Civil Aviation Authority
United Kingdom

TYPE-CERTIFICATE DATA SHEET

UK.TC.R.00130

For

EC 120

Type Certificate Holder

Airbus Helicopters

Marseille Provence
13725 Marignane CEDEX

France

Model(s):	EC 120 B
Issue:	01
Date of issue:	20 March 2025

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Note: In this TCDS, references to EU regulations are to those regulations as retained and amended in UK domestic law under the European Union (Withdrawal) Act 2018 and are referenced as “UK Regulation (EU) year/number or UK Regulation (EU) No. number/year”.

Section 1 EC 120 B

I. General

1. Type / Variant / Model

a) Type: EC 120
b) Variant or Model: EC 120 B

2. Airworthiness Category

Small Rotorcraft, Category B

3. Type Certificate Holder

Airbus Helicopters
Marseille Provence
13725 Marignane CEDEX, France

4. Type Certification application date to DGAC FR

6 May 1994

5. State of Design Authority

EASA

6. Type Certificate Date by DGAC FR

19 June 1997

7. Type Certificate Number

UK.TC.R.00130
(Former EASA: EASA.R.508)

8. Type Certificate Data Sheet Number

UK.TC.R.00130
(Former EASA: EASA.R.508)

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

6 May 1994

2. Airworthiness Requirements

2.1		JAR 27, Issue 1, dated 6 September 1993, as defined in CRI A-01
2.2	For a/c equipped with Emergency Floatation System (EFS)	As above (2.1) with the following additional requirement of CS 27, Amdt. 10, dated 27 January 2023: 27.1587-(b)(3)

3. Special Conditions

HIRF (CRI E-09)

4. Exemptions

None

5. Deviations

None

6. Equivalent Safety findings

Main gearbox oil filter bypass
Powerplant instrument marking

7. Requirements elected to comply

None

8. Environmental Protection Requirements

See TCDSN UK.TC.R.00130

9. Operational Suitability Data (OSD)

See SECTION V 1.

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

Basic EC120 B definition:
Report DMD C 000A0761 E01, Issue B

2. Description

Single gas turbine engine; three-bladed “Spheriflex” main rotor; eight-bladed “Fenestron” tail rotor; helicopter with skid type landing gear; seat capacity up to four passengers and one pilot

3. Equipment

As per compliance with JAR 27 requirements and referenced within approved RFM

4. Dimensions

4.1 Fuselage	Length:	9.60m
	Width hull/skids:	1.50m / 2.07m
	Height:	3.40m
4.2 Main Rotor	Diameter:	10.00m
4.3 Tail Rotor	Diameter:	0.75m

5. Engine

5.1 Model Safran Helicopter Engines (Former: Turboméca)

1x Model Arrius 2F

5.2 Type Certificate DGAC France TC/TCDS nº : M22
UK CAA TC/TCDS nº: EASA.E.031

5.3 Limitations

5.3.1 Installed Engines Limitations

	Gas generator speed (NG)(1) [%]	Exhaust gas temperature (T4) [°C]
Max. TKOF (5 min)	101.0	870
Max. Continuous	99.5	830
Max. transient (5 sec)	103.6	900
Max. Continuous (starting)	- - -	800

Note: (1) 100%: 54 117 rpm

5.3.2 Transmission Torque Limits

Max. transient	110%
Max. TKOF	103%
Max. Continuous	97%
Engine torque	100% = 477.5 Nm

Note: 100% = 300 kW at 406 rpm

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 Fuel tank capacity: 410.5 litres
Usable fuel: 406 litres

7.2 Oil Engine: Min. 3.0 litres
Max. 4.9 litres
MGB: 4.0 litres
TGB: 0.2 litres

7.3 Coolant system Capacity N/A

8. Air Speed Limitations

VNE PWR ON: 150 KIAS at MSL
VNE PWR OFF: 120 KIAS at MSL
Reduce by 3 kt per 1000 ft
Refer to approved RFM for airspeed with doors open or removed

9. Rotor Speed Limitations

Power on: Normal range
Maximum 415 rpm
Minimum 390 rpm
Power off:
Maximum 447 rpm (aural warning ≥ 420 rpm)
Minimum 340 rpm (aural warning ≤ 370 rpm)

10. Maximum Operating Altitude and Temperature

10.1 Altitude

Enroute:	20 000 ft PA	(6 096 m)
Take-off and landing:	2 000 ft PA	(610 m), or
	20 000 ft PA	(6 096 m), when change A00075 and SB 32.001 have been embodied to the aircraft (use RFM issue 2 plus ITR 3C, or subsequent issue

10.2 Temperature

-30ºC to ISA +35ºC, not to exceed +50ºC

11. Operating Limitations

VFR day
VFR night, Operation permitted only when SB 34.001 has been embodied to the aircraft (use RFM issue 2 plus ITR 3E, or subsequent RFM issues)
Non-icing conditions
No flight in freezing rain
No aerobatics

12. Maximum Mass

1 715 kg, TKOF and LDG

13. Centre of Gravity Range

Refer to approved RFM

14. Datum

Longitudinal:
The datum line (STA 0) is located at 4 000 mm forward of main rotor head

Lateral:
Aircraft symmetry plane

15. Levelling Means

Mechanical floor

16. Minimum Flight Crew

1 pilot

17. Maximum Passenger Seating Capacity

1 cockpit, 3 cabin

18. Passenger Emergency Exit

2, one door on each side of the fuselage

19. Maximum Baggage / Cargo loads

Baggage compartment: loading 300kg/m^2
Cabin compartment: Cargo floor loading 300 kg/m^2

20. Rotor Blade Control Movement

For rigging information refer to Maintenance Manual

21. Auxiliary power Unit (APU)

n/a

22. Life-limited Parts

See approved ALS chapter of the MSM

IV. Operating and Service Instructions

1. Flight Manual

- Flight Manual EC 120 B, issue 1, approved 19 June 1997;
- Flight Manual EC 120 B, Issue 2, Normal Revision 0,

date code 16-26, approved by EASA on 16 September 2019or subsequent approved revisions.

2. Maintenance manual

- EC 120 B Aircraft Maintenance Manual - Chapter 04 (original issue approved by DGAC France, 19 June 1997) at issue 1 (approved by DGAC France, 30 March 1998)
- EC 120 B Master Servicing Manual - Chapter 04, (original issue approved by DGAC France, 12 March 1999), or subsequent EASA-approved issues and revisions

3. Structural repair Manual

n/a

4. Weight and Balance Manual

See Flight Manuals EC 120 B, Section 6

5. Illustrated Parts Catalogue

EC 120 B Illustrated Parts Catalogue

6. Service Letters and Service Bulletins

As published by Eurocopter or Airbus Helicopters

7. Required Equipment

As per compliance with JAR 27 requirements and included in the original Type Design Standard.

The RFM must be on board

V. Operational Suitability Data

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

1. OSD Certification Basis

1.1 Reference Date for determining the applicable OSD requirements

17 February 2014 (entry into force of Commission Regulation (EU) No 69/2014

1.2 MMEL – Certification Basis

JAR-MMEL/MEL, Amdt. 1, Section 1, Subpart A&B, dated 5 August 2005

1.3 Flight Crew Data – Certification Basis

JAA/FAA/TCCA Common Procedures Document for Conducting Operational Evaluation Boards, dated 10 June 2004;
see AH Document 120ABN0053 - Flight Crew Data for EC 120, and,
Explanatory Notes - Transition from Operational Evaluation Board (OEB) Reports to Operational Suitability Data (OSD) for Flight Crew Data, dated 27 March 2015

2. OSD Elements

2.1 MMEL

Master Minimum Equipment list EC 120 B, Normal Revision 0, issue 2, Date-code 10-27, approved 14 February 2011, or later EASA-approved revisions

2.2 Flight Crew Data

AH Document 120ABN0053 - Flight Crew Data for EC 120, including:
Annex A: OSD Cover Sheet to Annex B – Division Mandatory Data – Non Mandatory Data
Annex B: Operational Evaluation Board Report – Final Report - dated: 16 May 2012

VI. Notes

1. Manufacturer's eligible Serial numbers:

s/n 1001 up to and including 1700

except s/n 1004

2. Designations:

'H120' is used as a marketing designation for EC 120 B helicopters.

The commercial designation 'COLIBRI' is also used

Section 2 Administration

I. Acronyms and Abbreviations

Acronym / Abbreviation	Definition
AH	Airbus Helicopters
ALS	Airworthiness Limitations Section
Amdt.	Amendment
CAA	Civil Aviation Authority
CR	(European) Commission Regulation
DGAC FR	Direction Generale de l'Aviation Civile (France)
EASA	European Union Aviation Safety Agency
HIRF	High Intensity Radiated Field
JAA	Joint Aviation Authorities
JAR	Joint Aviation Requirements
kg	Kilogram
LDG	Landing
Max.	Maximum
Min.	Minimum
min	Minute
MMEL	Master Minimum Equipment list
MSM	Master Servicing Manual
OSD	Operational Suitability Data
PA	Pressure Altitude
PWR	Power
RFM	Rotorcraft Flight Manual
rpm	Revolutions per minute
s/n	Serial Number
Sec	Seconds
STA	Station
TKOF	Take-off
TC	Type Certificate
TCH	Type Certificate Holder
TCDS	Type Certificate Data Sheet
VFR	Visual Flight Rules
VNE	Never Exceed Speed

II. Type Certificate Holder Record

TCH Record	Period
Eurocopter Aeroport International Marseille – Provence 13725 Marignane CEDEX, France	1 January 1992 – 6 January 2014
Airbus Helicopters Aeroport International Marseille – Provence 13725 Marignane CEDEX, France	Since 06 January 2014

III. Amendment Record

TCDS Issue No.	TCDS Issue Date	Changes	TC Issue and Date
1	20 Mar 2025	The content of the initial issue of this UK CAA TCCDS was taken from EASA TCDS No. EASA.R.508 issue 5, dated 31 October 2024	Issue 1 20 Mar 2025

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