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
Intentionally left blank
**SECTION A: BRISTELL B23**

### A.I. General

1. **Type/ Model**

2. **Airworthiness Category** CS-23, Normal category

3. **Manufacturer** BRM Aero s.r.o. Letecká 255

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

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 lightweight structure comprising aluminum 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**

4. **Engine**

5. **Load factors**

6. **Propeller**

7. **Fluids**

8. **Fluid capacities**

9. **Air Speeds: EAS=CAS (IAS)**

10. **Flight Envelope**

11. **Approved Operations Capability**

12. **Maximum Masses**

13. **Centre of Gravity Range**

14. **Datum**

15. **Control surface deflections**

16. **Control Surface Deflections**

17. **Leveling Means**

18. **Minimum Flight Crew**

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**Note:**

- **Datum**: forward plane of the engine flange to the propeller
- **Control surface Deflections**: Rudder 30° left and right
- **Leveling Means**: see AFM Section 6.2 Definitions

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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

   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 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.).

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 m²

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 19° up, 15° 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  
or later approved issue [Basic aircraft G3x avionics]
ADxC-73-070-AFM issue A; dated 22 December 2022 or later  
approved issue [G500 Avionic package]

ADxC-73-001-AMM; edition 1.0; dated 18 September 2020  
or later approved issue

not available

ADxC-73-001-AFM; issue A; dated 27 August 2020  
or later approved issue
ADxC-73-070-AFM issue A; dated 22 December 2022 or later  
approved issue [G500 Avionic package]

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

   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 m²

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)

- $V_{SO}$: 43 kts (44 kts)
- $V_{S}$: 50 kts (51 kts)
- $V_{FE}$: 81 kts (84 kts)
- $V_{A}$: 98 kts (101 kts)
- $V_{C}$: 135 kts (138 kts)
- $V_{NE < FL110}$: 156 kts (159kts)
- $V_{NE > FL110}$: 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 19° up, 15° 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  
   ADxC-73-003-2-AFM [Bristell B23-915 AFM Supplement – Glider Towing]; revision A; dated 09 December 2021  
   ADxC-73-049-AFM issue B; dated 14 November 2022 or later approved issue [B23-915 G500 Avionic package]

   ADxC-73-003-AMM; edition 1.0; dated 09 December 2021 or later approved issue

   not available

   ADxC-73-003-AFM; revision A; dated 09 December 2021 or later approved issue  
   ADxC-73-049-AFM issue B; dated 14 November 2022 or later approved issue [B23-915 G500 Avionic package]

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

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<th>TC Holder</th>
<th>Period</th>
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<td>BRM Aero s.r.o.</td>
<td>Since 07 October 2020</td>
</tr>
<tr>
<td>Letecká 255</td>
<td></td>
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<tr>
<td>686 04 Kunovice</td>
<td></td>
</tr>
<tr>
<td>CZECH REPUBLIC</td>
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<td>Contracted DOA Holder based on 21.A.2:</td>
<td></td>
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<tr>
<td>Aircraft Design Certification GmbH</td>
<td>Since 07 October 2020</td>
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<tr>
<td>Reichensteinstr. 48</td>
<td></td>
</tr>
<tr>
<td>69151 Neckargemünd</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
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<th>Issue</th>
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<tr>
<td>Issue 01</td>
<td>07 October 2020</td>
<td>Initial issue of TCDS</td>
<td>Initial / 07 October 2020</td>
</tr>
<tr>
<td>Issue 02</td>
<td>13 January 2022</td>
<td>Corrected AFT CG information and elevator deflections; clarification of optional AEPS system. Implementation of section B: model B23-915.</td>
<td>Issue 2 / 13 January 2022</td>
</tr>
<tr>
<td>Issue 03</td>
<td>13 October 2022</td>
<td>Administrative corrections in A.III.16 and B.III.16 to be in line with design data</td>
<td>Issue 2 / 13 January 2022</td>
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<tr>
<td>Issue 04</td>
<td>07 March 2023</td>
<td>Addition of “G500 avionic package” AFM in A.IV.1; A.IV.4; B.IV.1 and B.IV.4</td>
<td>Issue 2 / 13 January 2022</td>
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