European Aviation Safety Agency

EASA

TYPE-CERTIFICATE DATA SHEET

PC-12

Type Certificate Holder:

Pilatus Aircraft Ltd.
P.O. Box 992
6371 Stans
Switzerland

Manufacturer:

Pilatus Aircraft Ltd.
P.O. Box 992
6371 Stans
Switzerland

For variants: **PC-12, PC-12/45, PC-12/47, PC-12/47E**

Issue 04, 04 November 2009

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SECTION A: PC-12

A.I General

Data Sheet No.: EASA.A.089 Issue: 01 Date: 23 June 2006

1.	Type: Variant:	PC-12 PC-12
2.	Airworthiness Category:	14 CFR Part 23 Normal Category
3.	Type Certificate Holder:	Pilatus Aircraft Ltd. P.O. Box 992, 6371 Stans Switzerland
4.	Manufacturer:	Pilatus Aircraft Ltd. P.O. Box 992, 6371 Stans Switzerland
5.	Certification Application Date:	July 10th, 1986
6.	FOCA Certification Date:	March 30th, 1994
7.	EASA Certification Date:	Product accepted in EU prior 28 Sept 2003
8.	FOCA TCDS F-56-30:	This TCDS replaces the Swiss TCDS F-56-30 Revision 10, dated December 14th, 2005.

A.II Certification Basis

1.	Reference Date for determining the applicable requirements:	July 10th, 1986
2.	(reserved)	
3.	(reserved)	
4.	Certification Basis:	FOCA CRI A-1, Stage 7, February 14th, 1997
5.	Airworthiness Requirements:	US 14 CFR FAR Part 23, Normal Category, including Amendments 23-1 through 23-42, effective February 4th, 1991.
6.	Requirements elected to comply:	FAR 23.1305(c)(3) Amdt 23-43 FAR 23.1311 Amdt 23-49 FAR 23.1507 Amdt 23-45
7.	Special Conditions:	B-1 Stall Identification & Recovery Characteristics C-1 Horizontal Tail Loads C-2 Horizontal Tail Loads (Rocking Motions) C-3 Dynamic Behavior of the Landing Gear C-4 Seat Head Rest & Supporting Structure aft Facing Seats D-1 Hinges (Strength & Rigidity) D-2 Doors and Exits D-3 Composite Materials for Secondary Structure E-2 Composite Cowling (Toxics) FOCA CQF 98-02, September 15th, 1993

8. Exemptions: None

9. Equivalent Safety Findings: FAR 23.221(a)(2) [FOCA CQF 91-03]
FAR 23.841(b)(6) [FOCA CQF 21-03]

10. Environmental Standards:

Noise: US Federal Aviation Regulation Part 36, Appendix G, including Amendments 36-1 through 36-20, effective September 11, 1992.

ICAO Annex 16: Environmental Protection, Second Edition, Amdt 3, effective November 17th, 1988; Volume 1, Part II, Chapter 10.

Emissions: US Federal Aviation Regulation Part 34, (Fuel venting/emissions), effective September 10th, 1990.

11. Eligible S/N: S/N 101 to S/N 683 (except 545)

A.III Technical Characteristics and Operational Limitations

1. Type Design Definition: 500.00.12.001

2. Description: The PC-12 is a large single-engine turboprop multipurpose aircraft designed to perform a wide range of missions. Design features include:

- A pressurized, large volume cabin quickly convertible from all-passenger to all-cargo or a combination of passenger/cargo configurations.
- Retractable landing gear with trailing-link main landing gear capable of grass and unprepared field operations.
- Complete icing protection for flight into known icing conditions (see Note A.IV.5)

3. Dimensions:

Main Wing Span:	16’230 mm	(53 ft 3 in)
Length:	14’408 mm	(47 ft 3 in)
Height:	4’260 mm	(14 ft 0 in)
Total Wing Area:	25.81 m2	(277.8 ft2)

4. Engines:

Model: 1 Pratt & Whitney Canada (PWC) PT6A-67B turboprop engine, flat rated at 1200 shp for takeoff.

Type Certificate: Transport Canada Type Approval No. E21

5. Engine Limits:

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	**Torque PSI [ft-lbs] (kgm)**	Prop. shaft Speed (r.p.m.)	Maximum Permissible Interstage Temperature (°C)
Takeoff	1200	104	44.34 [3708] (512.7)	1700	800
Max. continuous Max. climb Max. cruise	1000	104	36.95 [3090] (427.2)	1700	760
Normal Climb Normal Cruise	As per Aircraft Flight Manual charts				
Starting Limits (5 sec.)	-	-	-	-	1000
Transient (20 sec.)	-	104	61.00 [5100] (705.1)	1870	870

Note: 100% Gas Generator Speed = 37’468 RPM

Oil Temperature:

- Starting: - 40°C (min.)
- Idle: - 40°C ÷ 110°C
- Transient: - 40°C ÷ 110°C
- Take-off: +10°C ÷ 110°C
- Max. Continuous: +10°C ÷ 105°C
- Max. Reverse: +10°C ÷ 105°C

6. Propeller:

Model: 1 Hartzell HC-E4A-3D/E10477K
or HC-E4A-3D/E10477SK

Type Certificate: TC No. P10NE issued by the FAA.

Number of blades: 4 (Aluminum)

6.1. Sense of Rotation: Propeller rotates Clockwise in view of flight direction

6.2. Diameter: 2,670 mm

6.3. Pitch: Nominal pitch angle at 1,067 m (42”) station

- Minimum on ground: 17°
- Minimum in flight: 6°
- Reverse (negative): -17.50° ± 0,5°
- Feathered: 79.60° ± 0,5°
- Fine Pitch 19° ± 0,5°

6.4. Propeller Limits:

- Diameter: 104 in (2.642 m) to 105 in (2.667 m) cropping of blade tips not permitted.

- Stabilized ground operations between 350 and 950 rpm are prohibited.
- Propeller blade life limit on condition.

7. Fluids:

7.1. Fuel:

- Refer to the latest revision of Pratt & Whitney Service Bulletin No. 14004 (including JET A, JET A-1, JET B, JP4).
- Fuel Anti-Ice Additive compliant with Specification MIL-DTL-27686 or MIL-DTL-85470 must be used for all flight operations in ambient temperatures below 0°C.

7.2. Oil:

- Synthetic turbine oil conforming to PWA 521, Type II. For acceptable oil brands see Pratt & Whitney Service Bulletin No. 14001.

8. Fuel capacities

8.1. Fuel:

Total:	1540 lt (406.8 US Gal)		
Usable:	1522 lt (402.1 US Gal)		
Unusable:	19.6 kg	(43.2 lbs)	S/N 101 to S/N 140 (incl.)
	14.9 kg	(32.9 lbs)	S/N 141 and up

8.2. Oil:

Total:	13.6 lt	(3.6 US Gal)
Usable quantity:	5.68 lt	(1.5 US GaI)

9. Air Speeds:

			KCAS
VMO	(maximum operating speed)		240
MM0	(maximum operating Mach number)		0.48
VD	(maximum diving speed)		280
MD	(maximum operating Mach number)		0.60
VA	(maneuvering speed)		170
VO	(max. maneuvering operating speed)	at 4100 kg	154
		at 3200 kg	136
		at 2600 kg	123
VFE	(max. flap extended speed)	up to 15°	165
		above 15°	130
VFO	(max. flap operating speed)	up to 15°	165
		above 15°	130
VLO	(maximum landing gear operating speed)		180
VLE	(maximum landing gear extended speed)		240

10. Maximum Operating Altitude: 9144 m / 30000 ft

11. Operational Capabilities: IFR Day/Night; VFR Day/Night

12. Maximum Weight:

Taxi and ramp	4120 kg	(9083 lbs)
Take-off	4100 kg	(9039 lbs)
Landing	4100 kg	(9039 lbs)
Zero fuel	3700 kg	(8157 lbs)

13. Centre of Gravity Range: Straight line variation between limits given

Weight	**From**	**To**
4100 kg (9039 lbs)	5.847 m (230.18”)	6.137 m (241.61”)
3700 kg (8157 lbs)	5.689 m (223.99”)	6.163 m (242.73“)
3600 kg (7937 lbs)	5.684 m (223.78”)	6.172 m (242.99”)
3000 kg (6614 lbs)	5.633 m (221.85)	6.172 m (242.99”)
2700 kg (5953 lbs)	5.607 m (220.75“)	5.880 m (231.50”)
2550 kg (5622 lbs)	5.607 m (220.75“)	5.728 M (225.47”)
Empty Weight C.G. Range	None	

14. Datum: 3.000 m (118.11”) forward of Frame 10 (foremost cabin frame = firewall)

15. Mean Aerodynamic Chord (MAC): 1.710 m (67.32”)

16. Leveling Means: Refer to the “Pilot’s Operating Handbook and FOCA/EASA Approved Flight Manual”, Section 6

17. Minimum Flight Crew: 1 Pilot

18. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.

Refer to the FOCA/EASA Approved Flight Manual, Section 6, for passengers and flight crew loading instructions and approved configurations.

19. Exit: Nb. and Type: 3 exits (forward cabin LH door, cargo LH door and one RH over wing emergency exit).

20. Baggage / Cargo Loading: Refer to the “Pilot’s Operating Handbook and FOCA/EASA Approved Flight Manual”, Section 6.

21. Wheels and Tyres:

21.1. Wheels: Nose Landing Gear: BF Goodrich 3-1501
Main Landing Gear: BF Goodrich 3-1543-1

21.2. Tyres:

Nose Landing Gear:	Dimensions	Ply Rating	Speed Rating
Michelin 021-327-0 Tubeless (TL)	17.5x6.25	6 (PR)	160 (MPH)
Main Landing Gear:			
Michelin 021-349-0 Tubeless (TL)	8.50x10	8 (PR)	160 (MPH)

A.IV Operating and Service Instructions

1. Aircraft Flight Manual (AFM):
   Airplane operation must be in accordance with the FOCA/EASA approved "Pilot Operating Handbook" (POH) and AFM supplements as define below:

   a. S/N 101-400 Except 321 — Pilatus Report PC-12 no. 01973-001 March 30th, 1994 and later approved revisions.

   b. S/N 321, 401 and up to 683 Except 545 — Pilatus Report PC-12/45 no. 02211 July 14th, 2001 and later approved revisions. (PC-12 data contained in AFMS No.25.)

2. Aircraft Maintenance Manual (AMM):
   Airplane maintenance must be in accordance with the document as define below:

   All PC-12 S/N up to 999 — Pilatus Report no. 02049

3. Structural Repair Manual (SRM):
   Airplane Repairs must be in accordance with the document as define below:

   All PC-12 S/N up to 999 — Pilatus Report no. 02050

4. Service Bulletins (SBs):
   All Pilatus PC-12 Bulletin are listed in the following document:

   All PC-12 S/N — Pilatus Report no. 02086

5. Flight into icing conditions:
   PC-12 variant may be operated in known icing conditions. For aircraft MSN 101 through MSN 128 Pilatus Service Bulletin No 30-001 must be executed.

SECTION B: PC-12/45

B.I General

Data Sheet No.: EASA.A.089 Issue: 01 Date: 23 June 2006

1.	Type: Variant:	PC-12 PC-12/45
2.	Airworthiness Category:	14 CFR Part 23 Normal Category
3.	Type Certificate Holder:	Pilatus Aircraft Ltd. P.O. Box 992, 6371 Stans Switzerland
4.	Manufacturer:	Pilatus Aircraft Ltd. P.O. Box 992, 6371 Stans Switzerland
5.	Certification Application Date:	June 6th, 1995
6.	FOCA Certification Date:	June 4th, 1996
7.	EASA Certification Date:	Product transferred to EASA, 28 Sept 2003
8.	FOCA TCDS F-56-30:	This TCDS replaces the Swiss TCDS F-56-30 Revision 10, dated December 14th, 2005.

B.II Certification Basis

1.	Reference Date for determining the applicable requirements:	June 6th, 1995
2.	(reserved)	
3.	(reserved)	
4.	Certification Basis:	FOCA CRI A-2, Stage 5, February 14th, 1997
5.	Airworthiness Requirements:	US 14 CFR FAR Part 23, Normal Category, including Amendments 23-1 through 23-42, effective February 4th, 1991.
6.	Requirements elected to comply:	FAR 23.49(c) Amdt 23-44 FAR 23.479(b)(c) Amdt 23-45 FAR 23.562(d) Amdt 23-44 FAR 23.1305(c)(3) Amdt 23-43 FAR 23.1311 Amdt 23-49 FAR 23.1507 Amdt 23-45
7.	Special Conditions:	B-1 Stall Identification & Recovery Characteristics C-1 Horizontal Tail Loads C-2 Horizontal Tail Loads (Rocking Motions) C-3 Dynamic Behavior of the Landing Gear C-4 Seat Head Rest & Supporting Structure aft Facing Seats D-1 Hinges (Strength & Rigidity) D-2 Doors and Exits D-3 Composite Materials for Secondary Structure E-2 Composite Cowling (Toxics) FOCA CQF 98-02, September 15th, 1993

8. Exemptions: None

9. Equivalent Safety Findings: FAR 23.221(a)(2) [FOCA CQF 91-04]
FAR 23.841(b)(6) [FOCA CQF 21-03]

10. Environmental Standards:

Noise: US Federal Aviation Regulation Part 36, Appendix G, including Amendments 36-1 through 36-20, effective September 11, 1992.

ICAO Annex 16: Environmental Protection, Second Edition, Amdt 3, effective November 17th, 1988; Volume 1, Part II, Chapter 10.

Emissions: US Federal Aviation Regulation Part 34, (Fuel venting/emissions), effective September 10th, 1990.

11. Eligible S/N: S/N 101 to S/N 683 (except 545)

B.III Technical Characteristics and Operational Limitations

1. Type Design Definition: 500.00.12.009

2. Description: The PC-12/45 is a large single-engine turboprop multipurpose aircraft designed to perform a wide range of missions. Design features include:

- A pressurized, large volume cabin quickly convertible from all-passenger to all-cargo or a combination of passenger/cargo configurations.
- Retractable landing gear with trailing-link main landing gear capable of grass and unprepared field operations.
- Complete icing protection for flight into known icing conditions (see Note B.IV.5)

3. Dimensions:

Main Wing Span:	16’230 mm	(53 ft 3 in) S/N 101-683 (excl. 545)
	16’280 mm	(53 ft 5 in) S/N 684 and up
Length:	14’408 mm	(47 ft 3 in)
Height:	4’260 mm	(14 ft 0 in)
Total Wing Area:	25.81 m2	(277.8 ft2)

4. Engines:

Model: 1 Pratt & Whitney Canada (PWC) PT6A-67B turboprop engine, flat rated at 1200 shp for takeoff.

Type Certificate: Transport Canada Type Approval No. E21

5. Engine Limits:

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	**Torque PSI [ft-lbs] (kgm)**	Prop. shaft Speed (r.p.m.)	Maximum Permissible Interstage Temperature (°C)
Takeoff	1200	104	44.34 [3708] (512.7)	1700	800
Max. continuous Max. climb Max. cruise	1000	104	36.95 [3090] (427.2)	1700	760
Normal Climb Normal Cruise	As per Aircraft Flight Manual charts				
Starting Limits (5 sec.)	-	-	-	-	1000
Transient (20 sec.)	-	104	61.00 [5100] (705.1)	1870	870

Note: 100% Gas Generator Speed = 37’468 RPM

Oil Temperature:

- Starting: - 40°C (min.)
- Idle: - 40°C ÷ 110°C
- Transient: - 40°C ÷ 110°C
- Take-off: +10°C ÷ 110°C
- Max. Continuous: +10°C ÷ 105°C
- Max. Reverse: +10°C ÷ 105°C

6. Propeller:

Model: 1 Hartzell HC-E4A-3D/E10477K
or HC-E4A-3D/E10477SK

Type Certificate: TC No. P10NE issued by the FAA.

Number of blades: 4 (Aluminum)

6.1. Sense of Rotation: Propeller rotates Clockwise in view of flight direction

6.2. Diameter: 2,670 mm

6.3. Pitch: Nominal pitch angle at 1,067 m (42”) station

- Minimum on ground: 17°
- Minimum in flight: 6°
- Reverse (negative): -17.50° ± 0,5°
- Feathered: 79.60° ± 0,5°
- Fine Pitch 19° ± 0,5°

6.4. Propeller Limits:

- Diameter: 104 in (2.642 m) to 105 in (2.667 m) cropping of blade tips not permitted.

- Stabilized ground operations between 350 and 950 rpm are prohibited.
- Propeller blade life limit on condition.

7. Fluids:

7.1. Fuel:

- Refer to the latest revision of Pratt & Whitney Service Bulletin No. 14004 (including JET A, JET A-1, JET B, JP4).
- Fuel Anti-Ice Additive compliant with Specification MIL-DTL-27686 or MIL-DTL-85470 must be used for all flight operations in ambient temperatures below 0°C.

7.2. Oil:

- Synthetic turbine oil conforming to PWA 521, Type II. For acceptable oil brands see Pratt & Whitney Service Bulletin No. 14001.

8. Fuel capacities

8.1. Fuel:

Total:	1540 lt	(406.8 US Gal)	
Usable:	1522 lt	(402.1 US Gal)	
Unusable:	19.6 kg	(43.2 lbs)	S/N 101 to S/N 140 (incl.)
	14.9 kg	(32.9 lbs)	S/N 141 and up

8.2. Oil:

Total:	13.6 lt	(3.6 US Gal)	
Usable quantity:	5.68 lt	(1.5 US Gal)	

9. Air Speeds:

				KCAS
VMO	(maximum operating speed)			240
MM0	(maximum operating Mach number)			0.48
VD	(maximum diving speed)			290
MD	(maximum operating Mach number)	S/N 101-683 (excl 545)		0.62
		S/N 684 and up		0.58
VA	(maneuvering speed)			170
VO	(max. maneuvering operating speed)		at 4500 kg	161
			at 4100 kg	154
			at 3200 kg	136
			at 2600 kg	123
VFE	(max. flap extended speed)		up to 15°	165
			above 15°	130
VFO	(max. flap operating speed)		up to 15°	165
			above 15°	130
VLO	(maximum landing gear operating speed)			180
VLE	(maximum landing gear extended speed)			240

10. Maximum Operating Altitude: 9144 m / 30000 ft

11. Operational Capabilities: IFR Day/Night; VFR Day/Night

12. Maximum Weight:

Taxi and ramp	4520 kg	(9965 lbs)
Take-off	4500 kg	(9921 lbs)
Landing	4500 kg	(9921 lbs)
Zero fuel	4100 kg	(9039 lbs)

13. Centre of Gravity Range: Straight line variation between limits given (¦)

Weight	**From**	**To**
4500 kg (9921 lbs)	5.898 m (232.20”)	6.120 m (240.94”)
3700 kg (8157 lbs)	5.693 m (224.13”)	¦
3600 kg (7937 lbs)	¦	6.172 m (242.99”)
3000 kg (6614 lbs)	¦	6.172 m (242.99”)
2600 kg (5732 lbs)	5.607 m (220.75“)	5.728 M (225.47”)
Empty Weight C.G. Range	None	

14. Datum: 3.000 m (118.11”) forward of Frame 10 (foremost cabin frame = firewall)

15. Mean Aerodynamic Chord (MAC): 1.710 m (67.32”)

16. Leveling Means: Refer to the “Pilot’s Operating Handbook and FOCA/EASA Approved Flight Manual”, Section 6

17. Minimum Flight Crew: 1 Pilot

18. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.
Refer to the FOCA/EASA Approved Flight Manual, Section 6, for passengers and flight crew loading instructions and approved configurations.

19. Exit: Nb. and Type: 3 exits (forward cabin LH door, cargo LH door and one RH over wing emergency exit).

20. Baggage / Cargo Loading: Refer to the “Pilot’s Operating Handbook and FOCA/EASA Approved Flight Manual”, Section 6.

21. Wheels and Tyres:

21.1. Wheels:

Nose Landing Gear: BF Goodrich 3-1501

Main Landing Gear: BF Goodrich 3-1543-1

21.2. Tyres:

Nose Landing Gear:	Dimensions	Ply Rating	Speed Rating
Michelin 021-327-0 Tubeless (TL)	17.5x6.25	6 (PR)	160 (MPH)
Main Landing Gear:			
Michelin 021-350-0 Tubeless (TL)	8.50x10	10 (PR)	160 (MPH)

B.IV Operating_and_Service Instructions

1. Aircraft Flight Manual (AFM):
   Airplane operation must be in accordance with the FOCA/EASA approved "Pilot Operating Handbook" (POH) and AFM supplements as define below:

a.	S/N 101-400 Except 321	Pilatus Report PC-12 no. 01973-001 March 30th, 1994 and later approved revisions. (PC-12/45 data contained in AFMS No.8.)
b.	S/N 321, 401 up to 683 Except 545	Pilatus Report PC-12/45 no. 02211 July 14th, 2001 and later approved revisions.

2. Aircraft Maintenance Manual (AMM):
   Airplane maintenance must be in accordance with the document as define below:

All PC-12 S/N up to 999	Pilatus Report no. 02049.

3. Structural Repair Manual (SRM):
   Airplane Repairs must be in accordance with the document as define below:

All PC-12 S/N up to 999	Pilatus Report no. 02050.

4. Service Bulletins (SBs):
   All Pilatus PC-12 Bulletin are listed in the following document:

All PC-12 S/N	Pilatus Report no. 02086.

5. Flight into icing conditions:
   PC-12/45 variant may be operated in known icing conditions. For aircraft MSN 101 through MSN 128 Pilatus Service Bulletin No 30-001 must be executed.

SECTION C: PC-12/47

C.I General

Data Sheet No.: EASA.A.089 Issue: 02 Date: 04 July 2006

1.	Type: Variant:	PC-12 PC-12/47
2.	Airworthiness Category:	14 CFR Part 23 Normal Category
3.	Type Certificate Holder:	Pilatus Aircraft Ltd. P.O. Box 992, 6371 Stans Switzerland
4.	Manufacturer:	Pilatus Aircraft Ltd. P.O. Box 992, 6371 Stans Switzerland
5.	Certification Application Date:	September 22nd, 2004
6.	FOCA Certification Date:	December 14th, 2005
7.	EASA Certification Date:	Product transferred to EASA, 23 June 2006
8.	FOCA TCDS F-56-30:	This TCDS replaces the Swiss TCDS F-56-30 Revision 10, dated December 14th, 2005.

C.II Certification Basis

1.	Reference Date for determining the applicable requirements:	September 22nd, 2004
2.	(reserved)	
3.	(reserved)	
4.	Certification Basis:	FOCA CRI A-1, Stage 2, November 3rd, 2005
5.	Airworthiness Requirements:	US 14 CFR FAR Part 23, Normal Category, including Amendments 23-1 through 23-42, effective February 4th, 1991.
6.	Requirements elected to comply:	FAR 23.49(c) Amdt 23-44 FAR 23.479(b)(c) Amdt 23-45 FAR 23.562(d) Amdt 23-44 FAR 23.1305(c)(3) Amdt 23-43 FAR 23.1311 Amdt 23-49 FAR 23.1507 Amdt 23-45
7.	Special Conditions:	B-1 Stall Identification & Recovery Characteristics C-1 Horizontal Tail Loads C-2 Horizontal Tail Loads (Rocking Motions) C-3 Dynamic Behavior of the Landing Gear C-4 Seat Head Rest & Supporting Structure aft Facing Seats D-1 Hinges (Strength & Rigidity) D-2 Doors and Exits D-3 Composite Materials for Secondary Structure E-2 Composite Cowling (Toxics) FOCA CQF 98-02, September 15th, 1993

8. Exemptions: None

9. Equivalent Safety Findings: FAR 23.221(a)(2) [FOCA CQF 91-04]
FAR 23.841(b)(6) [FOCA CQF 21-03]

10. Environmental Standards:

Noise: US Federal Aviation Regulation Part 36, Appendix G, including Amendments 36-1 through 36-27, effective June 09th, 2005.

ICAO Annex 16: Environmental Protection, Third Edition, Amdt 7, effective March 21st, 2002; Volume 1, Part II, Chapter 6 and 10.

Emissions: US Federal Aviation Regulation Part 34, (Fuel venting/emissions), effective September 10th, 1990.

11. Eligible S/N: S/N 684 up to 999

C.III Technical Characteristics and Operational Limitations

1. Type Design Definition: 500.00.12.015

2. Description: The PC-12/47 is a large single-engine turboprop multipurpose aircraft designed to perform a wide range of missions. Design features include:

- A pressurized, large volume cabin quickly convertible from all-passenger to all-cargo or a combination of passenger/cargo configurations.
- Retractable landing gear with trailing-link main landing gear capable of grass and unprepared field operations.
- Complete icing protection for flight into known icing conditions.

3. Dimensions:

Main Wing Span:	16’280 mm	(53 ft 5 in)
Length:	14’408 mm	(47 ft 3 in)
Height:	4’260 mm	(14 ft 0 in)
Total Wing Area:	25.81 m2	(277.8 ft2)

4. Engines:

Model: 1 Pratt & Whitney Canada (PWC) PT6A-67B turboprop engine, flat rated at 1200 shp for takeoff.

Type Certificate: Transport Canada Type Approval No. E21

5. Engine Limits:

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	**Torque PSI [ft-lbs] (kgm)**	Prop. shaft Speed (r.p.m.)	Maximum Permissible Interstage Temperature (°C)
Takeoff	1200	104	44.34 [3708] (512.7)	1700	800
Max. continuous Max. climb Max. cruise	1000	104	36.95 [3090] (427.2)	1700	760
Normal Climb Normal Cruise	As per Aircraft Flight Manual charts				
Starting Limits (5 sec.)	-	-	-	-	1000
Transient (20 sec.)	-	104	61.00 [5100] (705.1)	1870	870

Note: 100% Gas Generator Speed = 37’468 RPM

Oil Temperature:

- Starting: - 40°C (min.)
- Idle: - 40°C ÷ 110°C
- Transient: - 40°C ÷ 110°C
- Take-off: +10°C ÷ 110°C
- Max. Continuous: +10°C ÷ 105°C
- Max. Reverse: +10°C ÷ 105°C

6. Propeller:

Model: 1 Hartzell HC-E4A-3D/E10477K
or HC-E4A-3D/E10477SK

Type Certificate: TC No. P10NE issued by the FAA.

Number of blades: 4 (Aluminum)

6.1. Sense of Rotation: Propeller rotates Clockwise in view of flight direction

6.2. Diameter: 2,670 mm

6.3. Pitch: Nominal pitch angle at 1,067 m (42”) station

- Minimum on ground: 17°
- Minimum in flight: 6°
- Reverse (negative): -17.50° ± 0,5°
- Feathered: 79.60° ± 0,5°
- Fine Pitch 19° ± 0,5°

6.4. Propeller Limits:

- Diameter: 104 in (2.642 m) to 105 in (2.667 m) cropping of blade tips not permitted.

- Stabilized ground operations between 350 and 950 rpm are prohibited.
- Propeller blade life limit on condition.

7. Fluids:

7.1. Fuel:

- Refer to the latest revision of Pratt & Whitney Service Bulletin No. 14004 (including JET A, JET A-1, JET B, JP4).
- Fuel Anti-Ice Additive compliant with Specification MIL-DTL-27686 or MIL-DTL-85470 must be used for all flight operations in ambient temperatures below 0°C.

7.2. Oil:

- Synthetic turbine oil conforming to PWA 521, Type II. For acceptable oil brands see Pratt & Whitney Service Bulletin No. 14001.

8. Fuel capacities

8.1. Fuel:

Total:	1540 lt	(406.8 US Gal)
Usable:	1522 lt	(402.1 US Gal)
Unusable:	14.9 kg	(32.9 lbs)

8.2. Oil:

Total:	13.6 lt	(3.6 US Gal)
Usable quantity:	5.68 lt	(1.5 US Gal)

9. Air Speeds:

			KCAS
VMO	(maximum operating speed)		240
MM0	(maximum operating Mach number)		0.48
VD	(maximum diving speed)		290
MD	(maximum operating Mach number)		0.58
VA	(maneuvering speed)		170
VO	(max. maneuvering operating speed)	at 4740 kg	163
		at 4500 kg	161
		at 4100 kg	154
		at 3200 kg	136
		at 2600 kg	123
VFE	(max. flap extended speed)	up to 15°	165
		above 15°	130
VFO	(max. flap operating speed)	up to 15°	165
		above 15°	130
VLO	(maximum landing gear operating speed)		180
VLE	(maximum landing gear extended speed)		240

10. Maximum Operating Altitude: 9144 m / 30000 ft

11. Operational Capabilities: IFR Day/Night; VFR Day/Night

12. Maximum Weight:

Taxi and ramp	4760 kg	(10494 lbs)
Take-off	4740 kg	(10450 lbs)
Landing	4500 kg	(9921 lbs)
Zero fuel	4100 kg	(9039 lbs)

13. Centre of Gravity Range: Straight line variation between limits given (¦)

Weight	**From**	**To**
4740 kg (10450 lbs)	5.898 m (232.20”)	6.107 m (240.43”)
4500 kg (9921 lbs)	5.898 m (232.20”)	6.120 m (240.94”)
3700 kg (8157 lbs)	5.693 m (224.13”)	¦
3600 kg (7937 lbs)	¦	6.172 m (242.99”)
3000 kg (6614 lbs)	¦	6.172 m (242.99”)
2600 kg (5732 lbs)	5.607 m (220.75“)	5.728 M (225.47”)
Empty Weight C.G. Range	None	

14. Datum: 3.000 m (118.11”) forward of Frame 10 (foremost cabin frame = firewall)

15. Mean Aerodynamic Chord (MAC): 1.710 m (67.32”)

16. Leveling Means: Refer to the “Pilot’s Operating Handbook and FOCA/EASA Approved Flight Manual”, Section 6

17. Minimum Flight Crew: 1 Pilot

18. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.
Refer to the FOCA/EASA Approved Flight Manual, Section 6, for passengers and flight crew loading instructions and approved configurations.

19. Exit: Nb. and Type: 3 exits (forward cabin LH door, cargo LH door and one RH over wing emergency exit).

20. Baggage / Cargo Loading: Refer to the “Pilot’s Operating Handbook and FOCA/EASA Approved Flight Manual”, Section 6.

21. Wheels and Tyres:

21.1. Wheels:

Nose Landing Gear: BF Goodrich 3-1501

Main Landing Gear: BF Goodrich 3-1543-1

21.2. Tyres:

Nose Landing Gear:	Dimensions	Ply Rating	Speed Rating
Michelin 021-327-0 Tubeless (TL)	17.5x6.25	6 (PR)	160 (MPH)
Main Landing Gear:			
Michelin 021-350-0 Tubeless (TL)	8.50x10	10 (PR)	160 (MPH)

C.IV Operating and Service Instructions

1. Aircraft Flight Manual (AFM):
   Airplane operation must be in accordance with the FOCA/EASA approved "Pilot Operating Handbook" (POH) and AFM supplements as define below:

   a. S/N 684 up to S/N 999 — Pilatus Report PC-12/45 no. 02211 July 14th, 2001 and later approved revisions. (PC-12/47 data contained in AFMS No.33.)

2. Aircraft Maintenance Manual (AMM):
   Airplane maintenance must be in accordance with the document as define below:

   All PC-12 S/N up to 999 — Pilatus Report no. 02049.

3. Structural Repair Manual (SRM):
   Airplane Repairs must be in accordance with the document as define below:

   All PC-12 S/N up to 999 — Pilatus Report no. 02050.

4. Service Bulletins (SBs):
   All Pilatus PC-12 Bulletin are listed in the following document:

   All PC-12 S/N — Pilatus Report no. 02086.

SECTION D: PC-12/47E

D.I General

Data Sheet No.: EASA.A.089 Issue: 03 Date: 28 March 2008

1. Type: Variant:	PC-12 PC-12/47E
2. Airworthiness Category:	14 CFR Part 23 Normal Category
3. Type Certificate Holder:	Pilatus Aircraft Ltd. P.O. Box 992, 6371 Stans Switzerland
4. Manufacturer:	Pilatus Aircraft Ltd. P.O. Box 992, 6371 Stans Switzerland
5. Certification Application Date:	December 6th, 2004
6. EASA Certification Date:	28 March 2008

D.II Certification Basis

1. Reference Date for determining the applicable requirements:	July 31th, 2005
2. (reserved)	
3. (reserved)	
4. Certification Basis:	FOCA CRI A-1, Stage 6, October 8th, 2007
5. Airworthiness Requirements:	US 14 CFR FAR Part 23, Normal Category, including Amendments 23-1 through 23-42, effective February 4th, 1991.
6. Requirements elected to comply: [FAR 23 Paragraph (Amdt level)]	23.49c.....(23-44) 23.143 c.....(23-50) 23.301.....(23-48) 23.305 a.....(23-45) 23.335 a,b,c,d.....(23-48) 23.361 a,b2.....(23-45) 23.371 a .....(23-48) 23.479 b,c .....(23-45) 23.561 b2-3,c3 .....(23-48) 23.562 d .....(23-44) 23.562 d1.....(23-50) 23.571 a .....(23-45) 23.572 a1,b1 .....(23-45) 23.607 c .....(23-48) 23.613 .....(23-45) 23.629 a,b,c,d,e,f2 ....(23-48) 23.773 a1-2 .....(23-45) 23.1303 a,b,c,d,e,f ....(23-49) 23.1305 c3 .....(23-43) 23.1307..... (23-49)

23.1311.....(23-49)
23.1322 e .....(23-43)
23.1323 c.....(23-49)
23.1326 a,b .....(23-49)
23.1329 .....(23-49)
23.1331 a,b1-2, c.....(23-43)
23.1351 b2-3,c,c1-5,g..(23-49)
23.1353 h.....(23-49)
23.1357 a,e.....(23-43)
23.1359.....(23-49)
23.1361 a,b,c.....(23-49)
23.1365 b,c,c1,d,e,f.....(23-49)
23.1431 a,b,c,d,e.....(23-49)
23.1507.....(23-45)
23.1525.....(23-45)
23.1543 c.....(23-50)
23.1555 e2.....(23-50)

7. Special Conditions:

B-1 Stall Identification & Recovery Characteristics
C-1 Horizontal Tail Loads
C-2 Horizontal Tail Loads (Rocking Motions)
C-3 Dynamic Behavior of the Landing Gear
C-4 Seat Head Rest & Supporting Structure aft Facing Seats
D-1 Hinges (Strength & Rigidity)
D-2 Doors and Exits
D-3 Composite Materials for Secondary Structure
E-2 Composite Cowling (Toxics)
FOCA CQF 98-02, HIRF September 15th, 1993
F-1 Protection from the Effects of HIRF.
F-2 Protection from the Indirect Effects of Lightning.
F-3 Human Factors Aspects of Flight Deck Design.
F-9 Integrated Modular Avionics (IMA).

8. Exemptions: None

9. Equivalent Safety Findings:

[FOCA CQF 91-04] FAR 23.221(a)(2) Spin resistance
[FOCA CQF 21-03] FAR 23.841(b)(6) Pressure cabin warning altitude.
F-10 Individual Circuit Protection with IMA System.
F-11 ASI Flaps Markings.
F-12 Probes OFF Caution.

10. Environmental Standards:

Noise: US Federal Aviation Regulation Part 36, Appendix G, including Amendments 36-1 through 36-28, effective January 04th, 2006.
ICAO Annex 16: Environmental Protection, Third Edition, Amdt 7, effective March 21st, 2002; Volume 1, Part II, Chapter 6 and 10.

Emissions: US Federal Aviation Regulation Part 34, (Fuel venting/emissions), effective September 10th, 1990.

11. Eligible S/N: S/N 545 and S/N 1001 and up

D.III Technical_Characteristics_and_Operational_Limitations

1. Type Design Definition: 500.00.12.020

2. Description: The PC-12/47E is a large single-engine turboprop multipurpose aircraft designed to perform a wide range of missions. Design features include:

   - A pressurized, large volume cabin quickly convertible from all-passenger to all-cargo or a combination of passenger/cargo configurations.
   - Retractable landing gear with trailing-link main landing gear capable of grass and unprepared field operations.
   - Complete icing protection for flight into known icing conditions.

3. Dimensions:

Main Wing Span:	16’280 mm	(53 ft 5 in)
Length:	14’408 mm	(47 ft 3 in)
Height:	4’260 mm	(14 ft 0 in)
Total Wing Area:	25.81 m2	(277.8 ft2)

4. Engines:

   Model: 1 Pratt & Whitney Canada (PWC) PT6A-67P turboprop engine, flat rated at 1200 shp for takeoff.

   Type Certificate: Transport Canada Type Approval No. E-21

5. Engine Limits:

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	Torque PSI [ft-lbs] (kgm)	Prop. shaft Speed (r.p.m.)	Maximum Permissible Interstage Temperature (°C)
Takeoff	1200	104	44.34 [3708] (512.7)	1700	850
Max. continuous Max. climb	1200	104	44.34 [3708] (512.7)	1700	820
Max. cruise	1000	104	36.95 [3090] (427.2)	1700	820
Normal Climb Normal Cruise	As per Aircraft Flight Manual charts				
Starting Limits (5 sec.)	-	-	-	-	1000
Transient (20 sec.)	-	104	61.00 [5100] (705.1)	1870	870

Note: 100% Gas Generator Speed = 37’468 RPM

Oil Temperature:

- Starting:	- 40°C (min.)
- Idle:	- 40°C ÷ 110°C
- Transient:	- 40°C ÷ 110°C
- Take-off:	+10°C ÷ 110°C
- Max. Continuous:	+10°C ÷ 105°C
- Max. Reverse:	+10°C ÷ 105°C

6. Propeller:

Model:	1 Hartzell HC-E4A-3D/E10477SK
Type Certificate:	TC No. P10NE issued by the FAA.
Number of blades:	4 (Aluminum)

6.1. Sense of Rotation: Propeller rotates Clockwise in view of flight direction

6.2. Diameter: 2,670 mm

6.3. Pitch: Nominal pitch angle at 1,067 m (42”) station

- Minimum on ground:	17°	
- Minimum in flight:	6°	
- Reverse (negative):	-17.50°	± 0,5°
- Feathered:	79.60°	± 0,5°
- Fine Pitch	19°	± 0,5°

6.4. Propeller Limits:

- Diameter: 104 in (2.642 m) to 105 in (2.667 m) cropping of blade tips not permitted.
- Stabilized ground operations between 350 and 950 rpm are prohibited.
- Propeller blade life limit on condition.

7. Fluids:

7.1. Fuel:

- Refer to the latest revision of Pratt & Whitney Service Bulletin No. 14004 (including JET A, JET A-1, JET B, JP4).
- Fuel Anti-Ice Additive compliant with Specification MIL-DTL-27686 or MIL-DTL-85470 must be used for all flight operations in ambient temperatures below 0°C.

7.2. Oil:

- Synthetic turbine oil conforming to PWA 521, Type II. For acceptable oil brands see Pratt & Whitney Service Bulletin No. 14001.

8. Fuel capacities

8.1. Fuel:

Total:	1540 lt	(406.8 US Gal)
Usable:	1522 lt	(402.1 US Gal)
Unusable:	14.9 kg	(32.9 lbs)

8.2. Oil:

Total:	13.6 lt	(3.6 US Gal)
Usable quantity:	5.68 lt	(1.5 US Gal)

9. Air Speeds:

			KCAS
VMO	(maximum operating speed)		240
MM0	(maximum operating Mach number)		0.48
VD	(maximum diving speed)		290
MD	(maximum operating Mach number)		0.58
VA	(maneuvering speed)		170
VO	(max. maneuvering operating speed)	at 4740 kg	163
		at 4500 kg	161
		at 4100 kg	154
		at 3200 kg	136
		at 2600 kg	123
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		above 15°	130
VFO	(max. flap operating speed)	up to 15°	165
		above 15°	130
VLO	(maximum landing gear operating speed)		180
VLE	(maximum landing gear extended speed)		240

10. Maximum Operating Altitude: 9144 m / 30000 ft

11. Operational Capabilities: IFR Day/Night; VFR Day/Night

12. Maximum Weight:

Taxi and ramp	4760 kg	(10494 lbs)
Take-off	4740 kg	(10450 lbs)
Landing	4500 kg	(9921 lbs)
Zero fuel	4100 kg	(9039 lbs)

13. Centre of Gravity Range: Straight line variation between limits given (¦)

Weight	**From**	**To**
4740 kg (10450 lbs)	5.898 m (232.20”)	6.107 m (240.43”)
4500 kg (9921 lbs)	5.898 m (232.20”)	6.120 m (240.94”)
3700 kg (8157 lbs)	5.693 m (224.13”)	¦
3600 kg (7937 lbs)	¦	6.172 m (242.99”)
3000 kg (6614 lbs)	¦	6.172 m (242.99”)
2600 kg (5732 lbs)	5.607 m (220.75“)	5.728 M (225.47”)
Empty Weight C.G. Range	None	

14. Datum: 3.000 m (118.11”) forward of Frame 10 (foremost cabin frame = firewall)

15. Mean Aerodynamic Chord (MAC): 1.710 m (67.32”)

16. Leveling Means: Refer to the “Pilot’s Operating Handbook and EASA Approved Flight Manual”, Section 6

17. Minimum Flight Crew: 1 Pilot

18. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.
Refer to the EASA Approved Flight Manual, Section 6, for passengers and flight crew loading instructions and approved configurations.

19. Exit: Nb. and Type: 3 exits (forward cabin LH door, cargo LH door and one RH over wing emergency exit).

20. Baggage / Cargo Loading: Refer to the "Pilot's Operating Handbook and EASA Approved Flight Manual", Section 6.

21. Wheels and Tyres:

21.1. Wheels:

Nose Landing Gear: BF Goodrich 3-1501

Main Landing Gear: BF Goodrich 3-1543-1

21.2. Tyres:

Nose Landing Gear:	Dimensions	Ply Rating	Speed Rating
Michelin 021-327-0 Tubeless (TL)	17.5x6.25	6 (PR)	160 (MPH)
Main Landing Gear:			
Michelin 021-350-0 Tubeless (TL)	8.50x10	10 (PR)	160 (MPH)

D.IV Operating and Service Instructions

1. Aircraft Flight Manual (AFM):
Airplane operation must be in accordance with the EASA approved "Pilot Operating Handbook" (POH) and AFM supplements as define below:

S/N 545 and S/N 1001 and up	Pilatus Report PC-12/47E no. 02277, revision 6 or higher

2. Aircraft Maintenance Manual (AMM):
Airplane maintenance must be in accordance with the document as define below:

S/N 545 and S/N 1001 and up	Pilatus Report no. 02300.

3. Structural Repair Manual (SRM):
Airplane Repairs must be in accordance with the document as define below:

S/N 545 and S/N 1001 and up	Pilatus Report no. 02305.

4. Service Bulletins (SBs):
All Pilatus PC-12 Bulletin are listed in the following document:

All PC-12 S/N	Pilatus Report no. 02086.

5. RVSM capability for PC-12/47E MSN 545 and MSN 1001 and subsequent:
All airplanes equipped with Honeywell APEX system are RVSM capable provided the operator incorporates and follows airplane flight manual supplement (AFMS) No. 4 Revision 1 dated May 28, 2009 or later version and Airplane Maintenance Manual document 02300 Revision 2 (12-B-AM-00-00-00-1), dated June 3, 2009 or later version.

SECTION GENERAL

General I Notes for all PC-12 variants

1. Requirements for the issue of the C. of A.

   – The minimum required equipment as prescribed in the applicable airworthiness regulations must be installed on the individual aircraft for certification.

   – Current weight and balance data, a list of equipment included in the certification empty weight and loading information when necessary must be provided for each aircraft when the C.o.A. will be issued.

     The certification empty weight and balance data shall include the unusable fuel and the total engine oil as specified:

   – Airplane Flight Manual is required.

2. Placards

   All required placards as listed in the Pilatus Aircraft Flight Manual, and subsequent approved revisions, must be installed in the appropriate locations.

3. Continued Airworthiness

   - Airworthiness Limitations are contained in Chapter 4 of the Pilatus AMM. These Limitations may not be changed without EASA approval.
   - Current weight and balance data together with a list of equipment included in the certificated empty weight, and loading instructions, when necessary, must be provided for each airplane at the time of original certification.
   - The basic variant PC-12 (S/N 101 – 683) may be converted to a variant PC-12/45 by executing Pilatus Service Bulletin No. 04-001.
   - Only interior configurations described in the official Pilatus AFM/POH are approved for installation in the PC-12, PC-12/45, PC-12/47 and PC-12/47E aircraft. These configurations have been shown to meet the dynamic and HIC test requirements of FAR 23.562. Any alterations to these approved interior layouts must be shown to meet FAR 23.562.

General II CHANGE RECORD

Revision	Date of revision	Change Description
Issue 01	29 June 2006	Initial issue of EASA TCDS. It is based on the Swiss FOCA TCDS F-56-30, Revision 10, dated December 14th, 2005.
Issue 02	04 July 2006	PC-12/47 eligible S/N 684 and up. Typo corrected.
Issue 03	28 March 2008	PC-12/47E eligible S/N 545 and MSN 1001 and up.
Issue 04	04.Nov.2009	Added a Note 5 for the RVSM capability of PC-12/47E