

型号认可证数据单

THE VALIDATION DATA SHEET

编号/No.: VTC0220E

版次/Revision: 0

型号/Type:

PW615F-A

批准人/Approved by:

张仁鹰

日期/Date: 2009-02-17

本数据单是型号认可证（编号 VTC0220E ）的组成部分，它规定了符合中国民用航空总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: VTC0220E), 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.

CAAC认可数据单和型号合格证数据单

CAAC Validation Data Sheet and Type Certificate Data Sheet

	中国民用航空总局认可数据单号、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	No. VTC0220E, 版次 0 2009 年 2 月 17 日	Transport Canada TCDS No. E34, Issue No. 5, Dec. 21, 2006
历史 History		

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

Pratt & Whitney Canada Corp.

1000 Marie-Victorin

Longueuil, Quebec Canada J4G 1A1

型号类型/Model type

双转子前端整体叶片风扇，燃气涡轮喷气发动机。

Twin spool front integrally bladed fan, jet propulsion gas turbine.

额定值（见注 1）/Ratings(See NOTE 1)

	喷气推力/Jet Thrust	环境限制 /Ambient Limit	涡轮间温度 /Interturbine Temperature(ITT)
起飞（见注 2） /Take-off(See NOTE 2)	1460磅	27℃（81°F）	830℃
最大连续/Maximum Continuous	1460磅	13℃（55°F）	830℃

发动机限制/Engine Limits

	N ₁ rpm	N ₂ rpm	涡轮间温度/Interturbine Temperature(ITT)
最大 /Maximum	21830 (100%)	44040 (100%)	根据每个额定值 /as per Ratings
瞬时 (20 秒) /Transient	22048 (101%)	44921 (102%)	862℃
起动/Starting			862℃
飞行慢车 /Flight Idle	最小N ₂ 25000 (56.8%)		

引气/Air Bleed

参见安装手册第 2 部分/Refer to Section 2 of Installation Manual.

燃油/Fuel

燃油压力和温度参见安装手册第 6 部分。

Refer to Section 6 of Installation Manual for Fuel pressure and temperature.

批准的燃油类型和添加剂参见维护手册。

Refer to Maintenance Manual for approved Fuel types and additives.

注：中国的 3 号燃油（GB 6537-94）包含在其中。

滑油/Oil

滑油压力和温度参见安装手册表 2-1。

Refer to Installation Manual Table 2-1 for Oil pressure and temperature.

批准的滑油类型和牌号参见维护手册。

Refer to Maintenance Manual for approved Oil types and additives.

滑油量/Capacity

	升/Litres	英加仑/Imp. gallons	美加仑/U.S. gallons
总量/Total	4.85	1.067	1.281
可用/Useable	0.74	0.163	0.195

设备/Equipment

全权限发动机控制系统包括带有燃油泵和永磁电机的 FMU，集成整体 P0 传感器和专用电源的发动机电子控制器，引气活门作动器和带有 N1 转速传感器和进口温度探头（飞机供电除冰）的发动机电缆；双点火器和双通道点火激励器（飞机供电）；带有过滤器和相关旁通指示器及滑油系统碎片收集器的燃滑油热交换器；气冷滑油冷却器（ACOC）是发动机材料清单中的标准设备。系统包括支持飞机审定的项目。

Full authority engine control system comprising FMU with fuel pumps and PMA, Engine Electronic Control with integral P0 sensors and dedicated power source (PMA in FMU), Bleed Valve actuator and an engine harness with integral N1 speed sensor and inlet temperature probe (electrically deiced using airframe supplied power); dual igniters and dual channel ignition exciter

(airframe powered); Fuel Oil Heat Exchanger with fuel and oil filters and associated impending bypass indicators and oil system chip collector; Air Cool Oil Cooler (ACOC) are standard equipment as shown in the Engine Bill of Material. This includes items to support Aircraft Certification.

该发动机没有批准使用反推装置。

This engine is not approved for use with a thrust reverser.

附件驱动规范、主要尺寸、重量、惯量和重心位置、规定的额外信息和传递到机体的振动、滑油压力和温度连接以及燃油流量传感器等参见安装手册；

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

电气系统/Electrical System

HIRF 和闪电防护品质参见安装手册第 8 部分。功能和电气描述参见安装手册和界面控制文件所附的电气图纸。

Refer to Section 8 of the Installation Manual for HIRF and Lightning 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、4 和 5）/Basis of Certification(See NOTES 3, 4 and 5)

a) 加拿大适航手册，533 章第 6 次更改（与 FAR33 直到第 20 修正案等效）。

Canadian Airworthiness Manual, Chapter 533 at change 6 (which is equivalent to FAR 33 up to amendment 33-20).

b) 加拿大适航手册，516B 章节 516-06，“飞机发动机排放”，引用 ICAO 附件 16 第 II 卷（符合 FAR34 直到 34-3 修正案）。

Canadian Airworthiness Manual, Subchapter 516B at change 516-06, “Aircraft Engine Emissions” which refers to ICAO Annex 16 Volume II, (Compliance with FAR 34 up to amendment 34-3, has also been shown)

CAAC 认可审定基础/CAAC VALIDATION BASIS:

接受 TCCA 的审定基础作为认可审定基础。

Accept TCCA certification basis as validation basis.

同时，考虑该产品的持续适航性，所有 TCCA 颁发的适用的适航指令将作为附加技术条件。

Considering product continues airworthiness, all applicable TCCA airworthiness directives will be determined as Additional Technical Condition (ATC).

TC 申请日期/Application date for Type Certificate

2003 年 5 月 1 日/1 May 2003

批准出版物/Approved Publications

a) PW615F-A 安装手册 ER5829。

PW615F-A Installation Manual ER5829.

b) PW615F-A FADEC 界面控制文件 ER5829。

PW615F-A FADEC Interface Control Document ER6004.

c) 适航限制手册 P/N 3072698。

Airworthiness Limitation Manual P/N 3072698.

d) PW615F-A 工程装配图纸 35C0510 修订版 K 及后续版本，对于产品构型。

PW615F-A Engineering Assembly Drawing 35C0510 Revision K and subsequent for production configuration.

持续适航文件/Instructions for Continued Airworthiness

a) PW615F-A 航线维护手册 P/N 3072691。

PW615F-A Line Maintenance Manual P/N 3072691.

b) PW615F-A 维护手册 P/N 3059712。

PW615F-A Maintenance Manual P/N 3059712.

c) PW615F-A 大修手册 P/N 3059713。

PW615F-A Overhaul Manual P/N 3059713.

注1/NOTE 1:

发动机的额定值是基于干燥的海平面静态 ICAO 标准大气条件，没有外部附件载荷，没有引气。提出的额定值可以在试验台上获得，使用规定的燃油和滑油以及安装手册中规定的排气管和钟形进气道。

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 specified fuel and oil, and using the exhaust duct and intake bellmouth specified in the Installation Manual.

注2/NOTE 2:

通常限制在 5 分钟的起飞额定值在 OEI 情况下可以延至 10 分钟，对发动机适航性没有负面影响。这样的运行被认为是很少发生的（即起飞过程中发动机失效是罕见的），并且没有强加限制或特定的检查。

The take-off ratings that are normally limited to 5 minutes duration may be used for up to 10 minutes for OEI 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3/NOTE 3:

发动机仅批准用于多发安装。

The engine is approved for multiple engine installations only.

安装要求机体装有燃油关断活门。

The installation requires an airframe mounted Fuel Shut Off Valve.

注4/NOTE 4:

发动机满足加拿大运输部和 FAA 关于在结冰条件下运行的要求, 也满足适航手册 533.27 的要求, 因此不要求外部护板。

The engine meets Transport Canada and FAA requirements for operation in icing conditions. It also meets the requirements of Airworthiness Manual 533.27 and therefore does not require external armouring.

注5/NOTE 5:

发动机电子控制软件的设计、开发、测试及文档符合 RTCA/DO178B 的 A 级关键类的规定。每个 EEC 通道同样包括一个简单的满足 RTCA/DO254 的 A 级要求。

The software contained in the Electronic Engine Control has been designed, developed, tested and documented in accordance with the provision of the Critical Category, Level A of RTCA/DO178B. Each Electronic Engine Control channel also includes a simple PLD that meets Level A of RTCA/DO254

注6/NOTE 6:

EEC 组件未经防火试验, 因此不能装在可着火区域。

The Electronic Engine Control Unit has not been fire tested and therefore must not be installed in a designated fire zone.

注7/NOTE 7:

保留。

Reserved.

注8/NOTE 8:

PW615-A 发动机电子控制被批准具有时间限定签派限制。签派的标准在适航限制手册 P/N 3072968 中。

The PW615F-A Electronic Engine Control is approved with Time Limited Dispatch (TLD) limitations. The dispatch criteria are contained in the Airworthiness Limitation Manual P/N 3072968.