European Union Aviation Safety Agency

EASA

TYPE CERTIFICATE DATA SHEET

KUBÍČEK Hot Air Balloons

Type Certificate Holder:

BALÓNY KUBÍČEK spol. s r.o.
Jarní 1003/2a
614 00 Brno
CZECH REPUBLIC

Manufacturers:

114 (714) ZO Svazarmu, Aviatik klub
Hlinky 164
602 00 Brno
CZECH REPUBLIC

Aerotechnik podnik ÚV Svazarmu
686 04 Kunovice
CZECH REPUBLIC

Aerotechnik p.o.s.
686 04 Kunovice
CZECH REPUBLIC

Aerotechnik s.r.o.
686 04 Kunovice
CZECH REPUBLIC

Kubíček spol. s r.o.
Francouzská 81
602 00 Brno
CZECH REPUBLIC

BALÓNY KUBÍČEK spol. s r.o.
Francouzská 81
602 00 Brno
CZECH REPUBLIC

BALÓNY KUBÍČEK spol. s r.o.
Jarní 1003/2a
614 00 Brno
CZECH REPUBLIC

Data Sheet No: **EASA.BA.003** Issue 53 Date: 11 June 2021

For models of: BB, BB-S, Aerotechnik AB, AB2 and AB8 series

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CONTENTS

SECTION A: BB Type

1. GENERAL, All Types and Variants

I. General

1. Type / Variant or Model

- Type: BB

- Model:

O-Type: BB9, BB12, BB16, BB20, BB22, BB26

N-Type: BB22N, BB26N, BB30N, BB37N, BB45N, BB60N

Z-Type: BB22Z, BB26Z, BB30Z, BB34Z, BB37Z, BB42Z, BB40Z, BB45Z, BB51Z, BB60Z, BB64Z BB70Z, BB78Z, BB85Z, BB92Z, BB100Z

P-Type: BB105P, BB106P, BB113P, BB120P, BB130P BB142P, BB150P, BB184P

GP-Type: BB17GP, BB20GP

XR-Type: BB14XR, BB16XR, BB17XR, BB20XR, BB22XR, BB26XR, BB30XR

E-Type: BB9E, BB12E, BB16E, BB18E, BB20E, BB22E, BB26E, BB30E, BB34E

EF-Type: BB9EF, BB12EF, BB16EF

ED-Type: BB20ED, BB22ED, BB26ED, BB30ED, BB34ED

D-Type: BB22D, BB26D, BB30D, BB34D, BB37D, BB40D, BB42D, BB45D, BB51D, BB60D, BB70D, BB85D, BB100D

2. Airworthiness Category: Normal

3. Type Certificate Holder:
BALÓNY KUBÍČEK spol. s r.o.
Jarní 1003/2a
614 00 Brno

4. Manufacturer:
Kubíček spol. s r.o.
Francouzská 81
602 00 Brno (S/N 1-140)

BALÓNY KUBÍČEK spol. s r.o.
Francouzská 81
602 00 Brno (from S/N 141 to S/N 1555)

BALÓNY KUBÍČEK spol. s r.o.
Jarní 1003/2a
614 00 Brno (S/N 1555 and higher)

5. National Certification Date: 10 February 1993

6. CAA CZ Application Date: 8 July 1992

7. EASA Application Date: 25 February 2005

8. EASA Type Certification Date: 25 February 2005

II. Certification Basis

I.	Reference Date for determining the applicable requirements:	Refer to Section 2, see Tables 1, 2, 3A, 3B
II.	CAA CZ Type Certificate Data Sheet No:	93-01
III.	EASA Certification Basis:	CRI A-01, issue - refer to Section 2, see Tables 1, 2,3A, 3B
IV.	Airworthiness Requirements:	Refer to Section 2, see Tables 1, 2, 3A, 3B
V.	Special Conditions:	Lights for Manned Balloons Flights at Night, Issue 2, 22 October 2012
VI.	Reversion and Exemptions:	None
VII.	Equivalent Safety Findings:	– FAR § 31.47 (d) endurance test for KOMET DUO burner from S/N 105 – CRI E-01, issue 2, dated 15 February 2007: FAR § 31.47 (d) endurance test for IGNIS burner

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition:	Refer to Section 2
2.	Description:	The free hot-air balloon with the natural shaped envelope of 900 – 18 400 m³ volume, vertical, horizontal or diagonal construction with 8-32 gores. The parachute, paralite, Slide Vent, Smart Vent or Lite Vent (previous name Smart Vent+) is used for sealing of the vent aperture. As an option, the envelope can be equipped with rotation vent. As an option, the envelope can be fitted with quick link carabiners (connecting envelope load tapes and envelope wires). A single backed up, double, triple or quadruple burner is the heat source for the envelope. The basket is cane-work connected to the envelope by means of stainless-steel or kevlar wires and karabiners with a screw gate (at each attachment point – 1 carabiner for envelope wires, 1 carabiner for basket wires and optional 1 titanium ring between them). Preference of the basket and burner type shall be provided with respect to the envelope size. Stainless steel, duralumin or titanium fuel cylinders (approved models are listed in the Flight Manual), equipment and instruments are fixed on the inner side of the basket.
3.	Equipment:	- Altimeter - A rate of climb indicator (variometer) - Melting link for the envelope overheating check - Fuel quantity gauge - Double fire equipment - Drop line - Fire extinguisher - Heat-resistant cloth
4.	Envelope:	Refer to Section 2, see Table 1, 4 and 5 (see *Note 5*)
5.	Burner:	Refer to Section 2, see Table 2, 4 and 5
6.	Basket:	Refer to Section 2, see Table 3A, 3B and 4
7.	Fuel Cylinder:	Refer to Section 2, see Table 6
8.	Mass:	Maximum take-off weight: Refer to Section 2, see Table 1
9	Envelope temperature:	The envelope temperature must not exceed 124°C
10.	Minimum Flight Crew:	1 Pilot
11.	Maximum number of persons on board:	In accordance with approved Flight Manual
12.	Other Limitations:	The balloon is approved for VFR-Day flight, (see *Note 3* for details)

IV. Operating and Service Instructions

1. Applicable to the balloons up to S/N 639 inclusive:

   Flight Manual for use with the hot air balloon (Document No.: B.0102)
   - revision 11 or later EASA approved revision, see Section 2, Table 1

Letová příručka pro horkovzdušný balón (Dokument č.: B.0101)
- initial issue or later EASA approved revision

2. Applicable to the balloons up to S/N 639 inclusive and burners up to S/N 470 inclusive:

   Maintenance Manual for use with the hot air balloon (Document No.: B.0202)
   - revision 5 or later EASA accepted revision, see Section 2, Table 1

   Příručka pro údržbu horkovzdušného balónu (Dokument č.: B.0201)
   - initial issue or later EASA approved revision

3. Applicable to the balloons from S/N 640:

   Flight Manual for use with the hot air balloon (Document No.: B.2102)
   - initial issue or later EASA approved revision, see Section 2, Table 1

4. Applicable to the balloons from S/N 640 and burners from S/N 471:

   Maintenance Manual for use with the hot air balloon (Document No.: B.2202)
   - initial Issue or later EASA approved revision, see Section 2, Table 1

OR

5. Applicable to all S/N

   Flight Manual for use with the hot air balloon (Document No.: B.3102)
   - initial issue or later EASA approved revision

   Maintenance Manual for use with the hot air balloon (Document No.: B.3202)
   - initial issue or later EASA approved revision

V. Notes

1. Applicable range of balloon parts or equipment from the other manufacturers – see the Optional Bulletin No. BB/22b-1.
2. The designation of following models: BB22; BB26; BB30; BB37; BB45; BB60 have been changed since the applicability of the Change No. 5 of this TCDS by adding capital letter 'N' to the model designation. The capital letter defines the cutting style. New designation is as follows: BB22N; BB26N; BB30N; BB37N; BB45N; BB60N.
3. The BB balloons are limited to VFR day flights unless an approved set of position lights and the appropriate supplement to the Flight Manual are used:
   - applicable to the balloons up to S/N 639 inclusive: FMS Night Flying (Document No. B.0102-NF)
   - applicable to the balloons from S/N 640: FMS Night Flying (Document No. B.2102-NF)
4. Due to the similarity of design, certain bottom ends manufactured by Cameron Balloons US, Lindstrand Balloons USA, UltraMagic, Aerostar International and FireFly may be used in conjunction with a BALÓNY KUBÍČEK spol. s r.o. manufactured envelope. This installation is subject to the operations and limitations given in the approved BALÓNY KUBÍČEK spol. s r.o. balloon Flight Manual Supplements B.3105-FMS_USBEC (Cameron), B.3105-FMS_USBEL (Lindstrand), B.3105-FMS_USBEU (UltraMagic), B.3105-FMS_USBEA (Aerostar) and B.3105-FMS_USBEF (FireFly) or later amendments. These supplements are required equipment and must be carried onboard the aircraft.
5. For information about suitable burner frame for each approved balloon configuration refer to the latest applicable revision of the Flight Manual.

2. BB Type definition and certification data

Table 1: Envelopes

Variant	Volume [m³]	Gores [pcs.]	MTOM [kg]	Reference date	Certification basis	Airworthiness requirements	AFM/MM applicable revision:		Drawing No.	Approved by
							up to S/N 639	from S/N 640		
BB9	900	8 O-type	295	4.2.2009	CRI A-01 27.2.2009	FAR 31, Amdt. 31-7, May 24, 1996	---	5/1	53650.00 10.03.2009	EASA
BB9E	900	8 E-type	295	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	26/13	55550.00 24.10.2016	EASA
BB9EF	900	12 Z-type	295	18.9.2020	CRI A-01 28.10.2020	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	---	11/5	54170.00 30.9.2020	EASA
BB12	1 200	8 O-type	385	8.7.1992	---	FAR 31, Amdt. 31-4, September 11, 1980	11/5	0/0	50002.00 10.3.1993	EASA
BB12E	1200	8 E-type	385	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	26/13	55560.00 24.10.2016	EASA
BB12EF	1200	12 Z-type	385	18.9.2020	CRI A-01 28.10.2020	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	---	11/5	54180.00 30.9.2020	EASA
BB14XR	1400	16 Z-type	420	13.1.2021	CP_XR-type, rev.0 30.4.2021	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	---	12/5	54220.00 13.1.2021	EASA – under the DOA privilege 21.A.263(c)(8)
BB16	1 600	8 O-type	470	8.7.1992	---	FAR 31, Amdt. 31-4, September 11, 1980	11/5	0/0	50013.00 10.3.1993	EASA
BB16E	1600	8 E-type	470	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	26/13	55570.00 24.10.2016	EASA
BB16EF	1600	12 Z-type	470	18.9.2020	CRI A-01 28.10.2020	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	---	11/5	54190.00 30.9.2020	EASA
BB16XR	1600	16 Z-type	470	13.1.2021	CP_XR-type, rev.0 30.4.2021	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	---	12/5	54230.00 13.1.2021	EASA – under the DOA privilege 21.A.263(c)(8)
BB17GP	1 700	16 Z-type	495	4.2.2008	CRI A-01 4.3.2008	FAR 31, Amdt. 31-7, May 24, 1996	13/8	0/0	52860.00 1.2.2008	EASA
BB17XR	1 700	16 Z-type	495	8.7.2007	CRI A-01 23.7.2009	FAR 31, Amdt. 31-7, May 24, 1996	---	6/2	53660.00 10.7.2009	EASA
				13.1.2021	CP_XR-type, rev.0 30.4.2021	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	---	12/5	53660.00_I 13.1.2021	EASA – under the DOA privilege 21.A.263(c)(8)
BB18E	1800	12 E-type	550	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	26/13	55580.00 24.10.2016	EASA
BB20	2 000	12 O-type	630	8.7.1992	---	FAR 31, Amdt. 31-4, September 11, 1980	11/5	0/0	50020.00 10.3.1993	EASA
BB20E	2 000	12 E-type	630	11.9.2008	CRI A-01 24.9.2008	FAR 31, Amdt. 31-7, May 24, 1996	15/10	0/0	53630.00 18.9.2008	EASA
BB20GP	2 000	24 Z-type	730	8.7.1992	---	FAR 31, Amdt. 31-7, May 24, 1996	11/5	0/0	52740.00 21.5.2002	EASA
BB20XR	2 000	20 Z-type	730	8.1.2008	CRI A-01 10.6.2008	FAR 31, Amdt. 31-7, May 24, 1996	14/9	0/0	54140.00 28.1.2008	EASA
BB20ED	2 000	12 ED-type	630	5.1.2012	CRI A-01 30.1.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55330.00 2.8.2012	EASA
BB22	2 200	12 O-type	730	2.2.2007	CRI A-01 12.3.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	0/0	53310.00 15.3.2007	EASA
BB22E	2 200	12 E-type	680	11.9.2008	CRI A-01 24.9.2008	FAR 31, Amdt. 31-7, May 24, 1996	15/10	0/0	53620.00 18.9.2008	EASA

Variant	Volume [m³]	Gores [pcs.]	MTOM [kg]	Reference date	Certification basis	Airworthiness requirements	AFM/MM applicable revision:		Drawing No.	Approved by
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BB22N	2 200	24 N-type	730	8.7.1992	---	FAR 31, Amdt. 31-4, September 11, 1980	11/5	0/0	50034.00 10.3.1993	EASA
BB22Z	2 200	24 Z-type	730	19.8.2006	CRI A-01 6.11.2006	FAR 31, Amdt. 31-7, May 24, 1996	11/8	0/0	53300.00 12.7.2006	EASA
BB22XR	2 200	24 Z-type	780	15.6.2012	CRI A-01 2.7.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	16/6	55400.00 3.7.2012	EASA
BB22ED	2 200	12 ED-type	680	5.1.2012	CRI A-01 30.1.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55340.00 2.8.2012	EASA
BB22D	2 200	24 D-type	730	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55200.00 2.8.2012	EASA
BB26	2 600	12 O-type	840	2.2.2007	CRI A-01 12.3.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	0/0	53325.00 15.3.2007	EASA
BB26N	2 600	24 N-type	840	8.7.1992	---	FAR 31, Amdt. 31-4, September 11, 1980	15/10	0/0	50027.00 10.3.1993	EASA
BB26E	2 600	12 E-type	730	11.9.2008	CRI A-01 24.9.2008	FAR 31, Amdt. 31-7, May 24, 1996	11/5	0/0	53610.00 18.9.2008	EASA
BB26Z	2 600	24 Z-type	840	19.8.2006	CRI A-01 6.11.2006	FAR 31, Amdt. 31-7, May 24, 1996	11/8	0/0	53305.00 12.7.2006	EASA
BB26XR	2 600	24 Z-type	840	15.6.2012	CRI A-01 2.7.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	16/6	55410.00 3.7.2012	EASA
BB26ED	2 600	12 ED-type	730	5.1.2012	CRI A-01 30.1.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55350.00 2.8.2012	EASA
BB26D	2 600	24 D-type	840	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55210.00 2.8.2012	EASA
BB30N	3 000	24 N-type	945	8.7.1992	---	FAR 31, Amdt. 31-4, September 11, 1980	11/5	0/0	50041.00 10.3.1993	EASA
BB30Z	3 000	24 Z-type	945	8.7.1992	---	FAR 31, Amdt. 31-7, May 24, 1996	11/5	0/0	52640.00 15.10.2001	EASA
BB30XR	3 000	24 Z-type	945	15.6.2012	CRI A-01 2.7.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	16/6	55420.00 3.7.2012	EASA
BB30E	3000	12 E-type	840	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	26/13	55560.00 24.10.2016	EASA
BB30ED	3 000	12 ED-type	840	5.1.2012	CRI A-01 30.1.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55360.00 2.8.2012	EASA
BB30D	3 000	24 D-type	945	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55220.00 2.8.2012	EASA
BB34Z	3 400	24 Z-type	1040	20.4.2006	CRI A-01 17.7.2006	FAR 31, Amdt. 31-7, May 24, 1996	11/7	0/0	52880.00 18.5.2005	EASA
BB34E	3400	12 E-type	945	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	26/13	55600.00 24.10.2016	EASA
BB34ED	3 400	12 ED-type	945	5.1.2012	CRI A-01 30.1.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55370.00 2.8.2012	EASA
BB34D	3 400	24 Z-type	1040	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55230.00 2.8.2012	EASA
BB37N	3 700	24 N-type	1150	8.7.1992	---	FAR 31, Amdt. 31-4, September 11, 1980	11/5	0/0	50048.00 10.3.1993	EASA
BB37Z	3 700	24 Z-type	1150	19.8.2006	CRI A-01 6.11.2006	FAR 31, Amdt. 31-7, May 24, 1996	11/8	0/0	53315.00 12.7.2006	EASA
BB37D	3 700	24 D-type	1150	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55240.00 2.8.2012	EASA
BB40Z	4 000	24 Z-type	1310	4.11.2008	CRI A-01 11.12.2008	FAR 31, Amdt. 31-7 May 24, 1996	---	0/0	53640.00 20.11.2008	EASA
BB40D	4 000	24 D-type	1310	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55250.00 2.8.2012	EASA

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BB42Z	4 250	24 Z-type	1410	4.10.2002	---	FAR 31, Amdt. 31-7, May 24, 1996	11/5	0/0	52950.00 26.10.2003	EASA
BB42D	4 250	24 D-type	1410	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55260.00 2.8.2012	EASA
BB45N	4 500	24 N-type	1520	29.2.1996	---	FAR 31, Amdt. 31-5, August 18, 1990	11/5	0/0	50455.00 10.3.1993	EASA
BB45Z	4 500	24 Z-type	1520	19.8.2006	CRI A-01 6.11.2006	FAR 31, Amdt. 31-7, May 24, 1996	11/8	0/0	53320.00 12.7.2006	EASA
BB45D	4 500	24 D-type	1520	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996		17/7	55270.00 2.8.2012	EASA
BB51Z	5 100	24 Z-type	1690	20.10.2006	CRI A-01 14.2.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	0/0	53430.00 24.10.2006	EASA
BB51D	5 100	24 D-type	1690	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55280.00 2.8.2012	EASA
BB60N	6 000	32 N-type	1940	11.2.1998	---	FAR 31, Amdt. 31-4, September 11, 1980	11/5	0/0	50643.00 20.4.1998	EASA
BB60Z	5 950	24 Z-type	1940	18.1.2005	CRI A-01 4.4.2006	FAR 31, Amdt. 31-7, May 24, 1996	11/7	0/0	53000.00 1.12.2004	EASA
BB60D	5 950	24 D-type	1940	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55290.00 2.8.2012	EASA
BB64Z	6 400	24 Z-type	2100	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	25/13	55490.00 18.8.2016	EASA
BB70Z	7 000	24 Z-type	2300	8.3.2004	---	FAR 3, Amdt. 31-7, May 24, 1996	11/5	0/0	52990.00 24.5.2004	EASA
BB70D	7 000	24 D-type	2300	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55300.00 2.8.2012	EASA
BB78Z	7 800	24 Z-type	2600	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	25/13	55470.00 18.8.2016	EASA
BB85Z	8 500	28 Z-type	2820	18.1.2005	CRI A-01 3.3.2005	FAR 31, Amdt. 31-7, May 24, 1996	11/6	0/0	52850.00 1.2.2005	EASA
BB85D	8 500	28 D-type	2820	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55310.00 2.8.2012	EASA
BB92Z	9 200	28 Z-type	3000	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	25/13	55500.00 18.8.2016	EASA
BB100Z	10 000	28 Z-type	3200	24.2.2009	CRI A-01 10.3.2009	FAR 31, Amdt. 31-7, May 24, 1996	---	2/0	54100.00 10.12.2007	EASA
BB100D	10 000	28 D-type	3200	5.1.2012	CRI A-01 17.2.2012	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	55320.00 2.8.2012	EASA
BB105P	10 500	28 Z-type	3500	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	26/13	55510.00 24.10.2016	EASA
BB106P	10 600	28 Z-type	3500	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	26/13	55520.00 24.10.2016	EASA
BB113P	11 300	28 Z-type	3600	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	26/13	55530.00 24.10.2016	EASA
BB120P	12 000	28 Z-type	3700	8.7.2009	CRI A-01 16.7.2009	FAR 31, Amdt. 31-7, May 24, 1996	---	7/2	54120.00 1.7.2009	EASA
BB130P	13 000	28 Z-type	4200	28.7.2016	CRI A-01 11.8.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	26/13	55540.00 24.10.2016	EASA
BB142P	14 200	32 Z-type	4500	15.01.2010	CRI A-01 09.02.2010	FAR 31, Amdt. 31-7, May 24, 1996	---	9/4	54260.00 19.2.2010	EASA
BB150P	15 000	32 Z-type	4800	25.9.2019	CRI A-01 04.10.2019	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	---	8/4	55630.00 18.11.2019	EASA

Variant	Volume [m³]	Gores [pcs.]	MTOM [kg]	Reference date	Certification basis	Airworthiness requirements	AFM/MM applicable revision:		Drawing No.	Approved by
							up to S/N 639	from S/N 640		
BB184P	18 400	32 Z-type	5095	22.05.2019	CRI A-01 02.10.2019	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	---	6/2	54290.00 3.4.2019	EASA

Table 2: Burners

Model	Reference date	Certification basis	Airworthiness requirements	Drawing No.	Applicable burner frames	Approved by
H3	8.7.1992	---	FAR 31, Amdt. 31-4 September 11, 1980	50178.00 10.3.1993	Fixed Frame - H3 type	EASA
H3-D	8.7.1992	---	FAR 31, Amdt. 31-4 September 11, 1980	50306.00 7.3.1994	Fixed Frame - H3 - type	EASA
HB2	8.7.1992	---	FAR 31, Amdt. 31-4, September 11, 1980	50450.00 12.1.1999	Fixed Frame - H7 type	EASA
KOMET DUO up to S/N 104 including	8.7.1992	---	FAR 31, Amdt. 31-4 September 11, 1980	50676.00 16.4.1999	Fixed Frame - basic	EASA
KOMET DUO from S/N 105	8.7.1992	---	FAR 31, Amdt. 31-7 May 24, 1996	50676.01 Modification No. 99BB 22.7.2002	Fixed / Vario Frame - basic, K25P	EASA
H4	29.2.1994	---	FAR 31, Amdt. 31-4 September 11, 1980	50179.00 10.3.1993	Fixed Frame - H4 type	EASA
KOMET TRIO	4.10.2002	---	FAR 31, Amdt. 31-7 May 24, 1996	53010.00 30.9.2003	Fixed Frame - K25P, K32T, K40Y - type	EASA
IGNIS	16.11.2005	CRI A-01 15.2.2007	FAR 31, Amdt. 31-7, May 24, 1996	53115.00 53128.00 53241.00 56001.00 54810.00 54894.00	Fixed / Vario Frame – basic (2 units), K25P (2 or 3 units), K32T(2 or 3 units), K40Y (3 units), K50 (2, 3 or 4 units), K60 (3 or 4 units), K70 (3 or 4 units), K80 (3 or 4 units) K60 STRONG (3 or 4 units), K32TT (2, 3 or 4 units), K50TT (2, 3 or 4 units) K100 (3 or 4 units) K100 STRONG (3 or 4 units)	EASA
SIRIUS	3.7.2018	CRI A-01 19.7.2018	FAR 31, Amdt. 31-7, May 24, 1996 CS-31HB/1(5/12/2011)	57880.01	Fixed frame - Sirius	EASA

Table 3A: Baskets (basket s/n from 400 and higher)[1]

Model	Reference date	Dimension	Certification basis	Airworthiness requirements	Drawing document No.	Applicable burner frames	Approved by
K7	8.7.1992	0.85 x 0.85m, height 1.10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	50072.00 10.3.1993	Fixed Frame - H3 type Fixed / Vario Frame – basic	EASA
K10	10.3.2011	0.86 x 1.16 m, height 1.10 m	CRI A-1 30.3.2011	FAR 31, Amdt. 31-7 May 24, 1996	50097.00 rev.e 27.7.2011	Fixed Frame - H3 type Fixed / Vario Frame - basic	EASA
K10S	29.10.2018	0.86 x 1.16 m, height 1.0 m	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57860.00 3.1.2019	Fixed Frame - H3 type Fixed / Vario Frame - basic	EASA
K11	10.1.2008	0.98 x 1.16 m, height 1,10 m	CRI A-1 29.1.2008	FAR 31, Amdt. 31-7 May 24, 1996	54200.00 21.1.2008	Fixed / Vario Frame - basic	EASA
K12	8.7.1992	1.16 x 1.16 m, height 1.10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	50556.00 10.3.1993	Fixed / Vario Frame - basic	EASA
K12A	8.7.1992	1.16 x 1.16 m, height 1.10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	50556.02 10.3.1993	Fixed / Vario Frame - basic	EASA
K13	10.1.2008	1.16 x 1.25 m, height 1.10 m	CRI A-1 29.1.2008	FAR 31, Amdt. 31-7 May 24, 1996	54300.00 21.1.2008	Fixed / Vario Frame - basic	EASA
K13S	10.3.2011	1.00 x 1.2 m, height 1.0 m	CRI A-1 30.3.2011	FAR 31, Amdt. 31-7 May 24, 1996	54450.00 rev.c 15.9.2010	Fixed / Vario Frame - basic	EASA
K14	29.10.2018	1.35 x 1.16 m, height 1.10 m	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57850.00 3.1.2019	Fixed / Vario Frame - basic	EASA
K15	10.3.2011	1.16 x 1.35 m, height 1.10 m	CRI A-1 30.3.2011	FAR 31, Amdt. 31-7 May 24, 1996	50111.00 rev.f 13.6.2011	Fixed / Vario Frame - basic	EASA
K16	10.3.2011	1.16 x 1.45 m, height 1.10 m	CRI A-1 30.3.2011	FAR 31, Amdt. 31-7 May 24, 1996	50125.00 rev.f 20.5.2011	Fixed / Vario Frame - basic	EASA
K17	10.1.2008	1.16 x 1.45m, height 1.10 m	CRI A-1 29.1.2008	FAR 31, Amdt. 31-7 May 24, 1996	54400.00 21.1.2008	Fixed / Vario Frame - basic	EASA
K18	8.7.1992	1.16 x 1.55 m, height 1.10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	50135.00 10.3.1993	Fixed / Vario Frame - basic	EASA
K19	5.4.2016	1.16 x 1.55 m, height 1.10 m	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	57300.00 21.3.2016	Fixed / Vario Frame - basic	EASA
K19L	5.4.2016	1.16 x 1.62 m, height 1.10 m	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	57330.00 21.3.2016	Fixed / Vario Frame - basic	EASA
K22	10.3.2011	1.25 x 1.80 m, height 1.10 m	CRI A-1 30.3.2011	FAR 31, Amdt. 31-7 May 24, 1996	52680.00 rev.a 14.2.2011	Fixed / Vario Frame - basic	EASA
K23	5.4.2016	1.25 x 1.8 m, height 1.10 m	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	57350.00 21.3.2016	Fixed Frame – K23 - type	EASA
K25P	10.3.2011	1.25 x 2.10 m, height 1.10 m P-Partition	CRI A-1 30.3.2011	FAR 31, Amdt. 31-7 May 24, 1996	52650.00 rev.d 22.2.2011	Fixed Frame - K25P - type	EASA
K28	13.8.2011	1.60 x 2.20 m, height 1.10 m	CRI A-1 15.6.2011	CS-31HB 27/02/2009	57100.00 1.6.2011	Fixed Frame - K32T - type	EASA

[1] for differences of baskets of s/n up to 399 see table 3B

Model	Reference date	Dimension	Certification basis	Airworthiness requirements	Drawing document No.	Applicable burner frames	Approved by
K28H	5.4.2016	1.6x 2.35 m, height 1.10 m	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	57400.00 21.3.2016	Fixed Frame - K32T - type	EASA
K30PP	5.4.2016	1.25 x 2.6 m height 1.10 m, PP partition	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	57450.00 21.3.2016	Fixed Frame – K30PP - type	EASA
K32T	10.3.2011	1.60 x 2.40 m, height 1.10 m, T-Partition	CRI A-1 30.3.2011	FAR 31, Amdt. 31-7 May 24, 1996	53050.00 rev.c 25.1.2011	Fixed Frame - K32T - type	EASA
K32Y	13.8.2011	1.60 x 2.40 m, height 1.10 m, Y-Partition	CRI A-1 15.6.2011	CS-31HB 27/02/2009	53050.02 1.8.2011	Fixed Frame - K32T - type	EASA
K32TT	13.4.2010	1.60 x 2.50 m, height 1.10 m, TT-Partition	CRI A-1 3.5.2010	CS-31HB 27/02/2009	54950.00 15.6.2010	Fixed Frame - K32TT - type K50TT - type	EASA
K40T	10.3.2011	1.60 x 2.70 m, height 1.10 m, T-Partition	CRI A-1 30.3.2011	CS-31HB 27/02/2009	52090.02 rev.a 10.3.2011	Fixed Frame K50 – type	EASA
K40Y	10.3.2011	1.60 x 2.70 m, height 1.10 m, Y-Partition	CRI A-1 30.3.2011	FAR 31, Amdt. 31-7 May 24, 1996	52090.00 rev.j 10.3.2011	Fixed Frame K50 – type	EASA
K40TTA	29.10.2018	2.7 x 1.60 m, height 1.10 m TT-partition	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57800.00 3.1.2019	Fixed Frame – K50 – type	EASA
K50	16.1.2008	1.60 x 3.00 m, height 1.10 m, Y-partition or T-partition	CRI A-1 8.2.2008	CS-31HB (NPA No 07-2008)	54500.00 9.6.2008	Fixed Frame K50 – type	EASA
K50TT	13.4.2010	1.60 x 3.00 m, height 1.10 m, TT-partition	CRI A-1 3.5.2010	CS-31HB 27/02/2009	54900.00 15.6.2010	Fixed Frame - K32TT – type K50TT - type	EASA
K50TTA	29.10.2018	3.0 x 1.60 m, height 1.10 m TT-partition	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57810.00 3.1.2019	Fixed Frame – K50TT – type	EASA
K50TT8	5.4.2016	1.60 x 3.00 m, height 1.10 m, TT-partition	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	54900.03 21.3.2016	Fixed Frame K60 – type K60 STRONG - type	EASA
K55X	5.4.2016	1.60 x 3.45m, height 1.10 m	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	57500.00 21.3.2016	Fixed Frame K60X – type	EASA
K55TTA	29.10.2018	3.40 x 1.60 m, height 1.10 m TT-partition	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57820.00 3.1.2019	Fixed Frame – K60 – type K60 STRONG - type	EASA
K58HH	5.4.2016	1.60 x 3.80 m, height 1.10 m, HH-partition	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	57550.00 21.3.2016	Fixed Frame K60 – type K60 STRONG - type	EASA
K60	10.3.2011	1.60 x 3.80 m height 1.10 m, TT-partition	CRI A-1 30.3.2011	CS-31HB (NPA No 07-2008)	54600.00 rev.a 11.4.2011	Fixed Frame K60 – type K60 STRONG - type	EASA
K60X	5.4.2016	1.60 x 3.90m, height 1.10 m	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	57600.00 21.3.2016	Fixed Frame K60X – type	EASA
K65TTA	29.10.2018	4.1 x 1.60 m, height 1.10 m TT-partition	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57830.00 3.1.2019	Fixed Frame – K60 – type K60 STRONG - type	EASA
K70	10.3.2011	1.60 x 4.40 m height 1.10 m, TT-partition	CRI A-1 30.3.2011	CS-31HB 27/02/2009	54850.00 rev.a 10.5.2011	Fixed Frame K60 – type K60 STRONG - type	EASA
K70TTA	29.10.2018	4.4 x 1.60 m, height 1.10 m TT-partition	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57840.00 3.1.2019	Fixed Frame – K60 – type K60 STRONG - type	EASA

Model	Reference date	Dimension	Certification basis	Airworthiness requirements	Drawing document No.	Applicable burner frames	Approved by
K80	10.3.2011	1.60 x 4.80 m height 1.10 m, TT-partition	CRI A-1 30.3.2011	CS-31HB 27/02/2009	54800.00 rev.a 5.9.2011	Fixed Frame K60 – type K60 STRONG - type	EASA
K85	03.01.2012	1.6x5.2 m height 1.10 m TT-partition	CRI A-1 23.1.2012	CS-31HB Amdt 1 05/12/2011	57150.00 19.01.2012	Fixed Frame - K100 type K100 STRONG - type	EASA
K90	03.01.2012	1.6x5.2 m height 1.10 m DTT-partition	CRI A-1 23.1.2012	CS-31HB Amdt 1 05/12/2011	57250.00 19.01.2012	Fixed Frame - K100 type K100 STRONG - type	EASA
K100	26.3.2010	1.60 x 6.10 m height 1.10 m, TT partition	CRI A-1 21.4.2010	CS-31HB 27/02/2009	54890.00 1.9.2010	Fixed Frame - K100 type K100 STRONG - type	EASA
K110	26.3.2010	1.60 x 6.60 m height 1.10 m, TT partition	CRI A-1 21.4.2010	CS-31HB 27/02/2009	54980.00 19.11.2010	Fixed Frame - K100 type K100 STRONG - type	EASA

Table 3B: Baskets (S/N up to 399)

Model	Reference date	Dimension	Certification basis	Airworthiness requirements	Drawing document No.	Applicable burner frames
K10	8.7.1992	0.85x1.00 m, height 1.10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	50097.00 10.3.1993	Fixed Frame - H3 type Fixed / Vario Frame - basic
K13S	14.11.2008	0.95 x 1.26 m height 1.10 m	CRI A-1 17.3.2009	FAR 31, Amdt. 31-7 May 24, 1996	54450.00 1.4.2009	Fixed / Vario Frame - basic
K15	8.7.1992	1.16x1.25 m, height 1.10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	50111.00 10.3.1993	Fixed / Vario Frame - basic
K16	8.7.1992	1.16x1.40 m, height 1,10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	50125.00 10.3.1993	Fixed / Vario Frame - basic
K22	8.7.1992	1.25x1.79 m, height 1.10 m	---	FAR 31, Amdt. 31-7 May 24, 1996	52680.00 19.7.2002	Fixed / Vario Frame - basic
K25P	8.7.1992	1.25x2.08 m, height 1.10 m P-Partition	---	FAR 31, Amdt. 31-7 May 24, 1996	52650.00 28.11.2001	Fixed Frame - K25P - type
K32T	4.10.2002	1.25x2.41m, height 1.15 m T-Partition	---	FAR 31, Amdt. 31-7 May 24, 1996	53050.00 30.7.2004	Fixed Frame - K32T - type
K40T	29.2.1996	1.63x2.50 m, height 1.15 m Y-Partition	---	FAR 31, Amdt. 31-7 May 24, 1996	52090.02 12.4.2000	Fixed Frame - K40Y - type, Fixed Frame K50 – type
K40Y	29.2.1996	1.63x2.50 m, height 1.15 m Y-Partition	---	FAR 31, Amdt. 31-7 May 24, 1996	52090.00 12.4.2000	Fixed Frame - K40Y - type, Fixed Frame K50 – type
K60	16.1.2008	1.70x3.50 m height 1.10 m TT partition	CRI A-1 8.2.2008	CS-31HB (NPA No 07-2008)	54600.00 15.4.2008	Fixed Frame K60 – type
K70	13.8.2009	1.70x4 m height 1.10 m TT partition	CRI A-1 4.9.2009	CS-31HB 27/02/2009	54850.00 15.10.2009	Fixed Frame K60 – type K60 STRONG - type
K80	13.8.2009	1.70x4.5 m height 1.10 m TT partition	CRI A-1 4.9.2009	CS-31HB 27/02/2009	54800.00 15.10.2009	Fixed Frame K60 – type K60 STRONG - type

Table 4: Approved combinations of envelopes and baskets for BB models

Envelope Model	Basket model																		
	K7	K10S	K10	K11, K12, K12A	K13, K13S	K14, K15, K16, K17, K18, K19, K19L, K22	K23	K25P, K28, K28H, K30PP	K32T, K32Y	K32TT	K40T, K40Y, K40TTA, K50, K50TTA	K50TT	K50TT8, K55X, K55TTA, K58HH	K60, K60X	K65TTA	K70, K70TTA	K80	K85, K90, K100, K110
BB9, BB9E, BB9EF																		
BB12, BB12E, BB12EF			124															
BB14XR																		
BB16, BB16E, BB16EF, BB16XR			124															
BB17XR			124															
BB17GP			124															
BB18E			124															
BB20, BB20ED BB20E, B20GP			124															
BB20XR			124															
BB22, BB22D, BB22ED, BB22E, BB22N, BB22Z, BB22XR			124															
BB26, BB26D, BB26ED, BB26E, BB26N, BB26Z, BB26XR			124															
BB30D, BB30ED, BB30N, BB30Z, BB30XR, BB30E																		
BB34D, BB34ED, BB34Z, BB34E																		
BB37D, BB37N, BB37Z								RV	RV									
BB40D, BB40Z								RV	RV									
BB42D, BB42Z								RV	RV									
BB45D, BB45N, BB45Z								RV	RV	RV	RV	RV	RV					
BB51D, BB51Z								RV	RV	RV	RV	RV	RV					
BB60D, BB60N, BB60Z								RV	RV	RV	RV	RV	RV	RV	RV	RV		
BB64Z									RV	RV	RV	RV	RV	RV	RV	RV		
BB70D, BB70Z									RV	RV	RV	RV	RV	RV	RV	RV	RV	
BB78Z										RV	RV	RV	RV	RV	RV	RV	RV	
BB85D, BB85Z										RV	RV	RV	RV	RV	RV	RV	RV	
BB92Z											RV		RV	RV	RV	RV	RV	
BB100D, BB100Z													RV	RV	RV	RV	RV	RV
BB105P														RV	RV	RV	RV	RV
BB106P														RV	RV	RV	RV	RV
BB113P														RV	RV	RV	RV	RV
BB120P														RV	RV	RV	RV	RV
BB130P														RV	RV	RV	RV	RV
BB142P														RV	RV	RV	RV	RV
BB150P																RV°	RV°	RV°
BB184P																RV°	RV°	RV°

Explanation:

	= Approved combination
124	= K10 baskets of s/n 124 and higher are to be combined with Komet Duo and Ignis – two units burners
RV	= Rotation vent must be fitted
°	= only the 40 kN carabiners may be used for connecting the envelope flying wires and the basket flying wires to the burner frame

Table 5: Approved combinations of envelopes and burners for BB models

Envelope Model	Burner										
	H3	H3-D	HB2	KOMET DUO up to 104	KOMET DUO 105+	H4	KOMET TRIO	SIRIUS	IGNIS 2 units	IGNIS 3 units	IGNIS 4 units
BB9, BB9E	■							■			
BB9EF								■			
BB12, BB12E	■	■		■				■			
BB12EF				■				■			
BB14XR				■				■			
BB16, BB16E	■	■		■				■			
BB16EF, BB16XR				■				■			
BB17XR	■	■	■	■	■			■	■		
BB17GP	■	■	■	■	■			■	■		
BB18E	■	■	■	■	■			■	■		
BB20, BB20ED, BB20E, B20GP	■	■	■	■	■			■	■		
BB20XR		■	■	■	■			■	■		
BB22, BB22D, BB22ED, BB22E, BB22N, BB22Z	■	■	■	■	■			■	■		
BB22XR		■	■	■	■			■	■		
BB26, BB26D, BB26ED, BB26E, BB26N, BB26Z, BB26XR		■	■	■	■			■	■		
BB30D, BB30ED, BB30N, BB30Z, BB30XR, BB30E		■	■	■	■			■	■		
BB34D, BB34ED, BB34Z, BB34E		■	■	■	■			■	■		
BB37D, BB37N, BB37Z		■	■	■	■			■	■		
BB40D, BB40Z		■	■	■	■	■	■	■	■	■	
BB42D, BB42Z		■	■	■	■	■	■		■	■	
BB45D, BB45N, BB45Z			■		■	■	■		■	■	■
BB51D, BB51Z			■		■	■	■		■	■	■
BB60D, BB60N, BB60Z						■	■		■	■	■
BB64Z						■	■		*	■	■
BB70D, BB70Z						■	■		*	■	■
BB78Z									*	■	■
BB85D, BB85Z										■	■
BB92Z										*	■
BB100D, BB100Z										*	■
BB105P										*	■
BB106P											■
BB113P											■
BB120P											■
BB130P											■
BB142P											■
BB150P											■
BB184P											■

■	= Approved combination
*	= Applicable for the Ignis burners of s/n 516 and higher

Table 6: Fuel Cylinders

Model	Reference date	Volume	Pw	Certification basis	Airworthiness requirements	Drawing document No.	Approved by
KB72L	16.7.2015	72l	15bar	CRI A-1 20.4.2016	FAR 31, Amdt. 31-7 May 24, 1996 CS-31HB Amdt 1 05/12/2011	55120.00 17.6.2016	EASA
KB85L	29.7.2020	85l	15bar	CRI A-1 29.7.2020	FAR 31, Amdt. 31-7 May 24, 1996 CS-31HB Amdt 1 05/12/2011	55120.00 17.6.2016	EASA
KB97L	16.7.2015	97l	15bar	CRI A-1 20.4.2016	FAR 31, Amdt. 31-7 May 24, 1996 CS-31HB Amdt 1 05/12/2011	55120.00 17.6.2016	EASA

SECTION B: BB-S Type

1. GENERAL, All Types and Variants

I. General

Previously listed in Type Certificate Data Sheet No: EASA.BA.017

1. Type / Variant or Model

   - Type: BB-S
   - Variant or Model: Refer to Section 2

2. Airworthiness Category: Normal

3. Type Certificate Holder:
   BALÓNY KUBÍČEK spol. s r.o.
   Jarní 1003/2a
   614 00 Brno

4. Manufacturer:
   BALÓNY KUBÍČEK spol. s r.o.
   Francouzská 81
   602 00 Brno

   BALÓNY KUBÍČEK spol. s r.o.
   Jarní 1003/2a
   614 00 Brno (S/N 1555 and higher)

5. National Certification Date: N/A

6. CAA Application Date: N/A

7. EASA Application Date: 11.09.2006

8. EASA Type Certification Date: 02.03.2007

II. Certification Basis

1. Reference Date for determining the applicable requirements: Refer to Section 2, see Tables 1, 2 and 3

2. CAA CZ Type Certificate Data Sheet No: N/A

3. EASA Certification Basis: See CRI A-01, dated – refer to Section 2, Tables 1, 2 and 3

4. Airworthiness Requirements: Refer to Section 2, see Tables 1, 2 and 3

5. Special Conditions: Lights for Manned Balloons Flights at Night, date 22 Oct 2012

6. Reversion and Exemptions: None

7. Equivalent Safety Findings:
   - FAR 31.47 (d) endurance test for KOMET DUO burner from S/N 105
   - CRI E-01, issue 2, dated February 15, 2007: FAR § 31.47 (d)) endurance test for IGNIS burner

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition:	Refer to Section 2
2.	Description:	The free hot-air balloon with the non-conventional shaped envelopes of 1,000-6,000 m^3 volume, vertical or horizontal constructions with 8-32 gores. The parachute, paralite or Smart Vent is used for closing of the vent aperture. As option, the envelope can be equipped with rotation vent. The single backed up, double or triple burner is the heat source for the envelope. The basket is cane-work connected with the envelope by means of stainless-steel wires and karabiners with a screw gate. Preference of the basket and burner type should be provide with respect to the envelope size. Stainless, duralumin or titanium fuel cylinders (approved models are listed in the approved Flight Manual) fixed in the basket, the equipment and instruments are fixed on the inner side of the basket. The basket equipped with approved inflatable artwork can be used.
3.	Equipment:	- Altimeter - A rate of climb indicator (variometer) - Melting link for the envelope overheating check - Fuel quantity gauge - Double ignition equipment - Drop line - Fire extinguisher - Heat-resistant cloth
4.	Envelope:	Refer to Section 2, see Table 1, 4 and 5
5.	Burner:	Refer to Section 2, see Table 2, 4 and 5
6.	Basket:	Refer to Section 2, see Table 3, 4 and 5
7.	Fuel Cylinder:	Refer to Section 2, see Table 6
8.	Mass:	Maximum take-off weight: Refer to Section 2, see Table 1
9.	Envelope temperature:	In accordance with the used fabric as follows: - Nylon, Polyurethane coated Hot Air Balloons fabric max. 110°C - Polyester, Polyurethane or Acrylic coated Hot Air Balloons fabric max. 124°C - Max. admissible air temperature in the envelope REPLIKA is max. 120°C
10.	Minimum Flight Crew:	1 Pilot
11.	Maximum number of persons on board:	In accordance with approved Flight Manual
12.	Other Limitations:	- For BB-S, single-unit burner type must not be used. It is applicable for bulletin No. BB/22b-1 too (see Section V. Notes 1.) - The TC covers the S/N 8 of the REPLIKA envelope models only - VFR operations only (see A V. Note 3 for details)

IV. Operating and Service Instructions

1. Applicable to the balloons up-to S/N 639 included:

   Flight Manual for use with the Hot Air Balloon (Document No.: B.0102)
   - Revision 11 or later EASA approved revision see Section 2, Table 1.

   OR

   Flight Manual for use with the hot air balloon (Document No.: B.3102)
   - initial issue or later EASA approved revision

2. Applicable to the balloons up to S/N 639 inclusive and burners up to S/N 470 inclusive:

   Maintenance Manual for use with the hot air balloon (Document No.: B.0202)
   - Revision 5 or later EASA accepted revision, see Section 2, Table 1

   OR

   Maintenance Manual for use with the hot air balloon (Document No.: B.3202)
   - initial issue or later EASA approved revision

3. Applicable to the balloons from S/N 640:

   Flight Manual for use with the hot air balloon (Document No.: B.2102)
   - initial issue or later EASA approved revision, see Section 2, Table 1

   OR

   Flight Manual for use with the hot air balloon (Document No.: B.3102)
   - initial issue or later EASA approved revision

4. Applicable to the balloons from S/N 640 and burners from S/N 471:

   Maintenance Manual for use with the hot air balloon (Document No.: B.2202)
   - initial Issue or later EASA approved revision, see Section 2, Table 1

   OR

   Maintenance Manual for use with the hot air balloon (Document No.: B.3202)
   - initial issue or later EASA approved revision

5. Flight manual Supplement for use with the special shaped hot-air balloon (Document No.: refer to Section 2, see Table 1)
   - issue refer to Section 2, see Table 1 or later EASA approved revision

6. Flight Manual for use with the hot air balloon REPLIKA special shaped (Document No.: FM REPLIKA), see Section 2, Table 1
   - issue 0 or later EASA approved revision
   - Applicable for balloon S/N 8 only.

V. Notes

1. Applicable range of balloon parts or equipment from the other manufacturers – see the Optional Bulletin No. BB/22b-1.

2. The master documents of the Operating and Service Instructions listed in the section A.IV are issued in English language. Other languages may be provided by the Type Certificate holder.

3. he BB-S balloons are limited to VFR day flights unless an approved set of position lights and the appropriate supplement to the Flight Manual are used:
   - Applicable to the balloons up to S/N 639 inclusive: FMS Night Flying (Document No. B.0102-NF)
   - Applicable to the balloons from S/N 640: FMS Night Flying (Document No. B.2102-NF)

2. BB-S Type Definition and Certification Data

Table 1: Envelopes

Model	Volume [m³]	Gores [pcs.]	MTOM [kg]	Reference date	Certification basis	Airworthiness requirements	AFM/MM applicable revision from:		Flight Manual Supplement	Drawing No.	Approved by
							up to S/N 639	from S/N 640			
CUBE	3400	16 Z-type	950	11.9.2006	CRI A-01 11.12.2006	FAR 31, Amdt. 31-7, May 24, 1996	10/8	---	B.0102-CUBE Issue 1 5.2.2007	55-053440 1.11.2006	EASA
FORKLIFT	3400	18 Z-type	900	25.1.2007	CRI A-01 9.3.2007	FAR 31, Amdt. 31-7, May 24, 1996	10/8	---	B.0102-FORKLIFT Change 0 29.3.2007	55-053450 20.2.2007	EASA
SILO	3400	16 Z-type	950	6.4.2007	CRI A-01 15.5.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	---	B.0102-SILO Change 0 30.7.2007	55-053460 20.4.2007	EASA
ICE	2850	20 Z-type	800	23.5.2007	CRI A-01 29.5.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	---	B.0102-ICE Change 0 10.12.2007	55-053530 26.7.2007	EASA
BEAR	3000	20 Z-type	800	23.5.2007	CRI A-01 29.5.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	---	B.0102-BEAR Change 0 10.12.2007	55-053560 26.7.2007	EASA
DHL	2600	24 Z-type	850	23.5.2007	CRI A-01 29.5.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	---	B.0102-DHL Change 0 10.12.2007	55-053540 26.7.2007	EASA
JUPOL	2500	16 Z-type	650	23.5.2007	CRI A-01 29.5.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	---	B.0102-JUPOL Change 0 10.12.2007	55-053520 26.7.2007	EASA
JAG	2400	14 Z-type	650	23.5.2007	CRI A-01 29.5.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	---	B.0102-JAG Change 0 10.12.2007	55-053490 26.7.2007	EASA
BEMB	3600	20 Z-type	950	23.5.2007	CRI A-01 29.5.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	---	B.0102-BEMB Change 0 10.12.2007	55-053510 26.7.2007	EASA
JAGER	1800	14 Z-type	450	23.5.2007	CRI A-01 29.5.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	---	B.0102-JAGER Change 0 10.12.2007	55-053500 26.7.2007	EASA
KRIGL	2600	14 Z-type	700	23.5.2007	CRI A-01 29.5.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	---	B.0102-KRIGL Change 0 10.12.2007	55-053550 26.7.2007	EASA
HEART	2400	18 Z-type	700	30.5.2007	CRI A-01 28.6.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	---	B.0102-HEART Change 0 10.12.2007	55-053480 26.7.2007	EASA
JAGER 28	2800	14 Z-type	800	14.5.2007	CRI A-01 12.8.2007	FAR 31, Amdt. 31-7, May 24, 1996	11/8	---	B.0102-JAGER 28 Change 0 10.12.2007	55-053470 20.6.2007	EASA
SANTA	3600	20 Z-type	995	3.4.2008	CRI A-01 11.04.2008	FAR 31, Amdt. 31-7, May 24, 1996	14/9	---	B.0102-SANTA Change 0 22.7.2008	55-053600 24.04.2008	EASA
RABBIT	4390	24 Z-type	995	13.2.2009	CRI A-01 24.03.2009	FAR 31, Amdt. 31-7, May 24, 1996	---	1/0	B.2102-RABBIT Change 0 20.4.2009	55-053700 18.02.2009	EASA
REPLIKA	2400	32 N-type	600	5.5.2009	CRI A-01 4.06.2009	FAR 31, Amdt. 31-4, Sept 11, 1980	0/10	---	---	55-053710 6.1.1991	EASA

Model	Volume [m³]	Gores [pcs.]	MTOM [kg]	Reference date	Certification basis	Airworthiness requirements	AFM/MM applicable revision from:		Flight Manual Supplement	Drawing No.	Approved by
							up to S/N 639	from S/N 640			
MONTGOLFIERE	2850	20 Z-type	900	19.8.2009	CRI A-01 9.09.2009	FAR 31, Amdt. 31-7, May 24, 1996	---	5/1	B.2102-MONTGOLFIERE Change 0 18.1.2010	55-053720 28.8.2009	EASA
BURGER KING	3400	24 Z-type	995	5.11.2009	CRI A-01 14.12.2009	FAR 31, Amdt. 31-7, May 24, 1996	---	7/2	B.2102-BKING Change 0 9.3.2010	55-053730 23.11.2009	EASA
GNOME	3400	20 Z-type	999	6.5.2010	CRI A-01 15.6.2010	FAR 31, Amdt. 31-7, May 24, 1996	---	7/2	B.2102-GNOME Change 0 2.8.2010	55-053740 11.05.2010	EASA
BALL	2700	24 Z-type	800	1.9.2010	CRI A-01 06.09.2010	FAR 31, Amdt. 31-7, May 24, 1996	---	8/3	B.2102-BALL Change 0 27.10.2010	55-053750 13.09.2010	EASA
VOSTOK	4300	24 Z-type	1300	11.1.2011	CRI A-01 24.01.2011	FAR 31, Amdt. 31-7, May 24, 1996	---	10/4	B.2102-VOSTOK Change 0 30.3.2011	55-053760 18.1.2011	EASA
FISH	3000	24 Z-type	850	14.3.2011	CRI A-01 01.04.2011	FAR 31, Amdt. 31-7, May 24, 1996	---	10/4	B+.2102-FISH Change 0 24 June.2011	55-053770 11.4.2011	EASA
CUP	2800	20 Z-type	850	7.1.2013	CRI A-01 24.1.2013	FAR 31, Amdt. 31-7, May 24, 1996	---	17/7	B.2102-CUP Change 0 19.4.2013	53790.00 11.1.2013	EASA
PHARE	3000	20 Z-type	900	28.11.2012	CRI A-01 4.1.2013	FAR 31, Amdt. 31-7, May 24, 1996	---	18/7	B.2102-PHARE Change 0 4.6.2013	53780.00 18.3.2013	EASA
SHIP	3600	28 Z-type	1100	7.6.2013	CRI A-01 24.6.2013	FAR 31, Amdt. 31-7, May 24, 1996	---	19/9	B.2102-SHIP Change 0 30.10.2013	53810.00 9.7.2013	EASA
SKYBALLS	3000	20 Z-type	900	6.10.2015	CRI A-01 14.10.2015	FAR 31, Amdt. 31-7, May 24, 1996	---	22/11	B.2102-SKYBALLS Change 0 20.1.2016	53820.00 12.10.2015	EASA
WURST	4000	24 Z-type	1300	8.12.2015	CRI A-01 17.12.2015	FAR 31, Amdt. 31-7, May 24, 1996	---	23/11	B.2102-WURST Change 0 19.4.2016	53830.00 11.12.2015	EASA
BALL 105	3000	24 Z-type	900	10.05.2016	CRI A-01 18.05.2016	FAR 31, Amdt. 31-7, May 24, 1996	---	23/12	B.2102-BALL 105 Change 0 16.10.2016	53840.00 10.05.2016	EASA
POLAR BEAR	2400	20 Z-type	750	22.11.2017	CRI A-01 30.11.2017	FAR 31, Amdt. 31-7, May 24, 1996	---	2/0	B.3102-POLAR_BEAR Change 0 12.04.2018	53850.00 10.01.2018	EASA
VILSA	3200	20 Z-type	900	24.1.2018	CRI A-01 7.2.2018	FAR 31, Amdt. 31-7, May 24, 1996	---	2/0	B.3102-VILSA Change 0 6.6.2018	53860.00 26.2.2018	EASA
KATZENKOPF	3400	24 Z-type	995	11.6.2018	CRI A-01 14.6.2018	FAR 31, Amdt. 31-7, May 24, 1996	---	2/0	B.3102-KATZENKOPF Change 0 21.9.2018	53870.00 4.5.2018	EASA
RICE	3000	28 Z-type	900	27.8.2018	CRI A-01 13.09.2018	FAR 31, Amdt. 31-7, May 24, 1996	---	2/0	B.3102-RICE Change 0 22.11.2018	53880.00 1.8.2018	EASA

Model	Volume [m³]	Gores [pcs.]	MTOM [kg]	Reference date	Certification basis	Airworthiness requirements	AFM/MM applicable revision from:		Flight Manual Supplement	Drawing No.	Approved by
							up to S/N 639	from S/N 640			
HANDY	3300	20 Z-type	995	30.11.2018	CRI A-01 15.2.2019	FAR 31, Amdt. 31-7, May 24, 1996	---	2/1	B.3102-HANDY Change 0 7.3.2019	53890.00 18.2.2019	EASA
DUM	2600	24 Z-type	700	4.6.2018	FAR 31, Amdt. 31-7, May 24, 1996	FAR 31, Amdt. 31-7, May 24, 1996	---	2/1	B.3102-DUM Change 0 17.5.2019	53980.00 17.4.2019.	EASA
WERA	3400	18 Z-type	995	17.12.2018	CRI A-01 14.5.2019	FAR 31, Amdt. 31-7, May 24, 1996	---	2/1	B.3102-WERA Change 0 B.3102-INF_WERA Change 0 17.5.2019	53960.00 5.12.2018	EASA
WYCAM´S	3000	20 Z-type	900	22.5.2019	CRI A-01 29.5.2019	FAR 31, Amdt. 31-7, May 24, 1996	---	3/1	B.3102-WYCAM´S Change 0 27 August 2019	53990.00 29.4.2019	EASA
YAKULTMAN	2600	20 Z-type	800	22.5.2019	CRI A-01 29.5.2019	FAR 31, Amdt. 31-7, May 24, 1996	---	3/1	B.3102- YAKULTMAN Change 0 18 September 2019	53970.00 29.4.2019	EASA
ROTO	2800	20 Z-type	850	22.5.2019	CRI A-01 29.5.2019	FAR 31, Amdt. 31-7, May 24, 1996	---	7/1	B.3102- ROTO Change 0 30 January 2020	54000.00 29.4.2019	EASA
UNICORN	3200	20 Z-type	900	22.11.2019	CRI A-01 16.12.2019	FAR 31, Amdt. 31-7, May 24, 1996	---	8/4	B.3102- UNICORN Change 0 28 May 2020	54000.00 13.1.2020	EASA
GRENADE	3100	8 Z-type	900	17.10.2019	CRI A-01 1.11.2019	FAR 31, Amdt. 31-7, May 24, 1996	---	8/4	B.3102-GRENADE Change 0 23 June 2020	54010.00 11.12.2019	EASA
PIGGY	3000	24 Z-type	900	6.4.2020	CRI A-01 14.7.2020	FAR 31, Amdt. 31-7, May 24, 1996	---	8/4	B.3102- Piggy Change 0 16 July 2020	54030.00 1.4.2020	EASA
HEART 210	6000	24 Z-type	1940	08.10.2020	CRI A-01 29.10.2020	FAR 31, Amdt. 31-7, May 24, 1996	---	10/5	B.3102-HEART_210 Change 0 11.11.2020	54040.00 3.9.2020	EASA
THIJS	3200	20 Z-type	900	5.2.2021	CP_THIJS, rev.0 8.6.2021	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	---	12/5	B.3102- THIJS Change 0 11.6.2021	54050.00 5.2.2021	EASA – under the DOA privilege 21.A.263(c)(8)

Table 2: Burners

Model	Reference date	Certification basis	Airworthiness requirements	Drawing No.	Applicable burner frames	Approved by
H3-D	8.7.1992	---	FAR 31, Amdt. 31-4 September 11, 1980	80-050306 7.3.1994	Fixed Frame - H3 - type	
HB2	8.7.1992	---	FAR 31, Amdt. 31-4, September 11, 1980	80-050450 12.1.1999	Fixed Frame - H7 type	EASA
KOMET DUO up to S/N 104 including	8.7.1992	---	FAR 31, Amdt. 31-4 September 11, 1980	81-050676 16.4.1999	Fixed Frame - basic	EASA
KOMET DUO from S/N 105	8.7.1992	---	FAR 31, Amdt. 31-7 April 24, 1996	81-050676 Modification No. 99BB 22.7.2002	Fixed / Vario Frame - basic, K25P	EASA
IGNIS	16.11.2005	CRI A-01 15.2.2007	FAR 31, Amdt. 31-7, April 24, 1996	53115.00 53128.00 53241.00 56001.00 54810.00 54894.00	Fixed / Vario Frame – basic (2 units), K25P (2 or 3 units), K32T(2 or 3 units), K40Y (3 units), K50 (2, 3 or 4 units), K60 (3 or 4 units), K70 (3 or 4 units), K80 (3 or 4 units) K60 STRONG (3 or 4 units), K32TT (2, 3 or 4 units), K50TT (2, 3 or 4 units) K100 (3 or 4 units) K100 STRONG (3 or 4 units)	EASA
SIRIUS	3.7.2018	CRI A-01 19.7.2018	FAR 31, Amdt. 31-7, May 24, 1996 CS-31HB/1(5/12/2011)	57880.01	Fixed frame - Sirius	EASA

Table 3: Baskets

Model	Reference date	Dimension	Certification basis	Airworthiness requirements	Drawing document No.	Applicable burner frames	Approved by
J1	23.6.1992	1.23x1.23 m, height 1.00 m	---	FAR 31, Amdt. 31-4 September 11, 1980	500 000 17.2.1992	Fixed / Vario Frame - basic	EASA
J2	23.6.1992	1.23x1.35 m, height 1.00 m	---	FAR 31, Amdt. 31-4 September 11, 1980	500 000 17.2.1992	Fixed / Vario Frame - basic	EASA
K7	8.7.1992	0.85x0.85 m, height 1.10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	60-050072 10.3.1993	Fixed Frame - H3 type Fixed / Vario Frame - basic	EASA
K10	8.7.1992	0.85x1.00 m, height 1.10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	61-050097 10.3.1993	Fixed Frame - H3 type Fixed / Vario Frame - basic	EASA
K10S	29.10.2018	0.86 x 1.16 m, height 1.0 m	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57860.00 3.1.2019	Fixed Frame - H3 type Fixed / Vario Frame - basic	EASA
K11	10.1.2008	0.98x1.16 m, height 1,10 m	CRI A-1 29.1.2008	FAR 31, Amdt. 31-7 April 24, 1996	61-054200 21.1.2008	Fixed / Vario Frame - basic	EASA
K12	8.7.1992	1.16x1.16 m, height 1.10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	61-050556 10.3.1993	Fixed / Vario Frame - basic	EASA

Model	Reference date	Dimension	Certification basis	Airworthiness requirements	Drawing document No.	Applicable burner frames	Approved by
K12A	8.7.1992	1.16x1.16 m, height 1.10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	61-050586 10.3.1993	Fixed / Vario Frame - basic	EASA
K13	10.1.2008	0.98x1.25m height 1.03-1.14 m	CRI A-1 29.1.2008	FAR 31, Amdt. 31-7 April 24, 1996	61-054300 21.1.2008	Fixed / Vario Frame - basic	EASA
K13S	14.11.2008	0.95 x 1.26 m height 1.1 m	CRI A-1 17.3.2009	FAR 31, Amdt. 31-7 May 24, 1996	62-054450 1.4.2009	Fixed / Vario Frame - basic	EASA
K14	29.10.2018	1.35 x 1.16 m, height 1.10 m	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57850.00 3.1.2019	Fixed / Vario Frame - basic	EASA
K15	8.7.1992	1.16x1.25 m, height 1.10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	61-050111 10.3.1993	Fixed / Vario Frame - basic	EASA
K16	8.7.1992	1.16x1.40 m, height 1,10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	61-050125 10.3.1993	Fixed / Vario Frame - basic	EASA
K17	10.1.2008	1.16x1.45m height 1.03-1.14 m	CRI A-1 29.1.2008	FAR 31, Amdt. 31-7 April 24, 1996	61-054400 21.1.2008	Fixed / Vario Frame - basic	EASA
K18	8.7.1992	1.16x1.55 m, height 1.10 m	---	FAR 31, Amdt. 31-4 September 11, 1980	61-050135 10.3.1993	Fixed / Vario Frame - basic	EASA
K19	9.11.2015	1.16 x 1.55 m, height 1.10 m	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011	57300.00 21.3.2016	Fixed / Vario Frame - basic	EASA
K19L	9.11.2015	1.16 x 1.62 m, height 1.10 m	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011	57330.00 21.3.2016	Fixed / Vario Frame - basic	EASA
K22	8.7.1992	1.25x1.79 m, height 1.10 m	---	FAR 31, Amdt. 31-7 April 24, 1996	62-052680 19.7.2002	Fixed / Vario Frame - basic	EASA
K23	9.11.2015	1.25 x 1.8 m, height 1.10 m	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011	57350.00 21.3.2016	Fixed Frame – K23 - type	EASA
K25P	8.7.1992	1.25x2.08 m, height 1.10 m P-Partition	---	FAR 31, Amdt. 31-7 May 24, 1996	62-052650 28.11.2001	Fixed Frame - K25P - type	EASA
K28	13.8.2011	1.60 x 2.20 m, height 1.10 m	CRI A-1 15.6.2011	CS-31HB 27/02/2009	57100.00 1.6.2011	Fixed Frame - K32T - type	EASA
K30PP	5.4.2016	1.25 x 2.6 m height 1.10 m, PP partition	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	57450.00 21.3.2016	Fixed Frame – K30PP - type	EASA
K32T	4.10.2002	1.25x2.41m, height 1.15 m T-Partition	---	FAR 31, Amdt. 31-7 May 24, 1996	62-053050 30.7.2004	Fixed Frame - K32T - type	EASA
K32Y	13.8.2011	1.60 x 2.40 m, height 1.10 m, Y-Partition	CRI A-1 15.6.2011	CS-31HB 27/02/2009	53050.02 1.8.2011	Fixed Frame - K32T - type	EASA
K32TT	13.4.2010	1.60 x 2.50 m, height 1.10 m, TT-Partition	CRI A-1 3.5.2010	CS-31HB 27/02/2009	54950.00 15.6.2010	Fixed Frame - K32TT - type K50TT - type	EASA
K40T	10.3.2011	1.60 x 2.70 m, height 1.10 m, T-Partition	CRI A-1 30.3.2011	CS-31HB 27/02/2009	52090.02 rev.a 10.3.2011	Fixed Frame K50 – type	EASA
K40Y	10.3.2011	1.60 x 2.70 m, height 1.10 m, Y-Partition	CRI A-1 30.3.2011	FAR 31, Amdt. 31-7 May 24, 1996	52090.00 rev.j 10.3.2011	Fixed Frame K50 – type	EASA
K40TTA	29.10.2018	2.7 x 1.16 m, height 1.10 m TT-partition	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57800.00 3.1.2019	Fixed Frame – K50 – type	EASA
K50	16.1.2008	1.60 x 3.00 m, height 1.10 m, Y-partition or T-partition	CRI A-1 8.2.2008	CS-31HB (NPA No 07-2008)	54500.00 9.6.2008	Fixed Frame K50 – type	EASA

Model	Reference date	Dimension	Certification basis	Airworthiness requirements	Drawing document No.	Applicable burner frames	Approved by
K50TT	13.4.2010	1.60 x 3.00 m, height 1.10 m, TT-partition	CRI A-1 3.5.2010	CS-31HB 27/02/2009	54900.00 15.6.2010	Fixed Frame - K32TT – type K50TT - type	EASA
K50TTA	29.10.2018	3.0 x 1.60 m, height 1.10 m TT-partition	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57810.00 3.1.2019	Fixed Frame – K50TT – type	EASA
K50TT8	5.4.2016	1.60 x 3.00 m, height 1.10 m, TT-partition	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	54900.03 21.3.2016	Fixed Frame K60 – type K60 STRONG - type	EASA
K55X	5.4.2016	1.60 x 3.45m, height 1.10 m	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	57500.00 21.3.2016	Fixed Frame K60X – type	EASA
K55TTA	29.10.2018	3.40 x 1.60 m, height 1.10 m TT-partition	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57820.00 3.1.2019	Fixed Frame – K60 – type K60 STRONG - type	EASA
K58HH	5.4.2016	1.60 x 3.80 m, height 1.10 m, HH-partition	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	57550.00 21.3.2016	Fixed Frame K60 – type K60 STRONG - type	EASA
K60	10.3.2011	1.60 x 3.80 m height 1.10 m, TT-partition	CRI A-1 30.3.2011	CS-31HB (NPA No 07-2008)	54600.00 rev.a 11.4.2011	Fixed Frame K60 – type K60 STRONG - type	EASA
K60X	5.4.2016	1.60 x 3.90m, height 1.10 m	CRI A-1 27.11.2015	CS-31HB Amdt 1 05/12/2011, FAR 31, Amdt. 31-7 May 24, 1996	57600.00 21.3.2016	Fixed Frame K60X – type	EASA
K65TTA	29.10.2018	4.1 x 1.60 m, height 1.10 m TT-partition	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57830.00 3.1.2019	Fixed Frame – K60 – type K60 STRONG - type	EASA
K70	10.3.2011	1.60 x 4.40 m height 1.10 m, TT-partition	CRI A-1 30.3.2011	CS-31HB 27/02/2009	54850.00 rev.a 10.5.2011	Fixed Frame K60 – type K60 STRONG - type	EASA
K70TTA	29.10.2018	4.4 x 1.60 m, height 1.10 m TT-partition	CRI A-1 3.1.2019	FAR 31, Amdt. 31-7 May 24, 1996	57840.00 3.1.2019	Fixed Frame – K60 – type K60 STRONG - type	EASA
K80	10.3.2011	1.60 x 4.80 m height 1.10 m, TT-partition	CRI A-1 30.3.2011	CS-31HB 27/02/2009	54800.00 rev.a 5.9.2011	Fixed Frame K60 – type K60 STRONG - type	EASA
K85	03.01.2012	1.6x5.2 m height 1.10 m TT-partition	CRI A-1 23.1.2012	CS-31HB Amdt 1 05/12/2011	57150.00 19.01.2012	Fixed Frame - K100 type K100 STRONG - type	EASA
K90	03.01.2012	1.6x5.2 m height 1.10 m DTT-partition	CRI A-1 23.1.2012	CS-31HB Amdt 1 05/12/2011	57250.00 19.01.2012	Fixed Frame - K100 type K100 STRONG - type	EASA
K100	26.3.2010	1.60 x 6.10 m height 1.10 m, TT partition	CRI A-1 21.4.2010	CS-31HB 27/02/2009	54890.00 1.9.2010	Fixed Frame - K100 type K100 STRONG - type	EASA
K110	26.3.2010	1.60 x 6.60 m height 1.10 m, TT partition	CRI A-1 21.4.2010	CS-31HB 27/02/2009	54980.00 19.11.2010	Fixed Frame - K100 type K100 STRONG - type	EASA

Table 4: Approved combinations of envelopes and baskets for BB-S models

Envelope	Basket																																				
	J1	J2	K7	K10	K10S	K11	K12	K12A	K13	K13S	K14	K15	K16	K17	K18	K19	K19L	K22	K23	K25P	K32T, K32Y	K32TT	K40T, K40Y	K40TTA	K50	K50TTA	K50TT	K50TT8	K55X, K55TTA, K58HH	K60, K60X	K65TTA	K70, K70TTA	K80	K85, K90, K100, K110
CUBE	■	■					■	■				■	■		■			■																
FORKLIFT	■	■		■			■	■				■	■		■			■																
SILO	■	■		■			■	■				■	■		■			■																
ICE	■	■		■			■	■				■	■		■			■																
BEAR	■	■		■			■	■				■	■		■			■																
DHL	■	■		■			■	■				■	■		■			■																
JUPOL	■	■		■			■	■				■	■		■			■																
JAG	■	■		■			■	■				■	■		■			■																
BEMB	■	■		■			■	■				■	■		■			■																
JAGER	■	■		■			■	■				■																						
KRIGL	■	■		■			■	■				■	■		■			■																
HEART	■	■		■			■	■				■	■		■			■																
JAGER 28	■	■		■			■	■				■	■		■			■																
SANTA			■	■		■	■	■	■			■	■	■	■			■																
RABBIT									■			■	■	■	■			■																
REPLIKA	■	■	■									■	■																					
MONTGOLFIER E						■	■	■	■	■		■	■	■	■			■																
BURGER KING						■	■	■	■	■		■	■	■	■			■																
GNOME				■		■	■	■	■	■		■	■	■	■			■																
BALL				■		■	■	■	■	■		■	■	■	■			■																
VOSTOK									■	■		■	■	■	■			■		■	■													
FISH				■		■	■	■	■	■		■	■	■	■			■																
CUP				■		■	■	■	■	■		■	■	■	■			■																
PHARE				■		■	■	■	■	■		■	■	■	■			■																
SHIP				■		■	■	■	■	■		■	■	■	■			■																
SKYBALLS				■		■	■	■	■	■		■	■	■	■			■																
WURST							■	■	■	■		■	■	■	■			■		■	■													
BALL 105				■		■	■	■	■	■		■	■	■	■	■	■	■	■															
POLAR BEAR				■		■	■	■	■	■		■	■	■	■	■	■	■	■															
VILSA				■		■	■	■	■	■		■	■	■	■	■	■	■	■															
KATZENKOPF				■		■	■	■	■	■		■	■	■	■	■	■	■	■															
RICE				■		■	■	■	■	■		■	■	■	■	■	■	■	■															
HANDY				■		■	■	■	■	■		■	■	■	■	■	■	■	■															
DUM	■	■	■			■	■	■	■	■		■	■	■	■	■	■	■	■															
WERA				■		■	■	■	■	■		■	■	■	■	■	■	■	■															
WYCAM´S				■		■	■	■	■	■		■	■	■	■	■	■	■	■															
YAKULT MAN				■		■	■	■	■	■		■	■	■	■	■	■	■	■															
ROTO				■		■	■	■	■	■		■	■	■	■	■	■	■	■															
UNICORN				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■															

Envelope	Basket																																
	J1	J2	K7	K10	K10S	K11	K12	K12A	K13	K13S	K14	K15	K16	K17	K18	K19	K19L	K22	K23	K25P	K32T, K32Y	K32TT	K40T, K40Y	K40TTA	K50	K50TTA	K50TT	K50TT8	K55X, K55TTA, K58HH	K60, K60X	K65TTA	K70, K70TTA	K80	K85, K90, K100, K110
GRENADE																																		
PIGGY																																		
HEART 210																																		
THIJS																																		

Table 5: Approved combinations of envelopes and burners for BB-S models

Envelope	Burner							
	H3-D	HB2	KOMET DUO up to 104	KOMET DUO 105+	SIRIUS	IGNIS 2	IGNIS 3	IGNIS 4
CUBE		■		■		■		
FORKLIFT		■		■		■		
SILO		■		■		■		
ICE		■		■		■		
BEAR		■		■		■		
DHL		■		■		■		
JUPOL		■		■		■		
JAG		■		■		■		
BEMB	■	■		■		■		
JAGER	■	■		■		■		
KRIGL	■	■		■		■		
HEART	■	■		■		■		
JAGER 28		■		■		■		
SANTA	■	■		■		■		
RABBIT			■	■		■		
REPLIKA		■						
MONTGOLFIERE			■	■		■		
BURGER KING			■	■		■		
GNOME			■	■		■		
BALL			■	■		■		
VOSTOK			■	■		■		
FISH			■	■		■		
CUP			■	■		■		
PHARE			■	■		■		
SHIP			■	■		■		
SKYBALLS			■	■		■		
WURST			■	■		■		
BALL 105			■	■		■		
POLAR BEAR			■	■		■		
VILSA			■	■		■		
KATZENKOPF			■	■		■		
RICE			■	■		■		
HANDY			■	■		■		
DUM	■	■	■	■		■		
WERA			■	■		■		
WYCAM´S			■	■		■		
YAKULT MAN			■	■		■		
ROTO			■	■		■		
UNICORN			■	■		■		
GRENADE			■	■	■	■		
PIGGY			■	■	■	■		
HEART 210						■	■	■
THIJS			■	■	■	■		

■ = approved combination

Table 6: Fuel Cylinders

Model	Reference date	Volume	Pw	Certification basis	Airworthiness requirements	Drawing document No.	Approved by
KB72L	16.7.2015	72l	15bar	CRI A-1 20.4.2016	FAR 31, Amdt. 31-7, May 24, 1996 CS-31HB Amdt 1, 05/12/2011	55120.00 17.6.2016	EASA
KB85L	29.7.2020	85l	15bar	CRI A-1 29.7.2020	FAR 31, Amdt. 31-7, May 24, 1996 CS-31HB Amdt 1, 05/12/2011	55120.00 17.6.2016	EASA
KB97L	16.7.2015	97l	15bar	CRI A-1 20.4.2016	FAR 31, Amdt. 31-7, May 24, 1996 CS-31HB Amdt 1, 05/12/2011	55120.00 17.6.2016	EASA

SECTION C: Historic models (AB 2, AB 8 and Aerotechnik AB)

1. GENERAL, All Types and Variants

I. General

1.	Type / Variant or Model			
	- Type:	**AB 2**	**AB 8**	**Aerotechnik AB**
	- Variant or Model:	AB 2a		
	- Previously listed in TCDS No:	EASA.BA.001	EASA.BA.002	EASA.BA.004
2.	Airworthiness Category:	Normal		
3.	Type Certificate Holder:	BALÓNY KUBÍČEK spol. s r.o. Jarní 1003/2a 614 00 Brno		
4.	Manufacturer:	Aerotechnik podnik ÚV Svazarmu 686 04 Kunovice	since Jun 26, 1990 Aerotechnik podnik ÚV Svazarmu 686 04 Kunovice since Jan 16, 1991 Aerotechnik p.o.s. 686 04 Kunovice since Sep 12, 1994 Aerotechnik s r.o. 686 04 Kunovice	since Jan 16, 1991 Aerotechnik p.o.s. 686 04 Kunovice since Sep 12, 1994 Aerotechnik s r.o. 686 04 Kunovice
5.	National Certification Date:	May 18,1987, CAA CZ TC No. 85-01	September 4, 1990, CAA CZ TC No. 90-02	November 5, 1992, CAA CZ TC No. 92-06
6.	CAA Application Date:	---	---	June 23, 1992
7.	EASA Application Date:	---	---	---
8.	EASA Type Certification Date:		February 08, 2005	

II. Certification Basis

	Type	**AB 2**	**AB 8**	**Aerotechnik AB**
1.	Reference Date for determining the applicable requirements:	---	---	June 23, 1992
2.	CAA CZ Type Certificate Data Sheet No:	TC 85-01	TC 90-02	TC 92-06
3.	EASA Certification Basis:	FAR, Part 31 - Airworthiness Standards: Manned Free Balloons, Amdt. 31-4, dated 11 September 1980		
4.	Airworthiness Requirements:	FAR, Part 31 - Airworthiness Standards: Manned Free Balloons, Amdt. 31-4, dated 11 September 1980 as defined above		

5. Special Conditions: None

6. Reversion and Exemptions: None

7. Equivalent Safety Findings: None

III. Technical Characteristics and Operational Limitations

Type	AB 2	AB 8	Aerotechnik AB
1. Type Design Definition:	Drawing documentation No. 500 000, Revision (a), dated May 18, 1987, or later EASA approved revision	Drawing documentation No. 500 000, Revision (-), dated September 4, 1990, or later EASA approved revision	Drawing documentation No. 500 000, Revision (-), dated February 17, 1992, or later EASA approved revision
2. Description:	The free hot-air balloon with the natural shaped envelope of the 2190 m3 volume is sewed of 28 polyamide gores. The parachute is used for closing of the vent opening. The single backuped burner is the heat source for the envelope.	The free hot-air balloon with the natural shaped envelope of the 3000 m3 volume is sewed of 24 polyamide gores. The parachute is used for closing of the vent opening. The double burner is the heat source for the envelope.	The free hot-air balloon with the natural shaped envelope of 2190 m3 and 3000 m3 volume, horizontal (O-type) or vertical cut (N-type) with 12, 20 or 24 gores in accordance with the envelope size and type. The parachute is used for closing of the vent opening. As option, the envelope can be equipped with rotation vent. The double burner is the heat source for the envelope.
	The basket is cane-work connected with the envelope by means of stainless-steel wires and carabiners with a screw gate. Stainless or dural cylinders of 20-30 kg fuel capacity (approved models are listed in the approved Flight Manual) are fixed in the basket, the equipment and instruments are fixed on the inner side of the basket.		
3. Equipment:	- Altimeter - A rate of climb indicator (variometer) - Thermometer for internal envelope measuring - Melting link for the envelope overheating check - Fuel quantity gauge - Double ignition equipment - Drop line - Fire extinguisher - Heat-resistant cloth - First aid kit		
4. Envelope:	O22 2190 m3 Volume N22 2190 m3 Volume N30 3000 m3 Volume	N30 3000 m3 Volume	AB 2 2190 m3 Volume
5. Burner:	HB 2a double	HB 2 double	HB 1 single backuped
6. Basket:	J1 1.23 x 1.23 m, hgt. 1.00 m J2 1.23 x 1.35 m, hgt. 1.00 m		1.1 x 1.1 m, hgt. 1.1 m
7. Mass:	O22 600 kg	N30 900 kg	AB 2a 600 kg

	Maximum take-off weight:	N22 N30	600 kg 900 kg		
8.	Envelope temperature:	max. 120°C		max. 120°C	max. 110°C
9.	Minimum Flight Crew:	in accordance with approved Flight Manual		1 Pilot	
10.	Maximum number of persons on board:	max. 6 persons		max. 6 persons	max. 4 persons
11.	Other Limitations:	The balloon is approved for Day VFR flight			

IV. Operating and Service Instructions

1. Letová příručka pro horkovzdušný balón (č. dokumentu: B.0101) issue 6 or later EASA approved revision.

2. Flight manual for use with the hot air balloon (document No.: B.0102) issue 6 or later EASA approved revision.

3. Flughandbuch für Heißluftballon (Dokument-Nr.: B.0103) issue 6 or later EASA approved revision.

4. Příručka pro údržbu horkovzdušného balónu (č. dokumentu: B.0201) issue 5 or later EASA approved revision.

5. Maintenance manual for use with the hot air balloon (document No.: B.0202) issue 5 or later EASA approved revision.

V. Notes

Applicable for Aerotechnik AB – type balloons:

Applicable range of balloon parts or equipment from the other manufacturers – see the covering technical documentation.