TYPE-CERTIFICATE

DATA SHEET

NO. EASA.A.089

for
PC-12

Type Certificate Holder
Pilatus Aircraft Ltd.

Pilatusstrasse 1
6371 Stans
Switzerland

For models: PC-12
PC-12/45
PC-12/47
PC-12/47E
PC-12/47G

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SECTION A: PC-12

A.I. General

1. Type/ Model/ Variant	
1.1 Type:	PC-12
1.2 Model:	PC-12
1.3 Eligible MSN:	MSN 101 to MSN 400 (except MSN 321)
2. Airworthiness Category:	14 CFR Part 23 Normal Category
3. Manufacturer:	Pilatus Aircraft Ltd. Pilatusstrasse 1, 6371 Stans Switzerland
4. EASA Type Certification Application Date:	July 10th, 1986
5. State of Design Authority:	Switzerland
6. State of Design Authority Type Certificate Date:	March 30th, 1994
7. EASA Type Certification Date:	Product accepted in EU prior 28 Sept 2003 This TCDS replaces the Swiss TCDS F-56-30 Revision 10, dated December 14th, 2005.

A.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements:	July 10th, 1986
2. Airworthiness Requirements:	FAA 14 CFR FAR Part 23, Normal Category, including Amendments 23-1 through 23-42, and

FAR 23.1305(c)(3)	Amdt 23-43
FAR 23.1311	Amdt 23-49
FAR 23.1507	Amdt 23-45
CS 23.851	Amdt 4 (See Note 6)

3. [Reserved]	
4. Special Conditions:	C-1 Horizontal Tail Loads C-2 Horizontal Tail Loads (Rocking Motions) C-3 Dynamic Behaviour of the Landing Gear C-4 Seat Head Rest & Supporting Structure aft Facing Seats D-1 Hinges (Strength & Rigidity) D-2 Doors and Exits E-2 Composite Cowling (Toxics) FOCA CQF 98-02, September 15th, 1993
5. Exemptions:	None
6. (Reserved) Deviations:	None
7. Equivalent Safety Findings:	B-1 Stall Identification & Recovery Characteristics

FOCA CQF 91-03 (FAR 23.221(a)(2))
FOCA CQF 21-03 (FAR 23.841(b)(6))

8. Environmental Protection:

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.

9. Operational Suitability Certification Basis:

MMEL:	CS-GEN-MMEL, Initial Issue
Flight Crew Data	not required (see Note 4 in Section E)

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 m^2 - (277.8 ft^2)

4. Engine:

4.1. Model:	1 Pratt & Whitney Canada (PWC) PT6A-67B turboprop engine, flat rated at 1200 shp for takeoff.
4.2 Type Certificate:	TCCA TCDS No. E-21 EASA TCDS No. EASA.IM. E.008

4.3 Engine Limitations:

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	**Torque PSI [lbf-ft] (kgf m)**	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

5. Flight Load factor Limits:

Flaps up:	+3.4 g, -1.36 g
Flaps down:	+2.0 g, -0.0 g

6. Propeller:

6.1 Model:	1 Hartzell HC-E4A-3D/E10477K or HC-E4A-3D/E10477SK
6.2 Type Certificate:	FAA TCDS No. P10NE / EASA TCDS No. EASA.IM.P.133
6.3 Number of blades:	4 (Aluminum)
6.4 Diameter:	2,670 mm
6.5 Sense of Rotation:	Propeller rotates Clockwise in view of flight direction
6.6 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° ± 0,2°

6.7 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 AFM 01973-001 Section 2 for approved fuels.
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. Fluid 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)		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. Approved Operations Capability: IFR Day/Night; VFR Day/Night

12. Maximum Masses:

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

16. Minimum Flight Crew: 1 Pilot

17. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.
Refer to the “Pilot’s Operating Handbook and FOCA/EASA Approved Flight Manual”, Section 6., for passengers and flight crew loading instructions and approved configurations.

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

19. Wheels and Tyres:

	Dimensions	**Ply Rating**	**Speed Rating**
Nose Landing Gear:	17.5x6.25-6	8 (PR)	160 (MPH)
Main Landing Gear:	8.50x10	8 (PR)	160 (MPH)

20. (Reserved)

A.IV. Operating and Service Instructions

1. Flight Manual (AFM/POH):

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

a. MSN 101 to MSN 400 Except MSN 321	Pilatus Report PC-12 no. 01973-001 March 30th, 1994 and later approved revisions.
b. MSN 321,	Pilatus Report PC-12/45 no. 02211 July 14th, 2001 and later approved revisions. (PC-12 data contained in AFMS No.25.)

2. Maintenance Manual (AMM):

Airplane maintenance must be in accordance with the document as define below:

All PC-12 MSN up to MSN 888	Pilatus Report no. 02049

3. Structural Repair Manual (SRM):

Airplane Repairs must be in accordance with the document as define below:

All PC-12 MSN up to MSN 888	Pilatus Report no. 02050

4. Service Bulletins (SBs):

All Pilatus PC-12 Bulletin are listed in the following document:

All PC-12 MSN	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.

A.V. Operational Suitability Data (OSD)

1. Master Minimum Equipment List (MMEL):	Pilatus Report PC-12 No 02395, latest approved revision
2. Flight Crew Data (FCD)	not required (see Note 4 in Section E)

SECTION B: PC-12/45

B.I. General

1. Type/ Model/ Variant	
1.1 Type:	PC-12
1.2 Model:	PC-12/45
1.3 Eligible MSN:	MSN 321, MSN 401 to MSN 683 (except MSN 545)
2. Airworthiness Category:	14 CFR Part 23 Normal Category
3. Manufacturer:	Pilatus Aircraft Ltd. Pilatusstrasse 1, 6371 Stans Switzerland
4. EASA Type Certification Application Date:	June 6th, 1995
5. State of Design Authority:	Switzerland
6. State of Design Authority Type Certificate Date:	June 4th, 1996
7. EASA Type Certification Date:	Product accepted in EU prior 28 Sept 2003 This TCDS replaces the Swiss TCDS F-56-30 Revision 10, dated December 14th, 2005.

B.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements:	June 6th, 1995
2. Airworthiness Requirements:	FAA 14 CFR FAR Part 23, Normal Category, including Amendments 23-1 through 23-42, and

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
CS 23.851	Amdt 4 (See Note 6)

3. [Reserved]	
4. Special Conditions:	C-1 Horizontal Tail Loads C-2 Horizontal Tail Loads (Rocking Motions) C-3 Dynamic Behaviour of the Landing Gear C-4 Seat Head Rest & Supporting Structure aft Facing Seats D-1 Hinges (Strength & Rigidity) D-2 Doors and Exits E-2 Composite Cowling (Toxics) FOCA CQF 98-02, September 15th, 1993
5. Exemptions:	None

6. (Reserved) Deviations: None

7. Equivalent Safety Findings: B-1 Stall Identification & Recovery Characteristics
FOCA CQF 91-04 (FAR 23.221(a)(2))
FOCA CQF 21-03 (FAR 23.841(b)(6))

8. Environmental Protection:

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.

9. Operational Suitability Certification Basis:

MMEL: CS-GEN-MMEL, Initial Issue

Flight Crew Data not required (see Note 4 in Section E)

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 m^2 - (277.8 ft^2)

4. Engine:

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

4.2 Type Certificate: TCCA TCDS No. E-21
EASA TCDS No. EASA.IM. E.008

4.3 Engine Limitations:

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	**Torque PSI [lbf-ft] (kgf m)**	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

5. Flight Load factor Limits:

Flaps up:	+3.4 g, -1.36 g
Flaps down:	+2.0 g, -0.0 g

6. Propeller:

6.1 Model:	1 Hartzell HC-E4A-3D/E10477K or HC-E4A-3D/E10477SK
6.2 Type Certificate:	FAA TCDS No. P10NE / EASA TCDS No. EASA.IM.P.133
6.3 Number of blades:	4 (Aluminum)
6.4 Diameter:	2,670 mm
6.5 Sense of Rotation:	Propeller rotates Clockwise in view of flight direction
6.6 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° ± 0,2°

6.7 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 AFM 01973-001 or AFM 02211 Section 2 for approved fuels.
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. Fluid 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)		280
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. Approved Operations Capability: IFR Day/Night; VFR Day/Night

12. Maximum Masses:

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”)	6.120 m (240.94”)
3600 kg (7937 lbs)	5.693 m (224.13”)	6.172 m (242.99”)
3000 kg (6614 lbs)	5.693 m (224.13”)	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. Levelling Means: Refer to the “Pilot’s Operating Handbook and FOCA/EASA Approved Flight Manual”, Section 6.

16. Minimum Flight Crew: 1 Pilot

17. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.
Refer to the “Pilot’s Operating Handbook and FOCA/EASA Approved Flight Manual”, Section 6., for passengers and flight crew loading instructions and approved configurations.

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

19. Wheels and Tyres:

	Dimensions	**Ply Rating**	**Speed Rating**
Nose Landing Gear:	17.5x6.25-6	8 (PR)	160 (MPH)
Main Landing Gear:	8.50x10	8 (PR)	160 (MPH)

20. (Reserved)

B.IV. Operating and Service Instructions

1. Flight Manual (AFM/POH):

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

MSN 321, 401 and up to MSN 683 Except MSN 545	Pilatus Report PC-12/45 no. 02211 July 14th, 2001 and later approved revisions.

2. Maintenance Manual (AMM):

   Airplane maintenance must be in accordance with the document as define below:

All PC-12 MSN up to MSN 888	Pilatus Report no. 02049

3. Structural Repair Manual (SRM):

   Airplane Repairs must be in accordance with the document as define below:

All PC-12 MSN up to MSN 888	Pilatus Report no. 02050

4. Service Bulletins (SBs):

   All Pilatus PC-12 Bulletin are listed in the following document:

All PC-12 MSN	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.

B.V. Operational Suitability Data (OSD)

1. Master Minimum Equipment List (MMEL):	Pilatus Report PC-12 No 02395, latest approved revision
2. Flight Crew Data (FCD)	not required (see Note 4 in Section E)

SECTION C: PC-12/47

C.I. General

1. Type/ Model/ Variant	
1.1 Type:	PC-12
1.2 Model:	PC-12/47
1.3 Eligible MSN:	S/N 684 up to MSN 888
2. Airworthiness Category:	14 CFR Part 23 Normal Category
3. Manufacturer:	Pilatus Aircraft Ltd. Pilatusstrasse 1, 6371 Stans Switzerland
4. EASA Type Certification Application Date:	September 22nd, 2004
5. State of Design Authority:	Switzerland
6. State of Design Authority Type Certificate Date:	December 14th, 2005
7. EASA Type Certification Date:	Product transferred to EASA, 23 June 2006 This TCDS replaces the Swiss TCDS F-56-30 Revision 10, dated December 14th, 2005.

C.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements:	September 22nd, 2004
2. Airworthiness Requirements:	FAA 14 CFR FAR Part 23, Normal Category, including Amendments 23-1 through 23-42 and

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
CS 23.851	Amdt 4 (See Note 6)

3. [Reserved]

4. Special Conditions:

C-1 Horizontal Tail Loads
C-2 Horizontal Tail Loads (Rocking Motions)
C-3 Dynamic Behaviour of the Landing Gear
C-4 Seat Head Rest & Supporting Structure aft Facing Seats
D-1 Hinges (Strength & Rigidity)
D-2 Doors and Exits
E-2 Composite Cowling (Toxics)

FOCA CQF 98-02, September 15th, 1993

4. Exemptions: None

5. (Reserved) Deviations: None

6. Equivalent Safety Findings: B-1 Stall Identification & Recovery Characteristics
FOCA CQF 91-04 (FAR 23.221(a)(2))
FOCA CQF 21-03 (FAR 23.841(b)(6))

7. Environmental Protection:

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.

10. Operational Suitability Certification Basis:

MMEL: CS-GEN-MMEL, Initial Issue

Flight Crew Data not required (see Note 4 in Section E)

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 (see Note C.IV.5)

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 m^2 - (277.8 ft^2)

4. Engine:

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

4.2 Type Certificate: TCCA TCDS No. E-21
EASA TCDS No. EASA.IM. E.008

4.3 Engine Limitations:

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	**Torque PSI [lbf-ft] (kgf m)**	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

5. Flight Load factor Limits:

Flaps up: +3.4 g, -1.36 g
Flaps down: +2.0 g, -0.0 g

6. Propeller:

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

6.2 Type Certificate: FAA TCDS No. P10NE / EASA TCDS No. EASA.IM.P.133

6.3 Number of blades: 4 (Aluminum)

6.4 Diameter: 2,670 mm

6.5 Sense of Rotation: Propeller rotates Clockwise in view of flight direction

6.6 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° ± 0,2°

6.7 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 AFM 02211 Section 2 for approved fuels.
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. Fluid 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)		280
MD	(maximum operating Mach number)		0.58
VA	(maneuvering speed)		170
VO	(max. maneuvering operating speed)	at 4740 kg	166
		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. Approved Operations Capability: IFR Day/Night; VFR Day/Night

12. Maximum Masses:

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**
4700 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”)	6.120 m (240.94”)
3600 kg (7937 lbs)	5.693 m (224.13”)	6.172 m (242.99”)
3000 kg (6614 lbs)	5.693 m (224.13”)	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. Levelling Means: Refer to the “Pilot’s Operating Handbook and FOCA/EASA Approved Flight Manual”, Section 6.

16. Minimum Flight Crew: 1 Pilot

17. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.
Refer to the “Pilot’s Operating Handbook and FOCA/EASA Approved Flight Manual”, Section 6., for passengers and flight crew loading instructions and approved configurations.

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

19. Wheels and Tyres:

	Dimensions	**Ply Rating**	**Speed Rating**
Nose Landing Gear:	17.5x6.25-6	8 (PR)	160 (MPH)
Main Landing Gear:	8.50x10	8 (PR)	160 (MPH)

20. (Reserved)

C.IV. Operating and Service Instructions

1. Flight Manual (AFM/POH):
   Airplane operation must be in accordance with the FOCA/EASA approved "Pilot Operating Handbook" (POH) and AFM supplements as define below:
   a. MSN 684 up to MSN 888 — Pilatus Report PC-12 no. 02211 July 14th, 2001 and later approved revisions. (PC-12/47 data contained in AFMS No.33.)
2. Maintenance Manual (AMM):
   Airplane maintenance must be in accordance with the document as define below:
   All PC-12 MSN up to MSN 888 — Pilatus Report no. 02049
3. Structural Repair Manual (SRM):
   Airplane Repairs must be in accordance with the document as define below:
   All PC-12 MSN up to MSN 888 — Pilatus Report no. 02050
4. Service Bulletins (SBs):
   All Pilatus PC-12 Bulletin are listed in the following document:
   All PC-12 MSN — Pilatus Report no. 02086
5. Flight into icing conditions:
   PC-12/47 variant may be operated in known icing conditions.

C.V. Operational Suitability Data (OSD)

1. Master Minimum Equipment List (MMEL): Pilatus Report PC-12 No 02395, latest approved revision
2. Flight Crew Data (FCD) — not required (see Note 4 in Section E)

SECTION D: PC-12/47E

D.I. General

1. Type/ Model	
1.1 Type:	PC-12
1.2 Model:	PC-12/47E
1.3 Eligible MSN:	see below under D.II. EASA Certification Basis
2. Airworthiness Category:	14 CFR Part 23 Normal Category
3. Manufacturer:	Pilatus Aircraft Ltd. Pilatusstrasse 1, 6371 Stans Switzerland
4. EASA Type Certification Application Date:	December 6th, 2004
5. Design Authority:	EASA
6. EASA Type Certification Date:	March 28th, 2008

D.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements:	Same as EASA certification application date
2. Airworthiness Requirements:	US 14 CFR FAR Part 23, Normal Category, including Amendments 23-1 through 23-42, effective February 4th, 1991.

3. Certification Basis:

3.A The certification basis for MSN 545 and MSN 1001 to MSN 1944

3.A.1 The certification basis for MSN 545 and MSN 1001 to MSN 1944 consists of the airworthiness requirements as per D.II.2 as amended by:

US 14 CFR FAR Part 23, Sections	23.49(c)	(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) see Note 7 Section D.IV
23.1303 c	(23-62) see Note 7 Section D.IV
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)
CS 23.851	Amdt 4 (See Note 6)

3.A.2. Special Conditions:

B-3 Steep Approach Landings
C-1 Horizontal Tail Loads
C-2 Horizontal Tail Loads (Rocking Motions)
C-3 Dynamic Behaviour of the Landing Gear
C-4 Seat Head Rest & Supporting Structure aft Facing Seats
D-1 Hinges (Strength & Rigidity)
D-2 Doors and Exits
E-2 Composite Cowling (Toxics)
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)

3.A.3. Exemptions: None

3.A.4. Deviations: None

3.A.5. Equivalent Safety Findings:

B-1 Stall Identification & Recovery Characteristics
FAR 23.221(a)(2) [FOCA CQF 91-04] Spin Resistance
FAR 23.841(b)(6) [FOCA CQF 21-03] Pressure cabin warning altitude
F-10 Individual Circuit Protection with IMA System
F-11 ASI Flaps Markings
F-12 Probes OFF Caution

3.A.6. Environmental Protection:

Noise:	US Federal Aviation Regulation Part 36, Appendix G, including Amendments 36-1 through 36-28, effective January 4th, 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.

3.B The certification basis for MSN 1720 and MSN 2001 and subsequent

3.B.1 The certification basis for the major changes listed in the Note 12, which are installed on S/N 1720 and S/N 2001 and subsequent, consists of the airworthiness requirements as per D.II.2 and 3.A.1 as amended by:

US 14 CFR FAR Part 23, Sections	23.613 (23-45); 23.907 (c) (23-59);
CS-23 paragraphs at Amendment 4	23.63; 23.69; 23.147; 23.175; 23.177; 23.181; 23.337; 23.341; 23.347; 23.361; 23.443; 23.572; 23.629; 23.672; 23.677 (a)(d); 23.851; 23.905; 23.1306; 23.1308; 23.1309; 23.1321; 23.1365; 23.1589.
3.B.2 Special Conditions	E-01 Turbine Engine Installation – Rain Ingestion; F-23 Auto Throttle (AT);

Special Conditions as per 3.A.1 but not applicable for MSN1720 and MSN 2001 and subsequent:

F-01 Protection from the Effects of HIRF (Sec. 23.1308 is applicable);
F-02 Protection from the Indirect Effects of Lightning Strike (Sec. 23.1306 and 23.867 are applicable);
F-09 Integrated Modular Avionics (IMA) (AMC 20-170 is applicable).

3.B.3 Exemptions	Reserved
3.B.4 Deviations	Reserved
3.B.5 Equivalent Safety Findings	E-03 Interconnected Fuel Tanks without Interconnected Tank Airspaces

3.B.6 Environmental Protection

Noise Requirements: As per TCDSN EASA.A.089 Issue 8: ICAO Annex 16, Volume I Edition / Amendment Chapter 10 (10.4b).

Fuel Venting and Exhaust Emission Requirements:

As per 3.A.6 Emissions

D.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: 500.00.12.020 (Note 12 Section D.IV)
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 (see Note D.IV.5)
3. Dimensions:
   - Main Wing Span: 16’280 mm - (53 ft 5 in) increase to 16'310 mm – (53 ft 6 in) with LED lights installed
     16'315 mm – (53 ft 6 in) MSN 1776 and up
   - Length: 14’408 mm - (47 ft 3 in)
   - Height: 4’260 mm - (14 ft 0 in)
   - Total Wing Area: 25.81 m^2 - (277.8 ft^2)
4. Engine:
   - 4.1.A MSN 545, 1001 to MSN 1944: 1 Pratt & Whitney Canada (PWC) PT6A-67P turboprop engine, flat rated at 1200 shp for takeoff.
   - 4.1.B MSN 1720, 2001 and up: 1 Pratt & Whitney Canada (PWC) PT6E-67XP turboprop engine, flat rated at 1200 shp for takeoff. (Note 12 Section D.IV)
   - 4.2 Type Certificate: TCCA TCDS No. E-21
     EASA TCDS No. EASA.IM. E.008

4.3 Engine Limitations (PT6A-67P) (MSN 545, 1001 to MSN 1944):

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	**Torque PSI [lbf-ft] (kgf m)**	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

4.4 Engine Limitations (PT6E-67XP) (MSN 1720, 2001 and up):

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	**Torque PSI [lbf-ft] (kgf m)**	Prop. shaft Speed (r.p.m.)	Maximum Permissible Interstage Temperature (°C)
Takeoff	1200	104	44.84 [3750] (518.5)	1700	850
Max. continuous Max. climb	1200	104	44.84 [3750] (518.5)	1700	825
Max. cruise	1100	104	40.63 [3398] (469.79)	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	900

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

5. Flight Load factor Limits:

Flaps up:	+3.4 g, -1.36 g
Flaps down:	+2.0 g, -0.0 g

6. Propeller:

6.1 Model:

6.1.A Model for MSN 545, 1001 to MSN 1575

Model	Hartzell HC-E4A-3D/E10477SK
Type Certificate:	FAA TCDS No. P10NE / EASA TCDS No. EASA.IM.P.133
Number of blades:	4 (Aluminum)

6.1.B Model for MSN 1576 to MSN 1944 (except for MSN 1720)

As per 6.1.A, or

Model:	Hartzell HC-E5A-3A/ NC10245B
Type Certificate:	FAA TCDS No. P20NE / EASA TCDS No. EASA.IM.P.125
Number of blades:	5 (Carbon Composite)

6.1.C Model for MSN 1720, 2001 and subsequent

Model:	Hartzell HC-E5A-31A/ NC10245B (See Note 12 Section D.IV)
Type Certificate:	FAA TCDS No. P20NE / EASA TCDS No. EASA.IM.P.125
Number of blades:	5 (Carbon Composite)

6.2 Diameter: 2,670 mm

6.3 Sense of Rotation: Propeller rotates Clockwise in view of flight direction

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

	4-Blade Propeller	**5-Blade Propeller**
Minimum on ground:	17°	17°
Minimum in flight:	6°	6° (1° applicable to §6.1.C)
Reverse (negative):	-17.50° ± 0,5°	-17.50° ± 0,5°
Feathered:	79.60° ± 0,5°	80.0° ± 0,5°
Fine Pitch	19° ± 0,2°	14.7° ± 0,2°

6.5 Propeller Limits: Diameter: 104 in (2.642 m) to 105 in (2.667 m) cropping of blade tips not permitted. Propeller blade life limit on condition.

6.5.A MSN 545, 1001 to 1575 Stabilized ground operations between 350 and 950 rpm are prohibited.

6.5.B MSN 1576 to 1944 (Exc. 1720) Stabilized ground operations between 350 and 950 rpm are prohibited.

6.5.C MSN 1720, 2001 and up Stabilized ground operations between 350 and 900 rpm are prohibited (See Note 12 Section D.IV).

7. Fluids:

7.1 Fuel:

7.1.A MSN 545, 1001 to 1944 (Exc. 1720): Refer to AFM 02277 Section 2 for approved fuels.

7.1.B. MSN 1720, 2001 and up: Refer to AFM 02406 Section 2 for approved fuels.

7.1.C MSN 545, 1001 to 1944 (Exc. 1720): Refer to AFM 02277 Section 2 for approved Fuel Anti-Ice Additives that must be used for all flight operations in ambient temperatures below 0°C.

7.1.D MSN 1720, 2001 and up: Fuel Anti-Ice Additive is not necessary for operations within the aircraft certified outside air temperature limits. Refer to AFM 02406 Section 2 for approved Fuel Anti-Ice Additives that could be used (Ref also note 12, Section D.IV).

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

8. Fluid 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
(Note 12 Section D.IV)			0.49
VD	(maximum diving speed)		280
MD	(maximum operating Mach number)		0.58
VA	(maneuvering speed)		170
VO	(max. maneuvering operating speed)	at 4740 kg	166
		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. Approved Operations Capability: IFR Day/Night; VFR Day/Night

12. Maximum Masses:

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**
4700 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”)	6.120 m (240.94”)

3600 kg (7937 lbs)	5.693 m (224.13”)	6.172 m (242.99”)
3000 kg (6614 lbs)	5.693 m (224.13”)	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. Levelling Means: Refer to the “Pilot’s Operating Handbook and EASA Approved Flight Manual”, Section 6.

16. Minimum Flight Crew: 1 Pilot

17. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.
Refer to the “Pilot’s Operating Handbook and EASA Approved Flight Manual”, Section 6., for passengers and flight crew loading instructions and approved configurations.

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

19. Wheels and Tyres:	**Dimensions**	**Ply Rating**	**Speed Rating**
Nose Landing Gear:	17.5x6.25-6	8 (PR)	160 (MPH)
Main Landing Gear:	8.50x10	8 (PR)	160 (MPH)

20. (Reserved)

D.IV. Operating and Service Instructions

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

a. MSN 545 and MSN 1001 to 1944	Pilatus Report PC-12 no. 02277 Revision 6 or higher.
b. MSN 1720 and MSN 2001 and up	Pilatus Report PC-12/47E no. 02406 Issue 02, Revision 00 or higher

2. Maintenance Manual (AMM):

   Airplane maintenance must be in accordance with the document as define below:

1.	MSN 545 and MSN 1001 to 1944	Pilatus Report no. 02300.
2.	MSN 1720 and MSN 2001 and up	Pilatus Report no. 02436

3. Structural Repair Manual (SRM):

   Airplane Repairs must be in accordance with the document as define below:

All PC-12 MSN up to MSN 888	Pilatus Report no. 02050
All PC-12 MSN 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 MSN	Pilatus Report no. 02086

5. Flight into icing conditions:

   PC-12/47E variant may be operated in known icing conditions.

6. RVSM capability for PC-12/47E: MSN 545 and MSN 1001 up to MSN 1944:
   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.

   RVSM for MSN 1720 and MSN 2001 and up refer to Note 12.

7. PC-12/47E MSN 1300, MSN 1451 up to MSN 1944: These airplanes are fitted with the Electromechanical Landing Gear (eLDG) and must be operated and maintained in accordance with the Airplane Flight Manual, document no. 02277, Supplement 11, issue dated March 2, 2012 or later revisions and Airplane Maintenance Manual, document number 02300, Airworthiness Limitations 12-B-04-00-00-00A-000A-A, dated November 26, 2013 or later EASA approved revisions.

8. The PC-12/47E aircraft is Transmitting-PED tolerant.

9. PC-12/47E MSN 1576 and subsequent as well as aircraft which have SB 34-042 (Introduction of the L3 ESIS with linked independent magnetometer) embodied, can have the standby magnetic compass removed. In this case the aircraft is compliant with FAR 23.1303(c) at 23-62.

10. PC-12/47E MSN 1576 up to MSN 1944: These airplanes are eligible to be fitted with the Hartzell 5-Blade Composite Propeller. The aircraft must be operated in accordance with the Airplane Flight Manual, document no. 02277 revision 15 or later versions and Airplane Maintenance Manual, document number 02300 Revision 14, dated November 06, 2015 or later EASA approved revisions.

11. Parker Wheels have a STC SA1376CH, but have been approved for TC inclusion via a reclassified Pilatus Minor change in Jul 2010. The Parker Wheels is now the only installation used in production aircraft since MSN 1231.

12. The PC-12/47E MSN 1720, MSN 2001 and subsequent: These airplanes are fitted with:

- Pratt and Whitney PT6E-67XP engine with Electronic Engine Control (EEC).
- Hartzell 5-Blade Composite Propeller
- Revised Fuel System enabling the use of fuel without anti-icing additives with the fuel system basic architecture and means of operation maintained,
- APEX Build 12 or later versions, providing functions such as: Autothrust (Optional), Tactile Feedback, Emergency Descent Mode and Low Propeller Speed (Optional).
- New Executive Seats and larger cabin windows.
- Electromechanical Landing Gear (eLDG)
- The airplanes are RVSM capable.

This MSN range of airplanes must be operated and maintained in accordance with the Airplane Fight Manual, document no. 02406 issue 02, revision 00 or later revisions and aircraft with the optional Low Propeller Speed in accordance with the AFM Supplement 02439 issue 01, revision 00 or later revisions and Airplane Maintenance Manual, document no. 02436, Airworthiness Limitations 12-C-04-00-00-00A-000A-A, or later EASA approved revisions.

D.V. Operational Suitability Data (OSD)

1. Master Minimum Equipment List (MMEL):	Pilatus Report PC-12 No 02395, latest approved revision
2. Flight Crew Data (FCD)	not required (see Note 4 in Section E)

SECTION E: PC-12/47G

E.I. General

1. Type/ Model	
1.1 Type:	PC-12
1.2 Model:	PC-12/47G
1.3 Eligible MSN	MSN 3001 and subsequent
2. Airworthiness Category:	14 CFR Part 23 Normal Category
3. Manufacturer:	Pilatus Aircraft Ltd. Pilatusstrasse 1, 6371 Stans Switzerland
4. EASA Type Certification Application Date:	November 26th, 2021
5. Certifying Authority:	EASA
6. EASA Type Certification Date:	December 18, 2024

E.II. EASA Certification Basis

1. Reference Date for determining the applicable requirements:	5th January 2022
2. Airworthiness Requirements:	US 14 CFR FAR Part 23, Normal Category, including Amendments 23-1 through 23-42, effective February 4th, 1991.
3. Certification Basis:	The certification basis for the PC-12/47G is the EASA Certification Basis for PC-12/47E S/N 1720 and S/N 2001 upwards as defined in Section D.II.3.B.
4. Special Conditions:	F-34 Lithium Battery Installation
5. Exemptions:	None
6. Deviations:	None
7. Equivalent Safety Findings:	B-01 Release 02 Artificial Stall Barrier System
8. Environmental Protection:	
Noise Requirements:	As per TCDSN EASA.A.089 Issue 8: ICAO Annex 16, Volume I Edition / Amendment Chapter 10 (10.4b).
Fuel Venting and Exhaust Emission Requirements:	US Federal Aviation Regulation Part 34, (Fuel venting/emissions), effective September 10th, 1990.

E.III. Technical Characteristics and Operational Limitations

1. Type Design Definition:	500.00.12.021 (Note 9 Section E.IV)
2. Description:	The PC-12/47G 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 5 Section E.IV)

3. Dimensions:

Main Wing Span:	16'31 mm – (53 ft 6 in)
Length:	14’408 mm - (47 ft 3 in)
Height:	4’260 mm - (14 ft 0 in)
Total Wing Area:	25.81 m^2 - (277.8 ft^2)

4. Engine:

4.1	1 Pratt & Whitney Canada (PWC) PT6E-67XP turboprop engine, flat rated at 1200 shp for takeoff. (Note 9 Section E.IV)
4.2 Type Certificate:	TCCA TCDS No. E-21 EASA TCDS No. EASA.IM. E.008

4.3Engine Limitations (PT6E-67XP) (MSN 1720, 2001 and up):

Operating Conditions	Shaft (shp.)	N1 Gas Generator Speed (%)	**Torque PSI [lbf-ft] (kgf m)**	Prop. shaft Speed (r.p.m.)	Maximum Permissible Interstage Temperature (°C)
Takeoff	1200	104	44.84 [3750] (518.5)	1700	850
Max. continuous Max. climb	1200	104	44.84 [3750] (518.5)	1700	825
Max. cruise	1100	104	40.63 [3398] (469.79)	1700	820
Normal Climb Normal Cruise	As per Aircraft Flight Manual charts				
Starting Limits (5 sec.)	-	-	-	-	1000
Transient (20 sec.)	-	104.3	61.00 [5100] (705.1)	1870	900

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:	+15°C ÷ 110°C
Max. Continuous:	+15°C ÷ 105°C
Max. Reverse:	+15°C ÷ 105°C

5. Flight Load factor Limits:

Flaps up:	+3.3 g, -1.32 g
Flaps down:	+2.0 g, -0.0 g

6. Propeller:

6.1 Model:	Hartzell HC-E5A-31A/ NC10245B (See Note 9, Section E.IV)
Type Certificate:	FAA TCDS No. P20NE / EASA TCDS No.EASA.IM.P.125
Number of blades:	5 (Carbon Composite)
6.2 Diameter:	2,670 mm
6.3 Sense of Rotation:	Propeller rotates Clockwise in view of flight direction
6.4 Pitch:	Nominal pitch angle at 1,067 m (42") station
Minimum on ground:	17°
Minimum in flight:	1°
Reverse (negative):	-17.50° ± 0,5°
Feathered:	80.0° ± 0,5°
Fine Pitch	14.7° ± 0,2°
6.5 Propeller Limits:	Diameter: 104 in (2.642 m) to 105 in (2.667 m) cropping of blade tips not permitted. Propeller blade life limit on condition. Stabilized ground operations between 350 and 900 rpm are prohibited (See Note 9, Section E.IV).

7. Fluids:

7.1 Fuel:	Refer to AFM 02523 Section 2 for approved Fuels. Fuel Anti-Ice Additive is not necessary for operations within the aircraft certified outside air temperature limits. Refer to AFM 02523 Section 2 for approved Fuel Anti-Ice Additives that could be used (Ref also Note 9, Section E.IV).
7.2 Oil:	Synthetic turbine oil conforming to PWA 521, Type II. Refer to ADM 02523 Section 2 for approved oils.

8. Fluid 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)		0.49
VD	(maximum diving speed)		280
MD	(maximum operating Mach number)		0.58
VA	(maneuvering speed)		170
VO	(max. maneuvering operating speed)	at 4740 kg	166
		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. Approved Operations Capability: IFR Day/Night; VFR Day/Night

12. Maximum Masses:

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**
4700 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”)	6.120 m (240.94”)
3600 kg (7937 lbs)	5.693 m (224.13”)	6.172 m (242.99”)
3000 kg (6614 lbs)	5.693 m (224.13”)	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. Levelling Means: Refer to the “Pilot’s Operating Handbook and EASA Approved Flight Manual”, Section 6.

16. Minimum Flight Crew: 1 Pilot

17. Maximum Passenger Seating Capacity: 9 PAX excluding pilot seats.
Refer to the “Pilot’s Operating Handbook and EASA Approved Flight Manual”, Section 6., for passengers and flight crew loading instructions and approved configurations.

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

19. Wheels and Tyres:

	Dimensions	**Ply Rating**	**Speed Rating**
Nose Landing Gear:	17.5x6.25-6	8 (PR)	160 (MPH)
Main Landing Gear:	8.50x10	8 (PR)	160 (MPH)

20. (Reserved)

E.IV. Operating and Service Instructions

1. Flight Manual (AFM/POH):
   Airplane operation must be in accordance with the EASA approved "Pilot Operating Handbook" (POH) and AFM supplements as define below:
   Pilatus Report PC-12/47G no. 02523 Issue 02, Revision 00 or higher
2. Maintenance Manual (AMM):
   Airplane maintenance must be in accordance with the document as define below:
   Pilatus Report no. 02547
3. Structural Repair Manual (SRM):
   Airplane Repairs must be in accordance with the document as define below:
   All PC-12 MSN 3001 and up Pilatus Report no. 02549
4. Service Bulletins (SBs):
   All Pilatus PC-12 Bulletin are listed in the following document:
   All PC-12 MSN Pilatus Report no. 02086
5. Flight into icing conditions:
   PC-12/47G variant may be operated in known icing conditions.
6. RVSM for MSN 3001 and up refer to Note 9.
7. The PC-12/47G aircraft is Transmitting-PED tolerant.
8. PC-12/47E MSN 1576 and subsequent as well as aircraft which have SB 34-042 (Introduction of the L3 ESIS with linked independent magnetometer) embodied, can have the standby magnetic compass removed. In this case the aircraft is compliant with FAR 23.1303(c) at 23-62.
9. The PC-12/47G MSN 3001 and subsequent: These airplanes are fitted with:
   - Garmin GIFD 3 avionic system
   - The DV window has been removed
   - Optional Li-Ion main ship battery
   - 12" Diameter Weather Radar antenna
   - Pratt and Whitney PT6E-67XP engine with Electronic Engine Control (EEC)
   - Hartzell 5-Blade Composite Propeller
   - Revised Fuel System enabling the use of fuel without anti-icing additives with the fuel system basic architecture and means of operation maintained
   - Electromechanical Landing Gear (eLDG)
   - The airplanes are RVSM capable.

   This MSN range of airplanes must be operated and maintained in accordance with the Airplane Fight Manual, document no. 02523 issue 02, revision 00 or later revisions and the Airplane Maintenance Manual, document no. 02547, Airworthiness Limitations 12-D-04-00-00-00A-000A-A, or later EASA approved revisions.

E.V. Operational Suitability Data (OSD)

1. Master Minimum Equipment List (MMEL):	Pilatus Report PC-12 No 02395, latest approved revision
2. Flight Crew Data (FCD)	not required (see Note 4 in Section E)

ADMINISTRATIVE SECTION

F. Notes for all PC-12 variants

1. Requirements for the issue of the Certificate of Airworthiness (CofA)

- 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 CofA 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 (MSN101 – MSN 148) 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, PC-12/47E and PC-12/47G 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.

4. OSD

In the absence of an operational evaluation at the entry into service of the PC-12, a type-rating requirement was established by the JAA. With the outcome of the OSD-FCD aircraft evaluation from 02 - 06 Nov 2015 summarized in Pilatus Report PC-12 No 02394 all the PC-12 are thereafter subject to a Class Rating (prior this date it was a Type Rating) and OSD-FCD is no longer applicable to the PC-12.

5. Passengers

Maximum number of passengers is 9. During single pilot operation, the pilot occupies the left hand cockpit seat and one passenger may occupy the right hand cockpit seat.

6. Halon Free Fire Extinguisher

Pilatus introduced Halon free fire extinguisher as an alternative on all PC-12 model aircraft per SB 26-002. This project introduced CS §23.851 at amendment 4 for all the PC-12 models

Acronyms & Abbreviations

AMM - Aircraft Maintenance Manual
CRI - Certification Review Item
FAR - Federal Aviation Regulations
FOCA - Federal Office of Civil Aviation
EASA - European Aviation Safety Agency
IAS - Indicated Airspeed
KIAS - Indicated Airspeed [knots]
POH - Pilot's Operating Handbook
RPM - Rotations per Minute
FIKI - Flight Into Known Icing
TCDS - Type Certificate Data Sheet

Type Certificate Holder Record

Pilatus Aircraft Ltd.
Pilatusstrasse 1, 6371 Stans
Switzerland

Change Record

Issue	Date	Changes	TC Issue No. & Date
Issue 01	29 June 2006	Initial issue of EASA TCDS 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	
Issue 05	11.Feb 2014	Corrected fine pitch tolerance and added alternative Nose and Main wheel tires. Corrected Typo for Vo at 4740kg.	
Issue 06	12.Nov.2015	Certification basis for PC-12/47E updated indicating FAR 23.1303 (c) at amdt 62 for the removal of non-stabilized compass (Whisky compass). Added the Hartzell 5-Blade composite propeller as a new installation on PC-12/47E. Added Note 6 for eLDG installation on PC-12/47E. Added Note 7 for the 5-Blade propeller, certification basis for removed standby compass and the PC-12/47E is T-PED tolerant. Added Note 8 for the Parker Nose- and Main wheels and brakes as an alternative on the PC-12/47E. Added section V to refer to Operational Suitability Data (OSD) including Note and effected CB.	
Issue 07	21 Dec 2016	The reference to the tyre manufactures and part numbers has been deleted since the approved	

		manufacturers and tyre part numbers are controlled in the IPC. OSD FCD acc ref Note 4 in Section Administrative	
Issue 08	21 Oct 2019	Transferred information to the new EASA template Corrected the reference of the ALS in Note 6. Edited Section D.II: Added Special Condition B-3 Steep Approach for the PC-12/47E and added the Certification Basis for PC-12/47E MSN 1720, 2001 and up Edited Section D.III: Added Technical Characteristics with reference to Note 12. Edited Section D.IV: Added reference to new Operating and Service Instructions. Added Note 12.	
Issue 9	14 Nov 2019	Removal of Fuel Temp limit of -20°C for S/N 1720, 2001 and up. Text readability improvement to help aviation professionals.	
Issue 10	15 Jan 2025	Amended reference for approved fuels to relevant AFM. Replaced S/N with MSN for all models. Corrected MSN Range for the different PC-12 models to be more precise. Amended reference to EASA TCDS for all engines and Propellers for all models. Added CS 23.851 requirement to the certification basis, due to the introduction of the Halon Alternative Fire Extinguisher Corrected torque value in Table 4.4 Corrected engine torque metrics Section E added for model PC-12/47G Renumbered Administrative Section E to F Section F, Note 6 added	18 Dec 2024

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