



TYPE-CERTIFICATE DATA SHEET

NO. EASA.A.573

For Type
Virus SW 121

Type Certificate Holder
Pipistrel Vertical Solutions d.o.o.
Vipavska cesta 2,
5270 Ajdovščina
Slovenia, Europe

For models:

- A) Virus SW 121
- B) Virus SW 128 (Commercial Designation: Velis Electro)
- C) Virus SW 121C (Commercial Designation: Velis Club)
- D) Virus SW 121A (Commercial Designation: Explorer)
- E) Virus SW 121X (Commercial Designation: X-Eye)





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SECTION A: MODEL A DESIGNATION**A.I. General**

1. Type/ Model/ Variant

1.1 Type: Virus SW 121

1.2 Model: Virus SW 121

2. Airworthiness Category: Normal

3. Manufacturer:

Pipistrel d.o.o.
Goriška cesta 50a
5270 Ajdovščina
SLOVENIA

4. EASA Type Certification Application Date: 16.07.2010

5. EASA Type Certification Date: 18.04.2016

A.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: 29.07.2013

2. Airworthiness Requirements: Certification Specifications and Acceptable Means of Compliance for Light Sport Aeroplanes CS-LSA, Amendment 1 from 29 July 2013.

3. Special Conditions:

SC-ELA.2015-01 (CRI F-101),
Noise Requirements (CRI N-01)
SC-OLSA-div-01 (CRI O-18) (see note
3)

4. Exemptions:

none

5. (Reserved) Deviations:

none

6. Equivalent Safety Findings:

none

7. Environmental Protection:

see TCDSN EASA.A.573.



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A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Master document list No. MDL-121-01-00-001 revision A00 or later approved revision
2. Description: Single engine, two-seat, high wing cantilever composite construction aircraft with T-tail empennage configuration and fixed tricycle landing gear.
3. Equipment: Minimum equipment see Pilot Operating Handbook POH-121-00-40-001, Section 6.4
4. Dimensions
- | | | |
|-----------|---------------------|-----------------------|
| Length | 6.40 m | 20.99 ft |
| Span | 10.70 m | 35.10 ft |
| Height | 1.69 m | 6.23 ft |
| Wing Area | 9.51 m ² | 102.4 ft ² |
5. Engine
- 5.1. Model: Rotax 912 S3-01
- 5.2 Type Certificate: EASA.E.121
- 5.3 Limitations: Maximum Power Rating: 73.5 kW / 5800 RPM max 5 min
Maximum Continuous Power: 69 kW / 5500 RPM
- 5.4. Muffler model Akrapovic iS, drawing number 121-78-00-000
6. Load factors: +4G/-2G
7. Propeller
- 7.1 Model: MTV-33-1-A/170-200
- 7.2 Type Certificate: EASA.P.048
- 7.3 Number of blades: 2
- 7.4 Diameter: 1700 mm
- 7.5 Rotation direction: clockwise
8. Fluids
- 8.1 Fuel
Refer to Pilot Operating Handbook POH-121-00-40-001, Section 2.8
- 8.2 Oil
Refer to Pilot Operating Handbook POH-121-00-40-001, Section 2.9
- 8.3 Coolant
Refer to Pilot Operating Handbook POH-121-00-40-001, Section 2.9



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9. Fluid capacities

9.1 Fuel	Total: 100 liters Usable: 99 liters
9.2 Oil	Maximum oil capacity: 3.5 liters Minimum oil required: marked on dipstick
9.3 Coolant system	2.3 liters (approximately)

10. Air Speeds

V_{NE} : 163 KTAS (see note 1)
 V_{NO} : 120 KIAS (see note 2)
 V_A : 100 KIAS
 V_{FE} : 81 KIAS
 V_{AE} : 100 KIAS

11. Flight Envelope

Maximum operating altitude 18,000 ft MSL

12. Approved Operations
Capability

VFR day operations; Night VFR operations (see note 3)

13. Maximum Masses

Maximum takeoff - 600 kg / 1323 lbs
 Maximum landing - 600 kg / 1323 lbs
 Maximum zero fuel - 555 kg / 1221 lbs

14. Centre of Gravity Range

Forward CG limit – 25% MAC / 267 mm
 Aft CG limit – 35% MAC / 356 mm

15. Reference datum

The wing's leading edge at the root of the wing

16. Control surface deflections

Refer to AMM-121-01-00-001_A00 or later approved issue

17. Levelling Means

Refer to section 6.2 of the POH-121-00-40-001_A02 or later approved issue

18. Minimum Flight Crew

One (1) pilot

19. Maximum Passenger
Seating Capacity

One (1) passenger

20. Baggage/ Cargo
Compartments

Location – port side, aft of the door
 Maximum load – 25 kg / 55 lbs



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21. Wheels and Tyres Main wheel – 4.00” x 6”
 Nose wheel – 4.00” x 4”
 For approved wheel and tyre types refer to the
 IPC-121-00-50-001_A00 or later approved issue
22. Lifetime limitations Refer to AMM-121-01-00-001_A00 or later approved issue

A.IV. Operating and Service Instructions

1. Aircraft Flight Manual POH-121-00-40-001_A02 or later approved issue
2. Aircraft Maintenance Manual AMM-121-01-00-001_A00 or later approved issue
3. Structural Repair Manual Refer to AMM-121-01-00-001_A00 or later approved issue
4. Weight and Balance Manual Refer to POH-121-00-40-001_A02 or later approved issue
5. Illustrated Parts Catalogue IPC-121-00-50-001_A00 or later approved issue

A.V. Notes

Note 1: VNE is reduced from 163 KIAS at sea level by 2.2 KIAS for every 1000 ft.

Note 2: VNO decreases by 0.5 KIAS for every 1000 ft above FL100.

Note 3: When Night VFR kit PN 1159663 or 1159679 or 1159680 is installed.



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SECTION B: MODEL B DESIGNATION**B.I. General**

1. Type/ Model/ Variant

1.1 Type: Virus SW 121

1.2 Model: Virus SW 128 (Commercial Designation: Velis Electro)

2. Airworthiness Category: Normal

3. Manufacturer:

Pipistrel d.o.o.
 Goriška cesta 50a
 5270 Ajdovščina
 SLOVENIA

4. EASA Type Certification Application Date: 24.10.2017

5. EASA Type Certification Date: 10.06.2020

B.II. EASA Certification Basis1. Reference Date for determining the applicable requirements: 24th October 2017

2. Airworthiness Requirements (note 1)

Certification Specifications and
 Acceptable Means of Compliance for
 Light Sport Aeroplanes CS-LSA,
 Amendment 1 from 29 July 2013;
 Certification Specifications and
 Acceptable Means of Compliance for
 Airborne Communications, Navigation
 and Surveillance CS ACNS issue 2 dated
 26th April 2019 (subparts A, B, D)

3. Special Conditions:

SC-LSA-F2480-01 - LSA Propulsion
 Lithium Batteries;
 SC-LSA-15-01 - Electric Powerplant
 Installation for CS LSA aeroplanes;
 SC-ELA.2015-01 - Lithium battery
 installations;

4. Exemptions:

none

5. (Reserved) Deviations:

none

6. Equivalent Safety Findings:

none

7. Environmental Protection:

see TCDSN EASA.A.573.



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B.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Master Drawing List No. DWG-128-02-40-001 latest approved revision
2. Description: Electric engine, two-seat, high wing cantilever composite construction aircraft with T-tail empennage configuration, fixed tricycle landing gear and three-bladed composite fixed pitch propeller.
3. Equipment: For equipment list refer to POH-128-00-40-001 Pilot's Operating Handbook, Section 2
4. Dimensions
- | | | |
|-----------|---------------------|-----------------------|
| Length | 6.47 m | 21.22 ft |
| Span | 10.71 m | 35.13 ft |
| Height | 1.90 m | 6.82 ft |
| Wing Area | 9.51 m ² | 102.4 ft ² |
5. Load factors: +4G/-2G
6. Engine
- 6.1. Type/Model: Pipistrel electric engine E-811 / 268MVLC
- 6.2 Type Certificate: EASA.E.234
- 6.3 Limitations: Maximum Take-off Power MTOP: 57.6 kW / 2500 RPM max 90 s
Maximum Continuous Power: 49.2 kW / 2350 RPM
7. Propeller (note 2)
- 7.1 Type/Model: Pipistrel P-812 / 164-F3A
- 7.2 Number of blades: 3
- 7.4 Diameter: 1640 mm
- 7.5 Rotation direction: clockwise
- 7.6 Pitch: 18° @615mm from axis
- 7.7 Weight: 4,88 kg
- 7.8 Control system: N/A (fixed pitch)
- 7.9 Max speed: 2500 RPM
- 7.10 Max driving power: 57.6 kW
- 7.11 Max driving torque: 220 Nm
- 7.13 Designation system: **Type:** P-812; **Diameter in cm:** 164; **Pitch:** F: fixed, G: ground adjustable, V: variable, C: Constant speed; **Number of blades:** 3; **Blade type:** A.



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8. Energy Storage System (ESS)

Two (2) propulsion Lithium batteries connected in parallel.

1.) Type: Pipistrel PB345V124E-L

Rated capacity at 23°C: 11.0 kWh (each)

Nominal voltage: 345 VDC

Cooling system: Liquid

Battery management system (BMS): Integral

2.) Type: Pipistrel PB345V119E-L

Rated capacity at 23°C: 10.0 kWh (each)

Nominal voltage: 345 VDC

Cooling system: Liquid

Battery management system (BMS): Integral

9. Fluids

9.1 Coolant: Refer to POH-128-00-40-001 Pilot's Operating Handbook, Section 2

10. Fluid capacities10.1 Coolant system - for engine cooling system: 0.9 liters (approximately)
- for battery cooling system: 5.4 liters (approximately)**11. Air Speeds** V_{NE} : 108 KIAS V_{NO} : 98 KIAS V_A : 100 KIAS V_{FE} : 81 KIAS**12. Flight Envelope**

Maximum operating altitude 12.000 ft MSL

**13. Approved Operations
Capability**

VFR day operations

14. Maximum Masses

Maximum takeoff - 600 kg / 1323 lbs

Maximum landing - 600 kg / 1323 lbs

15. Centre of Gravity Range

Forward CG limit – 25.2% MAC / 269 mm

Aft CG limit – 32.6% MAC / 336 mm

16. Reference datum

The wing's leading edge at the root of the wing



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17. Control surface deflections	Refer to AMM-128-00-60-001 Aircraft Maintenance Manual latest approved issue
18. Levelling Means	Refer to section 6.2 of the POH-128-00-40-001 Pilot's Operating Handbook latest approved issue
19. Minimum Flight Crew	One (1) pilot
20. Maximum Passenger Seating Capacity	One (1) passenger
21. Wheels and Tyres	Main wheel – 4.00” x 6” Nose wheel – 4.00” x 4” For approved wheel and tyre types refer to the IPC-128-00-50-001 Illustrated Part Catalogue latest approved issue
22. Lifetime limitations	for the airframe: Refer to section 4 of the AMM-128-00-60-001 Aircraft Maintenance Manual; for the propeller: Refer to section 4 of the PIM-812-61-00-001 Propeller Instruction Manual;
B.IV.	<u>Operating and Service Instructions</u>
1. Aircraft Flight Manual	POH-128-00-40-001 Pilot's Operating Handbook latest approved issue
2. Aircraft Maintenance Manual	AMM-128-00-60-001 Aircraft Maintenance Manual latest approved issue
3. Structural Repair Manual	Refer to AMM-128-00-60-001 Aircraft Maintenance Manual
4. Weight and Balance Manual	Refer to POH-128-00-40-001 Pilot's Operating Handbook
5. Propeller Instructions Manual	Refer to PIM-812-61-00-001 Propeller Instruction Manual
5. Illustrated Parts Catalogue	IPC-128-00-50-001 Illustrated Part Catalogue latest approved issue



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B.V. Notes

Note 1: Requirements 4, 5, 6.1, 6.2, 6.4, 6.7, 6.10, 6.11, 7.1, 7.3, 7.4 of ASTM F2840-11, as far as the engine and its parts are concerned, are covered through the corresponding certification basis in the engine TCDS EASA.E.234.

Note 2: The propeller is certified as part of the aircraft and therefore is only certified for installation on SW128. For propeller Operating and Service Instructions see: PIM-812-61-00-001 Propeller Instruction Manual



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SECTION C: MODEL C DESIGNATION**C.I. General**

1. Type/ Model/ Variant

1.1 Type: Virus SW 121

1.2 Model: Virus SW 121C (Commercial Designation: Velis Club)

2. Airworthiness Category: Normal

3. Manufacturer:

Pipistrel d.o.o.
Goriška cesta 50a
5270 Ajdovščina
SLOVENIA

4. EASA Type Certification Application Date: 17.12.2020

5. EASA Type Certification Date: 25.01.2021

C.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: 29.07.2013

2. Airworthiness Requirements: Certification Specifications and Acceptable Means of Compliance for Light Sport Aeroplanes CS-LSA, Amendment 1 from 29 July 2013.

3. Special Condition: SC-ELA.2015-01 (CRI F-101)

4. Exemptions: none

5. (Reserved) Deviations: none

6. Equivalent Safety Findings: none

7. Environmental Protection: see TCDSN EASA.A.573.



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C.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Master document list No. MDL-121-01-00-001 revision B01 or later approved revision
2. Description: Single engine, two-seat, high wing cantilever composite construction aircraft with T-tail empennage configuration and fixed tricycle landing gear.
3. Equipment: Minimum equipment see Pilot Operating Handbook POH-121C-00-40-100, Section 2.15.1
4. Dimensions
- | | | |
|-----------|---------------------|-----------------------|
| Length | 6.40 m | 20.99 ft |
| Span | 10.70 m | 35.10 ft |
| Height | 1.90 m | 6.23 ft |
| Wing Area | 9.51 m ² | 102.4 ft ² |
5. Engine
- 5.1. Model: Rotax 912 S3-01
- 5.2 Type Certificate: EASA.E.121
- 5.3 Limitations: Maximum Power Rating: 73.5 kW / 5800 RPM max 5 min
Maximum Continuous Power: 69 kW / 5500 RPM
- 5.4. Muffler model Akrapovic iS, drawing number 121-78-00-000
6. Load factors: +4G/-2G
7. Propeller
- 7.1 Model: MTV-33-1-A/170-200
- 7.2 Type Certificate: EASA.P.048
- 7.3 Number of blades: 2
- 7.4 Diameter: 1700 mm
- 7.5 Rotation direction: clockwise
8. Fluids
- 8.1 Fuel
Refer to Pilot Operating Handbook POH-121C-00-40-100, Section 2.8
- 8.2 Oil
Refer to Pilot Operating Handbook POH-121C-00-40-100, Section 2.9
- 8.3 Coolant
Refer to Pilot Operating Handbook POH-121C-00-40-100, Section 2.9



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9. Fluid capacities	
9.1 Fuel	Total: 100 liters Usable: 99 liters
9.2 Oil	Maximum oil capacity: 3.5 liters Minimum oil required: marked on dipstick
9.3 Coolant system	2.3 liters (approximately)
10. Air Speeds	V _{NE} : 163 KTAS (see note 1) V _{NO} : 120 KIAS (see note 2) V _A : 100 KIAS V _{FE} : 81 KIAS V _{AE} : 100 KIAS
11. Flight Envelope	Maximum operating altitude 18,000 ft MSL
12. Approved Operations Capability	VFR day operations
13. Maximum Masses	Maximum takeoff – 600 kg / 1323 lbs Maximum landing – 600 kg / 1323 lbs Maximum zero fuel – 555 kg / 1221 lbs
14. Centre of Gravity Range	Forward CG limit – 25% MAC / 267 mm Aft CG limit – 35% MAC / 356 mm
15. Reference datum	The wing's leading edge at the root of the wing
16. Control surface deflections	Refer to SAMM-121C-00-60-100_A00 or later approved issue
17. Levelling Means	Refer to section 6.2 of the POH-121C-00-40-100_A00 or later approved issue
18. Minimum Flight Crew	One (1) pilot
19. Maximum Passenger Seating Capacity	One (1) passenger
20. Baggage/ Cargo Compartments	Location – port side, aft of the door Maximum load – 25 kg / 55 lbs (see note 3)



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21. Wheels and Tyres Main wheel – 4.00” x 6”
 Nose wheel – 4.00” x 4”
 For approved wheel and tyre types refer to the
 IPC-121-00-50-001 revision D00 or later approved issue
22. Lifetime limitations Refer to AMM-121-01-00-001_B00 or later approved issue and
 SAMM-121C-00-60-100_A00 or later approved issue

C.IV. Operating and Service Instructions

1. Aircraft Flight Manual POH-121C-00-40-100_A00 or later approved issue
2. Aircraft Maintenance Manual AMM-121-01-00-001_B00 and SAMM-121C-00-60-100_A00
 or later approved issues
3. Structural Repair Manual AMM-121-01-00-001_B00 and SAMM-121C-00-60-100_A00
 or later approved issues
4. Weight and Balance Manual Refer to POH-121C-00-40-100_A00 or later approved issue
5. Illustrated Parts Catalogue IPC-121-00-50-001_C00 or later approved issue

C.V. Notes

Note 1: VNE is reduced from 163 KIAS at sea level by 2.2 KIAS for every 1000 ft.

Note 2: VNO decreases by 0.5 KIAS for every 1000 ft above FL100.

Note 3: When baggage compartment (optional equipment) is installed.



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SECTION D: MODEL D DESIGNATION**D.I. General**

1. Type/ Model/ Variant

1.1 Type: Virus SW 121

1.2 Model Virus SW 121A (Commercial Designation: Explorer)

2. Airworthiness Category: Normal

3. Manufacturer: Pipistrel d.o.o.
Goriška cesta 50a
5270 Ajdovščina
SLOVENIA

4. EASA Type Certification Application Date: 28.01.2021

5. EASA Type Certification Date: 17.12.2021

D.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: 29.07.2013

2. Airworthiness Requirements: Certification Specifications and Acceptable Means of Compliance for Light Sport Aeroplanes CS-LSA, Amendment 1 from 29 July 2013.

3. Special Conditions: SC-ELA.2015-01 (CRI F-101),
Noise Requirements (CRI N-01)
SC-OLSA-div-01 (CRI O-18)

4. Exemptions: none

5. (Reserved) Deviations: none

6. Equivalent Safety Findings: none

7. Environmental Protection: see TCDSN EASA.A.573.



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D.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Master document list No. MDL-121-01-00-001 revision C03 or later approved revision
2. Description: Single engine, two-seat, high wing cantilever composite construction aircraft with T-tail empennage configuration and fixed tricycle landing gear.
3. Equipment: Minimum equipment see Pilot Operating Handbook POH-121A-00-40-050_B00, Section 2.15.1
4. Dimensions
- | | | |
|-----------|---------------------|-----------------------|
| Length | 6.42 m | 21.06 ft |
| Span | 10.70 m | 35.10 ft |
| Height | 1.90 m | 6.23 ft |
| Wing Area | 9.51 m ² | 102.4 ft ² |
5. Engine
- 5.1. Model: Rotax 912 S3-01
- 5.2 Type Certificate: EASA.E.121
- 5.3 Limitations: Maximum Power Rating: 73.5 kW / 5800 RPM max 5 min
Maximum Continuous Power: 69 kW / 5500 RPM
- 5.4. Muffler model Akrapovic iS, drawing number 121-78-00-000
6. Load factors: +4G/-2G
7. Propeller
- 7.1 Model: MTV-33-1-A/170-200
- 7.2 Type Certificate: EASA.P.048
- 7.3 Number of blades: 2
- 7.4 Diameter: 1700 mm
- 7.5 Rotation direction: clockwise
8. Fluids
- 8.1 Fuel
Refer to Pilot Operating Handbook POH-121A-00-40-050_B00, Section 2.8
- 8.2 Oil
Refer to Pilot Operating Handbook POH-121-00-40-050_B00, Section 2.9
- 8.3 Coolant
Refer to Pilot Operating Handbook POH-121-00-40-050_B00, Section 2.9



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9. Fluid capacities	
9.1 Fuel	Total: 100 liters Usable: 99 liters
9.2 Oil	Maximum oil capacity: 3.2 liters Minimum oil required: marked on dipstick
9.3 Coolant system	2.3 liters (approximately)
10. Air Speeds	V _{NE} : 163 KTAS (see note 1) V _{NO} : 120 KIAS (see note 2) V _A : 100 KIAS V _{FE} : 81 KIAS V _{AE} : 100 KIAS
11. Flight Envelope	Maximum operating altitude 18,000 ft MSL
12. Approved Operations Capability	VFR day operations; Night VFR operations
13. Maximum Masses	Maximum takeoff - 600 kg / 1323 lbs Maximum landing - 600 kg / 1323 lbs Maximum zero fuel - 555 kg / 1221 lbs
14. Centre of Gravity Range	Forward CG limit – 25% MAC / 267 mm Aft CG limit – 35% MAC / 356 mm
15. Reference datum	The wing's leading edge at the root of the wing
16. Control surface deflections	Refer to SAMM-121A-00-60-050_A01 or later approved issue
17. Levelling Means	Refer to section 6.2 of the POH-121A-00-40-050_B00 or later approved issue
18. Minimum Flight Crew	One (1) pilot
19. Maximum Passenger Seating Capacity	One (1) passenger
20. Baggage/ Cargo Compartments	Location – port side, aft of the door Maximum load – 25 kg / 55 lbs



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21. Wheels and Tyres Main wheel – 4.00” x 6”
Nose wheel – 4.00” x 4”
For approved wheel and tyre types refer to the IPC-121-00-50-001 revision D01 or later approved issue
22. Lifetime limitations Refer to AMM-121-01-00-001_B03 or later approved issue and SAMM-121A-00-60-050_A01 or later approved issue

D.IV. Operating and Service Instructions

1. Aircraft Flight Manual POH-121A-00-40-050_B00 or later approved issue
2. Aircraft Maintenance Manual AMM-121-01-00-001_B03 or later approved issue
SAMM-121A-00-60-050_A01 or later approved issue
3. Structural Repair Manual Refer to AMM-121-01-00-001_B03 or later approved issue
SAMM-121A-00-60-050_A01 or later approved issue
4. Weight and Balance Manual Refer to POH-121A-00-40-050_B00 or later approved issue
5. Illustrated Parts Catalogue IPC-121-00-50-001_D01 or later approved issue

D.V. Notes

Note 1: VNE is reduced from 163 KIAS at sea level by 2.2 KIAS for every 1000 ft.

Note 2: VNO decreases by 0.5 KIAS for every 1000 ft above FL100.



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SECTION E: MODEL E DESIGNATION**E.I. General**

1. Type/ Model/ Variant

1.1 Type: Virus SW 121

1.2 Model Virus SW 121X (Commercial Designation: X-Eye)

2. Airworthiness Category: Normal

3. Manufacturer:

Pipistrel d.o.o.
Goriška cesta 50a
5270 Ajdovščina
SLOVENIA

4. EASA Type Certification Application Date:

28.01.2021

5. EASA Type Certification Date:

21.02.2025

E.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements: 29.07.2013

2. Airworthiness Requirements:

Certification Specifications and
Acceptable Means of Compliance
for Light Sport Aeroplanes CS-LSA,
Amendment 1 from 29 July 2013.

3. Special Conditions:

SC-ELA.2015-01 (CRI F-101),
Noise Requirements (CRI N-01)
SC-OLSA-div-01 (CRI O-18) (see
note 3)

4. Exemptions:

none

5. (Reserved) Deviations:

none

6. Equivalent Safety Findings:

none

7. Environmental Protection:

see TCDSN EASA.A.573.



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E.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Master document list No. MDL-121-01-00-001 revision D00 or later approved revision
2. Description: Single engine, two-seat, high wing cantilever composite construction aircraft with T-tail empennage configuration and fixed tricycle landing gear.
3. Equipment: Minimum equipment see Pilot Operating Handbook POH-121X-00-40-150, Section 2.15.1
4. Dimensions
- | | | |
|-----------|---------------------|-----------------------|
| Length | 6.42 m | 21.06 ft |
| Span | 10.70 m | 35.10 ft |
| Height | 2.08 m | 6.82 ft |
| Wing Area | 9.51 m ² | 102.4 ft ² |
5. Engine
- 5.1. Model: Rotax 912 S3-01
- 5.2 Type Certificate: EASA.E.121
- 5.3 Limitations: Maximum Power Rating: 73.5 kW / 5800 RPM max 5 min
Maximum Continuous Power: 69 kW / 5500 RPM
- 5.4. Muffler model Akrapovic iS, drawing number 121-78-00-000
6. Load factors: +4G/-2G
7. Propeller
- 7.1 Model: MTV-33-1-A/170-200
- 7.2 Type Certificate: EASA.P.048
- 7.3 Number of blades: 2
- 7.4 Diameter: 1700 mm
- 7.5 Rotation direction: clockwise
8. Fluids
- 8.1 Fuel
Refer to Pilot Operating Handbook POH-121X-00-40-150, Section 2.8
- 8.2 Oil
Refer to Pilot Operating Handbook POH-121X-00-40-150, Section 2.9
- 8.3 Coolant
Refer to Pilot Operating Handbook POH-121X-00-40-150, Section 2.9



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9. Fluid capacities	
9.1 Fuel	Total: 100 Liters Usable: 99 Liters
9.2 Oil	Maximum oil capacity: 3.2 Liters Minimum oil required: marked on dipstick
9.3 Coolant system	2.3 Liters (approximately)
10. Air Speeds	V _{NE} : 157 KTAS (see note 1) V _{NO} : 115 KIAS (see note 2) V _P : 105 KIAS (see note 4) V _A : 98 KIAS V _{FE} : 81 KIAS V _{AE} : 98 KIAS
11. Flight Envelope	Maximum operating altitude 18,000 ft MSL
12. Approved Operations Capability	VFR day operations Night VFR operations (See note 3)
13. Maximum Masses	Maximum take-off - 600 kg / 1323 lbs Maximum landing - 600 kg / 1323 lbs Maximum zero fuel - 555 kg / 1221 lbs - 600 kg / 1323 lbs (see note 4)
14. Centre of Gravity Range	Forward CG limit – 25% MAC / 267 mm Aft CG limit – 35% MAC / 356 mm
15. Reference datum	The wing's leading edge at the root of the wing
16. Control surface deflections	Refer to SAMM-121X-00-61-150 revision B00 or later approved issue
17. Levelling Means	Refer to section 6.2 of the POH-121X-00-40-150 revision C00 or later approved issue
18. Minimum Flight Crew	One (1) pilot
19. Maximum Passenger Seating Capacity	One (1) passenger (allowed only when not in Mission equipment configuration)



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|---------------------------------|---|
| 20. Baggage/ Cargo Compartments | Location – port side, aft of the door
Maximum load – 25 kg / 55 lbs (allowed only when not in Mission equipment configuration) |
| 21. Wheels and Tyres | Main wheel – 4.00” x 6”
Nose wheel – 4.00” x 4”
For approved wheel and tyre types refer to the IPC-121-00-50-001 revision E00 or later approved issue |
| 22. Lifetime limitations | Refer to AMM-121-01-00-001 revision B06 or later approved issue and SAMM-121X-00-60-150 revision B00 or later approved issue |

E.IV. Operating and Service Instructions

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|--------------------------------|--|
| 1. Aircraft Flight Manual | POH-121X-00-40-150 revision C00 or later approved issue |
| 2. Aircraft Maintenance Manual | AMM-121-01-00-001 revision B06 or later approved issue
SAMM-121X-00-61-150 revision B00 or later approved issue |
| 3. Structural Repair Manual | Refer to SRM-121-00-70-001 revision A01 or later approved issue |
| 4. Weight and Balance Manual | Refer to POH-121X-00-40-150 revision C00 or later approved issue |
| 5. Illustrated Parts Catalogue | IPC-121-00-50-001 revision E00 or later approved issue |

E.V. Notes

Note 1: VNE is reduced from 157 KIAS at sea level by 2.2 KIAS for every 1000 ft.

Note 2: VNO decreases by 0.5 KIAS for every 1000 ft above FL100.

Note 3: NVFR prohibited when in mission equipment configuration.

Note 4: Applicable to mission equipment configuration only.



SECTION ADMINISTRATIVE

I. Acronyms & Abbreviations

AMM	Aircraft maintenance manual
CS-LSA	Certification specification for light sport aeroplanes
EASA	European Union Aviation Safety Agency
ESS	Energy Storage System
IPC	Illustrated parts catalogue
KIAS	Indicated airspeed in knots
KTAS	True airspeed in knots
MAC	Mean aerodynamic chord
MSL	Mean sea level
MDL	Master document list
POH	Pilot's operating handbook
RPM	Revolutions per minute
VFR	Visual flight rules

II. Type Certificate Holder Record

Pipistrel Vertical Solutions d.o.o.
Vipavska cesta 2,
5270 Ajdovščina
Slovenia, Europe



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III. Change Record

Issue	Date	Changes	TC Issue No. & Date
Issue 01	18/04/2016	Initial Issue	18/04/2016
Issue 02	22/09/2017	Update for major change Night VFR operations	
Issue 03	12/03/2018	Corrected in section A.IV the reference to the Maintenance Manual	
Issue 04	15/10/2018	Change of Type Certification Holder, Removed reference to CRI A-01 from section A.II (2)	
Issue 05	10/06/2020	Model Virus SW 128 added	
Issue 06	10/06/2020	Corrected Commercial designation "Velis Electro" for Virus SW 128	
Issue 07	15/06/2020	Corrected typos (see right bar)	
Issue 08	25/01/2021	Model Virus SW 121C added	
Issue 09	08/02/2021	Correction to SW121 and SW 121 C engine designations, correction to SW 121 C, add reference to Commercial designation [Velis Club], and addition of Note 3 Optional baggage compartment.	
Issue 10	17/12/2021	Model Virus SW121A added, Manufacturer's name corrected, and type design information corrected.	
Issue 11	01/03/2022	New battery type PB345V119E-L added to model Virus SW 128	
Issue 12	21/02/2025	Correction to SW121A Notes, addition of new Model SW121X	

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