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
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
3. CS-ACNS, Issue 2, dated 26 April 2019
4. Special Conditions None
5. Exemptions None
6. (Reserved) Deviations None
7. Equivalent Safety Findings None
8. 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. Engine
5. Load factors
6. Propeller
7. Fluids
8. Fluid capacities
9. Air Speeds: EAS=CAS (IAS)
10. Flight Envelope Max. operating altitude above MSL: 14,000 ft
11. Approved Operations Capability VFR Day / VFR Night (see A.V.1.)
12. Maximum Masses Max. Takeoff mass is 750 kg
13. Centre of Gravity Range from 25 %MAC to 34.5 %MAC, from 1.717 m to 1.846 m referring to datum
14. Datum forward plane of the engine flange to the propeller
15. Control surface deflections
-Elevator 20° up, 13° down
-Aileron 24° up, 16° down
-Rudder 30° left and right
-Flap, discrete 0°/10°/25° down
16. Levelling Means see AFM Section 6.2 Definitions
17. Minimum Flight Crew 1 pilot
21. Wheels and Tyres.................................................................................................................................................................................. 8  
22. (Reserved) .................................................................................................................................................................................................................. 8
1. Flight Manual  ADxC-73-001-AFM; issue A; dated 27 August 2020  or later approved issue 9  
2. Maintenance Manual  ADxC-73-001-AMM; edition 1.0; dated 18 September 2020  or later approved issue 9  
3. Structural Repair Manual  not available ......................................................................................................................................................... 9
4. Weight and Balance Manual  ADxC-73-001-AFM; issue A; dated 27 August 2020  or later approved issue 9  
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1. Type/ Model ........................................................................................................................................................................................................... 10
2. Airworthiness Category  CS-23, Normal category ........................................................................................................................................ 10
3. Manufacturer  BRM Aero s.r.o.  Letecká 255 ........................................................................................................................................... 10
686 04 Kunovice .................................................................................................................................................................................................. 10
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4. EASA Type Certification Application Date  03 December 2020 ........................................................................................................... 10
5. State of Design Authority  N/A ........................................................................................................................................................................ 10
6. State of Design Authority Type Certificate Date  N/A ...................................................................................................................................... 10
7. EASA Type Certification Date  13 January 2022 ...................................................................................................................................... 10

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1. Reference Date for determining the applicable requirements  03 December 2020 .............................................................................................. 10
CS-ACNS, Issue 2, dated 26 April 2019 ......................................................................................................................................................... 10
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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ADxC-73-003-MDL, issue A or later approved revision ...................................................................................................................................... 11
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
3. Equipment: The aeroplane is equipped with an optional airframe installed AEPS ........................................................................................................................................................................... 11
5. Engine .................................................................................................................................................................................................................. 11
6. Load factors ........................................................................................................................................................................................................ 11
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10. Air Speeds: EAS=CAS (IAS) .................................................................................................. 12
11. Flight Envelope  Max. operating altitude above MSL: 18.000 ft ........................................... 12
12. Approved Operations Capability  VFR Day / VFR Night (see B.V.1) ..................................... 12
13. Maximum Masses  Max. Take-off mass is 750 kg................................................................. 12
14. Centre of Gravity Range  from 25 %MAC to 34.5 %MAC, from 1.717 m to 1.846 m referring to datum 12
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
22. (Reserved) ........................................................................................................................... 12

1. Flight Manual  ADxC-73-003-AFM [Bristell B23-915 AFM]; revisions A; dated 09 December 2021 or later approved issue ................................................................. 13
2. Maintenance Manual  ADxC-73-003-AMM; edition 1.0; dated 09 December 2021 or later approved issue ................................................................. 13
3. Structural Repair Manual  not available ................................................................................ 13
4. Weight and Balance Manual  ADxC-73-003-AFM; revision A; dated 09 December 2021 or later approved issue ................................................................. 13
5. Illustrated Parts Catalogue  not issued .................................................................................. 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

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

   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)

\[ V_{S0} : 43 \text{ kts} (44 \text{ kts}) \]
\[ V_S : 50 \text{ kts} (51 \text{ kts}) \]
\[ V_{FL} : 81 \text{ kts} (84 \text{ kts}) \]
\[ V_A : 98 \text{ kts} (101 \text{ kts}) \]
\[ V_C : 135 \text{ kts} (138 \text{ kts}) \]
\[ V_{NE<FL110} : 156 \text{ kts} (159 \text{ kts}) \]
\[ V_{NE>FL110} : 193 \text{ kts TRUE airspeed} \]

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
   ADxC-73-003-2-AFM [Bristell B23-915 AFM Supplement –
   Glider Towing]; revision A; dated 09 December 2021

   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

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>
</tr>
<tr>
<td>686 04 Kunovice</td>
<td></td>
</tr>
<tr>
<td>CZECH REPUBLIC</td>
<td></td>
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<tr>
<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>
</tr>
<tr>
<td>Reichensteinstr. 48</td>
<td></td>
</tr>
<tr>
<td>69151 Neckargemünd</td>
<td></td>
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<tr>
<td>Germany</td>
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III. Change Record

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<th>Issue</th>
<th>Date</th>
<th>Changes</th>
<th>TC Issue No. &amp; Date</th>
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<td>Issue 01</td>
<td>07 October 2020</td>
<td>Initial issue of TCDS</td>
<td>Initial / 07 October 2020</td>
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<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>
</tbody>
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-END-