



TYPE-CERTIFICATE

DATA SHEET

NO. EASA.A.559

for
EB29

Type Certificate Holder
Binder Motorenbau GmbH

Alter Frickenhäuser Weg 15
D-97645 Ostheim / Rhön
Germany

For models: EB29
EB29D
EB29DE
EB29R
EB29DR



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Section A: **EB29**

A.I General

1. Type/ Model/ Variant
 - 1.1 Type: EB29
 - 1.2 Model: EB29
 - 1.3 Variant: EB29
2. Airworthiness Category utility
3. Manufacturer Binder Motorenbau GmbH
Alter Frickenhäuser Weg 15
97645 Ostheim / Rhön, Germany
4. EASA Type Certification Application Date 25.07.2009
5. EASA Type Certification Date 02.02.2012

A.II EASA Certification Basis

1. Reference Date for determining the applicable requirements EASA CRI-A01 dated 26.10.2011
2. Airworthiness Requirements Certification Specifications for Sailplanes and Powered Sailplanes, Amendment 2 issued 5 March 2009 (CS-22)
3. Special Conditions Special condition CSTMG-01
Increased Maximum Take-Off Mass
4. Exemptions None
5. Deviations - Preliminary Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, July 1991
- Standards for the Substantiation of the Electrical System of Powered Sailplanes, Issue September 15, 1992.
6. Equivalent Safety Findings 22.335(f)
7. Environmental Protection ICAO Annex 16, Chapter 10



A.III Technical Characteristics and Operational Limitations

1. Type Design Definition Drawing list EB29, dated 12. October 2011
2. Description Single seater, shoulder-wing, conventional T-type tail-plane, constructed from GFRP, CFRP and AFRP, spring mounted retractable central landing gear, fixed or optionally steerable tail wheel, wing flaps, Schempp-Hirth airbrakes on upper wing surface, retractable powerplant, water ballast tanks in wing and vertical tail.
3. Equipment
Min. Equipment:
 - 1 Air speed indicator (up to 300 km/h)
 - 1 Altimeter
 - 1 Magnetic compass
 - 1 Engine control unit (ILEC) featuring
 - RPM indicator
 - Fuel quantity indicator
 - Coolant temperature indicator
 - Engine hour meter
 - 1 Rear view mirror
 - 1 Engine fire warning
 - 1 4-Point harness (symmetrical)
 - 1 Parachute or back cushionAdditional Equipment refer to Flight and Maintenance Manual
4. Dimensions
 - Span: 25.3 28.3 29.3 m
 - Wing Area: 15.4 16.5 16.8 m²
 - Length: 8.03 m
 - Height: 1.76 m
5. Engine
 - 5.1 Model SOLO 2625 02
 - 5.2 Type Certificate EASA TCDS No. E.218
 - 5.3 Maximum Take-off Power 47 kW / 6700 RPM
 - 5.4 Maximum Continuous Power 47 kW / 6500 RPM
6. Propeller
 - 6.1 Model Binder BM-G1-160-R-120
 - 6.2 Type Certificate EASA TCDS No. P.500
 - 6.3 Number of blades 2
 - 6.4 Diameter 160 cm
 - 6.5 Sense of Rotation clockwise viewed in flight direction



6.6	Alternative Model	TECHNOFLUG KS-1G-160-R-120
6.7	Type Certificate	EASA TCDS No. P.115
6.8	Number of blades	2
6.9	Diameter	160 cm
6.10	Sense of Rotation	clockwise viewed in flight direction
7.	Fluids:	
7.1	Fuel:	Refer to Flight Manual
	Tank in the fuselage	24 ltr
	Tank in right wing	11 ltr (optional)
	Tank in left wing	11 ltr (optional)
	Non-usable fuel	1 ltr
8.	Launching Hooks	Safety Hook "E 85", LBA Datasheet No. 60.230/1
9.	Weak Links	Ultimate Strength: - winch & auto-tow launching: not certified - aero-tow: max. 935 daN
10.	Load Factors	+5,3 / -2,65 (up to VA) Refer to Flight Manual
11.	Air Speeds	
11.1	Manoeuvring speed	V _A 180 km/h
11.2	Never exceed speed	V _{NE} 280 km/h
11.3	Maximum permitted speeds	
	- in strong turbulence	V _{RA} 180 km/h
	- in aero-tow	V _T 170 km/h
	- in winch-launch	V _W not certified
	- for gear operation	V _{LO} 180 km/h
	- for extended engine	V _{NE, Ext} 180 km/h
	- for extracting engine	V _{PO} 115 km/h
	- with wing flaps at -2, -1, 0	V _{FE -2, -1, 0} 280 km/h
	- with wing flaps at +1, +2	V _{FE +1, +2} 180 km/h
	- with wing flaps in landing position	V _{FE L} 140 km/h
12.	Approved Operations Capability	VFR Day Aerobatic manoeuvres not permitted
13.	Launch methods	Aero tow Self-launch
14.	Maximum Masses	
14.1	Maximum Take-off Mass	900 kg
14.2	Max. Mass of non-lifting parts	385 kg
15.	Centre of Gravity Range	300 to 400 mm aft of datum point
16.	Datum	leading edge at wing root rib



17. Levelling Means	under side of rear fuselage boom horizontal
18. Control Surface Deflections	Refer to Maintenance Manual
19. Minimum Flight Crew	1
20. Maximum Passenger Seating Capacity	-
21. Baggage/ Cargo Compartments	Refer to Flight Manual
22. Lifetime limitations	Refer to Maintenance Manual



A.IV Operating and Service Instructions

1. Flight Manual
Flight Manual for the Motorglider EB29,
issue 29 April 2011 or later EASA
approved revision
2. Maintenance Manual
Maintenance Manual for the Motorglider
EB29, issue 29 April 2011 or later EASA
approved revision
3. Structural Repair Manual
Refer to Maintenance Manual
4. Operating Manual and Maintenance Manual for Engine
Manual for SOLO engine Type "2625-02",
issued by Solo-Kleinmotoren GmbH,
Sindelfingen, latest approved version
5. Operating Manual and Maintenance Manual for Propeller
Operation and Maintenance Manual for
Binder propeller Type BM-G1-160-R-120,
latest approved version
or (as applicable)
Operation and Maintenance Manual for
Technoflug propeller Type KS-1G-160-R-120,
issue P3 or latest approved version
6. Operating Manual for the Launching Hooks
Operation and Maintenance Manual for
Tost tow hook Type E 85,
latest approved version



A.V Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. Installation of optional steerable tail wheel permitted according to technical note TM AB-01.
4. Conversion into model EB29R permitted according to technical note TM EB29-B3.
5. Installation of optional retractable and steerable tail wheel permitted according to technical note TM EB29-B2.



Section B: **EB29D**

B.I General

1. Type/ Model/ Variant
 - 1.1 Type: EB29
 - 1.2 Model: EB29D
 - 1.3 Variant: EB29D
2. Airworthiness Category utility
3. Manufacturer Binder Motorenbau GmbH
Alter Frickenhäuser Weg 15
97645 Ostheim / Rhön, Germany
4. EASA Type Certification Application Date 12. 03.2012
5. EASA Type Certification Date 28.07.2014

B.II EASA Certification Basis

1. Reference Date for determining the applicable requirements
EASA CRI-A01 dated 10.07.2014
2. Airworthiness Requirements
Certification Specifications for Sailplanes and Powered Sailplanes, Amendment 2 issued 5 March 2009 (CS-22)
3. Special Conditions
Special condition CSTMG-01
Increased Maximum Take-Off Mass
4. Exemptions
None
5. Deviations
- Preliminary Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, July 1991
- Standards for the Substantiation of the Electrical System of Powered Sailplanes, Issue September 15, 1992.
6. Equivalent Safety Findings
22.335(f)
7. Environmental Protection
ICAO Annex 16, Chapter 10



B.III Technical Characteristics and Operational Limitations

1. Type Design Definition Drawing list EB29D, dated 14. July 2014
2. Description Double seater, shoulder-wing, conventional T-type tail-plane, constructed from GFRP, CFRP and AFRP, spring mounted retractable central landing gear, fixed or optionally steerable tail wheel, wing flaps, Schempp-Hirth airbrakes on upper wing surface, retractable powerplant, water ballast tanks in wing and vertical tail.
3. Equipment
Min. Equipment:
2 Air speed indicator (up to 300 km/h)
2 Altimeter
1 Magnetic compass
1 Engine control unit (ILEC) featuring
 - RPM indicator
 - Fuel quantity indicator
 - Coolant temperature indicator
 - Engine hour meter1 Rear view mirror
1 Engine fire warning
2 4-Point harness (symmetrical)
1 Parachute or back cushion per occupant
Additional Equipment refer to Flight and Maintenance Manual
4. Dimensions
Span: 25.3 28.3 m
Wing Area: 15.4 16.5 m²
Length: 8.32 m
Height: 1.76 m
5. Engine
 - 5.1 Model SOLO 2625 02
 - 5.2 Type Certificate EASA TCDS No. E.218
 - 5.3 Maximum Take-off Power 47 kW / 6700 RPM
 - 5.4 Maximum Continuous Power 47 kW / 6500 RPM
6. Propeller
 - 6.1 Model Binder BM-G1-160-R-120
 - 6.2 Type Certificate EASA TCDS No. P.500
 - 6.3 Number of blades 2
 - 6.4 Diameter 160 cm
 - 6.5 Sense of Rotation clockwise viewed in flight direction



6.6	Alternative Model	TECHNOFLUG KS-1G-160-R-120
6.7	Type Certificate	EASA TCDS No. P.115
6.8	Number of blades	2
6.9	Diameter	160 cm
6.10	Sense of Rotation	clockwise viewed in flight direction
7.	Fluids:	
7.1	Fuel:	Refer to Flight Manual
	Tank in the fuselage	20 ltr
	Tank in right wing	18 ltr (optional)
	Tank in left wing	18 ltr (optional)
	Non-usable fuel	1 ltr
8.	Launching Hooks	Safety Hook "G 88", LBA Datasheet No. 60.230/2
9.	Weak Links	Ultimate Strength: - winch & auto-tow launching: max. 935 daN - aero-tow: max. 1100 daN
10.	Load Factors	+5,3 / -2,65 (up to VA) Refer to Flight Manual
11.	Air Speeds	
11.1	Manoeuvring speed	V _A 180 km/h
11.2	Never exceed speed	V _{NE} 280 km/h
11.3	Maximum permitted speeds	
	- in strong turbulence	V _{RA} 180 km/h
	- in aero-tow	V _T 170 km/h
	- in winch-launch	V _W not certified
	- for gear operation	V _{LO} 180 km/h
	- for extended engine	V _{NE, Ext} 180 km/h
	- for extracting engine	V _{PO} 115 km/h
	- with wing flaps at -2, -1, 0	V _{FE -2, -1, 0} 280 km/h
	- with wing flaps at +1, +2	V _{FE +1, +2} 180 km/h
	- with wing flaps in landing position	V _{FE L} 140 km/h
12.	Approved Operations Capability	VFR Day Aerobatic manoeuvres not permitted
13.	Launch methods	Aero tow Winch launch and auto launch Self-launch
14.	Maximum Masses	
14.1	Maximum Take-off Mass	850 kg
14.2	Max. Mass of non-lifting parts	440 kg
15.	Centre of Gravity Range	240 to 400 mm aft of datum point



16. Datum	leading edge at wing root rib
17. Levelling Means	under side of rear fuselage boom horizontal
18. Control Surface Deflections	Refer to Maintenance Manual
19. Minimum Flight Crew	1
20. Maximum Passenger Seating Capacity	1
21. Baggage/ Cargo Compartments	Refer to Flight Manual
22. Lifetime limitations	Refer to Maintenance Manual



B.IV Operating and Service Instructions

1. Flight Manual
Flight Manual for the Motorglider EB29D,
issue 23 September 2013 or later EASA
approved revision
2. Maintenance Manual
Maintenance Manual for the Motorglider
EB29D, issue 23 September 2013 or later
EASA approved revision
3. Structural Repair Manual
Refer to Maintenance Manual
4. Operating Manual and Maintenance Manual for Engine
Manual for SOLO engine Type "2625-02",
issued by Solo-Kleinmotoren GmbH,
Sindelfingen, latest approved version
5. Operating Manual and Maintenance Manual for Propeller
Operation and Maintenance Manual for
Binder propeller Type BM-G1-160-R-120,
latest approved version
Or (as applicable)
Operation and Maintenance Manual for
Technoflug propeller Type KS-1G-160-R-120,
issue P3 or latest approved version
6. Operating Manual for the Launching Hooks
Operation and Maintenance Manual for
Tost tow hook Type Europa G 88 / E 85,
latest approved version



B.V Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. Installation of optional steerable tail wheel permitted according to technical note TM AB-01.
4. Installation of optional nose (only aero-tow) or combination tow hook (aero and winch tow) permitted.
5. Conversion into model EB29DR permitted according to technical note TM EB29-B3.
6. Installation of optional retractable and steerable tail wheel permitted according to technical note TM EB29-B2.



Section C: EB29DE

C.I General

- | | |
|---|---|
| 1. Type/ Model/ Variant | |
| 1.1 Type: | EB29 |
| 1.2 Model: | EB29DE |
| 1.3 Variant: | EB29DE |
| 2. Airworthiness Category | utility |
| 3. Manufacturer | Binder Motorenbau GmbH
Alter Frickenhäuser Weg 15
97645 Ostheim / Rhön, Germany |
| 4. EASA Type Certification Application Date | 06.08.2016 |
| 5. EASA Type Certification Date | 05.10.2018 |

C.II EASA Certification Basis

- | | |
|---|--|
| 1. Reference Date for determining the applicable requirements | EASA CRI-A01 dated 17.08.2016 |
| 2. Airworthiness Requirements | Certification Specifications for Sailplanes and Powered Sailplanes, Amendment 2 issued 5 March 2009 (CS-22) |
| 3. Special Conditions | Special condition CSTMG-01
Increased Maximum Take-Off Mass
Special condition CRI E-101, Installation of electric power in powered sailplanes
Special condition CRI H-101, Electrical Engines for powered sailplanes |
| 4. Exemptions | None |
| 5. Deviations | - Preliminary Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, July 1991 |
| 6. Equivalent Safety Findings | 22.335(f) |
| 7. Environmental Protection | ICAO Annex 16, Chapter 10 |



C.III Technical Characteristics and Operational Limitations

- | | |
|------------------------------------|---|
| 1. Type Design Definition | Drawing list EB29DE, dated 27.02.2017 |
| 2. Description | Double seater, shoulder-wing, conventional T-type tail-plane, constructed from GFRP, CFRP and AFRP, spring mounted retractable central landing gear, fixed or optionally steerable tail wheel, wing flaps, Schempp-Hirth airbrakes on upper wing surface, retractable powerplant, water ballast tanks in wing and vertical tail. |
| 3. Equipment | Min. Equipment:
2 Air speed indicator (up to 300 km/h)
2 Altimeter
1 Magnetic compass
1 Engine control unit featuring <ul style="list-style-type: none">- RPM indicator- Energy storage quantity indicator- Coolant temperature indicator- Engine hour meter 1 Rear view mirror
1 Engine fire warning
2 4-Point harness (symmetrical)
1 Parachute or back cushion per occupant
Additional Equipment refer to Flight and Maintenance Manual |
| 4. Dimensions | Span: 25.3 28.3 m
Wing Area: 15.4 16.5 m ²
Length: 8.32 m
Height: 1.76 m |
| 5. Engine [electrical propulsion] | |
| 5.1 Model | Enstroj Emrax UHP LC |
| 5.2 Type Certificate | n/a (accepted as part of the airframe) |
| 5.3 Max. power | 52 kW / 2200 RPM |
| 5.4 Max. continuous power | 48 kW / 2050 RPM |
| 6. Propeller | |
| 6.1 Model | Binder BM-G1-160-R-120 |
| 6.2 Type Certificate | EASA TCDS No. P.500 |
| 6.3 Number of blades | 2 |
| 6.4 Diameter | 160 cm |
| 6.5 Sense of Rotation | clockwise viewed in flight direction |
| 7. Battery [electrical propulsion] | |



7.1 Battery capacity	24.95 kWh
7.2 Non-usable battery capacity	5% (approx. 1.3 kWh)
7.3 Max battery temperature	54°C
8. Launching Hooks	Safety Hook "Europa G88", LBA Datasheet No. 60.230/2 or Nose tow Hook "E 85", LBA Datasheet No. 60.230/1
9. Weak Links	Ultimate Strength: - winch & auto-tow launching: not certified - aero-tow: max. 935 daN
10. Load Factors	+5,3 / -2,65 (up to VA) Refer to Flight Manual
11. Air Speeds	
11.1 Manoeuvring speed	V _A 180 km/h
11.2 Never exceed speed	V _{NE} 280 km/h
11.3 Maximum permitted speeds	
- in strong turbulence	V _{RA} 180 km/h
- in aero-tow	V _T 170 km/h
- in winch-launch	V _W not certified
- for gear operation	V _{LO} 180 km/h
- for extended engine	V _{NE, Ext} 180 km/h
- for extracting engine	V _{PO} 115 km/h
- with wing flaps at -2, -1, 0	V _{FE -2, -1, 0} 280 km/h
- with wing flaps at +1, +2	V _{FE +1, +2} 180 km/h
- with wing flaps in landing position	V _{FE L} 140 km/h
12. Approved Operations Capability	VFR Day Aerobatic manoeuvres not permitted
13. Launch methods	Aero tow Self-launch
14. Maximum Masses	
14.1 Maximum Take-off Mass	900 kg
14.2 Max. Mass of non-lifting parts	425 kg
15. Centre of Gravity Range	300 to 400 mm aft of datum point
16. Datum	leading edge at wing root rib
17. Levelling Means	under side of rear fuselage boom horizontal
18. Control Surface Deflections	Refer to Maintenance Manual
19. Minimum Flight Crew	1
20. Maximum Passenger Seating Capacity	1
21. Baggage/ Cargo Compartments	Refer to Flight Manual
22. Lifetime limitations	Refer to Maintenance Manual



C.IV Operating and Service Instructions

1. Flight Manual Flight Manual for the Motorglider EB29DE, issue 29 January 2018 or later EASA approved revision
2. Maintenance Manual Maintenance Manual for the Motorglider EB29DE, issue 29 January 2018 or later EASA approved revision
3. Structural Repair Manual Refer to Maintenance Manual
4. Operating Manual and Maintenance Manual for Engine n/a (included in aircraft flight manual)
5. Operating Manual and Maintenance Manual for Propeller Operation and Maintenance Manual for Binder propeller Type BM-G1-160-R-120, latest approved version
6. Operating Manual for the Launching Hooks Operation and Maintenance Manual for Tost tow hook Type Europa G 88 / E 85, latest approved version



C.V Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. Installation of optional steerable tail wheel permitted according to technical note TM AB-01.
4. Installation of optional nose (only aero-tow) or combination tow hook (aero and winch tow) permitted.
5. Since engine is accepted as part of the aircraft according Part 21.A.23(b)(2), the EB29DE is eligible for a Restricted Certificate of Airworthiness only.



Section D: **EB29R**

D.I General

1. Type/ Model/ Variant
 - 1.1 Type: EB29
 - 1.2 Model: EB29R
 - 1.3 Variant: EB29R
2. Airworthiness Category utility
3. Manufacturer Binder Motorenbau GmbH
Alter Frickenhäuser Weg 15
97645 Ostheim / Rhön, Germany
4. EASA Type Certification Application Date 07.03.2016
5. EASA Type Certification Date 29.10.2018

D.II EASA Certification Basis

1. Reference Date for determining the applicable requirements EASA CRI-A01 dated 16.03.2016
2. Airworthiness Requirements Certification Specifications for Sailplanes and Powered Sailplanes, Amendment 2 issued 5 March 2009 (CS-22)
3. Special Conditions None
4. Exemptions None
5. Deviations - Preliminary Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, July 1991
- Standards for the Substantiation of the Electrical System of Powered Sailplanes, Issue September 15, 1992.
6. Equivalent Safety Findings 22.335(f)
7. Environmental Protection ICAO Annex 16, Chapter 10



D.III Technical Characteristics and Operational Limitations

1. Type Design Definition Drawing list EB29R, dated 22. May 2018
2. Description Single seater, shoulder-wing, conventional T-type tail-plane, constructed from GFRP, CFRP and AFRP, spring mounted retractable central landing gear, fixed or optionally steerable tail wheel, wing flaps, Schempp-Hirth airbrakes on upper wing surface, retractable powerplant, water ballast tanks in wing and vertical tail.
3. Equipment
Min. Equipment:
 - 1 Air speed indicator (up to 300 km/h)
 - 1 Altimeter
 - 1 Magnetic compass
 - 1 Engine control unit (ILEC or BCU-BDU) with
 - RPM indicator
 - Fuel quantity indicator
 - Coolant temperature indicator
 - Engine hour meter
 - 1 Rear view mirror
 - 1 Engine fire warning
 - 1 4-Point harness (symmetrical)
 - 1 Parachute or back cushionAdditional Equipment refer to Flight and Maintenance Manual
4. Dimensions
 - Span: 28.0
 - Wing Area: 14.9
 - Length: 8.03 m
 - Height: 1.76 m
5. Engine
 - 5.1 Model SOLO 2625 02
 - 5.2 Type Certificate EASA TCDS No. E.218
 - 5.3 Maximum Take-off Power 47 kW / 6700 RPM
 - 5.4 Maximum Continuous Power 47 kW / 6500 RPM
6. Propeller
 - 6.1 Model Binder BM-G1-160-R-120
 - 6.2 Type Certificate EASA TCDS No. P.500
 - 6.3 Number of blades 2
 - 6.4 Diameter 160 cm
 - 6.5 Sense of Rotation clockwise viewed in flight direction



6.6	Alternative Model	TECHNOFLUG KS-1G-160-R-120
6.7	Type Certificate	EASA TCDS No. P.115
6.8	Number of blades	2
6.9	Diameter	160 cm
6.10	Sense of Rotation	clockwise viewed in flight direction
7.	Fluids:	
7.1	Fuel:	Refer to Flight Manual
	Tank in the fuselage	23 ltr
	Additional fuselage tank	5 ltr (optional)
	Non-usable fuel	1 ltr
8.	Launching Hooks	Safety Hook "E 85", LBA Datasheet No. 60.230/1
9.	Weak Links	Ultimate Strength: - winch & auto-tow launching: not certified - aero-tow: max. 935 daN
10.	Load Factors	+5,3 / -2,65 (up to VA) Refer to Flight Manual
11.	Air Speeds	
11.1	Manoeuvring speed	V_A 180 km/h
11.2	Never exceed speed	V_{NE} 270 km/h
11.3	Maximum permitted speeds	
	- in strong turbulence	V_{RA} 180 km/h
	- in aero-tow	V_T 170 km/h
	- in winch-launch	V_W not certified
	- for gear operation	V_{LO} 180 km/h
	- for extended engine	$V_{NE, Ext}$ 180 km/h
	- for extracting engine	V_{PO} 115 km/h
	- with wing flaps at -3, -2, -1, 0	$V_{FE -3, -2, -1, 0}$ 270 km/h
	- with wing flaps at +1, +2	$V_{FE +1, +2}$ 180 km/h
	- with wing flaps in landing position	$V_{FE L}$ 140 km/h
12.	Approved Operations Capability	VFR Day Aerobatic manoeuvres not permitted
13.	Launch methods	Aero tow Self-launch
14.	Maximum Masses	
14.1	Maximum Take-off Mass	850 kg
14.2	Max. Mass of non-lifting parts	395 kg
15.	Centre of Gravity Range	300 to 400 mm aft of datum point
16.	Datum	leading edge at wing root rib
17.	Levelling Means	under side of rear fuselage boom horizontal



18. Control Surface Deflections	Refer to Maintenance Manual
19. Minimum Flight Crew	1
20. Maximum Passenger Seating Capacity	-
21. Baggage/ Cargo Compartments	Refer to Flight Manual
22. Lifetime limitations	Refer to Maintenance Manual



D.IV Operating and Service Instructions

1. Flight Manual Flight Manual for the Motorglider EB29R, issue 20 August 2021 or later EASA approved revision
2. Maintenance Manual Maintenance Manual for the Motorglider EB29R, issue 20 August 2021 or later EASA approved revision
3. Structural Repair Manual Refer to Maintenance Manual
4. Operating Manual and Maintenance Manual for Engine Manual for SOLO engine Type "2625-02", issued by Solo-Kleinmotoren GmbH, Sindelfingen, latest approved version
5. Operating Manual and Maintenance Manual for Propeller Operation and Maintenance Manual for Binder propeller Type BM-G1-160-R-120, latest approved version
Or (as applicable)
Operation and Maintenance Manual for Technoflug propeller Type KS-1G-160-R-120, issue P3 or latest approved version
6. Operating Manual for the Launching Hooks Operation and Maintenance Manual for Tost tow hook Type E 85, latest approved version
- 7.



D.V Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. Installation of optional steerable tail wheel permitted according to technical note TM AB-01.
4. Installation of optional retractable and steerable tail wheel permitted according to technical note TM EB29-B2.
5. Installation of optional smaller horizontal tail (HLW2020) and/or alternative engine control unit BCU-BDU permitted according to technical note TM EB29-B4.



Section E: EB29DR

E.I General

1. Type/ Model/ Variant
 - 1.1 Type: EB29
 - 1.2 Model: EB29DR
 - 1.3 Variant: EB29DR
2. Airworthiness Category utility
3. Manufacturer Binder Motorenbau GmbH
Alter Frickenhäuser Weg 15
97645 Ostheim / Rhön, Germany
4. EASA Type Certification Application Date 06. 08.2015
5. EASA Type Certification Date 24.08.2018

E.II EASA Certification Basis

1. Reference Date for determining the applicable requirements EASA CRI-A01 dated 16.03.2016
2. Airworthiness Requirements Certification Specifications for Sailplanes and Powered Sailplanes, Amendment 2 issued 5 March 2009 (CS-22)
3. Special Conditions None
4. Exemptions None
5. Deviations - Preliminary Standards for Structural Substantiation of Glass and Carbon Fibre Reinforced Plastic Components for Sailplanes and Powered Sailplanes, July 1991
- Standards for the Substantiation of the Electrical System of Powered Sailplanes, Issue September 15, 1992.
6. Equivalent Safety Findings 22.335(f)
7. Environmental Protection ICAO Annex 16, Chapter 10



E.III Technical Characteristics and Operational Limitations

1. Type Design Definition Drawing list EB29DR, dated 22. May 2018
2. Description Double seater, shoulder-wing, conventional T-type tail-plane, constructed from GFRP, CFRP and AFRP, spring mounted retractable central landing gear, fixed or optionally steerable tail wheel, wing flaps, Schempp-Hirth airbrakes on upper wing surface, retractable powerplant, water ballast tanks in wing and vertical tail.
3. Equipment
Min. Equipment:
2 Air speed indicator (up to 300 km/h)
2 Altimeter
1 Magnetic compass
1 Engine control unit (ILEC or BCU-BDU) with
 - RPM indicator
 - Fuel quantity indicator
 - Coolant temperature indicator
 - Engine hour meter1 Rear view mirror
1 Engine fire warning
2 4-Point harness (symmetrical)
1 Parachute or back cushion per occupant
Additional Equipment refer to Flight and Maintenance Manual
4. Dimensions
Span: 28.0
Wing Area: 14.9
Length: 8.32 m
Height: 1.76 m
5. Engine
 - 5.1 Model SOLO 2625 02
 - 5.2 Type Certificate EASA TCDS No. E.218
 - 5.3 Maximum Take-off Power 47 kW / 6700 RPM
 - 5.4 Maximum Continuous Power 47 kW / 6500 RPM
6. Propeller
 - 6.1 Model Binder BM-G1-160-R-120
 - 6.2 Type Certificate EASA TCDS No. P.500
 - 6.3 Number of blades 2
 - 6.4 Diameter 160 cm
 - 6.5 Sense of Rotation clockwise viewed in flight direction



6.6	Alternative Model	TECHNOFLUG KS-1G-160-R-120
6.7	Type Certificate	EASA TCDS No. P.115
6.8	Number of blades	2
6.9	Diameter	160 cm
6.10	Sense of Rotation	clockwise viewed in flight direction
7.	Fluids:	
7.1	Fuel:	Refer to Flight Manual
	Tank in the fuselage	20 ltr
	Additional fuselage tank	5 ltr (optional)
	Non-usable fuel	1 ltr
8.	Launching Hooks	Safety Hook "G 88", LBA Datasheet No. 60.230/2 or Nose tow Hook "E 85", LBA Datasheet No. 60.230/1
9.	Weak Links	Ultimate Strength: - winch & auto-tow launch: max. 935 daN - aero-tow: max. 1100 daN
10.	Load Factors	+5,3 / -2,65 (up to VA) Refer to Flight Manual
11.	Air Speeds	
11.1	Manoeuvring speed	V_A 180 km/h
11.2	Never exceed speed	V_{NE} 270 km/h
11.3	Maximum permitted speeds	
	- in strong turbulence	V_{RA} 180 km/h
	- in aero-tow	V_T 170 km/h
	- in winch-launch	V_W 140 km/h
	- for gear operation	V_{LO} 180 km/h
	- for extended engine	$V_{NE, Ext}$ 180 km/h
	- for extracting engine	V_{PO} 115 km/h
	- with wing flaps at -3, -2, -1, 0	$V_{FE -3, -2, -1, 0}$ 270 km/h
	- with wing flaps at +1, +2	$V_{FE +1, +2}$ 180 km/h
	- with wing flaps in landing position	$V_{FE L}$ 140 km/h
12.	Approved Operations Capability	VFR Day Aerobatic manoeuvres not permitted
13.	Launch methods	Aero tow Winch launch and auto launch Self-launch
14.	Maximum Masses	
14.1	Maximum Take-off Mass	850 kg
14.2	Max. Mass of non-lifting parts	455 kg



15. Centre of Gravity Range	240 to 400 mm aft of datum point HLW2020 (see E.V. Note 6): 255 to 400 mm aft of datum point
16. Datum	leading edge at wing root rib
17. Levelling Means	under side of rear fuselage boom horizontal
18. Control Surface Deflections	Refer to Maintenance Manual
19. Minimum Flight Crew	1
20. Maximum Passenger Seating Capacity	1
21. Baggage/ Cargo Compartments	Refer to Flight Manual
22. Lifetime limitations	Refer to Maintenance Manual



E.IV Operating and Service Instructions

1. Flight Manual
Flight Manual for the Motorglider EB29DR, issue 20 August 2021 or later EASA approved revision
2. Maintenance Manual
Maintenance Manual for the Motorglider EB29DR, issue 20 August 2021 or later EASA approved revision
3. Structural Repair Manual
Refer to Maintenance Manual
4. Operating Manual and Maintenance Manual for Engine
Manual for SOLO engine Type "2625-02", issued by Solo-Kleinmotoren GmbH, Sindelfingen, latest approved version
5. Operating Manual and Maintenance Manual for Propeller
Operation and Maintenance Manual for Binder propeller Type BM-G1-160-R-120, latest approved version
Or (as applicable)
Operation and Maintenance Manual for Technoflug propeller Type KS-1G-160-R-120, issue P3 or latest approved version
6. Operating Manual for the Launching Hooks
Operation and Maintenance Manual for Tost tow hook Type Europa G 88 / E 85, latest approved version



E.V Notes

1. Manufacturing is confined to industrial production.
2. All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
3. Installation of optional steerable tail wheel permitted according to technical note TM AB-01.
4. Installation of optional nose (only aero-tow) or combination tow hook (aero and winch tow) permitted.
5. Installation of optional retractable and steerable tail wheel permitted according to technical note TM EB29-B2.
6. Installation of optional smaller horizontal tail (HLW2020) and/or alternative engine control unit BCU-BDU permitted according to technical note TM EB29-B5.



Section F: Administrative Section

F.I Acronyms & Abbreviations

F.II Type Certificate Holder Record

Binder Motorenbau GmbH
Alter Frickenhäuser Weg 15
D-97645 Ostheim/Rhön, Germany

F.III Change Record

Issue	Date	Changes	TC Issue No. & Date
01	01 February 2012	Initial Issue	Initial Issue, 01 Feb. 2012
02	28 July 2014	Introduction of optional steerable tail wheel, Introduction of new model EB29D, Correction of typos and formats for model EB29	Issue 02, 28 Jul. 2014
03	05 October 2018	Introduction of new models EB29DE, EB29R and EB29DR, Correction of typos and formats and introduction of several new modifications for EB29 and EB29D	Issue 03, 05 Oct. 2018
04	03 August 2022	Introduction of new modifications for EB29R, Correction of typos and formats	Issue 04, 03 August 2022
05	20 October 2022	Introduction of new modifications for EB29DR, Correction of typos and formats	Issue 05, 20 October 2022

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