr fuel	598 kg
	(h) ZFW + 100 kg pilot + full fuel (90 litres / 65 kg) (130 litres / 94kg) Option 13	545kg 574kg
	(i) Max ZFW at initial permit issue	382 kg

¹ Includes 912iS Sport version
TADS BM95 Issue 2

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(6) | POWER PLANTS

Designation	<i>TL3000 Sirius 600</i>	<i>TL3000 Sirius 600</i>	<i>TL3000 Sirius 600</i>	<i>TL3000 Sirius 600</i>
Engine Type	<i>Rotax 912ULS</i>	<i>Rotax 912ULS</i>	<i>Rotax 912iS Sport</i>	<i>Rotax 912iS Sport</i>
Reduction Gear	<i>2.43:1</i>	<i>2.43:1</i>	<i>2.43:1</i>	<i>2.43:1</i>
Exhaust System	<i>TL Ultralight</i>	<i>TL Ultralight</i>	<i>TL Ultralight</i>	<i>TL Ultralight</i>
Intake System	<i>Twin carburettor</i>	<i>Twin carburettor</i>	<i>Injected</i>	<i>Injected</i>
Propeller Type	<i>TL-Ultralight PowerMax 3 blade VP</i>	<i>Duc Swirl-3 Fixed Pitch 3 blade G/A</i>	<i>TL-Ultralight PowerMax 3 blade VP</i>	<i>Duc Swirl-3 Fixed Pitch 3 blade G/A</i>
Propeller Dia x Pitch	<i>1748 mm Pitch range 10° Variable + CSU</i>	<i>1730 mm 24° (320 mm from the blade tip)</i>	<i>1748 mm Pitch range 10° Variable + CSU</i>	<i>1730 mm 24° (320 mm from the blade tip)</i>
Max Static RPM	<i>5400 +/- 200</i>	<i>5400 +/- 200</i>	<i>5400 +/- 200</i>	<i>5400 +/- 200</i>
Noise Type Cert	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
AAN approving configuration	<i>AAN BMAA-1116 Issue 1</i>	<i>AAN BMAA-1116 Issue 1</i>	<i>AAN BMAA-1157 Issue 1</i>	<i>AAN BMAA-1157 Issue 1</i>



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(7) MANDATORY LIMITATIONS:

(a) Max Take-Off Weight		600 kg
(b) CG Limits	Aft Limit	435 mm aft of datum
	Fwd Limit	305 mm aft of datum
(c) CG datum		Leading edge of wing
(d) Cockpit Loadings	Min	60 kg
	Max	200 kg
		Max 100 kg per seat
	Baggage	25 kg
(e) Never Exceed Speed		136 kts IAS
(f) Manoeuvring Speed		94 kts IAS
(g) Permitted Manoeuvres		Maximum bank angle 60°
		Non-aerobatic
		Normal acceleration limits no flaps +4g/-2g
		Normal acceleration limits with flaps +2g/-0g
(h) Fuel Contents (Max Usable)		90 litres (4.5 litres unusable)
		130 litres (5.6 litres unusable) Option 13
		912iS Sport only: Additional 0.52 litres
		auxiliary fuel tank

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(i) Power Plant

Engine	Rotax 912ULS (100HP)	Rotax 912iS Sport (100HP)
Max RPM	5800 (5 min) 5500 (continuous)	5800 (5 min) 5500 (continuous)
MAX Coolant Temp.	120°C	120°C
MAX EGT	880°C	950°C
Fuel Spec	95 RON minimum unleaded to EN 228 Normal, Super or Super Plus, AVGAS 100LL, UL91. (Unleaded preferred – see engine manual)	95 RON minimum unleaded to EN 228 Super or Super Plus, AVGAS 100LL, UL91. (Unleaded preferred – see engine manual)
Engine Oil Spec	RON 424, SAE 10 W-40 (See engine manual)	RON 424, SAE 10 W-40 (See engine manual)
Oil Pressure	Normal 2-5 bar above 3500rpm Min 0.8 bar below 3500rpm Max 7 bar	Normal 2-5 bar above 3500rpm Min 0.8 bar below 3500rpm Max 7 bar
Oil Temperature	50°C -130°C	50°C -130°C
Fuel Pressure	0.15 - 0.5bar with fuel pump S/N 11.0036 or later	2.8 – 3.2 bar with fuel pump S/N 11.0036 or later

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(8) INSTRUMENTS REQUIRED:

ASI	Altimeter	RPM	Coolant Temperature	Oil Temperature	Oil Pressure	Slip ball	Audible Stall Warner
Required 0 to 143 kt minimum	Required	Required 0-6000 rpm minimum	Required	Required	Required	Required	Required

Manifold Pressure Gauge required if the PowerMax prop is fitted.

A voltmeter and compass are recommended

Additional required equipment for 912iS Sport variants only: EGT, voltmeter and fuel pressure gauge.

If a LiFePO4 battery is fitted, a voltmeter must be fitted or displayed on EFIS.

An electronic CO detector is required to comply with CAA Safety Directive SD-2024/001 if a cabin heater is installed.

(9) CONTROL DEFLECTIONS:

Elevator UP:	19.5° ±1.5°	Tailplane trim tab UP:	4cm (relative to elevator)
Elevator DOWN:	11.0° ±1.5°	Tailplane trim tab DOWN:	5cm (relative to elevator)
Ailerons UP:	11.5° ±1.5°	Rudder LEFT:	20° ±1.5°
Ailerons DOWN:	7.5° ±1.5°	Rudder RIGHT:	20° ±1.5°
Flaps (DOWN):	Stage1 10.5° ±1 Landing 40° ±1	Elevator Trim Tab:	±25° ±2°

(10) PILOT'S NOTES, MAINTENANCE MANUALS REFERENCES:

10.1 Manuals approved for use with this aircraft

(a) 912ULS variant: TL-3000 Sirius Pilots Operating Handbook Doc Ref TL-3000-BCAR-1 (or later approved issue)

912iS Sport variant: TL-3000 Sirius Pilots Operating Handbook Doc Ref TL-3000-BCAR-3 (or later approved issue)

(b) TL-3000 Sirius Aircraft Maintenance Manual Doc Ref TL3000/14/001AJ Revision 7 (or later approved issue) – Note Pilots Operating Manual has approved specification for UK aircraft and takes precedence where differences occur.

(c) PowerMax Propeller User and Installation Manual Doc Ref P1/14/002EN (or later approved issue)

(d) Engine, propeller, parachute system and other fitted equipment manufacturer's Operating and Maintenance Manuals as appropriate to fitted

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powerplant and equipment, at their current issues.

10.2 The following placards are to be fitted:

- (a) Flight Limitations Placard (to be visible to the pilot)
Contains airspeed, manoeuvring and loading limitations. See Pilot Operators Handbook.
- (b) Engine Limitations Placard (to be located near to the engine instruments)
A placard showing the limitations for all indicated engine parameters is to be mounted close to the engine instruments. Also, main limitations are to be shown as coloured markers (red for danger, amber for caution) on the instrument displays. See Pilot Operators Handbook.
- (c) Occupant Warning Placard (to be visible to both occupants)
See Pilot Operators Handbook.
- (d) Fuel Filler Placard (to be located adjacent to the fuel filler cap)
A placard is to be fitted showing fuel capacity, fuel type(s), and if MTOW can be exceeded with full fuel and 180kg cockpit weight, the fuel loads at MTOW for cockpit weights of 180kg / 170kg / 160kg etc. at 10kg intervals down to the maximum fuel load. See Pilot Operators Handbook.
- (e) Parachute Warning Placards (to be located on the exterior of the aircraft)
Placards complying with BCAR Section S Issue 7 (or later) must be fitted. See Pilot Operators Handbook.
- (f) Secondary Control Markings
Choke, cabin heat, trim, flaps, fuel shut-off: see Pilot Operators Handbook.
Other secondary controls are to be placarded as per the associated Pilot Operators Handbook supplement or normal aviation practice (if no associated Pilot Operators Handbook supplement).
- (g) ASI Markings
See Pilot Operators Handbook.
- (h) Switches
All switches are to be marked with function and sense (up=on, down=off).
- (i) Fuses and Circuit Breakers
All fuses and circuit breakers are to be marked with function and rating.
- (j) Fireproof Metal Plate
Showing the aircraft nationality and registration marks (e.g. G-ABCD) to be mounted in a prominent position on the fuselage.
- (k) Occupant Warning Placard (to be visible to both occupants)
This aircraft has not been flight tested for recovery from unintentional spins.

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(l) LiFePO4 Battery

If fitted, placards warning of fitment of LiFePO4 battery and use of only charger suitable for LiFePO4 battery to be fitted next to battery terminals.

(11) MANDATORY MODIFICATIONS / SERVICE BULLETINS / AIRWORTHINESS DIRECTIVES ETC:

See Annex A.

(12) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT (600 kg – ISA – Sea Level)

Rate of Climb:	900 fpm at 65 kt IAS PowerMax Prop 950 fpm at 65 kt IAS DUC Prop
Stall or Minimum Flying Speed:	37 kt IAS at MTOW / idle / full flap.
Sink rate	900 fpm
TODR (on dry paved, includes 1.3 safety factor)	514 m PowerMax Prop 555 m DUC Prop
LDR (on dry paved)	268m (with braking) 296m (minimum braking)

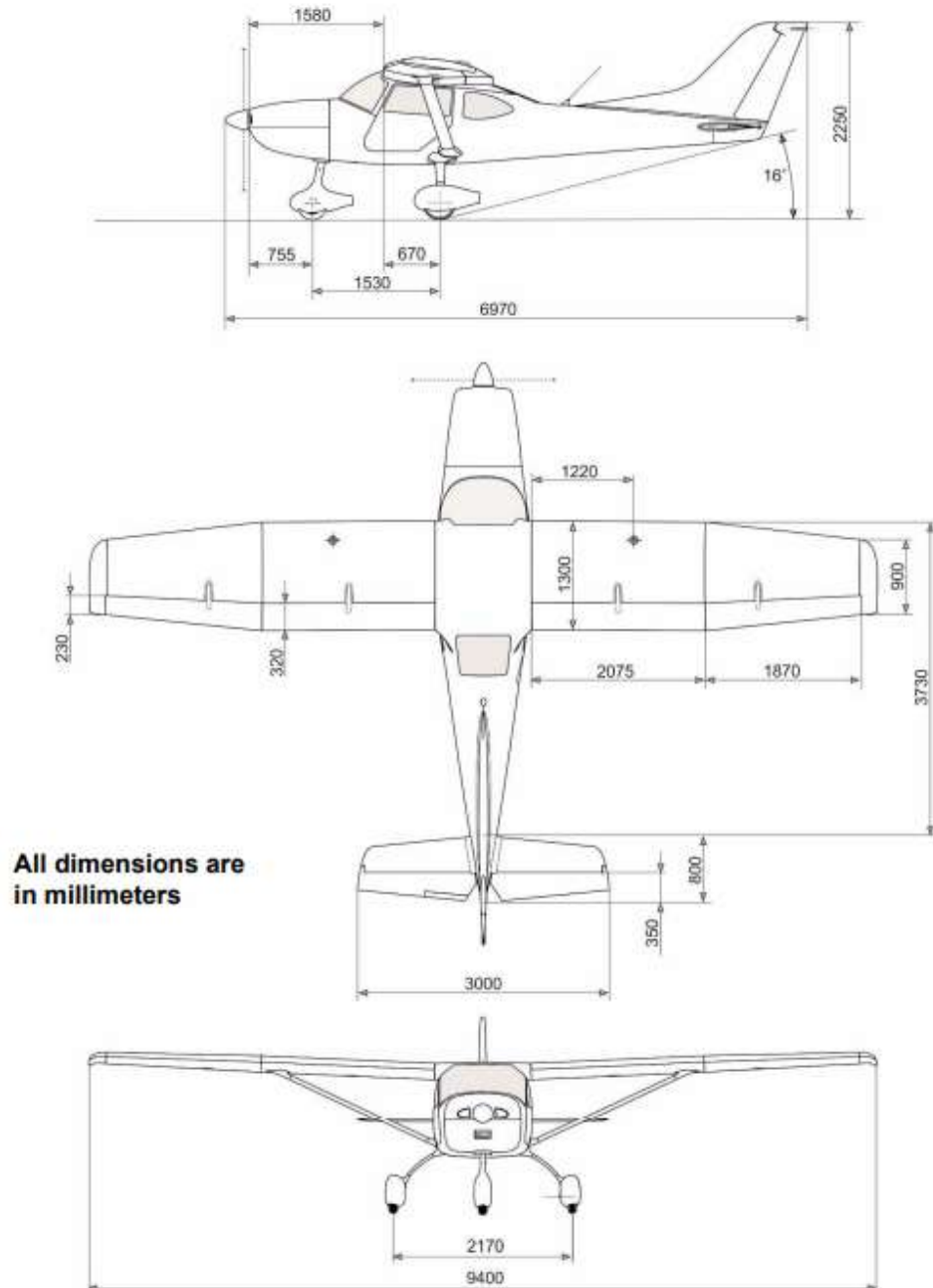
Issue History

<u>Issue</u>		<u>Reason and Signatory</u>
1	06/10/2022	Initial issue.
2	27/02/2026	Typical ZFW, (8) required instruments, and (10.2 l) LiFePO4 Battery updated. Corrections to: Oil Temp, 912ULS fuel specs and DUC prop diameter (1730mm). Addition of AAN 1157 (912iS Sport) with POH & AMM updates. Updated Illustration of Aircraft - 3 View, ANNEX A mandatory modifications & ANNEX C mainwheel datums + header tank (912iS Sport) Approved for issue by R. S. Mott BMAA CTO/CI

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Illustration of Aircraft - 3 View



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ANNEX A – MANDATORY MODIFICATIONS / SERVICE BULLETINS

Mandatory Options:

Magnum 601 or Galaxy GRS6 600 BPRS
Stall Warner Dynon AOA/Pitot or equivalent

CAA MANDATORY PERMIT DIRECTIVES:

MPD Number	Title & Description
<u>2019-005</u>	Placarding Requirements for Aircraft fitted with a BPRS (for more info see TIL063)

For Latest Bulletins - <https://www.tl-ultralight.cz/en/bulletin>

ANNEX B - APPROVED OPTIONAL MODIFICATIONS

The installation of all optional modifications is to be inspected by an inspector from an Organisation approved by the CAA for the purpose and an entry made in the appropriate logbook(s). Note that other approved modifications may exist which are not listed here.

Optional Modifications List

Mod Number	Description
1	Analogue Instrument fit
2	Garmin G3X Instrument fit
3	Panel Mount Transceiver
4	Panel Mount Transponder
5	Garmin Autopilot
6	Garmin G3X Control Panel GMC507
7	Cabin Heat
8	Leather Seats
9	2 Level Seat heating
10	Sun Visors
11	Wingtip LED Lighting
12	Galaxy GRS6 600 Ballistic Recovery Parachute (Alternative to Magnum 601)
13	130 Litre fuel capacity (65 litre wing tanks)



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ANNEX C - WEIGHING INFORMATION

- | | |
|--------------------------|---|
| 1. CG Datum: | Wing Leading Edge |
| 2. Weighing attitude: | Level Door Frame |
| 3. Mainwheel moment arm: | 670 mm aft of datum |
| 4. Nosewheel moment arm: | (-)860 mm forward of datum |
| 5. Fuel moment arm(s): | 318 mm aft of datum (main tanks)
(-)535 mm forward of datum (auxiliary tank, 912iS Sport only) |
| 6. Crew moment arm: | 469 mm aft of datum |
| 7. Baggage moment arm: | 1274 mm aft of datum (max 25 kg) |
| 8. Crew weights: | Minimum 60 kg / maximum 200 kg |
| 9. Aft CG Limit: | 435mm aft of datum |
| 10. Fwd CG Limit: | 305mm aft of datum |

ANNEX D – EXAMPLE PLACARDS

See Pilot Operating Handbook (POH)

ANNEX E – POINTS FOR SPECIAL ATTENTION

Tyre Pressures

Main wheels 2.5 bar (36psi)

Front wheel 2.5 bar (36psi)

Baggage Allowance

25 kg evenly spaced (*“spaced for optimum A/C balance”*) and well secured. Always use the safety net.