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
Bristell B23-915 IFR

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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 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]
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 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
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 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 kts (44 kts)
Vs:	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]
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 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 C: BRISTELL B23-915 IFR

C.I. General

1. Type/ Model	
1.1 Type	Bristell B23
1.2 Model	Bristell B23-915 IFR
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	11 March 2022
5. State of Design Authority	N/A
6. State of Design Authority Type Certificate Date	N/A
7. EASA Type Certification Date	09 December 2024

C.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements	11 March 2022
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

C.III. Technical Characteristics and Operational Limitations

1. Type Design Definition	Bristell B23-915 IFR model Master Document List ADxC-73-027-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. The Bristell B23-915 IFR model is equipped with the G500 EFIS system, GI 275 stby-EFIS, GTN650Xi GPS/NAV/COM, DME and storm scope.

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-6-A/175-51	
7.2 Type Certificate	EASA P.094	
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 kts (44 kts)
Vs:	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 / IFR (see C.V.2)
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)	

C.IV. Operating and Service Instructions

1. Flight Manual	ADxC-73-027-AFM [Bristell B23-915 IFR AFM]; revisions A; dated 29 November 2024 or later approved issue ADxC-73-003-2-AFM [Bristell B23-915 AFM Supplement – Glider Towing]; revision A1; dated 24 November 2023
2. Maintenance Manual	ADxC-73-003-AMM; edition 1.1; dated 23 February 2023 or later approved issue ADxC-73-027-AMM; edition 1.0; dated 27 November 2024
3. Structural Repair Manual	not available
4. Weight and Balance Manual	ADxC-73-027-AFM; revision A; dated 29 November 2024 or later approved issue
5. Illustrated Parts Catalogue	not issued

C.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
f) SC-OVLA-div-04 [IFR Operation for VLA], issue 2, dated 02-OCT-2014
g) ASTM F3120-15 paragraph 8.2 [Pitot heating systems] as MOC to SCVLA.1326

2. The kinds of operation is approved for Day and Night VFR and IFR in VMC. Flights in known-icing conditions is prohibited. Flights under the conditions where the thunderstorm activity is expected are prohibited. The aircraft is not protected against catastrophic effect of lightning and the qualification of the installed storm scope (WX-500) require the limitation to IFR in VMC.

SECTION ADMINISTRATIVE

I. Acronyms & Abbreviations

n/a

II. Type Certificate Holder Record

TC Holder	Period
BRM Aero s.r.o. Letecká 255 686 04 Kunovice CZECH REPUBLIC Since **04 November 2024** BRM Aero is the holder of DOA EASA.21J.766	Since 07 October 2020
Contracted DOA Holder based on 21.A.2: **Aircraft Design Certification GmbH** Reichensteinstr. 48 69151 Neckargemünd Germany EASA.21J.411	07 October 2020 – 03 November 2024

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
Issue 03	13 October 2022	Administrative corrections in A.III.16 and B.III.16 to be in line with design data	Issue 2 / 13 January 2022
Issue 04	07 March 2023	Addition of “G500 avionic package” AFM in A.IV.1; A.IV.4; B.IV.1 and B.IV.4	Issue 2 / 13 January 2022
Issue 05	09 December 2024	Implementation of Section C: model B23-915 IFR	Issue 3 / 09 December 2024
Issue 06	03 April 2025	Entry into force of BRM Aero DOA EASA.21J.766 on 04 November 2024	Issue 3 / 09 December 2024

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