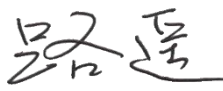


型号认可证数据单
THE VALIDATION DATA SHEET

编号/No: VTC0385A
版次/Revision: 0
型号/Type: ULTRAMAGIC HOT AIR
BALLOONS - M Series, N Series
型别/Model:
见概述部分第三小节
See Section 3 of the General
批准人/Approved By:

职务/Title: Deputy Director General
日期/Date: 2026 年 07 月 16 日

本数据单是型号认可证（编号：VTC0385A）的组成部分，它规定了符合中国民用航空局的适航要求所颁发此型号认可证的产品状态和限制。

This data sheet, which is part of Validation of Type Certificate (No: VTC0385A), prescribes condition and limitation under which the product for which the Type Certificate was issued meets the airworthiness requirements of the China Civil Aviation Regulation.

型号认可证持有人/Validation of Type Certificate Holder:

Ultramagic, S.A.
Aerodrom Igualada-Odena s/n
08711 Odena
Spain

第1部分 概述（所有型别）

SECTION 1 General（ALL MODELS）

1. 型号认可证数据单版次信息以及修订记录/ Revision and Change Record of the Validation of Type Certificate Data Sheet

数据单版次信息/Revision of the Type Certificate Data Sheet

	中国民用航空局认可数据单号、版次和颁发日期 CAAC Validation Data Sheet Number, Revision and Issuance date	型号合格证数据单号，版次和颁发日期 Type Certificate Data Sheet Number, Revision and Issuance date
当前/Current	VTC0385A, 版次0, 2026年7月16日 VTC0385A; Revision 0, Date of Issue: 2026-07-16	EASA.BA.014, Issue 25, 28 April 2021

注：上表中出口国局方型号合格证数据单信息仅供参考

Note: Above TCDS information of Certification Authority is only for reference

2. 适航类别/Airworthiness Category:

载人自由气球-热气球 / Manned Free Balloons - Hot Air Balloons

3. 型号 Type/型别 Model

型号/Type: ULTRAMAGIC HOT AIR BALLOONS - M Series, N Series

型别/Model: M-Type: M42、M56、M56C、M65、M65C、M74Z、M77、M77C、M90、M105、M120、M130、M145、
M160

N-Type: N-180、N-210、N-250、N-300、N-355、N-425、N-450、N-500

4. 认可当局/Validation Authority: 中国民用航空局 /CAAC

审定当局/Certifying Authority: 欧洲民用航空安全局/EASA

5. 型号合格证持有人/Type Certificate Holder:

ULTRAMAGIC, S. A.

Aerodrom Igualada-Odena s/n

08711 ODENA

Spain

6. 制造单位/Manufacturer:

ULTRAMAGIC, S. A.

Aerodrom Igualada-Odena s/n

08711 ODENA

Spain

第2部分 SECTION 2

第一部分：热气球技术数据 / SECTION A: Hot Air Balloons Technical Data

A I. 概述 / General

本项目热气球主要由三个主要部分组成:球囊、燃料系统(即带有负载框架、燃料罐、燃烧器)和吊篮(或 Bottom End)。

本次申请人向CAAC提出M系列和N系列热气球, 共计22个型别的设计认可, 分别是M系列(M-42、M-56、M-56C、M-65、M-65C、M-74Z、M-77、M-77C、M-90、M-105、M-120、M-130、M-145、M-160, 共14个)和N系列(N-180、N-210、N-250、N-300、N-355、N-425、N-450、N-500, 共8个)。其中M系列热气球主要用于私人运动或广告宣传, 球囊直径范围15.2~21.6m、体积范围为1600~4550立方米, 可载人2~7人; N系列热气球主要用于载客游览运营, 球囊直径范围22.2~31.1m、体积范围为5100~14400立方米, 可载人8~24人。

各个型号球囊与燃料系统和吊篮(或bottom end)的组合形式, 详见附录1和附录2。

The hot air balloon for this project consists of three main components: the envelope, the fuel system (featuring a load frame, fuel tank, and burner), and the basket (or bottom end).

The applicant has submitted design approvals for 22 sub-models of M-series and N-series hot air balloons to CAAC. The M-series includes 14 models (M42, M56, M56C, M65, M65C, M74Z, M77, M77C, M90, M105, M120, M130, M145, M160), while the N-series includes 8 models (N-180, N-210, N-250, N-300, N-355, N-425, N-450, N-500). The M-series balloons are primarily used for private sports or advertising, with balloon diameters ranging from 15.2 to 21.6 meters and volumes from 1,600 to 4,550 cubic meters, accommodating 2 to 7 passengers. The N-series balloons are designed for passenger transport, featuring diameters of 22.2 to 31.1 meters and volumes from 5,100 to 14,400 cubic meters, with a capacity of 8 to 24 passengers.

The configuration of various balloon models with fuel systems and basket systems (or bottom end) is detailed in Appendix 1-2.

A II. 认可审定基础和生产依据/Validation Certification Basis and Production Basis

1. CAAC有效的适航规章/CAAC applicable airworthiness codes

审定当局(EASA)批准的日期在2007年3月15日之前的热气球, 认可当局(CAAC)采用14 CFR Part 31作为认可审定基础;

审定当局(EASA)批准的日期在2007年3月15日之后的三款热气球(型别:N-450,N-500,M-74Z), 认可当局(CAAC)采用CCAR-31作为认可审定基础;

For hot air balloons approved by the EASA before March 15,2007, the CAAC adopts the 14 CFR Part 31 as the certification basis for recognition; for three hot air balloons (models: N-450, N-500, M-

74Z) approved by the EASA after March 15,2007, the CAAC adopts CCAR-31 (2007.3.15) as the certification basis for recognition.

2. 附加技术条件/Additional Technical Conditions.:

根据 CCAR-21 21.29(e)的规定,有关适航规章、噪声规定所要求的手册、标牌、目录清单和仪表标记应当用中文或者英文书写,下列各项应当至少有中文表述:①机上所有对旅客进行的提示、警告和通知的文字标记和标牌;②机上所有向旅客或者机外营救人员指示应急出口和门的位置以及开启方法的文字标记和标牌;③旅客可能使用的机上所有应急设备的操作、使用说明。

According to CCAR-21 21.29(e), manuals, signs, catalogue, and instrument markings required by airworthiness regulations and noise regulations shall be written in Chinese or English, and the following items shall be at least described in Chinese: ① All text markings and signs on board for passengers to receive prompts, warnings, and notices; ② All text markings and signs on board for passengers or external rescue personnel to indicate the location and opening methods of emergency exits and doors; ③ All operating and usage instructions for emergency equipment that passengers may use on board.

A III.产品名称、技术特性和使用限制、型号设计定义 / Aircraft Name, Technical Characteristics and Operational Limitations Type Design Definition

1. 型号设计定义 / Type Design Definition:

见附录1-2 / Refer to Appendix 1-2.

2. 设备 / Equipment:

对于FAR Part 31/for FAR Part 31:

-1个测高仪/1 Altimeter

-1个上下坡速度指示器(变速器)/1 Rate of climb/descent indicator (variometer)

-每块燃料电池上的剩余燃料量表1块 /1 Remaining fuel quantity gauge for each fuel cell

针对CS 31HB(2007年2月草案),还包括/for CS 31HB(draft February 2007) in addition:

-每个燃烧器的燃油压力表1块/1 Fuel pressure gauge for each burner

针对CS 31HB(2009年2月)和CS 31HB/1(2011年12月)还增加了以下内容/for CS 31HB, February 2009, and CS 31HB/1, December 2011 in addition:

-每个燃烧器的燃油压力表1块/1 Fuel pressure gauge for each burner

-如果飞行手册限制规定了爬升或下降速率,需爬升/下降速率指示器(变高表)1个

1 Rate of climb/descent indicator (variometer), if Flight Manual limitations specify a rate of climb or descent

-如果球囊专门用于系留操作，需1套系留组件。

1 'Kit' of tethering components, if the balloon is specifically approved for tethered operations

对于所有气球/for all balloons:

-燃烧器点火的替代方法（点火器或类似装置）/Alternative means for burner ignition (lighter or similar)

-球囊限制温度指示器1个/1 Envelope limit temperature indicator

-灭火器/Fire extinguisher

-批准的飞行手册/Flight Manual approved

额外选装的设备需要参考CAAC其他相关要求

Additional operational equipment may be required by CAAC requirements.

3. 燃料 / Fuel:

商用液化石油气，通常为丙烷，除非燃烧器配置为丁烷。

Commercial LPG, usually propane, except if burner is configured for butane.

4. 最小机组 / Minimum crew:

1名飞行员

1 pilot

5. 与批准的其他制造厂家零部件的兼容性 / Compatibility with approved parts of other manufacturers:

参见《ULTRAMAGIC飞行手册》批准的补充文件。仅可使用所列出的批准的构型。维护时应使用其他零部件制造厂家的最新服务说明。

See approved Supplements to Ultramagic Flight Manual. Only listed approved configurations shall be used.

The latest Service Instructions of the other manufacturer's parts shall be used for maintenance.

6. 维护计划/Maintenance schedule:

年度或100小时检查，以较早适用者为准，遵循与特定球囊构型相对应的飞行手册和维护手册。

Annual or 100 hours inspections, whichever applies earlier one and following the Flight Manual and Maintenance Manual corresponding to the specific balloon configuration.

7. 操作与维护说明 / Operation and Service Instructions:

Ultramagic 气球飞行手册和适用的补充文件或后续批准的修订版本。

Ultramagic 气球维护手册及适用部分补充文件或后续接受的修订。

针对航空器注册号或制造商编号且发布日期早于2003年9月28日的操作与维护说明仍可继续使用。维护应按照最新版的《Ultramagic 气球维护手册》检查计划表及相关补充文件或欧洲航空安全局认可的后续修订版本执行。

Flight Manual for Ultramagic Balloons and applicable Supplements - or later approved revisions.

Maintenance Manual for Ultramagic Balloons and applicable Supplements - or later accepted revisions.

Operation and Service Instructions specific to aircraft registration or constructors number with an issue date prior to 28 September 2003 may continue to be used. Inspection shall be in accordance with the latest issue of the inspection schedule - Maintenance Manual for Ultramagic Balloons and applicable Supplements or later EASA accepted revision refers.

8. 运行限制 / Operational Limitations:

应满足《飞行手册》(FM04, R26版) 中第1-5节对应相关内容。

The relevant content is met in Sections 1-5 of the Flight Manual (FM04, R26 Edition).

A IV. 注释 / Notes

注 1: 所有型号均可根据图纸 1031/72、1031/75 和 1031/76 选择性安装 FDS 系统的减压装置。

Note 1 The system FDS of deflation can be installed optionally according to drawings 1031/72, 1031/75 and 1031/76 in all models.

注 2: 针对原 DGAC-ES 技术委员会 (TC) 的数据单已进行修订, 新增以下内容:

- MK-21 型电燃烧器
- SOLO 和 DUO 型别, 座椅式吊舱
- 数据单新格式
- 仅包含标准球囊形状

Note 2 Data Sheets corresponding to former DGAC-ES TCs have been modified to include:

- Optional Electric Burner MK-21
- Models SOLO and DUO, chair type gondola
- New format of Data Sheet
- Comprising exclusively standard envelope shapes

注 3: 其他兼容性信息:

CT-01 型吊篮已获批准使用以下燃烧器进行飞行:

- MK-21 单燃烧器 (或 MK-21/ELEC 单燃烧器)
- BMK-008 单燃烧器

Note 3 Additional compatibility information:

Basket CT-01 is approved for flight using the following burners:

- MK-21 Single (or MK-21/ELEC single)
- BMK-008 Single

注 4: 其他兼容性信息:

CT-02 和 CT-03 吊篮已获批准可使用以下燃烧器进行飞行:

- MK-21 单燃烧器
- MK-21 双燃烧器
- BMK-008 单燃烧器
- BMK-008 双燃烧器
- MK-32 双燃烧器

Note 4 Additional compatibility information:

Baskets CT-02 and CT-03 are approved for flight using the following burners:

- MK-21 Single
- MK-21 Double
- BMK-008 Single
- BMK-008 Double
- MK-32 Double

注 5: 其他兼容性信息:

CT-01、CT-02 和 CT-03 吊篮经批准可采用外部安装燃料气瓶的方式进行飞行, 其中一种燃料气瓶组合方式需符合以下要求(参见飞行手册补充文件第 39 号, 第 4 版或后续批准的修订版):

两个 Worthington4100-U4-27 型, 两个 UM M-20/M-20D 型, 两个 UM M-30/M-30D 型,
四个 Worthington4100-U4-27 型, 四个 UM M-20/M-20D 型, 四个 UM M-30/M-30D 型,
两个 Worthington4100-U4-27 型, 外加两个 UM M-20/M-20D 型,
两个 Worthington4100-U4-27 型, 外加两个 UM M-30/M-30D 型;
两个 UM M-20/M-20D 型, 外加两个 UM M-30/M-30D 型。

Note 5: Additional compatibility information:

Baskets CT-01, CT-02 and CT-03 are approved for flight using external mounting of fuel cylinders with one of these fuel cylinders combinations (see Flight Manual Supplement No. 39, Issue 4 or later approved revision):

two Worthington 4100-U4-27, two UM Type M-20/M-20D, two UM Type M-30/M-30D,
four Worthington 4100-U4-27, four UM Type M-20/M-20D, four UM Type M-30/M-30D,
two Worthington 4100-U4-27 plus two UM Type M-20/M-20D,
two Worthington 4100-U4-27 plus two UM Type M-30/M-30D,
two UM Type M-20/M-20D plus two UM Type M-30/M-30D.

注 6: 其他兼容性信息:

CV-08 吊篮已获批准使用以下燃烧器进行飞行:

- MK-10 双燃烧器
- MK-10 三燃烧器
- MK-21 双燃烧器
- MK-21 三燃烧器
- BMK -008 双燃烧器
- BMK -050 双燃烧器
- BMK -050 三燃烧器
- MK-32 双燃烧器
- MK-32 三燃烧器

Note 6: Additional compatibility information:

Basket CV-08 is approved for flight using the following burners:

- MK-10 Double
- MK-10 Triple
- MK-21 Double
- MK-21 Triple

- BMK-008 Double
- BMK-050 Double
- BMK-050 Triple
- MK-32 Double
- MK-32 Triple

注7: 其他兼容性信息:

SOLO和DUO底部末端也已获批准使用以下燃烧器进行飞行:

- BMK-008 单燃烧器

Note 7: Additional compatibility information:

SOLO and DUO bottom ends are also approved for flight using the following burner:

- BMK-008 Single

注8: 当球囊与SOLO或DUO底部末端组合时, 旋转通风口必须启用。

Note 08: Rotation vents become mandatory on envelopes combined with the SOLO or DUO Bottom ends.

第3部分 管理信息

SECTION 3 ADMINISTRATIVE INFORMATION

1. 型号认证持有人记录 / Validation of Type Certificate Holder Record

序号/No.	时间/Time	持证人名称/Name of Validation of Type Certificate Holder
1	2026年7月16日之后/ After July 16, 2026	ULTRAMAGIC, S. A.

附录1: M型号定义和批准数据 / Appendix 1: M model definition and certification data

附录1.1 概述 / Appendix 1.1 General

型号 / Model	M-42	M-56	M-56C	M-65	M-65C	M-74Z	M-77
审定当局批准日期 / Approved	2003年4月 22日 22 Apr 2003	1998年2月 6日 6 Feb 1998	1999年7月 8日 8 Jul 1999	1988年3月 25日 25 Mar 1988	1997年3月 4日 4 Mar 1997	2021年1月 26日 26 Jan 2021	1988年3月 25日 25 Mar 1988
技术数据 / Technical Description							
体积(m³) / Volume [m³]	1200	1590	1590	1840	1840	2100	2200
载荷带数量 / Number of gores	24	24	24	24	24	24	24
排列方式 / Disposition	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal
最大直径(m) / Max diameter [m]	13.6	14.9	13.8	16.0	14.7	15.0	16.9
总体高度(m) / Total height [m]	17.5	18.8	17.3	19.8	21.3	24.0	21.0
最大起飞重量(kg) / MTOM [kg]	414	550	550	638	635	710	756
图纸编号 / Drawing number	1038/010	1034	1056	1020	1054	1071	1009
适用序列号 / Serial numbers eligible	42-08及以上 42-08 & up	56-14及以上 56-14 & up	56-15及以上 56-15 & up	65-19及以上 65-19 & up	65-63及以上 65-63 & up	74/01及以上 74/01 & up	77-17及以上 77-17 & up
燃料瓶数量 / Fuel cylinder quantity							
Worthington 4100-U4-27	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more
UM Type M-20 or M-20D	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more
UM Type M-30 or M-30D	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more
UM Type T-25	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more
UM Type M-40 or M-40D	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more
在附录1.3中的注释 / Notes on Appendix 1.3	1)*, 2)*	1)*, 2)*	2)*	2)*	2)*	2)*	2)*

型号 / Model	M-77C	M-90	M-105	M-120	M-130	M-145	M-160
审定当局批准日期 / Approved	2001年4月30日 30 Apr 2001	1997年3月4日 4 Mar 1997	1988年6月10日 10 Jun 1988	1999年2月23日 23 Feb 1999	1994年11月30日 30 Nov 1994	1995年2月21日 21 Feb 1995	1987年10月15日 15 Oct 1987
技术数据 / Technical Description							
体积(m³) / Volume [m³]	2200	2550	2950	3400	3680	4105	4550
载荷带数量 / Number of gores	24	24	24	24	24	24	24
排列方式 / Disposition	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal
最大直径(m) / Max diameter [m]	15.5	17.4	18.8	19.2	20.2	20.4	21.6
总体高度(m) / Total height [m]	24.0	21.6	23.1	23.4	24.6	24.7	26.3
最大起飞重量(kg) / MTOM [kg]	756	880	1032	1173	1365	1436	1569
图纸编号 / Drawing number	1057	1040	1010	1055	1021	1036	1011
适用序列号 / Serial numbers eligible	77-190及以上 77-190 & up	90-15及以上 90-15 & up	105-03及以上 105-03 & up	120-01及以上 120-01 & up	130-05及以上 130-05 & up	145-01及以上 145-01 & up	160-01及以上 160-01 & up
燃料瓶数量 / Fuel cylinder quantity							
Worthington 4100-U4-27	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more
UM Type M-20 or M-20D	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more
UM Type M-30 or M-30D	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more
UM Type T-25	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more
UM Type M-40 or M-40D	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more	2个或更多 2 or more
在附录1.3中的注释 / Notes on Appendix 1.3	2)*	2)*	2)*	2)*	2)*		

球囊选项：风兜或围裙；旋转通风口（详见注8）；设计横幅。

球囊温度：1) 任何情况不得超过130℃。 2) 最大持续温度为120℃

燃烧器：详见附录1.2：M型号适用的燃烧器和吊篮

吊篮：详见附录1.2：M型号适用的燃烧器和吊篮

最大重量：允许在持续温度低于120℃的情况下飞行，或根据附录1.2中列出的吊篮/设备情况确定，以重量较小者为准。请参阅飞行手册第5章中的载荷图。

Envelope Options: Scoop or skirt. Rotation vents (see Note 8). Artwork banners.

Envelope Temperature: 1) Not exceed by any concept 130°C. 2) Max. continuous temperature 120°C

Burner: See Appendix 1.2 : Burners and Baskets for M models

Basket: See Appendix 1.2 : Burners and Baskets for M models

Maximum Weight: That one permitting the flight with the continuous temperature lower than 120°C, or according to the basket/equipment used based on § 1.2, whatever is less. See Load Chart in Flight Manual Chap. 5.

附录1.2 M系列热气球燃烧器、吊篮组合/Appendix 1.2 M Series Hot Air Balloon Burner and Basket

燃烧器 Burner														
型别 Type	MK-2 / SUPER			MK-10*			MK-21			MK-2 /ELEC	BMK-008		MK-32*	
单元 Unit	单头 Single	双头 Double	三头 Triple	单头 Single	双头 Double	三头 Triple	单头 Single	双头 Double	三头 Triple				双头 Double	三头 Triple
图纸 Drawing	2003/ 2005	2002/ 2006	2004/ 2007	2011	2012	2013	2021	2022	2023	2022/ 0100- 0000- 0200	2031	2032		
M-42	---	---	---	---*	---	---	X	---	---	---	X	---	---	---
M-56	X	X	---	---*	---*	---	X	X	---	X	X	X	---*	---
M-56C	X	X	---	---*	---*	---	X	X	---	X	X	X	---*	---
M-65	X	X	---	---*	---*	---	X	X	---	X	X	X	---*	---
M-65C	X	X	---	---*	---*	---	X	X	---	X	X	X	---*	---
M-74Z	---	---	---	---*	---*	---	---*	X	---	X	---*	X	---*	---
M-77	X	X	---	---*	---*	---	X	X	---	X	X	X	---*	---
M-77C	X	X	---	---*	---*	---	X	X	---	X	X	X	---*	---
M-90	---	X	---	---	---*	---	X	X	---	X	X	X	---*	---
M-105	---	X	X	---	---*	---*	X	X	X	X	X	X	---*	---
M-120	---	X	X	---	---*	---*	---	X	X	X	X	X	---*	---*
M-130	---	X	X	---	---*	---*	---	X	X	X	---	X	---*	---*
M-145	---	X	X	---	---*	---*	---	X	X	X	---	X	---*	---*
M-160	---	X	X	---	---*	---*	---	X	X	X	---	X	---*	---*

吊篮 Basket														底部末端 BOTTOM END	
型别 Type	C0	CT-01 见注3 和注5 see note 3 and note 5	CT-02	CT-03	C1	C2	C3	C4	C5	C6	C7	CV-08*	C10	SOLO 见注 7 see note 7	DUO 见注 7 see note 7
尺寸(米) Size (m)	0.7x 0.8	0.8x 1.0	1.0x 1.2	0.8x 1.2	1.0x 1.2	1.0x 1.0	1.1x 1.3	1.2x 1.6	1.4x 2.2	1.3x 1.8	1.4x 2.0	1.5x 2.6	1.15x 1.45	---	---
图纸 Drawing	3000	3200	3202	3203	3001	3002	3003	3004	3005	3006	3007	3108	3010	5001	5002
M-42	382	414	414	414	414	414	---	---	---	---	---	---	---	300	400
M-56	399	527	550	550	550	550	---	---	---	---	---	---	---	---	450
M-56C	399	531	550	550	550	550	---	---	---	---	---	---	---	---	---
M-65	---	537	638	585	638	638	638	638	---	---	---	---	638	---	---
M-65C	---	541	635	589	638	638	638	638	---	---	---	---	638	---	---
M-74Z	---	566	710	618	710	710	710	710	---	---	---	---	710	---	---
M-77	---	539	756	587	756	756	756	756	---	---	---	---	756	---	---
M-77C	---	545	756	593	756	756	756	756	---	---	---	---	756	---	---
M-90	---	---	772	597	878	878	878	878	---	---	---	---	878	---	---
M-105	---	---	784	609	1032	---	1032	1032	---	---	---	---	1032	---	---
M-120	---	---	794	619	1173	---	1173	1173	1173	1173	1173	---	1173	---	---
M-130	---	---	807	632	1235	---	1365	1365	1365	1321	1365	---	1205	---	---
M-145	---	---	---	---	---	---	1436	1436	1436	1333	1311	---	1227	---	---
M-160	---	---	---	---	---	---	---	1569	1569	1346	1569	---	1240	---	---
兼容性与最大质量 (kg) Compatibility and maximum mass [kg]															

*注：本项目范围不包括使用MK-21单头燃烧器和BMK-008单头燃烧器的M74Z热气球，也不包括MK-10燃烧器、CV-08吊篮和带氧气引燃灯的MK-32燃烧器。

*Note: Balloon Model M-74Z with single burner of MK-21 and single burner of BMK-008 is not including in this project. Burner of MK-10, Basket of CV-08 and MK-32 with Oxygen supplements is not including in this project.

附录1.3 注释

1)*

燃料瓶数量 / Fuel cylinder quantity	M-42	M-56
采用DUO / With DUO	2	2
采用SOLO / With SOLO	1	----
适用于所有批准的瓶 / For all approved cylinders		

2)*已移至 一见A IV注释 注3注4注5。

moved-see A IV Notes. Note 3, Note 4, Note 5

附录2: N型号定义和批准数据 / Appendix 2: N model definition and certification data

附录2.1 概述 / Appendix 2.1 General

型号 / Model	N-180	N-210	N-250	N-300	N-355	N-425	N-450	N-500
审定当局批准日期 / Approved	1991年9月26日 26 Sep 1991	1991年10月31日 31 Oct 1991	1992年6月22日 22 Jun 1992	1998年4月30日 30 Apr 1998	1997年6月10日 10 Jun 1997	2001年4月30日 30 Apr 2001	2019年6月25日 25 Jun 2019	2009年6月16日 16 Jun 2009
技术数据 / Technical Description								
体积(m³) / Volume [m³]	5100	6000	7000	8500	10000	12000	12750	14415
载荷带数量 / Number of gores	28	28	28	28	28	28	28	32
排列方式 / Disposition	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal	水平 horizontal
最大直径(m) / Max diameter [m]	22.5	23.8	24.9	26.6	27.5	29.5	30.0	31.1
总体高度(m) / Total height [m]	27.3	28.9	30.3	32.4	33.3	35.5	35.2	36.2
最大起飞重量(kg) / MTOM [kg]	1754	2064	2408	2924	3450	4140	4140	5000
图纸编号 / Drawing number	1031	1032	1033	1034	1053	1058	1070	1061
适用序列号 / Serial numbers eligible	180-01及以上 180-01& up	210-01及以上 210-01& up	250-01及以上 250-01& up	300-01及以上 300-01& up	355-01及以上 355-01 & up	425-01及以上 425-01& up	450-01及以上 450-01& up	500-01及以上 500-01& up
燃料瓶数量 / Fuel cylinder quantity								
Worthington 4100-U4-27	2个或更多 2 or more	2个或更多 2 or more	3个或更多 3 or more	3个或更多 3 or more	4个或更多 4 or more	4个或更多 4 or more	4个或更多 4 or more	4个或更多 4 or more
UM Type M-20 or M-20D	2个及以上 2 or more	2个或更多 2 or more	3个或更多 3 or more	3个或更多 3 or more	4个或更多 4 or more	4个或更多 4 or more	4个或更多 4 or more	4个或更多 4 or more
UM Type M-30 or M-30D	2个或更多 2 or more	2个或更多 2 or more	3个或更多 3 or more	3个或更多 3 or more	4个或更多 4 or more	4个或更多 4 or more	4个或更多 4 or more	4个或更多 4 or more
UM Type T-25	2个或更多 2 or more	2个及以上 2 or more	3个或更多 3 or more	3个或更多 3 or more	4个或更多 4 or more	4个或更多 4 or more	4个或更多 4 or more	4个或更多 4 or more
UM Type M 40 or M 40D	2个或更多 2 or more	2个或更多 2 or more	3个或更多 3 or more	3个或更多 3 or more	4个或更多 4 or more	4个或更多 4 or more	4个或更多 4 or more	4个或更多 4 or more

球囊选项: 风兜或围裙; 旋转通风口; 设计横幅。

球囊温度: 1) 任何情况不得超过130℃。 2) 最大持续温度为120℃

燃烧器: 详见附录2.2: M型号适用的燃烧器和吊篮

吊篮: 详见附录2.2: M型号适用的燃烧器和吊篮

最大重量: 允许在持续温度低于120℃的情况下飞行, 或根据附录2.2中列出的吊篮/设备情况确定, 以重量较小者为准。请参阅飞行手册第5章中的载荷图。

Envelope Options: Scoop or skirt. Rotation vents. Artwork banners.

Envelope Temperature: 1) Not exceed by any concept 130°C. 2) Max. continuous temperature 120°C

Burner: See Appendix 2.2 : Burners and Baskets for N models

Basket: See Appendix 2.2 : Burners and Baskets for N models

Maximum Weight: That one permitting the flight with the continuous temperature lower than 120°C, or according to the basket/equipment used based on Appendix 2.2, whatever is less. See Load Chart in Flight Manual Chap. 5.

附录2.2 N系列热气球燃烧器、吊篮等组合/Appendix 2.2 N Series Hot Air Balloon Burner, Basket

燃烧器 Burner																
型别 Type	MK-2 / SUPER		MK-10*			MK-21			MK-21 /ELEC	BMK- 008	BMK-050			MK-32*		
单元 Unit	三头 Tripl e	四头 Quad	双头 Doub le	三头 Tripl e	四头 Quad	双头 Doub le	三头 Tripl e	四头 Qua d	选项 Optio n	双头 Doub le	双头 Doub le	三头 Tripl e	四头 Quad	双头 Doub le	三头 Tripl e	四头 Quad
图纸 Drawi ng	2004/ 2007	2005/ 2008	2012	2013	2014	2022	2023	2023	2022/ 0100- 0000- 0200	2032	2052	2053	2054	2062	2063	2064
N-180	X	X	---*	---*	---*	X	X	X	X	X	X	---	---	---*	---*	---*
N-210	X	X	---	---*	---*	X	X	X	X	X	X	---	---	---*	---*	---*
N-250	---	X	---	---	---*	---	X	X	X	---	X	X	---	---	---*	---*
N-300	---	X	---	---	---*	---	X	X	X	---	X	X	---	---	---*	---*
N-355	---	X	---	---	---*	---	---	X	X	---	---	X	X	---	---	---*
N-425	---	X	---	---	---*	---	---	X	X	---	---	X	X	---	---	---*
N-450	---	---	---	---	---	---	---	X	X	---	---	X	X	---	---	---*
N-500	---	---	---	---	---	---	---	X	X	---	---	---	X	---	---	---*

吊篮 Basket									
型别 Type	C5	C6	C7	C8	CV-08*	C9	C11	C12	C14
尺寸(米) Size (m)	1.4x2.2	1.3x1.8	1.4x2.0	1.5x2.6	1.5x2.6	1.6x3.0	1.7x3.5	1.7x4.5	1.7x5.2
图纸 Drawing	3005	3006	3007	3008	3108	3009	3011	3012	3014
N-180	1745	1368	1607	1754	---*	1754	---	---	---
N-210	1936	---	1632	2064	---*	2064	2064	---	---
N-250	1959	---	---	2199	---	2408	2408	---	---
N-300	1986	---	---	2226	---	2680	2924	2924	---
N-355	2010	---	---	2250	---	2704	3216	3450	---
N-425	2010	---	---	2250	---	2814	3332	3712	4140
N-450	2182	---	---	2435	---	2914	3457	3878	4140
N-500	---	---	---	---	---	---	---	3813	5000
兼容性与最大质量 (kg) Compatibility and maximum mass [kg]									

*注：本项目范围不包括MK-10燃烧器、CV-08吊篮和带氧气引燃灯的MK-32燃烧器。

*Note: Burner of MK-10, Basket of CV-08 and MK-32 with Oxygen supplements is not including in this project.

----结束----
----END----