

DESIGN AUTHORIZATION DATA SHEET Nº ERPAS-5945432

Authorization Holder:

SANTIAGO & CINTRA IMPORTAÇÃO E EXPORTAÇÃO LTDA

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Brazil

ERPAS-5945432-03

Sheet 01

SENSEFLY
EBEE X / EBEE
GEO /
EBEE AG

01 Oct 2022

This data sheet, which is part of Design Authorization Process No. 00066.024518/2018-10, prescribes conditions and limitations under which the product, for which the Design Authorization was issued, meets the requirements of the Brazilian Civil Aviation Special Regulation RBAC-E No. 94, Subpart E.

I - Model eBee X, authorized in June 2021, and eBee Geo and eBee Ag, authorized in June 2022.

RPAS

This is a Remotely Piloted Aircraft System (RPAS) that is comprised of a Remote Piloted Aircraft (RPA), a ground station modem and a Remote Pilot Station (RPS).

RPA

Type: Single body flying wing.

Wingspan: 1,160 mm (46 in).

Material: EPP Foam, carbon structure & composite parts.

Assembly Units:

Fuselage

SenseFly PN:

eBeeX: SI051000

eBee Geo: SI052000

eBee Ag: SI053000

(See NOTE 7)

Micro-servos for aileron actuation

SenseFly PN: MCMOT00033

Engine

Manufacturer: AXI Model Motors

Model: AXI 2208/26

ANAC Engine Type Certificate: None

Type: Electric brushless motor

SenseFly PN: MCMOT00035

Engine Speed Controller (ESC)

SenseFly PN: HWPCB00845

Air Data Link Modem (Transceiver) 2.4 GHz

SenseFly PN: HWPCB00847

ANATEL Homologation Certificate:

06072-19-05976

GNSS Reception Board
SenseFly PN: MCOTH00513

Automatic Flight Module
Manufacturer: SenseFly
SenseFly PN: MCSAS00658
Firmware version: 3.19.2 or later

Pitot
Manufacturer: SenseFly
SenseFly PN: SI050004

Ground Proximity Sensor
Manufacturer: SenseFly
SenseFly PN: MCSAS00670

External Radio Antenna
SenseFly PN: MCANT00009

Skid Plate
SenseFly PN: MCPLA01630

Battery Compartment
SenseFly PN: MCPLA01706

Wing
Sensefly PN:
Left: SI050009
Right: SI050008

Leading Edge Cover
Sensefly PN: MCPLA01711

Winglets
Sensefly eBeeX PN:
Left: MCPLA01752
Right: MCPLA01751

Sensefly eBee Geo PN:
Left: MCPLA02077
Right: MCPLA02076

Sensefly eBee Ag PN:
Left: MCPLA01754
Right: MCPLA01753

PROPELLER

Manufacturer: APC Propellers
Model: 9"x6" Electric Pusher Propeller
PN: 9x6EP
ANAC Propeller Type Certificate: None.

Propeller fastening rubber rings
SenseFly PN: MCRUB00253

FUEL

Not applicable.

BATTERY	Option 1: Manufacturer: Fullymax Battery Co. Ltd. Sensefly PN: SI050003 Type: Lithium polymer battery, 11.1V, 3700mAh. Option 2: Manufacturer: Fullymax Battery Co. Ltd. Sensefly PN: SI050017 Type: Lithium polymer battery, 11.1V, 4900mAh.
ANTI-COLLISION LIGHTS	LEDs Manufacturer: Flytron PN: L02 LEDs compartment Manufacturer: AL Drones PN: ALlens02
TRACKER	Manufacturer: Sensefly PN: SF200004
C2 LINK (RPS)	Ground Station Modem Manufacturer: SenseFly SenseFly PN: SI050010 ANATEL Homologation Certificate: 06072-19-05976
RPS	Software Flight planning & execution software: eMotion Manufacturer: SenseFly Model: eMotion 3 Software version: 3.21 or later
AIRSPPEED LIMITS (IAS)	V_{NE} : 30 m/s (58.3 KIAS). V_{MIN} : 12 m/s (23.3 KIAS). V_{MO} : 25 m/s (48.6 KIAS).
C. G. RANGE	SenseFly eBeeX: 268mm - 297mm SenseFly eBee Geo: 276mm SenseFly eBee Ag: 275mm DATUM: RPA Nose
EMPTY WEIGHT C. G. RANGE	NOTE 5
DATUM	Motor

LEVELING MEANS NOTE 5

MAXIMUM WEIGHT SenseFly eBeeX: 1.7 kg (3.75 lb).
SenseFly eBeeX Geo: 1.3 kg (2.87 lb).
SenseFly eBeeX Ag: 1.6 kg (3.53 lb).

EMPTY WEIGHT 0.75 kg (1.65 lb)

MINIMUM CREW One remote pilot.

NUMBER OF SEATS Not applicable.

FUEL CAPACITY Not applicable.

OIL CAPACITY Not applicable.

MAX. OPERATING HEIGHT 400 ft (122 m) AGL (See NOTE 6).

NOMINAL ENDURANCE eBee X: 59 minutes (Battery option 1) / 90 minutes (Battery option 2).
eBee Geo: 45 minutes (Batteries options 1 and 2).
eBee Ag: 45 minutes (Battery option 1) / 55 minutes (Battery option 2).

FLIGHT LIMITATIONS

1. Daylight Visual Flight Rules (VFR) in visual meteorological conditions (VMC), airspace classes F or G.
2. Beyond visual line of sight (BVLOS) up to 5 km (2.7 nm) from Ground Station Modem.
3. Wind resistance: up to 12 m/s (23 KIAS)
4. Operation is permitted in non-urban areas. NOTAM area shall be at least 150 meters (495 feet) away from urban areas.
5. Operation above ground infrastructure (e.g. power transmission lines, power stations, etc) is prohibited unless authorized by its owner/operator.
6. Operation with any inoperative (or missing) instruments or equipment is prohibited.

SERIAL NUMBERS APPROVED All serial numbers eligible for BVLOS authorization (See NOTE 6).

AUTHORIZATION BASIS Brazilian Civil Aviation Special Regulation RBAC-E No. 94, Subpart E, dated 3 May 2017.

PRODUCTION BASIS None (See NOTE 1).

NOTES:

NOTE 1 A declaration of conformity, issued by Santiago & Cintra, must be furnished for each aircraft at the time of its first inspection by ANAC.

NOTE 2 Markings and placards: all markings and placards required by Brazilian Civil Aviation Special Regulation RBAC-E No. 94 must be installed in the appropriate locations.

NOTE 3 The RPAS shall be operated and maintained under RBAC E-94 and in accordance with Santiago & Cintra Manual de Operação RPAS SC-EBEEX-OPS Rev. "1", dated Jun 2021, or later ANAC approved revision.
The operation shall also be conducted in accordance with DECEA regulations applicable.

NOTE 4 The RPAS was tested up to 3030 m (10000 ft) AMSL.

NOTE 5 The RPAS is approved for weight and balance obtained only from SenseFly approved payload. No weight and balance task is required before operation. Empty weight excludes weight from battery and payload modules.

NOTE 6 Only aircraft which incorporated the modifications described in Service Bulletin SB-eBeeX-001 are eligible for BVLOS operations and receiving a declaration of conformity.

NOTE 7 The RPA fuselage is sealed and its opening causes damage to its structure integrity. A statement from the manufacturer detailing all part numbers included in the fuselage assembly must be available to ANAC at the time of the aircraft inspection.

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