

TYPE CERTIFICATE DATA SHEET

No. EASA.R.009

for EC135

Type Certificate Holder

Airbus Helicopters Deutschland GmbH

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 For Models:
 EC135 P1

 EC135 P2
 EC135 P2+
 EC635 P2+

 EC135 P3
 EC635 P3

 EC135 T1
 EC635 T1

 EC135 T2
 EC135 T2+
 EC635 T2+

 EC135 T3
 EC635 T3



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SECTION 1: EC135 P1(CDS)

I. General 1. Type/ Model/ Variant 1.1 Type EC135 1.2 Model EC135 P1 1.3 Variant EC135 P1(CDS) Small Rotorcraft 2. **Airworthiness Category** 3. Manufacturer See "Section: Administrative, II.3" Type Certification Application Date to LBA 12 December 1994 4. State of Design Authority EASA 5. 6. Type Certificate Date by LBA 14 June 1996 7. Type Certificate n° EASA: EASA.R.009 (LBA: 3061) EASA: 8. Type Certificate Data Sheet n° EASA.R.009 (LBA: 3061, until issue 12, dated 3 June 2003) 9. EASA Type Certification Date 28 September 2003, in accordance with CR (EU) 1702/2003, Article 2, 3., (a), (i), 2nd bullet, 1st indented bullet.

II. Certification Basis

1. Reference Date for determining the applicable requirements

For Airworthiness and Environmental Protection: 12 December 1994 for OSD elements: Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR-27, Issue 1, dated 6 September 1993
- For IFR Certification: JAR-27 Appendix B, Issue 1, dated 6 September 1993
- Category A Engine Isolation Requirements of JAR-29, Issue 1, dated 5 November 1993.
 - Applicable paragraphs, selected from Appendix C to JAR-27, are:

29.861 (a)	Fire Protection of Structure, controls, and other parts
29.901 (c)	Powerplant: Installation
29.903 (b),(c),(e)	Engines
29.908 (a)	Cooling fans
29.917 (b),(c)(1)	Rotor Drive System: Design
29.927 (c)(1)	Additional tests
29.953 (a)	Fuel system independence
29.1027 (a)	Transmission and gearboxes
29.1045 (a)(1),(b),(c),(d),(f) Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General
For CAT A Certification: JA	AR 27 Appendix C, Issue 1, dated 6 September 1993

- JAA Interim HIRF Policy (INT/POL/278.29-1, dated 1 June 1997) applies for:
 - -- Dual Pilot IFR certification with 3-axis SAS, Pitch-Damper and EFIS EFS 40
 - -- Single Pilot/ Dual Pilot IFR certification with AFCS and EFIS EFS 40



3. Special Conditions

- No. SC 1 "Primary Structures Designed with Composite Material"
- No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.
- No. SC 3 "Electronic Flight Instrument Systems"
- No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

7.

none

- 5. Equivalent Safety Findings
- Dual Pilot IFR certification concerning JAR 27 Appendix B, Para. IV (c) "Static Longitudinal Stability"
- CS 27.865 (c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
- CS 27.601, 27.603, 27.865 (a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1 N	Noise Requirements	see TCDSN EASA.R.009
6.2 E	mission Requirements	n/a
Opera	tional Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1 N	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2 F	light Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3 S	imulation Data (SIMD)	reserved
7.4 N	Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	 EC135 Basic Master List Drawing No. L000M0007051 Drawing No. L000M0002051 and following modifications
2.	Description	Main rotor:bearingless, 4 bladesTail rotor:Fenestron, 10 bladesFuselage:metal-composite structureLanding gear:skid-typePowerplant:2 independent freewheel turbines
3.	Equipment	Basic equipment must be installed and operational prior to registration of the helicopter.
4.	Dimensions	
	4.1 Fuselage	Length: 5.87 m Width hull: 1.56 m Height: 3.35 m
	4.2 Main Rotor	Diameter: 10.20 m
	4.3 Tail Rotor	Diameter: 1.00 m
5.	Engine	
	5.1 Model	Pratt & Whitney Canada 2 x Model PW 206B
	5.2 Type Certificate	TCCA TC/TCDS n°: E-23 EASA TC/TCDS n°: EASA.IM.E.017
гэ	Limitations	

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits



			(1
			TQ limits [%]	Gas generator [rpm (%)]	PWR turbine [rpm (%)]	Temperature TOT [°C]
		AEO-TOP (5 min)	2 x 75	57 250 (98.7)	104	854
		AEO-MCP	2 x 69	56 500 (97.4)	104	820
		2½ min OEI-TOP	1 x 100	59 400 (102.4)	104	930
		OEI-MCP	1 x 86	58 250 (100.4)	104	885
6.	Fluids					
	6.1 Fue	9		Refer to approved RFM		
	6.2 Oil			Refer to approved RFM		
	6.3 Ado	ditives		Refer to approved RFM		
7.	Fluid cap	pacities				
	7.1 Fue	21		Standard fuel tank (up t	to s/n 0249)	
					580.0 litres 570.5 litres	
				Self-sealing fuel tank (u	p to s/n 0249)	
					573.4 litres 564.0 litres	
				Usable fuel: Self-sealing fuel tank (fi Fuel tank capacity:	710.0 litres 700.5 litres	EC135-28-007)
	7.2 Oil			Refer to approved RFM		
		plant System Capacity		Refer to approved RFM n/a		
8.	7.3 Coo	plant System Capacity d Limitations			for reduction in V	V _{NE} with altitude
8. 9.	7.3 Coo Air Spee			n/a V _{NE} : 155 KIAS at MSL Refer to approved RFM and other speed limitat Power on: Maximum 104 % Minimum 95 % Power off: Maximum 106 % Minimum 80 % Minimum 85 %	for reduction in V ions.	
	7.3 Coo Air Speer Rotor Sp	d Limitations		n/a V _{NE} : 155 KIAS at MSL Refer to approved RFM and other speed limitat Power on: Maximum 104 % Minimum 95 % Power off: Maximum 106 % Minimum 80 % Minimum 85 %	for reduction in v tions. (up to 1 900 kg) (above 1 900 kg)	
9.	7.3 Coo Air Speer Rotor Sp	d Limitations eed Limitations n Operating Altitude and	d Temperature	n/a V _{NE} : 155 KIAS at MSL Refer to approved RFM and other speed limitat Power on: Maximum 104 % Minimum 95 % Power off: Maximum 106 % Minimum 80 % Minimum 85 %	for reduction in v tions. (up to 1 900 kg) (above 1 900 kg) to approved RFM refer to approved	I
9.	7.3 Coo Air Speer Rotor Sp Maximur 10.1 Alti	d Limitations eed Limitations n Operating Altitude and	d Temperature	n/a V _{NE} : 155 KIAS at MSL Refer to approved RFM and other speed limitat Power on: Maximum 104 % Minimum 95 % Power off: Maximum 106 % Minimum 80 % Minimum 85 % Transient: Refer	for reduction in V ions. (up to 1 900 kg) (above 1 900 kg) to approved RFM refer to approved	I
9.	7.3 Coo Air Speer Rotor Sp Maximur 10.1 Alti 10.2 Ter	d Limitations eed Limitations n Operating Altitude and tude	d Temperature	n/a V _{NE} : 155 KIAS at MSL Refer to approved RFM and other speed limitat Power on: Maximum 104 % Minimum 95 % Power off: Maximum 106 % Minimum 80 % Minimum 85 % Transient: Refer	for reduction in V tions. (up to 1 900 kg) (above 1 900 kg) to approved RFM refer to approved MTOW	d RFM for onal equipment



		with RFMS 9.1-3 "Supplement for flights with gross mass above 2 720 kg up to 2 835 kg" and when SB EC135-11-003 is incorporated.
13.	Centre of Gravity Range	Longitudinal C.G. limits maximum forward limit: 4 180 mm aft of DP at 1 840 kg 4 219 mm aft of DP at 2 720 kg 4 224 mm aft of DP at 2 835 kg maximum rearward limit: 4 570 mm aft of DP at 1 500 kg 4 387 mm aft of DP at 2 720 kg 4 369 mm aft of DP at 2 835 kg Lateral C.G Limits maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal: the datum plane (STA 0) is located at 2 160 mm forward of the levelling point in the front door frame Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)
17.	Maximum Passenger Seating Capacity	six (or seven, if the kit described in RFMS 9.2-31 is installed and operated)
18.	Passenger Emergency Exit	2, one on each side of the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m²
20.	Rotor Blade Control Movement	For rigging information refer to EC135 Aircraft Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	See approved Chapter 4, Airworthiness Limitation Section (ALS)
<u>IV. (</u>	Operating and Service Instructions	
1.	Flight Manual	EC135 P1(CDS), initially LBA-approved, dated 14 June 1996, or later (LBA)/EASA-approved revisions, including the supplements for Special Operations RFMS

2. Maintenance Manual

- EC135 P1,P2,P3,T2,T2,T3 Aircraft Maintenance Manual (AMM)
- EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)
- EC135 P1,P2,P3,T2,T2,T3 Wiring Diagram Manual (WDM)
- EC135 P1,P2,P3,T2,T2,T3 Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
- EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.IM.E.017
- 3. Structural Repair Manual
- 4. Weight and Balance Manual
- 5. Illustrated Parts Catalogue
- EC135 P1,P2,P3,T1,T2,T3 Structural Repair Manual (SRM) Refer to approved RFM

9.1 and Optional Equipment RFMS 9.2.

- EC135 Illustrated Parts Catalogue. All EC135 variants, except T3H/P3H
- 6. Service Letters and Service Bulletins



Safety Information Notice (from October 2008 onwards, before: Alert Service Information), Information Notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

- 1. Manufacturer's eligible serial numbers: s/n 0006, and subsequent.
- 2. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.

* * *



I

SECTION 2: EC135 P1(CPDS)

I. General

1. Type/ Model/ Variant

	1.1 Type	EC135
	1.2 Model	EC135 P1
	1.3 Variant	EC135 P1(CPDS)
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date to LBA	11 April 1996
5.	State of Design Authority	EASA
6.	Type Certificate Date by LBA	6 November 1998
7.	Type Certificate n°	EASA: EASA.R.009 (LBA: 3061)
8.	Type Certificate Data Sheet n°	EASA: EASA.R.009 (LBA: 3061, until issue 3, dated 3 June 2003)
9.	EASA Type Certification Date	28 September 2003, in accordance with CR (EU) 1702/2003, Article 2, 3., (a), (i), 2 nd bullet, 1 st indented bullet.

II. Certification Basis

1.	Reference Date for determining the
	applicable requirements

For Airworthiness and Environmental Protection: 11 April 1996 for OSD elements: Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR-27, Issue 1, dated 6 September 1993
- For IFR Certification: JAR 27 Appendix B, Issue 1, dated 6 September 1993
- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993.
- Applicable paragraphs, selected from Appendix C to JAR 27, are:
 - 29.861 (a) Fire Protection of Structure, controls, and other parts
 - 29.901 (c) Powerplant: Installation
 - 29.903 (b),(c),(e) Engines
 - 29.908 (a) Cooling fans
 - 29.917 (b),(c)(1) Rotor Drive System: Design
 - 29.927 (c)(1) Additional tests
 - 29.953 (a) Fuel system independence
 - 29.1027 (a) Transmission and gearboxes
 - 29.1045 (a)(1),(b),(c),(d),(f) Climb cooling test procedures
 - 29.1047 (a) Take-off cooling test procedures
 - 29.1181 (a) Designated fire zones: regions included
 - 29.1189 (c) Shutoff means
 - 29.1191 (a)(1) Firewalls
 - 29.1193 (e) Cowling and engine compartment covering
 - 29.1305 (a)(6),(b) Powerplant instruments
 - 29.1309 (b)(2)(i),(d) Equipment, systems and installations
 - 29.1331 (b) Instruments using power supply
 - 29.1351 (d)(2) Electrical systems and equipment: General
- For CAT A Certification: JAR 27 Appendix C, Issue 1, dated 6 September 1993
- JAA Interim HIRF Policy (INT/POL/278.29-1, dated 1 June 1997) applies for:
 - -- Dual Pilot IFR certification with 3-axis SAS, Pitch-Damper and Avionique Nouvelle CPDS and FCDS
 - -- Single Pilot/ Dual Pilot IFR certification with AFCS and Avionique Nouvelle CPDS and FCDS



- No. SC 1 "Primary Structures Designed with Composite Material"
- No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.
- No. SC 3 "Electronic Flight Instrument Systems"
- No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

7.

none

- 5. Equivalent Safety Findings
 - Dual Pilot IFR certification concerning JAR 27 Appendix B, Para. IV (c) "Static Longitudinal Stability"
 CS 27.865(c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for
 - the Double Cargo Hook System
 - CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1	Noise Requirements	see TCDSN EASA.R.009
6.2	Emission Requirements	n/a
Oper	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3	Simulation Data (SIMD)	reserved
7.4	Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	 EC135 Basic Master List Drawing No. L000M0007051 Drawing No. L000M0002051 and following modifications 	
2.	Description	Tail rotor: F Fuselage: r Landing gear: s	bearingless, 4 blades Fenestron, 10 blades metal-composite structure skid-type 2 independent freewheel turbines
3.	Equipment	Basic equipment n to registration of t	nust be installed and operational prior :he helicopter.
4.	Dimensions		
	4.1 Fuselage	Length: Width hull: Height:	5.87 m 1.56 m 3.35 m
	4.2 Main Rotor	Diameter:	10.20 m
	4.3 Tail Rotor	Diameter:	1.00 m
5.	Engine		
	5.1 Model	Pratt & Whitney C 2 x Model PW 206	
	5.2 Type Certificate	TCCA TC/TCDS n°: EASA TC/TCDS n°:	

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits



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					<u> </u>
		TQ limits [%]	Gas generat [rpm (%)]		Temperature TOT [°C]
	AEO-TOP (5 min)	2 x 75	57 250 (98.	7) 104	854
	AEO-MCP	2 x 69	56 500 (97.	4) 104	820
	21/2 min OEI-TOP	1 x 100	59 400 (102	.4) 104	930
	OEI-MCP	1 x 86	58 250 (100	.4) 104	885
Fluids					
6.1 Fuel		I	Refer to approve	d RFM	
6.2 Oil		I	Refer to approve	d RFM	
6.3 Add	itives	I	Refer to approve	d RFM	
Fluid capa	acities				
7.1 Fuel		9	Standard fuel tank (up to s/n 0249)		
			Fuel tank capacity Usable fuel:	y: 680.0 litres 670.5 litres	
				ank (up to s/n 0249)	
		I	Fuel tank capacity Usable fuel:		
				k (from s/n 0250, or S	
			Fuel tank capacity		B EC133-28-007)
			Usable fuel:	700.5 litres	
			-	ank (from s/n 0250)	
			Fuel tank capacity Usable fuel:	y: 701.0 litres 691.6 litres	
7.2 Oil			Refer to approve n/a		
7.3 Coolant System Capacity			V _{NE} : 155 KIAS at N	151	
Air Speed Limitations		I		d RFM for reduction in	V_{NE} with altitude
Rotor Spe	ed Limitations	I	Power on:		
			Maximum	104 %	
			Minimum Power off:	95 %	
				106 %	
			Minimum	80 % (up to 1 900 kg))
		I	Minimum	85 % (above 1 900 kg	g)
			Transient:	Refer to approved RFI	M
	Operating Altitude and	-			
10.1 Altit	ude		20 000 ft (6 096 n variation accordir	n) PA, refer to approve ng to MTOW	ed RFM for
10.2 Tem	perature	I	Refer to approve	d RFM	
Operating Limitations			VFR day and night		
			Non-icing condition		
				A operation see addit	
			requirements and approved RFMS	l limitations in the rele	evalle EASA-
		I	For Ditching, see	Note 3	
Maximum Mass			2 720 kg		
		2	2 720 kg and 2 83 with RFMS 9.1-3	of the aircraft with MT 5 kg is permitted only "Supplement for flight	in accordance s with gross mass



above 2 720 kg up to 2 835 kg" and when SB EC135-11-

		003 is incorporated.
13.	Centre of Gravity Range	Longitudinal C.G. limits
		maximum forward limit:
		4 180 mm aft of DP at 1 840 kg
		4 219 mm aft of DP at 2 720 kg
		4 224 mm aft of DP at 2 835 kg
		maximum rearward limit:
		4 570 mm aft of DP at 1 500 kg
		4 387 mm aft of DP at 2 720 kg
		4 369 mm aft of DP at 2 835 kg
		Lateral C.G Limits
		maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal:
		the datum plane (STA 0) is located at 2 160 mm forward
		of the levelling point in the front door frame
		Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)
17.	Maximum Passenger Seating Capacity	1 cockpit, six cabin (or seven cabin, if the kit described in RFMS 9.2-31 is installed and operated)
18.	Passenger Emergency Exit	2, one on each side of the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load: 1 130 kg
		Cargo floor max unit load: 600 kg/m ²
20.	Rotor Blade Control Movement	For rigging information refer to EC135 Aircraft
		Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	See approved Chapter 4, Airworthiness Limitation Section (ALS)

IV. Operating and Service Instructions

1. Flight Manual

EC135 P1(CPDS), initially LBA-approved, dated 6 November 1998, or later (LBA)/EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

2. Maintenance Manual

- EC135 P1, P2, P3, T2, T2, T3 Aircraft Maintenance Manual (AMM)
- EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)
- EC135 P1, P2, P3, T2, T2, T3 Wiring Diagram Manual (WDM)
- EC135 P1,P2,P3,T2,T2,T3 Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
- EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.IM.E.017
- 3. Structural Repair Manual EC135 P1,P2,P3,T1,T2,T3 Structural Repair Manual (SRM)
- 4. Weight and Balance Manual
- 5. Illustrated Parts Catalogue EC135 Illustrated Parts Ca

Refer to approved RFM EC135 Illustrated Parts Catalogue. All EC135 variants, except T3H/P3H

6. Service Letters and Service Bulletins

Safety Information Notice (from October 2008 onwards, before: Alert Service Information), Information Notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin



Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

- Manufacturer's eligible serial numbers: s/n 0030, and subsequent.
- 2. Night Vision Goggles Operational Capability:

Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly, and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.

* * *



I

SECTION 3: EC135 P2(CPDS)

I. General 1. Type/ Model/ Variant 1.1 Type EC135 1.2 Model EC135 P2 1.3 Variant EC135 P2(CPDS) 2. **Airworthiness Category** Small Rotorcraft 3. Manufacturer See "Section: Administrative, II.3" Type Certification Application Date to LBA 4. 5 June 2001 5. State of Design Authority EASA Type Certificate Date by LBA 10 July 2001 6. 7. Type Certificate n° EASA: EASA.R.009 (LBA: 3061) 8. Type Certificate Data Sheet n° EASA: EASA.R.009) (LBA: 3061, until issue 9, dated 3 June 2003) 28 September 2003, 9. EASA Type Certification Date in accordance with CR (EU) 1702/2003, Article 2, 3., (a), (i), 2nd bullet, 1st indented bullet.

II. Certification Basis

1.	Reference Date for determining the
	applicable requirements

For Airworthiness and Environmental Protection: 5 June 2001 for OSD elements: Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR 27, Issue 1, dated 6 September 1993
- For IFR Certification: JAR 27 Appendix B, Issue 1, dated 6 September 1993
- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993.
- Applicable paragraphs, selected from Appendix C to JAR 27, are:
 - 29.861 (a) Fire Protection of Structure, controls, and other parts
 - 29.901 (c) Powerplant: Installation
 - 29.903 (b),(c),(e) Engines
 - 29.908 (a) Cooling fans
 - 29.917 (b),(c)(1) Rotor Drive System: Design
 - 29.927 (c)(1) Additional tests
 - 29.953 (a) Fuel system independence
 - 29.1027 (a) Transmission and gearboxes
 - 29.1045 (a)(1),(b),(c),(d),(f) Climb cooling test procedures
 - 29.1047 (a) Take-off cooling test procedures
 - 29.1181 (a) Designated fire zones: regions included
 - 29.1189 (c) Shutoff means
 - 29.1191 (a)(1) Firewalls
 - 29.1193 (e) Cowling and engine compartment covering
 - 29.1305 (a)(6),(b) Powerplant instruments
 - 29.1309 (b)(2)(i),(d) Equipment, systems and installations
 - 29.1331 (b) Instruments using power supply
 - 29.1351 (d)(2) Electrical systems and equipment: General
- For CAT A Certification: JAR 27 Appendix C, Issue 1, dated 6 September 1993
- JAA Interim HIRF Policy (INT/POL/278.29-1, dated 1 June 1997) applies for:
 - -- Dual Pilot IFR certification with 3-axis SAS, Pitch-Damper and Avionique Nouvelle CPDS and FCDS
 - -- Single Pilot/ Dual Pilot IFR certification with AFCS and Avionique Nouvelle CPDS and FCDS
- 3. Special Conditions



- No. SC 1 "Primary Structures Designed with Composite Material"
- No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.
- No. SC 3 "Electronic Flight Instrument Systems"
- No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

none

- 5. Equivalent Safety Findings
- Dual Pilot IFR certification concerning JAR 27 Appendix B, Para. IV (c) "Static Longitudinal Stability"
- JAR 27.1549(b) related to the installation of the Vehicle and Engine Multifunction Display (VEMD) in the CPDS variants.
- CS 27.865(c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
- CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

	6.1	Noise Requirements	see TCDSN EASA.R.009
	6.2	Emission Requirements	n/a
7.	Ope	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
	7.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
	7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
	7.3	Simulation Data (SIMD)	reserved
	7.4	Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition		Master List Drawing No. L000M0007051 L000M0010051 + L710M0013054 and difications
2.	Description	Main rotor: Tail rotor: Fuselage: Landing gear: Powerplant:	bearingless, 4 blades Fenestron, 10 blades metal-composite structure skid-type 2 independent freewheel turbines
3.	Equipment	Basic equipment to registration of	must be installed and operational prior the helicopter.
4.	Dimensions		
	4.1 Fuselage	Length: Width hull: Height:	5.87 m 1.56 m 3.35 m
	4.2 Main Rotor	Diameter:	10.20 m
	4.3 Tail Rotor	Diameter:	1.00 m
5.	Engine		
	5.1 Model	Pratt & Whitney 2 x Model PW 20	
	5.2 Type Certificate	TCCA TC/TCDS n° EASA TC/TCDS n°	
	5.3 Limitations		

Installed Engine Limitations and Transmission Torque Limits



	TQ limits [%]	Gas generator rpm [%]	PWR turbine rpm [%]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 75	57 250 (98.7)	104	869
AEO-MCP	2 x 69	56 500 (97.4)	104	835
30 sec OEI-TOP	1 x 128	60 500 (104.3)	104	990
2 min OEI-TOP	1 x 125	59 500 (102.6)	104	950
OEI-MCP	1 x 86	58 250 (100.4)	104	900

6.	Fluids (Fuel/ Oil/ Additives)	
	6.1 Fuel	Refer to approved RFM
	6.2 Oil	Refer to approved RFM
	6.3 Additives	Refer to approved RFM
7.	Fluid capacities	
	7.1 Fuel	Standard fuel tank (up to s/n 0249)
		Fuel tank capacity: 680.0 litres
		Usable fuel: 670.5 litres
		Self-sealing fuel tank (up to s/n 0249)
		Fuel tank capacity: 673.4 litres
		Usable fuel: 664.0 litres
		Modified fuel tank (from s/n 0250, or SB EC135-28-007) Fuel tank capacity: 710.0 litres
		Usable fuel: 700.5 litres
		Self-sealing fuel tank (from s/n 0250)
		Fuel tank capacity: 701.0 litres
		Usable fuel: 691.6 litres
	7.2 Oil	Refer to approved RFM
_	7.3 Coolant System Capacity	n/a
8.	Air Speed Limitations	V_{NE} : 155 KIAS at MSL Refer to approved RFM for reduction in V_{NE} with altitude
		and other speed limitations.
9.	Rotor Speed Limitations	Power on:
		Maximum 104 %
		Minimum 97 %
		Power off: Maximum 106 %
		Minimum 80 % (up to 1 900 kg)
		Minimum 85 % (above 1 900 kg)
		Transient: Refer to approved RFM
10.	Maximum Operating Altitude and Temperature	
	10.1 Altitude	20 000 ft (6 096 m) PA, refer to approved RFM for
	100 T	variation according to MTOW
	10.2 Temperature	Refer to approved RFM
11.	Operating Limitations	VFR day and night Non-icing conditions
		For IFR, Category A operation see additional equipment
		requirements and limitations in the relevant EASA-
		approved RFMS
		For Ditching, see Note 3
12.	Maximum Mass	2 835 kg
13.	Centre of Gravity Range	Longitudinal C.G. limits maximum forward limit:
		חמאווועווו וטו שמוע ווווונ.



		4 180 mm aft of DP at 1 840 kg 4 224 mm aft of DP at 2 835 kg maximum rearward limit: 4 570 mm aft of DP at 1 500 kg 4 369 mm aft of DP at 2 835 kg Lateral C.G Limits maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal: the datum plane (STA 0) is located at 2 160mm forward of the levelling point in the front door frame Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)
17.	Maximum Passenger Seating Capacity	1 cockpit, six cabin (or seven cabin, if the kit described in RFMS 9.2-31 is installed and operated)
18.	Passenger Emergency Exit	2, one on each side of the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m²
20.	Rotor Blade Control Movement	For rigging information refer to EC135 Aircraft Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	See approved Chapter 4, Airworthiness Limitation Section (ALS)
<u>IV. (</u>	Operating and Service Instructions	

Flight Manual 1.

EC135 P2(CPDS), initially LBA-approved, dated 10 July 2001, or later (LBA)/EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

- 2. Maintenance Manual
 - -EC135 P1, P2, P3, T2, T2, T3 Aircraft Maintenance Manual (AMM)
- EC135 P1, P2, P3, T2, T2, T3 System Description Section (SDS)
- EC135 P1, P2, P3, T2, T2, T3 Wiring Diagram Manual (WDM)
- EC135 P1, P2, P3, T2, T2, T3 Corrosion and Erosion Control Guide (CECG) -
- Standard Practices Manual -
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
- EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.IM.E.017 -
- 3. Structural Repair Manual
- 4. Weight and Balance Manual
- EC135 P1, P2, P3, T1, T2, T3 Structural Repair Manual (SRM)
- Refer to approved RFM
- 5. **Illustrated Parts Catalogue**

EC135 Illustrated Parts Catalogue. All EC135 variants, except T3H/P3H

6. Service Letters and Service Bulletins

> Safety Information Notice (from October 2008 onwards, before: Alert Service Information), Information Notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin **Repair Design Approval Sheets**

Required Equipment 7.

> Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.



V. Notes

- 1. Manufacturer's eligible serial numbers:
 - 1.1 s/n 0189, and subsequent.
 - 1.2 any EC135 P1(CPDS) that has been upgraded to EC135 P2(CPDS) according to SB EC135-71-017.
 - 1.3 s/n 165 that has been upgraded to EC135 P2(CPDS) in accordance with SB EC135-71-022.
- 2. Night Vision Goggles Operational Capability:

Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.

* * *



Grandfathering date: 17 February 2014

I

SECTION 4: EC135 P2+

<u>I. Ge</u>	neral	
1.	Type/ Model	
	1.1 Туре	EC135
	1.2 Model	EC135 P2+
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date	8 February 2005
5.	State of Design Authority	EASA
6.	Type Certificate Date	21 February 2006
7.	Type Certificate n°	EASA.R.009
8.	Type Certificate Data Sheet n°	EASA.R.009
<u>II. Ce</u>	ertification Basis	
1.	Reference Date for determining the applicable requirements	For Airworthiness and Environmental Protection: 8 February 2005
		for OSD elements:

- 2. Airworthiness Requirements
 - JAR 27, Issue 1, dated 6 September 1993
 - For IFR Certification: JAR 27 Appendix B, Issue 1, dated 6 September 1993
- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993.
- Applicable paragraphs, selected from Appendix C to JAR 27, are:

29.861 (a)	Fire Protection of Structure, controls, and other parts		
29.901 (c)	Powerplant: Installation		
29.903 (b),(c),(e)	Engines		
29.908 (a)	Cooling fans		
29.917 (b),(c)(1)	Rotor Drive System: Design		
29.927 (c)(1)	Additional tests		
29.953 (a)	Fuel system independence		
29.1027 (a)	Transmission and gearboxes		
29.1045 (a)(1),(b),(c),(d),(f) Climb cooling test procedures		
29.1047 (a)	Take-off cooling test procedures		
29.1181 (a)	Designated fire zones: regions included		
29.1189 (c)	Shutoff means		
29.1191 (a)(1)	Firewalls		
29.1193 (e)	Cowling and engine compartment covering		
29.1305 (a)(6),(b)	Powerplant instruments		
29.1309 (b)(2)(i),(d)	Equipment, systems and installations		
29.1331 (b)	Instruments using power supply		
29.1351 (d)(2)	Electrical systems and equipment: General		
For CAT A Certification: JAR 27 Appendix C, Issue 1, dated 6 September 1993			
JAA Interim HIRF Policy (INT/POL/278.29-1, dated 1 June 1997) applies for:			

- Dual Pilot IFR certification with 3-axis SAS, Pitch-Damper and Avionique Nouvelle CPDS and FCDS
 Single Pilot/ Dual Pilot IFR certification with AFCS and Avionique Nouvelle CPDS and FCDS
- CS 27.1 (a) and CS 27.2 (b)(2)(i), initial issue
- CS 27.25 (a) (1) and CS 27.143(c) (1), Amdt. 2
- 3. Special Conditions
 - No. SC 1 "Primary Structures Designed with Composite Material"
 - No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.



- No. SC 3 "Electronic Flight Instrument Systems"
- No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

7.

- 5. Equivalent Safety Findings
 - Dual Pilot IFR certification concerning JAR 27 Appendix B, Para. IV (c) "Static Longitudinal Stability"
 - JAR 27.1549 (b) related to the installation of the Vehicle and Engine Multifunction Display (VEMD) in the CPDS variants.

none

- CS 27.865 (c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
- CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1	Noise Requirements	see TCDSN EASA.R.009
6.2	Emission Requirements	n/a
Ope	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3	Simulation Data (SIMD)	reserved
7.4	Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	 EC135 Basic Master List Drawing No. L000M0007051 Drawings of EC135 P2(CPDS) + L000M0022051 and following modifications
2.	Description	Main rotor:bearingless, 4 bladesTail rotor:Fenestron, 10 bladesFuselage:metal-composite structureLanding gear:skid-typePowerplant:2 independent freewheel turbines
3.	Equipment	Basic equipment must be installed and operational prior to registration of the helicopter.
4.	Dimensions	
	4.1 Fuselage	Length: 5.87 m Width hull: 1.56 m Height: 3.35 m
	4.2 Main Rotor	Diameter: 10.20 m
	4.3 Tail Rotor	Diameter: 1.00 m
5.	Engine	
	5.1 Model	Pratt & Whitney Canada 2 x Model PW 206B2
	5.2 Type Certificate	TCCA TC/TCDS n°: E-23 EASA TC/TCDS n°: EASA.IM.E.017
	5.3 Limitations	
	Installed Engine Limitations and Trans	mission Torque Limits

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Gas generator [rpm (%)]	PWR turbine [rpm (%)]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 78	57 250 (98.7)	104	869
AEO-MCP	2 x 69	56 500 (97.4)	104	835



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						,	
		30 sec OEI-TOP	1 x 128	60 500 (104.3)	104	990	
		2 min OEI-TOP	1 x 125	59 500 (102.6)	104	950	
		OEI-MCP	1 x 89.5	58 250 (100.4)	104	900	
6.	Fluids					1	
	6.1 Fuel	l	Refe	r to approved RFM			
	6.2 Oil		Refe	r to approved RFM			
	6.3 Add	itives	Refe	Refer to approved RFM			
7.	Fluid capa	acities					
	7.1 Fuel	l	Stan	dard fuel tank (up to	o s/n 0249)		
					80.0 litres		
					70.5 litres		
				sealing fuel tank (up	-		
				· · ·	73.4 litres 64.0 litres		
			Mod	ified fuel tank (from	n s/n 0250, or SB	EC135-28-007)	
					10.0 litres		
				ole fuel: 7 sealing fuel tank (fro	00.5 litres		
					01.0 litres		
					91.6 litres		
	7.2 Oil		Refe	r to approved RFM			
	7.3 Coo	lant System Capacity	n/a				
8.	Air Speed	l Limitations		155 KIAS at MSL			
				r to approved RFM [·] other speed limitati		V_{NE} with altitude	
9.	Potor Spr	eed Limitations		er on:	ons.		
9.			-	imum 104 %			
			Mini	mum 97 %			
			-	er off:			
				imum 106 % mum 80 %	(up to 1 900 kg)		
					(above 1 900 kg)	1	
			Tran	sient: Refer t	o approved RFN	1	
10.	Maximum	n Operating Altitude and T	emperature				
	10.1 Altit	ude		00 ft (6 096 m) PA, r ition according to N		d RFM for	
	10.2 Tem	perature	Refe	r to approved RFM			
11.	Operating	g Limitations		day and night			
				-icing conditions	ation coo additi	anal aquinmant	
				FR, Category A oper irements and limita			
			-	oved RFMS			
			For I	Ditching, see Note 3			
12.	Maximun	n Mass	2 91	0 kg			
			Note	e: Operation of the a	aircraft with MT	DW up to	
				0 kg is only permitte			
				S 9.1-6 and RFMS 9 equent or after SB E	-	55 and	
1२	Centre of	Gravity Range		itudinal C.G. limits	-0100-02-020,		
тэ.	Centre UI	Stavity Mange		imum forward limit			

maximum forward limit:

		4 180.0 mm aft of DP at 1 840 kg
		4 227.3 mm aft of DP at 2 910 kg
		4 229.3 mm aft of DP at 2 950 kg
		maximum rearward limit:
		4 570.0 mm aft of DP at 1 500 kg
		4 369.0 mm aft of DP at 2 910 kg
		4 362.6 mm aft of DP at 2 950 kg
		Lateral C.G Limits
		maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal:
		the datum plane (STA 0) is located at 2 160 mm forward
		of the levelling point in the front door frame
		Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)
17.	Maximum Passenger Seating Capacity	1 cockpit, six cabin (or seven cabin, if the kit described in
		RFMS 9.2-31 is installed and operated)
18.	Passenger Emergency Exit	2, one on each side of the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load: 1 130 kg
		Cargo floor max unit load: 600 kg/m ²
20.	Rotor Blade Control Movement	For rigging information refer to EC135 Aircraft
		Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	See approved Chapter 4, Airworthiness Limitation Section
		(ALS)
		-

IV. Operating and Service Instructions

1.	Elight	Manual
±.	ingin	ivialiual

EC135 P2+, initially EASA-approved, dated 21 February 2006, or later EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

- 2. Maintenance Manual
 - EC135 P1, P2, P3, T2, T2, T3 Aircraft Maintenance Manual (AMM)
 - EC135 P1, P2, P3, T2, T2, T3 System Description Section (SDS)
 - EC135 P1,P2,P3,T2,T2,T3 Wiring Diagram Manual (WDM)
 - EC135 P1,P2,P3,T2,T2,T3 Corrosion and Erosion Control Guide (CECG)
 - Standard Practices Manual
 - EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
 - EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
 EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.IM.E.017
- 3. Structural Repair Manual
- 4. Weight and Balance Manual
- 5. Illustrated Parts Catalogue

EC135 P1, P2, P3, T1, T2, T3 Structural Repair Manual (SRM)

- Refer to approved RFM
- EC135 Illustrated Parts Catalogue. All EC135 variants, except T3H/P3H
- 6. Service Letters and Service Bulletins

Safety Information Notice (from October 2008 onwards, before: Alert Service Information), Information Notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

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7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

- 1. Manufacturer's eligible serial numbers:
 - 1.1 s/n 0505, and subsequent.
 - 1.2 any EC135 P2(CPDS) that has been upgraded to EC135 P2+ according to SB EC135-71-033.
- 2. Night Vision Goggles Operational Capability:

Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.

* * *



SECTION 5: EC635 P2+

I. General

1.	Type/ Model	
	1.1 Type	EC135
	1.2 Model	EC635 P2+
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date	17 July 2006
5.	State of Design Authority	EASA
6.	Type Certificate Date	6 December 2006
7.	Type Certificate n°	EASA.R.009
8.	Type Certificate Data Sheet n°	EASA.R.009

II. Certification Basis

1.	Reference Date for determining the applicable requirements	For Airworthiness and Environmental Protection: 17 July 2006
		for OSD elements: Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR 27, Issue 1, dated 6 September 1993
- For IFR Certification: JAR 27 Appendix B, Issue 1, dated 6 September 1993
- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are:
 29.861 (a) Fire Protection of Structure, controls, and other parts
 29.901 (c) Powerplant: Installation
 29.903 (b),(c),(e) Engines
 29.908 (a) Cooling fans
 29.917 (b),(c)(1) Rotor Drive System: Design
 - 29.927 (c)(1) Additional tests
 - 29.953 (a) Fuel system independence
 - 29.1027 (a) Transmission and gearboxes
 - 29.1045 (a)(1),(b),(c),(d),(f) Climb cooling test procedures
 - 29.1047 (a) Take-off cooling test procedures
 - 29.1181 (a) Designated fire zones: regions included
 - 29.1189 (c) Shutoff means
 - 29.1191 (a)(1) Firewalls
 - 29.1193 (e) Cowling and engine compartment covering
 - 29.1305 (a)(6),(b) Powerplant instruments
 - 29.1309 (b)(2)(i),(d) Equipment, systems and installations
 - 29.1331 (b) Instruments using power supply
 - 29.1351 (d)(2) Electrical systems and equipment: General
- For CAT A Certification: JAR 27 Appendix C, Issue 1, dated 6 September 1993
- JAA Interim HIRF Policy (INT/POL/278.29-1, dated 1 June 1997) applies for:
 - -- Dual Pilot IFR certification with 3-axis SAS, Pitch-Damper and Avionique Nouvelle CPDS and FCDS
- -- Single Pilot/ Dual Pilot IFR certification with AFCS and Avionique Nouvelle CPDS and FCDS
- CS 27.1 (a) and CS 27.2 (b)(2)(i), initial issue
- CS 27.25 (a) (1) and CS 27.143 (c)(1), Amdt. 2
- 3. Special Conditions
 - No. SC 1 "Primary Structures Designed with Composite Material"



- No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.
- No. SC 3 "Electronic Flight Instrument Systems"
- No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

7.

none

- 5. Equivalent Safety Findings
 - Dual Pilot IFR certification concerning JAR 27 Appendix B, Para. IV (c) "Static Longitudinal Stability"
 - JAR 27.1549(b) related to the installation of the Vehicle and Engine Multifunction Display (VEMD) in the CPDS variants.
 - CS 27.865(c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
 - CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1	Noise Requirements	see TCDSN EASA.R.009
6.2	Emission Requirements	n/a
Ope	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3	Simulation Data (SIMD)	reserved
7.4	Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	 EC135 Basic Master List Drawing No. L000M00070 Drawings of EC135 P2(CPDS) + L000M0022051 an following modifications EC635 Kit (Drawing No. W533M1700051) 	
2.	Description	Main rotor:bearingless, 4 bladesTail rotor:Fenestron, 10 bladesFuselage:metal-composite structureLanding gear:skid-typePowerplant:2 independent freewheel turbinesNote:The variant EC635 P2+ corresponds to theEC135 P2+ plus structural reinforcement of cabinstructure according to the drawing W533M1700051	
~	Fauinment	Basic equipment must be installed and operational prio to registration of the helicopter.	
3.	Equipment		
3. 4.	Dimensions		
-			
-	Dimensions	to registration of the helicopter. Length: 5.87 m Width hull: 1.56 m	
-	Dimensions 4.1 Fuselage	to registration of the helicopter.Length:5.87 mWidth hull:1.56 mHeight:3.35 m	
-	Dimensions 4.1 Fuselage 4.2 Main Rotor	to registration of the helicopter.Length:5.87 mWidth hull:1.56 mHeight:3.35 mDiameter:10.20 m	



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2 x Model PW 206B2

5.2 Type CertificateTCCA TC/TCDS n°:E-23EASA TC/TCDS n°:EASA.IM.E.017

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Gas generator [rpm (%)]	PWR turbine [rpm (%)]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 78	57 250 (98.7)	104	869
AEO-MCP	2 x 69	56 500 (97.4)	104	835
30 sec OEI-TOP	1 x 128	60 500 (104.3)	104	990
2 min OEI-TOP	1 x 125	59 500 (102.6)	104	950
OEI-MCP	1 x 89.5	58 250 (100.4)	104	900

6. Fluids

0.	FIUIC	12			
	6.1	Fuel	Refer to approve	ed RF	М
	6.2	Oil	Refer to approve	ed RF	М
	6.3	Additives	Refer to approve	ed RF	М
7.	Fluic	d capacities			
	7.1	Fuel	Standard fuel tar	nk (u	o to s/n 0249)
			Fuel tank capacit Usable fuel:	ty:	680.0 litres 670.5 litres
			Self-sealing fuel	tank	(up to s/n 0249)
			Fuel tank capacit Usable fuel:	ty:	673.4 litres 664.0 litres
			Modified fuel tar Fuel tank capacit Usable fuel: Self-sealing fuel t Fuel tank capacit Usable fuel:	ty: tank	om s/n 0250, or SB EC135-28-007) 710.0 litres 700.5 litres (from s/n 0250) 701.0 litres 691.6 litres
	7.2	Oil	Refer to approve	ed RF	M
	7.3	Coolant System Capacity	n/a		
8.	Air S	Speed Limitations	V _{NE} : 155 KIAS at I Refer to approve and other speed	ed RF	M for reduction in V_{NE} with altitude ations.
9.	Roto	or Speed Limitations	Power on: Maximum Minimum Power off: Maximum Minimum Minimum Transient:	85	%
10.	Max	imum Operating Altitude and Temperature			

10.1 Altitude

20 000 ft (6 096 m) PA, refer to approved RFM for variation according to MTOW



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TCDS No.: EASA.R.009 Issue: 19	EC135 Date: 24 July 2024
10.2 Temperature	Refer to approved RFM
11. Operating Limitations	VFR day and night Non-icing conditions For IFR, Category A operation see additional equipment requirements and limitations in the relevant EASA- approved RFMS For Ditching, see Note 3
12. Maximum Mass	2 910 kg
	<u>Note:</u> Operation of the aircraft with MTOW up to 2 950 kg is only permitted in accordance with RFMS 9.1-5, RFMS 9.1-6 and RFMS 9.1-7 from s/n 1055 and subsequent or after SB EC135-62-028.
13. Centre of Gravity Range	Longitudinal C.G. limits maximum forward limit: 4 180.0 mm aft of DP at 1 840 kg 4 227.3 mm aft of DP at 2 910 kg 4 229.3 mm aft of DP at 2 950 kg maximum rearward limit: 4 570.0 mm aft of DP at 1 500 kg 4 369.0 mm aft of DP at 2 910 kg 4 362.6 mm aft of DP at 2 950 kg Lateral C.G Limits maximum deviation on right / left: 100 mm
14. Datum	Longitudinal: the datum plane (STA 0) is located at 2 160mm forward of the levelling point in the front door frame Lateral: fuselage median plane
15. Levelling Means	See levelling procedure document No. L082M0801X01
16. Minimum Flight Crew	1 pilot (right seat)
17. Maximum Passenger Seating Capacity	1 cockpit, six cabin (or seven cabin, if the kit described in RFMS 9.2-31 is installed and operated)
18. Passenger Emergency Exit	2, one on each side of the passenger cabin
19. Maximum Baggage/ Cargo Loads	Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m ²
20. Rotor Blade Control Movement	For rigging information refer to EC135 Aircraft Maintenance Manual
21. Auxiliary Power Unit (APU)	n/a
22. Life-limited Parts	See approved Chapter 4, Airworthiness Limitation Section (ALS)
IV. Operating and Service Instructions	
1. Flight Manual	EC635 P2+, initially EASA-approved, dated 6 December 2006, or later EASA-approved revisions, including the supplements for Special Operations RFMS 0.1 and Optional Equipment PEMS 0.2

- 2. Maintenance Manual
 - EC135 P1, P2, P3, T2, T2, T3 Aircraft Maintenance Manual (AMM)
 - EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)
 - EC135 P1,P2,P3,T2,T2,T3 Wiring Diagram Manual (WDM)



9.1 and Optional Equipment RFMS 9.2.

- EC135 P1,P2,P3,T2,T2,T3 Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
- EC135 Avionic Manual (AVM)

Illustrated Parts Catalogue

- Engine documents as per Engine TCDS No. EASA.IM.E.017
- 3. Structural Repair Manual
 EC135 P1,P2,P3,T1,T2,T3 Structural Repair Manual (SRM)
- 4. Weight and Balance Manual Refer to approved RFM
 - EC135 Illustrated Parts Catalogue. All EC135 variants, except T3H/P3H
- 6. Service Letters and Service Bulletins

Safety Information Notice (from October 2008 onwards, before: Alert Service Information), Information Notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASA-approved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

5.

1. Manufacturer's eligible serial numbers:

s/n 0505, and subsequent

2. Night Vision Goggles Operational Capability:

Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly, and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.

* * *



SECTION 6: EC135 P3(CPDS)

I. General

1. Type/ Model/ Variant

	1.1 Type	EC135
	1.2 Model	EC135 P3
	1.3 Variant	EC135 P3(CPDS)
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date	4 July 2014
5.	State of Design Authority	EASA
6.	Type Certificate Date	18 March 2015
7.	Type Certificate n°	EASA.R.009
8.	Type Certificate Data Sheet n°	EASA.R.009

II. Certification Basis

1.	Reference Date for determining the	For Airworthiness and Environmental Protection:
	applicable requirements	4 July 2014
		for OSD elements:

Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR-27, Issue 1, dated 6 September 1993, supplemented by the following CS-27 Amdt. 2 requirements: CS 27.1 (a) in connection with CS 27.2(b)(2)(i).

CS 27.0021	CS 27.0161	CS 27.0341	CS 27.0607	CS 27.0771	CS 27.1193	CS 27.1521
CS 27.0025	CS 27.0171	CS 27.0351	CS 27.0609	CS 27.0853	CS 27.1301	CS 27.1525
CS 27.0027	CS 27.0173	CS 27.0361	CS 27.0610	CS 27.0865	CS 27.1305	CS 27.1527
CS 27.0029	CS 27.0175	CS 27.0391	CS 27.0611	CS 27.0901	CS 27.1309	CS 27.1529
CS 27.0031	CS 27.0177	CS 27.0427	CS 27.0613	CS 27.0903	CS 27.1321	CS 27.1541
CS 27.0033	CS 27.0231	CS 27.0471	CS 27.0629	CS 27.0907	CS 27.1323	CS 27.1545
CS 27.0045	CS 27.0241	CS 27.0473	CS 27.0653	CS 27.0931	CS 27.1329	CS 27.1549
CS 27.0049	CS 27.0251	CS 27.0501	CS 27.0659	CS 27.0939	CS 27.1351	CS 27.1559
CS 27.0051	CS 27.0301	CS 27.0521	CS 27.0661	CS 27.1041	CS 27.1365	CS 27.1581
CS 27.0065	CS 27.0303	CS 27.0547	CS 27.0663	CS 27.1043	CS 27.1381	CS 27.1583
CS 27.0067	CS 27.0305	CS 27.0549	CS 27.0671	CS 27.1045	CS 27.1435	
CS 27.0075	CS 27.0307	CS 27.0561	CS 27.0672	CS 27.1091	CS 27.1501	
CS 27.0079	CS 27.0309	CS 27.0571	CS 27.0681	CS 27.1093	CS 27.1503	
CS 27.0141	CS 27.0321	CS 27.0601	CS 27.0683	CS 27.1141	CS 27.1505	
CS 27.0143	CS 27.0337	CS 27.0602	CS 27.0691	CS 27.1143	CS 27.1509	
CS 27.0151	CS 27.0339	CS 27.0603	CS 27.0695	CS 27.1187	CS 27.1519	

- For IFR Certification: CS 27 Amdt. 2, Appendix B, dated 10 November 2008

- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993.

Applicable paragraphs, selected from Appendix C to JAR 27, are:

29.861 (a)	Fire Protection of Structure, controls, and other parts
29.901 (c)	Powerplant: Installation
29.903 (b),(c),(e)	Engines
29.908 (a)	Cooling fans



29.917 (b),(c)(1)	Rotor Drive System: Design
29.927 (c)(1)	Additional tests
29.953 (a)	Fuel system independence
29.1027 (a)	Transmission and gearboxes
29.1045 (a)(1),(b),(c),(d),(f)	Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General

- For CAT A Certification: CS-27 Amdt. 2, Appendix C requirements

- 3. Special Conditions
 - No. SC 1 "Primary Structures Designed with Composite Material"
 - No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.
 - No. SC 3 "Electronic Flight Instrument Systems"
 - No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

none

- 5. Equivalent Safety Findings
 - JAR 27.1549(b) related to the installation of the Vehicle and Engine Multifunction Display (VEMD) in the CPDS variants
 - CS 27.865(c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
 - CS 27.1557(d) related to safety enhanced colour scheme ('black&yellow' in place of 'red') for the emergency exit handle cap
 - CS 27.571, 27.602 (b), 27.865 (f) for Hoist Installation on Helicopters
 - CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

	6.1	Noise Requirements	see TCDSN EASA.R.009
	6.2	Emission Requirements	ICAO Annex 16, Volume II, Part II, Chapter 2, (CS-34, Initial Issue)
7.	Ope	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
	7.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
	7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
	7.3	Simulation Data (SIMD)	reserved
	7.4	Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	TDD L0000M333300, Issue A	
2.	Description	Main rotor: Tail rotor: Fuselage:	bearingless, 4 blades Fenestron, 10 blades metal-composite structure



		00	skid-type 2 independent freewheel turbines
3.	Equipment	Basic equipment r to registration of	must be installed and operational prior the helicopter.
4.	Dimensions		
	4.1 Fuselage	Length: Width hull: Height:	5.87 m 1.56 m 3.35 m
	4.2 Main Rotor	Diameter:	10.40 m
	4.3 Tail Rotor	Diameter:	1.00 m
5.	Engine		
	5.1 Model	Pratt & Whitney 0 2 x Model PW 206	
	5.2 Type Certificate	TCCA TC/TCDS n°: EASA TC/TCDS n°:	E-23 EASA.IM.E.017

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Max N1 speed (gas generator) [%]	Max N ₂ speed (output shaft) [%]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 78	99.8	105.5	900
AEO-MCP	2 x 69	97.4	105.5	835
30 sec OEI-TOP	1 x 128	104.3	104.5	990
2 min OEI-TOP	1 x 125	102.6	104.5	950
OEI-MCP	1 x 89.5	99.8	104.5	900

6. Fluids

	6.1 Fuel	Refer to approved RF	M
	6.2 Oil	Refer to approved RF	FM
	6.3 Additives	Refer to approved RF	M
7.	Fluid capacities		
	7.1 Fuel	Standard fuel tank (u	ıp to s/n 0249)
		Fuel tank capacity: Usable fuel:	680.0 litres 670.5 litres
		Self-sealing fuel tank	(up to s/n 0249)
		Fuel tank capacity: Usable fuel:	673.4 litres 664.0 litres
		Modified fuel tank (fi Fuel tank capacity: Usable fuel: Self-sealing fuel tank Fuel tank capacity: Usable fuel:	rom s/n 0250, or SB EC135-28-007) 710.0 litres 700.5 litres (from s/n 0250) 701.0 litres 691.6 litres
	7.2 Oil	Refer to approved RF	M
	7.3 Coolant System Capacity	n/a	
8.	Air Speed Limitations	whichever is less.	, or as shown in the V_{NE} -tables, FM for reduction in V_{NE} with altitude



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		and other speed limit	ations
9.	Rotor Speed Limitations	and other speed limit Power on:	ations.
5.	Notor speed Limitations		.5 %
		Minimum 97	
		Power off:	
		Maximum 107	.5 %
			% (up to 1 900 kg)
			% (above 1 900 kg)
		Transient: Refe	er to approved RFM
10.	Maximum Operating Altitude and Temperature		
	10.1 Altitude		A, refer to approved RFM for
		variation according to	MTOW
	10.2 Temperature	Refer to approved RF	Μ
11.	Operating Limitations	VFR day and night	
		Non-icing conditions	
			peration see additional equipment
			itations in the relevant EASA-
		approved RFMS	o 2
		For Ditching, see Not	
12.	Maximum Mass	Maximum mass:	2.000 kg
		Ramp and taxi mass: Gross mass:	3 000 kg 2 980 kg
		Minimum mass:	2 500 kg
		Gross mass:	1 600 kg
13.	Centre of Gravity Range	Longitudinal C.G. limi	ts
		maximum forward lin	
		4 152 mm aft of D	P at 2 039 kg
		4 201 mm aft of D	P at 2 980 kg
		maximum rearward li	
		4 369 mm aft of D	_
		4 555 mm aft of D Lateral C.G. Limits	P at 1 000 kg
			on right / left: 100 mm
14.	Datum	Longitudinal:	0 ,
14.	Datum	-	0) is located at 2 160 mm forward
			in the front door frame
		Lateral: fuselage med	lian plane
15.	Levelling Means	See levelling procedu	re document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)	
17.	Maximum Passenger Seating Capacity	7	
18.	Passenger Emergency Exit	2, one on each side o	f the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load:	1 130 kg
		Cargo floor max unit	load: 600 kg/m ²
20.	Rotor Blade Control Movement	For rigging informatic Maintenance Manual	on refer to EC135 Aircraft
21.	Auxiliary Power Unit (APU)	n/a	
22.	Life-limited Parts	See approved Chapte (ALS)	r 4, Airworthiness Limitation Section



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IV. Operating and Service Instructions

1. Flight Manual

EC135 P3, initially EASA-approved, dated 18 March 2015, or later EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

- 2. Maintenance Manual
 - EC135 P1,P2,P3,T2,T2,T3 Aircraft Maintenance Manual (AMM)
 - EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)
 - EC135 P1,P2,P3,T2,T2,T3 Wiring Diagram Manual (WDM)
 - EC135 P1,P2,P3,T2,T2,T3 Corrosion and Erosion Control Guide (CECG)
 - Standard Practices Manual
 - EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
 - EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
 - EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.IM.E.017
- 3. Structural Repair Manual
- 4. Weight and Balance Manual
- 5. Illustrated Parts Catalogue
- EC135 P1,P2,P3,T1,T2,T3 Structural Repair Manual (SRM)
- Refer to approved RFM

EC135 Illustrated Parts Catalogue. All EC135 variants, except T3H/P3H

6. Service Letters and Service Bulletins

Safety Information Notice, Information Notice, Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASA-approved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

- 1. Manufacturer's eligible serial numbers:
 - 1.1 s/n 1178, and subsequent
 - 1.2 any EC135 P2+ that has been upgraded to EC135 P3(CPDS) according to SB EC135-71T-045.
- 2. Night Vision Goggles Operational Capability:

Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.
- 4. Designation:

"H135" is used as marketing designation for EC135 P3(CPDS) helicopters.



V. Notes

SECTION 7: EC635 P3(CPDS)

I. General

Type/ Model/ Variant 1.

	1.1 Type	EC135
	1.2 Model	EC635 P3
	1.3 Variant	EC635 P3(CPDS)
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date	4 July 2014
5.	State of Design Authority	EASA
6.	Type Certificate Date	18 March 2015
7.	Type Certificate n°	EASA.R.009
8.	Type Certificate Data Sheet n°	EASA.R.009

II. Certification Basis

1.	Reference Date for determining the
	applicable requirements

For Airworthiness and Environmental Protection: 4 July 2014 for OSD elements: Grandfathering date: 17 February 2014

Airworthiness Requirements 2.

- JAR 27, Issue 1, dated 6 September 1993, supplemented by the following CS-27 Amdt. 2 requirements: CS 27.1(a) in connection with CS 27.2(b)(2)(i).

CS 27.0021	CS 27.0161	CS 27.0341	CS 27.0607	CS 27.0771	CS 27.1193	CS 27.1521
CS 27.0025	CS 27.0171	CS 27.0351	CS 27.0609	CS 27.0853	CS 27.1301	CS 27.1525
CS 27.0027	CS 27.0173	CS 27.0361	CS 27.0610	CS 27.0865	CS 27.1305	CS 27.1527
CS 27.0029	CS 27.0175	CS 27.0391	CS 27.0611	CS 27.0901	CS 27.1309	CS 27.1529
CS 27.0031	CS 27.0177	CS 27.0427	CS 27.0613	CS 27.0903	CS 27.1321	CS 27.1541
CS 27.0033	CS 27.0231	CS 27.0471	CS 27.0629	CS 27.0907	CS 27.1323	CS 27.1545
CS 27.0045	CS 27.0241	CS 27.0473	CS 27.0653	CS 27.0931	CS 27.1329	CS 27.1549
CS 27.0049	CS 27.0251	CS 27.0501	CS 27.0659	CS 27.0939	CS 27.1351	CS 27.1559
CS 27.0051	CS 27.0301	CS 27.0521	CS 27.0661	CS 27.1041	CS 27.1365	CS 27.1581
CS 27.0065	CS 27.0303	CS 27.0547	CS 27.0663	CS 27.1043	CS 27.1381	CS 27.1583
CS 27.0067	CS 27.0305	CS 27.0549	CS 27.0671	CS 27.1045	CS 27.1435	
CS 27.0075	CS 27.0307	CS 27.0561	CS 27.0672	CS 27.1091	CS 27.1501	
CS 27.0079	CS 27.0309	CS 27.0571	CS 27.0681	CS 27.1093	CS 27.1503	
CS 27.0141	CS 27.0321	CS 27.0601	CS 27.0683	CS 27.1141	CS 27.1505	
CS 27.0143	CS 27.0337	CS 27.0602	CS 27.0691	CS 27.1143	CS 27.1509	
CS 27.0151	CS 27.0339	CS 27.0603	CS 27.0695	CS 27.1187	CS 27.1519	

- For IFR Certification: CS-27 Amdt. 2, Appendix B, dated 10 November 2008

- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are:

29.861 (a)	Fire Protection of Structure, controls, and other parts
29.901 (c)	Powerplant: Installation



29.903 (b),(c),(e)	Engines
29.908 (a)	Cooling fans
29.917 (b),(c)(1)	Rotor Drive System: Design
29.927 (c)(1)	Additional tests
29.953 (a)	Fuel system independence
29.1027 (a)	Transmission and gearboxes
29.1045 (a)(1),(b),(c),(d),(f)	Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General

- For CAT A Certification: CS-27 Amdt. 2 Appendix C requirements

- 3. Special Conditions
 - No. SC 1 "Primary Structures Designed with Composite Material"
 - No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.

EC135

- No. SC 3 "Electronic Flight Instrument Systems"
- No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

none

- 5. Equivalent Safety Findings
 - JAR 27.1549(b) related to the installation of the Vehicle and Engine Multifunction Display (VEMD) in the CPDS variants
 - CS 27.865(c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
 - CS 27.1557(d) related to safety enhanced colour scheme ('black&yellow' in place of 'red') for the emergency exit handle cap
 - CS 27.571, 27.602 (b), 27.865 (f) for Hoist Installation on Helicopters
 - CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

	6.1	Noise Requirements	see TCDSN EASA.R.009
	6.2	Emission Requirements	ICAO Annex 16, Volume II, Part II, Chapter 2, (CS-34, Initial Issue)
7.	Ope	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
	7.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
	7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
	7.3	Simulation Data (SIMD)	reserved
	7.4	Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1. Type Design Definition		TDD L0000M333300, Issue A
		+ EC635 Kit (Drawing No. W530M0700052)



2.	Description	Main rotor: Tail rotor: Fuselage: Landing gear: Powerplant:	bearingless, 4 blades Fenestron, 10 blades metal-composite structure skid-type 2 independent freewheel turbines
		<u>Note:</u> The variant EC635 P3 corresponds to the EC135 plus structural reinforcement of cabin structure accor to the drawing W530M0700052.	
3.	Equipment	Basic equipment must be installed and operational prior to registration of the helicopter.	
4.	Dimensions		
	4.1 Fuselage	Length: Width hull: Height:	5.87 m 1.56 m 3.35 m
	4.2 Main Rotor	Diameter:	10.40 m
	4.3 Tail Rotor	Diameter:	1.00 m
5.	Engine		
	5.1 Model	Pratt & Whitney Canada 2 x Model PW 206B3	
	5.2 Type Certificate	TCCA TC/TCDS n EASA TC/TCDS n	

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Max N ₁ speed (gas generator) [%]	Max N ₂ speed (output shaft) [%]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 78	99.8	105.5	900
AEO-MCP	2 x 69	97.4	105.5	835
30 sec OEI-TOP	1 x 128	104.3	104.5	990
2 min OEI-TOP	1 x 125	102.6	104.5	950
OEI-MCP	1 x 89.5	99.8	104.5	900

6. Fluids

to approved RFM

- 6.2 Oil Refer to approved RFM
- 6.3 Additives Refer to approved RFM
- 7. Fluid capacities
 - 7.1 Fuel

Standard fuel tank (up to s/n 0249)

Fuel tank capacity:680.0 litresUsable fuel:670.5 litres

Self-sealing fuel tank (up to s/n 0249)

Fuel tank capacity:	673.4 litres
Usable fuel:	664.0 litres

Modified fuel tank (from s/n 0250, or SB EC135-28-007)Fuel tank capacity:710.0 litresUsable fuel:700.5 litresSelf-sealing fuel tank (from s/n 0250)



TCD: Issue	5 No.: EASA.R.009	EC135	Date: 24 July 2024
			,
		Fuel tank capacity: Usable fuel:	701.0 litres 691.6 litres
	7.2 Oil	Refer to approved RFI	M
	7.3 Coolant System Capacity	n/a	
8.	Air Speed Limitations	whichever is less.	or as shown in the V _{NE} -tables, M for reduction in V _{NE} with altitude ations.
9.	Rotor Speed Limitations	Minimum 85	%
10.	Maximum Operating Altitude and Temperature		
	10.1 Altitude	20 000 ft (6 096 m) PA variation according to	A, refer to approved RFM for MTOW
	10.2 Temperature	Refer to approved RFI	M
11.	Operating Limitations	VFR day and night Non-icing conditions For IFR, Category A operation see additional equipment requirements and limitations in the relevant EASA- approved RFMS For Ditching, see Note 3	
12.	Maximum Mass	Maximum mass: Ramp and taxi mass: Gross mass: Minimum mass: Gross mass:	3 000 kg 2 980 kg 1 600 kg
13.	Centre of Gravity Range	Longitudinal C.G. limit maximum forward lim 4 152 mm aft of D 4 201 mm aft of D maximum rearward li 4 369 mm aft of D 4 555 mm aft of D Lateral C.G Limits maximum deviation o	nit: P at 2 039 kg P at 2 980 kg mit: P at 2 980 kg P at 1 600 kg
14.	Datum		0) is located at 2 160 mm forward n the front door frame ian plane
15.	Levelling Means	See levelling procedu	re document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)	
17.	Maximum Passenger Seating Capacity	7	
18.	Passenger Emergency Exit	2, one on each side of	the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load:	1 130 kg

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		Cargo floor max unit load: 600 kg/m ²
20.	Rotor Blade Control Movement	For rigging information refer to EC135 Aircraft Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	See approved Chapter 4, Airworthiness Limitation Section

(ALS)

IV. Operating and Service Instructions

1. Flight Manual

EC635 P3, initially EASA-approved, dated 18 March 2015, or later EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

2. Maintenance Manual

- EC135 P1,P2,P3,T2,T2,T3 Aircraft Maintenance Manual (AMM)
- EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)
- EC135 P1, P2, P3, T2, T2, T3 Wiring Diagram Manual (WDM)
- EC135 P1,P2,P3,T2,T2,T3 Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
- EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.IM.E.017
- 3. Structural Repair Manual
- EC135 P1, P2, P3, T1, T2, T3 Structural Repair Manual (SRM)
- Refer to approved RFM
- 5. Illustrated Parts Catalogue EC635 Illustrated Parts Catalogue.
- 6. Service Letters and Service Bulletins

Weight and Balance Manual

Safety Information Notice, Information Notice, Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

4.

- 1. Manufacturer's eligible serial numbers: s/n 1178, and subsequent
- 2. Night Vision Goggles Operational Capability:
 - Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.
- 3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter



V. Notes

- life raft installation
- life preserver.
- 4. Designation:

"H135M" is used as marketing designation for EC635 P3(CPDS) helicopters.

* * *



SECTION 8: EC135 P3H

I. General

1. Type/ Model/ Variant

	1.1 Type	EC135
	1.2 Model	EC135 P3
	1.3 Variant	EC135 P3H
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date	11 May 2012
5.	State of Design Authority	EASA
6.	Type Certificate Date	15 November 2016
7.	Type Certificate n°	EASA.R.009
8.	Type Certificate Data Sheet n°	EASA.R.009

II. Certification Basis

1.	Reference Date for determining the	For Airworthiness and Environmental Protection:
	applicable requirements	11 May 2012
		for OSD elements:

Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR 27, Issue 1, dated 6 September 1993, supplemented by the following CS-27 Amdt. 2 requirements: CS 27.1(a) in connection with CS 27.2(b)(2)(i).

CS27.0021	CS27.0231	CS27.0501	CS27.0671	CS27.0931	CS27.1323	CS27.1503
CS27.0025	CS27.0241	CS27.0521	CS27.0672	CS27.0939	CS27.1325	CS27.1505
CS27.0027	CS27.0251	CS27.0547	CS27.0674	CS27.1019	CS27.1327	CS27.1509
CS27.0029	CS27.0301	CS27.0549	CS27.0681	CS27.1041	CS27.1329	CS27.1519
CS27.0031	CS27.0303	CS27.0561	CS27.0683	CS27.1043	CS27.1337	CS27.1521
CS27.0033	CS27.0305	CS27.0562	CS27.0685	CS27.1045	CS27.1351	CS27.1523
CS27.0045	CS27.0307	CS27.0571	CS27.0687	CS27.1091	CS27.1353	CS27.1525
CS27.0049	CS27.0309	CS27.0601	CS27.0691	CS27.1093	CS27.1357	CS27.1527
CS27.0051	CS27.0321	CS27.0602	CS27.0695	CS27.1141	CS27.1361	CS27.1529
CS27.0065	CS27.0337	CS27.0603	CS27.0771	CS27.1143	CS27.1365	CS27.1541
CS27.0067	CS27.0339	CS27.0605	CS27.0773	CS27.1145	CS27.1367	CS27.1543
CS27.0075	CS27.0341	CS27.0607	CS27.0777	CS27.1151	CS27.1381	CS27.1545
CS27.0079	CS27.0351	CS27.0609	CS27.0785	CS27.1187	CS27.1383	CS27.1547
CS27.0141	CS27.0361	CS27.0610	CS27.0831	CS27.1193	CS27.1385	CS27.1549
CS27.0143	CS27.0391	CS27.0611	CS27.0853	CS27.1301	CS27.1387	CS27.1555
CS27.0151	CS27.0395	CS27.0613	CS27.0855	CS27.1303	CS27.1401	CS27.1559
CS27.0161	CS27.0397	CS27.0629	CS27.0863	CS27.1305	CS27.1411	CS27.1581
CS27.0171	CS27.0399	CS27.0653	CS27.0865	CS27.1307	CS27.1435	CS27.1583
CS27.0173	CS27.0427	CS27.0659	CS27.0901	CS27.1309	CS27.1457	CS27.1585
CS27.0175	CS27.0471	CS27.0661	CS27.0903	CS27.1321	CS27.1459	CS27.1587
CS27.0177	CS27.0473	CS27.0663	CS27.0907	CS27.1322	CS27.1501	CS27.1589



- For IFR Certification: CS 27 Amdt. 2, Appendix B, dated 10 November 2008
- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are:

	· · · · · · · · · · · · · · · · · · ·
29.861 (a)	Fire Protection of Structure, controls, and other parts
29.901 (c)	Powerplant: Installation
29.903 (b),(c),(e)	Engines
29.908 (a)	Cooling fans
29.917 (b),(c)(1)	Rotor Drive System: Design
29.927 (c)(1)	Additional tests
29.953 (a)	Fuel system independence
29.1027 (a)	Transmission and gearboxes
29.1045 (a)(1),(b),(c),(d),(f)	Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General

- For CAT A Certification: CS-27 Amdt. 2, Appendix C requirements
- For EASA Approvals 10077342 and 10077343, both at revision 1: Certification Basis for the original product amended by additional airworthiness requirements 27.1319 and A27.5 at CS-27 Amdt. 7
- For EASA Approval 10078010 see §V, Note 4
- For EASA Approval 10080963 Rev.1 see §V, Note 5
- For EASA Approval 10084418: Certification Basis for the original product amended by additional airworthiness requirement 27.1458 at CS-27 Amdt. 10
- 3. Special Conditions
 - "Protection from effects of HIRF"
 - "Lithium Battery Installations"
 - For EASA Approval 10082775: "Pressure refuelling and fuelling provisions below fuel level"
- 4. Deviations

none

- 5. Equivalent Safety Findings
 - CS-27 Subpart B, CS 27.1305, CS 27.1309, CS 27.1549 "Engine Training Mode"
 - CS 27.1305, CS 27.1321(a), CS 27.1351(d1) and CS-27 Appendix C for CS 29.1305(a)(6) and (b)(1) "Part Time Display of Vehicle Parameters"
 - CS 27.1545(b)(4), CS 27.1549(b) "Airspeed & Powerplant indication green marking"
 - CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1 Noise Requirements	see TCDSN EASA.R.009
6.2 Emission Requirements	ICAO Annex 16, Volume II, Part II, Chapter 2 (CS-34, Initial Issue)
Operational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1 Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2 Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3 Simulation Data (SIMD)	reserved



7.

7.4 Maintenance Certifying Staff Data (MCSD) reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	TDD E0000M269800, Issue B		
2.	Description	Tail rotor: F Fuselage: r Landing gear: s	bearingless, 4 blades Fenestron, 10 blades metal-composite structure skid-type 2 independent freewheel turbines	
3.	Equipment	Basic equipment must be installed and operational pri to registration of the helicopter.		
4.	Dimensions			
	4.1 Fuselage	Length: Width hull: Height:	5.87 m 1.56 m 3.35 m	
	4.2 Main Rotor	Diameter:	10.40 m	
	4.3 Tail Rotor	Diameter:	1.00 m	
5.	Engine			
	5.1 Model	Pratt & Whitney Ca 2 x Model PW 206		
	5.2 Type Certificate	TCCA TC/TCDS n°: EASA TC/TCDS n°:		

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Max N₁ speed (gas generator) [%]	Max N ₂ speed (output shaft) [%]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 78	99.8	105.5	900
AEO-MCP	2 x 69	97.4	105.5	835
30 sec OEI-TOP	1 x 128	104.3	104.5	990
2 min OEI-TOP	1 x 125	102.6	104.5	950
OEI-MCP	1 x 89.5	99.8	104.5	900

6. Fluids

6.1	Fuel	Refer to approved RFM

- Refer to approved RFM
- 6.3 Additives Refer to approved RFM
- 7. Fluid capacities

6.2 Oil

7.1 Fuel

Standard fuel tank (up to s/n 0249)

Fuel tank capacity:680.0 litresUsable fuel:670.5 litres

Self-sealing fuel tank (up to s/n 0249)

Fuel tank capacity:	673.4 litres
Usable fuel:	664.0 litres

Modified fuel tank (from s/n 0250, or SB EC135-28-007)Fuel tank capacity:710.0 litresUsable fuel:700.5 litres



		Self-sealing fuel tank (from s/n 0250) Fuel tank capacity: 701.0 litres
		Usable fuel: 691.6 litres
	7.2 Oil	Refer to approved RFM
	7.3 Coolant System Capacity	n/a
8.	Air Speed Limitations	V_{NE} : 150 KIAS at MSL, or as shown in the V_{NE} -tables, whichever is less. Refer to approved RFM for reduction in V_{NE} with altitude
		and other speed limitations.
9.	Rotor Speed Limitations	Power on: Maximum 105.5 % Minimum 97 % Power off:
		Maximum 107.5 %
		Minimum 80 % (GM < 1 900 kg)
		Minimum 85 % (GM > 1 900 kg) Transient: Refer to approved RFM
10.	Maximum Operating Altitude and Temperature	
10.	10.1 Altitude	20 000 ft (6 096 m) PA, refer to approved RFM for
	10.1 Annual	variation according to MTOW
	10.2 Temperature	Refer to approved RFM
11.	Operating Limitations	VFR day and night Non-icing conditions For IFR, Category A operation see additional equipment requirements and limitations in the relevant EASA-approved RFM or RFMS
12.	Masses	
	12.1 Maximum gross mass	2 980 kg
	12.2 Maximum ramp and taxi mass	3 000 kg
	12.3 Minimum gross mass	1 700 kg
	12.4 Alternative maximum gross mass	3 100 kg, operation permitted only in accordance with FMA 11-11 and EASA Approval 10075155
	12.5 Alternative maximum ramp and taxi mass	3 100 kg, operation permitted only in accordance with FMA 11-11 and EASA Approval 10075155
13.	Centre of Gravity Range	Longitudinal C.G. limits maximum forward limit: 4 121 mm aft of DP at 2 150 kg 4 171 mm aft of DP at 2 980 kg maximum rearward limit: 4 369 mm aft of DP at 2 980 kg 4 541 mm aft of DP at 1 700 kg Lateral C.G. Limits maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal: the datum plane (STA 0) is located at 2 160 mm forward of the levelling point in the front door frame Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)



- 17. Maximum Passenger Seating Capacity 7 18. Passenger Emergency Exit 2, one on each side of the passenger cabin 19. Maximum Baggage/ Cargo Loads Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m² 20. Rotor Blade Control Movement For rigging information refer to EC135 Aircraft Maintenance Manual 21. Auxiliary Power Unit (APU) n/a 22. Life-limited Parts See approved Chapter 4, Airworthiness Limitation Section (ALS) IV. Operating and Service Instructions 1. Flight Manual EC135 P3H, initially EASA-approved, dated 15 November 2016, or later EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and **Optional Equipment RFMS 9.2.** Maintenance Manual 2. EC135 P3H, T3H Aircraft Maintenance Manual (AMM) EC135 P3H, T3H System Description Section (SDS) EC135 P3H, T3H Wiring Diagram Manual (WDM) EC135 P3H, T3H Corrosion and Erosion Control Guide (CECG) Standard Practices Manual EC135 P3H, T3H. Chapter 04. Airworthiness Limitation Section (ALS) -EC135 P3H, T3H. Chapter 05. Master Servicing Manual (MSM) e-Dynamic Troubleshooting (eDTS) -EC135 Avionic Manual (AVM) -Engine documents as per Engine TCDS No. EASA.IM.E.017 Structural Repair Manual 3. EC135 P3H, T3H Structural Repair Manual (SRM) 4. Weight and Balance Manual Refer to approved RFM 5. Illustrated Parts Catalogue EC135 P3H, T3H Illustrated Parts Catalogue
- 6. Service Letters and Service Bulletins

Safety Information Notice, Information Notice, Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

- Manufacturer's eligible serial numbers: s/n 2006, and subsequent.
- Designation: "H135" is used as marketing designation for EC135 P3H helicopters.
- 3. Night Vision Goggles Operational Capability: Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-16 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly, and a Competent Authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.



4. For EASA Approval 10078010: The TCH has shown compliance with CS-ACNS Issue 3, as applicable to helicopter communications, navigation, and surveillance equipage criteria in reference to the associated paragraphs detailed below:

CS ACNS.A.GEN.010	CS ACNS.D.ELS.010 -c	CS ACNS.D.ADSB.010
CS ACNS.A.GEN.015-a	CS ACNS.D.ELS.010-a	CS ACNS.D.ADSB.020-a
CS ACNS.A.GEN.015-b	CS ACNS.D.ELS.010-d	CS ACNS.D.ADSB.020-b
CS ACNS.A.GEN.020	CS ACNS.D.ELS.015-a	CS ACNS.D.ADSB.025-a
CS ACNS.D.AC.010-a	CS ACNS.D.ELS.015-b1	CS ACNS.D.ADSB.025-b
CS ACNS.D.AC.010-b	CS ACNS.D.ELS.015-b2	CS ACNS.D.ADSB.025-c
CS ACNS.D.AC.010-c	CS ACNS.D.ELS.020-a	CS ACNS.D.ADSB.030
CS ACNS.D.AC.010-d	CS ACNS.D.ELS.020-b	CS ACNS.D.ADSB.035
CS ACNS.D.AC.015-a	CS ACNS.D.ELS.025-a	CS ACNS.D.ADSB.040
CS ACNS.D.AC.015-b	CS ACNS.D.ELS.025-b	CS ACNS.D.ADSB.045
CS ACNS.D.AC.015-c	CS ACNS.D.ELS.025-c	CS ACNS.D.ADSB.050
CS ACNS.D.AC.020 -a	CS ACNS.D.ELS.030-a	CS ACNS.D.ADSB.060-a
CS ACNS.D.AC.020 -b	CS ACNS.D.ELS.030-b	CS ACNS.D.ADSB.060-b
CS ACNS.D.AC.020 -c	CS ACNS.D.ELS.040	CS ACNS.D.ADSB.070-a
CS ACNS.D.AC.025-a	CS ACNS.D.ELS.045	CS ACNS.D.ADSB.070-b
CS ACNS.D.AC.025-b	CS ACNS.D.ELS.055	CS ACNS.D.ADSB.070-c
CS ACNS.D.AC.025-c	CS ACNS.D.ELS.060-a	CS ACNS.D.ADSB.080
CS ACNS.D.AC.025-d	CS ACNS.D.ELS.060-b	CS ACNS.D.ADSB.085-a
CS ACNS.D.AC.025-e	CS ACNS.D.ELS.065	CS ACNS.D.ADSB.085-b
CS ACNS.D.AC.025-f		CS ACNS.D.ADSB.090-a
CS ACNS.D.AC.025-g		CS ACNS.D.ADSB.090-b
CS ACNS.D.AC.030		CS ACNS.D.ADSB.100-a
CS ACNS.D.AC.035		CS ACNS.D.ADSB.100-b
CS ACNS.D.AC.045		CS ACNS.D.ADSB.105-a
		CS ACNS.D.ADSB.110
		CS ACNS.D.ADSB.115
		CS ACNS.D.ADSB.120

5. For EASA Approval 10080963 REV. 1: The TCH has shown compliance with CS-ACNS Issue 3, as applicable to helicopter communications, navigation, and surveillance equipage criteria in reference to the associated paragraphs detailed below:

1.2	issociated paragraphis detailed below.				
	CS ACNS.A.GEN.010	CS ACNS.D.EHS.010	CS ACNS.D.ADSB.010		
	CS ACNS.A.GEN.015-a	CS ACNS.D.EHS.015-a	CS ACNS.D.ADSB.020-a		
	CS ACNS.A.GEN.015-b	CS ACNS.D.EHS.015-b	CS ACNS.D.ADSB.020-b		
	CS ACNS.A.GEN.020	CS ACNS.D.EHS.015-c	CS ACNS.D.ADSB.025-a		
	CS ACNS.D.AC.010-a	CS ACNS.D.EHS.020	CS ACNS.D.ADSB.025-b		
	CS ACNS.D.AC.010-b	CS ACNS.D.EHS.025	CS ACNS.D.ADSB.025-c		
	CS ACNS.D.AC.010-c	CS ACNS.D.ELS.010-a	CS ACNS.D.ADSB.030		
	CS ACNS.D.AC.010-d	CS ACNS.D.ELS.010-c	CS ACNS.D.ADSB.035		
	CS ACNS.D.AC.015-a	CS ACNS.D.ELS.010-d	CS ACNS.D.ADSB.040		
	CS ACNS.D.AC.015-b	CS ACNS.D.ELS.015-a	CS ACNS.D.ADSB.045		
	CS ACNS.D.AC.015-c	CS ACNS.D.ELS.015-b1	CS ACNS.D.ADSB.050		
	CS ACNS.D.AC.020 -a	CS ACNS.D.ELS.015-b2	CS ACNS.D.ADSB.060-a		
	CS ACNS.D.AC.020 -b	CS ACNS.D.ELS.020-a	CS ACNS.D.ADSB.060-b		
	CS ACNS.D.AC.020 -c	CS ACNS.D.ELS.020-b	CS ACNS.D.ADSB.070-a		
	CS ACNS.D.AC.025-a	CS ACNS.D.ELS.025-a	CS ACNS.D.ADSB.070-b		
	CS ACNS.D.AC.025-b	CS ACNS.D.ELS.025-b	CS ACNS.D.ADSB.070-c		
	CS ACNS.D.AC.025-c	CS ACNS.D.ELS.025-c	CS ACNS.D.ADSB.080		
	CS ACNS.D.AC.025-d	CS ACNS.D.ELS.030-a	CS ACNS.D.ADSB.085-a		



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CS ACNS.D.ELS.030-b	CS ACNS.D.ADSB.085-b
CS ACNS.D.ELS.040	CS ACNS.D.ADSB.090-a
CS ACNS.D.ELS.045	CS ACNS.D.ADSB.090-b
CS ACNS.D.ELS.055	CS ACNS.D.ADSB.100-a
CS ACNS.D.ELS.060-a	CS ACNS.D.ADSB.100-b
CS ACNS.D.ELS.060-b	CS ACNS.D.ADSB.105-a
CS ACNS.D.ELS.065	CS ACNS.D.ADSB.110
	CS ACNS.D.ADSB.115
	CS ACNS.D.ELS.040 CS ACNS.D.ELS.045 CS ACNS.D.ELS.055 CS ACNS.D.ELS.060-a CS ACNS.D.ELS.060-b

* * *



SECTION 9: EC635 P3H

I. General

1. Type/ Model/ Variant

	1.1 Type	EC135
	1.2 Model	EC635 P3
	1.3 Variant	EC635 P3H
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date	11 May 2012
5.	State of Design Authority	EASA
6.	Type Certificate Date	15 November 2016
7.	Type Certificate n°	EASA.R.009
8.	Type Certificate Data Sheet n°	EASA.R.009

II. Certification Basis

1.	Reference Date for determining the	For Airworthiness and Environmental Protection:
	applicable requirements	11 May 2012
		for OSD elements:

Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR 27, Issue 1, dated 6 September 1993, supplemented by the following CS-27 Amdt. 2 requirements: CS 27.1(a) in connection with CS 27.2(b)(2)(i).

CS27.0021	CS27.0231	CS27.0501	CS27.0671	CS27.0931	CS27.1323	CS27.1503
CS27.0025	CS27.0241	CS27.0521	CS27.0672	CS27.0939	CS27.1325	CS27.1505
CS27.0027	CS27.0251	CS27.0547	CS27.0674	CS27.1019	CS27.1327	CS27.1509
CS27.0029	CS27.0301	CS27.0549	CS27.0681	CS27.1041	CS27.1329	CS27.1519
CS27.0031	CS27.0303	CS27.0561	CS27.0683	CS27.1043	CS27.1337	CS27.1521
CS27.0033	CS27.0305	CS27.0562	CS27.0685	CS27.1045	CS27.1351	CS27.1523
CS27.0045	CS27.0307	CS27.0571	CS27.0687	CS27.1091	CS27.1353	CS27.1525
CS27.0049	CS27.0309	CS27.0601	CS27.0691	CS27.1093	CS27.1357	CS27.1527
CS27.0051	CS27.0321	CS27.0602	CS27.0695	CS27.1141	CS27.1361	CS27.1529
CS27.0065	CS27.0337	CS27.0603	CS27.0771	CS27.1143	CS27.1365	CS27.1541
CS27.0067	CS27.0339	CS27.0605	CS27.0773	CS27.1145	CS27.1367	CS27.1543
CS27.0075	CS27.0341	CS27.0607	CS27.0777	CS27.1151	CS27.1381	CS27.1545
CS27.0079	CS27.0351	CS27.0609	CS27.0785	CS27.1187	CS27.1383	CS27.1547
CS27.0141	CS27.0361	CS27.0610	CS27.0831	CS27.1193	CS27.1385	CS27.1549
CS27.0143	CS27.0391	CS27.0611	CS27.0853	CS27.1301	CS27.1387	CS27.1555
CS27.0151	CS27.0395	CS27.0613	CS27.0855	CS27.1303	CS27.1401	CS27.1559
CS27.0161	CS27.0397	CS27.0629	CS27.0863	CS27.1305	CS27.1411	CS27.1581
CS27.0171	CS27.0399	CS27.0653	CS27.0865	CS27.1307	CS27.1435	CS27.1583
CS27.0173	CS27.0427	CS27.0659	CS27.0901	CS27.1309	CS27.1457	CS27.1585
CS27.0175	CS27.0471	CS27.0661	CS27.0903	CS27.1321	CS27.1459	CS27.1587
CS27.0177	CS27.0473	CS27.0663	CS27.0907	CS27.1322	CS27.1501	CS27.1589

- For IFR Certification: CS 27 Amdt. 2, Appendix B, dated 10 November 2008



- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are:

29.861 (a)	Fire Protection of Structure, controls, and other parts
29.901 (c)	Powerplant: Installation
29.903 (b),(c),(e)	Engines
29.908 (a)	Cooling fans
29.917 (b),(c)(1)	Rotor Drive System: Design
29.927 (c)(1)	Additional tests
29.953 (a)	Fuel system independence
29.1027 (a)	Transmission and gearboxes
29.1045 (a)(1),(b),(c),(d),(f)	Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General

- For CAT A Certification: CS-27 Amdt. 2, Appendix C requirements
- For EASA Approvals 10077342 and 10077343, both at revision 1: Certification Basis for the original product amended by additional airworthiness requirements 27.1319 and A27.5 at CS-27 Amdt. 7
- For EASA Approval 10078010 see §V, Note 4
- For EASA Approval 10080963 Rev.1 see §V, Note 5
- For EASA Approval 10084418: Certification Basis for the original product amended by additional airworthiness requirement 27.1458 at CS-27 Amdt. 10
- 3. Special Conditions
 - "Protection from effects of HIRF"
 - "Lithium Battery Installations"
 - For EASA Approval 10082775: "Pressure refuelling and fuelling provisions below fuel level"
- 4. Deviations

none

- 5. Equivalent Safety Findings
 - CS-27 Subpart B, CS 27.1305, CS 27.1309, CS 27.1549 "Engine Training Mode"
 - CS 27.1305, CS 27.1321(a), CS 27.1351(d1) and CS-27 Appendix C for CS 29.1305(a)(6) and (b)(1) "Part Time Display of Vehicle Parameters"
 - CS 27.1545(b)(4), CS 27.1549(b) "Airspeed & Powerplant indication green marking"
 - CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1	Noise Requirements	see TCDSN EASA.R.009
6.2	Emission Requirements	ICAO Annex 16, Volume II, Part II, Chapter 2 (CS-34, Initial Issue)
Ope	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3	Simulation Data (SIMD)	reserved
7.4	Maintenance Certifying Staff Data (MCSD)	reserved



7.

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	TDD E0000M269800, Issue B + EC635 Kit (Drawing No. W530M0700052)	
2.	Description	Tail rotor:FFuselage:rLanding gear:sPowerplant:2Note:The variant fP3H plus structura	bearingless, 4 blades Fenestron, 10 blades metal-composite structure skid-type 2 independent freewheel turbines EC635 P3H corresponds to the EC135 al reinforcement of cabin structure rawing W530M0700052.
3.	Equipment	Basic equipment m to registration of t	nust be installed and operational prior he helicopter.
4.	Dimensions		
	4.1 Fuselage	Length: Width hull: Height:	5.87 m 1.56 m 3.35 m
	4.2 Main Rotor	Diameter:	10.40 m
	4.3 Tail Rotor	Diameter:	1.00 m
5.	Engine		
	5.1 Model	Pratt & Whitney Ca 2 x Model PW 206	
	5.2 Type Certificate	TCCA TC/TCDS n°: EASA TC/TCDS n°:	

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Max N1 speed (gas generator) [%]	Max N ₂ speed (output shaft) [%]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 78	99.8	105.5	900
AEO-MCP	2 x 69	97.4	105.5	835
30 sec OEI-TOP	1 x 128	104.3	104.5	990
2 min OEI-TOP	1 x 125	102.6	104.5	950
OEI-MCP	1 x 89.5	99.8	104.5	900

6. Fluids

6.1	Fuel	Refer to approved RFM
6.2	Oil	Refer to approved RFM

- 6.3 Additives
- 7. Fluid capacities
 - 7.1 Fuel

Standard fuel tank (up to s/n 0249)

Refer to approved RFM

Fuel tank capacity: 680.0 litres Usable fuel: 670.5 litres

Self-sealing fuel tank (up to s/n 0249)

Fuel tank capacity: 673.4 litres Usable fuel: 664.0 litres

Modified fuel tank (from s/n 0250, or SB EC135-28-007)



		Fuel tank capacity: Usable fuel: Self-sealing fuel tank Fuel tank capacity: Usable fuel:	710.0 litres 700.5 litres (from s/n 0250) 701.0 litres 691.6 litres
	7.2 Oil	Refer to approved RF	M
	7.3 Coolant System Capacity	n/a	
8.	Air Speed Limitations	whichever is less.	, or as shown in the V_{NE} -tables, FM for reduction in V_{NE} with altitude tations.
9.	Rotor Speed Limitations	Minimum97Power off:Maximum107Minimum80Minimum85	5.5 % 7 % 7.5 % 9 % (GM < 1 900 kg) 5 % (GM > 1 900 kg) er to approved RFM
10.	Maximum Operating Altitude and Temperature		
	10.1 Altitude	20 000 ft (6 096 m) P variation according to	A, refer to approved RFM for o MTOW
	10.2 Temperature	Refer to approved RF	M
11.	Operating Limitations		peration see additional equipment nitations in the relevant EASA-
12.	Masses		
	12.1 Maximum gross mass12.2 Maximum ramp and taxi mass12.3 Minimum gross mass12.4 Alternative maximum gross mass	FMA 11-11	permitted only in accordance with and EASA Approval 10075155
	12.5 Alternative maximum ramp and taxi mass		permitted only in accordance with Land EASA Approval 10075155
13.	Centre of Gravity Range	Longitudinal C.G. limi maximum forward lin 4 121 mm aft of D 4 171 mm aft of D maximum rearward l 4 369 mm aft of D 4 541 mm aft of D Lateral C.G. Limits maximum deviation of	nit: DP at 2 150 kg DP at 2 980 kg imit: DP at 2 980 kg
14.	Datum		A 0) is located at 2 160 mm forward in the front door frame dian plane
15.	Levelling Means	-	ire document No. L082M0801X01



16. Minimum Flight Crew 1 pilot (right seat) 7 17. Maximum Passenger Seating Capacity 18. Passenger Emergency Exit 2, one on each side of the passenger cabin 19. Maximum Baggage/ Cargo Loads Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m² 20. Rotor Blade Control Movement For rigging information refer to EC135 Aircraft Maintenance Manual 21. Auxiliary Power Unit (APU) n/a 22. Life-limited Parts See approved Chapter 4, Airworthiness Limitation Section (ALS)

IV. Operating and Service Instructions

1.	Flight Manual	EC635 P3H, initially EASA-approved, dated 15 November
		2016, or later EASA-approved revisions, including the
		supplements for Special Operations RFMS 9.1 and
		Optional Equipment RFMS 9.2.

2. Maintenance Manual

- EC135 P3H, T3H Aircraft Maintenance Manual (AMM)
- EC135 P3H, T3H System Description Section (SDS)
- EC135 P3H, T3H Wiring Diagram Manual (WDM)
- EC135 P3H, T3H Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual
- EC135 P3H, T3H. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P3H, T3H. Chapter 05. Master Servicing Manual (MSM)
- e-Dynamic Troubleshooting (eDTS)
- EC135 Avionic Manual (AVM)

Structural Repair Manual

- Engine documents as per Engine TCDS No. EASA.IM.E.017
 - EC135 P3H, T3H Structural Repair Manual (SRM)
- Weight and Balance Manual
- Refer to approved RFM
- 5. Illustrated Parts Catalogue
- EC635 P3H, T3H Illustrated Parts Catalogue
- 6. Service Letters and Service Bulletins

Safety Information Notice, Information Notice, Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASA-approved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

3.

- Manufacturer's eligible serial numbers: s/n 2006, and subsequent
- Designation: "H135M" is used as marketing designation for EC635 P3H helicopters.
- 3. Night Vision Goggles Operational Capability: Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-16 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a Competent Authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components



approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

4. For EASA Approval 10078010: The TCH has shown compliance with CS-ACNS Issue 3, as applicable to helicopter communications, navigation, and surveillance equipage criteria in reference to the associated paragraphs detailed below:

CS ACNS.A.GEN.010	CS ACNS.D.ELS.010 -c	CS ACNS.D.ADSB.010
CS ACNS.A.GEN.015-a	CS ACNS.D.ELS.010-a	CS ACNS.D.ADSB.020-a
CS ACNS.A.GEN.015-b	CS ACNS.D.ELS.010-d	CS ACNS.D.ADSB.020-b
CS ACNS.A.GEN.020	CS ACNS.D.ELS.015-a	CS ACNS.D.ADSB.025-a
CS ACNS.D.AC.010-a	CS ACNS.D.ELS.015-b1	CS ACNS.D.ADSB.025-b
CS ACNS.D.AC.010-b	CS ACNS.D.ELS.015-b2	CS ACNS.D.ADSB.025-c
CS ACNS.D.AC.010-c	CS ACNS.D.ELS.020-a	CS ACNS.D.ADSB.030
CS ACNS.D.AC.010-d	CS ACNS.D.ELS.020-b	CS ACNS.D.ADSB.035
CS ACNS.D.AC.015-a	CS ACNS.D.ELS.025-a	CS ACNS.D.ADSB.040
CS ACNS.D.AC.015-b	CS ACNS.D.ELS.025-b	CS ACNS.D.ADSB.045
CS ACNS.D.AC.015-c	CS ACNS.D.ELS.025-c	CS ACNS.D.ADSB.050
CS ACNS.D.AC.020 -a	CS ACNS.D.ELS.030-a	CS ACNS.D.ADSB.060-a
CS ACNS.D.AC.020 -b	CS ACNS.D.ELS.030-b	CS ACNS.D.ADSB.060-b
CS ACNS.D.AC.020 -c	CS ACNS.D.ELS.040	CS ACNS.D.ADSB.070-a
CS ACNS.D.AC.025-a	CS ACNS.D.ELS.045	CS ACNS.D.ADSB.070-b
CS ACNS.D.AC.025-b	CS ACNS.D.ELS.055	CS ACNS.D.ADSB.070-c
CS ACNS.D.AC.025-c	CS ACNS.D.ELS.060-a	CS ACNS.D.ADSB.080
CS ACNS.D.AC.025-d	CS ACNS.D.ELS.060-b	CS ACNS.D.ADSB.085-a
CS ACNS.D.AC.025-e	CS ACNS.D.ELS.065	CS ACNS.D.ADSB.085-b
CS ACNS.D.AC.025-f		CS ACNS.D.ADSB.090-a
CS ACNS.D.AC.025-g		CS ACNS.D.ADSB.090-b
CS ACNS.D.AC.030		CS ACNS.D.ADSB.100-a
CS ACNS.D.AC.035		CS ACNS.D.ADSB.100-b
CS ACNS.D.AC.045		CS ACNS.D.ADSB.105-a
		CS ACNS.D.ADSB.110
		CS ACNS.D.ADSB.115

5. For EASA Approval 10080963 REV. 1: The TCH has shown compliance with CS-ACNS Issue 3, as applicable to helicopter communications, navigation, and surveillance equipage criteria in reference to the associated paragraphs detailed below:

CS ACNS.D.ADSB.120

sociated paragraphis actanca	Scient.	
CS ACNS.A.GEN.010	CS ACNS.D.EHS.010	CS ACNS.D.ADSB.010
CS ACNS.A.GEN.015-a	CS ACNS.D.EHS.015-a	CS ACNS.D.ADSB.020-a
CS ACNS.A.GEN.015-b	CS ACNS.D.EHS.015-b	CS ACNS.D.ADSB.020-b
CS ACNS.A.GEN.020	CS ACNS.D.EHS.015-c	CS ACNS.D.ADSB.025-a
CS ACNS.D.AC.010-a	CS ACNS.D.EHS.020	CS ACNS.D.ADSB.025-b
CS ACNS.D.AC.010-b	CS ACNS.D.EHS.025	CS ACNS.D.ADSB.025-c
CS ACNS.D.AC.010-c	CS ACNS.D.ELS.010-a	CS ACNS.D.ADSB.030
CS ACNS.D.AC.010-d	CS ACNS.D.ELS.010-c	CS ACNS.D.ADSB.035
CS ACNS.D.AC.015-a	CS ACNS.D.ELS.010-d	CS ACNS.D.ADSB.040
CS ACNS.D.AC.015-b	CS ACNS.D.ELS.015-a	CS ACNS.D.ADSB.045
CS ACNS.D.AC.015-c	CS ACNS.D.ELS.015-b1	CS ACNS.D.ADSB.050
CS ACNS.D.AC.020 -a	CS ACNS.D.ELS.015-b2	CS ACNS.D.ADSB.060-a
CS ACNS.D.AC.020 -b	CS ACNS.D.ELS.020-a	CS ACNS.D.ADSB.060-b
CS ACNS.D.AC.020 -c	CS ACNS.D.ELS.020-b	CS ACNS.D.ADSB.070-a
CS ACNS.D.AC.025-a	CS ACNS.D.ELS.025-a	CS ACNS.D.ADSB.070-b
CS ACNS.D.AC.025-b	CS ACNS.D.ELS.025-b	CS ACNS.D.ADSB.070-c
CS ACNS.D.AC.025-D	CS ACNS.D.ELS.025-D	CS ACNS.D.ADSB.070-



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CS ACNS.D.AC.025-c	CS ACNS.D.ELS.025-c	CS ACNS.D.ADSB.080
CS ACNS.D.AC.025-d	CS ACNS.D.ELS.030-a	CS ACNS.D.ADSB.085-a
CS ACNS.D.AC.025-e	CS ACNS.D.ELS.030-b	CS ACNS.D.ADSB.085-b
CS ACNS.D.AC.025-f	CS ACNS.D.ELS.040	CS ACNS.D.ADSB.090-a
CS ACNS.D.AC.025-g	CS ACNS.D.ELS.045	CS ACNS.D.ADSB.090-b
CS ACNS.D.AC.030	CS ACNS.D.ELS.055	CS ACNS.D.ADSB.100-a
CS ACNS.D.AC.035	CS ACNS.D.ELS.060-a	CS ACNS.D.ADSB.100-b
CS ACNS.D.AC.045	CS ACNS.D.ELS.060-b	CS ACNS.D.ADSB.105-a
	CS ACNS.D.ELS.065	CS ACNS.D.ADSB.110
		CS ACNS.D.ADSB.115

* * *



SECTION 10: EC135 T1(CDS)

I. General

1. Type/ Model/ Variant

	1.1 Туре	EC135
	1.2 Model	EC135 T1
	1.3 Variant	EC135 T1(CDS)
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date to LBA	12 December 1994
5.	State of Design Authority	EASA
6.	Type Certificate Date by LBA	14 June 1996
7.	Type Certificate n°	EASA: EASA.R.009 (LBA: 3061)
8.	Type Certificate Data Sheet n°	EASA: EASA.R.009 (LBA: 3061, until issue 17, dated 3 June 2003)
9.	EASA Type Certification Date	28 September 2003, in accordance with CR (EU) 1702/2003, Article 2, 3., (a), (i), 2 nd bullet, 1 st indented bullet.

Grandfathering date: 17 February 2014

II. Certification Basis

 1. Reference Date for determining the applicable requirements
 For Airworthiness and Environmental Protection:

 12 December 1994
 for OSD elements:

2. Airworthiness Requirements

- JAR 27, Issue 1, dated 6 September 1993
- For IFR Certification: JAR 27 Appendix B, Issue 1, dated 6 September 1993
- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are:

	, , , , , , , , , , , , , , , , , , , ,
29.861 (a)	Fire Protection of Structure, controls, and other parts
29.901 (c)	Powerplant: Installation
29.903 (b),(c),(e)	Engines
29.908 (a)	Cooling fans
29.917 (b),(c)(1)	Rotor Drive System: Design
29.927 (c)(1)	Additional tests
29.953 (a)	Fuel system independence
29.1027 (a)	Transmission and gearboxes
29.1045 (a)(1),(b),(c),(d),(f) Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General
For CAT A Certification: JA	AR 27 Appendix C, Issue 1, dated 6 September 1993

- JAA Interim HIRF Policy (INT/POL/278.29-1, dated 1 June 1997) applies for:



- -- Dual Pilot IFR certification with 3-axis SAS, Pitch-Damper and EFIS EFS 40
- -- Single Pilot/ Dual Pilot IFR certification with AFCS and EFIS EFS 40)
- 3. Special Conditions
 - No. SC 1 "Primary Structures Designed with Composite Material"
 - No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.
 - No. SC 3 "Electronic Flight Instrument Systems"
 - No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations
- 5. Equivalent Safety Findings

7.

- Dual Pilot IFR certification concerning JAR 27 Appendix B, Para. IV (c) "Static Longitudinal Stability"
- CS 27.865(c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System

none

- CS 27.601, 27.603, 27.865 (a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1	Noise Requirements	see TCDSN EASA.R.009
6.2	Emission Requirements	n/a
Ope	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3	Simulation Data (SIMD)	reserved
7.4	Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	 EC135 Basic Master List Drawing No. L000M0007051 Drawings No. L000M0010051 + L710M0013054 and following modifications
2.	Description	Main rotor:bearingless, 4 bladesTail rotor:Fenestron, 10 bladesFuselage:metal-composite structureLanding gear:skid-typePowerplant:2 independent freewheel turbines
3.	Equipment	Basic equipment must be installed and operational prior to registration of the helicopter.
4.	Dimensions	
	4.1 Fuselage	Length:5.87 mWidth hull:1.56 mHeight:3.35 m
	4.2 Main Rotor	Diameter: 10.20 m
	4.3 Tail Rotor	Diameter: 1.00 m
5.	Engine	
	5.1 Model	Safran Helicopter Engines (former: Turbomeca)
		2 x Model Arrius 2B1/2B1A/2B1A_1



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5.2 Type Certificate

EASA TC/TCDS n°: EASA.E.029

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Gas generator [rpm (%)]	PWR turbine [rpm (%)]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 75	57 706 (101.1)	104	895
AEO-MCP	2 x 69	53 406 (98.7)	104	855
2-1/2 min OEI-TOP (2B1)				
2-1/2 min OEI-TOP (2B1A)	1 x 119.8	56 113 (103.7)	104	945
2-1/2 min OEI-TOP (2B1A_1)				
OEI-MCP	1 x 86	54 706 (101.1)	104	895

6. Fluids

6.	Fluids	
	6.1 Fuel	Refer to approved RFM
	6.2 Oil	Refer to approved RFM
	6.3 Additives	Refer to approved RFM
7.	Fluid capacities	
	7.1 Fuel	Standard fuel tank (up to s/n 0249)
		Fuel tank capacity:680.0 litresUsable fuel:670.5 litres
		Self-sealing fuel tank (up to s/n 0249)
		Fuel tank capacity:673.4 litresUsable fuel:664.0 litres
		Modified fuel tank (from s/n 0250, or SB EC135-28-007)Fuel tank capacity:710.0 litresUsable fuel:700.5 litresSelf-sealing fuel tank (from s/n 0250)Fuel tank capacity:701.0 litresUsable fuel:691.6 litres
	7.2 Oil	Refer to approved RFM
	7.3 Coolant System Capacity	n/a
8.	Air Speed Limitations	V_{NE} : 155 KIAS at MSL Refer to approved RFM for reduction in V_{NE} with altitude and other speed limitations.
9.	Rotor Speed Limitations	Power on:Maximum104 %Minimum95 %Power off:Maximum106 %Minimum80 % (up to 1 900 kg)Minimum85 % (above 1 900 kg)Transient:Refer to approved RFM
10.	Maximum Operating Altitude and Temperature	
	10.1 Altitude	20 000 ft (6 096 m) PA, refer to approved RFM for variation according to MTOW
	10.2 Temperature	Refer to approved RFM



11.	Operating Limitations	VFR day and night Non-icing conditions
		For IFR, Category A operation see additional equipment requirements and limitations in the relevant EASA-
		approved RFMS
		For Ditching, see Note 3
12.	Maximum Mass	2 720 kg
		Note: Operation of the aircraft with MTOW between 2 720 kg and 2 835 kg is only permitted in accordance with RFMS 9.1-3 "Supplement for flights with gross mass above 2 720 kg up to 2 835 kg" and when SB EC135-11- 003 is incorporated.
13.	Centre of Gravity Range	Longitudinal C.G. limits
		maximum forward limit: 4 180 mm aft of DP at 1 840 kg
		4 219 mm aft of DP at 2 720 kg
		4 224 mm aft of DP at 2 835 kg maximum rearward limit:
		4 570 mm aft of DP at 1 500 kg
		4 387 mm aft of DP at 2 720 kg 4 369 mm aft of DP at 2 835 kg
		Lateral C.G Limits
		maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal: the datum plane (STA 0) is located at 2 160 mm forward
		of the levelling point in the front door frame
		Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)
17.	Maximum Passenger Seating Capacity	1 cockpit, six cabin (or seven cabin, if the kit described in RFMS 9.2-31 is installed and operated)
18.	Passenger Emergency Exit	2, one on each side of the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m²
20.	Rotor Blade Control Movement	For rigging information refer to EC135 Aircraft Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	See approved Chapter 4, Airworthiness Limitation Section (ALS)
<u>IV. (</u>	Operating and Service Instructions	
1.	Flight Manual	EC135 T1(CDS), initially LBA-approved, dated
		14 June 1996, or later (LBA)/EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

2. Maintenance Manual

- EC135 P1, P2, P3, T2, T2, T3 Aircraft Maintenance Manual (AMM)
- EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)



- EC135 P1,P2,P3,T2,T2,T3 Wiring Diagram Manual (WDM)
- EC135 P1,P2,P3,T2,T2,T3 Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
- EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.E.029
- Structural Repair Manual
 EC135 P1,P2,P3,T1,T2,T3 Structural Repair Manual (SRM)
 Weight and Balance Manual
 Refer to approved RFM
 Illustrated Parts Catalogue
 EC135 Illustrated Parts Catalogue. All EC135 variants,

EC135 Illustrated Parts Catalogue. All EC135 variants, except T3H/P3H

6. Service Letters and Service Bulletins

Safety Information Notice (from October 2008 onwards, before: Alert Service Information), Information Notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

- Manufacturer's eligible serial numbers: s/n 0005, and subsequent.
- 2. Engine:

If the engine "Arrius 2B1A" is installed, the RFMS 9.2-57 is applicable.

If the engine "Arrius 2B1A" is modified by application of the software TU45C, the engine is identified as "Arrius 2B1A_1" on the engine identification plate. In case that an engine "Arrius 2B1A_1" is installed, the RFMS 9.2-62 is applicable."

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.

* * *



SECTION 11: EC135 T1(CPDS)

I. General

1. Type/ Model/ Variant

	1.1 Туре	EC135
	1.2 Model	EC135 T1
	1.3 Variant	EC135 T1(CPDS)
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date to LBA	26 May 1999
5.	State of Design Authority	EASA
6.	Type Certificate Date by LBA	11 April 1997
7.	Type Certificate n°	EASA: EASA.R.009 (LBA: 3061)
8.	Type Certificate Data Sheet n°	EASA: EASA.R.009 (LBA: 3061, until issue 17, dated 3 June 2003)
9.	EASA Type Certification Date	28 September 2003, in accordance with CR (EU) 1702/2003, Article 2, 3., (a), (i), 2 nd bullet, 1 st indented bullet.

II. Certification Basis

1. Reference Date for determining the applicable requirements

For Airworthiness and Environmental Protection: 11 April 1997 for OSD elements: Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR 27, Issue 1, dated 6 September 1993
- For IFR Certification: JAR 27 Appendix B, Issue 1, dated 6 September 1993
- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are:

29.861 (a)	Fire Protection of Structure, controls, and other parts
29.901 (c)	Powerplant: Installation
29.903 (b),(c),(e)	Engines
29.908 (a)	Cooling fans
29.917 (b),(c)(1)	Rotor Drive System: Design
29.927 (c)(1)	Additional tests
29.953 (a)	Fuel system independence
29.1027 (a)	Transmission and gearboxes
29.1045 (a)(1),(b),(c),(d),(f) Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General
For CAT A Certification: JA	AR 27 Appendix C, Issue 1, dated 6 September 1993

- JAA Interim HIRF Policy (INT/POL/278.29-1, dated 1 June 1997) applies for:



- -- Dual Pilot IFR certification with 3-axis SAS, Pitch-Damper and Avionique Nouvelle CPDS and FCDS
- -- Single Pilot/ Dual Pilot IFR certification with AFCS and Avionique Nouvelle CPDS and FCDS

3. Special Conditions

- No. SC 1 "Primary Structures Designed with Composite Material"
- No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.
- No. SC 3 "Electronic Flight Instrument Systems"
- No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

7.

none

- 5. Equivalent Safety Findings
 - Dual Pilot IFR certification concerning JAR 27 Appendix B, Para. IV (c) "Static Longitudinal Stability"
 - JAR 27.1549 (b) related to the installation of the Vehicle and Engine Multifunction Display (VEMD) in the CPDS variants.
 - CS 27.865 (c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
 - CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1 Noise Requirements	see TCDSN EASA.R.009
6.2 Emission Requirements	n/a
Operational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1 Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2 Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3 Simulation Data (SIMD)	reserved
7.4 Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	 EC135 Basic Master List Drawing No. L000M0007051 Drawing No. L000M0009051 and following modifications
2.	Description	Main rotor:bearingless, 4 bladesTail rotor:Fenestron, 10 bladesFuselage:metal-composite structureLanding gear:skid-typePowerplant:2 independent freewheel turbines
3.	Equipment	Basic equipment must be installed and operational prior to registration of the helicopter.
4.	Dimensions	
	4.1 Fuselage	Length: 5.87 m Width hull: 1.56 m Height: 3.35 m
	4.2 Main Rotor	Diameter: 10.20 m
	4.3 Tail Rotor	Diameter: 1.00 m

5. Engine



- 5.1 ModelSafran Helicopter Engines (former: Turbomeca)2 x Model Arrius 2B1/2B1A/2B1A_1
- 5.2 Type Certificate

EASA TC/TCDS n°: EASA.E.029

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Gas generator [rpm (%)]	PWR turbine [rpm (%)]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 75	54 706 (101.1)	104	895
AEO-MCP	2 x 69	53 406 (98.7)	104	855
2-½ min OEI-TOP (2B1)	1 x 100			
2-½ min OEI-TOP (2B1A)	1 x 119.8	56 113 (103.7)	104	945
2-½ min OEI-TOP (2B1A_1)	1 x 128			
OEI-MCP	1 x 86	54 706 (101.1)	104	895

6. Fluids

•••		
	6.1 Fuel	Refer to approved RFM
	6.2 Oil	Refer to approved RFM
	6.3 Additives	Refer to approved RFM
7.	Fluid capacities	
	7.1 Fuel	Standard fuel tank (up to s/n 0249)
		Fuel tank capacity:680.0 litresUsable fuel:670.5 litres
		Self-sealing fuel tank (up to s/n 0249)
		Fuel tank capacity:673.4 litresUsable fuel:664.0 litres
		Modified fuel tank (from s/n 0250, or SB EC135-28-007) Fuel tank capacity: 710.0 litres Usable fuel: 700.5 litres Self-sealing fuel tank (from s/n 0250) Fuel tank capacity: 701.0 litres Usable fuel: 691.6 litres
	7.2 Oil	Refer to approved RFM
	7.3 Coolant System Capacity	n/a
8.	Air Speed Limitations	V_{NE} : 155 KIAS at MSL Refer to approved RFM for reduction in V_{NE} with altitude and other speed limitations.
9.	Rotor Speed Limitations	Power on:Maximum104 %Minimum95 %Power off:Maximum106 %Minimum80 % (up to 1 900 kg)Minimum85 % (above 1 900 kg)Transient:Refer to approved RFM
10.	Maximum Operating Altitude and Temperatur	e

10.1 Altitude

20 000 ft (6 096 m) PA, refer to approved RFM for



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		variation according to MTOW
	10.2 Temperature	Refer to approved RFM
11.	Operating Limitations	VFR day and night Non-icing conditions For IFR, Category A operation see additional equipment requirements and limitations in the relevant EASA- approved RFMS For Ditching, see Note 3
12.	Maximum Mass	2 720 kg
		<u>Note:</u> Operation of the aircraft with MTOM between 2 720 kg and 2 835 kg is permitted only in accordance with RFMS 9.1-3 "Supplement for flights with gross mass above 2 720 kg up to 2 835 kg" and when SB EC135-11- 003 is incorporated.
13.	Centre of Gravity Range	Longitudinal C.G. limits maximum forward limit: 4 180 mm aft of DP at 1 840 kg 4 219 mm aft of DP at 2 720 kg 4 224 mm aft of DP at 2 835 kg maximum rearward limit: 4 570 mm aft of DP at 1 500 kg 4 387 mm aft of DP at 2 720 kg 4 369 mm aft of DP at 2 835 kg Lateral C.G Limits maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal: the datum plane (STA 0) is located at 2 160 mm forward of the levelling point in the front door frame Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)
17.	Maximum Passenger Seating Capacity	1 cockpit, six cabin (or seven cabin, if the kit described in RFMS 9.2-31 is installed and operated)
18.	Passenger Emergency Exit	2, one on each side of the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m²
20.	Rotor Blade Control Movement	For rigging information refer to EC135 Aircraft Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	See approved Chapter 4, Airworthiness Limitation Section (ALS)
<u>IV. C</u>	Operating and Service Instructions	
1.	Flight Manual	EC135 T1(CPDS), initially LBA-approved, dated 26 May 1999, or later (LBA)/EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

2. Maintenance Manual



- EC135 P1,P2,P3,T2,T2,T3 Aircraft Maintenance Manual (AMM)
- EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)
- EC135 P1,P2,P3,T2,T2,T3 Wiring Diagram Manual (WDM)
- EC135 P1,P2,P3,T2,T2,T3 Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
- EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.E.029
- 3. Structural Repair ManualEC135 P1,P2,P3,T1,T2,T3 Structural Repair Manual (SRM)
- 4. Weight and Balance Manual Refer to approved RFM
- 5. Illustrated Parts Catalogue EC135 Illustrated Parts Catalogue. All EC135 variants, except T3H/P3H
- 6. Service Letters and Service Bulletins

Safety Information Notice (from October 2008 onwards, before: Alert Service Information), Information Notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

- 1. Manufacturer's eligible serial numbers: s/n 0092, and subsequent.
- 2. Night Vision Goggles Operational Capability:

Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.
- 4. If the engine "Arrius 2B1A" is installed, the RFMS 9.2-57 is applicable.

If the engine "Arrius 2B1A" is modified by application of the software TU45C, the engine is identified as "Arrius 2B1A_1" on the engine identification plate. In case that an engine "Arrius 2B1A_1" is installed, the RFMS 9.2-62 is applicable."

* * *



SECTION 12: EC635 T1(CPDS)

I. General

1. Type/ Model/ Variant

	1.1 Туре	EC135
	1.2 Model	EC635 T1
	1.3 Variant	EC635 T1(CPDS)
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date to LBA	10 August 2001
5.	State of Design Authority	EASA
6.	Type Certificate Date by LBA	31 August 2001
7.	Type Certificate n°	EASA: EASA.R.009 (LBA: 3061)
8.	Type Certificate Data Sheet n°	EASA: EASA.R.009 (LBA: 3061, until issue 3, dated 3 June 2003)
9.	EASA Type Certification Date	28 September 2003, in accordance with CR (EU) 1702/2003, Article 2, 3., (a), (i), 2 nd bullet, 1 st indented bullet.

II. Certification Basis

 Reference Date for determining the applicable requirements

For Airworthiness and Environmental Protection: 10 August 2001 for OSD elements: Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR 27, Issue 1, dated 6 September 1993
- For IFR Certification: JAR 27 Appendix B, Issue 1, dated 6 September 1993
- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are:

29.861 (a)	Fire Protection of Structure, controls, and other parts
29.901 (c)	Powerplant: Installation
29.903 (b),(c),(e)	Engines
29.908 (a)	Cooling fans
29.917 (b),(c)(1)	Rotor Drive System: Design
29.927 (c)(1)	Additional tests
29.953 (a)	Fuel system independence
29.1027 (a)	Transmission and gearboxes
29.1045 (a)(1),(b),(c),(d),(f) Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General
For CAT A Certification: JA	R 27 Appendix C, Issue 1, dated 6 September 1993

- JAA Interim HIRF Policy (INT/POL/278.29-1, dated 1 June 1997) applies for:



- -- Dual Pilot IFR certification with 3-axis SAS, Pitch-Damper and Avionique Nouvelle CPDS and FCDS
- -- Single Pilot/ Dual Pilot IFR certification with AFCS and Avionique Nouvelle CPDS and FCDS

3. Special Conditions

- No. SC 1 "Primary Structures Designed with Composite Material"
- No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.
- No. SC 3 "Electronic Flight Instrument Systems"
- No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

7.

none

- 5. Equivalent Safety Findings
 - Dual Pilot IFR certification concerning JAR 27 Appendix B, Para. IV (c) "Static Longitudinal Stability"
 - JAR 27.1549b) related to the installation of the Vehicle and Engine Multifunction Display (VEMD) in the CPDS variants.
 - CS 27.865c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
 - CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1 Noise Requirements	see TCDSN EASA.R.009
6.2 Emission Requirements	n/a
Operational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1 Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2 Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3 Simulation Data (SIMD)	reserved
7.4 Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	 EC135 Basic Master List Drawing No. L000M0007051 Drawing No. L000M0009051 and following modifications EC635 Kit (Drawing No. W530M0700051 	
2.	Description	EC135 T1 (CPDS)	bearingless, 4 blades Fenestron, 10 blades metal-composite structure skid-type 2 independent freewheel turbines t EC635 T1(CPDS) corresponds to the plus structural reinforcement of cabin ling to the drawing W530M0700051.
3.	Equipment	Basic equipment must be installed and operational prior to registration of the helicopter.	
4.	Dimensions		
	4.1 Fuselage	Length: Width hull: Height:	5.87 m 1.56 m 3.35 m
	4.2 Main Rotor	Diameter:	10.20 m



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5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Gas generator [rpm (%)]	PWR turbine [rpm (%)]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 75	54 706 (101.1)	104	895
AEO-MCP	2 x 69	53 406 (98.7)	104	855
2-1/2 min OEI-TOP (2B1)	1 x 100			
2-½ min OEI-TOP (2B1A)	1 x 119.8	56 113 (103.7)	104	945
2-1/2 min OEI-TOP (2B1A_1)	1 x 128			
OEI-MCP	1 x 86	54 706 (101.1)	104	895

6. Fluids

6.1 Fuel

- 6.2 Oil
- 6.3 Additives
- 7. Fluid capacities
 - 7.1 Fuel

Standard fuel tank (up to s/n 0249)

Refer to approved RFM

Refer to approved RFM

Refer to approved RFM

Fuel tank capacity:680.0 litresUsable fuel:670.5 litres

Self-sealing fuel tank (up to s/n 0249)

Fuel tank capacity:673.4 litresUsable fuel:664.0 litres

Modified fuel tank (from s/n 0250, or SB EC135-28-007)Fuel tank capacity:710.0 litresUsable fuel:700.5 litresSelf-sealing fuel tank (from s/n 0250)Fuel tank capacity:701.0 litresUsable fuel:691.6 litres

Refer to approved RFM for reduction in V_{NE} with altitude

80 % (up to 1 900 kg) 85 % (above 1 900 kg)

Refer to approved RFM

Refer to approved RFM

VNE: 155 KIAS at MSL

n/a

7.3 Coolant System Capacity

8. Air Speed Limitations

7.2 Oil

9. Rotor Speed Limitations

and other speed limitations.			
Power on:			
Maximum	104 %		
Minimum	95 %		
Power off:			
Maximum	106 %		

**** * * * **** Minimum

Minimum Transient:

10.	Maximum Operating Altitude and Temperature	
	10.1 Altitude	20 000 ft (6 096 m) PA, refer to approved RFM for variation according to MTOW
	10.2 Temperature	Refer to approved RFM
11.	Operating Limitations	VFR day and night Non-icing conditions For IFR, Category A operation see additional equipment requirements and limitations in the relevant EASA- approved RFMS For Ditching, see Note 3
12.	Maximum Mass	2 720 kg
		<u>Note:</u> Operation of the aircraft with MTOM between 2 720 kg and 2 835 kg is permitted only in accordance with RFMS 9.1-3 "Supplement for flights with gross mass above 2 720 kg up to 2 835 kg" and when SB EC135-11- 003 is incorporated.
13.	Centre of Gravity Range	Longitudinal C.G. limits maximum forward limit: 4 180 mm aft of DP at 1 840 kg 4 219 mm aft of DP at 2 720 kg 4 224 mm aft of DP at 2 835 kg maximum rearward limit: 4 570 mm aft of DP at 1 500 kg 4 387 mm aft of DP at 2 720 kg 4 369 mm aft of DP at 2 835 kg
		Lateral C.G Limits maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal: the datum plane (STA 0) is located at 2 160 mm forward of the levelling point in the front door frame Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)
17.	Maximum Passenger Seating Capacity	1 cockpit, six cabin (or seven cabin, if the kit described in RFMS 9.2-31 is installed and operated)
18.	Passenger Emergency Exit	2, one on each side of the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m²
20.	Rotor Blade Control Movement	For rigging information refer to EC135 Aircraft Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	See approved Chapter 4, Airworthiness Limitation Section (ALS)
IV. C	Operating and Service Instructions	
1.	Flight Manual	EC635 T1(CPDS), initially LBA-approved, dated 31 August 2001, or later (LBA)/EASA-approved revisions,

**** * * *** including the supplements for Special Operations RFMS

9.1 and Optional Equipment RFMS 9.2.

- 2. Maintenance Manual
 - EC135 P1,P2,P3,T2,T2,T3 Aircraft Maintenance Manual (AMM)
 - EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)
 - EC135 P1,P2,P3,T2,T2,T3 Wiring Diagram Manual (WDM)
 - EC135 P1,P2,P3,T2,T2,T3 Corrosion and Erosion Control Guide (CECG)
 - Standard Practices Manual
 - EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
 - EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
- EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.E.029
- 3. Structural Repair Manual EC135 P1,P2,P3,T1,T2,T3 Structural Repair Manual (SRM)
- 4. Weight and Balance Manual
- 5. Illustrated Parts Catalogue

EC135 Illustrated Parts Catalogue. All EC135 variants, except T3H/P3H

6. Service Letters and Service Bulletins

Safety Information Notice (from October 2008 onwards, before: Alert Service Information), Information Notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

Refer to approved RFM

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASA-approved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

- 1. Manufacturer's eligible serial numbers: s/n 0173, and subsequent.
- 2. Night Vision Goggles Operational Capability:

Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.
- 4. If the engine "Arrius 2B1A" is installed, the RFMS 9.2-57 is applicable.

If the engine "Arrius 2B1A" is modified by application of the software TU45C, the engine is identified as "Arrius 2B1A_1" on the engine identification plate. In case that an engine "Arrius 2B1A_1" is installed, the RFMS 9.2-62 is applicable."

* * *



SECTION 13: EC135 T2(CPDS)

I. General

1. Type/ Model/ Variant

	1.1 Туре	EC135	
	1.2 Model	EC135 T2	
	1.3 Variant	EC135 T2(CPDS)	
2.	Airworthiness Category	Small Rotorcraft	
3.	Manufacturer	See "Section: Administrative, II.3"	
4.	Type Certification Application Date to LBA	5 February 2002	
5.	State of Design Authority	EASA	
6.	Type Certificate Date by LBA	9 August 2002	
7.	Type Certificate n°	EASA: EASA.R.009 (LBA: 3061)	
8.	Type Certificate Data Sheet n°	EASA: EASA.R.009 (LBA: 3061, until issue 7, dated 3 June 2003)	
9.	EASA Type Certification Date	28 September 2003, in accordance with CR (EU) 1702/2003, Article 2, 3., (a (i), 2 nd bullet, 1 st indented bullet.	

II. Certification Basis

1. Reference Date for determining the applicable requirements

For Airworthiness and Environmental Protection: 11 April 1997 for OSD elements: Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR 27, Issue 1, dated 6 September 1993
- For IFR Certification: JAR 27 Appendix B, Issue 1, dated 6 September 1993
- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are:

	•••
29.861 (a)	Fire Protection of Structure, controls, and other parts
29.901 (c)	Powerplant: Installation
29.903 (b),(c),(e)	Engines
29.908 (a)	Cooling fans
29.917 (b),(c)(1)	Rotor Drive System: Design
29.927 (c)(1)	Additional tests
29.953 (a)	Fuel system independence
29.1027 (a)	Transmission and gearboxes
29.1045 (a)(1),(b),(c),(d),(f) Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General
For CAT A Certification: JA	AR 27 Appendix C, Issue 1, dated 6 September 1993

- JAA Interim HIRF Policy (INT/POL/278.29-1, dated 1 June 1997) applies for:



- -- Dual Pilot IFR certification with 3-axis SAS, Pitch-Damper and Avionique Nouvelle CPDS and FCDS
- -- Single Pilot/ Dual Pilot IFR certification with AFCS and Avionique Nouvelle CPDS and FCDS

3. Special Conditions

- No. SC 1 "Primary Structures Designed with Composite Material"
- No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.
- No. SC 3 "Electronic Flight Instrument Systems"
- No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

7.

none

- 5. Equivalent Safety Findings
 - Dual Pilot IFR certification concerning JAR 27 Appendix B, Para. IV (c) "Static Longitudinal Stability"
 - JAR 27.1549 (b) related to the installation of the Vehicle and Engine Multifunction Display (VEMD) in the CPDS variants.
 - CS 27.865 (c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
 - CS 27.601, 27.603, 27.865 (a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1	Noise Requirements	see TCDSN EASA.R.009
6.2	Emission Requirements	n/a
Ope	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3	Simulation Data (SIMD)	reserved
7.4	Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	 EC135 Basic Master List Drawing No. L000M0007051 Drawings No. L000M0009051 + L710M0012054 and following modifications 	
2.	Description	Main rotor: Tail rotor: Fuselage: Landing gear: Powerplant:	bearingless, 4 blades Fenestron, 10 blades metal-composite structure skid-type 2 independent freewheel turbines
3.	Equipment	Basic equipment must be installed and operational prior to registration of the helicopter.	
4.	Dimensions		
	4.1 Fuselage	Length: Width hull: Height:	5.87 m 1.56 m 3.35 m
	4.2 Main Rotor	Diameter:	10.20 m
	4.3 Tail Rotor	Diameter:	1.00 m
-	En sin s		

5. Engine



- 5.1 Model Safran Helicopter Engines (former: Turbomeca) 2 x Model Arrius 2B2
- EASA TC/TCDS n°: EASA.E.029 5.2 Type Certificate
- 5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Gas generator [rpm (%)]	PWR turbine [rpm (%)]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 75	54 117 (100)	104	897
AEO-MCP	2 x 69	53 576 (99)	104	879
30 sec OEI-TOP	1 x 128	56 823 (105.0)	104	1 024
2 min OEI-TOP	1 x 125	56 011 (103.5)	104	994
OEI-MCP	1 x 86	54 821 (101.3)	104	942

6.	Fluids			
	6.1 Fuel	Refer to approved R	FM	
	6.2 Oil	Refer to approved R	FM	
	6.3 Additives	Refer to approved R	FM	
7.	Fluid capacities			
	7.1 Fuel	Standard fuel tank (u	ıp to s/n 0249)	
		Fuel tank capacity: Usable fuel:	680.0 litres 670.5 litres	
		Self-sealing fuel tank	: (up to s/n 0249)	
		Fuel tank capacity: Usable fuel:	673.4 litres 664.0 litres	
		Modified fuel tank (f Fuel tank capacity: Usable fuel: Self-sealing fuel tank Fuel tank capacity: Usable fuel:	rom s/n 0250, or SB EC135-28-007) 710.0 litres 700.5 litres : (from s/n 0250) 701.0 litres 691.6 litres	
	7.2 Oil	Refer to approved RFM		
	7.3 Coolant System Capacity	n/a		
8.	Air Speed Limitations	V _{NE} : 155 KIAS at MSL Refer to approved Rf and other speed limi	FM for reduction in V_{NE} with altitude	
9.	Rotor Speed Limitations	Power off: Maximum 106 Minimum 80 Minimum 85	7 %	
10.	Maximum Operating Altitude and Temperature			
	10.1 Altitudo	20,000 ft (6,006 m) R	A refer to approved REM for	



20 000 ft (6 096 m) PA, refer to approved RFM for variation according to MTOW



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	10.2 Temperature	Refer to approved RFM
11.	Operating Limitations	VFR day and night Non-icing conditions For IFR, Category A operation see additional equipment requirements and limitations in the relevant EASA- approved RFMS For Ditching, see Note 3
12.	Maximum Mass	2 835 kg
13.	Centre of Gravity Range	Longitudinal C.G. limits maximum forward limit: 4 180 mm aft of DP at 1 840 kg 4 224 mm aft of DP at 2 835 kg maximum rearward limit: 4 570 mm aft of DP at 1 500 kg 4 369 mm aft of DP at 2 835 kg Lateral C.G Limits maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal: the datum plane (STA 0) is located at 2 160 mm forward of the levelling point in the front door frame Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)
17.	Maximum Passenger Seating Capacity	1 cockpit, six cabin (or seven cabin, if the kit described in RFMS 9.2-31 is installed and operated)
18.	Passenger Emergency Exit	2, one on each side of the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m²
20.	Rotor Blade Control Movement	For rigging information refer to EC135 Aircraft Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	See approved Chapter 4, Airworthiness Limitation Section (ALS)
	Depreting and Convice Instructions	

IV. Operating and Service Instructions

1.	Flight Manual	EC135 T2(CPDS), initially LBA-approved, dated
		9 August 2002, or later (LBA)/EASA-approved revisions,
		including the supplements for Special Operations RFMS
		9.1 and Optional Equipment RFMS 9.2.

2. Maintenance Manual

- EC135 P1,P2,P3,T2,T2,T3 Aircraft Maintenance Manual (AMM)
- EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)
- EC135 P1,P2,P3,T2,T2,T3 Wiring Diagram Manual (WDM)
- EC135 P1,P2,P3,T2,T2,T3 Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)



- EC135 Avionic Manual (AVM)

Weight and Balance Manual

- Engine documents as per Engine TCDS No. EASA.E.029
- 3. Structural Repair Manual EC135 P1,P2,P3,T1,T2,T3 Structural Repair Manual (SRM)

Refer to approved RFM

except T3H/P3H

- 5. Illustrated Parts Catalogue EC135 Illustrated Parts Catalogue. All EC135 variants,
- 6. Service Letters and Service Bulletins

Safety Information Notice (from October 2008 onwards, before: Alert Service Information), Information Notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASA-approved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

4.

- 1. Manufacturer's eligible serial numbers:
 - 1.1 s/n 0243, and subsequent
 - 1.2 any EC135 T1(CPDS) that has been upgraded to EC135 T2(CPDS) according to SB EC135-71-023.
- 2. Night Vision Goggles Operational Capability:

Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.

* * *



SECTION 14: EC135 T2+

I. General -

1.	Type/ Model	
	1.1 Type	EC135
	1.2 Model	EC135 T2+
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date	8 February 2005
5.	State of Design Authority	EASA
6.	Type Certificate Date	21 February 2006
7.	Type Certificate n°	EASA.R.009
8.	Type Certificate Data Sheet n°	EASA.R.009

II. Certification Basis

1.	Reference Date for determining the	For Airworthiness and Environmental Protection:
	applicable requirements	8 February 2005
		for OSD elements:
		Grandfathering date: 17 February 2014

2. **Airworthiness Requirements**

-	JAR 27,	Issue 1,	dated 6	6 Sept	ember	1993
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- For IFR Certification: JAR 27 Appendix B, Issue 1, dated 6 September 1993
- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are: 29.861 (a) Fire Protection of Structure, controls, and other parts 29.901 (c) **Powerplant: Installation** 29.903 (b),(c),(e) Engines 29.908 (a) Cooling fans Rotor Drive System: Design 29.917 (b),(c)(1) 29.927 (c)(1) Additional tests
 - 29.953 (a) Fuel system independence 29.1027 (a) Transmission and gearboxes

 - 29.1045 (a)(1),(b),(c),(d),(f) Climb cooling test procedures Take-off cooling test procedures 29.1047 (a)
 - Designated fire zones: regions included
 - 29.1181 (a)
 - 29.1189 (c) Shutoff means
 - **Firewalls** 29.1191 (a)(1)
 - Cowling and engine compartment covering 29.1193 (e)
 - 29.1305 (a)(6),(b) Powerplant instruments
 - 29.1309 (b)(2)(i),(d) Equipment, systems and installations
 - 29.1331 (b) Instruments using power supply
- 29.1351 (d)(2) Electrical systems and equipment: General
- For CAT A Certification: JAR 27 Appendix C, Issue 1, dated 6 September 1993
- JAA Interim HIRF Policy (INT/POL/278.29-1, dated 1 June 1997) applies for:
 - -- Dual Pilot IFR certification with 3-axis SAS, Pitch-Damper and Avionique Nouvelle CPDS and FCDS
 - -- Single Pilot/ Dual Pilot IFR certification with AFCS and Avionique Nouvelle CPDS and FCDS
- CS 27.25 (a) (1) and CS 27.143 (c)(1), Amdt. 2
- 3. Special Conditions
 - No. SC 1 "Primary Structures Designed with Composite Material"
 - No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this



Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.

EC135

- No. SC 3 "Electronic Flight Instrument Systems"
- No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird _ strike)"
- 4. Deviations

7.

none

- 5. **Equivalent Safety Findings**
 - Dual Pilot IFR certification concerning JAR 27 Appendix B, Para. IV (c) "Static Longitudinal Stability" -
 - JAR 27.1549 (b) related to the installation of the Vehicle and Engine Multifunction Display (VEMD) in the CPDS variants.
 - CS 27.865 (c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
 - CS 27.601, 27.603, 27.865 (a) for Hoist Installation on Helicopters -
- **Environmental Protection Requirements** 6.

6.1	Noise Requirements	see TCDSN EASA.R.009
6.2	Emission Requirements	n/a
Ope	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3	Simulation Data (SIMD)	reserved
7.4	Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	 EC135 Basic Master List Drawing No. L000M0007051 Drawings of EC135 T2(CPDS) + L000M0021051 and following modifications
2.	Description	Main rotor:bearingless, 4 bladesTail rotor:Fenestron, 10 bladesFuselage:metal-composite structureLanding gear:skid-typePowerplant:2 independent freewheel turbines
3.	Equipment	Basic equipment must be installed and operational prior to registration of the helicopter.
4.	Dimensions	
	4.1 Fuselage	Length: 5.87 m Width hull: 1.56 m Height: 3.35 m
	4.2 Main Rotor	Diameter: 10.20 m
	4.3 Tail Rotor	Diameter: 1.00 m
5.	Engine	
	5.1 Model	Safran Helicopter Engines (former: Turbomeca)
		2 x Model Arrius 2B2
	5.2 Type Certificate	EASA TC/TCDS n°: EASA.E.029
	5.3 Limitations	



	TQ limits [%]	Gas generator [rpm (%)]	PWR turbine [rpm (%)]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 78	54 117 (100)	104	897
AEO-MCP	2 x 69	53 576 (99)	104	879
30 sec OEI-TOP	1 x 128	56 823 (105.0)	104	1 024
2 min OEI-TOP	1 x 125	56 011 (103.5)	104	994
OEI-MCP	1 x 89.5	54 821 (101.3)	104	942

Installed Engine Limitations and Transmission Torque Limits

6. Fluids

	6.1 Fuel	Refer to approved RFM
	6.2 Oil	Refer to approved RFM
	6.3 Additives	Refer to approved RFM
7.	Fluid capacities	
	7.1 Fuel	Standard fuel tank (up to s/n 0249)
		Fuel tank capacity:680.0 litresUsable fuel:670.5 litres
		Self-sealing fuel tank (up to s/n 0249)
		Fuel tank capacity:673.4 litresUsable fuel:664.0 litres
		Modified fuel tank (from s/n 0250, or SB EC135-28-007)Fuel tank capacity:710.0 litresUsable fuel:700.5 litresSelf-sealing fuel tank (from s/n 0250)Fuel tank capacity:701.0 litresUsable fuel:691.6 litres
	7.2 Oil	Refer to approved RFM
	7.3 Coolant System Capacity	n/a
8.	Air Speed Limitations	V_{NE} : 155 KIAS at MSL Refer to approved RFM for reduction in V_{NE} with altitude and other speed limitations.
9.	Rotor Speed Limitations	Power on:Maximum104 %Minimum97 %Power off:Maximum106 %Minimum80 % (up to 1 900 kg)Minimum85 % (above 1 900 kg)Transient:Refer to approved RFM
10.	Maximum Operating Altitude and Temperature	
	10.1 Altitude	20 000 ft (6 096 m) PA, refer to approved RFM for variation according to MTOW
	10.2 Temperature	Refer to approved RFM
11.	Operating Limitations	VFR day and night



		Non-icing conditions For IFR, Category A operation see additional equipment requirements and limitations in the relevant EASA- approved RFMS For Ditching, see Note 3
12.	Maximum Mass	2 910 kg
		<u>Note:</u> Operation of the aircraft with MTOW up to 2 950 kg is only permitted in accordance with RFMS 9.1-5, RFMS 9.1-6 and RFMS 9.1-7 from s/n 1055 and subsequent, or after SB EC135-62-028.
13.	Centre of Gravity Range	Longitudinal C.G. limits maximum forward limit: 4 180.0 mm aft of DP at 1 840 kg 4 227.3 mm aft of DP at 2 910 kg 4 229.3 mm aft of DP at 2 950 kg maximum rearward limit: 4 570.0 mm aft of DP at 1 500 kg 4 369.0 mm aft of DP at 2 910 kg 4 362.6 mm aft of DP at 2 950 kg Lateral C.G Limits maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal: the datum plane (STA 0) is located at 2 160mm forward of the levelling point in the front door frame Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)
17.	Maximum Passenger Seating Capacity	1 cockpit, six cabin (or seven cabin, if the kit described in RFMS 9.2-31 is installed and operated)
18.	Passenger Emergency Exit	2, one on each side of the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m²
20.	Rotor Blade Control Movement	For rigging information refer to EC135 Aircraft Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	See approved Chapter 4, Airworthiness Limitation Section (ALS)
<u>IV. (</u>	Operating and Service Instructions	

1. Flight Manual

EC135 T2+, initially EASA-approved, dated 21 February 2006, or later EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

2. Maintenance Manual

- EC135 P1,P2,P3,T2,T2,T3 Aircraft Maintenance Manual (AMM)
- EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)
- EC135 P1,P2,P3,T2,T2,T3 Wiring Diagram Manual (WDM)
- EC135 P1,P2,P3,T2,T2,T3 Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual



- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P1, P2, P3, T1, T2, T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
- EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.E.029
- 3. Structural Repair Manual EC135 P1,P2,P3,T1,T2,T3 Structural Repair Manual (SRM)

Refer to approved RFM

except T3H/P3H

- 4. Weight and Balance Manual
- 5. Illustrated Parts Catalogue EC135 Illustrated Parts Catalogue. All EC135 variants,
- 6. Service Letters and Service Bulletins

Safety Information Notice (from October 2008 onwards, before: Alert Service Information), Information Notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

- 1. Manufacturer's eligible serial numbers:
 - 1.1 s/n 0506, and subsequent.
 - 1.2 any EC135 T2(CPDS) that has been upgraded to EC135 T2+ according to SB EC135-71-033.
 - 1.3 s/n 858 that has been retrofitted to EC135 T2+ according to SB EC135-00-002.
- 2. Night Vision Goggles Operational Capability:

Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.

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SECTION 15: EC635 T2+

I. General

1.	Type/ Model	
	1.1 Type	EC135
	1.2 Model	EC635 T2+
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date	17 July 2006
5.	State of Design Authority	EASA
6.	Type Certificate Date	6 December 2006
7.	Type Certificate n°	EASA.R.009
8.	Type Certificate Data Sheet n°	EASA.R.009

II. Certification Basis

1.	Reference Date for determining the applicable requirements	For Airworthiness and Environmental Protection: 17 July 2006
		for OSD elements: Grandfathering date: 17 February 2014

2. Airworthiness Requirements

-	JAR 27,	Issue 1,	dated 6	September	1993
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- For IFR Certification: JAR 27 Appendix B, Issue 1, dated 6 September 1993
- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are: 29.861 (a) Fire Protection of Structure, controls, and other parts 29.901 (c) **Powerplant: Installation** 29.903 (b),(c),(e) Engines 29.908 (a) Cooling fans Rotor Drive System: Design 29.917 (b),(c)(1) 29.927 (c)(1) Additional tests 29.953 (a) Fuel system independence 29.1027 (a) Transmission and gearboxes 29.1045 (a)(1),(b),(c),(d),(f) Climb cooling test procedures Take-off cooling test procedures 29.1047 (a) Designated fire tanget regions included 20 1101 /2)

29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General

- For CAT A Certification: JAR 27 Appendix C, Issue 1, dated 6 September 1993
- JAA Interim HIRF Policy (INT/POL/278.29-1, dated 1 June 1997) applies for:
 - -- Dual Pilot IFR certification with 3-axis SAS, Pitch-Damper and Avionique Nouvelle CPDS and FCDS
 - -- Single Pilot/ Dual Pilot IFR certification with AFCS and Avionique Nouvelle CPDS and FCDS
- CS 27.25 (a) (1) and CS 27.143 (c)(1), Amdt. 2
- **Special Conditions** 3.
- No. SC 1 "Primary Structures Designed with Composite Material" -
- No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this



Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40.

EC135

- No. SC 3 "Electronic Flight Instrument Systems"
- No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

7.

none

- 5. Equivalent Safety Findings
 - Dual Pilot IFR certification concerning JAR 27 Appendix B, Para. IV (c) "Static Longitudinal Stability"
 - JAR 27.1549 (b) related to the installation of the Vehicle and Engine Multifunction Display (VEMD) in the CPDS variants.
 - CS 27.865 (c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
 - CS 27.601, 27.603, 27.865 (a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1	Noise Requirements	see TCDSN EASA.R.009
6.2	Emission Requirements	n/a
Ope	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1
		CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3	Simulation Data (SIMD)	reserved
7.4	Maintenance Certifying Staff Data (MCSD)	reserved

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	 EC135 Basic Master List Drawing No. L000M0007051 Drawings of EC135 T2(CPDS) + L000M0021051 and following modifications EC635 Kit (Drawing No. W533M1700051)
2.	Description	Main rotor:bearingless, 4 bladesTail rotor:Fenestron, 10 bladesFuselage:metal-composite structureLanding gear:skid-typePowerplant:2 independent freewheel turbinesNote:The variant EC635 T2+ corresponds to the EC135T2+ plus structural reinforcement of cabin structureaccording to the drawing W533M1700051.
3.	Equipment	Basic equipment must be installed and operational prior to registration of the helicopter.
4.	Dimensions	
	4.1 Fuselage	Length:5.87 mWidth hull:1.56 mHeight:3.35 m
	4.2 Main Rotor	Diameter: 10.20 m
	4.3 Tail Rotor	Diameter: 1.00 m
5.	Engine	
	5.1 Model	Safran Helicopter Engines (former: Turbomeca) 2 x Model Arrius 2B2



5.2 Type Certificate

EASA TC/TCDS n°: EASA.E.029

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Gas generator rpm [min ⁻¹ (%)]	Power turbine rpm [%]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 78	54 117 (100)	104	897
AEO-MCP	2 x 69	53 576 (99)	104	879
30 sec OEI-TOP	1 x 128	56 823 (105.0)	104	1 024
2 min OEI-TOP	1 x 125	56 011 (103.5)	104	994
OEI-MCP	1 x 89.5	54 821 (101.3)	104	942

6. Fluids

	6.1 Fuel	Refer to approved RFM
	6.2 Oil	Refer to approved RFM
	6.3 Additives	Refer to approved RFM
7.	Fluid capacities	
	7.1 Fuel	Standard fuel tank (up to s/n 0249)
		Fuel tank capacity:680.0 litresUsable fuel:670.5 litres
		Self-sealing fuel tank (up to s/n 0249)
		Fuel tank capacity:673.4 litresUsable fuel:664.0 litres
		Modified fuel tank (from s/n 0250, or SB EC135-28-007) Fuel tank capacity: 710.0 litres Usable fuel: 700.5 litres Self-sealing fuel tank (from s/n 0250) Fuel tank capacity: 701.0 litres Usable fuel: 691.6 litres
	7.2 Oil	Refer to approved RFM
	7.3 Coolant System Capacity	n/a
8.	Air Speed Limitations	V_{NE} : 155 KIAS at MSL Refer to approved RFM for reduction in V_{NE} with altitude and other speed limitations.
9.	Rotor Speed Limitations	Power on:Maximum104 %Minimum97 %Power off:Maximum106 %Minimum80 % (up to 1 900 kg)Minimum85 % (above 1 900 kg)Transient:Refer to approved RFM
10.	Maximum Operating Altitude and Temperature	
	10.1 Altitude	20 000 ft (6 096 m) PA, refer to approved RFM for variation according to MTOW
	10.2 Temperature	Refer to approved RFM
11.	Operating Limitations	VFR day and night



		Non-icing conditions For IFR, Category A operation see additional equipment requirements and limitations in the relevant EASA- approved RFMS For Ditching, see Note 3
12.	Maximum Mass	2 910 kg
		<u>Note:</u> Operation of the aircraft with MTOW up to 2 950 kg is only permitted in accordance with RFMS 9.1-5, RFMS 9.1-6 and RFMS 9.1-7 from s/n 1055 and subsequent or after SB EC135-62-028.
13.	Centre of Gravity Range	Longitudinal C.G. limits maximum forward limit: 4 180.0 mm aft of DP at 1 840 kg 4 227.3 mm aft of DP at 2 910 kg 4 229.3 mm aft of DP at 2 950 kg maximum rearward limit: 4 570.0 mm aft of DP at 1 500 kg 4 369.0 mm aft of DP at 2 910 kg 4 362.6 mm aft of DP at 2 950 kg Lateral C.G Limits maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal: the datum plane (STA 0) is located at 2 160mm forward of the levelling point in the front door frame Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)
17.	Maximum Passenger Seating Capacity	1 cockpit, six cabin (or seven cabin, if the kit described in RFMS 9.2-31 is installed and operated)
18.	Passenger Emergency Exit	2, one on each side of the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m²
20.	Rotor Blade Control Movement	For rigging information refer to EC135 Aircraft Maintenance Manual
21.	Auxiliary Power Unit (APU)	n/a
22.	Life-limited Parts	See approved Chapter 4, Airworthiness Limitation Section (ALS)
<u>IV. (</u>	Operating and Service Instructions	

1. Flight Manual

EC635 T2+, initially EASA-approved, dated 6 December 2006, or later EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

2. Maintenance Manual

- EC135 P1,P2,P3,T2,T2,T3 Aircraft Maintenance Manual (AMM)
- EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)
- EC135 P1,P2,P3,T2,T2,T3 Wiring Diagram Manual (WDM)
- EC135 P1, P2, P3, T2, T2, T3 Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual



- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P1, P2, P3, T1, T2, T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
- EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.E.029
- 3. Structural Repair Manual EC135 P1,P2,P3,T1,T2,T3 Structural Repair Manual (SRM)

Refer to approved RFM

- 4. Weight and Balance Manual
- 5. Illustrated Parts Catalogue

EC135 Illustrated Parts Catalogue. All EC135 variants, except T3H/P3H

6. Service Letters and Service Bulletins

Safety Information Notice (from October 2008 onwards, before: Alert Service Information), Information Notice (from October 2008 onwards, before: Service Information), Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

- 1. Manufacturer's eligible serial numbers:
 - 1.1 s/n 0506, and subsequent
- 2. Night Vision Goggles Operational Capability:

Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR 27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.

* * *



SECTION 16: EC135 T3(CPDS)

I. General

1. Type/ Model/ Variant

	1.1 Type	EC135
	1.2 Model	EC135 T3
	1.3 Variant	EC135 T3(CPDS)
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date	10 June 2011
5.	State of Design Authority	EASA
6.	Type Certificate Date	17 October 2014
7.	Type Certificate n°	EASA.R.009
8.	Type Certificate Data Sheet n°	EASA.R.009

II. Certification Basis

1.	Reference Date for determining the	For Airworthiness and Environmental Protection:
	applicable requirements	10 June 2011
		for OSD elements:

Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR 27, Issue 1, dated 6 September 1993, supplemented by the following CS-27 Amdt. 2 requirements: CS 27.1(a) in connection with CS 27.2(b)(2)(i).

CS 27.0021	CS 27.0161	CS 27.0341	CS 27.0607	CS 27.0771	CS 27.1193	CS 27.1521
CS 27.0025	CS 27.0171	CS 27.0351	CS 27.0609	CS 27.0853	CS 27.1301	CS 27.1525
CS 27.0027	CS 27.0173	CS 27.0361	CS 27.0610	CS 27.0865	CS 27.1305	CS 27.1527
CS 27.0029	CS 27.0175	CS 27.0391	CS 27.0611	CS 27.0901	CS 27.1309	CS 27.1529
CS 27.0031	CS 27.0177	CS 27.0427	CS 27.0613	CS 27.0903	CS 27.1321	CS 27.1541
CS 27.0033	CS 27.0231	CS 27.0471	CS 27.0629	CS 27.0907	CS 27.1323	CS 27.1545
CS 27.0045	CS 27.0241	CS 27.0473	CS 27.0653	CS 27.0931	CS 27.1329	CS 27.1549
CS 27.0049	CS 27.0251	CS 27.0501	CS 27.0659	CS 27.0939	CS 27.1351	CS 27.1559
CS 27.0051	CS 27.0301	CS 27.0521	CS 27.0661	CS 27.1041	CS 27.1365	CS 27.1581
CS 27.0065	CS 27.0303	CS 27.0547	CS 27.0663	CS 27.1043	CS 27.1381	CS 27.1583
CS 27.0067	CS 27.0305	CS 27.0549	CS 27.0671	CS 27.1045	CS 27.1435	
CS 27.0075	CS 27.0307	CS 27.0561	CS 27.0672	CS 27.1091	CS 27.1501	
CS 27.0079	CS 27.0309	CS 27.0571	CS 27.0681	CS 27.1093	CS 27.1503	
CS 27.0141	CS 27.0321	CS 27.0601	CS 27.0683	CS 27.1141	CS 27.1505	
CS 27.0143	CS 27.0337	CS 27.0602	CS 27.0691	CS 27.1143	CS 27.1509	
CS 27.0151	CS 27.0339	CS 27.0603	CS 27.0695	CS 27.1187	CS 27.1519	

- For EASA approval 10050866: Certification Basis for the original product amended by additional airworthiness requirements 27.773, 27.777, , 27.1357, , at CS-27 Amdt. 2 and 29.1431 at CS-29 Initial Issue

- For IFR Certification: CS-27 Amdt. 2, Appendix B, dated 10 November 2008

- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are:



29.861 (a)	Fire Protection of Structure, controls, and other parts
29.901 (c)	Powerplant: Installation
29.903 (b),(c),(e)	Engines
29.908 (a)	Cooling fans
29.917 (b),(c)(1)	Rotor Drive System: Design
29.927 (c)(1)	Additional tests
29.953 (a)	Fuel system independence
29.1027 (a)	Transmission and gearboxes
29.1045 (a)(1),(b),(c),(d),(f)	Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General

- For CAT A Certification: CS-27 Amdt. 2, Appendix C requirements
- 3. Special Conditions
 - No. SC 1 "Primary Structures Designed with Composite Material"
 - No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40"
 - No. SC 3 "Electronic Flight Instrument Systems"
 - No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

none

- 5. Equivalent Safety Findings
- JAR 27.1549 (b) related to the installation of the Vehicle and Engine Multifunction Display (VEMD) in the CPDS variants
- CS 27.865 (c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
- CS 27.1557 (d) related to safety enhanced colour scheme ('black&yellow' in place of 'red') for the emergency exit handle cap.
- CS 27.571, 27.602 (b), 27.865 (f) for Hoist Installation on Helicopters
- CS 27.601, 27.603, 27.865 (a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1 Noise Requirements	see TCDSN EASA.R.009
6.2 Emission Requirements	ICAO Annex 16, Volume II, Part II, Chapter 2, (CS-34, Initial Issue)
Operational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1 Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2 Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3 Simulation Data (SIMD)	reserved
7.4 Maintenance Certifying Staff Data (MCSD)	reserved



7.

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	TDD L0000M23340	00, Issue A
2.	Description	Tail rotor: F Fuselage: r Landing gear: s	pearingless, 4 blades Fenestron, 10 blades metal-composite structure skid-type 2 independent freewheel turbines
3.	Equipment	Basic equipment m to registration of t	nust be installed and operational prior helicopter.
4.	Dimensions		
	4.1 Fuselage	Length: Width hull: Height:	5.87 m 1.56 m 3.35 m
	4.2 Main Rotor	Diameter:	10.40 m
	4.3 Tail Rotor	Diameter:	1.00 m
5.	Engine		
	5.1 Model	Safran Helicopter B	Engines (former: Turbomeca)
		2 x Model Arrius 2	B2
	5.2 Type Certificate	EASA TC/TCDS n°:	EASA.E.029

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Max N1 speed (gas generator) [%]	Max N ₂ speed (output shaft) [%]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 78	86.1-100	106	897
AEO-MCP	2 x 69	85.3-99	106	879
30 sec OEI-TOP	1 x 128	91.7-104.80	106	1 024
2 min OEI-TOP	1 x 125	91.7-103.50	106	994
OEI-MCP	1 x 89.5	87.4-101.25	106	942

6. Fluids

- 6.1 Fuel 6.2 Oil
- 6.3 Additives
- 7. Fluid capacities
 - 7.1 Fuel

Standard fuel tank (up to s/n 0249)

Refer to approved RFM

Refer to approved RFM

Fuel tank capacity:680.0 litresUsable fuel:670.5 litres

Self-sealing fuel tank (up to s/n 0249)

Fuel tank capacity:673.4 litresUsable fuel:664.0 litres

Modified fuel tank (from s/n 0250, or SB EC135-28-007)Fuel tank capacity:710.0 litresUsable fuel:700.5 litresSelf-sealing fuel tank (from s/n 0250)Fuel tank capacity:701.0 litres



		Usable fuel: 691.6 litres
	7.2 Oil	Refer to approved RFM
	7.3 Coolant System Capacity	n/a
8.	Air Speed Limitations	V_{NE} : 150 KIAS at MSL, or as shown in the V_{NE} -tables, whichever is less. Refer to approved RFM for reduction in V_{NE} with altitude and other speed limitations.
9.	Rotor Speed Limitations	Power on:Maximum105.5%Minimum97 %Power off:Maximum107.5 %Minimum80 % (up to 1 900 kg)Minimum85 % (above 1 900 kg)Transient:Refer to approved RFM
10.	Maximum Operating Altitude and Temperature	
	10.1 Altitude	20 000 ft (6 096 m) PA, refer to approved RFM for variation according to MTOW
	10.2 Temperature	Refer to approved RFM
11.	Operating Limitations	VFR day and night Non-icing conditions For IFR, Category A operation see additional equipment requirements and limitations in the relevant EASA- approved RFMS For Ditching, see Note 3
12.	Maximum Mass	Maximum mass:Ramp and taxi mass:3 000 kgGross mass:2 980 kgMinimum mass:1 600 kg
13.	Centre of Gravity Range	Longitudinal C.G. limits maximum forward limit: 4 152 mm aft of DP at 2 039 kg 4 201 mm aft of DP at 2 980 kg maximum rearward limit: 4 369 mm aft of DP at 2 980 kg 4 555 mm aft of DP at 1 600 kg Lateral C.G Limits maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal: the datum plane (STA 0) is located at 2 160 mm forward of the levelling point in the front door frame Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)
17.	Maximum Passenger Seating Capacity	7
18.	Passenger Emergency Exit	2, one on each side of the passenger cabin



- 19. Maximum Baggage/ Cargo Loads
- 20. Rotor Blade Control Movement
- 21. Auxiliary Power Unit (APU)
- 22. Life-limited Parts

IV. Operating and Service Instructions

1. Flight Manual

For rigging information refer to EC135 Aircraft Maintenance Manual

n/a

See approved Chapter 4, Airworthiness Limitation Section (ALS)

EC135 T3, initially EASA-approved, dated 17 October 2014, or later EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

- 2. Maintenance Manual
 - EC135 P1,P2,P3,T2,T2,T3 Aircraft Maintenance Manual (AMM)
 - EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)
 - EC135 P1,P2,P3,T2,T2,T3 Wiring Diagram Manual (WDM)
 - EC135 P1, P2, P3, T2, T2, T3 Corrosion and Erosion Control Guide (CECG)
 - Standard Practices Manual
 - EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
 - EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
 - EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.E.029
- 3. Structural Repair Manual EC135 P1,P2,P3,T1,T2,T3 Structural Repair Manual (SRM)
 - Weight and Balance Manual Refer to approved RFM
- 5. Illustrated Parts Catalogue EC135 Illustrated Parts Catalogue. All EC135 variants, except T3H/P3H
- 6. Service Letters and Service Bulletins

Safety Information Notice, Information Notice, Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

4.

1. Manufacturer's eligible serial numbers:

1.1 s/n 1155, and subsequent.

1.2 any EC135 T2+ that has been upgraded to EC135 T3(CPDS) according to SB EC135-71T-045.

2. Night Vision Goggles Operational Capability:

Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:

- survival type emergency locator transmitter
- life raft installation
- life preserver.
- 4. Designation:

"H135" is used as marketing designation for EC135 T3(CPDS) helicopters.

* * *



SECTION 17: EC635 T3(CPDS)

I. General

1. Type/ Model/ Variant

	1.1 Type	EC135
	1.2 Model	EC635 T3
	1.3 Variant	EC635 T3(CPDS)
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date	10 June 2011
5.	State of Design Authority	EASA
6.	Type Certificate Date	17 October 2014
7.	Type Certificate n°	EASA.R.009
8.	Type Certificate Data Sheet n°	EASA.R.009

II. Certification Basis

1.	Reference Date for determining the applicable requirements	For Airworthiness and Environmental Protection: 10 June 2011
		for OSD elements:

Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR 27, Issue 1, dated 6 September 1993, supplemented by the following CS-27 Amdt. 2 requirements: CS 27.1(a) in connection with CS 27.2(b)(2)(i).

CS 27.0021	CS 27.0161	CS 27.0341	CS 27.0607	CS 27.0771	CS 27.1193	CS 27.1521
CS 27.0025	CS 27.0171	CS 27.0351	CS 27.0609	CS 27.0853	CS 27.1301	CS 27.1525
CS 27.0027	CS 27.0173	CS 27.0361	CS 27.0610	CS 27.0865	CS 27.1305	CS 27.1527
CS 27.0029	CS 27.0175	CS 27.0391	CS 27.0611	CS 27.0901	CS 27.1309	CS 27.1529
CS 27.0031	CS 27.0177	CS 27.0427	CS 27.0613	CS 27.0903	CS 27.1321	CS 27.1541
CS 27.0033	CS 27.0231	CS 27.0471	CS 27.0629	CS 27.0907	CS 27.1323	CS 27.1545
CS 27.0045	CS 27.0241	CS 27.0473	CS 27.0653	CS 27.0931	CS 27.1329	CS 27.1549
CS 27.0049	CS 27.0251	CS 27.0501	CS 27.0659	CS 27.0939	CS 27.1351	CS 27.1559
CS 27.0051	CS 27.0301	CS 27.0521	CS 27.0661	CS 27.1041	CS 27.1365	CS 27.1581
CS 27.0065	CS 27.0303	CS 27.0547	CS 27.0663	CS 27.1043	CS 27.1381	CS 27.1583
CS 27.0067	CS 27.0305	CS 27.0549	CS 27.0671	CS 27.1045	CS 27.1435	
CS 27.0075	CS 27.0307	CS 27.0561	CS 27.0672	CS 27.1091	CS 27.1501	
CS 27.0079	CS 27.0309	CS 27.0571	CS 27.0681	CS 27.1093	CS 27.1503	
CS 27.0141	CS 27.0321	CS 27.0601	CS 27.0683	CS 27.1141	CS 27.1505	
CS 27.0143	CS 27.0337	CS 27.0602	CS 27.0691	CS 27.1143	CS 27.1509	
CS 27.0151	CS 27.0339	CS 27.0603	CS 27.0695	CS 27.1187	CS 27.1519	

- For EASA approval 10050866: Certification Basis for the original product amended by additional airworthiness requirements 27.773, 27.777, 27.1357, at CS-27 Amdt. 2 and 29.1431 at CS-29 Initial Issue
- For IFR Certification: CS 27 Amdt. 2, Appendix B, dated 10 November 2008

- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are:



29.861 (a)	Fire Protection of Structure, controls, and other parts
29.901 (c)	Powerplant: Installation
29.903 (b),(c),(e)	Engines
29.908 (a)	Cooling fans
29.917 (b),(c)(1)	Rotor Drive System: Design
29.927 (c)(1)	Additional tests
29.953 (a)	Fuel system independence
29.1027 (a)	Transmission and gearboxes
29.1045 (a)(1),(b),(c),(d),(f)	Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General

- For CAT A Certification: CS-27 Amdt. 2, Appendix C requirements
- 3. Special Conditions
 - No. SC 1 "Primary Structures Designed with Composite Material"
 - No. SC 2 "Protection for Electrical and Electronic Systems from High Intensity Radiated Fields"; this Special Condition applies only for VFR and IFR certification with conventional instruments and for VFR certification with EFIS EFS 40."
 - No. SC 3 "Electronic Flight Instrument Systems"
 - No. SC 4 "Protection of air intake of EC135 against ingestion of foreign objects (Rain and Hail/Bird strike)"
- 4. Deviations

none

- 5. Equivalent Safety Findings
 - JAR 27.1549 (b) related to the installation of the Vehicle and Engine Multifunction Display (VEMD) in the CPDS variants
 - CS 27.865 (c) related to dual activation device for the Primary Quick Release Subsystem (Cyclic Stick) for the Double Cargo Hook System
 - CS 27.1557 (d) related to safety enhanced colour scheme ('black&yellow' in place of 'red') for the emergency exit handle cap.
 - CS 27.571, 27.602 (b), 27.865 (f) for Hoist Installation on Helicopters
 - CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

	6.1	Noise Requirements	see TCDSN EASA.R.009
	6.2	Emission Requirements	ICAO Annex 16, Volume II, Part II, Chapter 2, (CS-34, Initial Issue)
7.	Ope	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
	78.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
	7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
	7.3	Simulation Data (SIMD)	reserved
	7.4	Maintenance Certifying Staff Data (MCSD)	reserved



III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	TDD L0000M233400, Issue A + EC635 Kit (Drawing No. W530M0700052)
2.	Description	Main rotor:bearingless, 4 bladesTail rotor:Fenestron, 10 bladesFuselage:metal-composite structureLanding gear:skid-typePowerplant:2 independent freewheel turbinesNote:The variant EC635 T3 corresponds to the EC135 T3plus structural reinforcement of cabin structure accordingto the drawing W530M0700052.
3.	Equipment	Basic equipment must be installed and operational prior to registration of the helicopter.
4.	Dimensions	
	4.1 Fuselage	Length: 5.87 m Width hull: 1.56 m Height: 3.35 m
	4.2 Main Rotor	Diameter: 10.40 m
	4.3 Tail Rotor	Diameter: 1.00 m
5.	Engine	
	5.1 Model	Safran Helicopter Engines (former: Turbomeca)
		2 x Model Arrius 2B2
	5.2 Type Certificate	EASA TC/TCDS n°: EASA.E.029

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Max N ₁ speed (gas generator) [%]	Max N ₂ speed (output shaft) [%]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 78	86.1-100	106	897
AEO-MCP	2 x 69	85.3-99	106	879
30 sec OEI-TOP	1 x 128	91.7-104.80	106	1 024
2 min OEI-TOP	1 x 125	91.7-103.50	106	994
OEI-MCP	1 x 89.5	87.4-101.25	106	942

6. Fluids

7.

6.1 Fuel	Refer to approved RFM
6.2 Oil	Refer to approved RFM
6.3 Additives	Refer to approved RFM
Fluid capacities	
7.1 Fuel	Standard fuel tank (up to s/n 0249)
	Fuel tank capacity: 680.0 litres
	Usable fuel: 670.5 litres

Self-sealing fuel tank (up to s/n 0249)

Fuel tank capacity:673.4 litresUsable fuel:664.0 litres

Modified fuel tank (from s/n 0250, or SB EC135-28-007)



		Fuel tank capacity: Usable fuel:	710.0 litres 700.5 litres
		Self-sealing fuel tank	
		Fuel tank capacity:	701.0 litres
		Usable fuel:	691.6 litres
	7.2 Oil	Refer to approved RF	Μ
	7.3 Coolant System Capacity	n/a	
8.	Air Speed Limitations	V _{NE} : 150 KIAS at MSL,	or as shown in the V_{NE} -tables,
		whichever is less.	
		Refer to approved RF and other speed limit	M for reduction in V _{NE} with altitude ations.
9.	Rotor Speed Limitations	Power on:	
			.5 %
		Minimum 97 Power off:	%
			.5 %
			% (up to 1 900 kg)
			% (above 1 900 kg)
		Transient: Refe	er to approved RFM
10.	Maximum Operating Altitude and Temperature		
	10.1 Altitude		A, refer to approved RFM for
		variation according to	MTOW
	10.2 Temperature	Refer to approved RF	Μ
11.	Operating Limitations	VFR day and night	
		Non-icing conditions	
			peration see additional equipment itations in the relevant EASA-
		approved RFMS	itations in the relevant LASA-
		For Ditching, see Note	e 3
12.	Maximum Mass	Maximum mass:	
		Ramp and taxi mass:	3 000 kg
		Gross mass:	2 980 kg
		Minimum mass: Gross mass:	1 600 kg
10	Control of Crowity Don on		-
13.	Centre of Gravity Range	Longitudinal C.G. limi maximum forward lin	
		4 152 mm aft of D	-
		4 201 mm aft of D	P at 2 980 kg
		maximum rearward li	-
		4 369 mm aft of D	_
		4 555 mm aft of D Lateral C.G Limits	P at 1 600 kg
			on right / left: 100 mm
14.	Datum	Longitudinal:	
		the datum plane (STA	0) is located at 2 160 mm forward
			n the front door frame
		Lateral: fuselage med	
15.	Levelling Means	See levelling procedu	re document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)	
17.	Maximum Passenger Seating Capacity	7	



- 18. Passenger Emergency Exit
- 19. Maximum Baggage/ Cargo Loads
- 20. Rotor Blade Control Movement
- 21. Auxiliary Power Unit (APU)
- 22. Life-limited Parts

IV. Operating and Service Instructions

1. Flight Manual

2, one on each side of the passenger cabin

Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m²

For rigging information refer to EC135 Aircraft Maintenance Manual

n/a

See approved Chapter 4, Airworthiness Limitation Section (ALS)

EC135 T3, initially EASA-approved, dated 17 October 2014, or later EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

2. Maintenance Manual

- EC135 P1,P2,P3,T2,T2,T3 Aircraft Maintenance Manual (AMM)
- EC135 P1,P2,P3,T2,T2,T3 System Description Section (SDS)
- EC135 P1,P2,P3,T2,T2,T3 Wiring Diagram Manual (WDM)
- EC135 P1,P2,P3,T2,T2,T3 Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P1,P2,P3,T1,T2,T3, limited to CDS, CPDS, P2+, T2+. Chapter 05. Master Servicing Manual (MSM)
- EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.E.029
- 3. Structural Repair Manual EC135 P1,P2,P3,T1,T2,T3 Structural Repair Manual (SRM)
- 4. Weight and Balance Manual
- Refer to approved RFM EC635 Illustrated Parts Catalogue.
- 5. Illustrated Parts Catalogue
- 6. Service Letters and Service Bulletins

Safety Information Notice, Information Notice, Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

- Manufacturer's eligible serial numbers: s/n 1155, and subsequent.
- 2. Night Vision Goggles Operational Capability:

Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-86 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a competent authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

3. The emergency floatation system in accordance with RFMS 9.2-67, is certified as ditching provision in accordance with JAR-27.

The helicopter may be certificated for ditching provided the following additional equipment are fitted and approved in accordance with the relevant airworthiness requirements:



- survival type emergency locator transmitter
- life raft installation
- life preserver.
- 4. Designation:

"H135M" is used as marketing designation for EC635 T3(CPDS) helicopters.

* * *



SECTION 18: EC135 T3H

I. General

1. Type/ Model/ Variant

	1.1 Type	EC135
	1.2 Model	EC135 T3
	1.3 Variant	EC135 T3H
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date	11 May 2012
5.	State of Design Authority	EASA
6.	Type Certificate Date	15 November 2016
7.	Type Certificate n°	EASA.R.009
8.	Type Certificate Data Sheet n°	EASA.R.009

II. Certification Basis

1.	Reference Date for determining the	For Airworthiness and Environmental Protection:
	applicable requirements	11 May 2012
		for OSD elements:

Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR 27, Issue 1, dated 6 September 1993, supplemented by the following CS-27 Amdt. 2 requirements: CS 27.1(a) in connection with CS 27.2(b)(2)(i).

CS27.0021	CS27.0231	CS27.0501	CS27.0671	CS27.0931	CS27.1323	CS27.1503
CS27.0025	CS27.0241	CS27.0521	CS27.0672	CS27.0939	CS27.1325	CS27.1505
CS27.0027	CS27.0251	CS27.0547	CS27.0674	CS27.1019	CS27.1327	CS27.1509
CS27.0029	CS27.0301	CS27.0549	CS27.0681	CS27.1041	CS27.1329	CS27.1519
CS27.0031	CS27.0303	CS27.0561	CS27.0683	CS27.1043	CS27.1337	CS27.1521
CS27.0033	CS27.0305	CS27.0562	CS27.0685	CS27.1045	CS27.1351	CS27.1523
CS27.0045	CS27.0307	CS27.0571	CS27.0687	CS27.1091	CS27.1353	CS27.1525
CS27.0049	CS27.0309	CS27.0601	CS27.0691	CS27.1093	CS27.1357	CS27.1527
CS27.0051	CS27.0321	CS27.0602	CS27.0695	CS27.1141	CS27.1361	CS27.1529
CS27.0065	CS27.0337	CS27.0603	CS27.0771	CS27.1143	CS27.1365	CS27.1541
CS27.0067	CS27.0339	CS27.0605	CS27.0773	CS27.1145	CS27.1367	CS27.1543
CS27.0075	CS27.0341	CS27.0607	CS27.0777	CS27.1151	CS27.1381	CS27.1545
CS27.0079	CS27.0351	CS27.0609	CS27.0785	CS27.1187	CS27.1383	CS27.1547
CS27.0141	CS27.0361	CS27.0610	CS27.0831	CS27.1193	CS27.1385	CS27.1549
CS27.0143	CS27.0391	CS27.0611	CS27.0853	CS27.1301	CS27.1387	CS27.1555
CS27.0151	CS27.0395	CS27.0613	CS27.0855	CS27.1303	CS27.1401	CS27.1559
CS27.0161	CS27.0397	CS27.0629	CS27.0863	CS27.1305	CS27.1411	CS27.1581
CS27.0171	CS27.0399	CS27.0653	CS27.0865	CS27.1307	CS27.1435	CS27.1583
CS27.0173	CS27.0427	CS27.0659	CS27.0901	CS27.1309	CS27.1457	CS27.1585
CS27.0175	CS27.0471	CS27.0661	CS27.0903	CS27.1321	CS27.1459	CS27.1587
CS27.0177	CS27.0473	CS27.0663	CS27.0907	CS27.1322	CS27.1501	CS27.1589

- For IFR Certification: CS 27 Amdt. 2, Appendix B, dated 10 November 2008



-	- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993.		
Applicable paragraphs, selected from Appendix C to JAR 27, are:			
	29.861 (a)	Fire Protection of Structure, controls, and other parts	
	29.901 (c)	Powerplant: Installation	
	29.903 (b),(c),(e)	Engines	
	29.908 (a)	Cooling fans	
	29.917 (b),(c)(1)	Rotor Drive System: Design	
	29.927 (c)(1)	Additional tests	
	29.953 (a)	Fuel system independence	
	29.1027 (a)	Transmission and gearboxes	

====== (@)	
29.1045 (a)(1),(b),(c),(d),(f)	Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General

- For CAT A Certification: CS-27 Amdt. 2, Appendix C requirements
- For EASA Approvals 10077342 and 10077343, both at revision 1: Certification Basis for the original product amended by additional airworthiness requirements 27.1319 and A27.5 at CS-27 Amdt. 7
- For EASA Approval 10084418: Certification Basis for the original product amended by additional airworthiness requirement 27.1458 at CS-27 Amdt. 10
- For EASA Approval 10078010 see §V, Note 4.
- For EASA Approval 10080963 Rev.1 see §V, Note 5.
- 3. Special Conditions
 - "Protection from effects of HIRF"
 - "Lithium Battery Installations"
- 4. Deviations
- 5. Equivalent Safety Findings
 - CS-27 Subpart B, CS 27.1305, CS 27.1309, CS 27.1549 "Engine Training Mode"
 - CS 27.1305, CS 27.1321 (a), CS 27.1351 (d1) and CS-27 Appendix C for CS 29.1305(a)(6) and (b)(1) "Part Time Display of Vehicle Parameters"

none

- CS 27.1545 (b)(4), CS 27.1549(b) "Airspeed & Powerplant indication green marking"
- CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1	Noise Requirements	see TCDSN EASA.R.009
6.2	Emission Requirements	ICAO Annex 16, Volume II, Part II, Chapter 2, (CS-34, Initial Issue)
Ope	rational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1	Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2	Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3	Simulation Data (SIMD)	reserved
7.4	Maintenance Certifying Staff Data (MCSD)	reserved



7.

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	TDD E0000M269800, Issue B	
2.	Description	Main rotor:bearingless, 4 bladesTail rotor:Fenestron, 10 bladesFuselage:metal-composite structureLanding gear:skid-typePowerplant:2 independent freewheel turbines	
3.	Equipment	Basic equipment must be installed and operational prior to registration of the helicopter.	
4.	Dimensions		
	4.1 Fuselage	Length: 5.87 m Width hull: 1.56 m Height: 3.35 m	
	4.2 Main Rotor	Diameter: 10.40 m	
	4.3 Tail Rotor	Diameter: 1.00 m	
5.	Engine		
	5.1 Model	Safran Helicopter Engines (former: Turbomeca)	
		2 x Model ARRIUS 2B2	
	5.2 Type Certificate	EASA TC/TCDS n°: EASA.E.029	

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Max N₁ speed (gas generator) [%]	Max N ₂ speed (output shaft) [%]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 78	100	106	897
AEO-MCP	2 x 69	99	106	879
30 sec OEI-TOP	1 x 128	104.8	106	1 024
2 min OEI-TOP	1 x 125	103.5	106	994
OEI-MCP	1 x 89.5	101.25	106	942

- 6. Fluids
 - 6.1 Fuel
 - 6.2 Oil
 - 6.3 Additives
- 7. Fluid capacities
 - 7.1 Fuel

Refer to approved RFM

Refer to approved RFM

Refer to approved RFM

Standard fuel tank (up to s/n 0249)

Fuel tank capacity:680.0 litresUsable fuel:670.5 litres

Self-sealing fuel tank (up to s/n 0249)

Fuel tank capacity:673.4 litresUsable fuel:664.0 litres

Modified fuel tank (from s/n 0250, or SB EC135-28-007)Fuel tank capacity:710.0 litresUsable fuel:700.5 litresSelf-sealing fuel tank (from s/n 0250)Fuel tank capacity:701.0 litresUsable fuel:691.6 litres



	7.2 Oil	Refer to approved RFM
	7.3 Coolant System Capacity	n/a
8.	Air Speed Limitations	V_{NE} : 150 KIAS at MSL, or as shown in the V_{NE} -tables, whichever is less. Refer to approved RFM for reduction in V_{NE} with altitude and other speed limitations.
9.	Rotor Speed Limitations	Power on: Maximum 105.5 % Minimum 97 % Power off: Maximum Minimum 107.5 % Minimum 80 % (GM < 1 900 kg)
10.	Maximum Operating Altitude and Temperature	
	10.1 Altitude	20 000 ft (6 096 m) PA, refer to approved RFM for variation according to MTOW
	10.2 Temperature	Refer to approved RFM
11.	Operating Limitations	VFR day and night Non-icing conditions For IFR, Category A operation see additional equipment requirements and limitations in the relevant EASA- approved RFM or RFMS
12.	Masses	
	 12.1 Maximum gross mass 12.2 Maximum ramp and taxi mass 12.3 Minimum gross mass 12.4 Alternative maximum gross mass 12.5 Alternative maximum ramp and taxi mass 	2 980 kg 3 000 kg 1 700 kg 3 100 kg, operation permitted only in accordance with FMA 11-11 and EASA Approval 10075155 3 100 kg, operation permitted only in accordance with FMA 11-11 and EASA Approval 10075155
13.	Centre of Gravity Range	Longitudinal C.G. limits maximum forward limit: 4 121 mm aft of DP at 2 150 kg 4 171 mm aft of DP at 2 980 kg maximum rearward limit: 4 369 mm aft of DP at 2 980 kg 4 541 mm aft of DP at 1 700 kg Lateral C.G. Limits maximum deviation on right / left: 100 mm
14.	Datum	Longitudinal: the datum plane (STA 0) is located at 2 160 mm forward of the levelling point in the front door frame Lateral: fuselage median plane
15.	Levelling Means	See levelling procedure document No. L082M0801X01
16.	Minimum Flight Crew	1 pilot (right seat)
17.	Maximum Passenger Seating Capacity	7
18.	Passenger Emergency Exit	2, one on each side of the passenger cabin
19.	Maximum Baggage/ Cargo Loads	Cargo floor max load: 1 130 kg



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Maintenance Manual

Cargo floor max unit load: 600 kg/m²

For rigging information refer to EC135 Aircraft

20. Rotor Blade Control Movement

21. Auxiliary Power Unit (APU)

22. Life-limited Parts

n/a

See approved Chapter 4, Airworthiness Limitation Section (ALS)

IV. Operating and Service Instructions

1. Flight Manual

EC135 T3H, initially EASA-approved, dated 15 November 2016, or later EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

2. Maintenance Manual

- EC135 P3H, T3H Aircraft Maintenance Manual (AMM)
- EC135 P3H, T3H System Description Section (SDS)
- EC135 P3H, T3H Wiring Diagram Manual (WDM)
- EC135 P3H, T3H Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual
- EC135 P3H, T3H. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P3H, T3H. Chapter 05. Master Servicing Manual (MSM)
- e-Dynamic Troubleshooting (eDTS)
- EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.E.029
- 3. Structural Repair Manual
- EC135 P3H, T3H Structural Repair Manual (SRM)
- Refer to approved RFM
- 5. Illustrated Parts Catalogue EC135 P3H, T3H Illustrated Parts Catalogue
- 6. Service Letters and Service Bulletins

Weight and Balance Manual

Safety Information Notice, Information Notice, Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASAapproved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

4.

- 1. Manufacturer's eligible serial numbers: s/n 2001, and subsequent
- Designation: "H135" is used as marketing designation for EC135 T3H helicopters.
- 3. Night Vision Goggles Operational Capability: Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-16 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly and a Competent Authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.
- 4. For EASA Approval 10078010: The TCH has shown compliance with CS-ACNS Issue 3, as applicable to helicopter communications, navigation, and surveillance equipage criteria in reference to the associated paragraphs detailed below:



CS ACNS.A.GEN.010	CS ACNS.D.ELS.010 -c	CS ACNS.D.ADSB.010
CS ACNS.A.GEN.015-a	CS ACNS.D.ELS.010-a	CS ACNS.D.ADSB.020-a
CS ACNS.A.GEN.015-b	CS ACNS.D.ELS.010-d	CS ACNS.D.ADSB.020-b
CS ACNS.A.GEN.020	CS ACNS.D.ELS.015-a	CS ACNS.D.ADSB.025-a
CS ACNS.D.AC.010-a	CS ACNS.D.ELS.015-b1	CS ACNS.D.ADSB.025-b
CS ACNS.D.AC.010-b	CS ACNS.D.ELS.015-b2	CS ACNS.D.ADSB.025-c
CS ACNS.D.AC.010-c	CS ACNS.D.ELS.020-a	CS ACNS.D.ADSB.030
CS ACNS.D.AC.010-d	CS ACNS.D.ELS.020-b	CS ACNS.D.ADSB.035
CS ACNS.D.AC.015-a	CS ACNS.D.ELS.025-a	CS ACNS.D.ADSB.040
CS ACNS.D.AC.015-b	CS ACNS.D.ELS.025-b	CS ACNS.D.ADSB.045
CS ACNS.D.AC.015-c	CS ACNS.D.ELS.025-c	CS ACNS.D.ADSB.050
CS ACNS.D.AC.020 -a	CS ACNS.D.ELS.030-a	CS ACNS.D.ADSB.060-a
CS ACNS.D.AC.020 -b	CS ACNS.D.ELS.030-b	CS ACNS.D.ADSB.060-b
CS ACNS.D.AC.020 -c	CS ACNS.D.ELS.040	CS ACNS.D.ADSB.070-a
CS ACNS.D.AC.025-a	CS ACNS.D.ELS.045	CS ACNS.D.ADSB.070-b
CS ACNS.D.AC.025-b	CS ACNS.D.ELS.055	CS ACNS.D.ADSB.070-c
CS ACNS.D.AC.025-c	CS ACNS.D.ELS.060-a	CS ACNS.D.ADSB.080
CS ACNS.D.AC.025-d	CS ACNS.D.ELS.060-b	CS ACNS.D.ADSB.085-a
CS ACNS.D.AC.025-e	CS ACNS.D.ELS.065	CS ACNS.D.ADSB.085-b
CS ACNS.D.AC.025-f		CS ACNS.D.ADSB.090-a
CS ACNS.D.AC.025-g		CS ACNS.D.ADSB.090-b
CS ACNS.D.AC.030		CS ACNS.D.ADSB.100-a
CS ACNS.D.AC.035		CS ACNS.D.ADSB.100-b
CS ACNS.D.AC.045		CS ACNS.D.ADSB.105-a
		CS ACNS.D.ADSB.110
		CS ACNS.D.ADSB.115

5. For EASA Approval 10080963 REV. 1: The TCH has shown compliance with CS-ACNS Issue 3, as applicable to helicopter communications, navigation, and surveillance equipage criteria in reference to the associated paragraphs detailed below:

CS ACNS.D.ADSB.120

1:	ssociated paragraphs detailed below.				
	CS ACNS.A.GEN.010	CS ACNS.D.EHS.010	CS ACNS.D.ADSB.010		
	CS ACNS.A.GEN.015-a	CS ACNS.D.EHS.015-a	CS ACNS.D.ADSB.020-a		
	CS ACNS.A.GEN.015-b	CS ACNS.D.EHS.015-b	CS ACNS.D.ADSB.020-b		
	CS ACNS.A.GEN.020	CS ACNS.D.EHS.015-c	CS ACNS.D.ADSB.025-a		
	CS ACNS.D.AC.010-a	CS ACNS.D.EHS.020	CS ACNS.D.ADSB.025-b		
	CS ACNS.D.AC.010-b	CS ACNS.D.EHS.025	CS ACNS.D.ADSB.025-c		
	CS ACNS.D.AC.010-c	CS ACNS.D.ELS.010-a	CS ACNS.D.ADSB.030		
	CS ACNS.D.AC.010-d	CS ACNS.D.ELS.010-c	CS ACNS.D.ADSB.035		
	CS ACNS.D.AC.015-a	CS ACNS.D.ELS.010-d	CS ACNS.D.ADSB.040		
	CS ACNS.D.AC.015-b	CS ACNS.D.ELS.015-a	CS ACNS.D.ADSB.045		
	CS ACNS.D.AC.015-c	CS ACNS.D.ELS.015-b1	CS ACNS.D.ADSB.050		
	CS ACNS.D.AC.020 -a	CS ACNS.D.ELS.015-b2	CS ACNS.D.ADSB.060-a		
	CS ACNS.D.AC.020 -b	CS ACNS.D.ELS.020-a	CS ACNS.D.ADSB.060-b		
	CS ACNS.D.AC.020 -c	CS ACNS.D.ELS.020-b	CS ACNS.D.ADSB.070-a		
	CS ACNS.D.AC.025-a	CS ACNS.D.ELS.025-a	CS ACNS.D.ADSB.070-b		
	CS ACNS.D.AC.025-b	CS ACNS.D.ELS.025-b	CS ACNS.D.ADSB.070-c		
	CS ACNS.D.AC.025-c	CS ACNS.D.ELS.025-c	CS ACNS.D.ADSB.080		
	CS ACNS.D.AC.025-d	CS ACNS.D.ELS.030-a	CS ACNS.D.ADSB.085-a		
	CS ACNS.D.AC.025-e	CS ACNS.D.ELS.030-b	CS ACNS.D.ADSB.085-b		
	CS ACNS.D.AC.025-f	CS ACNS.D.ELS.040	CS ACNS.D.ADSB.090-a		
	CS ACNS.D.AC.025-g	CS ACNS.D.ELS.045	CS ACNS.D.ADSB.090-b		



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CS ACNS.D.AC.030	CS ACNS.D.ELS.055	CS ACNS.D.ADSB.100-a
CS ACNS.D.AC.035	CS ACNS.D.ELS.060-a	CS ACNS.D.ADSB.100-b
CS ACNS.D.AC.045	CS ACNS.D.ELS.060-b	CS ACNS.D.ADSB.105-a
	CS ACNS.D.ELS.065	CS ACNS.D.ADSB.110
		CS ACNS.D.ADSB.115

* * *



SECTION 19: EC635 T3H

I. General

1. Type/ Model/ Variant

	1.1 Туре	EC135
	1.2 Model	EC635 T3
	1.3 Variant	EC635 T3H
2.	Airworthiness Category	Small Rotorcraft
3.	Manufacturer	See "Section: Administrative, II.3"
4.	Type Certification Application Date	11 May 2012
5.	State of Design Authority	EASA
6.	Type Certificate Date	15 November 2016
7.	Type Certificate n°	EASA.R.009
8.	Type Certificate Data Sheet n°	EASA.R.009

II. Certification Basis

1.	Reference Date for determining the	For Airworthiness and Environmental Protection:
	applicable requirements	11 May 2012
		for OSD elements:

Grandfathering date: 17 February 2014

2. Airworthiness Requirements

- JAR 27, Issue 1, dated 6 September 1993, supplemented by the following CS-27 Amdt. 2 requirements: CS 27.1(a) in connection with CS 27.2(b)(2)(i).

CS27.0021	CS27.0231	CS27.0501	CS27.0671	CS27.0931	CS27.1323	CS27.1503
CS27.0025	CS27.0241	CS27.0521	CS27.0672	CS27.0939	CS27.1325	CS27.1505
CS27.0027	CS27.0251	CS27.0547	CS27.0674	CS27.1019	CS27.1327	CS27.1509
CS27.0029	CS27.0301	CS27.0549	CS27.0681	CS27.1041	CS27.1329	CS27.1519
CS27.0031	CS27.0303	CS27.0561	CS27.0683	CS27.1043	CS27.1337	CS27.1521
CS27.0033	CS27.0305	CS27.0562	CS27.0685	CS27.1045	CS27.1351	CS27.1523
CS27.0045	CS27.0307	CS27.0571	CS27.0687	CS27.1091	CS27.1353	CS27.1525
CS27.0049	CS27.0309	CS27.0601	CS27.0691	CS27.1093	CS27.1357	CS27.1527
CS27.0051	CS27.0321	CS27.0602	CS27.0695	CS27.1141	CS27.1361	CS27.1529
CS27.0065	CS27.0337	CS27.0603	CS27.0771	CS27.1143	CS27.1365	CS27.1541
CS27.0067	CS27.0339	CS27.0605	CS27.0773	CS27.1145	CS27.1367	CS27.1543
CS27.0075	CS27.0341	CS27.0607	CS27.0777	CS27.1151	CS27.1381	CS27.1545
CS27.0079	CS27.0351	CS27.0609	CS27.0785	CS27.1187	CS27.1383	CS27.1547
CS27.0141	CS27.0361	CS27.0610	CS27.0831	CS27.1193	CS27.1385	CS27.1549
CS27.0143	CS27.0391	CS27.0611	CS27.0853	CS27.1301	CS27.1387	CS27.1555
CS27.0151	CS27.0395	CS27.0613	CS27.0855	CS27.1303	CS27.1401	CS27.1559
CS27.0161	CS27.0397	CS27.0629	CS27.0863	CS27.1305	CS27.1411	CS27.1581
CS27.0171	CS27.0399	CS27.0653	CS27.0865	CS27.1307	CS27.1435	CS27.1583
CS27.0173	CS27.0427	CS27.0659	CS27.0901	CS27.1309	CS27.1457	CS27.1585
CS27.0175	CS27.0471	CS27.0661	CS27.0903	CS27.1321	CS27.1459	CS27.1587
CS27.0177	CS27.0473	CS27.0663	CS27.0907	CS27.1322	CS27.1501	CS27.1589

- For IFR Certification: CS 27 Amdt. 2, Appendix B, dated 10 November 2008



- Category A Engine Isolation Requirements of JAR 29, Issue 1, dated 5 November 1993. Applicable paragraphs, selected from Appendix C to JAR 27, are:

	, , , , , , , , , , , , , , , , , , , ,
29.861 (a)	Fire Protection of Structure, controls, and other parts
29.901 (c)	Powerplant: Installation
29.903 (b),(c),(e)	Engines
29.908 (a)	Cooling fans
29.917 (b),(c)(1)	Rotor Drive System: Design
29.927 (c)(1)	Additional tests
29.953 (a)	Fuel system independence
29.1027 (a)	Transmission and gearboxes
29.1045 (a)(1),(b),(c),(d),(f)	Climb cooling test procedures
29.1047 (a)	Take-off cooling test procedures
29.1181 (a)	Designated fire zones: regions included
29.1189 (c)	Shutoff means
29.1191 (a)(1)	Firewalls
29.1193 (e)	Cowling and engine compartment covering
29.1305 (a)(6),(b)	Powerplant instruments
29.1309 (b)(2)(i),(d)	Equipment, systems and installations
29.1331 (b)	Instruments using power supply
29.1351 (d)(2)	Electrical systems and equipment: General

- For CAT A Certification: CS-27 Amdt. 2, Appendix C requirements
- For EASA Approvals 10077342 and 10077343, both at revision 1: Certification Basis for the original product amended by additional airworthiness requirements 27.1319 and A27.5 at CS-27 Amdt. 7
- For EASA Approval 10084418: Certification Basis for the original product amended by additional airworthiness requirement 27.1458 at CS-27 Amdt. 10
- For EASA Approval 10078010 see §V, Note 4.
- For EASA Approval 10080963 Rev.1 see §V, Note 5.
- 3. Special Conditions
 - "Protection from effects of HIRF"
 - "Lithium Battery Installations"
- 4. Deviations

none

- 5. Equivalent Safety Findings
 - CS-27 Subpart B, CS 27.1305, CS 27.1309, CS 27.1549 "Engine Training Mode"
 - CS 27.1305, CS 27.1321 (a), CS 27.1351 (d1) and CS-27 Appendix C for CS 29.1305 (a)(6) and (b)(1) "Part Time Display of Vehicle Parameters"
 - CS 27.1545(b)(4), CS 27.1549(b) "Airspeed & Powerplant indication green marking"
 - CS 27.601, 27.603, 27.865(a) for Hoist Installation on Helicopters
- 6. Environmental Protection Requirements

6.1 Noise Requirements	see TCDSN EASA.R.009
6.2 Emission Requirements	ICAO Annex 16, Volume II, Part II, Chapter 2, (CS-34, Initial Issue)
Operational Suitability Data (OSD)	(For OSD elements see SECTION 20 below)
7.1 Master Minimum Equipment List (MMEL)	JAR-MMEL/MEL Section 1, Amdt. 1 CS-MMEL, Initial Issue, dated 31 January 2014, for the changes in Rev. 5
7.2 Flight Crew Data (FCD)	CS-FCD, Initial Issue, dated 31 January 2014
7.3 Simulation Data (SIMD)	reserved
7.4 Maintenance Certifying Staff Data (MCSD)	reserved



7.

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition	TDD E0000M269800, Issue B + EC635 Kit (Drawing No. W530M0700052)		
2.	Description	Main rotor:bearingless, 4 bladesTail rotor:Fenestron, 10 bladesFuselage:metal-composite structureLanding gear:skid-typePowerplant:2 independent freewheel turbinesNote:The variant EC635 T3H corresponds to the EC135T3H plus structural reinforcement of cabin structureaccording to the drawing W530M0700052.		
3.	Equipment	Basic equipment must be installed and operational prior to registration of the helicopter.		
4.	Dimensions			
	4.1 Fuselage	Length: 5.87 m Width hull: 1.56 m Height: 3.35 m		
	4.2 Main Rotor	Diameter: 10.40 m		
	4.3 Tail Rotor	Diameter: 1.00 m		
5.	Engine			
	5.1 Model	Safran Helicopter Engines (former: Turbomeca)		
		2 x Model ARRIUS 2B2		
	5.2 Type Certificate	EASA TC/TCDS n°: EASA.E.029		

5.3 Limitations

Installed Engine Limitations and Transmission Torque Limits

	TQ limits [%]	Max N₁ speed (gas generator) [%]	Max N ₂ speed (output shaft) [%]	Temperature TOT [°C]
AEO-TOP (5 min)	2 x 78	100	106	897
AEO-MCP	2 x 69	99	106	879
30 sec OEI-TOP	1 x 128	104.8	106	1 024
2 min OEI-TOP	1 x 125	103.5	106	994
OEI-MCP	1 x 89.5	101.25	106	942

6. Fluids

7.

6.1 Fuel	Refer to approved RFM
6.2 Oil	Refer to approved RFM
6.3 Additives	Refer to approved RFM
Fluid capacities	
7.1 Fuel	Standard fuel tank (up to
	Fuel tank capacity: 68

Fuel tank capacity:680.0 litresUsable fuel:670.5 litres

Self-sealing fuel tank (up to s/n 0249)

Fuel tank capacity:673.4 litresUsable fuel:664.0 litres

Modified fuel tank (from s/n 0250, or SB EC135-28-007)

s/n 0249)



	7.2 Oil	Fuel tank capacity: Usable fuel: Self-sealing fuel tank Fuel tank capacity: Usable fuel:	701.0 litres 691.6 litres
		Refer to approved RF	IVI
	7.3 Coolant System Capacity	n/a	
8.	Air Speed Limitations	whichever is less.	or as shown in the V_{NE} -tables, M for reduction in V_{NE} with altitude ations.
9.	Rotor Speed Limitations	Minimum97Power off:Maximum107Minimum80Minimum85	.5 % % .5 % % (GM < 1 900 kg) % (GM > 1 900 kg) er to approved RFM
10.	Maximum Operating Altitude and Temperature		
	10.1 Altitude	20 000 ft (6 096 m) P/ variation according to	A, refer to approved RFM for MTOW
	10.2 Temperature	Refer to approved RF	Μ
11.	Operating Limitations		peration see additional equipment itations in the relevant EASA-
12.	Masses		
	12.1 Maximum gross mass12.2 Maximum ramp and taxi mass12.3 Minimum gross mass12.4 Alternative maximum gross mass	FMA 11-11	permitted only in accordance with and EASA Approval 10075155
	12.5 Alternative maximum ramp and taxi mass		permitted only in accordance with and EASA Approval 10075155
13.	Centre of Gravity Range	Longitudinal C.G. limi maximum forward lin 4 121 mm aft of D 4 171 mm aft of D maximum rearward li 4 369 mm aft of D 4 541 mm aft of D Lateral C.G. Limits maximum deviation of	nit: IP at 2 150 kg IP at 2 980 kg imit: IP at 2 980 kg
14.	Datum		0) is located at 2 160 mm forward in the front door frame lian plane
15.	Levelling Means	-	re document No. L082M0801X01
	č	01	



16. Minimum Flight Crew 1 pilot (right seat) 7 17. Maximum Passenger Seating Capacity 18. Passenger Emergency Exit 2, one on each side of the passenger cabin 19. Maximum Baggage/ Cargo Loads Cargo floor max load: 1 130 kg Cargo floor max unit load: 600 kg/m² 20. Rotor Blade Control Movement For rigging information refer to EC135 Aircraft Maintenance Manual 21. Auxiliary Power Unit (APU) n/a 22. Life-limited Parts See approved Chapter 4, Airworthiness Limitation Section (ALS)

IV. Operating and Service Instructions

1. I	light	Manual
------	-------	--------

EC635 T3H, initially EASA-approved, dated 15 November 2016, or later EASA-approved revisions, including the supplements for Special Operations RFMS 9.1 and Optional Equipment RFMS 9.2.

2. Maintenance Manual

- EC135 P3H, T3H Aircraft Maintenance Manual (AMM)
- EC135 P3H, T3H System Description Section (SDS)
- EC135 P3H, T3H Wiring Diagram Manual (WDM)
- EC135 P3H, T3H Corrosion and Erosion Control Guide (CECG)
- Standard Practices Manual
- EC135 P3H, T3H. Chapter 04. Airworthiness Limitation Section (ALS)
- EC135 P3H, T3H. Chapter 05. Master Servicing Manual (MSM)
- e-Dynamic Troubleshooting (eDTS)
- EC135 Avionic Manual (AVM)
- Engine documents as per Engine TCDS No. EASA.E.029
- 3. Structural Repair Manual EC135 P3H, T3H Structural Repair Manual (SRM)
- 4. Weight and Balance Manual
- Refer to approved RFM
- 5. Illustrated Parts Catalogue EC635 P3H, T3H Illustrated Parts Catalogue
- 6. Service Letters and Service Bulletins

Safety Information Notice, Information Notice, Alert Service Bulletin, Service Bulletin Repair Design Approval Sheets

7. Required Equipment

Special equipment and kits necessary for intended kind of operations as defined in the (LBA)/EASA-approved Flight Manual Supplements RFMS 9.2, are permissible.

V. Notes

- Manufacturer's eligible serial numbers: s/n 2001, and subsequent
- Designation: "H135M" is used as marketing designation for EC635 T3H helicopters.
- 3. Night Vision Goggles Operational Capability: Night Vision Goggles aided operations are permitted according to Rotorcraft Flight Manual Supplement RFMS 9.2-16 in conjunction with a serial number specific Flight Manual Appendix FMA 11-x, when the rotorcraft is equipped accordingly, and a Competent Authority has granted operational authorisation only. The helicopter configuration containing NVIS lighting components



approved for the use with Night Vision Goggles is described in a serial number specific AHD NVIS Substantiation Report for operators having received an approval for their NVIS configuration.

4. For EASA Approval 10078010: The TCH has shown compliance with CS-ACNS Issue 3, as applicable to helicopter communications, navigation, and surveillance equipage criteria in reference to the associated paragraphs detailed below:

а
С
а
С
5
а
С
а
С
5
а
С
а
С
а
0
а

5. For EASA Approval 10080963 REV. 1: The TCH has shown compliance with CS-ACNS Issue 3, as applicable to helicopter communications, navigation, and surveillance equipage criteria in reference to the associated paragraphs detailed below:

CS ACNS.D.ADSB.120

sociated paragraphs detailed	DEIOW.	
CS ACNS.A.GEN.010	CS ACNS.D.EHS.010	CS ACNS.D.ADSB.010
CS ACNS.A.GEN.015-a	CS ACNS.D.EHS.015-a	CS ACNS.D.ADSB.020-a
CS ACNS.A.GEN.015-b	CS ACNS.D.EHS.015-b	CS ACNS.D.ADSB.020-b
CS ACNS.A.GEN.020	CS ACNS.D.EHS.015-c	CS ACNS.D.ADSB.025-a
CS ACNS.D.AC.010-a	CS ACNS.D.EHS.020	CS ACNS.D.ADSB.025-b
CS ACNS.D.AC.010-b	CS ACNS.D.EHS.025	CS ACNS.D.ADSB.025-c
CS ACNS.D.AC.010-c	CS ACNS.D.ELS.010-a	CS ACNS.D.ADSB.030
CS ACNS.D.AC.010-d	CS ACNS.D.ELS.010-c	CS ACNS.D.ADSB.035
CS ACNS.D.AC.015-a	CS ACNS.D.ELS.010-d	CS ACNS.D.ADSB.040
CS ACNS.D.AC.015-b	CS ACNS.D.ELS.015-a	CS ACNS.D.ADSB.045
CS ACNS.D.AC.015-c	CS ACNS.D.ELS.015-b1	CS ACNS.D.ADSB.050
CS ACNS.D.AC.020 -a	CS ACNS.D.ELS.015-b2	CS ACNS.D.ADSB.060-a
CS ACNS.D.AC.020 -b	CS ACNS.D.ELS.020-a	CS ACNS.D.ADSB.060-b
CS ACNS.D.AC.020 -c	CS ACNS.D.ELS.020-b	CS ACNS.D.ADSB.070-a
CS ACNS.D.AC.025-a	CS ACNS.D.ELS.025-a	CS ACNS.D.ADSB.070-b
CS ACNS.D.AC.025-b	CS ACNS.D.ELS.025-b	CS ACNS.D.ADSB.070-c



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CS ACNS.D.AC.025-c	CS ACNS.D.ELS.025-c	CS ACNS.D.ADSB.080
CS ACNS.D.AC.025-d	CS ACNS.D.ELS.030-a	CS ACNS.D.ADSB.085-a
CS ACNS.D.AC.025-e	CS ACNS.D.ELS.030-b	CS ACNS.D.ADSB.085-b
CS ACNS.D.AC.025-f	CS ACNS.D.ELS.040	CS ACNS.D.ADSB.090-a
CS ACNS.D.AC.025-g	CS ACNS.D.ELS.045	CS ACNS.D.ADSB.090-b
CS ACNS.D.AC.030	CS ACNS.D.ELS.055	CS ACNS.D.ADSB.100-a
CS ACNS.D.AC.035	CS ACNS.D.ELS.060-a	CS ACNS.D.ADSB.100-b
CS ACNS.D.AC.045	CS ACNS.D.ELS.060-b	CS ACNS.D.ADSB.105-a
	CS ACNS.D.ELS.065	CS ACNS.D.ADSB.110
		CS ACNS.D.ADSB.115

* * *



SECTION 20: OPERATIONAL SUITABILITY DATA (OSD)

The OSD elements listed below are approved by the European Union Aviation Safety Agency as per Commission Regulation (EU) 748/2012, as amended by Commission Regulation (EU) No 69/2014.

OSD Elements

1. MMEL

Helicopter model/variant	MMEL revision	accepted/ approved by	Approval date
EC135 P1 (CDS) EC135 P1 (CPDS) EC135 P2 EC135 P2+ EC635 P2+ EC135 T1 (CDS) EC135 T1 (CPDS) EC635 T1 EC135 T2 EC135 T2+ EC635 T2+	Revision 0, or later EASA approved revisions	JAA (LBA)	18 October 2011
EC135 T3(CPDS) EC635 T3(CPDS)	Revision 3, or later EASA approved revisions	EASA	15 October 2014
EC135 P3(CPDS) EC635 P3(CPDS)	Revision 4, or later EASA approved revisions	EASA	23 April 2015
EC135 T3H EC135 P3H EC635 T3H EC635 P3H	Revision 5, or later EASA approved revisions	EASA	23 November 2017

2. Flight Crew Data

- Flight Crew Operational Suitability Data as per document OSD_L0000M403901 first Issue, EASA approval date 15 October 2015, or later approved revisions.
- Appendix 2: "Operator Difference Requirements (ODR) Tables & Master Difference Requirements (MDR) Table" to the EASA Operational Suitability Data (OSD) – Flight Crew – EC135 Family, EASA approval date 15 October 2015, or later approved revisions.
- Appendix 3: "OSD EC135 Family EASA OPS Instruments and Equipment", to the EASA Operational Suitability Data (OSD) – Flight Crew – EC135 Family, EASA approval date 15 October 2015, or later approved revisions.



SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations

AEO	All Engines Operative	MSL	Mean Sea Level
AHD	Airbus Helicopters Deutschland GmbH	OEI	One Engine Inoperative
C.G.	Centre of Gravity	OSD	Operational Suitability Data
CDS	Cockpit Display System	PA	Pressure Altitude
CPDS	Central Panel Display System	PWR	Power
CR	(European) Commission Regulation	RFM	Rotorcraft Flight Manual
CRI	Certification Review Item	RFMS	Rotorcraft Flight Manual Supplement
DOA	Design Organisation Approval	s/n	Serial Number
HIRF	High Intensity Radiated Field	SC	Special Condition
IFR	Instrument Flight Rules	sec	Seconds
JAA	Joint Aviation Authorities	STA	Station
JAR	Joint Aviation Requirements	ТОР	Take-Off Power
KIAS	Knots Indicated Air Speed	TQ	Torque
max	Maximum	VFR	Visual Flight Rules
MCP	Maximum Continuous Power	VNE	Never Exceed Speed
min	Minute		

II. Type Certificate Holder Record

II.1 Type Certificate Holder (21.A.44)	Period
Eurocopter Deutschland GmbH	
Postfach 13 53,	
W-8850 Donauwörth, or,	until 6 January 2014
86603 Donauwörth, or,	
86607 Donauwörth, Germany	
Airbus Helicopters Deutschland GmbH Industriestrasse 4, 86609 Donauwörth, Germany	since 7 January 2014

II.2 Contracted DOA Holder (21.A.2)	Period
DOA Certificate No. EASA.21J.700 held by:	
Airbus Helicopters	since
Aéroport International Marseille-Provence	21 June 2016
13725 Marignane CEDEX, France	

II.3 Production Organisation Approval Holder (21.A.135)	Period
II.3.1 Manufacturer for all types and models	
Eurocopter Deutschland GmbH Postfach 13 53, W-8850 Donauwörth, or, 86603 Donauwörth, or, 86607 Donauwörth, Germany	until 6 January 2014
Airbus Helicopters Deutschland GmbH Industriestrasse 4, 86609 Donauwörth, Germany	until 31 December 2017
Airbus Helicopters Aéroport International Marseille Provence, 13725 Marignane, France	since 1 January 2018
II.3.2 Manufacturer for EC135 P2+ (Section 4), EC135 T2+ (Section 14) und EC635 T2+ (Section 15)	



II.3 Production Organisation Approval Holder (21.A.135)	Period
Alternative location: Eurocopter España S.A., Polígono de los Llanos, Carretera de las Penas (CM3203), Km	until 31 December 2017
5.3, 02006 Albacete, España	

III. Change Record

Issue	Date	Changes	TC issue
lssue 1	23 May 2006	Initial issue of EASA TCDS, based on LBA TCDS 3061 and insertion of the EC135 P2+/T2+ variants	Initial Issue, 23 May 2006
lssue 2	6 Dec 2006	Implantation of the EC635 P2+/T2+ variants	Re-issued, 17 April 2007
Issue 3	10 Oct 2008	Equivalent Safety Finding concerning CS 27.865(c) related to dual activation device;	
		Manufacturer: Eurocopter España S.A., Polígono de los Llanos, Carretera de las Penas (CM3203), Km 5.3, 02006 Albacete, Spain	
lssue 4	27 Oct 2011	New EASA TCDS format and MTOM for 2 950 kg for the EC135/EC635 T2+/P2+	
lssue 5	7 Jan 2014	Reissued mainly due to new branding to "Airbus Helicopters Deutschland".	Re-issued, 7 January 2014
lssue 6	17 Oct 2014	Implantation of the EC135 T3(CPDS) and EC635 T3(CPDS) variants	Re-issued, 17 October 2014
lssue 7	18 Mar 2015	Implantation of the EC135 P3 (CPDS) and EC635 P3(CPDS)	Re-issued, 18 March 2015
lssue 8	21 May 2015	Typo correction of AEO-TOP torque limits for EC135 P2+ and EC635 P2+; typo in EC635 P3, Note 4; marginal bars from Issue 7 retained	
Issue 9	3 Aug 2015	Increase of V _{NE} to 150 KIAS and max PWR-off rotor to 107.5% for EC135 P3/EC635 P3 and EC135 T3/EC635 T3; Operating Limitations extended for EC135 T3/EC635 T3; Section for OSD added (<i>reserved</i>); minor editorial corrections	
lssue 10	16 Dec 2015	Inclusion reference to IFR requirements; rewording of CAT A requirements for EC135 P3/EC635 P3 and EC135 T3/EC635 T3; inclusion of OSD data.	
lssue 11	21 Jun 2016	For T2+/P2+: III.12, reference to s/n 1055 corrected; For T3/P3: II.3, Special Conditions SC 2/SC 4 deleted; For all models: III.7.1, fuel tank volumes related to s/n specified; reference II.2 to contracted DOA added in Section: Administrative.	
Issue 12	15 Nov 2016	Implantation of the EC135/EC635 T3H and EC135/EC635 P3H including Remark on OSD Elements (Section 20, II.); For P1(CPDS): doubly listed Equivalent Safety Finding concerning CS 27.865(c) corrected (II.6); For all models: Clarification of Maximum Cargo Loads (III.19); For EC135/635 T3/P3: Adaption of Environmental Protection Requirements (II.8).	Re-issued, 15 November 2016



Issue	Date	Changes	TC issue
Issue 13	13 Mar 2017	For T3/P3(CPDS) models in II.6.: Equivalent Safety Finding concerning CS 27.1557(d) Emergency Exit Handle colour added; For T models in III.5.5: 'Turbomeca' updated by 'Safran Helicopter Engines'	
Issue 14	15 Jan 2018	For T3H/P3H: - V.: Note 3, NVG Operational Capability added - Section 20: I.2 and II.2 updated	
lssue 15	18 Mar 2019	For all: reference to CRIs removed, editorial changes; II.6.: ESF 'Hoist Installation on Helicopters' added. For EC135 P3H, T3H: III.11, word 'RFM' added	
lssue 16	5 Jul 2019	For Models P2/P3/T2/T3(CPDS) and P2+/T2+ in V. Note 1: eligible s/n stated with increased precision	
lssue 17	14 Dec 2020	For EC135 P3H, T3H and EC635 P3H, T3H: III.12: alternative masses related to FMA 11-11 and EASA Approval 10075155 added.	
lssue 18	27 Oct 2022	Section 1, II.2-II.7: adapted to TCDS format policy; Section 2, OSD I.1-I.3: moved to SECTION 1, II.7.; Section 8, 9, 18, 19, II.2: Certification Basis amended for EASA approvals10077342 and 10077343; Section 1, 2, 4, 5, 11, 12, 14, 15, III.12: editorial text change to MTOM; Section 5, editorial correction: V.1.2 deleted All: II.4 'Exemptions' removed and renumbered.	
Issue 19	12 Jun 2024	For all Sections: I.3 reviewed. III.22 reviewed. IV.2, IV.3, IV.5 reviewed. Section 4, 5, 14, 15: II.2 updated. Section 6, 7, 16, 17: II.3 added Special Conditions SC2 and SC4 Section 8, 9, 18, 19: II.2: Certification basis updated. Added approvals 10078010 and 10080963; V. Notes: added notes 4 and 5. Section 8: II.3 added EASA Approval 10082775 Section 8, 9, 18, 19: II.2 added approval 10084418 Section 15: V. Note 1.2 deleted. Section 16, 17: II.2 added EASA approval 10050866 Section 18: II.1 date corrected.	

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