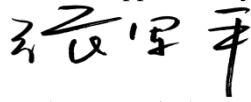


中国民用航空局
CIVIL AVIATION ADMINISTRATION OF CHINA

型号合格证数据单
TYPE CERTIFICATE DATA SHEET

编号/No: TC0084A-HD
版次/Revision: 1
型别/Model: V2000CG
批准人/Approved By:

职务/Title: 局长
日期/date: 2025-06-16

本数据单是型号合格证（编号：TC0084A-HD）的组成部分，它规定了获得该型号合格证的产品满足中国民用航空规章相关适航要求的条件和限制。

This data sheet, which is part of Type Certificate (No:TC0084A-HD), 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.

型号合格证持有人/Type Certificate Holder:

上海峰飞航空科技有限公司

上海市金山工业区广业路 585 号 1 幢 306 室

Shanghai AutoFlight Co., Ltd.

Room 306, Building 1, No. 585 Guangye Road, Jinshan Industrial Zone, Shanghai, 201503.

第一部分：V2000CG 型别技术数据/ SECTION A: Model V2000CG TECHNICAL DATA

A I. 概述 (General)

1. 产品型别 Product Model: V2000CG
- V2000CG 型无人驾驶航空器系统包括:
V2000CG Unmanned Aircraft System includes:
- a. 航空器, 型别 Aircraft, Model:

V2000CG

b. 地面控制站, 设备型号:
Ground Control Station, Equipment Type

AF-D_GCS_001
2. 类别 Category: 限用类/Restricted
3. 型号合格证申请日期 Type Certificate Application Date: 2022-09-27
4. 型号合格证批准日期 Type Certificate Approval Date: 2024-03-21

A II. 生产依据 Production Basis

依据型号合格证生产 (TC only) : SN0001-SN0003

Produced under Type Certificate (TC only): SN0001-SN0003

生产许可证编号: PC0080A-HD。依据生产许可证 (PC) 生产: SN0004 及后续架次。

Production Certificate (PC No.: PC0080A-HD): SN0004 and subsequent.

A III. 审定基础/Certification Basis

《V2000CG 型无人驾驶航空器系统专用条件》 (SC-21-004) , 2023 年 11 月 12 日颁发

Special Condition for V2000CG Unmanned Aircraft System(SC-21-004), issued on Nov. 12, 2023

A IV. 技术特性和使用限制/Technical Characteristics and Operational Limitations

1. 设计定义/Design Definition
- 详见《V2000CG 型号设计定义清单文件》 (文件编号: EC20-00-DD-0001, 版本 H 及后续经批准版本)。
- Refer to *V2000CG Type Design Definition List* (Document No. EC20-00-DD-0001, Revision H and subsequent approved revision)
2. 航空器/Aircraft
- a. 升力电机及控制系统/Lift Motor and Controller Integration

设备型号 Equipment Type:

AF-M280A_70

装机数量 Number of Installation:

10

额定工作电压范围 Rated Voltage Range:

290~420V

瞬间最大功率 Instantaneous Maximum Power:

65kW (持续时间 30s duration)

最大功率 Maximum Power:

48kW (持续时间 2min duration)

最大连续功率 Maximum Continuous Power:

40kW

电机最高工作温度 Motor Maximum Operating Temperature:

190°C

b. 推力电机及控制系统/Push Motor and Controller Integration

设备型号 Equipment Type:

AF-M280A_80

装机数量 Number of Installation:

3

额定工作电压范围 Rated Voltage Range:	290~420V
瞬间最大功率 Instantaneous Maximum Power:	80kW (持续时间 45s duration)
最大功率 Maximum Power:	62kW (持续时间 3min duration)
最大连续功率 Maximum Continuous Power:	55kW
电机最高工作温度 Motor Maximum Operating Temperature:	190°C

c. 升力旋翼/Lift Rotor

设备型号 Equipment Type:	AF-L118A
装机数量 Number of Installation:	5 套 Set
直径 Diameter:	3.0 m
桨距 Pitch:	定距 Fixed
最大转速 Maximum RPM:	1750RPM
设备型号 Equipment Type:	AF-L118B
装机数量 Number of Installation:	5 套 Set
直径 Diameter:	3.0 m
桨距 Pitch:	定距 Fixed
最大转速 Maximum RPM:	1750RPM

d. 推力螺旋桨/Push Propeller

设备型号 Equipment Type:	AF-P75A
装机数量 Number of Installation:	2 套 Set
直径 Diameter:	1.9 m
桨距 Pitch:	定距 Fixed
最大转速 Maximum RPM:	2700RPM
设备型号 Equipment Type:	AF-P75B
装机数量 Number of Installation:	1 套 Set
直径 Diameter:	1.9 m
桨距 Pitch:	定距 Fixed
最大转速 Maximum RPM:	2700RPM

e. 动力电池/Power Battery

设备型号 Equipment Type:	AF-110-50
标称能量 Nominal Energy:	158.8 kWh
工作电压范围 Voltage Range:	275~420 V
起飞电池温度范围 Take-off Battery Temperature Range:	5~40°C
降落电量 (荷电状态 SOC) 限制	≥25%
Landing State of Charge (SOC) Limit:	
电池允许充电温度范围	
Allowed Battery Charging Temperature Range:	0~50°C

f. 固定翼模式空速限制/Airspeed Limitation for Fixed-wing Mode

最小安全速度 Minimum Safe Speed V_{MS} :	42 m/s (82 KCAS)
不可超越速度 Never-exceed Speed V_{NE} :	60 m/s (116 KCAS)

g. 重心范围/C.G. range

重量重心包线详见《V2000CG 型无人驾驶航空器系统飞行操作手册》(文件编号: EC20-00-PM-0021, 版本 R03 及后续经批准的版本)。

Refer to *V2000CG Unmanned Aircraft System Flight Operation Manual* (Document No. EC20-00-PM-0021, Revision R03 and subsequent approved revision).

h. 最大重量/Maximum Weight

最大起飞重量 MTOW: 2000 kg

i. 测量基准/Datum

航空器零站位，位于 4 号和 5 号电机中轴线所构成的平面。

Aircraft zero station located at the plane formed by the axes of Motor 4 and Motor 5.

j. 调平措施/Leveling Means

详见《V2000CG 型无人驾驶航空器系统维护手册》（EC20-00-MP-0020，版本 R01 及后续经批准的版本）第 08-10-00 节。

Refer to *V2000CG Unmanned Aircraft System Maintenance Manual* (Document No. EC20-00-MP-0020, Revision R01 and subsequent approved revision), Section 08-10-00.

k. 最大起降场地高度/Maximum Take-off and Landing Altitude

2700 m

l. 最大使用高度/Maximum Operating Altitude

3000 m

m. 最大离地高度/Maximum Height

300 m AGL

n. 环境温度限制/Environmental Temperature Limit

-20°C ~ 55°C

o. 操纵面偏转角度/ Control Surface Deflection

副翼 Aileron

向下 Down 30° ± 1°

向上 Up 30° ± 1°

升降舵 Elevator

向下 Down 30° ± 1°

向上 Up 30° ± 1°

方向舵 Rudder

向左 Left 30° ± 1°

向右 Right 30° ± 1°

3. 地面控制站/Ground Control Station

a. 最大控制距离（通视条件下）/Maximum Control Distance (Line of Sight, LOS)

100 km，不同条件下的最大控制距离详见《V2000CG 型无人驾驶航空器系统飞行操作手册》（文件编号：EC20-00-PM-0021，版本 R03 及后续经批准的版本）。

100 km. For the maximum control distance under different conditions, refer to the *V2000CG*

Unmanned Aircraft System Flight Operations Manual (Document No. EC20-00-PM-0021, Revision R03 and subsequent approved revision).

b. 最小飞行机组/Minimum Flight Crew

每个起降点两名。

Two crew members at each take-off or landing site.

4. 数据链路/Datalink

a. 900MHz 数传;

900MHz TeleRadio link

b. 遥控器链路, 433MHz 数传;

Remote Control Link, 433MHz TeleRadio link

c. 双网双待 4G 互联网, 频段 TDD-LTE: B38/B39/B40/B41, FDD-LTE: B1/B3/B8;

Dual-network 4G (TDD-LTE: B38/B39/B40/B41; FDD-LTE: B1/B3/B8)

d. 1.4GHz 图传和/或 1980-2200MHz 天通卫星通讯。

1.4GHz VideoRadio communication link and/or 1980-2200MHz Tiantong satellite communication.

注: 图传通讯链路 with 卫星通讯链路为选装系统, 航空器出厂时必须选其中一种安装或均安装。

Note: The VideoRadio communication link and satellite communication link are optional systems; the aircraft shall be equipped with either one or both upon factory delivery.

5. 必要设备/Required Equipment

无人驾驶航空器系统必须安装审定基础所要求的设备, 以满足型号合格审定的要求。设备清单详见《V2000CG 型号设计定义清单文件》(文件编号: EC20-00-DD-0001, 版本 H 及后续经批准版本)

The Unmanned Aircraft System must be equipped with devices required by the certification basis to meet the requirements of type certification. For the equipment list, refer to the *V2000CG Type Design Definition List* (Document No. EC20-00-DD-0001, Revision H and subsequent approved revision).

6. 使用限制/Operational Limitations

a. 航空器载货运行;

Cargo-carrying operation only;

b. 抗地面风等级: 地面风速不大于 15 节 (8m/s);

Surface wind resistance level: the surface wind velocity shall not be greater than 15 knots (8m/s);

c. 起降场地要求平坦且经过修整, 直径应不小于 20 米, 场地表面坡度不大于 3°;

The take-off and landing site must be flat and trimmed, with a diameter of no less than 20 meters and a surface slope of no more than 3°.

d. 不在已知大雪、结冰、雷电和降雨天气环境运行, 对于飞行过程中偶然遭遇降雨的情况, 按照飞行操作手册中的相应程序处置;

No operation under known heavy snow, icing, thunderstorms, or rain. Follow the corresponding procedures defined in Flight Operation Manual in case of unexpected rain during flight.

e. 不在人口密集区域上空飞行;

No operation over densely populated area.

f. 除非经空中交通管理部门批准, 不在融合空域飞行。

No operation in integrated airspace unless approved by Air Traffic Control authority

其他限制详见《V2000CG 型无人驾驶航空器系统飞行操作手册》(文件编号: EC20-00-PM-0021, 版本 R03 及后续经批准的版本)

For other limitations, refer to the *V2000CG Unmanned Aircraft System Flight Operation Manual* (Document No. EC20-00-PM-0021, Revision R03 and subsequent approved revision).

A V. 批准的技术资料/Approved Technical Documents

1. 《V2000CG 型无人驾驶航空器系统飞行操作手册》（文件编号：EC20-00-PM-0021，版本 R03 及后续经批准的版本）

V2000CG Unmanned Aircraft System Flight Operation Manual (Document No. EC20-00-PM-0021, Revision R03 and subsequent approved revision)
2. 《V2000CG 型无人驾驶航空器系统维护手册》（文件编号：EC20-00-MP-0020，版本 R01 及后续经批准的版本）

V2000CG Unmanned Aircraft System Maintenance Manual (Document No. EC20-00-MP-0020, Revision R01 and subsequent approved revision).

A VI. 注释/Notes

注 释 1 在对每架航空器首次颁发适航证时，必须提供现行的重量重心称重报告，其中必须含

/NOTE 1 有经审定的设备清单。
A current weight and center of gravity weighing report, including the approved equipment list, must be provided for the initial airworthiness certification of each aircraft.

第二部分：管理信息/SECTION B: ADMINISTRATIVE INFORMATION

B I.型号持有人记录/Type Certificate Holder Record

上海峰飞航空科技有限公司

Shanghai AutoFlight Co., Ltd.

B II.修订记录/ Change Records

型号合格证数据单编号 TCDS No.	版次 Revision	主要修订内容 Highlight	修订日期 Date
TC0084A-HD	0	初次颁发 Initial Issue	2024 年 3 月 21 日 March 21, 2024
TC0084A-HD	1	(1) 更新生产依据；Update production basis. (2) 更新飞行操作手册、维护手册的最新经批准的版本；Update the latest approved revision of Flight Operation Manual and Maintenance Manual. (3) 更新“数据链路”增加卫星通讯及其频段，并进行选装标注；Update Datalink section to include satellite communication and its frequency bands, and note the optional installation. (4) 删除昼间飞行限制；Delete the limitation of daylight operation. (5) 增加英文对照及文字勘误。Add English translation and some text corrections.	2025 年 6 月 9 日 June 9, 2025