

型号认可证数据单
THE VALIDATION DATA SHEET

编号/No.: VTC0263E
版次/Revision: 1
型号/Type:

PW617F-E, PW617F1-E

批准人/Approved By: Xu Chaoqun


职务/Title: Director General of CAAC-AAD
日期/Date: 2018-12-28

本数据单是型号认可证（编号 VTC0263E）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的状态和限制。

This data sheet, which is a part of Validation Type Certificate (No: VTC0263E), 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:

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

有效页清单/List of effective pages :

页数/Pages	1	2	3	4	5	6	7									
版次/Revision	1	1	1	1	1	1	1									

第1部分 概述

SECTION 1 GENERAL

1. CAAC认可数据单和型号合格证数据单/CAAC Validation Data Sheet and 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	VTC0263E, 第1版, 2018年12月28日 No. VTC0263E, Issue 1, December 28, 2018	TCCA TCDS E-37, 第5版, 2016年10月31日 No. E-37, Issue 5, October 31, 2016
历史 History	VTC0263E, 第0版, 2011年11月11日 No. VTC0263E, Issue 0, November 11, 2011	TCCA TCDS E-37, 第3版, 2009年4月7日 No. E-37, Issue: 3, April 7, 2009

2. 类别/Category:

发动机/Engine

3. 认可当局/Validation Authority:
审定当局/Certifying Authority:中国民用航空局/CAAC
加拿大交通运输部/Transport Canada

4. 型号合格证持有人/Type Certificate Holder:

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

5. 双发延程飞行/ETOPS:

不适用/NA

6. CAAC专用要求/CAAC Special Requirements:

满足中国3号燃油 (GB6537-2006) 的要求
Compliance with requirement of P.R. China JET Fuel
No.3 (GB6537-2006)

第2部分 数据单

SECTION 2 DATA SHEET

1. 型号/MODEL PW617F-E**2008 年 9 月 9 日批准/Approved September 9, 2008**

额定值 (见注 1 和注 2) / Ratings (See NOTES 1 & 2)	推力 Thrust	环境温度限制 Ambient Limit		涡轮排气指示温度 Indicated Turbine Temperature(ITT)
	daN lb.	°C	°F	°C
最大/Maximum	809.6 1820	15	(59)	845°C
正常起飞 Normal Take-off	749.5 1695	25	(77)	830°C
最大连续 Maximum Continuous	710.8 1598	20	(68)	830°C
发动机限制/ Engine Limits	低压转子转速 Low Pressure Spool N ₁ rpm	高压转子转速 High Pressure Spool N ₂ rpm	涡轮排气指示温度 Indicated Turbine Temperature (ITT) °C	
最大/Maximum	19,845(100%)	40,200(100.4%)	根据额定值定 as per ratings	
瞬态 (20 秒) Transient (20 seconds):	20,043(101%)	40,840(102%)	862°C	
起动/Starting:			950°C	

2. 型号/MODEL PW617F1-E**2016 年 9 月 26 日批准/Approved September 26, 2016**

额定值 (见注 1 和注 2) / Ratings (See NOTES 1 & 2)	推力 Thrust	环境温度限制 Ambient Limit		涡轮排气指示温度 Indicated Turbine Temperature
	daN lb.	°C	°F	°C
最大 Maximum	841.1 1891	17	(62)	845°C
正常起飞 Normal Take-off	768.6 1728	23	(74)	830°C
最大连续 Maximum Continuous	756.6 1701	24	(76)	830°C
发动机限制/ Engine Limits	低压转子转速 Low Pressure Spool N ₁ rpm	高压转子转速 High Pressure Spool N ₂ rpm	涡轮排气指示温度 Indicated Turbine Temperature(ITT) °C	

最大/Maximum:	19,845(100%)	40,676(101.6%)	根据额定值确定 as per ratings
瞬态 (20 秒) Transient (20 seconds):	20,043(101%)	41,316(103.2%)	862°C
起动/Starting:			950°C

类型/Type 双转子涡扇发动机/Twin Turbofan engine.

引气/Air Bleed 参见安装手册第二章/Refer to Section 2 of Installation Manual.

燃油/Fuel 燃油压力和温度见安装手册第 7 章。批准的燃油类型和添加剂见维护手册。

Refer to Section 7 of Installation Manual for Fuel pressure and temperature.

Refer to Maintenance Manual for approved fuel types and additives.

滑油/ Oil

滑油压力和温度见安装手册第 2 章。批准的滑油类型和牌号见维护手册。

Refer to Section 2 of Installation Manual for oil pressure and temperature. Refer to Maintenance Manual for approved oil types and brand.

滑油量/Oil Capacity			
	升/Litres	英加仑/Imp. Gallons	美加仑/U.S. Gallons
总量/Total:	3.79	0.83	1.00
可用/Useable:	0.89	0.20	0.24

设备/Equipment

发动机材料清单中包括如下设备：全权限电子控制系统，包括与燃油泵和永磁交流发电机集成一体的燃油计量单元，与环境压力传感器和专用电源集成一体的发动机控制单元，放气作动机构，低压转子速度传感器，由飞机供电的进口温度除冰探头，双余度点火电嘴，由飞机供电的双通道点火激励器，带燃滑油油滤和旁通指示的燃滑油热交换器，滑油系统碎片检测和收集器，空气滑油冷却器。

Full authority digital engine control system comprising fuel metering unit(FMU) with integral fuel pumps and integral permanent magnetic alternator(PMA), electronic engine control with integral ambient pressure sensor and dedicated power source (PMA in FMU), bleed valve actuator, and engine harness with integral low pressure spool speed sensor and inlet temperature probe electrically de-iced using airframe supplied power; dual igniters and dual channel ignition exciter using airframe supplied power; fuel oil heat exchanger with fuel and oil filters and associated bypass indicators and oil system chip detector collector; and air cooled oil cooler are standard equipment as itemized in the engine bill of material.

附件齿轮箱规格见安装手册，包括主要尺寸、重量、惯量、重心位置；安装手册还提供了与机身连接的振动传感器，滑油压力和温度传感器，燃油流量传感器的补充信息。

Refer to the Installation Manual for accessory drives specifications; principal dimensions weights, inertias and centre of gravity locations; and additional information on provisions and connections for airframe provided vibration, oil pressure and temperature, and fuel flow sensors.

电气系统/Electrical System

高强度辐射场(HIRF)和闪电鉴定及相关安装符合性参见安装手册的第 8 章。功能和电气描述参见安装手册中的电路图和接口控制文档。

Refer to Section 8 of the Installation Manual for HIRF & Lighting qualification and conformance. Refer to Electrical drawing appended to Installation Manual and Interface Control. Document for functional and electrical descriptions.

审定基础（见注 3 和注 4）/Basis of Certification(See NOTES 3 and 4)

- a) 加拿大适航审定手册 533 章第 8 次修正案(等同于 FAR 33 部 33-1 到 33-20 修正案)
Canadian Airworthiness Manual, Chapter 533 at Change 8 (which is equivalent to Far 33 all amendments up to and including Amendment 33-20) b) PW617F-E/PW617F1-E 维护手册 P/N 3072162
- b) 加拿大适航手册 516 章第 7 次修正案，B 部分“航空发动机排放”。此修正案引用了 ICAO 附件 16 第 2 卷（等效于 FAR 34 部 34-1 到 34-3 修正案）
Subchapter B of Canadian Airworthiness Manual 516 at Change 516-07, “Aircraft Engine Emissions” which refers to ICAO Annex 16 Volume II, (Compliance with FAR 34 all amendments up to and including Amendment 34-3 has also been shown)

型号合格证的申请日期/Application date for Type Certificate:

PW617F-E 2005 年 11 月 9 号/9th November 2005

PW617F1-E 2015 年 9 月 10 号/10th September 2015

型号定义/Type Design Definition

- a) PW617F-E 发动机装配图见 35C3100 的 J 版以及后续版本。
PW617F-E Engineering Assembly Drawing 35C3100 Rev. J and subsequent revisions.
- b) PW617F1-E 发动机装配图见 35C6500 的 A 版以及后续版本。
PW617F1-E Engineering Assembly Drawing 35C6500 Rev A and subsequent revisions.

批准的出版物/Approved Publications

- a) 安装手册/Installation Manual ER 6331
- b) 控制系统接口控制文档/Control System Interface Control Document ER 6370
- c) 适航限制手册/Airworthiness Limitation Manual P/N 3072699（见注 6/ See NOTE 6）

持续适航说明/Instructions for Continued Airworthiness

- a) PW617F-E/PW617F1-E 航线维护手册/Line Maintenance Manual P/N 3072696
- a) PW617F-E/PW617F1-E 维护手册/Maintenance Manual P/N 3072162
- b) PW617F-E/PW617F1-E 大修手册/Overhaul Manual P/N 3072163

注释 1/NOTE 1

发动机额定值在以下条件测得：干燥海平面静态 ICAO 标准大气、无外部附载、无引气。满足以下条件时，引用的额定值可在试车台上得到：使用规定的燃油和滑油，并使用安装手册中规定的排气管和进气道。

The engine ratings are based on dry sea level static ICAO standard atmospheric conditions, no external accessory loads and no airbleed. The quoted ratings are obtainable on a test stand with the specified fuel and oil, and using the exhaust duct and intake bellmouth specified in the Installation Manual.

注释 2/NOTE 2

正常情况下限制使用 5 分钟的起飞额定功率可在单发失效的情况下使用至 10 分钟，且不会对适航性产生不利影响。由于起飞过程中的发动机失效事件很少发生，预期此类工况发生频率较低，所以无特殊限制和检查要求。

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/NOTE 3

安全性分析的假设见安装手册第一章。

Refer to Section 1 of Installation Manual for Safety analysis assumptions.

注释 4/NOTE 4

发动机控制软件按照 RTCA/DO178B 中 A 级的要求进行设计、开发、测试和说明。

The software contained in the Electronic Engine Control has been designed, developed, tested and documented in accordance with the provisions of the Critical Category, Level A of RTCA/DO178B.

注释 5/NOTE 5

由于未开展防火试验，不允许将发动机电子控制器安装在指定火区。

The electronic engine control has not been fire tested and therefore must not be installed in a designated fire zone.

注释 6/NOTE 6

发动机电子控制系统具备限时放行要求。针对飞机的相关要求见安装手册。放行准则和时间限制见适航限制手册 P/N 3072699。

The Electronic Engine Control System is approved with Time Limited dispatch (TLD) limitations. Aircraft considerations are contained in the Installation Manual. The dispatch criteria and time limits are contained in the Airworthiness Limitations Manual P/N 3072699.

注释 7/NOTE 7

发动机具有自动增加功率的规定。为了确保功率增加到最大起飞时，发动机不超过最大起飞限制，对正常起飞工况规定了限制。见安装手册。

The engine includes provision for automatic power increase. The limitations stated for Normal Take-off are to ensure that the Maximum Take-off limitations are not exceeded in the event of an automatic power increase to Maximum Take-off Power. Refer to the Installation Manual.

注释 8/NOTE 8

该型发动机仅被批准用于多发安装。

The engine is approved for multiple engine installations only.

注释 9/NOTE 9

保留/Reserved.

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