

型号认可证数据单
THE VALIDATION DATA SHEET

编号/No: VTC0376E

版次/Revision: 0

型别/Type:

PW814GA

PW815GA

批准人/Approved By:



职务/Title: Director General

日期/Date: 2023-06-12

本数据单是型号认可证（编号 VTC0376E）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 a part of Validation Type Certificate (No: VTC0376E), prescribes conditions and limitations 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:

加普惠公司，魁北克省隆格伊市玛丽-维克多林 1000 号，J4G1A1。

Pratt & Whitney Canada Crop, 1000 Marie-Victorin Longueuil, Quebec J4G 1A1.

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

	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	VTC0764E, 版次0, 2023年06月12日	TCCA TCDS No. E-39, Revision 4, October 16, 2018

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. 认可当局/Validation Authority:

中国民用航空局/CAAC

审定当局/Certifying Authority:

加拿大运输部航空局/TCCA

3. 型号合格证持有人/Type Certificate Holder:

加普惠公司，
魁北克省隆格伊市玛丽-维克多林 1000 号，J4G 1A1。
Pratt & Whitney Canada Crop
1000 Marie-Victorin Longueuil, Quebec J4G 1A1.

4. 生产制造商/Manufacturer

加普惠公司，
魁北克省隆格伊市玛丽-维克多林 1000 号，J4G 1A1。
Pratt & Whitney Canada Corp.
1000 Marie-Victorin
Longueuil, Quebec
Canada, J4G 1A1

5. 双发延程飞行/ETOPS:

不适用/N/A

6. CAAC 专用要求/Special Requirements:

中华人民共和国国家标准“3 号喷气燃料”（GB 6537）。

National Standard of the People's Republic of China
“No.3 Jet Fuel”（GB 6537）

第2部分 数据单

Section 2 DATA SHEET

1. 型号 PW814GA

2015 年 2 月 15 日批准

Model PW814GA

Approved February 15, 2015

额定值

(见注释 1 和 2)

Ratings

(See NOTES 1 & 2)

	推力		环境限制		涡轮级间温度
	daN	lb.	°C	(°F)	Indicated Turbine Temperature (ITT)
起飞/Takeoff	6,863	15,429	33	(91)	965°C
最大连续 /Maximum Continuous	6,296	14,155	28	(82)	956°C

发动机限制
Engine Limits

低压轴转速 N1 rpm Low Pressure Spool N1 rpm	高压轴转速 N2 rpm High Pressure Spool N2 rpm	涡轮级间温度/ Indicated Turbine Temperature (ITT)
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最大启动

Maximum
Starting

6,315 (101.2%)

24,043 (100%)

基于额定值
- as per Ratings
965°C

2. 型号 PW815GA

2015 年 2 月 15 日批准

Model PW814GA

Approved February 15, 2015

额定值

(见注释 1 和 2)

Ratings

(See NOTES 1 & 2)

	推力		环境限制		涡轮级间温度
	daN	lb.	°C	(°F)	Indicated Turbine Temperature (ITT)
起飞/Takeoff	7,122	16,011	33	(91)	965°C
最大连续 /Maximum Continuous	6,925	15,568	28	(82)	956°C

发动机限制
Engine Limits

低压轴转速 N1 rpm Low Pressure Spool N1 rpm	高压轴转速 N2 rpm High Pressure Spool N2 rpm	涡轮级间温度/ Indicated Turbine Temperature (ITT)
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最大启动

Maximum
Starting

6,315 (101.2%)

24,043 (100%)

基于额定值
- as per Ratings
965°C

数据适用于除特别标明外的所有型号/DATA PERTINENT TO ALL MODELS EXCEPT AS INDICATED

类型/Type	双转子涡扇发动机/Twin spool turbofan engine		
瞬态速度和涡轮级间温度 Transient Speeds and ITT	详见安装和使用手册第 2 章。 Refer to Section 2 of the Installation and Operating Manual.		
引气 Air Bleed	详见安装和使用手册第 11 章。 Refer to Section 11 of the Installation and Operating Manual.		
燃油 Fuel	详见安装和使用手册第 6 章燃油压力和温度。 Refer to Section 6 of the Installation and Operating Manual for fuel pressure and temperature. 详见发动机维护手册中批准的燃油类型和添加剂。 Refer to the Engine Maintenance Manual for approved fuel types and additives.		
滑油 Oil	详见安装和使用手册第 2 章滑油压力和温度。 Refer to the Installation and Operating Manual Section 2 for oil pressure and temperature. 详见发动机维护手册中批准的滑油类型和品牌。 Refer to the Engine Maintenance Manual for approved oil types and brand.		
滑油容量 Oil Capacity	公升 Litres	英制加仑 Imp. Gallons	美制加仑 U.S. Gallons
总量/Total	9.5	2.09	2.51
可用量/Useable	3.6	0.79	0.95
设备 Equipment	以下是发动机物料清单中列出的标准设备: The following are standard equipment as itemized in the engine bill of material: 全权限数字发动机控制系统, 包括发动机电子控制, 专用电源的永磁交流发电机; 燃油计量单元, 带旁通指示的过滤和流量传递装置; 引气阀和压气机可调静子叶片作动装置; 发动机线束; 以及转速、温度和压力传感器。 • Full authority digital engine control system comprising electronic engine control with dedicated power source from a permanent magnetic alternator; fuel metering unit, filtering with bypass indication, and flow transmission; bleed valves and variable compressor vane actuation; engine harnesses; and speed, temperature and pressure sensors. 采用机身供电的双点火器和双通道点火激励器。 • Dual igniters and dual channel ignition exciter using airframe supplied		

power.

用于滑油和燃油温度管理的燃滑油热交换器，空气滑油冷却器，和整体驱动发电机的空气滑油冷却器。

- Oil and fuel temperature management comprising fuel-oil heat exchanger, air-oil cooler, and integrated drive generator air-oil cooler.

滑油系统包括滑油和回油泵；温度、压力、和液位传感器；带旁通指示的滑油滤；以及屑末检测。

- Lubrication system comprising oil and scavenge pumps; temperature, pressure, and level sensors; oil filtering with bypass indication; and chip detection.

空气涡轮起动器和阀门。

- Air turbine starter and valve.

振动传感器。

- Vibration sensors.

有关辅助动力提取规定以及飞机部件连接相关的其他规定，详见安装和使用手册第 4、7、8、9、10 和 11 节。

Refer to the Installation and Operating Manual Section 4, 7, 8, 9, 10 and 11 for accessory power extraction provisions and additional information on provisions and connections for airframe provided components.

电气系统

Electrical System

关于 HIRF 和闪电防护的鉴定和一致性，详见安装和使用手册第 7 章。有关功能和电气描述，详见安装和使用手册及控制系统接口控制文件中提到的电路图。

Refer to Section 7 of the Installation and Operating Manual for HIRF and Lightning qualification and conformance. Refer to Electrical drawing referred to in the Installation and Operating Manual and Control System Interface Control Document for functional and electrical descriptions.

审定基础

Certification Basis

a) AWM 第 533 章-飞机发动机，533-13 修正案；和

a) AWM Chapter 533 - Aircraft Engines, at Change 533-13; and

b) AWM 第 516 章子章节 B-飞机发动机排放，参考 ICAO 附件 16，卷 II

b) Subchapter B of AWM Chapter 516- Aircraft Engine Emissions, which refers to ICAO Annex 16, Volume II

申请日期

Application Date

PW814GA/PW815GA

首次日期

2011 年 5 月 11 日

Initial Date

May 11, 2011

推迟日期

2012 年 3 月 31 日

Deferred Date

March 31, 2012

型号设计定义

Type Design Definition

PW814GA/PW815GA 的构型在发动机装配图 33B1170 中定义

Configuration of PW814GA/PW815GA is defined by Engine Assembly Drawing 33B1170

批准的出版物 Approved Publications	a) PW814GA/PW815GA 安装和使用手册 P/N 33B1410。 a) PW814GA/PW815GA Installation and Operating Manual P /N 33B1410. b) PW814GA/PW815GA 控制系统接口控制文件 P/N 33B1286。 b) PW814GA/PW815GA Control System Interface Control Document P /N 33B1286. c) PW814GA/PW815GA 适航限制手册 P /N 33B1391。 c) PW814GA/PW815GA Airworthiness Limitation Manual P /N 33B1391.
持续适航文件 Instructions for Continued Airworthiness	完整的持续适航文件清单列于 PW814GA/PW815GA 发动机维护手册 P /N 33B1390 和 PW814GA/PW815GA 发动机车间手册 P /N 33B1393 中。 A complete listing of all Instructions for Continued Airworthiness is found in the introductory section of the PW814GA/PW815GA Engine Maintenance Manual P /N 33B1390 and PW814GA/PW815GA Engine Shop Manual P /N 33B1393.
注释 1 NOTE1	发动机额定值是基于 ICAO 标准大气条件, 理想进气, 无外部附件负载或引气, 喷嘴速度系数等于 1.0。 The engine ratings are based on ICAO standard atmospheric conditions, ideal inlet, no external accessory loads or air bleed, and nozzle velocity coefficients equal to 1.0.
注释 2 NOTE2	起飞额定值名义上限制为 5 分钟持续时间, 当一台发动机不工作时, 在对发动机适航没有不利影响的情况下, 最多可延长至 10 分钟。这种情况以不会频繁发生为前提(因为在起飞时发动机故障事件很少发生), 没有限制或特殊检查要求。 The take-off ratings that are nominally limited to 5 minutes duration may be used for up to 10 minutes for one engine inoperative operations without adverse effects upon engine airworthiness. Such operations are anticipated on an infrequent basis (as engine failure events during take-off are uncommon) and no limits or special inspections have been imposed.
注释 3 NOTE3	有关安全分析假设, 详见安装和使用手册。 Refer to the Installation and Operating Manual for Safety analysis assumptions.
注释 4 NOTE4	发动机物料清单中不包括反推装置。反推装置的安装要求在安装和使用手册中规定。 The engine bill of material does not include a thrust reverser. Considerations for the installation of a thrust reverser are contained in the Installation and Operating Manual.
注释 5 NOTE5	保留 Reserved.

注释 6
NOTE6

保留
Reserved.

注释 7
NOTE7

保留
Reserved.

注释 8
NOTE8

ETOPS 的验证，包括任务谱持久试验，计划在发动机取证后开展，以符合飞机安装要求。
The demonstration for ETOPS, including the mission cyclic endurance test is planned to be conducted post engine certification in coordination with the intended aircraft installation.

注释 9
NOTE9

发动机允许使用限时派遣(TLD)。维护手册的适航限制章节中规定了派遣条件。
The engines are approved with Time Limited Dispatch (TLD) Limitations. The dispatch criteria are contained in the Airworthiness Limitations section of the Maintenance Manual.

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