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# TYPE-CERTIFICATE DATA SHEET

No. EASA.A.642

**for**  
Bristell B23

**Type Certificate Holder**  
BRM Aero s.r.o.

Letecká 255  
686 04 Kunovice  
Czech Republic

For models: Bristell B23  
Bristell B23-915



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3. Manufacturer BRM Aero s.r.o. Letecká 255.....	10
686 04 Kunovice.....	10
Czech Republic.....	10
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3. Special Conditions None.....	10
4. Exemptions None.....	10
5. (Reserved) Deviations None.....	10
6. Equivalent Safety Findings None.....	10
7. Environmental Protection see TCDSN EASA.A.642.....	10
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2. Description.....	11
The airplane is a side-by-side, turbocharged single engine two-seater. It has a tapered cantilever low wing configuration with flaps and ailerons. The empennage is conventional. The tricycle landing gear is fixed. The airframe is a lightweight structure comprising aluminium sheets riveted with blind rivets. Airplane is equipped by lithium battery installations. The optional Aircraft Emergency Parachute System (AEPS) is integral part of aircraft design (see A.V.1.). An optional aerotow system is installed in the rear part of the fuselage. ....	11
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15. Datum forward plane of the engine flange to the propeller.....	12
16. Control surface deflections.....	12
-Elevator 20° up, 13° down.....	12
-Aileron 24° up, 16° down.....	12
-Rudder 30° left and right .....	12
-Flap, discrete 0°/10°/25° down .....	12
17. Levelling Means see AFM Section 6.2 Definitions .....	12
18. Minimum Flight Crew 1 pilot .....	12
19. Maximum Passenger Seating Capacity 1 passenger.....	12
20. Baggage/ Cargo Compartments 1 compartment in each wing, .....	12
1 compartment behind the occupants .....	12
21. Wheels and Tyres.....	12
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2. Maintenance Manual ADxC-73-003-AMM; edition 1.0; dated 09 December 2021 or later approved issue 13	
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## **SECTION A: BRISTELL B23**

### **A.I. General**

1. Type/ Model	
1.1 Type	Bristell B23
1.2 Model	Bristell B23
2. Airworthiness Category	CS-23, Normal category
3. Manufacturer	BRM Aero s.r.o. Letecká 255 686 04 Kunovice Czech Republic
4. EASA Type Certification Application Date	30 May 2017
5. State of Design Authority	N/A
6. State of Design Authority Type Certificate Date	N/A
7. EASA Type Certification Date	07 October 2020

### **A.II. EASA Certification Basis**

1. Reference Date for determining the applicable requirements	30 May 2017
2. Airworthiness Requirements	CS-23 [Certification Specifications for Normal-Category Aeroplanes] Amdt. 5, dated 29 March 2017 CS-ACNS, Issue 2, dated 26 April 2019
3. Special Conditions	None
4. Exemptions	None
5. (Reserved) Deviations	None
6. Equivalent Safety Findings	None
7. Environmental Protection	see TCDSN EASA.A.642



### A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition                      Bristell B23 Master Document List ADxC-73-001-MDL, issue A or later approved revision

2. Description

The airplane is a side-by-side single engine two-seater. It has a tapered cantilever low wing configuration with flaps and ailerons. The empennage is conventional. The tricycle landing gear is fixed. The airframe is a light weight structure comprising aluminium sheets riveted with blind rivets. Airplane is equipped by lithium battery installations. The optional Aircraft Emergency Parachute System (AEPS) is integral part of aircraft design (see A.V.1.).

3. Equipment:                                      The aeroplane is equipped with an optional airframe installed AEPS.

4. Dimensions:	Wingspan (incl. wing tip lights):	9.27 m
	Height	2.36 m
	Length	6.58 m
	Wing area	11.75 m <sup>2</sup>

5. Engine

5.1. Model	ROTAX 912 S3
5.2 Type Certificate	EASA.E.121
5.3 Limitations	Refer to TCDS: EASA.E.121

6. Load factors

Flaps up	n=+4
Flaps up	n=-2
Flaps down	n=+2
Flaps down	n=+0

7. Propeller

7.1 Model	MTV-34-1-A/175-200
7.2 Type Certificate	EASA.P.049
7.3 Number of blades	three
7.4 Diameter	175 cm
7.5 Sense of Rotation	clockwise, seen from pilot's point of view

8. Fluids

8.1 Fuel	See AFM section 2.13 See Rotax Service Instruction SI-912-016
8.2 Oil	See Rotax Operators Manual OM-912 Series See Rotax Service Instruction SI-912-016
8.3 Coolant	See Rotax Operators Manual OM-912 Series See Rotax Service Instruction SI-912-016



## 9. Fluid capacities

9.1 Fuel	Total capacity: 2x60L Usable capacity: 2x59L
9.2 Oil	Max. approx. capacity: 3.6 L
9.3 Coolant system capacity	Capacity: 2.5 L

## 10. Air Speeds: EAS≈CAS (IAS)

VS0: 43 kts (44 kts)  
VS: 50 kts (51 kts)  
VFE: 81 kts (82 kts)  
VA: 98 kts (99 kts)  
VC: 135 kts (136 kts)  
VNE: 156 kts (157 kts)

## 11. Flight Envelope

Max. operating altitude above MSL: 14.000 ft

## 12. Approved Operations Capability

VFR Day / VFR Night (see A.V.1)

## 13. Maximum Masses

Max. Takeoff mass is 750 kg

## 14. Centre of Gravity Range

from 25 %MAC to 34.5 %MAC, from 1.717 m to 1.846 m referring to datum

## 15. Datum

forward plane of the engine flange to the propeller

## 16. Control surface deflections

-Elevator 20° up, 13° down  
-Aileron 24° up, 16° down  
-Rudder 30° left and right  
-Flap, discrete 0°/10°/25° down

## 17. Levelling Means

see AFM Section 6.2 Definitions

## 18. Minimum Flight Crew

1 pilot

## 19. Maximum Passenger Seating Capacity

1 passenger

## 20. Baggage/ Cargo Compartments

1 compartment in each wing,  
1 compartment behind the occupants

## 21. Wheels and Tyres

Type and dimension of the main wheels:

- wheel rim - BERINGER - 5.00-5"
- tubeless tyre - MICHELIN AVIATOR - 5,00-5"

Type and dimension of the nose wheel:

- wheel rim - BERINGER - 5.00-5"
- tubeless tyre - MICHELIN AVIATOR - 5,00-5"

## 22. (Reserved)





#### **A.IV. Operating and Service Instructions**

- |                                |  |
|--------------------------------|--|
| 1. Flight Manual               | ADxC-73-001-AFM; issue A; dated 27 August 2020<br>or later approved issue        |
| 2. Maintenance Manual          | ADxC-73-001-AMM; edition 1.0; dated 18 September 2020<br>or later approved issue |
| 3. Structural Repair Manual    | not available  |
| 4. Weight and Balance Manual   | ADxC-73-001-AFM; issue A; dated 27 August 2020<br>or later approved issue        |
| 5. Illustrated Parts Catalogue | not issued   |

#### **A.V. Notes**

1. In order to show the compliance with the CS-23, Amdt. 5, certification basis, the AMC to CS-23 was used by the TC holder complemented by following Means of Compliance for specific design features:
  - a) SC-ELA.2015-01 [Lithium battery installations] Issue 1
  - b) SC-OVLA.div-03 [Night VFR operation with VLA] Issue 2
  - c) ASTM F2316-12 [Aircraft Emergency Parachute System]



## **SECTION B: BRISTELL B23-915**

### **B.I. General**

1. Type/ Model	
1.1 Type	Bristell B23
1.2 Model	Bristell B23-915
2. Airworthiness Category	CS-23, Normal category
3. Manufacturer	BRM Aero s.r.o. Letecká 255 686 04 Kunovice Czech Republic
4. EASA Type Certification Application Date	03 December 2020
5. State of Design Authority	N/A
6. State of Design Authority Type Certificate Date	N/A
7. EASA Type Certification Date	13 January 2022

### **B.II. EASA Certification Basis**

1. Reference Date for determining the applicable requirements	03 December 2020
2. Airworthiness Requirements	CS-23 [Certification Specifications for Normal-Category Aeroplanes] Amdt. 5, dated 29 March 2017 CS-ACNS, Issue 2, dated 26 April 2019
3. Special Conditions	None
4. Exemptions	None
5. (Reserved) Deviations	None
6. Equivalent Safety Findings	None
7. Environmental Protection	see TCDSN EASA.A.642



### B.III. Technical Characteristics and Operational Limitations

1. Type Design Definition                   Bristell B23-915 model Master Document List  
ADxC-73-003-MDL, issue A or later approved revision

#### 2. Description

The airplane is a side-by-side, turbocharged single engine two-seater. It has a tapered cantilever low wing configuration with flaps and ailerons. The empennage is conventional. The tricycle landing gear is fixed. The airframe is a lightweight structure comprising aluminium sheets riveted with blind rivets. Airplane is equipped by lithium battery installations. The optional Aircraft Emergency Parachute System (AEPS) is integral part of aircraft design (see A.V.1.). An optional aerotow system is installed in the rear part of the fuselage.

3. Equipment:                                    The aeroplane is equipped with an optional airframe installed AEPS.

4. Dimensions:                                Wingspan (incl. wing tip lights):       9.27 m  
Height   2.36 m  
Length   6.58 m  
Wing area                                     11.75 m<sup>2</sup>

#### 5. Engine

5.1. Model                                     ROTAX 915iSc3 A  
5.2 Type Certificate                        EASA.E.121  
5.3 Limitations                             Refer to TCDS: EASA.E.121

#### 6. Load factors

Flaps up                                     n=+4  
Flaps up                                     n=-2  
Flaps down                                 n=+2  
Flaps down                                 n=+0

#### 7. Propeller

7.1 Model                                     MTV-34-1-A/175-200  
7.2 Type Certificate                        EASA.P.049  
7.3 Number of blades                     three  
7.4 Diameter                                 175 cm  
7.5 Sense of Rotation                     clockwise, seen from pilot's point of view

#### 8. Fluids

8.1 Fuel                                        See AFM section 2.13  
See Rotax Service Instruction SI-915 i-001  
8.2 Oil   See Rotax Operators Manual OM-915 i A Series  
See Rotax Service Instruction SI-915 i-001  
8.3 Coolant                                  See Rotax Operators Manual OM-915 i A Series  
See Rotax Service Instruction SI-915 i-001



## 9. Fluid capacities

9.1 Fuel	Total capacity: 2x60L Usable capacity: 2x56L
9.2 Oil	Max. approx. capacity: 3.6 L
9.3 Coolant system capacity	Capacity: 2.5 L

## 10. Air Speeds: EAS≈CAS (IAS)

V <sub>SO</sub> :	43 kts (44 kts)
V <sub>S</sub> :	50 kts (51 kts)
V <sub>FE</sub> :	81 kts (84 kts)
V <sub>A</sub> :	98 kts (101 kts)
V <sub>C</sub> :	135 kts (138 kts)
V <sub>NE &lt;FL110</sub> :	156 kts (159kts)
V <sub>NE &gt;FL110</sub> :	193 kts TRUE airspeed

## 11. Flight Envelope

Max. operating altitude above MSL: 18.000 ft

## 12. Approved Operations Capability

VFR Day / VFR Night (see B.V.1)

## 13. Maximum Masses

Max. Take-off mass is 750 kg

## 14. Centre of Gravity Range

from 25 %MAC to 34.5 %MAC, from 1.717 m to 1.846 m referring to datum

## 15. Datum

forward plane of the engine flange to the propeller

## 16. Control surface deflections

-Elevator 20° up, 13° down

-Aileron 24° up, 16° down

-Rudder 30° left and right

-Flap, discrete 0°/10°/25° down

## 17. Levelling Means

see AFM Section 6.2 Definitions

## 18. Minimum Flight Crew

1 pilot

## 19. Maximum Passenger Seating Capacity

1 passenger

## 20. Baggage/ Cargo Compartments

1 compartment in each wing,

1 compartment behind the occupants

## 21. Wheels and Tyres

Type and dimension of the main wheels:

- wheel rim - BERINGER - 5.00-5"

- tubeless tyre - MICHELIN AVIATOR - 5,00-5"

Type and dimension of the nose wheel:

- wheel rim - BERINGER - 5.00-5"

- tubeless tyre - MICHELIN AVIATOR - 5,00-5"

## 22. (Reserved)



#### **B.IV. Operating and Service Instructions**

- |                                |  |
|--------------------------------|--|
| 1. Flight Manual               | ADxC-73-003-AFM [Bristell B23-915 AFM]; revisions A; dated 09 December 2021 or later approved issue<br>ADxC-73-003-2-AFM [Bristell B23-915 AFM Supplement – Glider Towing]; revision A; dated 09 December 2021 |
| 2. Maintenance Manual          | ADxC-73-003-AMM; edition 1.0; dated 09 December 2021 or later approved issue   |
| 3. Structural Repair Manual    | not available  |
| 4. Weight and Balance Manual   | ADxC-73-003-AFM; revision A; dated 09 December 2021 or later approved issue  |
| 5. Illustrated Parts Catalogue | not issued   |

#### **B.V. Notes**

1. In order to show the compliance with the CS-23, Amdt. 5, certification basis, the AMC to CS-23 was used by the TC holder complemented by following Means of Compliance for specific design features:
  - a) SC-ELA.2015-01 [Lithium battery installations] Issue 1
  - b) SC-OVLA.div-03 [Night VFR operation with VLA] Issue 2
  - c) ASTM F2316-12 [Aircraft Emergency Parachute System]
  - d) ELOS-VLA.0991-01 [Fuel Pumps], issue 2, dated 13-NOV-2018
  - e) SC-OVLA-div-02 [Glider Towing], issue 1, dated 02-JUN-2015



## SECTION ADMINISTRATIVE

### I. Acronyms & Abbreviations

n/a

### II. Type Certificate Holder Record

TC Holder	Period
<b>BRM Aero s.r.o.</b> Letecká 255 686 04 Kunovice CZECH REPUBLIC  Contracted DOA Holder based on 21.A.2:	Since 07 October 2020
<b>Aircraft Design Certification GmbH</b> Reichensteinstr. 48 69151 Neckargemünd Germany EASA.21J.411	Since 07 October 2020

### III. Change Record

Issue	Date	Changes	TC Issue No. & Date
Issue 01	07 October 2020	Initial issue of TCDS	Initial / 07 October 2020
Issue 02	13 January 2022	Corrected AFT CG information and elevator deflections; clarification of optional AEPS system. Implementation of section B: model B23-915.	Issue 2 / 13 January 2022

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