



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRASIL

TYPE CERTIFICATE DATA SHEET Nº EM-8005

Type Certificate Holder:

PRATT & WHITNEY CANADA, INC.
1000 Marie Victorin
Longueuil, Quebec - J4G 1A1
CANADA

EM-8005-08

Sheet 01

PRATT & WHITNEY
CANADA

PT6A-27; -28; -34; -42; -42A;
-112; -114; -114A; -135; -60A;
-65B; -11AG; -15AG; -34AG;
-60AG; -65AG, -52, -61.

10 December 2008

Engines of models described herein conforming with this data sheet, which is part of Type Certificate No. 8005, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Brazilian Aeronautical Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other instructions.

I – MODELS

PT6A-27; -28; -34; -112.

TYPE

Free turbine turbo-prop / 3 axial plus one centrifugal stage compressor; single annular combustion chamber, single-stage gas generator turbine/ single-stage power turbine.

RATINGS

	PT6A-27	PT6A-28	PT6A-34	PT6A-112
Maximum continuous at sea level				
Equivalent shaft horsepower, kW (hp)	533.17 (715)	--	583.8 (783)	393.72 (528)
Shaft horsepower, kW (hp)	507.07 (680)	--	559.27 (750)	372.84 (500)
Jet thrust, N (lb)	400.33 (90)	--	364.75 (82)	311.37 (70)
Output, rpm	2 200	--	--	1 900
Gas generator, rpm	38 100	--	--	--

RATINGS (Cont.)	Takeoff (5 min. at sea level)	PT6A-27	PT6A-28	PT6A-34	PT6A-112
	Equivalent shaft horsepower, kW (hp)	533.17 (715)	--	583.8 (783)	393.7 (528)
	Shaft horsepower, kW (hp)	507.0 (680)	--	559.2 (750)	372.8 (500)
	Jet thrust, kg (lb)	40.8 (90)	--	37.1 (82)	31.7 (70)
	Output, rpm	2 200	--	--	1 900
	Gas generator, rpm	38 100	--	--	--
MAXIMUM REVERSE	Shaft, kW (hp)	462.3 (620)	--	536.9 (720)	354.2 (475)
	Output, rpm (maximum)	2 100	--	--	1 825
REDUCTION GEAR RATIO		0.0663:1	--	--	0.576:1
FUEL TYPE	Fuels conforming to the current P&WC specifications CPW 204 and CPW 46, and later revisions. Refer to the Installation Manual for further details.				
OIL, LUBRICATION	Specifications	See Note 7	--	--	--
	Oil tank capacity, liters (gal.)	8.7 (2.3)	--	--	--
	Usable oil tank capacity, liters (gal.)	5.6 (1.5)	--	--	--
TEMPERATURE LIMITS		See Note 1	--	--	--
PRESSURE LIMITS		See Note 2	--	--	--
PRINCIPAL DIMENSIONS	Length, cm (in.)	157.2 (61.89)	--	--	--
	Nominal diameter, cm (in.)	45.8 (18.06)	--	--	--
	Maximum radius, cm (in.)	29.21 (11.50)	--	--	--
	(Excluding exhaust ports)				
WEIGHT (DRY)	Includes basic engine, fuel and ignition systems but excludes propeller (-6 and -20 models only) governor and ignition power source, kg (lb).				
		142.88 (315)	--	144.24 (318)	145.60 (321)
CENTER OF GRAVITY (DRY WEIGHT)	Forward of mount plane, cm (in.)	7.72 (3.04)	--	--	12.03 (4.74)
	Below engine centerline, cm (in.)	0.81 (0.32)	--	--	0.86 (0.34)
	Right of engine centerline, cm (in.)	0.50 (0.20)	--	--	1.06 (0.42)

		PT6A-27	PT6A-28	PT6A-34	PT6A-112
AIR BLEED		See Note 5	--	--	--
PROPELLER OVERSPEED	Maximum, rpm (%)	2 425 (110)	--	--	2 090 (110)
	100% rpm	2 200	--	--	1 900
GAS GENERATOR OVERSPEED	10 seconds maximum, rpm (subject to temperature and other limits)	38 500	--	--	--
OUTPUT TORQUE	Maximum steady state, Nm (lb.ft)	2 207 (1 628)	2 421 (1 786)	2 671 (1 970)	2 007 (1 480)
	Transient acceleration	2 847 (2 100)	2 847 (2 100)	2 847 (2 100)	2 576 (1 900)
OUTPUT SHAFT	Type	Flanged	--	--	--
	No. of bolts holes	8	--	--	--
	Dia. of bolts holes, cm (in.)	1.508±0.012 (0.594±0.005)	--	--	--
	BC, cm (in.) (See P&WC Installation Drawing)	10.79 (4.25)	--	--	--
II - MODELS	PT6A -114; -135; -114A.				
TYPE	Free turbine turbo-prop / 3 axial plus one centrifugal stage compressor; single annular combustion chamber, single-stage gas generator turbine/ single-stage power turbine.				
RATINGS	Maximum continuous at sea level	PT6A-114	PT6A-135	PT6A-114A	
	Equivalent shaft horsepower, kW (hp)	471.2 (632)	586.8 (787)	540.6 (725)	
	Shaft horsepower, kW (hp)	447.4 (600)	559.2 (750)	503.3 (675)	
	Jet thrust, N (lb)	351.4 (79)	413.6 (93)	551.57 (124)	
	Output, rpm	--	--		
	Gas generator, rpm	--	--		
	Takeoff (5 min. at sea level)				
	Equivalent shaft horsepower, kW (hp)	471.2 (632)	586.86 (787)	540.63 (725)	
	Shaft horsepower, kW (hp)	447.4 (600)	559.2 (750)	503.3 (675)	
	Jet thrust, N (lb)	351.4 (79)	413.6 (93)	551.57 (124)	
	Output, rpm	--	--		
	Gas generator, rpm	--	--		

		PT6A-114	PT6A-135	PT6A-114A
MAXIMUM REVERSE	Shaft, kW (hp)	447.4 (600)	536.9 (720)	503.3 (675)
	Output, rpm (maximum)	--	--	--
REDUCTION GEAR RATIO		0.0576:1	--	--
FUEL TYPE	Fuels conforming to the current P&WC specifications CPW 204 and CPW 46, and later revisions. Refer to the Installation Manual for further details.			
OIL, LUBRICATION	Specifications	See Note 7	--	--
	Oil tank capacity, liters (gal.)	8.7 (2.3)	----	--
	Usable oil tank capacity, liters (gal.)	5.6 (1.5)		
TEMPERATURE LIMITS		See Note 1	-	--
PRESSURE LIMITS		See Note 2	--	--
PRINCIPAL DIMENSIONS	Length, cm (in.)	157.20	--	--
	Nominal diameter, cm (in.)	(61.89)	45.8 (18.06)	46.45 (18.29)
	Maximum radius, cm (in.)	46.45 (18.29)	29.20 (11.50)	29.79 (11.73)
	(excluding exhaust ports)	29.79 (11.73)		
WEIGHT (DRY)	Includes basic engine, fuel and ignition systems but excludes propeller (-6 and -20 and PT6A-114A models only) governor and ignition power source, kg (lb).	152.82 (337)	145.11 (320)	158.71 (350)
CENTER OF GRAVITY (DRY WEIGHT)	Forward of mount plane, cm (in.)	9.85 (3.88)	9.82 (3.87)	9.85 (3.88)
	Below engine centerline, cm (in.)	0.96 (0.38)	0.63 (0.25)	0.66 (0.26)
	Right of engine centerline, cm (in.)	0.66 (0.26)	0.88 (0.35)	0.96 (0.38)
AIR BLEED		See Note 5	--	--
PROPELLER OVERSPEED	Maximum, rpm (%)	2 090 (110)	--	--
	100% rpm	1 900	--	--

		PT6A-114	PT6A-135	PT6A-114A
GAS GENERATOR OVERSPEED	10 seconds maximum, rpm (subject to temperature and other limits)	38 100	--	--
OUTPUT TORQUE	Maximum steady state, Nm (lb.ft)	2 685 (1 980)	2 820 (2 080)	2 685 (1 980)
	Transient acceleration	2 983 (2 200)	3 254 (2 400)	2 685 (1 980)
OUTPUT SHAFT	Type	Flanged	--	--
	No. of bolt holes	8	--	--
	Dia. of bolts holes, cm (in.)	1.508±0.012 (0.594±0.005)	--	--
	BC, cm (in.) (See P&WC Installation Drawing)	10.79 (4.25)	--	--
III – MODELS	PT6A-42; -42A.			
TYPE	Free turbine turbo-prop / 3 axial plus one centrifugal stage compressor; single annular combustion chamber, single-stage gas generator turbine/ two stage power turbine.			
RATINGS	Maximum continuous at sea level	PT6A-42	PT6A-42A	
	Equivalent shaft horsepower, hp	673.36 (903)	--	
	Shaft horsepower, kW(hp)	633.84 (850)	--	
	Jet thrust, N (lb)	596.06 (134)	--	
	Output, rpm	2 000	--	
	Gas generator, rpm	38 100	--	
	Takeoff (5 min. at sea level)			
	Equivalent shaft horsepower, kW(hp)	673.36 (903)	--	
	Shaft horsepower, kW(hp)	633.84 (850)	--	
	Jet thrust, kg(lb)	596.06 (134)	--	
	Output, rpm	2 000	--	
	Gas generator, rpm	38 100	--	

		PT6A-42	PT6A-42A
MAXIMUM REVERSE	Shaft, kW(hp)	597.17 (800)	--
	Output, rpm (maximum)	1 900	--
REDUCTION GEAR RATIO		0.0663:1	--
FUEL TYPE	Fuels conforming to the current P&WC specifications CPW 204 and CPW 46, and later revisions. Refer to the Installation Manual for further details.		
OIL, LUBRICATION	Specifications	See Note 7	--
	Oil tank capacity, liters (gal.)	9.46 (2.5)	--
	Usable oil tank capacity, liters (gal.)	5.68(1.5)	--
TEMPERATURE LIMITS		See Note 1	--
PRESSURE LIMITS		See Note 2	--
PRINCIPAL DIMENSIONS	Length, cm (in.)	168.83 (66.47)	--
	Nominal diameter, cm (in.)	46.45 (18.29)	--
	Maximum radius, cm (in.)	32.61 (12.84)	--
	(excluding exhaust ports)		
WEIGHT (DRY)	Includes basic engine, fuel and ignition systems but excludes propeller (-6 and -20 models only) governor and ignition power source, kg (lb).	182.79 (403)	--
CENTER OF GRAVITY (DRY WEIGHT)	Forward of mount plane, cm (in.)	6.32 (2.49)	--
	Below engine centerline, cm (in.)	0.81 (0.32)	--
	Right of engine centerline, cm (in.)	0.48 (0.19)	--
AIR BLEED		See Note 5	--
PROPELLER OVERSPEED	Maximum, rpm (%)	2 200 (110)	--
	100% rpm	2 000	--

		PT6A-42	PT6A-42A			
GAS GENERATOR OVERSPEED	10 seconds maximum, rpm (subject to temperature and other limits)	39 000	--			
OUTPUT TORQUE	Maximum steady state, Nm (lb.ft)	3 023 (2 230)	--			
	Transient acceleration	3 660 (2 750)	--			
OUTPUT SHAFT	Type	Flanged	--			
	No. of bolt holes	8	--			
	Dia. of bolts holes, cm (in.)	1.508±0.012	--			
		(0.594±0.005)	--			
	BC, cm (in.)	10.79 (4.25)	--			
	(See P&WC Installation Drawing)					
IV – MODELS	PT6A-60A; -65B; -60AG; -65AG, -52.					
TYPE	Free turbine turbo-prop / 3 axial plus one centrifugal stage compressor; single annular combustion chamber, single-stage gas generator turbine/ two stage power turbine.					
RATINGS	Maximum continuous at sea level	PT6A-60A	PT6A-65B	PT6A-60AG	PT6A-65AG	PT6A-52
	Equivalent shaft horsepower, kW (hp)	829.96 (1 113)	931.37 (1 249)	806.10 (1 081)	967.91 (1 298)	670 (898)
	Shaft, kW (hp)	782.98 (1 050)	874.70 (1 173)	760.61 (1 020)	909.75 (1 220)	634 (850)
	Jet thrust, N (lb)	698.37 (157)	840.71 (189)	685.02 (154)	862.95 (194)	534 (120)
	Output, rpm	1 700	--	--	--	2 000
	Gas generator, rpm	39 000	--	--	--	--
	Takeoff (5 min. at sea level)					
	Equivalent shaft horsepower, kW (hp)	829.96 (1 113)	931.37 (1 249)	829.96 (1 113)	1 029.81 (1 381)	670 (898)
	Shaft horsepower, kW (hp)	782.98 (1 050)	874.70 (1 173)	782.98 (1 050)	969.40 (1 300)	634 (850)
	Jet thrust, kg (lb)	698.37 (157)	840.71 (189)	698.37 (157)	898.54 (202)	534 (120)
	Output, rpm	1 700	--	--	--	2 000
	Gas generator, rpm	39 000	--	--	--	--

		PT6A-60A	PT6A-65B	PT6A-60AG	PT6A-65AG	PT6A-52
MAXIMUM REVERSE	Shaft, kW (hp)	4 003.39 (900)	--	--	--	597 (800)
	Output, rpm (maximum)	1 650	--	--	--	1 900
REDUCTION GEAR RATIO		0.0568:1	--	--	--	0.0663:1
FUEL TYPE	Fuels conforming to the current P&WC specifications CPW 204 and CPW 46, and later revisions. For PT6-AG engines CPW381 also. Refer to the Installation Manual for further details.					
OIL, LUBRICATION	Specifications	See Note 7	--	--	--	--
	Oil tank capacity, liters (gal.)	9.46 (2.5)	8.70 (2.3)	9.46 (2.5)	8.70 (2.3)	9.46 (2.5)
	Usable oil tank capacity, liters (gal.)	5.67 (1.5)	--	--	--	--
TEMPERATURE LIMITS		See Note 1	--	--	--	--
PRESSURE LIMITS		See Note 2	--	--	--	--
PRINCIPAL DIMENSIONS	Length, cm (in.)	183.10 (72.09)	189.96 (74.79)	183.10 (72.09)	189.96 (74.79)	169.57 (66.76)
	Nominal diameter, cm (in.)	46.45 (18.29)	--	--	--	--
	Maximum radius, cm (in.) (excluding exhaust ports)	32.61 (12.84)	--	--	--	--
WEIGHT (DRY)	Includes basic engine, fuel and ignition systems but excludes propeller (-6 and -20 models only) governor and ignition power source, kg (lb).	215.45 (475)	218.17 (481)	215.45 (475)	220.44 (486)	203.66 (449)
CENTER OF GRAVITY (DRY WEIGHT)	Forward of mount plane, cm (in.)	13.25 (5.22)	9.52 (3.75)	9.52 (5.22)	--	6.37 (2.51)
	Below engine centerline, cm (in.)	0.76 (0.30)	0.73 (0.29)	0.762 (0.30)	--	0.66 (0.26)
	Right of engine centerline, cm (in.)	0.71 (0.28)	0.43 (0.17)	0.71 (0.28)	--	0.83 (0.33)
AIR BLEED		See Note 5	--	--	--	--
PROPELLER OVERSPEED	Maximum, rpm (%)	1 870 (110)	--	--	--	2 205 (110)
	100% rpm	1 700	--	--	--	1985

		PT6A-60A	PT6A-65B	PT6A-60AG	PT6A-65AG	PT6A-52
GAS GENERATOR OVERSPEED	10 seconds maximum, rpm	39 000	--	--	--	--
	(subject to temperature and other limits)					
OUTPUT TORQUE	Maximum steady state, Nm (lb.ft)	4 915 (3 625)	--	--	5 446 (4 017)	3 023 (2 230)
	Transient acceleration	6 915 (5 100)	--	--	--	3 660 (2 750)
OUTPUT SHAFT	Type	Flanged	--	--	--	--
	No. of bolt holes	8	--	--	--	--
	Dia. of bolts holes, cm (in.)	1.508±0.012	--	--	--	--
		(0.594±0.005)				
	BC, cm (in.) (See P&WC Installation Drawing)	10.79 (4.25)	--	--	--	--

V – MODELS

PT6A-61

TYPE

Free turbine turbo-prop / 3 axial plus one centrifugal stage compressor; single annular combustion chamber, single-stage gas generator turbine/ two stage power turbine.

RATINGS

Maximum continuous at sea level	PT6A-61
Equivalent shaft horsepower, kW (hp)	673 (902)
Shaft, kW (hp)	634 (850)
Jet thrust, N (lb)	587 (132)
Output, rpm	2 000
Gas generator, rpm	39 000
Takeoff (5 min. at sea level)	
Equivalent shaft horsepower, kW (hp)	673 (902)
Shaft horsepower, kW (hp)	634 (850)
Jet thrust, kg (lb)	587 (132)
Output, rpm	2 000
Gas generator, rpm	39 000

MAXIMUM REVERSE	Shaft, kW (hp)	PT6A-61 597 (800)
	Output, rpm (maximum)	1 900
REDUCTION GEAR RATIO		0.0663:1
FUEL TYPE	Fuels conforming to the current P&WC specifications CPW 204 and CPW 46, and later revisions. For PT6-AG engines CPW381 also. Refer to the Installation Manual for further details.	
OIL, LUBRICATION	Specifications	See Note 7
	Oil tank capacity, liters (gal.)	9.46 (2.5)
	Usable oil tank capacity, liters (gal.)	5.67 (1.5)
TEMPERATURE LIMITS		See Note 1
PRESSURE LIMITS		See Note 2
PRINCIPAL DIMENSIONS	Length, cm (in.)	169.57 (66.76)
	Nominal diameter, cm (in.)	46.45 (18.29)
	Maximum radius, cm (in.)	32.61 (12.84)
	(excluding exhaust ports)	
WEIGHT (DRY)	Includes basic engine, fuel and ignition systems but excludes propeller (-6 and -20 models only) governor and ignition power source, kg (lb).	201 (443)
CENTER OF GRAVITY (DRY WEIGHT)	Forward of mount plane, cm (in.)	6.68 (2.63)
	Below engine centerline, cm (in.)	0.76 (0.30)
	Right of engine centerline, cm (in.)	0.73 (0.29)
AIR BLEED		See Note 5
PROPELLER OVERSPEED	Maximum, rpm (%)	2 205 (110)
	100% rpm	1 870

GAS GENERATOR OVERSPEED	10 seconds maximum, rpm (subject to temperature and other limits)	PT6A-61 39 000		
OUTPUT TORQUE	Maximum steady state, Nm (lb.ft)	3 023 (2 230)		
	Transient acceleration	3 660 (2 750)		
OUTPUT SHAFT	Type	Flanged		
	No. of bolt holes	8		
	Dia. of bolts holes, cm (in.)	1.508±0.012 (0.594±0.005)		
	BC, cm (in.) (See P&WC Installation Drawing)	10.79 (4.25)		
VI – MODELS	PT6A-11AG; -15AG; -34AG.			
TYPE	Free turbine turbo-prop / 3 axial plus one centrifugal stage compressor; single annular combustion chamber, single-stage gas generator turbine/ single-stage power turbine.			
RATINGS	Maximum continuous at sea level	PT6A-11AG	PT6A-15AG	PT6A-34AG
	Equivalent shaft horsepower, kW (hp)	432.50 (580)	533.17 (715)	583.88 (783)
	Shaft horsepower, kW (hp)	410.13 (550)	507.07 (680)	559.27 (750)
	Jet thrust, N (lb)	333.61 (75)	400.33 (90)	364.75 (82)
	Output, rpm	2 200	--	--
	Gas generator, rpm	38 100	--	--
	Takeoff (5 min. at sea level)			
	Equivalent shaft horsepower, kW (hp)	559.27 (580)	533.17 (715)	583.88 (783)
	Shaft horsepower, kW (hp)	410.13 (550)	507.07 (680)	559.27 (750)
	Jet thrust, N (lb)	333.61 (75)	400.33 (90)	364.75 (82)
	Output, rpm	2 200	--	--
	Gas generator, rpm	38 100	--	--

MAXIMUM REVERSE		PT6A-11AG	PT6A-15AG	PT6A-34AG
	Shaft, kW (hp)	354.20 (475)	462.33 (620)	559.27 (750)
	Output, rpm (maximum)	2 100	--	--
REDUCTION GEAR RATIO		0.0668:1	0.0663:1	--
FUEL TYPE	Fuels conforming to the current P&WC specifications CPW 204, CPW 46 and CPW381, and later revisions. Refer to the Installation Manual for further details.			
OIL, LUBRICATION		See Note 7	--	--
	Specifications	See Note 7	--	--
	Oil tank capacity, liters (gal.)	8.7 (2.3)	--	--
	Usable oil tank capacity, liters (gal.)	5.6 (1.5)	--	--
TEMPERATURE LIMITS		See Note 1	--	--
PRESSURE LIMITS		See Note 2	--	--
PRINCIPAL DIMENSIONS				
	Length, cm (in.)	157.20 (61.89)	--	--
	Nominal diameter, cm (in.)	45.87 (18.06)	--	--
	Maximum radius, cm (in.) (excluding exhaust ports)	29.21 (11.50)	--	--
WEIGHT (DRY)				
	Includes basic engine, fuel and ignition systems but excludes propeller (-6 and -20 models only) governor and ignition power source, kg (lb).	143.78 (317)	142.88 (315)	144.24 (318)
CENTER OF GRAVITY (DRY WEIGHT)				
	Forward of mount plane, cm (in.)	7.72 (3.04)	--	--
	Below engine centerline, cm (in.)	0.81 (0.32)	--	--
	Right of engine centerline, cm (in.)	0.50 (0.20)	--	--
AIR BLEED		See Note 5	--	--

		PT6A-11AG	PT6A-15AG	PT6A-34AG
PROPELLER OVERSPEED	Maximum, rpm (%)	2 425 (110)	--	--
	100% rpm	2 200		
GAS GENERATOR OVERSPEED	10 seconds maximum, rpm (subject to temperature and other limits)	38 500	--	--
OUTPUT TORQUE	Maximum steady state, Nm (lb.ft)	1 619 (1 194)	2 207 (1 628)	2 671 (1 970)
	Transient acceleration	2 034 (1 500)	2 847 (2 100)	--
OUTPUT SHAFT	Type	Flanged	--	--
	No. of bolt holes	8	--	--
	Dia. of bolts holes, cm (in.)	1.508±0.012	--	--
		(0.594±0.005)		
	BC, cm (in.) (See P&WC Installation Drawing)	10.79 (4.25)	--	--
IMPORT REQUIREMENTS	Each engine imported separately and/or spare parts must be accompanied by an export airworthiness approval issued by Transport Canada (or a third country authority, in case of used engine imported from such country) attesting that the particular engine and/or parts were submitted to the governmental quality control before delivery and are in conformity with the ANAC approved type design.			

CERTIFICATION BASIS	Model	Application	Issued TC
RBHA 33 (Brazilian Requirements for Aeronautical Certification), which endorses the FAR 33 effective 01 February 1965, including amendments 33-1 through 33-4 inclusive for engine models PT6A-27, -28, -34; -15AG and -34AG; amendments 33-1 through 33-5 inclusive for engine models PT6A-42, -42A, -112, -114, -114A, -135, -60A, -65B, -11AG, -60AG, -65AG, -52 and -61.	PT6A-34	15 June 1979	10 July 1980
	PT6A-27	26 July 1979	10 July 1980
	PT6A-28	26 July 1979	10 July 1980
	PT6A-42	26 July 1979	29 December 1982
	PT6A-135	15 September 1981	29 December 1982
	PT6A-114	11 May 1987	09 July 1987
	PT6A-60A	02 November 1987	27 December 1990
	PT6A-112	19 November 1986	03 September 1991
	PT6A-65B	07 April 1994	20 August 1994
	PT6A-11AG	14 October 1997	24 May 1999
	PT6A-15AG	14 October 1997	24 May 1999
	PT6A-34AG	14 October 1997	24 May 1999
	PT6A-60AG	14 October 1997	24 May 1999
	PT6A-65AG	14 October 1997	24 May 1999
	PT6A-114A	05 May 1991	06 May 2003
	PT6A-42A	08 June 2006	30 November 2006
	PT6A-52	21 September 2007	11 February 2008
	PT6A-61	14 March 2008	10 December 2008

NOTES:**NOTE 1** Maximum Permissible Temperatures, °C (°F)

	PT6A-27	PT6A-28	PT6A-34	PT6A-42/-42A	PT6A-112	PT6A-114	PT6A-135	PT6A-114A
a) Interturbine temp. (ITT)								
Takeoff	725 (1 337)	750 (1 382)	790 (1 454)	800 (1 472)	725 (1 337)	805 (1 481)	--	805 (1 481)
Max. continuous	725 (1 337)	750 (1 382)	790 (1 454)	(-42) 800 (1 472) (-42A) 770 (1 418)	725 (1 337)	805 (1 481)	--	805 (1 481)
Starting (5 sec.)	1 090 (1 994)	--	--	1 000 (1 832)	1 090 (1 994)	--	--	--
Air inlet temperature (AIT) for rated power								
Takeoff	22 (71)	21 (70)	30 (86)	41 (106)	56 (133)	57.8 (136)	29.5 (85)	57.8 (136)
Max. continuous	22 (71)	21 (70)	30 (86)	41 (106)	56 (133)	57.8 (136)	29.5 (85)	57.8 (136)

	PT6A-60A	PT6A-65B	PT6A-65AG	PT6A-60AG	PT6A-11AG	PT6A-15AG	PT6A-34AG	PT6A-52
Interturbine temp. (ITT)								
Takeoff	820 (1 508)	810 (1 490)	820 (1 508)	775 (1 427)	700 (1 292)	725 (1 337)	790 (1 454)	820 (1 508)
Max. continuous	820 (1 508)	820 (1 509)	--	--	700 (1 292)	725 (1 337)	790 (1 454)	820 (1 508)
Starting (5 sec.)	1 000 (1 832)	1 000 (1 832)	--	--	1 090 (1 994)	--	--	1 000 (1 832)
Air inlet temperature (AIT) for rated power								
Takeoff	25 (77)	38 (101)	--	17 (63)	32 (90)	22 (71)	30 (86)	61 (142)
Max. continuous	25 (77)	43 (110)	22 (71)	26 (79)	32 (90)	22 (71)	30 (86)	61 (142)

PT6A-61

Interturbine temp. (ITT)	
Takeoff	800 (1 472)
Max. continuous	800 (1 472)
Starting (5 sec.)	1000(1832)
Air inlet temperature (AIT) for rated power	
Takeoff	25 (77)
Max. continuous	25 (77)

- b) Fuel temperature (all models) , °C (°F)
 Maximum fuel pump inlet: 57 (135)
 Minimum fuel pump inlet: -54 (-65)

- c) Oil temperature limits, °C (°F)
 Models: PT6A-27, -28, -34, -112, -114, -114A, -135, -11AG, -15AG, -34AG
 Minimum: -40 (-40)
 Maximum continuous: 99 (210)
 Maximum (10 min.): 104 (220)

**NOTE 1
(Cont.)****c) Oil temperature limits, °C (°F) (Cont.)**

Models:PT6A-42, -42A

Minimum: -40 (-40)

Maximum continuous: 104 (220)

Max. ground operation: 110 (230)

Maximum (10 min.): 104 (220)

Models:PT6A-60A, -65B, -60AG, -65AG, -52, -61

Minimum: -40 (-40)

Maximum continuous: 110 (230)

Maximum (10 min.): 110 (230)

NOTE 2 Pressure Limits:

a) Fuel pressure

Minimum pressure at inlet to the engine fuel system shall not be less than 5 psi above true vapor pressure of the fuel. For emergency operation, with airframe boost pump inoperative, it must be such that vapor liquid ratio does not exceed 0.1 for continuous operation and does not exceed 0.3 for more than 10 hours in a pump overhaul life.

b) Oil pressure, psig:

Oil operating range:

Model: PT6A-27, -28, -112, -11AG, -15AG, with an oil temperature of 60 °C – 70 °C (140 °F - 158 °F)

Gas generator speed at or above 27 000 rpm: 80 to 100

Gas generator speed below 27 000 rpm: 40 (minimum)

Model: PT6A-34, -34AG, -114, -114A-135, with an oil temperature of 60 °C – 71 °C (140 °F – 160 °F)

Gas generator speed at or above 27 000 rpm: 85 to 105

Gas generator speed below 27 000 rpm: 40 (minimum)

Model: PT6A-42, -42A, with an oil temperature of 60 °C – 71 °C (140 °F – 160 °F)

Gas generator speed at or above 27 000 rpm: 90 to 135

Gas generator speed below 27 000 rpm: 60 (minimum)

Model: PT6A-60A, -65B, -60AG, 65AG, -52, -61 with an oil temperature of 60 °C – 71 °C (140 °F – 160 °F)

Gas generator speed at or above 27 000 rpm: 90 to 135

Gas generator speed below 27 000 rpm: 60 (minimum)

NOTE 3 The engine ratings are based on static sea level condition 29.92 in Hg pressure, compressor intake screen installed, no external accessory loads and no airbleed. These ratings are available up to the following compressor inlet air (dry) temperatures.

	PT6A-27,-15AG	PT6A-28	PT6A-34, 34AG	PT6A-42, -42A	PT6A-60A
Max. continuous, °C(°F)	26.6 (71)	21.1 (70)	30.5 (87)	41.1 (106)	25 (77)
Takeoff, °C(°F)	26.6 (71)	21.1 (70)	30.5 (87)	41.1 (106)	25 (77)
	PT6A-65B	PT6A-112	PT6A-114	PT6A-114A	PT6A-11AG
Max. continuous, °C(°F)	38.3 (101)	56.1 (133)	57.8 (136)	48.9 (115)	42.2 (108)
Takeoff, °C(°F)	43.3 (110)	56.1 (133)	57.8 (136)	48.9 (115)	42.2 (108)
	PT6A-135	PT6A-60AG	PT6A-65AG	PT6A-52	PT6A-61
Max. continuous, °C(°F)	29.5 (85)	25 (77)	38.3 (101)	61 (142)	48.9 (115)
Takeoff, °C(°F)	29.5 (85)	25 (77)	26.67 (71)	61 (142)	48.9 (115)

NOTE 4 Accessory Drive Provisions all Models:

Drive	Rotating Facing Drive Pad	Speed Ratio (to Turbine)	Maximum Torque		Moment Overhang lb.in	Weight of Drive kg (lb)
			Continuous lb.in	Static lb.in		
Driven by Gas Generator Turbine						
Tachometer, accessory gearbox	CC	0.112	7	100	10	#
Starter and/or generator	C	0.293	170	1 600 250 (-42, -52, -60A, -65B, -65AG, -114, -114A, -61)	150	#
Vacuum pump	CC	0.103	60	800	25	0.22 (0.5)
Hydraulic pump ⁽¹⁾	CC	0.203	150	800	25	0.49 (1.1)
Aircraft Accessory Drive ⁽¹⁾	C	0.321	135	800	25	0.68 (1.5)

NOTE 4 (Cont.)	Drive	Rotating Facing Drive Pad	Speed Ratio to Turbine	Maximum Torque		Moment Overhang lb.in	Weight of Drive kg (lb)
				Continuous lb.in	Static lb.in		
Driven by Power Turbine							
	Propeller Governor and Overspeed Governor (*)	C	0.1264 (-15AG, -27, -28, -34, -34AG, -42, -42A, -52, -61) 0.1273 (-11AG, -112, -114, -114A, -135) 0.1405 (-60A, -60AG, -65B, -65AG)	50	850	25	#

CC = Counterclockwise, C = Clockwise

(*) May be an optional drive, which is not included in the basic engine weight, if available.

The hydraulic pump drive requires the aircraft accessory drive to complete the train.

Cabin pressurization may be provided by the approved combination of the Beech Aircraft Corporation Gearbox No. 50-9903 with the Godfrey Engineering type 9 cabin supercharger, mounted directly on the accessories gearbox.

PT6A-42, -42A are approved for operation with an accessory mounted on the reduction gearbox and belt driven from the propeller assembly provided that the accessory is mounted and driven in accordance with the location dimensions and weight prescribed in Sheet 5 of Drawing Number 3018500, revision dated 20 August 1973.

NOTE 5 External air bleed shall not exceed 5.25%. A maximum of 0.68 kg (1.5 lb) per minute may be bled during starting. Bleed air meets the requirements of Paragraph 3.18 of MIL-E-5007C.

NOTE 6 Emergency use of MIL-G-5572, Grades 80/07, 91/98, 100/130 and 115/145 is permitted for a total time period not exceeding 150 hours during any overhaul period. It is not necessary to purge the unused fuel from the system when switching fuel type.

NOTE 7 The following oils are eligible for these engines: PWC PT6 Engine Service Bulletin Nos. 1001, 3001, 4001, 11001, 12002 and 13001 lists approved brand oils.

NOTE 8 These engines meet ANAC requirements for operation in icing conditions when the intake system conforms with the PWC Installation Manuel Instruction for inertial separation of snow and icing particles; when the alternative approved alcohol system is used, flight in visible moisture is restricted as specified in the PWC Installation Manual. These engines also meet ANAC requirements for adequate disk integrity and rotor blade containment and do not require external armoring.

NOTE 9 Fuel controls approved for each engine model are listed in the applicable Parts Catalog.

NOTE 10 The above models incorporate the following characteristics:

<u>Model</u>	<u>Characteristics</u>
PT6A-11AG	Similar to PT6A-11, intended for agricultural aviation. Permissible rotor component lives, overhaul, inspection intervals and fuel requirements are listed in PWC Engine Service Bulletin Nos. 1302, 1303, and 1344 respectively.
PT6A-15AG	Similar to PT6A-27, Intended for agricultural aviation. Permissible rotor component lives, overhaul inspection intervals and fuel requirements are listed in PWC Engine Service Bulletin Nos. 1302, 1303, and 1344 respectively.
PT6A-27	Features higher ratings, revised engine parts and integrated propeller reversing control.
PT6A-28	Similar to PT6A-27 except for higher inter-turbine temperature limit.
PT6A-34	Similar to PT6A-27 except incorporates a compressor turbine similar to PT6T-3 for higher ratings.
PT6A-34AG	Similar to PT6A-34, intended for agricultural aviation. Permissible rotor component lives, overhaul, inspection intervals and fuel requirements are listed in P&WC Engine Service Bulletin Nos. 1302, 1303, and 1344 respectively.
PT6A-42	Similar to PT6A-41 except for increased cruise rating and increased inter-turbine temperature limits with improved compressor and reduced loss exhaust ducts.
PT6A-42A	Similar to PT6A-42 except for reduced Inter-turbine Temperature (ITT) for Maximum Continuous operation.
PT6A-112	Similar to PT6A-27 except incorporates PT6A-41 fuel system concepts and PT6A-135 reduction gearbox.
PT6A-114	Similar to PT6A-135 with a single port exhaust and PT6A-41 fuel system concepts and PT6A-135 reduction gearbox.
PT6A-114A	Throttle push version of -114 incorporating the -135A compressor, and a new strengthened propeller shaft.
PT6A-135	Similar to PT6A-36 except for new reduction gearbox and higher cruise rating.
PT6A-60A	Similar to PT6A-60, up rated altitude performance.
PT6A-60AG	Similar to PT6A-60, de-rated Max. Continuous for special applications (intended for Agricultural Aviation).
PT6A-65B	Similar to PT6A-45 except for additional axial compressor stage and increased diameter gas producer turbine wheel.
PT6A-65AG	Similar to PT6A-65, intended for Agricultural Aviation. Ratings similar to the 65AR without automatic reserve power.
PT6A-52	Similar to PT6A-42, with new first stage compressor gas producer turbine and PT6A-60A thermal rating.
PT6A-61	Similar to PT6A-60, except for PT6A-42 gearbox.

NOTE 11 Certain engine parts are life limited. These limits are listed in P&WC Engine Service Bulletin Nos. 1002, 1302, 1402, 1602, 3002, 4002, 11002, 12002, 12102, 13002, and 13202 as revised. Permissible overhaul and inspector intervals are listed in PWC Engine Service Bulletin Nos. 1003, 1303, 1403, 1603, 3003, 3303, 4003, 11003, 12003, 12103, 13003, and 13303 as revised.

- NOTE 12** Fuel anti-icing additives conforming to specifications 3GP526A, PFA 55MB, MIL-I-27686E may be used, at a concentration not exceeding 0.15% by volume.
- NOTE 13** For PT6A-34 power may be restored in hot day conditions by means of water or water/methanol injection when accomplished in accordance with the requirements of the P&WC Installation Manual.
- NOTE 14** Augmentation fluid, when used, must meet the requirements of P&WC Specification CPW No. 328.
- NOTE 15** Service Bulletins, Structural Repair Manuals, Vendor manuals, Aircraft Flight Manuals and Overhaul and Maintenance Manuals, which contain a statement that the document is Transport Canada approved, are accepted by the ANAC and are considered ANAC approved. These approvals pertain to the type design only.



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