



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
AT01-200C



Intentionally left blank



CONTENT

SECTION A: AT01

- A.I. General
- A.II. Certification Basis
- A.III. Technical Characteristics and Operational Limitations
- A.IV. Operating and Service Instructions
- A.V. Notes

SECTION B: AT01-100

- B.I. General
- B.II. Certification Basis
- B.III. Technical Characteristics and Operational Limitations
- B.IV. Operating and Service Instructions
- B.V. Notes

SECTION C: AT01-200

- C.I. General
- C.II. Certification Basis
- C.III. Technical Characteristics and Operational Limitations
- C.IV. Operating and Service Instructions
- C.V. Notes

ADMINISTRATIVE SECTION

- I. Acronyms
- II. Type Certificate Holder Record
- III. Change Record



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. (LBA) National Certifying Authority,
Date | 21-Sept-2001 (LBA TCDS Number 1106) |
| 8. (EASA) National Authority Type
Certificate Date: | 19-Nov-2008 (EASA.A.527) |

A.II. EASA Certification Basis

- | | |
|---|---|
| 1. Reference Date for determining
the applicable requirements: | 27-Feb-1998 |
| 2. Airworthiness Requirements: | JAR-VLA, incl. Amd. VLA/92/1, dated 1-Jan-1992 |
| 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
§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
8. Environmental Standards: ICAO, Annex 16, Vol 1, Chapter X Original LBA, LSL Chapter X dated 1-Jan-1991
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
12. Kinds of Operation: Day-VFR and Night-VFR
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.
16. Control Surface Deflections: refer to Maintenance Manual
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
22. (Reserved):

A.IV. Operating and Service Instructions

1. Flight Manual: FM-AT01-1010-100
2. Technical Manual: see Repair Manual and Spare Parts Catalogue
3. Repair Manual: MM-AT01-1020-100
4. Manual for Operation: see Flight Manual
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 until AT01-299
2. Approved Noise Level in accordance with the EASA Data Sheet for Noise TCDSN 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 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. (LBA) National Certifying Authority,
Date | none |
| 8. (EASA) National Authority Type
Certificate Date: | 31-May-2013 (EASA.A.527) |

B.II. EASA Certification Basis

- | | |
|---|--|
| 1. Reference Date for determining
the applicable requirements: | n/a |
| 2. Airworthiness Requirements: | JAR-VLA, incl. Amd. VLA/92/1, dated 1-Jan-1992 |
| 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: | <u>Variant AT01-100A</u>
CS-VLA acc. MoC: MC-AT01-00600-100
CS-23, Amdt. 2: for glass cockpit installation (ASPEN PFD 1000
and Garmin G-500) 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

§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, §23.1337, §23.1351, §23.1353, §23.1357, §23.1359, §23.1361, §23.1365, §23.1367, §23.1381, §23.1431, §23.1501, §23.1519, §23.1525, §23.1541, §23.1543, §23.1549, §23.1553, §23.1557, §23.1581, §23.1583, §23.1585

Variant AT01-100B

CS-VLA acc. MoC: MC-AT01-00600-100

CS-23, Amdt. 2: for glass cockpit installation (ASPEN PFD 1000 and Garmin G-500) 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

Variant AT01-100C

CS-VLA acc. MoC: MC-AT01-00635-100

CS-23, Amdt. 2: for glass cockpit installation (Garmin G-500 plus MVP-50P) 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, §23.1337, §23.1351, §23.1353, §23.1357, §23.1359, §23.1361, §23.1365, §23.1367, §23.1381, §23.1431, §23.1501, §23.1519, §23.1525, §23.1541, §23.1543, §23.1549, §23.1553, §23.1557, §23.1581, §23.1583, §23.1585

- | | |
|---|---|
| 8. Environmental Standards: | ICAO, Annex 16, Vol 1, Chapter X Original LBA, LSL Chapter X dated 1-Jan-1991 |
| 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:	10,5m ²
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
12. Kinds of Operation: Day-VFR and Night-VFR
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.
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):

B.IV. Operating and Service Instructions

- 1. Flight Manual: Aircraft Flight Manual:
 FM-AT01-1010-101 (variant AT01-100A)
 FM-AT01-1010-102 (variant AT01-100B)
 FM-AT01-1010-103 (variant AT01-100C)
- 2. Technical Manual: Aircraft Maintenance Manual
 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 ff.
- 2. Approved Noise Level in accordance with the EASA Data Sheet for Noise TCDSN 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: | AT01-200C |
| 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. (LBA) National Certifying Authority,
Date | none |
| 8. EASA Type Certificate Date: | 26-Mar-2020 (EASA.A.527) |

C.II. EASA Certification Basis

- | | |
|---|--|
| 1. Reference Date for determining
the applicable requirements: | n/a |
| 2. Airworthiness Requirements: | JAR-VLA, incl. Amd. VLA/92/1, dated 1-Jan-1992 |
| 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: | ELOS to CS-VLA for Electrical Fuel Pumps according to CRI-E01 |
| 7. Requirements elected to comply: | <u>Variant AT01-200C</u>
CS-VLA acc. MoC: MC-AT01-00635-100
CS-23, Amdt. 2: for glass cockpit installation (Garmin G-500
plus MVP-50P) 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,
§23.1337, §23.1351, §23.1353, §23.1357, §23.1359, §23.1361,
§23.1365, §23.1367, §23.1381, §23.1431, §23.1501, §23.1519,
§23.1525, §23.1541, §23.1543, §23.1549, §23.1553, §23.1557,
§23.1581, §23.1583, §23.1585 |



8. Environmental Standards: ICAO, Annex 16, Vol 1, Chapter X Original LBA, LSL Chapter X dated 1-Jan-1991
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-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
12. Kinds of Operation: Day-VFR and Night-VFR
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.
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)
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-367 and ff.
2. Approved Noise Level in accordance with the EASA Data Sheet for Noise TCDSN 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.



ADMINISTRATIVE SECTION

I. Acronyms & Abbreviations

none

II. Type Certificate Holder Record

Date	Type Certificate Holder
21 Sep 2001	AQUILA Aviation Technische Entwicklungen GmbH Flugplatz Schönhagen 14959 Schönhagen Germany
19 Nov 2008	AQUILA Aviation by Excellence AG Flugplatz Schönhagen 14959 Schönhagen Germany
23 Dec 2011	Aquila Aviation by Excellence GmbH Flugplatz 14959 Trebbin OT Schönhagen Germany
29 May 2013	AQUILA Aviation GmbH OT Schönhagen Flugplatz 14959 Trebbin Germany
02 May 2016	AQUILA Aviation International GmbH OT Schönhagen Flugplatz 14959 Trebbin Germany



III. Change Record

Issue	Date	Changes	TC Issue No. & Date
Issue 01	19 Nov 2008	Initial Issue, Transfer of LBA TC 1106 from AQUILA Technische Entwicklungen GmbH to AQUILA Aviation by Excellence AG	Issue 01 19 Nov 2008
Issue 02	25 Mar 2010	Revision of the TCDS after approval of Major Change AT01-00219 "DayVFR/Night-VFR operation"	n/a
Issue 03	20 April 2012	Change of corporate from "AQUILA Aviation by Excellence AG" to "Aquila Aviation by Excellence GmbH" and MC approval 10039259	Issue 02 20 Apr 2012
Issue 04	29 May 2013	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"	Issue 03 29 May 2013
Issue 05	02 May 2016	Transfer of EASA TC A.527 from AQUILA Aviation GmbH to AQUILA Aviation International GmbH	Issue 04 02 May 2016
Issue 06	26 Mar 2020	Implementation of section C: model AT01-200 and variant AT01-200C	Issue 05 5 Mar 2020
Issue 07	04 Aug 2020	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	n/a

-END-

