

中国民用航空局
CIVIL AVIATION ADMINISTRATION OF CHINA

型号认可证数据单
THE VALIDATION DATA SHEET

编号/No: VTC0374A

版次/Revision: 1

型号/Type: DA 50

型别/Model:

DA 50 C

批准人/Approved By:

徐 峰

职务/Title: Deputy Director General

日期/date: 2024年04月24日

本数据单是型号认可证（编号：VTC0374A）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: VTC0374A), prescribes condition and limitation under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Chinese Civil Aviation Regulation.

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

Diamond Aircraft Industries GmbH
Nikolaus-August-Otto-Straße 5
2700 Wiener Neustadt
Austria

第 1 部分 概述

SECTION 1 GENERAL

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

	型号认可证数据单编号、版次和颁发日期 Validation of Type Certificate Data Sheet Number, Revision and issuance date	型号合格证数据单编号、版次和颁发日期 Type Certificate Data Sheet Number, Revision and issuance date
当前 Current	VTC0374A, 版次1, 2024年4月24日 VTC0374A, Revision 1, 24, April 2024	EASA.A.639, 版次 04, 2023 年 3 月 1 日 EASA.A.639, Issue: 04, 1 March 2023
历史 History	VTC0374A, 版次0, 2022年10月26日 VTC0374A, Revision 0, 26 October 2022	EASA.A.639, 版次 02, 2021 年 5 月 26 日 EASA.A.639, Issue: 02, 26 May 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

认可数据单修订记录/ Change Record of the VTCDs

版次/ Revision	相对上一版的修订记录 Change Record	备注 Remark
1	(1) 更新了 EASA 审定基础，对在制造厂安装防冰系统的飞机提出适航要求。 Update EASA Certification Basis for aircraft equipped with the factory installed Anti-icing system. (2) 修改批准的型号设计定义 Revise the Type Design Definition. (3) 修改“批准的运行能力”段落关于在已知或预报的结冰条件下飞行的能力。 Revise the Paragraph Approved Operations Capability on the capability of the Flight into known or forecast icing conditions. (4) 修改注释 2，增加注释 5 和注释 6。 Revise Note 2. Note 5 and Note 6 added.	

2. 认可当局/Validation Authority:

审定当局/Certifying Authority:

中国民用航空局/CAAC

欧盟航空安全局/EASA

3. 型号合格证持有人/Type Certificate Holder:

Diamond Aircraft Industries GmbH

Nikolaus-August-Otto-Straße 5

2700 Wiener Neustadt

Austria

4. 生产制造商/Manufacturer

Diamond Aircraft Industries GmbH

Nikolaus-August-Otto-Straße 5

2700 Wiener Neustadt

Austria

5. 双发延程飞行/ETOPS:

不适用/Not Applicable

6. CAAC 专用要求/Special Requirements:

交付到中国的每一架特定的航空器必须满足下述特殊要求:

Each of specific aircraft delivered to China shall meet the following Special Requirements:

(1) 中华人民共和国国家标准 “3 号喷气燃料” (GB6537)

National Standard of the People's Republic of China “No. 3 Jet Fuel” (GB6537).

(2) 标牌要求/ Placard Requirements:

根据 CCAR 21.29(5), 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; 机上所有向旅客或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和标牌; 旅客可能使用的机上所有应急设备的操作、使用说明应当至少有中文表述;

Per CCAR 21.29(5), All on-board placard and marking for awareness, warning, and note to the passenger; all on-board placard and marking for opening method and location indication of the emergency exit and door to passenger and outside rescuer; and all operational instructions for on-board emergency equipment possible operated by passengers shall be presented in Chinese at least.

第 2 部分 数据 (型别: DA 50 C)

SECTION 2 DATA (Models: DA 50 C)

1. 产品型别和批准日期/Model and Approval Date

型别 Model	EASA审定申请日期 EASA Application Date	EASA型号审定批准日期 EASA Type Certification Approval Date	类别 Category
DA 50 C	2016年11月25日 25 November 2016	2020年8月27日 27 August 2020	正常类飞机 Normal Category Aeroplane

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

CAAC的认可审定基础由EASA的审定基础、CAAC的环境保护要求和附加技术条件组成。

The CAAC validation certification basis consists of the EASA certification basis, the CAAC environmental protection requirements and the CAAC additional technical conditions.

EASA 审定基础/EASA certification basis

详见EASA型号合格证数据单EASA.A.639 (版本04) 中的DA 50 C型别的审定基础, 除以下内容外/ Refer to EASA Type Certificate Data Sheet No.EASA.A.639 Issue 04, except:

CS-ACNS, Initial Issue, issued 17-Dec-2013

Deviations CRI F-107-Continuity requirements for ADS-B

ICAO Annex 16, Volume I, 8 Edition / Amendment 12

中国民用航空局环境保护要求/CAAC Environmental Protection Requirements

CCAR-36-R2

中国民用航空局附加技术条件/CAAC Additional Technical Conditions

交付到中国的每一架 DA 50 C 飞机须满足下述附加技术条件:

Each of Model DA 50 C aircraft delivered to China shall meet the following Additional Technical Conditions:

(1) 中华人民共和国国家标准 “3 号喷气燃料” (GB6537)

National Standard of the People's Republic of China “No. 3 Jet Fuel” (GB6537).

(2) 标牌要求/Placard Requirements:

根据 CCAR21.29(5), 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, 应当用中文或英文书写; 下列各项应当至少有简体中文表述

- 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。

Per CCAR 21.29(5), the manuals, placards, listings and instrument markings required by the applicable airworthiness regulations and noise requirements are presented in the Chinese or English language. The following items must be presented

in Simplified Chinese at least.

- 1) All on-board placard and marking for awareness, warning, and note to the passenger;
- 2) All on-board placard and marking for opening method and location indication of the emergency exit and door to passenger and outside rescuer; and
- 3) All operational instructions for on-board emergency equipment possible operated by passengers.

生产依据/ Production Basis:

AT.21G.0001, 见注释 1/See Note 1.

3. 技术特征和使用限制/Technical Characteristics and Operational Limitations

型号设计定义/Type Design Definition:

文件 DA 50 Type Design Definition (文件编号: Doc. No. 9.07.00 Chapter V002/7; 版次: 1 版) 及以后经批准的版本。

The type design definition listed in DA 50 Type Design Definition (Doc. No. 9.07.00 Chapter V002/7, Rev. 1), and later approved revision.

描述/Description:

单发, 五座, 采用 T 型尾翼和可收放三轮起落架的下单翼复合材料飞机。

Single engine, five-seat, low wing cantilever composite construction aircraft with T-tail empennage configuration and retractable tricycle landing gear

几何尺寸/Dimensions:

翼展/Span: 13.41 m (44 ft)

长/Length: 9.24 m (30.31 ft)

高/Height: 2.95 m (9.69 ft)

机翼面积/Wing Area: 16.43 m² (176.85 ft²)

发动机/Engine:

一台 Continental Aerospace Technologies GmbH 的活塞发动机

型号: Centurion 3.0 (见注释 3)

EASA 型号合格证号: EASA.E.104

CAAC 型号认证号: VTC0366E, 认可数据单版本: 1

1 Continental piston engine

Model: Centurion 3.0 (See Note 3)

EASA Type Certificate No. EASA.E.104

CAAC VTC No. VTC0366E, VTCDS Revision: 1

发动机限制/Engine Limitations:

螺旋桨转速 2340 rpm, 最大起飞功率 (5 分钟) 221kw (300HP)

螺旋桨转速 2300 rpm, 最大连续功率 200kw (272HP)

Max. Take-Off Power (5 min) at 2340 prop rpm 221kw (300HP)

Max. Continuous Power at 2300 prop rpm 200kw (272HP)

发动机使用限制见发动机型号合格证数据单或者 EASA 批准的飞机飞行手册第二章。

For engine operating limits see the Engine Type Certificate Data Sheet or the Chapter 2 of the EASA

approved Airplane Flight Manual.

载荷系数/Load Factors:

	V _A	V _{NE}	襟翼处于 T/O 位或 LDG 位 With flaps in Take-Off or LDG position
正/Positive	+3.8	+3.8	+2.0
负/Negative	-1.52	0	0

螺旋桨/Propeller:

一副 MT-Propeller Entwicklung GmbH 公司的变距螺旋桨

型号: MTV-12-D/210-56

EASA 型号合格证号: EASA.P.013

CAAC 型号认可证号: VTC159P, 认可数据单版本: 0

桨叶数量: 3

直径: 2.10 米

旋转方向: 顺时针 (驾驶员视角)

One variable pitch propeller manufactured by MT-Propeller Entwicklung GmbH

Model: MTV-12-D/210-56

EASA Type Certificate No. EASA.P.013

CAAC VTC No. VTC159P, VTCDS Revision: 0

Number of Blades: 3

Propeller Diameter: 2.10 m

Sense of Rotation: Clockwise (pilot's view)

燃油/Fuel:

Jet A-1 (ASTM D-1655)

中华人民共和国国家标准 “3 号喷气燃料” (GB6537)

详见适用的飞机飞行手册

ASTM D-1655 grades Jet A-1

National Standard of the People's Republic of China “No. 3 Jet Fuel” (GB6537)

for more details see applicable AFM.

燃油容量/Fuel Capacities:

左侧油箱

共计: 98.4 升 (26 美加仑)

可用: 94.6 升 (25 美加仑)

右侧油箱

共计: 96.5 升 (25.5 美加仑)

可用: 90.8 升 (24 美加仑)

Left Hand Fuel Tank

Total: 98.4 liters (26 US Gallons)

Usable: 94.6 liters (25 US Gallons)

Right Hand Fuel Tank

Total: 96.5 liters (25.5 US Gallons)

Usable: 90.8liters (24 US Gallons)

滑油/Oil:

发动机: 航空壳牌石油公司超级柴油或见适用的飞机飞行手册第 2 章
 齿轮箱: CENTURION 齿轮箱滑油 N1 或见适用的飞机飞行手册第 2 章
 Engine: AeroShell Oil Diesel Ultra or see applicable AFM, chapter 2
 Gearbox: CENTURION Gearbox Oil N1 or see applicable AFM, chapter 2

滑油容量/Oil Capacities:

12 升/liters

冷却液/Coolant:

水/冷却器保护的更多详细资料见适用的飞机飞行手册第 2 章
 Water / Radiator Protection, for more details see applicable AFM, Chapter 2

空速限制/Airspeed Limits:

不可超越速度 V_{NE}	189 KEAS
使用机动速度 V_O	117 KEAS (1650 kg 以下) 123 KEAS (1651 kg 到 1850 kg) 131 KEAS (1850 kg 以上)
最大襟翼展开速度 V_{FE}	130 KEAS (起飞) 118 KEAS (着陆)
最大结构巡航速度 V_{NO}	150 KEAS
Never exceed speed V_{NE}	189 KEAS
Operating Manoeuvring speed V_O	117 KEAS (Up to 1650 kg) 123 KEAS (1650 kg to 1850 kg) 131 KEAS (Above 1850 kg)
Maximum flaps extended speed V_{FE}	130 KEAS (Take-Off) 118 KEAS (Landing)
Maximum Structural Cruising Speed V_{NO}	150 KEAS

其它空速限制见适用的飞机飞行手册第 2 章
 For other airspeed limits, see the applicable AFM, Chapter 2.

最大使用升限/Maximum Operating Altitude:

6096 m (20,000 ft)

重心范围/ Centre of Gravity Range:

前限: 基准后 2.315 m, 1480 kg 到 1750 kg
 基准后 2.420 m, 1999 kg
 后限: 基准后 2.355 m, 1480 kg
 基准后 2.458 m, 1645kg
 基准后 2.470 m, 1999 kg

Forward Limit:

2.315 m aft of datum plane at 1480 kg to 1750 kg

2.420 m aft of datum plane at 1999 kg

Aft Limit:

2.355 m aft of datum plane at 1480 kg

2.458 m aft of datum plane at 1645 kg

2.470 m aft of datum plane at 1999 kg

给定点之间线性变化

Straight line variation between indicated points.

批准的运行能力/Approved Operations Capability:

目视飞行规则（昼间，夜间），仪表飞行规则

在已知或预报的结冰条件下飞行（见注释 5）

VFR (Day, Night), IFR

Flight into known or forecast icing conditions (See Note 5)

最大重量/Maximum Weights:

最大起飞重量/Max. Take-Off weight 1999 kg (4407 lb)

最小飞行重量/Min. Flight weight 1480 kg (3263 lb)

最大零油重量/Max. Zero fuel weight 1900 kg (4189 lb)

最大着陆重量/Max. Landing weight 1999 kg (4407 lb)

测量基准/Datum:

翼根肋最前点向前 2.196 米。

2.196 m forward of the most forward point of the root rib on the stub wing.

水平测量措施/Leveling Means:

左侧门框。

Left Hand door frames.

最小飞行机组/Minimum Flight Crew:

1 名驾驶员

1 pilot

最大客座数/Maximum Passenger Seating Capacity:

4 名乘客

4 passengers

最大行李/货物/ Max. Baggage/Cargo:

行李舱 A 区最大载荷/Max. Load in Area A: 40 kg (88 lb)

行李舱 B 区最大载荷/Max. Load in Area B: 35 kg (77 lb)

行李舱 C 舱最大载荷/Max. Load in compartment C: 10 kg (22 lb)

行李舱 D 舱最大载荷/Max. Load in compartment D: 5 kg (11 lb)

操纵面运动/ Control Surface Deflections:

副翼: 25° ±2° （上）/15° +2-0° （下）

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8	Supplement N022 Operation In China_AFMS-N022	9.01.01-N022	001
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4. 批准的技术资料/Approved Technical Documents

- a) DA 50 C 飞机飞行手册，文件编号：9.01.01-E. /Airplane Flight Manual DA 50 C, Doc. No. 9.01.01-E.（见注释 6/See Note 6）
- b) DA 50 C 飞机维护手册，文件编号：9.02.01. / Airplane Maintenance Manual DA 50 C, Doc. No. 9.02.01.

5. 注释/Notes

- 注释/NOTE 1: 进口要求/Import Requirement
为具备在中国运行的资格，按本型号认证制造的每架航空器必须具有一份出口适航证，其上签注有出口国适航当局的审定声明，即：本架航空器符合 CAAC 所批准的型号设计，并处于可安全运行的状态。
To be considered eligible for operation in China, each aircraft manufactured under this Validation of Type Certificate must be accompanied by a certificate of airworthiness for export endorsed by Export Authority which states (in English language): This aircraft conforms to its CAAC type design and is in a condition for safe operation.
- 注释/NOTE 2: 保留。
Reserved.
- 注释/NOTE 3: 安装在 DA 50C 飞机上的发动机为“Centurion 3.0”，销售代号 CD-300
Approved engine model for installation in the DA 50 C: Centurion 3.0, sales designation CD-300
- 注释/NOTE 4: 包含后续经批准的版本。
Including the subsequent approved version(s).
- 注释/NOTE 5: 如按照设计更改 OÄM 50-011 安装了防冰系统，则允许飞机在已知或预报的结冰条件下飞行。
Flights into known or forecast icing conditions is approved, if the ice protection system in accordance to Design Change OÄM 50-011 is installed.
- 注释/NOTE 6: 如飞机在已知或预报的结冰条件下使用防冰系统飞行，DA 50 C 飞机飞行手册应增补飞机飞行手册补充 SUPPLEMENT S003 ICE PROTECTION SYSTEM FOR FLIGHT INTO KNOWN ICING (Doc No. 9.01.01-S003)。
If the aircraft is operated the ice protection system of the DA 50 C in known icing conditions, the SUPPLEMENT S003 ICE PROTECTION SYSTEM FOR FLIGHT INTO KNOWN ICING (Doc No. 9.01.01-S003) must be supplemented to the Airplane Flight Manual DA 50 C.

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