

型号认可证数据单
THE VALIDATION DATA SHEET

编号/**No**: VTC0284E
版次/**Revision**: 2
型号/**Type**: PW210 Engine Model Series
型别/**Model**:
PW210S
PW210A
PW210A1
批准人/**Approved By**:

职务/**Title**: Deputy Director General
日期/**Date**: 2026年9月18日

本数据单是型号认可证（编号：VTC0284E）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: VTC0284E), 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:

加拿大普惠公司/Pratt & Whitney Canada Corp.

玛利-维克多汉大道1000号/Marie-Victorin

加拿大魁北克省朗基尔市/Longueuil, Quebec, Canada 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	VTC0284E; 版次: 2; 颁发日期: 2026年9月18日 No.VTC0284E; Revision 2; Date of Issue: 2026-9-18	TCDS No. E-36, Issue 9, Date of Issue: February 8, 2021
历史 History	VTC0284E; 版次: 1; 颁发日期: 2018年1月8日 No.VTC0284E; Revision 1; Date of Issue: 2018-1-8	TCDS No. E-36, Issue 8, Date of Issue: August 13, 2015
历史 History	VTC0284E; 版次: 0; 颁发日期: 2014年2月10日; No.VTC0284E; Revision 0; Date of Issue: 2014-2-10	TCDS No. E-36, Issue 5, Date of Issue: July 22, 2013

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
版次 2/Rev 2	增加了 PW210A1 型别/ Add PW210A1 model	
版次 1/Rev 1	增加了 PW210A 型别/ Add PW210A model	

2. 类别/Category:

发动机/Engine

3. 认可当局/Validation Authority:

中国民用航空局/CAAC

审定当局/Certifying Authority:

加拿大运输部民航局/TCCA

4. 型号合格证持有人/Type Certificate Holder:

加拿大普惠公司/Pratt & Whitney Canada Corp.
玛利-维克多汉大道 1000 号/1000 Marie-Victorin,
加拿大魁北克省朗基尔市/Longueuil, Quebec,
Canada J4G 1A1

5. 生产制造商/Manufacturer:

加拿大普惠公司/Pratt & Whitney Canada Corp.
玛利-维克多汉大道 1000 号/1000 Marie-Victorin,
加拿大魁北克省朗基尔市/Longueuil, Quebec,
Canada J4G 1A1

6. 双发延程飞行/ETOPS:

不适用/NA

7. CAAC 专用要求/CAAC 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/Model PW210S

2011 年 10 月 14 日批准/Approved October 14, 2011

额定值/Ratings (见注 1)/(See NOTE 1)	输出轴功率/ Output Shaft Power		最大扭矩/ Maximum Torque		燃气发生器转速/ Gas Gen.Speed		指示温度/ Indicated Temperature
	<u>轴马力(千瓦)/ SHP (kW)</u>		<u>英尺磅(牛米)/ ft.lb (N.m)</u>		<u>转每分(百分比)/ RPM (%)</u>		<u>涡轮间温度 ITT-°C</u>
30 秒单发不工作/ 30 sec. OEI	1123.4	(837)	920.6	(1248)	52400	(102.7)	1006
2 分钟单发不工作/ 2 min. OEI	1091.3	(814)	894.3	(1212)	51900	(101.8)	980
持续单发不工作/ Continuous OEI	1027.1	(766)	841.7	(1147)	51000	(100.0)	924
起飞(5 分钟)/ Take-off (5 min.)	802.5	(599)	657.6	(892)	51000	(100.0)	(*)924
悬停(30 分钟) / Hover (30 min.)	802.5	(599)	657.6	(892)	51000	(100.0)	924
最大连续/ Max. Continuous	802.5	(599)	657.6	(892)	50400	(98.8)	886

(*) 初始的起飞涡轮间温度限制设定参见安装手册/

(*) Refer to Installation Manual for initial Take-off ITT limit setting

发动机限制/ Engine Limits	扭矩/ Torque <u>英尺磅(牛米)/ ft.lb (N.m)</u>	燃气发生器转速/ Gas Gen. Ng <u>转每分(百分比)/ RPM (%)</u>	动力涡轮转速/ Power Turbine Npt <u>转每分(百分比)/ RPM (%)</u>	指示温度/ Indicated <u>Temperature</u>
最大值:30 秒/2 分钟/ Max. 30 sec. /2 min.	920.6 (1248)	See Ratings	28692 (108.75) *	See Ratings
单发不工作过调量(5 秒)/ OEI Overshoot (5 sec.)	+33 (+44.6)	+255 RPM	+1649 RPM	+9 °C
瞬时值(20 秒)/ Transient (20 seconds)	894.3 (1212)	51900 (101.8)	31211 (118.30)	980 °C
启动/Starting				825 °C
辅助动力装置模式/APU mode:		29063 (57.0)	N/A	760 °C

飞行慢车/Flight Idle: 29063 (57.0)

*当扭矩少于 65.8 英尺磅(89.2 牛米)时的动力涡轮转速限制参见安装手册

* Refer to Installation Manual for N_{PT} limit when Torque is less than 65.8 ft.lb. (89.2 N.m)

2. 型别/Model PW210A

2014 年 7 月 11 日批准/Approved July 11, 2014

额定值/Ratings (见注 1)/(See NOTE 1)	输出轴功率**/ Output Shaft Power** 轴马力(千瓦)/ SHP (kW)		最大扭矩/ Maximum Torque 英尺磅(牛米)/ ft.lb (N.m)		燃气发生器转速/ Gas Gen.Speed 转每分(百分比)/ RPM (%)		指示温度/ Indicated Temperature 涡轮间温度 ITF°C
相同的 30 秒和 2 分钟单发不工作/ Flat 30 sec. and 2-minute OEI	1214.3	(905.5)	430	(583)	51360	(100.7)	1020
持续单发不工作/ Continuous OEI	1030.8	(768.6)	365	(494.9)	50430	(98.9)	941
起飞(5 分钟)/ Take-off (5 min.)	875.4	(652.8)	310	(420.3)	50100	(98.2)	930
悬停(30 分钟) / Hover (30 min.)	875.4	(652.8)	310	(420.3)	50100	(98.2)	930
最大连续/ Max. Continuous	824.6	(614.9)	292	(395.9)	49200	(96.5)	868
发动机限制/ Engine Limits	扭矩/ Torque 英尺磅(牛米)/ ft.lb (N.m)		燃气发生器转速/ Gas Gen. Ng 转每分(百分比)/ RPM (%)		动力涡轮转速/ Power Turbine Npt 转每分(百分比)/ RPM(%)		指示温度/ Indicated Temperature
相同的 30s 和 2minOEI/ Flat 30 sec.and 2 min. OEI 单发不工作控制过调量(5 秒)/	430 (583)		See Ratings		28120 (106.75) *		See Ratings
OEI Control Overshoot (5 sec.) 瞬时值(20 秒)/ Transient (20 seconds)			+255 rpm				+5 °C
启动/Starting:	473 (641.3)		50430 (98.9)		30293 (115.0)		941 °C
							825 °C

*当扭矩少于 24.6 英尺磅(33.4 牛米)时的动力涡轮转速限制参见安装手册

* Refer to Installation Manual for N_{PT} limit when Torque is less than 24.6 ft.lb. (33.4 N.m)

**所示的输出轴功率对应 103%动力涡轮转速

**Output Shaft Power shown at 103% Power Turbine Speed.

3. 型别/Model PW210A1

2021 年 2 月 5 日批准/Approved February 5, 2021

额定值/Ratings (见注 1 和 8)/(See NOTE 1&8)	输出轴功率**/ Output Shaft Power** 轴马力(千瓦)/ SHP (kW)		最大扭矩/ Maximum Torque 英尺磅(牛米)/ ft.lb (N.m)		燃气发生器转速/ Gas Gen.Speed 转每分(百分比)/ RPM (%)		指示温度/ Indicated Temperature 涡轮间温度 ITF°C
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相同的 30 秒和 2 分钟单发不工作/

Flat 30 sec. and 2-minute OEI	1286.6	(946.1)	455.5	(617.6)	51360	(100.7)	1020
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持续单发不工作/

Continuous OEI	1030.8	(768.6)	365	(494.9)	50400	(98.8)	937
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起飞(5 分钟)/

Take-off (5 min.)	875.4	(652.8)	310	(420.3)	50100	(98.2)	937
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悬停(30 分钟) /

Hover (30 min.)	875.4	(652.8)	310	(420.3)	50100	(98.2)	937
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最大连续/

Max. Continuous	824.6	(614.9)	292	(395.9)	49200	(96.5)	868
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发动机限制/
Engine Limits

扭矩/

燃气发生器转速/

动力涡轮转速/

指示温度/

Torque

Gas Gen. Ng

Power Turbine Npt

Indicated Temperature英尺磅(牛米)/转每分(百分比)/转每分(百分比)/ft.lb (N.m)RPM (%)RPM(%)

相同的 30s 和 2minOEI/

455.5 (617.6)

See Ratings

28120 (106.75) *

See Ratings

Flat 30 sec.and 2 min. OEI

单发不工作控制过调量(5 秒)/

+255 rpm

+ 11 °C

OEI Control Overshoot (5 sec.)

瞬时值(20 秒)/

Transient (20 seconds)

480.1 (650.9)

50430 (98.9)

30293 (115.0)

941 °C

起动/Starting:

825 °C

*当扭矩少于 24.6 英尺磅(33.4 牛米)时的动力涡轮转速限制参见安装手册

* Refer to Installation Manual for NPT limit when Torque is less than 24.6 ft.lb. (33.4 N.m)

**所示的输出轴功率对应 103%动力涡轮转速

**Output Shaft Power shown at 103% Power Turbine Speed.

下列相关数据除非特殊说明, 适用于所有型号/Data Pertinent to All Models Except Where Indicated

类型/Type

自由涡轮涡轴发动机/ Free turbine turboshaft engine.

引气/Air Bleed

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

燃油/Fuel

燃油压力和温度参见安装手册第 5 章。 / Refer to Section 5 of Installation Manual for Fuel pressure and temperature.

批准的燃油类型和添加剂参见维修手册。 / Refer to Maintenance Manual for approved Fuel types and additives.

滑油/Oil

滑油压力和温度参见安装手册中的表 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修手册。 / Refer to Maintenance Manual for approved Oil types

	and brand.			
滑油容量/ Oil Capacity		升/Litres	英制加仑/ Imp. gallons	美制加仑/ U.S. gallons
	<u>PW210S</u>			
	总量/Total:	4.85	1.067	1.281
	可用量/Useable:	1.05	0.231	0.277
	<u>PW210A</u>			
	总量/Total:	5.78	1.271	1.527
	可用量/Useable:	1.53	0.336	0.404
设备/Equipment	发动机控制系统(ECS), 燃油控制组件(包括燃油泵、燃油滤和永磁发电机), 进口导流叶片作动器, 空气冷却滑油冷却器, 滑油滤、燃油滑油热交换器、双点火系统(飞机供电)和显示在发动机材料清单中的标准设备传感器。要求的设备包括碎片探测器或其他金属屑探测设备。/Engine Control System (ECS), Fuel Control Unit (includes fuel pump, fuel filter and PMA), IGV Actuator, Air Cooled Oil Cooler, Oil Filter, Fuel Oil Heat Exchanger, Dual Ignition System (airframe powered) and sensors are standard equipment as shown in the Engine Bill of Material. Required equipment includes Chip Detector or other metallic debris detecting device. 包括尺寸、重量、重心、可选部件和飞机提供的设备的驱动说明等其他信息参见安装手册。/For additional information including dimensions, weight and CG, optional and aircraft provided equipment drive specifications, refer to Installation Manual.			
电气系统/Electrical System	发动机电子控制系统传感器为驾驶舱的转子速度、扭矩、涡轮间温度、滑油压力/温度和接近旁通、燃油低压和接近堵塞、超限、警告、单发不工作使用和次数、发动机停车和发动机控制系统故障等显示提供信号。详细说明参见全权限控制系统接口控制文件。/The ECS sensors provide signals for cockpit display of Rotors Speed, Torque, ITT, Oil Pressure, Temperature and Impending Bypass; Fuel low Pressure and Impeding Blockage, Exceedances; Cautions, OEI Use and Timer, Engine Out and ECS Faults, refer to FADEC Interface Control Document for details. 高强度辐射场和闪电合格和符合性参见安装手册第 8 章。电气功能和线路说明参见安装手册和全权限控制系统接口控制文件附录的电气线路图。/ Refer to Section 8 of the Installation Manual for HIRF and Lightning Qualification and Conformance. Refer to Electrical drawing appended to Installation Manual and FADEC Interface Control Document for functional and electrical descriptions.			
审定基础 (见注 2,3 和 5)/ Certification Basis (See NOTES 2, 3 and 5)	1. 加拿大适航规章 533 部-航空发动机, 第 533-12 改版。/ Canadian Airworthiness Manual (AWM) Chapter 533-Aircraft Engines, at Change 533-12. 2. 专用条件/Special Conditions <u>PW210S</u> a) SCA 2007-02 “发动机以辅助动力装置模式工作” /SCA 2007-02 "Engine Operation in Auxiliary Power Unit (APU) Mode". b) SCA 2007-09 “新发动机额定值: 30 分钟悬停功率” / SCA 2007-09 "New Engine Rating: 30-Minute Hovering Power". <u>PW210A& PW210A1</u> a) SCA 2007-09 “新发动机额定值: 30 分钟悬停功率” / SCA 2007-09 "New Engine Rating: 30-Minute Hovering Power". b) SCA2014-03 “新发动机额定值: 相同的 30 秒和 2 分钟 OEI 功率” / SCA2014-03 "New Engine Rating: Flat 30 Second and 2 Minute OEI Power" .			

3. 加拿大适航规章第 533.71(c)(8) “滑油箱关断活门” 的等效安全/ Equivalent Safety Finding to AWM 533.71(c)(8) "Oil Tank Shut-Off Valve".
4. 加拿大适航规章第 516 部-航空发动机排放 B 章防止燃油排泄, 第 516-10 改版。/ Subchapter B of AWM Chapter 516-Aircraft Engine Emissions for Prevention of Fuel Venting at Change 516-10.

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

PW210S 2005 年 9 月 27 日(第 1 次申请)/27 September 2005 (First application)
2008 年 10 月 16 日(延期申请日期)/16 October 2008 (Deferred date of application)

PW210A 2011 年 6 月 27 日(第 1 次申请)/27 June, 2011 (First application)
2011 年 7 月 11 日(延期申请日期)/11 July, 2011 (Deferred date of application)

PW210A1 2020 年 6 月 18 日(第 1 次申请)/ June 18, 2020

CAAC 认可审定基础/ 接受 TCCA 的审定基础作为认可审定基础。/ Accept TCCA certification basis as validation basis.
CAAC VALIDATION BASIS 附加技术条件/Additional Technical Requirement:

- (1)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)
- (2)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).

型号设计定义/ PW210S 发动机的构型由发动机装配图 30L0022 定义。/ Configuration of PW210S engine is
Type Design Definition defined by Engine Assembly Drawing 30L0022.

PW210A 和 PW210A1 发动机的构型由发动机装配图 30L1860 定义。/ Configuration of PW210A and PW210A1 engines are defined by Engine Assembly Drawing 30L1860.

批准的出版物/ a) PW210S 安装手册, 件号 30L2170(工程报告号 6421)/
Approved Publications a) PW210S Installation Manual P/N 30L2170 (ER 6421).
b) PW210S 全权限控制系统接口控制文件, 工程报告号 6368/
b) PW210S FADEC Interface Control Document ER 6368.
c) PW210S 维修手册, 件号 30L0892, 的适航限制部分/
c) PW 210S Airworthiness Limitation Section of Maintenance Manual P/N 30L0892.
d) PW210A/A1 安装手册, 件号 30L2374(工程报告号 7434)/
d) PW210A/A1 Installation Manual P/N 30L2374 (ER 7434).
e) PW210A/A1 全权限控制系统接口控制文件, 工程报告号 7436/
e) PW210A/A1 FADEC Interface Control Document ER 7436.
f) PW210A/A1 维修手册, 件号 30L2392, 的适航限制部分/
f) PW210A/A1 Airworthiness Limitation Section of Maintenance Manual P/N 30L2392.

持续适航文件/	型别/Model	维修手册件号/	翻修手册件号/
Instructions for		Maintenance Manual P/N	Overhaul Manual P/N
Continued Airworthiness	PW210S	30L0892	30L0893
	PW210A/A1	30L2392	30L2393

注 1 /NOTE 1 发动机的额定值是基于干燥海平面国际民航组织标准大气条件, 且没有外部附件负载和引气的条件下确定的。获得额定值的试验使用了安装手册中规定的采用特定的燃油和滑油、排气管和

进气增压器。/ The engine ratings are based on dry sea level static ICAO standard atmospheric conditions, no external accessory loads and no airbleed. The quoted ratings were obtained on a test stand with the specified fuel and oil, using the exhaust duct and inlet plenum as specified in the Installation Manual.

注 2 /NOTE 2 发动机在结冰条件下工作符合加拿大运输部和美国联邦航空局的要求，也符合适航规章 533.27 的要求，因此不需要外部护罩。/ 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 3 /NOTE 3 发动机仅限在多发飞机上使用。参见安装手册第 1 章的安全分析假设。/ The engines are approved for multiple engine installations only. Refer to Section 1 of Installation Manual for Safety analysis assumptions.

注 4 /NOTE 4 发动机电子控制装置未进行防火试验，因此不能安装在指定的火区。/ The Electronic Engine Control Unit has not been fire tested and therefore must not be installed in a designated fire zone.

注 5 /NOTE 5 保留/ Reserved

注 6 /NOTE 6 发动机可以按照限时派遣要求保留已知确定的全权限控制系统故障运行。飞机的考虑包含在安装手册中，限时派遣要求包含在维修手册的适航限制部分中。/ The engines can be operated with certain detected FADEC faults in accordance with Time Limited Dispatch (TLD) policy. Aircraft considerations are contained in the Installation Manual, and time limits are contained in the Airworthiness Limitations Section of the Maintenance Manual.

注 7 /NOTE 7 保留/ Reserved

注 8 /NOTE 8 发动机铭牌可能包含一个性能选择标识符。该选项在数据采集器中设置，并由电子发动机控制软件执行。请参阅安装或维护说明。The Engine Trim Plate may contain a performance selection identifier. The selection is set in the DCU and implemented in the Electronic Engine Control software. Refer to the installation or maintenance instructions.

第 3 部分 管理信息

Section 3 ADMINISTRATIVE INFORMATION

1. 型号认可证持有人记录/ Validation of Type Certificate Holder Record

序号/No.	时间/Time	持证人名称/Name of Validation of Type Certificate Holder
1	2014年2月10日之后/ After February 10, 2014	加拿大普惠公司/Pratt & Whitney Canada Corp.

结束

.... END....