



Speed of opening, stability, descent rate

Inspection certificate number: EP_356.2023

Test Report

Manufacturer data

Manufacturer name: **BogdanFly**
 Representative: **Voinov Bogdan Romanovich**
 Street: **Rua da Pedreira, 34.**
 Post code / Place: **Salir 8100-202 Faro region**
 Country: **Portugal**

Sample data

Name: **BFreserve** Size: **29**
 Steerable ⁽¹⁾: **No** Maximum weight in flight ⁽²⁾ [kg]: **110**
 Weight ⁽³⁾ [kg]: **1.20** Volume packed [cm³]: **3700**
 Serial number: **13M0523**

Test results ⁽⁴⁾

	Test no. 1	Test no. 2
Measured opening time [s]:	3.11	2.95
Unsteerable parachute and steerable parachute with locked controls (if applicable)		
Measured sink rate [m/s] (≤ 5.5):	5.13	5.31
Stability test:	Stable	Stable

Steerable parachute and steerable parachute with unlocked controls (if applicable)

Measured sink rate [m/s] (≤ 4.0):	n/a	n/a
Stability test:	n/a	n/a
Test of steerability:	n/a	n/a

Test data

	Test no. 1	Test no. 2
Place of test	Villeneuve	Villeneuve
Date of test	20.03.2023	29.03.2023
Atmosphere AGL	9	10
[°C]	9	10
RH [%]	78	76
[hPa]	977	978
Wind [m/s]	0.1	0.1
Corrected mass with uncertainty (m_{corr}) [kg]:	109.1	108.0

If steerable with brake lock system

Place of test	n/a	n/a
Date of test	n/a	n/a
Atmosphere AGL	n/a	n/a
[°C]	n/a	n/a
RH [%]	n/a	n/a
[hPa]	n/a	n/a
Wind [m/s]	n/a	n/a
Corrected mass with uncertainty (m_{corr}) [kg]:	n/a	n/a

Strength test - 40 m/s opening shock

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 Representative: **Voinov Bogdan Romanovich**
 Street: **Rua da Pedreira, 34.**
 Post code / Place: **Salir 8100-202 Faro region**
 Country: **Portugal**

Sample data

Name: **BFreserve** Size: **29**
 Steerable: **No** Maximum weight [kg]: **110**
 Weight [kg]: **1.2** Volume packed [cm³]: **3700**
 Serial number: **018-09-L-2023**

Test data ⁽¹⁾

	Test no. 1	Test no. 2
Place of test	St-Cierges	St-Cierges
Date of test	24.11.2023	24.11.2023
Maximum weight [kg]	110	110
Inspector:	Nicolas Jacquod	Nicolas Jacquod

Atmosphere AGL

	Test no. 1	Test no. 2
[°C]	2	6
RH [%]	77	79
[hPa]	922	918
Wind [m/s]	0.1	0.5

Test results

	Test no. 1	Test no. 2
Strength test (40m/s shock)	POSITIVE	POSITIVE
Aircraft speed uncertainty K=2 [m/s] ⁽²⁾	2.9	2.9



Identification number: **MISC_232.2022**

BogdanFly BFreserve M

Result summary

Inner container strength test. Applied minimum 700 N for at least 10 seconds and at maximum strength.

Duration at the required strength: **12.8 [s]**

Maximum strength before broken: **1268.5 [N]**

Place of declaration: **Villeneuve**
 Date of issue: **03.11.2022**
 Managing director: **Andrea Wigger**

Signature:

Instrument	Validity	Manufacturer	Type no.	S/N
Load sensor 10kN SL2	21.04.2026	Burster / MTS	8431-6010-N000S000	593507
Winch	check every 12 month	Arwin	300/600	N/A
Geos n° 11 Skywatch	18.06.2025	JDC elec.	Geos n° 11	22

This signature approves the validity of the test report

Air Turquoise SA has thoroughly tested the sample of riser/bridle mentioned above and certifies its conformity with the following standards:
EN 12491:2015+A1:2021⁽⁴⁾ chapter 5.3.2 and NFL 2-565-20 chapter 6.1.8

⁽¹⁾ Inner container: container of the folded emergency parachute.

⁽²⁾ Inner container (the connection between handgrip and inner container) is loaded at min 700 [N] over 10 seconds. The deployment system is loaded until breaking. Each component is tested.

⁽³⁾ Calculated value includes the value minus the uncertainty (on safe side) / The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The value of the measured lies within the assigned range of values with a probability of 95%.

⁽⁴⁾ This standard is NOT covered by accreditation D-IS-19457-01

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Identification number: **MISC_233.2022**

BogdanFly BFreserve

Result summary

Maximum strength for riser, bridle: **26783.1 [N]**
Duration at the requested load: **2.2 [s]**

Place of declaration: **Villeneuve**
Date of issue: **03.11.2022**
Managing director: **Andrea Wigger**

Signature:

This signature approves the validity of the test report

Air Turquoise SA has thoroughly tested the sample of emergency parachute mentioned above and certifies its conformity with the standards: **EN 1651:2018+A1:2020⁽⁴⁾** and **NFL 2-565-20 chapter 6.1.4**

Instrument	Validity	Manufacturer	Type no.	S/N
Load sensor	04.09.2023	HBM	1-S9M/50KN-1	31314652
Geos n° 11 Skywatch	18.06.2025	JDC elec.	Geos n° 11	22

⁽¹⁾ Riser: lowest part of the the parachute system, which is connected to the harness. Bridle: connection between risers and harness, can also be a strap.

⁽²⁾ The connecting strap has to have a minimum load capacity of 24000 [N]. The exposed part of the connecting belt has to be protected against environmental factors.

⁽³⁾ Calculated value includes the value minus the uncertainty (on safe side) / The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The value of the measured lies within the assigned range of values with a probability of 95%.

⁽⁴⁾ This standards is NOT covered by accreditation D-IS-19457-01