



TYPE-CERTIFICATE

DATA SHEET

NO. EASA TC NO. A.131

for
Eta

Type Certificate Holder
Bruno Gantenbrink

Hennenbusch 1
D-58708 Menden
Germany

For models:

Eta
EtaN4



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Section A: Eta

A.I General

- | | |
|--|--|
| 1. Type/ Model/ Variant | |
| 1.1 Type: | Eta |
| 1.2 Model: | Eta |
| 1.3 Variant: | Eta |
| 2. Airworthiness Category | utility |
| 3. Type Certificate Holder | Bruno Gantenbrink
Hennenbusch 1
58708 Menden
Germany
Contracted AP-DOA-Holder acc. to 21.A.2:
Binder Motorenbau GmbH
Alter Frickenhäuser Weg 15
97645 Ostheim vor der Rhön
Germany |
| 4. Manufacturer | Binder Motorenbau GmbH
Alter Frickenhäuser Weg 15
97645 Ostheim vor der Rhön
Germany |
| 5. Type Certification Application Date | 20 September 1996 |
| 6. Type Certification Date | 17 March 2008 |

A.II EASA Certification Basis

- | | |
|---|---|
| 1. Reference Date for determining the applicable requirements | Defined by LBA letter I 412-895/96,
dated 28. March 1996 |
| 2. Airworthiness Requirements | Joint Airworthiness Requirements for
Sailplanes and Powered Sailplanes (JAR 22),
Change 5, October 1995 |
| 3. Special Conditions | None |
| 4. Exemptions | None |
| 5. Equivalent Safety Findings | 22.75 |
| 6. Environmental Protection | ICAO Annex 16, Chapter 10 |



A.III Technical Characteristics and Operational Limitations

1. Type Design Definition
List of the drawing files Eta,
issued 15. May 2005
2. Description
Double-seat, shoulder-winged self
launching powered sailplane with
retractable combustion engine, CRP/GRP-
composite construction, T-shaped
horizontal tailplane with fin and elevator,
Schempp-Hirth brake-flaps on upper wing
surface, retractable landing gear equipped
with brakes and spring suspension, 30.90 m
span with winglets.
3. Equipment
Min. Equipment:
1 Air speed indicator (up to 300 km/h)
1 Altimeter
2 4-Point harness (symmetrical)
1 Engine Control Unit
1 Rear View Mirror
1 Parachute or back cushion per occupant
1 Magnetic Compass
4. Dimensions
Span 30.9 m
Wing Area 18.55 m²
Length 9.6 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 / 7000 RPM
 - 5.4 Maximum Continuous Power 47 kW / 6500 RPM
6. Propeller
 - 6.1 Model TECHNOFLUG KS-1G-160-R-120
 - 6.2 Type Certificate EASA TCDS No. P.115
 - 6.3 Number of blades 2
 - 6.4 Diameter 160 cm
 - 6.5 Sense of Rotation clockwise viewed in flight direction
7. Fluids:
 - 7.1 Fuel: Refer to Flight Manual
8. Launching Hooks
Safety hook „Europa G 88“,
LBA Datasheet No. 60.230/2
9. Weak Links
Ultimate Strength:
- winch & auto-tow launching: not certified
- aero-tow: 750 – 900 daN



10. Air Speeds

10.1 Manoeuvring speed	V_A	180 km/h
10.2 Never exceed speed	V_{NE}	280 km/h
10.3 Maximum permitted speeds		
- in strong turbulence	V_{RA}	180 km/h
- in aero-tow	V_T	160 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}	110 km/h
- with wing flaps at +1, +2	$V_{FE +1, +2}$	180 km/h
- with wing flaps in landing position	$V_{FE L}$	135 km/h

11. Approved Operations Capability

VFR Day

Aerobatic manoeuvres not permitted

12. Launch methods

Aero tow

Self-launch

13. Maximum Masses

13.1 Maximum Take-off Mass 850 kg

13.2 Max. Mass of non-lifting parts 465 kg

14. Centre of Gravity Range

215 to 350 mm aft of datum point

15. Datum

leading edge at $y=1000$ mm (inner kink)

16. Levelling Means

Lower side of fuselage boom horizontal

17. Control Surface Deflections

Refer to Maintenance Manual

18. Minimum Flight Crew

1

19. Maximum Passenger Seating Capacity

1

20. Lifetime limitations

Refer to Maintenance Manual



A.IV Operating and Service Instructions

1. Flight Manual
Flughandbuch für den Motorsegler eta,
Ausgabe 20. März 2006
2. Maintenance Manual
Wartungshandbuch für den Motorsegler
eta, Ausgabe 27. März 2006
3. Operating Manual and Maintenance Manual for Engine
Betriebshandbuch für den Motor SOLO
2625 02, Ausgabe 05.01.2001
4. Operating Manual and Maintenance Manual for Propeller
Betriebshandbuch für den Propeller
TECHNOFLUG KS-1G-160-R-120, Ausgabe Nr.
P3
5. Operating Manual for the Launching Hooks
Betriebshandbuch für die TOST
Schleppkupplung, in der jeweils gültigen
Ausgabe

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.



Section B: EtaN4

B.I General

1. Type/ Model/ Variant
 - 1.1 Type: Eta
 - 1.2 Model: EtaN4
 - 1.3 Variant: EtaN4
 - 1.4 Commercial designation: nimeta
2. Airworthiness Category utility
3. Type Certificate Holder Bruno Gantenbrink
Hennenbusch 1
58708 Menden
Germany
Contracted AP-DOA-Holder acc. to 21.A.2:
Glasfaser-Flugzeug-Service GmbH
Hofener Weg
72582 Grabenstetten
Germany
4. Manufacturer Glasfaser-Flugzeug-Service GmbH
Hofener Weg
72582 Grabenstetten
Germany
5. Type Certification Application Date 15 February 2008
6. Type Certification Date 22 September 2022

B.II EASA Certification Basis

1. Reference Date for determining the applicable requirements Defined by LBA letter P-EASA.C.09306,
dated 04. February 2009
2. Airworthiness Requirements Joint Airworthiness Requirements for
Sailplanes and Powered Sailplanes (JAR 22),
Change 5, October 1995
3. Special Conditions None
4. Exemptions None
5. Equivalent Safety Findings None
6. Environmental Protection ICAO Annex 16, Chapter 10



B.III Technical Characteristics and Operational Limitations

1. Type Design Definition List of the drawing files EtaN4, issued 06.12.2018
2. Description Single-seat, shoulder-winged self launching powered sailplane with retractable combustion engine, CRP/GRP-composite construction, T-shaped horizontal tailplane with fin and elevator, Schempp-Hirth brake-flaps on upper wing surface, retractable landing gear equipped with brakes and spring suspension, 30.90 m span with winglets.
3. Equipment
Min. Equipment:
 - 1 Air speed indicator (up to 300 km/h)
 - 1 Altimeter
 - 1 4-Point harness (symmetrical)
 - 1 Engine Control Unit
 - 1 Rear View Mirror
 - 1 Parachute or back cushion
 - 1 Magnetic Compass
4. Dimensions

Span	30.9 m
Wing Area	18.55 m ²
Length	9.4 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 / 7000 RPM
 - 5.4 Maximum Continuous Power 47 kW / 6500 RPM
6. Propeller
 - 6.1 Model TECHNOFLUG KS-1G-160-R-120
 - 6.2 Type Certificate EASA TCDS No. P.115
 - 6.3 Number of blades 2
 - 6.4 Diameter 160 cm
 - 6.5 Sense of Rotation clockwise viewed in flight direction
7. Fluids:
 - 7.1 Fuel: Refer to Flight Manual
8. Launching Hooks Safety hook „Europa E 85“, LBA Datasheet No. 60.230/1
9. Weak Links
Ultimate Strength:
 - winch & auto-tow launching: not certified
 - aero-tow: 750 – 900 daN



10. Air Speeds

10.1 Manoeuvring speed	V_A	180 km/h
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10.3 Maximum permitted speeds		
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- in aero-tow	V_T	160 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}	110 km/h
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- with wing flaps in landing position	$V_{FE L}$	135 km/h

11. Approved Operations Capability

VFR Day

Aerobatic manoeuvres not permitted

12. Launch methods

Aero tow

Self-launch

13. Maximum Masses

13.1 Maximum Take-off Mass 850 kg

13.2 Max. Mass of non-lifting parts 465 kg

14. Centre of Gravity Range

275 to 312 mm aft of datum point

15. Datum

leading edge at $y=1000$ mm (inner kink)

16. Levelling Means

Lower side of fuselage boom horizontal

17. Control Surface Deflections

Refer to Maintenance Manual

18. Minimum Flight Crew

1

19. Maximum Passenger Seating Capacity

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20. Lifetime limitations

Refer to Maintenance Manual



B.IV Operating and Service Instructions

1. Flight Manual
Flughandbuch für den Motorsegler etaN4 „nimeta“, Ausgabe 16. September 2022
2. Maintenance Manual
Wartungshandbuch für den Motorsegler etaN4 „nimeta“, Ausgabe 16. September 2022
3. Operating Manual and Maintenance Manual for Engine
Betriebshandbuch für den Motor SOLO 2625 02, Ausgabe 05.01.2001
4. Operating Manual and Maintenance Manual for Propeller
Betriebshandbuch für den Propeller TECHNOFLUG KS-1G-160-R-120, Ausgabe Nr. P3
5. Operating Manual for the Launching Hooks
Betriebshandbuch für die TOST Schleppkupplung, in der jeweils gültigen Ausgabe

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.



Section C: Administrative Section

C.I Acronyms & Abbreviations

CPR Carbonfibre Reinforced Plastic
CS-22 Certification Specifications for powered sailplanes
EASA European Union Aviation Safety Agency
GRP Glassfibre Reinforced Plastic
JAR Joint Aviation Requirements
JAR-22 Joint Aviation Requirements for powered sailplanes
LBA Luftfahrt-Bundesamt
MTOM Maximum Take-off Mass
VFR Visual Flight Rules

C.II Type Certificate Holder Record

17 March 2008 Bruno Gantenbrink, Hennenbusch 1, 58708 Menden, Germany

C.III Change Record

Issue	Date	Changes	TC Issue No. & Date
01	20 February 2008	Initial Issue	Initial Issue, 20 February 2008
02	09 November 2022	New model EtaN4 added	Issue 02, 22 September 2022

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