TYPE-CERTIFICATE
DATA SHEET

NO. EASA.A.527

for
AQUILA AT01

Type Certificate Holder
AQUILA Aviation International GmbH

OT Schönhagen
Flugplatz
14959 Trebbin
Germany

For models: AT01
AT01-100
AT01-200

Variants: AT01-100A
AT01-100B
AT01-100C
AT01-200A
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SECTION A:  AT01

A.I. General

1. Data Sheet No.: EASA.A.527
2.   a) Type: AQUILA AT01
    b) Model: AT01
    c) Variant:
3. Airworthiness Category: Very Light Aircraft (VLA)
4. Type Certificate Holder: AQUILA Aviation International GmbH
5. Manufacturer: AQUILA Aviation International GmbH
6. Certification Application Date: 27-Feb-1998
7. Type Certificate Date 21-Sept-2001
8. This EASA TCDS cancels and replaces the German TCDS No. 1106

A.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: 27-Feb-1998
3. Special Conditions: SC235.01 “Connection Engine Mount/ Composite Airframe”
   SC235.02 “Winglet”
   Special Condition to CS-VLA for Night-VFR-Operation according to CRI-A01
4. Exemptions: none
5. Deviations: none
6. Equivalent Safety Findings: none
7. Requirements elected to comply: CS-23, Amdt. 2: for glass cockpit installation (Garmin G-500 / ASPEN PFD 1000) as Primary for Day- and Night VFR


9. (Reserved) Additional National Requirements: none

10. (Reserved)

A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Drawing list,
   S/N AT01-100: Doc.-no LD-AT01-0030-100P
   S/N AT01-101 until 299: Doc.-no LD-AT01-0030-100

2. Description:
   - Single-Engine, Low-Wing Aircraft
   - 2 Seats side-by-side
   - Dual Controls
   - Normal Tailplane Configuration
   - Composite Design
   - Fixed Tricycle Landing Gear with steerable nose wheel

3. Equipment: For Minimum Equipment List refer to AFM, Section 2 and for NVFR-operation refer to AFM-Supplement AVE 23, AVE 28 and/or AVE29, Section 2, latest approved Revision

4. Dimensions:
   Span: 10,3m
   Length: 7,35m
   Height: 2,4m
   Wing Area: 10,5m²

5. Engine:
   5.1.1 Model: 1 Rotax 912 S3
   5.1.2 Type Certificate: EASA TCDS E.121
5.1.3 Limitations: For power plant limits refer to AFM

6. Load Factors: +4; -2

7. Propeller:
   7.1 Model: 1 MT-Propeller MTV-21-A/175-05
   7.2 Type Certificate: LBA TCDS 32.130/86
   7.3 Number of Blades: 2 Blades
   7.4 Diameter: 1750 mm ± 5mm
   7.5 Sense of Rotation: Clockwise in flight direction

8. Fluids:
   8.1 Fuel: Refer to AFM (FM-AT01-1010-100)
   8.2 Oil: Refer to AFM (FM-AT01-1010-100)
   8.3 Coolant: Refer to AFM (FM-AT01-1010-100)

9. Fluid Capacities:
   9.1 Fuel: Total: 120 liters (2 x 60 liters)
             Useable: 109,6 liters (2 x 54,8 liters)
   9.2 Oil: Min: 2,55 liters
            Max: 3,00 liters
   9.3 Coolant System Capacity:
            Min: 2,40 liters
            Max: 2,50 liters

10. Air Speeds: VA = 112 KIAS
       VFE = 90 KIAS
       VNO = 130 KIAS
       VNE = 165 KIAS
11. Maximum Operating Altitude: 14500 ft
13. Maximum Weights: MTOW=750 kg
14. Centre of Gravity Range:
   Forward limit: 427 mm (31% MAC)
   Rear limit: 523 mm (40% MAC)
15. Datum: At wing root leading edge vertical to fuselage centre line.
17. Levelling Means: Wedge 800:77 (5,5°) on top of rear fuselage; 800 mm forward of horizontal stabilizer
18. Minimum Flight Crew: 1 pilot
19. Maximum Passenger Seating Capacity: 2 seats (1 pilot, 1 passenger)
20. Baggage/Cargo Compartments: Aft Baggage Compartment; max. allowable load: 40kg
22. (Reserved): 

A.IV. Operating and Service Instructions

1. Flight Manual: FM-AT01-1010-100
3. Repair Manual: MM-AT01-1020-100
5. Spare Parts Catalogue: PC-AT01-1030-100
6. Table of Dimensions, Limits and Clearances: see Flight Manual

7. Instruments and Aggregates: MZ-AT01-0150-001

A.V. Notes:

1. TCDS section A is valid for S/N AT01-100 through AT01-299

2. Approved Noise Level in accordance with the EASA Data Sheet for Noise TCDSN EASA.A.527

3. Production is only permitted under Production Organisation Approval.

4. Marketing name: AQUILA A210

5. All parts which are imposed to direct vertical sunlight have to be painted in white colour except of those areas provided for registration signs and warning paint.

6. This EASA TCDS cancels and replaces the LBA TCDS No 1106, issue 3 dated June 25, 2003 according to EASA information and policy paper to EC-Reg 1702/2003 Art. 2.

7. The operation under Night-VFR-conditions is allowed after accomplishment of the Service Bulletin SB-AT01-010 “Extension of the Kind of Operation to VFR-Night-Operation” except aircraft where the Service Bulletin SB-AT01-011 “Modifications for Measuring and Photo Flight Operations” has been accomplished or with MC approval 10039259
SECTION B: AT01-100

B.I. General

1. Data Sheet No.: EASA.A.527
2. a) Type: AQUILA AT01
   b) Model: AT01-100
   c) Variant: AT01-100A, AT01-100B, AT01-100C
3. Airworthiness Category: Very Light Aircraft (VLA)
4. Type Certificate Holder: AQUILA Aviation International GmbH
5. Manufacturer: AQUILA Aviation International GmbH
6. Certification Application Date: 26-Oct-2012
7. Type Certificate Date: 31-May-2013

B.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: n/a
3. Special Conditions: SC235.01 “Connection Engine Mount/ Composite Airframe”
   SC235.02 “Winglet”
   Special Condition to CS-VLA for Night-VFR-Operation according to CRI-A01
4. Exemptions: none
5. Deviations: none
6. Equivalent Safety Findings: none
7. Requirements elected to comply: Variant AT01-100A
   CS-VLA acc. MoC: MC-AT01-00600-100
   CS-23, Amdt. 2: for glass cockpit installation (ASPEN PFD 1000)
   as Primary for Day- and Night VFR
   §23.29, §23.303, §23.601, §23.603, §23.611, 23.771, §23.773,
   §23.777, §23.867, §23.1301, §23.1303, §23.1309, §23.1311,
   §23.1321, §23.1322, §23.1323, §23.1325, §23.1327, §23.1331,
   §23.1351, §23.1353, §23.1357, §23.1359, §23.1361, §23.1365,
   §23.1367, §23.1381, §23.1431, §23.1501, §23.1519, §23.1541,
   §23.1557, §23.1581, §23.1583, §23.1585
   Or
   CS-VLA acc. MoC: TCP-AT01-01046
CS-23, Amdt. 2: for glass cockpit installation (Garmin G3X (uncertified components)) as Primary for Day-VFR and with additional standby instrumentation for Day- and Night-VFR

Variant AT01-100B
CS-VLA acc. MoC: MC-AT01-00600-100
CS-23, Amdt. 2: for glass cockpit installation (Garmin G500/G500TXi) as Primary for Day- and Night VFR

Variant AT01-100C
CS-VLA acc. MoC: MC-AT01-00635-100
CS-23, Amdt. 2: for glass cockpit installation (Garmin G500/G500TXi plus MVP-50P) as Primary for Day- and Night VFR

9. (Reserved) Additional National Requirements: none
10. (Reserved)
B.III. **Technical Characteristics and Operational Limitations**

1. **Type Design Definition:**
   - Drawing list,
   - S/N AT01-100A (B, C)-300 and ff:
   - Doc.-no LD-AT01-0030-100

2. **Description:**
   - Single-Engine, Low-Wing Aircraft
   - 2 Seats side-by-side
   - Dual Controls
   - Normal Tailplane Configuration
   - Composite Design
   - Fixed Tricycle Landing Gear with steerable nose wheel

3. **Equipment:**
   - For Minimum Equipment List refer to AFM, Section 2
   - and for NVFR-operation refer to AFM-Supplement AS-01 (variant AT01-100A), AS-05 (variant AT01-100B) and AS-06 (variant AT01-100C), Section 2, latest approved Revision

4. **Dimensions:**
   - Span: 10,3m
   - Length: 7,40m
   - Height: 2,4m
   - Wing Area: 10,5m²

5. **Engine:**
   - 5.1.1 Model: 1 Rotax 912 S3
   - 5.1.2 Type Certificate: EASA TCDS E.121
   - 5.1.3 Limitations: For power plant limits refer to AFM

6. **Load factors:** +4; -2

7. **Propeller:**
   - 7.1 Model: 1 MT-Propeller MTV-21-A/170-05
   - 7.2 Type Certificate: LBA TCDS 32.130/86
   - 7.3 Number of Blades: 2 Blades
   - 7.4 Diameter: 1700 mm ± 5mm
   - 7.5 Sense of Rotation: Clockwise in flight direction

8. **Fluids:**
8.1 Fuel: Refer to AFM (FM-AT01-1010-101 / -102 / -103)

8.2 Oil: Refer to AFM (FM-AT01-1010-101 / -102 / -103)

8.3 Coolant: Refer to AFM (FM-AT01-1010-101 / -102 / -103)

9. Fluid Capacities:

9.1 Fuel: Total: 120 liters (2 x 60 liters)
Useable: 109.6 liters (2 x 54.8 liters)

9.2 Oil: Min: 2.55 liters
Max: 3.00 liters

9.3 Coolant System Capacity:
Min: 2.40 liters
Max: 2.50 liters

10. Air Speeds: VA = 112 KIAS
VFE = 90 KIAS
VNO = 130 KIAS
VNE = 165 KIAS

11. Maximum Operating Altitude: 14500 ft


13. Maximum Weights: MTOW=750 kg

14. Centre of Gravity Range:
Forward limit: 427 mm (31% MAC)
Rear limit: 523 mm (40% MAC)

15. Datum: At wing root leading edge vertical to fuselage centre line.


17. Levelling Means: Wedge 800:77 (5,5°) on top of rear fuselage; 800 mm forward of horizontal stabilizer

18. Minimum Flight Crew: 1 pilot

19. Maximum Passenger Seating Capacity: 2 seats (1 pilot, 1 passenger)
20. Baggage/Cargo Compartments: Aft Baggage Compartment; max. allowable load: 40kg


22. (Reserved):

B.IV. Operating and Service Instructions

   FM-AT01-1010-101 (variant AT01-100A)
   FM-AT01-1010-102 (variant AT01-100B)
   FM-AT01-1010-103 (variant AT01-100C)

   MM-AT01-1020-110

3. Service Bulletins: LSB-AT01-001

4. Service Information: LSI-AT01-001

B.V. Notes:

1. TCDS section B is valid for S/N AT01-100A (B, -C)-300 and up.

2. Approved Noise Level in accordance with the EASA Data Sheet for Noise TCDSN EASA.A.527

3. Production is only permitted under Production Organisation Approval.

4. All parts which are imposed to direct vertical sunlight have to be painted in white colour except of those areas provided for registration signs and warning paint.
SECTION C:  AT01-200

C.I.  General

1. Data Sheet No.:  EASA.A.527
2.   a) Type:  AQUILA AT01
       b) Model:  AT01-200
       c) Variant:  AT01-200A, AT01-200C
3. Airworthiness Category:  Very Light Aircraft (VLA)
4. Type Certificate Holder:  AQUILA Aviation International GmbH
5. Manufacturer:  AQUILA Aviation International GmbH
6. Certification Application Date:  10-Mar-2014
7. Type Certificate Date:  26-Mar-2020

C.II.  EASA Certification Basis

1. Reference Date for determining the applicable requirements:  n/a
3. Special Conditions:  SC235.01 “Connection Engine Mount/ Composite Airframe”
                      SC235.02 “Winglet”
                      Special Condition to CS-VLA for Night-VFR-Operation according to CRI-A01
                      Special Condition to CS-VLA for Increase of permissible maximum take-off weight to 800kg according to CRI-A07
4. Exemptions:  none
5. Deviations:  none
6. Equivalent Safety Findings:  ELOS to CS-VLA for Electrical Fuel Pumps according to CRI-E01
7. Requirements elected to comply:  Variant AT01-200A
                                   CS-VLA acc. MoC: TCP-AT01-01141
                                   CS-23, Amdt. 2: for glass cockpit installation (Garmin G3X (uncertified components)) as Primary for Day-VFR and with additional standby instrumentation for Day- and Night-VFR
                                   §23.777, §23.867, §23.1301, §23.1303, §23.1309, §23.1311,
                                   §23.1321, §23.1322, §23.1323, §23.1325, §23.1327, §23.1331,
                                   §23.1337, §23.1351, §23.1353, §23.1357, §23.1359, §23.1361,
                                   §23.1365, §23.1367, §23.1381, §23.1431, §23.1501, §23.1519,
                                   §23.1541, §23.1543, §23.1549, §23.1553, §23.1557, §23.1581,
                                   §23.1583, §23.1585
Variant AT01-200C
CS-VLA acc. MoC: TCP-AT01-00728


9. (Reserved) Additional National Requirements: none

10. (Reserved)

C.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Drawing list,
S/N AT01-200C (A)-367 and ff:
Doc.-no LD-AT01-0030-100

2. Description:
- Single-Engine, Low-Wing Aircraft
- 2 Seats side-by-side
- Dual Controls
- Normal Tailplane Configuration
- Composite Design
- Fixed Tricycle Landing Gear with steerable nose wheel

3. Equipment: For Minimum Equipment List refer to AFM, Section 2 and for NVFR-operation refer to AFM-Supplement AST-06 (variant AT01-200C), Section 2, latest approved Revision

4. Dimensions:
   - Span: 10,3m
   - Length: 7,40m
   - Height: 2,4m
   - Wing Area: 10,5m²

5. Engine:
   5.1.1 Model: 1 Rotax 914 F3
   5.1.2 Type Certificate: EASA TCDS E.122
   5.1.3 Limitations: For power plant limits refer to AFM
6. Load factors: +4; -2

7. Propeller:
   7.1 Model: 1 MT-Propeller MTV-21-A/175-05
   7.2 Type Certificate: LBA TCDS 32.130/86
   7.3 Number of Blades: 2 Blades
   7.4 Diameter: 1750 mm ± 5mm
   7.5 Sense of Rotation: Clockwise in flight direction

8. Fluids:
   8.1 Fuel: Refer to AFM (FM-AT01-1010-106)
   8.2 Oil: Refer to AFM (FM-AT01-1010-106)
   8.3 Coolant: Refer to AFM (FM-AT01-1010-106)

9. Fluid Capacities:
   9.1 Fuel: Total: 120 liters (2 x 60 liters) Useable: 109,6 liters (2 x 54,8 liters)
   9.2 Oil: Min: 2,55 liters Max: 3,00 liters
   9.3 Coolant System Capacity: Min: 2,40 liters Max: 2,50 liters

10. Air Speeds: VA = 112 KIAS VFE = 90 KIAS VNO = 130 KIAS VNE = 165 KIAS

11. Maximum Operating Altitude: 16400 ft


13. Maximum Weights: MTOW=750 kg

   MTOW=800 kg (see Note 5)
14. Centre of Gravity Range:
   Forward limit: 427 mm (31% MAC)
   Rear limit: 523 mm (40% MAC)

15. Datum:
   At wing root leading edge vertical to fuselage centre line.

16. Control Surface Deflections:
   refer to Maintenance Manual MM-AT01-1020-110

17. Levelling Means:
   Wedge 800:77 (5.5°) on top of rear fuselage; 800 mm forward of horizontal stabilizer

18. Minimum Flight Crew:
   1 pilot

19. Maximum Passenger Seating Capacity:
   2 seats (1 pilot, 1 passenger)

20. Baggage/Cargo Compartments:
   Aft Baggage Compartment; max. allowable load: 40kg

21. Wheels and Tyres:
   refer to Maintenance Manual MM-AT01-1020-110

22. (Reserved):

C.IV. Operating and Service Instructions

1. Flight Manual:
   Aircraft Flight Manual:
   FM-AT01-1010-106 (variant AT01-200C)
   FM-AT01-1010-104 (variant AT01-200A)

2. Technical Manual:
   Aircraft Maintenance Manual
   MM-AT01-1020-110

3. Service Bulletins:
   LSB-AT01-001

4. Service Information:
   LSI-AT01-001

C.V. Notes:

1. TCDS section C is valid for S/N AT01-200C (A)-367 and up.

2. Approved Noise Level in accordance with the EASA Data Sheet for Noise TCDSN EASA.A.527

3. Production is only permitted under Production Organisation Approval.

4. All parts which are imposed to direct vertical sunlight have to be painted in white colour except of those areas provided for registration signs and warning paint.

5. Operation up to 800kg MTOW is only permitted after embodiment of Aquila Service Bulletin SB-AT01-035.
ADMINISTRATIVE SECTION

I. Acronyms & Abbreviations

none

II. Type Certificate Holder Record

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### III. Change Record

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<td>Issue 01</td>
<td>19 Nov 2008</td>
<td>Initial Issue, Transfer of LBA TC 1106 from AQUILA Technische Entwicklungen GmbH to AQUILA Aviation by Excellence AG</td>
<td>Issue 01 19 Nov 2008</td>
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<td>Issue 02</td>
<td>25 Mar 2010</td>
<td>Revision of the TCDS after approval of Major Change AT01-00219 “DayVFR/Night-VFR operation”</td>
<td>Issue 02 20 Apr 2012</td>
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<td>Issue 03</td>
<td>20 April 2012</td>
<td>Change of corporate from “AQUILA Aviation by Excellence AG” to “Aquila Aviation by Excellence GmbH” and MC approval 10039259</td>
<td>Issue 02 20 Apr 2012</td>
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<td>Issue 04</td>
<td>29 May 2013</td>
<td>Implementation of section B: model AT01-100 and variants AT01-100A, AT01-100B and AT01-100C, editorial corrections of section A (model AT01), Change of corporate from “Aquila Aviation by Excellence GmbH” to “AQUILA Aviation GmbH”</td>
<td>Issue 03 29 May 2013</td>
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<td>Issue 05</td>
<td>02 May 2016</td>
<td>Transfer of EASA TC A.527 from AQUILA Aviation GmbH to AQUILA Aviation International GmbH</td>
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<td>Issue 06</td>
<td>26 Mar 2020</td>
<td>Implementation of section C: model AT01-200 and variant AT01-200C</td>
<td>Issue 05 02 May 2020</td>
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<td>Issue 07</td>
<td>04 Aug 2020</td>
<td>AT01-100 Variant A: Glass cockpit PFD / MFD / EIS (non-certified components) installation for Day-VFR and with additional standby instrumentation for Day- and Night-VFR</td>
<td>Issue 06 n/a</td>
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<td>04 Jan 2022</td>
<td>AT01-200: Increase of MTOW to 800kg</td>
<td>Issue 08 n/a</td>
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<td>Issue 10</td>
<td>05 Jan 2022</td>
<td>Editorial changes; Correction of C.III.13 and C.V.5</td>
<td>Issue 09 n/a</td>
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<td>Issue 11</td>
<td>17 Mai 2023</td>
<td>New variant AT01-200A and for variants AT01-100A and AT01-200A (restricted) Autopilot Garmin G3X</td>
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