Civil Aviation Authority United Kingdom



TYPE-CERTIFICATE DATA SHEET

UK.TC.A.00010

for

Airbus A318 - A319 - A320 - A321

Type Certificate Holder

Airbus S.A.S.

2 Rond-Point Emile Dewoitine, 31700 Blagnac,

France

Model(s):	A318 – 111	A319 – 111	A320 – 211	A321 – 111
	A318 – 112	A319 – 112	A320 – 212	A321 – 112
	A318 – 121	A319 – 113	A320 - 214	A321 – 131
	A318 – 122	A319 – 114	A320 – 215	A321 – 211
		A319 – 115	A320 – 216	A321 – 212
		A319 – 131	A320 - 231	A321 – 213
		A319 – 132	A320 - 232	A321 – 231
		A319 – 133	A320 - 233	A321 – 232
		A319 – 151N	A320 – 271N	A321 – 271N
		A319 – 153N	A320 – 251N	A321 – 251N
		A319 – 171N	A320 – 252N	A321 – 253N
			A320 – 272N	A321 – 272N
			A320 – 253N	A321 – 252N
			A320 – 273N	A321 – 251NX
				A321 – 252NX
				A321 – 253NX
				A321 – 271NX

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Section 1 General (All Models)

I. General

This Type-Certificate Data Sheet (TCDS) is the concise definition of the type-certificated product accepted and or approved by the CAA in the UK for the affected types and models.

This TCDS includes:

Details of the type design that affect the TCDS that have been approved or accepted by the CAA in the UK from 01 January 2021.

Details of the type design that affected the TCDS and were approved or accepted by EASA before 01 January 2021, and were incorporated into EASA TCDS EASA.IM.A.064 at Issue 46 dated 25 June 2020, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

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Section 2 A320 Series

I. General

1. Type/ Model/ Variant

a) Type: A320 Series

b) Model: A320-211

A320-212

A320-214

A320-215

A320-216

A320-231

A320-232

A320-233

A320-271N

A320-251N

A320-252N

A320-272N

A320-273N

A320-253N

Significant Product Level Changes i.a.w. 21.A.101:

MOD 160500 Sharklet applicable on	A320-214/-215/-216/-232/-233
MOD 156723 Max Pax applicable on	A320-214/-215/-216/-232/-233/-
	251N/-252N/ -253N/-271N/-272N/-

273N

MOD 160080 applicable on A320-214/-215/-216/-232/-233

MOD 161000 A320-271N MOD 161003 A320-251N

MOD 158708 Max Pax applicable on A320-211/-212/-214/-215/-216/-231/-

232/-233

MOD 158819 Max Pax applicable on A320-214/-215/-216/-232/-233

ACJ320neo* A320-251N/-271N/-272N

2. Performance Class

Α

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^{*}Commercial designation only

3. Certifying Authority

European Union Aviation Safety Agency (EASA)

Postfach 101253

D-50452 Köln

Deutschland

4. Manufacturer

AIRBUS

2 rond-pont Emile Dewoitine

31700 BLAGNAC - France

5. State of Design Authority Certification Application Date

A320-111

A320-211

A320-212 31 January 1990 A320-214 10 May 1992 A320-231 16 June 1988 A320-232 10 May 1992

A320-233 23 February 1995

6. EASA Type Certification Application Date

A320-215 22 December 2005
A320-216 22 December 2005
A320-271N 29 February 2012
MOD 160500 08 April 2010
MOD 156723 iss 1 31 July 2013
MOD 160080 24 April 2012

MOD 156723 iss 4 23 September 2015 A320-251N 29 February 2012

MOD 156723 iss 5 16 June 2016

MOD 158708 iss 1 07 December 2015

MOD 158819 iss 1 12 July 2016
A320-252N 09 August 2017
A320-272N 20 March 2018
ACJ320neo 10 June 2015
A320-253N 08 July 2016

A320-273N 21 November 2016 MOD 156723 iss 7 14 October 2019

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7. UK CAA Type Validation Application Date

Prior to 31 December 2020, application dates for type certification are covered by EASA type certification application dates, as per Section 6 above.

New applications for UK CAA type validation received after 01 January 2021 will be recorded in this section. At the current issue of this UK CAA TCDS, no new applications for type validation have been received since 01 January 2021.

8. State of Design Authority Type Certificate Date

A320-211	November 08, 1988
A320-212	November 20, 1990
A320-214	March 10, 1995
A320-231	April 20, 1989
A320-232	September 28, 1993
A320-233	October 26, 1995

Note: For A320-211/-212/-214/-231/-232/-233 produced before 21 December 2005 DGAC-F TC 180 remains a valid reference for individual Certificate of Airworthiness. The content DGAC F TC 180 is replaced by EASA TCDS EASA.A.064.

9. EASA Type Certification Date

A320-253N

EASA TCDS EASA.A.064 issue 1 issued December 21, 2005

A320-215	June 22, 2006
A320-216	June 14, 2006
A320-271N	November 24, 2015
A320-251N	May 31, 2016
A320-252N	December 18, 2017
A320-272N	October 17, 2018
A320-273N	January 30, 2019

MOD 160500 iss 1	November 30, 2012 (A320-214, -215, -216)
MOD 160500 iss 2	December 21, 2012 (A320-232, -233)
MOD 156723 iss 1	March 5, 2015 (A320-214, -215, -216, -232, -233)
MOD 160080 iss 1	October 15, 2015 (A320-214, -215, -216, -232, -233)

February 5, 2019

MOD 161000 iss 1 November 24, 2015 (A320-271N)

MOD 160080 iss 2 December 17, 2015 (A320-214, -215, -216, -232, -233)

MOD 156723 iss 4 March 17, 2016 (A320-271N)

MOD 158708 iss 1 June 13, 2016 (A320-211, -212, -214, -215, -216, -231, -232, -233)

MOD 156723 iss 5 June 24, 2016 (A320-251N)

MOD 158819 iss 1 February 24, 2017, 2017 (A320-214, -215, -216, -232, -233)

ACJ320neo December 19, 2018 (A320-251N, -271N, -272N)

MOD 156723 iss 7 November 26, 2019 (A320-252N, -253N, -272N, -273N)

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10. UK CAA Type Validation Date

Prior to 31 December 2020, dates of type certification are covered by EASA type certification, as per Section 9 above.

UK CAA type validation dates after 01 January 2021 will be recorded in this section. At the current issue of this UK CAA TCDS, no UK CAA type validations have been completed since 01 January 2021.

UK CAA TCDS UK.TC.A.00010 Issue 1 issued 06 September 2022.

11. Production conditions

A320 aircraft up to and including MSN 0925, with the exception of those listed below, were produced in Blagnac (France) under approval P09 issued by DGAC to AIRBUS INDUSTRIE.

A320 aircraft MSN 0844, 0861, 0863, 0868, 0870, 0918, and A320 aircraft from and including MSN 0927 were produced in Blagnac (France) under approval F.G.035 issued by DGAC to AIRBUS INDUSTRIE.

Since September 27, 2004 A320 aircraft were produced in Blagnac (France) under approval FR.21G.0035 issued by DGAC France to AIRBUS.

Since April 15th, 2008, A320 aircraft were produced in Hamburg (Germany) under approval DE.21G.0009 issued by LBA to AIRBUS.

From July 21st, 2008, A320 aircraft were produced in Toulouse (France) and Hamburg (Germany) under approval EASA.21G.0001 issued by EASA to AIRBUS.

From May 06th, 2009, A320 aircraft are produced in Toulouse (France), Hamburg (Germany) and Tianjin (People's Republic of China) under approval EASA.21G.0001 issued by EASA to AIRBUS.

From March 08th, 2016, A320 aircraft are produced in Toulouse (France), Hamburg (Germany), Tianjin (People's Republic of China) and Mobile (USA) under approval EASA.21G.0001 issued by EASA to AIRBUS.

II. Certification Basis

1. Reference Date for determining the applicable requirements

Application date of the A320-111 model.

2. State of Design Airworthiness Authority Type Certification Data Sheet No.

Original French TCDS DGAC no. 180 was replaced by the EASA TCDS A.064.

3. State of Design Airworthiness Authority Certification Basis

Refer to EASA TCDS EASA.A.064.

4. UK CAA Airworthiness Requirements

Hereafter are listed the certification bases for the different A320 models. The amendments made to a particular basis at the occasion of further A320 model certification are identified per model.

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CS 25 Amdt 8 for

- 4.1 The applicable technical conditions for models A320-211, A320-212, A320-231 and weight variants up to 006 (DGAC letter 53170 SFACT/TC) are defined as follows:
 - JAR 25 Change 11 (except paragraph 25.207 which remains at Change 10 and 25.853(a) and (b) which are at Change 13 since MSN 118) as elected by the Manufacturer
 - A320 Special Conditions, Experience Related Conditions and Harmonization Conditions.

4.2 **ETOPS**

For the Extended Range Twin Engine Airplane Operations the applicable technical conditions are contained in AMC 20-6 (as initially published in AMJ 120-42/IL 20 and CAP 513) and A320 ETOPS EtC G-1006.

- 4.3 JAR AWO Change 1 for auto-land and operations in low visibility.
- Certification basis has been revised for MOD 160500 and 160080 "Sharklet". 4.4

The certification basis is that of the A320-214,-215,-216,-232,-233 amended by the following:

§ 25.23	§ 25.
	25.4

§ 25.349(a)(b) amended by SC A-2.2.2 for

§ 25.23	§ 25.481(a)(c) amended by SC A-2 for § 25.481(a)
§ 25.25	§ 25.483
§ 25.117	§ 25.485
§ 25.147	§ 25.489
§ 25.161	§ 25.491
§ 25.177 amended by SC-F16	§ 25.571(a)(b)(e)
§ 25.235	§ 25.581
§ 25.251	§ 25.601
§ 25.301	§ 25.603
§ 25.302	§ 25.605
§ 25.303	§ 25.607
§ 25.305(a)(b)(c)(e)(f)	§ 25.609
§ 25.307(a)(d)	§ 25.613
§ 25.321(a)(b)(c)(d)	§ 25.619
§ 25.331(a)(b)(c)	§ 25.623
§ 25.333(a)(b)	§ 25.625
§ 25.335(a)(c)(d)(e)(f) amended by SC A5003 for (b) and SC A-2 for (e)	§ 25.629
§ 25.337	§ 25.631
§ 25.341(a)(b)	§ 25.651
§ 25.343(a)(b)	§ 25.683
§ 25.345(a)(b)(c)(d)	§ 25.899

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material)

25.349(a)

§ 25.903(d)(1) (see IM E-39 for interpretative

Section 2: A320 Series - continued

§ 25.351	§ 25.1385
§ 25.365(a)(b)(d)	§ 25.1387
§ 25.367	§ 25.1389
§ 25.371	§ 25.1391
§ 25.373	§ 25.1393
§ 25.391	§ 25.1395
§ 25.393(b)	§ 25.1397
§ 25.427	§ 25.1401
§ 25.445	§ 25.1505
§ 25.457	§ 25.1511
§ 25.459	§ 25.1515
§ 25.471(a)(b)	§ 25.1527
§ 25.473	§ 25.1587
§ 25.479(a)(c)(d) amended by SC A-2 for § 25.479(a)	§ 25.1591

CS 25 Amdt 2 for

§ 25.253

JAR 25 Chg 15 for

§ 25.1517

JAR 25 Chg 14 for

§ 25.21 amended by A318 SC F5001 (for b)	§ 25.149 + OP96/1
§ 25.101 amended by SC F11/S79	§ 25.171 replaced by SC-F5004
§ 25.103 replaced by A318 SC F5001	§ 25.173 replaced by SC-F5004
§ 25.105 amended by SC F11/S79	§ 25.175 replaced by SC-F5004
§ 25.107 amended by A318 SC-F5001	§ 25.181
§ 25.109 amended by SC F11/S79	§ 25.201 + OP96/1, replaced by SC-F5001
§ 25.111	§ 25.203 + OP96/1, replaced by SC-F5001
§ 25.113 + OP96/1 amended by SC F11/S79	§ 25.207 amended by SC-F5001
§ 25.115 amended by SC F11/S79	§ 25.231
§ 25.119 + OP96/1 amended by A318 SC F5001 (for b)	§ 25.233
§ 25.121 + OP96/1, amended by A318 SC F5001 (for c & d)	§ 25.237
§ 25.123	§ 25X261
§ 25.125 + OP96/1, amended by A318 SC F5001	§ 25.1533
§ 25.143 + OP96/1, amended by SC F3, F7 & F8	§ 25.1581

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§ 25.1585(a)

JAR 25 Chg 11 for

§ 25.671

§ 25.672

§ 25.1001

§ 25.1301

§ 25.1309

§ 25.1419 amended by AMC-F14

Interpretative Material:

IM E-39 Uncontained Engine Rotor Failure

Note: The original Interpretative material applicable to each model remains effective.

Acceptable Means of Compliance:

AMC F-14 Flight in icing condition.

Note: AMC F-14 applicability extended from A321/A319/A318 to A320 with MOD 160500 and 160080.

ETOPS

AMC 20-6 Rev 1 paragraphs related to operation in icing conditions 8.b.(11) for ice shapes on the Sharklet device.

AMC 20-6 Rev 1 paragraphs related to performance data in the AFM supplement for ETOPS 8.f.(1) (iii).

AMJ 120-42 for ETOPS for non-affected areas.

Note: This corresponds to the certification basis used for the initial ETOPS demonstration (refer to A320 EtC G-1006.)

4.5 Certification basis has been revised for MOD 156723 issue 1 "Max Pax".

The certification basis is that of the A320-200 equipped with Sharklets amended by the following:

CS 25 Amdt 13 for

§25.23	§25.489
§25.321	§25.801(d)
§25.331	§25. 803(c)

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§25.341(a)(b)	§25. 807(g) amended by ESF E-2107 and demonstrated through ESF D-01
§25.351	§25.1519
§25.473	§25.1529
§25.479(a)(c)(d) amended by SC A-2 for § 25.479(a)	§25.1541(a)(b)
§25.481(a)(c) amended by SC A-2 for § 25.481(a)	§25.1557(a)
JAR 25 change 13	
§25 .812(e)	§25 .853(a)1 amended by SC D-0306-000
§25 .812(k)(l)	
JAR 25 change 12	
§25 .853(c)	
JAR 25 change 11	
§25.305(a)(b)	§25.1301
§25.307(a)	§25.1351(a)
§25.365(a)	§25.1353(a)(b)
§25.561	§25.1359(a)(d)
§25.571(a)(b)	§25.1413
§25.787(a)(b)	§25.1415(b)(c)(d)
§25.789(a)	§25.1431(c)
§25.791	§25.1447(c)(1)

4.6 Certification basis for A320-271N, -272N, -273N, -251N, -252N, -253N

The certification basis has been revised for the A320-271N, -272N, -273N, -251N, -252N, -253N.

The certification basis is that of the A320-200 with modification 160500 (Sharklets) amended by the following:

CS 25 Amdt 11 for

§25.853(a)(b)

25.23 (a) (b)	25.952 (a) (b) (for pylon area)
25.25 (a) (b)	25.954
25.27	25.955 (a)
25.101	25.961 (a) (b)
25.109	25.963 (a)
25.113	25.969

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25.115	25.971 (a) (b) (c)
25.117	25.981 for pylon area only
25.145 (a)	25.993 (a) (b) (c) (d) (e) for Engines and Pylon area only.
25.147	25.994 for fuel system component in the pylon and powerplant system area
25.149	25.995 for engine and pylon areas only
25.161	25.997 (a) (b) (c) (d)
25.171 replaced by SAneo SC B-04 (Static Directional, Lateral and Longitudinal Stability and Low Energy awareness)	25.999 (a) (b)
25.173 replaced by SAneo SC B-04 (Static Directional, Lateral and Longitudinal Stability and Low Energy awareness)	25.1001
25.175 replaced by SAneo SC B-04 (Static Directional, Lateral and Longitudinal Stability and Low Energy awareness)	25.1011 (a) (b)
25.177 with subparagraphs (b) and (c) replaced by SAneo SC B-04 (Static Directional, Lateral and Longitudinal Stability and Low Energy awareness)	25.1013 (a) (b) (c) (d) (e) (f)
25.181	25.1015 (a) (b)
25.201 replaced by SAneo SC B-01 (Stalling and scheduled operating speeds), with reference to SAneo IM B-06 (Flight in icing conditions)	25.1017 (a) (b)
25.203 replaced by SAneo SC B-01 (Stalling and scheduled operating speeds),	25.1019 (a)
25.231	25.1021 (a) (b)
25.233	25.1023 (a) (b)
25.235	25.1025 (a) (c)
25.251	25.1041
25.301 (a) (b) (c)	25.1043 (a) (b) (c)
25.302 (for new or modified parts)	25.1045 (a) (b) (c)
25.303 (for new or modified parts)	25.1091 (a) (b) (c) (d) (e)
25.305 (a) (b) (c) (e) (f) (for new or modified parts)	25.1093 (b)
25.307 (a) (d) (for new or modified parts)	25.1103 (b) (c) (d)
25.321 (a) (b) (c) (d)	25.1121 (a) (b) (c) (d) (f) (g)
25.331 (a) (b) (c)	25.1123 (a) (b) (c)
25.333 (a) (b)	25.1141 (a) (b) (c) (d) (e) (f)
25.335 (a) (b) (c) (d) (e) (f) with sub-paragraph (b) replaced by Legacy SC A-5003 (Design Dive Speed Vd) and sub-paragraph (e) amended by Legacy SC A-2 (Stalling speeds for structural design)	25.1143 (a) (b) (c) (d) (e)

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25.337 (a) (b) (c) (d)	25.1145 (a) (b) (c)
25.341 (a) (b) (c)	25.1155 (a) (b) (c) (d) (e)
25.343 (a) (b) (for new or modified parts)	25.1163 (a) (b) (c)
25.345 (a) (b) (c) (d)	25.1165 (a) (b) (c) (e) (f) (h)
25.349 (a) (b)	25.1167 (a) (b) (c)
25.351 (a) (b) (c) (d)	25.1181 (a) (b) amended by SAneo ESF E-44 (Fan Zone non-fire zone)
25.361 (a) (b)	25.1182 (a) (b)
25.362 (a) (b) (for new or modified parts)	25.1183 (a) (b) (c)
25.363 (a) (b)	25.1185 (a) (b) (c)
25.365 (a) (b) (c) (d) (e)(1) (for new or modified parts)	25.1187 (a) (b) (c) (d) (e)
25.367 (a) (b)	25.1189 (a) (b) (d) (e) (f)
25.371	25.1191 (a) (b)
25.373 (a) (b)	25.1193 (a) (b) (c) (d) (e) amended by SAneo SC E-45 (Engine Cowl Retention)
25.391 (a) (b) (c) (d) (e)	25.1195 (a) (b) (c)
25.427 (a) (b) (c) (d)	25.1197 (a) (b)
25.445 (a) (b)	25.1199 (a) (b) (c) (d) (e)
25.457	25.1201 (a) (b)
25.459	25.1203 (a) (b) (c) (d) (e) (f) (g)
25.471 (a) (b)	25.1207 (a) (b) (c) (d)
25.473 (a) (b) (c) (d) (e)	25.1301 amended by Legacy SC S-30 (Automatic Flight/Flight Management Functions),For newly designed systems only
25.479 (a) (c) (d) amended by Legacy SC A-2 for § 25.479(a)	25.1305 (a) (c) (d) amended by SAneo SC F-13 (Fuel System Low Level Indication – Fuel Exhaustion)
25.481 (a) (c) amended by Legacy SC A-2 for § 25.481(a)	25.1309 (for newly designed systems) amended by:
	Legacy SC SE-2001 (SC S-76 – Effects of external radiations upon aircraft systems),
	Legacy IM SE-14 (SC S-76-1 – Protection from the effects of HIRF)
25.483 (a) (b)	25.1316 (a) (b) (c)
25.485 (a) (b)	25.1337 (a) (c) (d)
25.489	25.1353 (a) (b) (for engine and pylon areas)
25.491	25.1355 (c)
25.493 (b) (c) (d) (e)	25.1357 (a) (for newly designed systems)
25.495	25.1401 (b)
25.499 (a) (b) (c) (d) (e)	25.1403
25.503 (a) (b)	25.1419 (a) (b) (c) (d) (e) (f) (g) (h) for engine air intake protection

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25.507 (a) (b) (c)	25.1431 amended by Legacy SC SE-2001(SC S76 - Effects of external radiations upon aircraft systems) Legacy IM SE-14 (SC S76-1 – Protection from the effect of HIRF)
25 520 (-) (-) (-)	For newly designed equipment only
25.509 (a) (c) (d)	25.1438 (for newly designed equipment)
25.511	25.1459 (a) (b) (c) (d) amended by Legacy SC S-72 (HC-S72 – Flight recorders)
25.519 (a) (b) (c)	25.1461 (a) (b) (c) (d) For newly designed equipment
25.571 (a) (b) (c) (d) (e) (for new or modified parts)	25.1501
25.581 amended by Legacy ESF SE-2004 (SC S-75 – Lightning protection indirect effects) for pylon and nacelle areas	25.1503
25.601 (for new or modified parts)	25.1507
25.603 (a) (b) (c) (for new or modified parts)	25.1511
25.605 (a) (b) (for new or modified parts)	25.1513
25.607 (a) (b) (for new or modified parts)	25.1515
25.609 (a) (b) (for new or modified parts)	25.1517
25.611 (a)	25.1519
25.613 (a) (b) (c) (d) (e) (f) (for new or modified parts)	25.1521 (a) (c) (d)
25.619 (a) (b) (c) (for new or modified parts)	25.1525
25.623 (a) (b) (for new or modified parts)	25.1527
25.625 (a) (b) (c) (d) (for new or modified parts)	25.1531
25.629 (a) (b) (c) (d) (e)	25.1533
25.631 (for new or modified parts)	25.1535 (a) (b) (c)
25.651 (for new or modified parts)	25.1549 (a) (b) (c) (d) amended by SAneo ESF E-51 (Oil temperature indication)
25.671 (a) (b) (c) (d) amended by legacy SC F-7 (SC F-9 - Dual Control System)	25.1551
25.731 (a) (b) (c)	25.1553
25.733 (b) (c) (d)	25.1557 (b)
25.779	25.1581
25.831 (a) (e)	25.1583 (a) (b) (c) (d) (e) (f) (h) (i) (k)
25.841 (a)	25.1585
25.851 (b)	25.1587
25.855 (c)	25.1591
25.863 (a) (b) (c) (d)	25.1701 (a) (b) (c) for engines and pylon areas

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25.865	25.1703 (a) (b) (d) (e) for engines and pylon areas
25.867 (a) (b)	25.1705 (a) (b) for engines and pylon areas
25.869 (a) (b) (c)	25.1707 (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) for engines and pylon areas
25.899 amended by Legacy SC SE-2004 (SC S75 – Lightning protection indirect effects), for Pylon and Nacelle areas only	25.1709 (a) (b) for engines and pylon areas
25.901 (a) (b) (c) amended by SAneo SC E-45 (Engine Cowl Retention),	25.1711 (a) (b) (c) (d) (e) for engines and pylon areas
25.903 (a) (b) (c) (d) (e)	25.1713 (a) (b) (c) for engines and pylon areas
25.904	25.1715 (a) (b) for engines and pylon areas
25.933 (a)	25.1717 for engines and pylon areas
25.934 amended by SAneo ESF E-43 (Thrust Reverser Testing).	25.1719 for engines and pylon areas
25.939 (a) (c)	25.1723 for engines and pylon areas
25.943	25.1725 (a) (b) for engines and pylon areas
25.951 (a) (b) (c) amended by SC E-37 (Water/Ice in Fuel System), for pylon area only.	25.1727 for engines and pylon areas 25.1731 (a) (b)
CS25 Amdt 8 for:	
25.683 (b)	
CS 25 Amdt 2 for:	
25.21 with sub-paragraph (b) added by SAneo SC B-01 (Stalling and Scheduled Operating Speeds)	25.123
25.103 replaced by SAneo SC B-01 (Stalling and Scheduled Operating Speeds)	25.125
25.105	25.143
	Sub-Paragraphs (j), (k), (l) added by SAneo SC B-03 (Motion and Effect of Cockpit control),
	Sub-paragraph (h) added by SAneo SC B-07 (Flight envelope protection),
	Sub paragraph (i) added by SAneo SC B-08 (Normal Load factor limiting System).
25.107	25.207 replaced by SAneo SC B-01 (Stalling and scheduled operating speeds).
25.111	25.237
25.119	25.253
25.121	25.1419

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CS25 Amdt 1:

25.981 (a) (3) amended by generic SC E-48 – Fuel Tank Safety for all areas except engine and pylon areas

JAR 25 Chg 14 for:

25.145 (b) (c)

25.365 (e)(2), (e)(3)

25.1423 (a) (b) (c) (d) (e) (f) (g)

25.1583 (j)

JAR 25 Chg 13 for

25.365 (f) (g)

25.735 (a) (f) (g) (h) amended by

Legacy SC F-4012 (SC F-11 – Accelerate-stop distances and related performances, worn brakes)

 $\label{eq:logacy} \text{Legacy SC SE-3003 (SC S-79 - Brake requirements, qualification and testing} - \text{A321})$

25.853(a)(1)

JAR 25 Chg 12 for

25.853(c)

JAR 25 Chg 11 for:

25.561 (a) (b) (c)	25.1309 amended by Generic SC D-0332- 001 (Towbarless Towing) For systems adaptations.
25.563	25X1315
25.672 (a) (b) (c)	25.994 for all areas except engine and pylon areas
25.677 (b)	25.1301
25.703 (a) (b) (c)	25.1321 (d)
25.721 (a) (b) (c)	25.1322 (a) (b) (c) (d) amended by generic SC D-0332-001 (Towbarless Towing)
25.729 (b) (c) (d) (e) (f)	25.1323 (a) (b) (c)
25.735 (b) (c)	25.1325 (b) (d) (e)
25.771 (e)	25.1329 (f) amended by: Legacy SC S-30 (Automatic Flight/Flight Management Functions),

25.1337 (b)

Electrical power)

25.1351 (a) (b) (d) where (d) is replaced by Legacy SC-S52 (Operation without normal

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25.777 Sub-paragraph (b) amended by SAneo

SC B-03 (Motion and Effect of Cockpit Control)

25.783 (a) (b) (c) (e) (f) (g)

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25.791	25.1353 (a) (b) (for all areas except pylon and engine)
25.801	25.1359
25.807 (a) (b) (c) (d)	25.1363 (a) (b)
25.809 (a) (b) (c) (d) (e) (f)	25.1419 (a) (b) (c) (d) amended by AMC F- 14 for all ATA300 areas except Engine Air intake protection and Wing ice shapes
25.843 (a)	25.1431 (for system adaptations)
25.853 (a)	25.1435 (a) (b) (c) (d)
25X899 amended by Legacy SC SE-2004 (SC S75 – Lightning protection indirect effects)	25.1457 (a) (b) (c) (d) (e) (f) (g)
25.959	25.1529 amended by SC H-01
25.963 (d) (e)	25A901 (c)
25.967 (d)	25A939 (a)
25.975 (a)	25A1521
25.981 for all paragraph except (a) (3) in all areas except engine and pylon areas	25A1527

4.7 Certification basis has been revised for MOD 156723 issue 4 and issue 5 "Max Pax".

The certification basis is that of the A320-271N/-251N amended by the following:

CS 25 Amdt 17 for

§25.1357(a)

§25.23	§25.481(a)(c) amended by SC A-2 for § 25.481(a)
§25.305(a)(b)	§25.489
§25.307(a)	§25.571(a)(b)
§25.321	§25.801(d)
§25.331	§25. 803(c)
§25.341(a)(b)	§25. 807(g) amended by ESF E-2107 and demonstrated through ESF D-01
§25.351	§25.1519
§25.365(a)	§25.1541(a)(b)
§25.473	§25.1557(a)
§25.479(a)(c)(d) amended by SC A-2 for § 25.479(a)	
CS 25 Amdt 11	

§25.1431(c)

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JAR 25 change 13

§25.812(e) §25.812(k)(l)

§25.853(a)1 amended by SC D-0306-000

JAR 25 change 12

§25.853(c)

JAR 25 change 11

 §25.561
 §25.1351(a)

 §25.787(a)(b)
 §25.1353(a)(b)

 §25.789(a)
 §25.1359(a)(d)

 §25.791
 §25.1413

 §25.853(a)(b)
 §25.1415(b)(c)(d)

\$25.853(a)(b) \$25.1415(b)(c)(d) \$25.1301 \$25.1447(c)(1)

4.8 Certification basis has been revised for MOD 158708 issue 1 "Max Pax" for aircraft with wing tip fence modification (20268 or 21999).

The certification basis is that of the A320-211,-212,-214,-215,-216,-231,-232,-233 amended by the following:

CS 25 Amdt 17 for

\$25.23 \$25.489 \$25.321 \$25.801(d) \$25.331(a)(b)(c1) \$25.803(c)

§25.341(a) §25.807(g) amended by ESF E-2107 and

demonstrated through ESF D-01

§25.351 §25.1519

§25.473 §25.1541(a)(b) §25.479(a)(c)(d) amended by SC A-2 for §25.1557(a)

§25.479(a) §25.481(a)(c) amended by SC A-2 for §25.1529

§25.481(a)

JAR 25 change 14

§25.305 (a)(b) §25.341(b) §25.331(c2) §25.571(a)(b)

JAR 25 change 13

§25.812(e)(1)(2) Amended by IM E-08. §25.812(k)(l)

§25.853(a)1 amended by SC D-0306-000

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JAR 25 change 12

§25.853(c)

JAR 25 change 11

 §25.307(a)
 §25.1351(a)

 §25.561
 §25.1353(a)(b)

 §25.785
 §25.1357(a)

 §25.787(a)(b)
 §25.1359(a)(d)

 §25.789(a)
 §25.1413

 §25.791
 §25.1415(b)(c)(d)

 §25.853(a)(b)
 §25.1431(c)

§25.1301 §25.365(a)

4.9 Certification basis has been revised for MOD 158819 issue 1 "Max Pax for Sharklet in service retrofit".

The certification basis is that of the A320-200 equipped with Sharklets (modification 160080) amended by the following:

CS 25 Amdt 18 for

 §25.23
 §25.489

 §25.321
 §25.801(d)

 §25.331
 §25.803(c)

§25.341(a)(b) §25.807(g) amended by ESF E-2107 and

demonstrated through ESF D-01

§25.1447(c)(1)

\$25.351 \$25.1519 \$25.473 \$25.1529 \$25.479(a)(c)(d) amended by SC A-2 for \$ \$25.1541(a)(b)

25.479(a)

§25.481(a)(c) amended by SC A-2 for § \$25.1557(a)

25.481(a)

JAR 25 change 14

§25.305(a)(b) §25.571(a)(b)

JAR 25 change 13

§25.812(e) §25.853(a)1 amended by SC D-0306-000

§25.812(k)(l)

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JAR 25 change 12

§25.853(c)

JAR 25 change 11

§25.307	§25.1351(a)
§25.365(a)	§25.1353(a)(b)
§25.561	§25.1357(a)
§25.785	§25.1359(a)(d)
§25.787(a)(b)	§25.1413
§25.789(a)	§25.1415(b)(c)(d)
§25.791	§25.1431(c)
§25.853(a)(b)	§25.1447(c)(1)
§25.1301	

4.10 Certification basis revised for ACJ320neo.

The certification basis is that of the A320-271N, -272N, -251N amended by the following:

CS25 Amdt 16

§25.23	§25.952 (a)
§25.25	§25.954 (a) (b) (c)
§25.27	§25.957
§25.29	§25.959
§25.301 (a)	§25.963 (a) (b) (c) (d1) (d3) (d4) (e1)(e2) (f)
§25.302	§25.965 (a) (b) (c) (d)
§25.303	§25.967 (a) (b) (e)
§25.305(a) (b) (c)	§25.969
§25.307 (a)	§25.971 (a) (b) (c)
§25.321	§25.975 (a)
§25.331	§25.977 (a) (c) (d)
§25.341 (a) (b)	§25.979 (b) (c) (d) (e)
§25.343 (a) (b3)	§25.981 (a) (b) (d)
§25.351	§25.993 (a) (b) (c) (d) (e) (f)
§25.365 (a) (b) (d) (e) (f)	§25.994
	§25.995 (b)
§25.473	§25.999 (a) (b)
§25.479 (a) (c) (d)	§25.1141 (a) (f)
§25.481 (a) (c)	§25.1189 (h)
§25.489	§25.1301 (a) (b)
	§25.1302 (a) (b) (c)

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§25.519 (a) (b)	§25.1305 (a)(2)
§25.561	§25.1309 (a) (b) (c) (d)
§25.571 (a) (b) (c) (e1) (e4)	§25.1310
	§25.1315
	§25.1316 (a) (b) (c)
§25.581 (a) (b) (c)	§25.1337 (b)
	§25.1353 (a)
§25.611	§25.1381 (a) (b)
	§25.1431 (a) (c) (d)
§25.619	§25.1519
§25.625	§25.1535
§25.629 (a) (b) (c) (d) (e) §25.631	§25.1543 (b)
§25.721 (b)	§25.1553
§25.723 (b)	§25.1555 (a) (c)
§25.777 (a)	
§25.843 (a)	§25.1581 (a) (b) (d)
§25.851 (b2)	
§25.855 (a) (c) (e) (f) (g)(h1)(h2)(h3)	
§25.857 §25.858	
§25.863 (a) (b) (c) (d)	
§25.869	
§25.899 (a) (b)	§25.1583 (c) (f) (h)
§25.901 (c)	§25.1585 (a) (b) (c) (e)(f)
§25.903 (c) (d1)	§25.1703 (a1)(a2)a(3)(a4) (b) (d)
§25.943	§25.1705 (a) (b4) (b9) (b16)
207.274 ()	§25.1707 (a) (b) (c) (e) (l)
§25.951 (c)	§25.1709 (a) (b)
	§25.1711 (a) (b) (c) (d) (e) §25.1713
	§25.1715 (a) (b)
	§25.1719
	§25.1721
	§25.1723
	§25.1725 (b)
0005 A . W.44	
<u>CS25 Amdt 11</u>	
§25.251	§25.855 (c)
§25.305 (a) (b)	
§25.307 (a)	
§25.335 (b)	§25.901 (b) (c)

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§25.1301 (a1)(a2)(a3) §25.1309 (a) (b) (g) §25.1519 §25.1527

§25.1541 §25.1557 (a)

§25.365 (e) §25.561 (b3) §25.601

CS25 Amdt 2

§25.21 (c)

§25.671

§25.123 (a)

JAR25 Change 13

§25.365 (e)(2)(3)(f)(g)

JAR25 Change 11

\$25.689 (f) \$25.1322 (a) (b) (c) (d) \$25.803 (d) \$25.1351 (a) \$25.807 (a) (c) \$25.1301 (a) (b) (c) \$25.1541 \$25.1309 (a) (b) (c) (d)

4.11 Certification basis has been revised for MOD 156723 issue 7 "Max Pax".

The certification basis is that of the A320-252N/-253N/-272N/-273N amended by the following:

CS 25 Amdt 23 for

§25.23	§25.489
§25.321	§25.801(d)
§25.331	§25.803(c)
§25.341(a)(b)	§25.807(g) amended through ESF D-01
§25.351	§25.901(c)
§25.473	§25.1519
§25.479(a)(c)(d) amended by SC A-2 for §25.479(a)	§25.1529
§25.481(a)(c) amended by SC A-2 for §25.481(a)	§25.1541(a)(b)
	§25.1557(a)

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CS 25 Amdt 17 for

§25.305(a)(b) §25.365(a) §25.307(a) §25.571(a)(b)

CS 25 Amdt 11

§25.1357(a) §25.1431(c)

JAR 25 change 13

§25.812(e) §25.812(k)(l)

§25.853(a)1 amended by SC D-0306-000

JAR 25 change 12

§25.853(c)

JAR 25 change 11

\$25.561 \$25.1351(a) \$25.785 \$25.1353(a)(b) \$25.787(a)(b) \$25.1359(a)(d) \$25.789(a) \$25.1413

§25.1301

5. Special Conditions

Reminder: Within the scope of the establishment of the A320 Joint Certification Basis, three types of special conditions were developed:

- Special conditions: rose to cover novel or unusual features not addressed by the JAR.
- Experience related conditions: rose to record an agreed text for the A320 Joint Certification Basis when evolution of JAR was in progress under the NPA procedure.
- Harmonization conditions: to record, for the purpose of the A320 Joint Certification Basis, a common understanding with respect to National variant. This should not be confused with the FAA/JAA harmonized regulations.

Compulsory

EC-G11 General Definitions

(DGAC-F) SC-G17 Operational proving flights

(CAA-UK) SC-G17 Operational flight before certification

SC-F1 Stalling and Scheduled operating Speeds

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SC-F3	Cockpit control - motion and effect of cockpit control
SC-F4	Static longitudinal stability
SC-F6	Static directional and lateral stability
SC-F7	Flight envelope protection
SC-F8	Normal load factor limiting
SC-F9	Dual control system
HC-F103	Accelerate Stop Distance, Take-Off Distance and Take-Off Run on a Wet Runway
HC-F114	Approach and Target Threshold Speeds
SC-A.2.1.1	Certification Criteria of Aircraft Designed with Systems Interacting with Structural Performance
SC-A.2.2.2	Design manoeuvre requirement
SC-A.2.2.3	Design dive speed
EC-A.3.6.1	High Lift Devices
(CAA-UK) SC-A.4.3	Tuned Gust Loads
HC-A.4.4	Manoeuvre Loads - High Lift Devices Deployed
HC-A.4.5	Braked roll conditions
HC-A.4.6	Speed control device
SC-S11	Limit pilot forces and torques
HC-S23	Standby gyroscopic horizon
HC-S24	VMO/MMO Warning (setting)
EC-S30	Autoflight system
SC-S33	Autothrust system
SC-S52	Operation without normal electrical power
EC-S54	Circuit protective devices
HC-S61	Design Landing Brakes Kinetic Energy
HC-S62	Rejected Take-Off Brakes Kinetic Energy
HC-S72	Flight recorder
SC-S74	Abnormal attitudes
SC-S75	Lightning protection indirect effects
SC-S76	Effect of external radiations up on aircraft systems
SC-S77	Integrity of control signal
SC-P01	Full Authority Engine Control System (FADEC)
SC-E1005	Resistance to fire terminology

5.1 For weight variant 007 and subsequent and for all new models from and including A320-232, the following A320 Special Conditions and Interpretative Materials are deleted by application of JAR 25 amendment 91/1:

IM-A3.8 Discrete gust loads SC/AMC-A4.3 Tuned gust loads

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HC-A4.4 Manoeuvre loads high lift devices deployed

5.2 The following Special Conditions have been developed for the A320-233:

SC-F11 Accelerate-Stop distances and related performances, worn brakes (see

SC F-2012 dated June 4, 1996)

SC-S79 Brakes requirements, qualification and testing (see SC SE-2003 dated

June 4, 1996), for which the requirements are met by installation of

MOD 24946 (Messier-Bugatti SEPCARB III brakes)

5.3 For A320-233 and all A320-200 with OCTOPUS AFM (see EtC F-2013), the JAR 25 paragraphs are modified following the Elect-to-comply with SC-F11 and SC-S79

The following JAR Change 11 paragraphs are deleted:

JAR 25x131

JAR 25x132

JAR 25x133

JAR 25x135

JAR 25x1588

The following A320 Harmonization Conditions are deleted:

HC-F103 Accelerate-Stop distance, Take-off distance, Take-off run on wet

runway

HC-S61 Design landing brakes kinetic energy

HC-S62 Rejected take-off brakes kinetic energy

The following JAR 25 paragraphs are upgraded at Change 13 and amended by SC-F11 and SC-S79:

JAR 25.101

JAR 25.105

JAR 25.109

JAR 25.113

JAR 25.115

JAR 25.735

JAR 25x1591

- 5.4 For any new application (new or modified aeroplane system and associated components) after July 10, 1998, SC/IM-S76 (Effect of external radiations upon aircraft systems) are superseded by SC/IM-S76-1 (SC SE-14)
- 5.5 For any further variant certification after Aug. 10, 1998, the HC-A.4.5 (Braked roll conditions) is superseded by JAR 25.493(d) at Change 14 (EtCA-7)

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5.6 The following special conditions have been developed post Type Certification:

SC D-0306 Heat release and smoke density requirements to seat material

(applicable from June 2010)

SC E-48 Fuel Tank Safety (applicable from October 2013)

SC F-0311-001 Flight Recorders including Data Link Recording (applicable as per

operational regulations)

F-GEN-01 Installation of non-rechargeable lithium battery (applicable from March

2019)

SC H-01 Enhanced Airworthiness Programme for Aeroplane Systems -

ICA on EWIS (applicable from May 2010)

SC P-27 Flammability Reduction System

If fitted, the centre fuel tank of aircraft which have made their first flight after 1st of January 2012 must be equipped in production with a fuel tank Flammability Reduction System (modification 38062). This system shall remain installed and operative and can only be dispatched inoperative in accordance with the provisions of the MMEL revision associated with modification 38062. If modification 38062 (Fuel Tank Inerting System (FTIS)) is embodied on A318, A319, A320, or A321 airplanes, the airplane is compliant with paragraph FR Section 25.981(a) & (b) at amendment 25-102, Part 25 appendix M & N at amendment 25-125, and Section 26.33 at amendment 26-3.

5.7 Special Conditions for aircraft equipped with MOD 160500 and 160080

SC F-16 Static directional and lateral stab	ility
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SC F-5001 Stalling and scheduled operating speeds

SC F-5004 Static Longitudinal Stability and Low energy awareness

SC A-5003* Design Dive Speed V_D

Note: All other original Special Conditions applicable to each model remain effective.

5.8 Special Conditions for A320-271N, -272N, -273N, -251N, -252N, -253N

B-01	Stalling and Scheduled Operating Speeds
B-03	Motion and effect of cockpit control
B-04	Static Directional, Lateral and Longitudinal Stability and Low energy awareness
B-07	Flight Envelope Protection
B-08	Normal Load Factor limiting System
E-37	Water/Ice in Fuel System
E-45	Engine Cowl Retention
F-13	Fuel System Low Level Indication - Fuel Exhaustion
E-55*	Fan Blade Loss

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^{*}From 07th December 2018 SC B-14 is replacing SC A-5003

*Only applicable to CFM models

The following special conditions developed for previous models are also applicable to the A320-271N/-272N/-273N/-251N/-252N/-253N affected areas:

A2.2.2	Design Manoeuvre requirement
A-3001 (SC A1)	Interaction of systems and structure
A-3002 (SC A2)	Stalling Speeds for structural design (A321)
A-5003*	Design dive speed Vd
D-0332-001	Towbarless Towing
E-48	Fuel Tank Safety
F4012 (SC F11)	Accelerate-stop distances and relates performances, worn brakes
F7 (SC F-9)	Dual Control System
H-01	Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS
P-27	Flammability Reduction System (consisting of Cooled Serviced Air System and Inert Gas Generation System
S11	Limit Pilot forces and torques
S30	Automatic Flight/Flight Management Functions
S-33	Autothrust system
S72 (HC-S72)	Flight recorders
SE14 (SC S-76-1)	Protection from the effect of HIRF
SE2004 (SC S-75)	Lightning protection indirect effects
SE3003 (SC S-79)	Brake requirements, qualification and testing (A321)

^{*}From 07th December 2018 SC B-14 is replacing SC A-5003

Optional

B-12	Soft Go Around
D-0322-001	Installation of suite type seating
D-0332-001	Towbarless Towing
D-08	Installation of Personal Electronic Device charging stowage for cabin crew use
D-15	Pilot Control Mode TaxiBot Operations
D-19	Incorporation of Inertia Locking Device in Dynamic Seats
D-24	Installation of Airbags in the backrest of seats
D-25	Installation of structure mounted airbag
D-27	Installation of Three Point Restraint & Pretensioner System
D-28	Installation of oblique seats
E-10	High Altitude airport operations (up to 14,100ft)
E-13	Installation of inflatable restraints

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E-34	Seat with inflatable restraints
E-21	Flight Instrument External Probes – Qualification in Icing Conditions New UTAS Pitot Probes
F-119	Security Protection of Aircraft Systems and Networks

6. Exemptions

No exemptions.

7. Deviations

Optional

ACNS-B-GEN-01 Removal of DM89 MONITORING message from the required CPDLC downlink messages list

8. Equivalent Safety Findings

Compulsory

8.1 The following paragraphs have been complied with through equivalent safety demonstrations:

JAR 25.783 (e)	cargo doors (see ESF SM-2005)
JAR 25.783 (f)	passenger doors and bulk cargo door (MOD 20029) (see ESF SM-2004 and SM-2007)
JAR 25.813 (c)	emergency exits (see ESF E-2105 issue 3 "Type III overwing emergency exit access", seat cushion height)
JAR 25.807	maximum number of passengers (180 PAX) (see ESF E-2107 "Passenger extension to 180")
JAR 25.933 (a)	thrust reverser autorestow function (see ESF P-1002).
JAR 25.791	Passenger information signs (ESF S-53)

8.2 Equivalent Safety Findings for aircraft equipped with MOD 160500 and 160080

25.1419 (c) ESF F-19 Flight in natural icing condition

8.3 The following Equivalent Safety Findings have been developed for the A320-271N/-272N/-273N/-251N/-252N/-253N:

CS25.934, CS-E 890	E-43	Thrust Reverser Testing
CS25.1181(a)	E-44**	Fan Zone as non fire zone
CS25.1549(a)	E-51	Oil temperature indication
CS25.1181, CS25.1182	E-52	Nacelle area adjacent to fire
CS25.997(d)	E-49*	Fuel Filter Location

^{*}Applicable to CFM models only

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**Applicable to IAE models only

8.3.1 The following ESF developed for previous models are also applicable to the A320-271N/-272N/-273N/-251N/-252N/-253N affected areas:

JAR AWO 313	SE-4005	Revised strategy for demonstrating a safe go- around 'Minimum Approach Break-off Height (MABH) (issued for A319)
JAR AWO 236	SE-5005	Cat III operations - Excess Deviation Alerts
JAR 25.1441(c)	F-21	Crew Determination of Quantity of Oxygen in Passenger Oxygen System
14CFR Part 25.856(a)	E-18	Improved flammability standards for thermal / acoustic insulation materials

Optional

8.4 The following Equivalent Safety Findings have been developed post Type Certification:

CS 25.251(b)	Vibration/buffeting compliance criteria for large external antenna installation (see ESF B-17) applicable from February 2021.
JAR 25.785(c)	Forward facing seats with more than 18 $^{\circ}$ to aircraft centerline. (ESF D-0329-001)
CS 25.795(a)(1)	Application of reduced Intrusion Loads in certain areas of the flight deck boundaries (D-31)
CS25.811(e)(4)	Green Arrow and "Open" placard for Emergency Exit Marking (ESF SE-63)
JAR 25.811(f)	Emergency exit marking reflectance (ESF E-16)
JAR 25.812(b)(1)(ii)	Photo-luminescent EXIT sign for MCD (Moveable Class Divider) (ESF -E14)
JAR 25.812(b)(1)(i)(ii)	Symbolic EXIT signs as an alternative to red EXIT signs for passenger aircraft (ESF SE-42)
FAR 25.856(b)	Fuselage burnthrough protection in bilge area (see ESF E-32), see note below
	If modifications 150700, and 37270 (with CLS option only), 37048 and 36985 are embodied in production on A318, A319, A320, or A321 airplanes, the airplane is compliant with Fuselage Flame Penetration "Burnthrough" requirements addressed by paragraph 14 CFR Part 25.856(b) Amdt 25-111 (See EtC E-28). (applicable as per operational regulations)
14CFR Part 25.856(a)	Improved flammability standards for insulation materials (ESF E-18) (applicable as per operational regulations)
JAR 25.1443(c)	Minimum Mass Flow of Supplemental Oxygen (ESF F-20)
JAR 25.1441(c)	Crew Determination of Quantity of Oxygen in Passenger Oxygen System (ESF F-21)

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8.5 Equivalent Safety Findings for aircraft equipped with MOD 156723, 158819 and 158708

CS25.807(g) ESF D-01 Over-performing Type I exit

Note: The original ESFs applicable to each model remain effective.

9. Elect To Comply

Compulsory

9.1 For weight variant 007 and subsequent and for all new models from and including A320-232, the following JAR 25 paragraphs are modified following the elect to comply to OP 91/1 (NPA 25C205) by the manufacturer (DGAC letter 60667/SFACT/N.AT)

JAR 25.305	JAR 25.349(b)
JAR 25.321	JAR 25.351
JAR 25.331	JAR 25.365(e)
JAR 25.333	JAR 25.371
JAR 25.335(d)	JAR 25.373
JAR 25.341	JAR 25.391
JAR 25.343(b)(1)(ii)	JAR 25.427
JAR 25.345(a)(c)	JAR 25.571(b)(2)

9.2 For all models of A320-200 series, the JAR 25 paragraphs defined in 4.2. above are modified following the Elect-to-comply with the new discrete gust requirements of JAR 25 Change 14 as amended by NPA 25C-282, by application of the major change titled "Flight Controls - deletion of LAF features from A320", modifications 26334/26335. (EtC A-2006)

Optional

- 9.3 For all models Airbus Elect to Comply to CS 25.562 initial issue for Improved Seats in Air Carrier Transport category Airplanes" for cabin and/or passenger seats (E-31)
- 9.4 For all models Airbus Elect To Comply to CS25.851(a),(c) at Amdt 17 when halon free handheld fire extinguishers are installed (EtC D-GEN-AIRBUS-01).
- 9.5 For all models Airbus Elect To Comply with 14 CFR Part 25.772(a) and (c) and 25.795 amendment 106 according to EtC E-12 Reinforced Security Cockpit Door
- 9.6 For all models Airbus Elect To Comply with CS-ACNS Subpart B Section 2 Data Link Services, Initial issue

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- 9.7 For all models Airbus Elect To Comply with CS25-791 at Amdt 20 when Mod 160139 "Passenger information signs and placards" is installed
- 9.8 For all models Airbus Elect To Comply with CS 25.795(a)(1), 25.795(a)(2) and §25.795(c)(3)(ii) Amdt 22 when mod 167557 "Define Modified Airspace Lavatory A Option for 25.795 Compliance" is installed (ESF D-31).

10. Environmental Protection

ICAO Annex 16:

Vol. I, Part II	Noise Requirements
Vol. II, Part II	Fuel Venting
Vol. II, Part III Chapter 2	Emissions

Notes:

For details of the certified noise levels see TCDSN no. UK.TC.A.00010.

III. Technical Characteristics and Operational Limitations

1. Type Design Definition

1.1 Certificated model: A320-211

Definition of reference airplane by AIRBUS INDUSTRIE document AI/EA-A-413.630/88

1.2 Certificated model: A320-212

Definition of reference airplane by AIRBUS INDUSTRIE document AI/EA-A 412.1589/90 (00D000A0004/C0S)

1.3 Certificated model: A320-214

Definition of reference airplane by AIRBUS INDUSTRIE document AI/EA-S 413.0150/95 (00D000A0006/C21)

1.4 Certificated model: A320-215

Definition of reference airplane by AIRBUS INDUSTRIE document D00D06006382 (00D000A0215/C21)

1.5 Certificated model: A320-216

Definition of reference airplane by AIRBUS INDUSTRIE document D00D06011383 (00D000A0216/C21)

1.6 Certificated model: A320-231

Definition of reference airplane by AIRBUS INDUSTRIE document AI/EA-A 414.301/89

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1.7 Certificated model: A320-232

Definition of reference airplane by AIRBUS INDUSTRIE document AI/EA-AC 414.0502/93 (00D000A0005/C21)

1.8 Certificated model: A320-233

Definition of reference airplane by AIRBUS INDUSTRIE document AI/EA-S 413.1984/95 (00D000A0007/C21)

1.9 Certified model: A320-271N

Definition of reference airplane by Airbus document 00D000A5021/C20

1.10 Certified model: A320-251N

Definition of reference airplane by Airbus document 00D000A5024/C20

1.11 Certified model: A320-252N

Definition of reference airplane by Airbus document 00D000A5188/C20

1.12 Certified model: A320-272N

Definition of reference airplane by Airbus document 00D000A5204/C00

1.13 Certified model: A320-273N

Definition of reference airplane by Airbus document 00D000A5155/C00

1.14 Certified model: A320-253N

Definition of reference airplane by Airbus document 00D000A5153C00

Notes:

- a. Model conversions:
 - If modification 34647 is embodied on A320-212 model powered with CFM56-5A3 engines, it is converted into A320-211 model, powered with CFM56-5A1 engines
 - If modification 35962 is embodied on A320-211 model powered with CFM56-5A1 engines, it is converted into A320-212 model, powered with CFM56-5A3 engines
 - If modification 153177 is embodied on A320-233 model powered with IAE V2527E-A5 it is converted into A320-232 model, powered with IAE V2527-A5 engines
 - If modification 36563 is embodied on A320-216 model powered with CFM56-5B6/3 or /P engines, it is converted into A320-214 model, powered with CFM56-5B4/3 or /P engines
 - If modification 36885 is embodied on A320-214 model powered with CFM56-5B4/3 or /P engines, it is converted into A320-216 model, powered with CFM56-5B6/3 or /P engines
 - If modification 150847 is embodied on A320-232 model powered with IAE V2527-A5 engines, it is converted into A320-233 model, powered with IAE V2527E-A5 engines

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- b. A320-216 model results of the embodiment of modification 36311 on A320-214 model.
- c. A320-215 model results of the embodiment of modification 36297 on A320-214 model.

2. Description

Twin turbo-fan, short to medium range, single aisle, transport category airplane.

3. Equipment

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00D000A0101/C1S (not applicable for A320-216, A320-215, A320-251N, A320-252N, A320-253N, A320-271N, A320-272N and A320-273N).

Cabin furnishings, equipment and arrangement shall be in conformance to the following specifications:

Cabin seats 2521M1F10000 Iss 4
Galleys 2530M1F000900 Iss 2

4. Dimensions

Principal dimensions of A320 Aircraft:

•	Length:	37.57 m
•	Width:	34.10 m
	(if MOD 160500 or 160080 is installed)	35.80 m
•	Height:	11.76 m
•	Width at horizontal stabilizer:	12.45 m
•	Outside fuselage diameter:	3.95 m
•	Distance between engines axis:	11.51 m
•	Distance between main landing gear:	7.59 m
•	Distance between nose and main landing gear:	12.64 m

5. Engines

The list below lists the basic engines fitted on the aircraft models. The notes describe usual names and certified names as well as new engines variants.

A320-211

Two CFMI CFM 56-5A1 jet engines (MOD 20141), or CFM 56-5A1/F jet engines (MOD 23755)

A320-212

Two CFMI CFM 56-5A3 jet engines (MOD 22093)

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A320-214

Two CFMI CFM 56-5B4 jet engines (MOD 24251), or

CFM 56-5B4/2 jet engines (MOD 24405)

A320-215

Two CFMI CFM 56-5B5/P jet engines (MOD 25800)

A320-216

Two CFMI CFM 56-5B6/P jet engines (MOD 25800)

A320-231

Two IAE V2500-A1 jet engines (MOD 20165)

A320-232

Two IAE V2527-A5 jet engines (MOD 23008)

A320-233

Two IAE V2527E-A5 jet engines (MOD 25068)

A320-271N

Two IAE PW1127G-JM Geared Turbo Fan jet engines (MOD 161000)

A320-251N

Two CFMI LEAP-1A26 jet engines (MOD 161003)

ACJ320neo

Two CFMI LEAP-1A26CJ jet engines (MOD 165333)

Two IAE PW1127G-JM Geared Turbo Fan jet engines

Two IAE PW1127G1-JM Geared Turbo Fan jet engines

A320-252N

Two CFMI LEAP-1A24 jet engines (MOD 162680)

A320-272N

Two IAE PW1124G1-JM Geared Turbo Fan jet engines (MOD 163955)

A320-253N

Two CFMI LEAP-1A29 jet engines (MOD 161860)

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A320-273N

Two IAE PW1129G-JM Geared Turbo Fan jet engines (MOD 162512)

Notes:

- 1. Whereas it is common use to apply the name of CFMI engines CFM56-5A1 and CFM56-5A1/F, the correct names of the certified engines are:
 - CFM56-5 is the certified engine name, when CFM56-5A1 is the usual name.
 - CFM56-5-A1/F is the certified engine name, when CFM56-5A1/F is the usual name.
- 2. A320-211 CFM 56-5A1 engine can be intermixed with CFM 56-5A1/F engine (MOD 23755) on the same aircraft.
- From March 31st 2008, there is no longer any CFM56-5B/2 non /P in field or in production. CFM56-5B4/2 engine model has been removed from CFM56-5B Type Certificate Data Sheet.
- 4. If modification 25800 is embodied on models with CFM56-5B engines, the engine performance is improved. The engine's denomination changes to /P.

The modification is currently applicable for:

A320-214: CFM56-5B4 (SAC) which changes to CFM56-5B4/P

CFM 56-5B/"non-P" engine can be intermixed with CFM 56-5B/P engine on the same aircraft.

Note: modification 25800 is basically embodied for A320-215 and -216 models.

5. If modification 26610 is embodied on models with CFM-5B/2 (DAC) engines, the engine performance and gaseous emission levels are improved. The modification is currently applicable for:

A320-214: CFM 56-5B4/2(DAC) which changes to CFM 56-5B4/2P(DAC II C).

CFM 56-5B/2 "non-P" (DAC) engine can be intermixed with CFM 56-5B/2P(DAC II C) engine on the same aircraft (AFM supplement).

CFM 56-5B/P or / "non-P" (SAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

Modification 26610 is not compatible with modification 160080 (sharklet retrofit).

- 6. A320-214 CFM 56-5B4 engine can be intermixed with CFM 56-5B4/2 engine (MOD 24405) on the same aircraft (AFM supplement).
- 7. Introduction of CFM56-5Bx/3 "Tech Insertion" engine is done through embodiment of modification 37147 in production or 38770 in field.

This modification is only applicable on CFM56-5Bx /P SAC engines.

If modification 37147 is embodied on models with CFM-5B engines, the engine's denomination changes to /3.

The modification is currently applicable for:

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A320-214: CFM 56-5B4 (SAC) which changes to CFM 56-5B4/3
A320-215: CFM 56-5B5 (SAC) which changes to CFM 56-5B5/3
A320-216: CFM 56-5B6 (SAC) which changes to CFM 56-5B6/3

Modification 37147 has been demonstrated as having no impact on previously certified noise levels.

The engine characteristics remain unchanged.

CFM56-5Bx/3 engine can be intermixed with CFM56-5Bx/P engine under considerations as prescribes in modification 38573.

8. Introduction of "BUMP" function is done through embodiment of modification 38946.

If modification 38946 is embodied on models with CFM-5B engines, the engine denomination changes to /P1 (SAC) or /2P1 (DAC) or /3B1 (Tech Insertion).

The modification is currently applicable for:

A320-214: CFM 56-5B4 (SAC) which changes to CFM 56-5B4/P1

Modification 38946 has been demonstrated as having no impact on previously certified noise levels.

The engine characteristics remain unchanged.

Intermix at aircraft level between "Non Bump" engine and "Bump" engine is not allowed.

- 9. CFM56-5B engines are not compatible with modification 160080 (Sharklet retrofit) unless modification 37147 or modification 38770 are installed.
- 10. If modification 161562 (alternate climb) is installed on the A320-271N equipped with IAE PW1127G-JM then the engine model is changed to PW1127GA-JM.
- 11. If modification 161925 (extended corner point) is installed on the A320-251N equipped with CFM LEAP-1A26 engines then the engine model is changed to LEAP-1A26E1.
- 12. If modification 165333 is installed on the A320-251N equipped with CFM LEAP-1A26 engines then the engine model is changed to LEAP-1A26CJ

6. Auxiliary Power Unit

APU GARRETT

The APU GARRETT AIRESEARCH GTCP 36-300 (A) installation is defined by MOD 20020 (Specification 31-5306B)

Approved oils: see GARRETT REPORT GT. 7800

APU Pratt & Whitney Rzeszow S.A.

The APU Pratt & Whitney Rzeszow S.A. installation is defined by MOD 22562 or MOD 35864.

Pratt & Whitney Rzeszow S.A. APS 3200 (Specification ESR 0802, Rev. A)

Approved oils: in conformance to MIL-L-7808, MIL-L-23699 or DERD 2487

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APU AlliedSignal

The APU Honeywell International installation is defined by MOD 25888 or 37987

Honeywell International 131-9[A] (Specification 4900 M1E 03 19 01)

Approved oils: according to model Specification 31-12048A-3A

7. Propellers

N/A

8. Fluids (Fuel, Oil, Additives, Hydraulics)

<u>Fuel</u>

Fuel Specification

ENGINES	KEROSENE DESIGNATION
CFM56: Installation document CFM 2026 or CFM 2129)	JET A, JET A-1, JP5, JP8, N°3 Jet Fuel, JET B**, JP 4**, TS-1, RT(GOST), F44, F34, AVTUR, AVTUR/FSII, AVTAG/FSII, AVCAT/FSII
IAE V2500: IAE Standard Practices and processes Manual IAE 0043	JET A, JET A-1, JP5, JP8, N°3 Jet Fuel, JET B**, JP 4**, TS-1*, RT(GOST), F44, F34, AVTUR, AVTUR/FSII, AVTAG/FSII, AVCAT/FSII
IAE PW1100G-JM: (Service Bulletin PW1000G -100-73 00-0002-00A930AD)	JET A, JET A-1, JP5, JP8, N°3 Jet fuel, TS-1(GOST), RT(GOST), AVTUR, AVTUR/FSII, AVCAT/FSII
CFMI LEAP-1A: Service Bulletin LEAP-1A S/B 73-0001	JET A, JET A-1, JP5, JP8, N°3 Jet fuel, TS-1(GOST), RT(GOST), AVTUR, AVTUR/FSII, AVCAT/FSII

The above mentioned fuels are also suitable for the APU.

Refer to Consumable Material List (CML) for details on approved fuel specifications

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^{*} For IAE V2500 engines, TS-1 is cleared for transient use (less than 50% of operations)

^{**} JET B and JP 4 fuels are not authorized for use in aircraft fitted with jet pumps (modification 154327)

<u>OIL</u>

For oil specification:

Engine	CFM56-5B5/P CFM56-5B6/P CFM56-5A1 CFM56-5A3/F CFM56-5B4 CFM56-5B4/2	IAE V2500-A1 IAE V2527-A5 IAE V2527E-A5	PW1127G-JM PW1124G1-JM PW1129G-JM	LEAP-1A26 LEAP-1A26E1 LEAP-1A24 LEAP-1A26CJ LEAP-1A29
Approved Oils	SB CFMI 79-001	See doc IAE 0043 Sect 4.9 (MIL-L- 23699)	Service Bulletin PW1000G – 1000 – 79 – 00 – 0002 - 00A - 930A – D	SB LEAP-1A S/B 79-0001

Additives:

Refer to Airbus Consumable Material List (CML).

Engine	CFM56-5B5/P CFM56-5B6/P CFM56-5A1 CFM56-5A1/F CFM56-5A3 CFM56-5B4 CFM56-5B4/2	IAE V2500-A1 IAE V2527-A5 IAE V2527E-A5	PW1127G-JM PW1124G1-JM PW1129G-JM	LEAP-1A26 LEAP-1A26E1 LEAP-1A24 LEAP-1A26CJ LEAP-1A29
Approved Additives	Specific Operating Instructions Document & CFM SB 73-0182/73-0122 for CIS fuel additives	IAE Standard Practices and Processes Manual	Service Bulletin PW1000G-1000- 73-00-0002-00A- 930A-D	Service Bulletin LEAP-1A S/B 73- 0001

The above mentioned fuels and additives are also suitable for the APU

Hydraulics

Hydraulic fluids: Type IV or Type V - Specification NSA 30.7110

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9. Fluid Capacities

Fuel quantity (0.8 kg/liter)

A320-211/-212/-214/-215/-216/-231/-232/-233 (without MOD 160001)

	3 TANK AIRP	3 TANK AIRPLANE		LANE	4 or 5 TANK	AIRPLANE *
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)
WING	15 609 (12 487)	58.9 (47.1)	15 609 (12 487)	58.9 (47.1)	15 609 (12 487)	58.9 (47.1)
CENTER	8 250 (6 600)	23.2 (18.6)	8 250 (6 600)	23.2 (18.6)	8 250 (6 600)	23.2 (18.6)
ACT (*)			2992 (2 393)	17 (13.6)	2 992 / 5 984 (2 393 / 4 786)	17 / 34 (13.6 / 27.2)
TOTAL	23 859 (19 087)	82.1 (65.7)	26 851 (21 480)	99.1 (79.3)	26 851 / 29 843 (21 480 / 23 873)	99.1 / 116.1 (79.3 / 92.9)

On the series A320-200, the certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 28378.

An alternative is the installation of one ACT only (with the provisions for only one ACT), as defined by modification 34456.

A320-211/-212/-214/-215/-216 (with MOD 37331 and without MOD 160001)

	3 TANK AIRP	3 TANK AIRPLANE		4 TANK AIRPLANE		4 or 5 TANK AIRPLANE *	
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	
WING	15 959 (12 767)	58.9 (47.1)	15 959 (12 767)	58.9 (47.1)	15 959 (12 767)	58.9 (47.1)	
CENTER	8 250 (6 600)	23.2 (18.6)	8 250 (6 600)	23.2 (18.6)	8 250 (6 600)	23.2 (18.6)	
ACT (*)			2992 (2 393)	17 (13.6)	2 992 / 5 984 (2 393 / 4 786)	17 / 34 (13.6 / 27.2)	
TOTAL	24 209 (19 367)	82.1 (65.7)	27 201 (21 761)	99.1 (79.3)	27 201 / 30 193 (21 761 / 24 154)	99.1 / 116.1 (79.3 / 92.9)	

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On the series A320-200, the certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 28378.

An alternative is the installation of one ACT only (with the provisions for only one ACT), as defined by modification 34456.

A320-211/-212/-214/-215/-216/-231/-232/-233 (without MOD 37331 and with MOD 160001)

	3 TANK AIRF	3 TANK AIRPLANE		4 TANK AIRPLANE		4 or 5 TANK AIRPLANE *	
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	
WING	15 569 (12 455)	58.9 (47.1)	15 569 (12 455)	58.9 (47.1)	15 569 (12 455)	58.9 (47.1)	
CENTER	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)	
ACT (*)			2992 (2 393)	17 (13.6)	2 992 / 5 984 (2 393 / 4 786)	17 / 34 (13.6 / 27.2)	
TOTAL	23 817 (19 054)	82.1 (65.7)	26 809 (21 447)	99.1 (79.3)	26 809 / 29 801 (21 447 / 23 841)	99.1 / 116.1 (79.3 / 92.9)	

^{*}On the series A320-200, the certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 28378.

An alternative is the installation of one ACT only (with the provisions for only one ACT), as defined by modification 34456.

On the series A320-200 equipped with IAE engines, introduction of standard of wingbox with dry bay (modification 37332) will decrease the fuel capacity by 350 liters.

A320-214/-215/-216 (with MOD 37331 and MOD 160001)

	3 TANK AIRP	3 TANK AIRPLANE		4 TANK AIRPLANE*		4 or 5 TANK AIRPLANE *	
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	
WING	15 919 (12 735)	58.9 (47.1)	15 919 (12 735)	58.9 (47.1)	15 919 (12 735)	58.9 (47.1)	
CENTER	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)	
ACT (*)			2992 (2 393)	17 (13.6)	2 992/5 984 (2 393/4 786)	17 / 34 (13.6 / 27.2)	
TOTAL	24 167 (19 334)	82.1 (65.7)	27 159 (21 727)	99.1 (79.3)	27 159 / 30 151 (21 727 / 24 121)	99.1 / 116.1 (79.3 / 92.9)	

*On the series A320-200, the certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 28378.

An alternative is the installation of one ACT only (with the provisions for only one ACT), as defined by modification 34456.

A320-271N/-272N/-273N/-251N/-252N/-253N

	3 TANK AIRPLANE			
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)		
WING	15476.7 (12427.8)	58.9 (47.3)		
CENTER	8248.0 (6623.1)	23.2 (18.6)		
TOTAL	23724.7 (19050.9)	82.1 (65.9)		

A320-271N/-272N/-251N equipped with modification 163215 (ACJ320neo)

	3 TANK AIRPLANE		4 TANK AIRPLANE		5 TANK AIRPLANE	
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)
WING	15476.7 (12427.8)	58.9 (47.3)	15476.7 (12427.8)	58.9 (47.3)	15476.7 (12427.8)	58.9 (47.3)
CENTER	8248.0 (6623.1)	23.2 (18.6)	8248.0 (6623.1)	23.2 (18.6)	8248.0 (6623.1)	23.2 (18.6)
AFT 1	-	-	3138.0 (2510.4)	17.0 (13.6)	3138.0 (2510.4)	17.0 (13.6)
AFT 2	-	-	-	-	3138.0 (2510.4)	17.0 (13.6)
TOTAL	23724.7 (19050.9)	82.1 (65.9)	26862.7 (21561.3)	99.1 (79.5)	30000.7 (24071.7)	116.1 (93.1)

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	6 TANK AIRPL	ANE	7 TANK AIRPLANE		
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	
WING	15476.7	58.9	15476.7	58.9	
	(12427.8)	(47.3)	(12427.8)	(47.3)	
CENTER	8248.0	23.2	8248.0	23.2	
	(6623.1)	(18.6)	(6623.1)	(18.6)	
AFT 1	3138.0	17.0	3138.0	17.0	
	(2510.4)	(13.6)	(2510.4)	(13.6)	
AFT 2	3138.0	17.0	3138.0	17.0	
	(2510.4)	(13.6)	(2510.4)	(13.6)	
AFT 3	2208.0	22.0	2208.0	22.0	
	(1766.4)	(17.6)	(1766.4)	(17.6)	
FWD	-	-	2208.0 (1766.4)	22.0 (17.6)	
TOTAL	32208.7	138.1	34416.7	160.1	
	(25838.1)	(110.7)	(27604.5)	(128.3)	

Notes

A320-251N, -271N, -272N for Corporate Jet use (commercially identified as ACJ320neo) are defined through the following set of modifications:

modification 163215: Installation of up to 4 ACTs

modification 162744: Extension of the flight envelope up to 41000 ft

modification 23398: Install stairs at fwd pax door.
modification 162193: Lower Cabin Altitude activation

modification 162339: Certify Envelope for design weight of ACJ320neo

10. Airspeed Limits (Indicated Airspeed – IAS – unless otherwise stated)

Maximum Operating Mach (MMO): 0.82
Maximum Operating Speed (VMO): 350 kt

Manoeuvring Speed VA: See Limitations Section of the approved Flight

Manual

Extended Flaps / Slats Speed (VFE): see table below

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Configuration	Slats/Flaps (°)	VFE (kt)	
1	18/0	230	Intermediate approach
	*18/10	215	Take-off
2	22/15	200	Take-off and approach
3	22/20	185	Take-off, approach, landing
Full	27/35**	177	Landing

^{*}Auto flap retraction at 210 kt in take-off configuration

Landing gear:

VLE - Extended: 280 kt/Mach 0.67

VLO - Extension: 250 kt
Retraction: 220 kt

Tyres limit speed (ground speed): 195.5 kt (225 mph)

11. Flight Envelope

Maximum Operating Altitude:

39 100 ft (pressure altitude)

39 800 ft (pressure altitude) if modification 30748 is embodied

41 000 ft (pressure altitude) if modification 162744 is embodied

See the appropriate approved Airplane Flight Manual

12. Operating Limitations

See the appropriate approved Airplane Flight Manual.

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^{**27/40} for A320 equipped with IAE or CFM LEAP-1A engines

Powerplant (2.2482 lb/daN)

	СҒМІ				
Engine	CFM56-5B5/P	CFM56-5B6/P	CFM56-5A1 CFM56-5A1/F (**)	CFM56-5A3	CFM56-5B4 CFM56-5B4/2 (***)
Data sheets	E37NE (FAA) E38NE (FAA) EASA.E.003 ⁽¹⁾	E37NE (FAA) E38NE (FAA) EASA.E.003 ⁽¹⁾	E28NE (FAA) EASA.E.067 ⁽²⁾	E28NE (FAA) EASA.E.067 ⁽²⁾	E37NE (FAA) E38NE (FAA) EASA.E.003 ⁽¹⁾
Static thrust at sea level					
Take-off (5 min)* (Flat rated 30° C)	9 786 daN (22 000 lbs)	10 453 daN (23 500 lbs)	11 120 daN (25 000 lb)	11 787 daN (26 500 lbs)	12 010 daN (27 000 lbs)
Maximum continuous (Flat rated 25° C)	9 008 daN (20 250 lbs)	9 008 daN (20 250 lbs)	10 542 daN (23 700 lbs)	10 542 daN (23 700 lbs)	10 840 daN (24 370 lbs)

^{(**):} see note 1 chapter 5 for usual names and certified names

Engine	IAE V2500-A1	IAE V2527-A5 IAE V2527E-A5
Data sheets	E31NE (FAA) M-IM22 (DGAC)	E40NE (FAA) EASA.IM.E.069 ⁽¹⁾
Static thrust at sea level		
Take-off (5 min)* (Flat rated 30° C)	11 031 daN (24 800 lbs)	11 031 daN (24 800 lbs)
Maximum continuous (Flat rated 25° C)	9 893 daN (22 240 lbs)	9 893 daN (22 240 lbs)

^{* 10} minutes at take-off thrust allowed only in case of engine failure (at take-off or during goaround) in accordance with DGAC "Fiche de Caractéristiques Moteur"

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^{(***):} see note 3 chapter 5 for engine models no longer in prod/service.

^{(1):} UK CAA Type Certificate E.003 and associated Type Certificate Data Sheet E.003, Issue 5 dated 12 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

^{(2):} UK CAA Type Certificate E.067 and associated Type Certificate Data Sheet E.067, Issue 2 dated 17 April 2018, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

^{(1):} UK CAA Type Certificate E.069 and associated Type Certificate Data Sheet E.069, Issue 4 dated 12 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

Engine	CFM LEAP-1A26 LEAP-1A26E1 LEAP-1A26CJ	CFM LEAP-1A24	CFM LEAP-1A29
Data sheets	E00089EN (FAA)	E00089EN (FAA)	E00089EN (FAA)
	EASA.E.110 ⁽¹⁾	EASA.E.110 ⁽¹⁾	EASA.E.110 ⁽¹⁾
Static thrust at sea level			
Take-off (5 min)*	12 064 daN	10 680 daN	13 029 daN
(Flat rated 30° C)	(27 120 lbs)	(24 010 lbs)	(29 290 lbs)
Maximum continuous (Flat rated 25° C)	11 868 daN	10 676 daN	11 868 daN
	(26 680 lbs)	(24 000 lbs)	(26 680 lbs)

(1): UK CAA Type Certificate E.110 and associated Type Certificate Data Sheet E.110, Issue 9 dated 20 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

Engine	PW1127G-JM/ PW1127GA-JM	PW1124G1-JM	PW1129G-JM
Data sheets	E87NE (FAA)	E87NE (FAA)	E87NE (FAA)
	EASA.IM.E.093 ⁽¹⁾	EASA.IM.E.093 ⁽¹⁾	EASA.IM.E.093 ⁽¹⁾
Static thrust at sea level Take-off (5 min)* (Flat rated 30° C)	12 043 daN (27 075 lbs)	10 782 daN (24 240 lbs)	13 000 daN (29 245 lbs)
Maximum continuous (Flat rated 25° C)	11 718 daN	10 691 daN	11 719 daN
	(26345 lbs)	(24 035 lbs)	(26 345 lbs)

(1): UK CAA Type Certificate E.093 and associated Type Certificate Data Sheet E.093, Issue 7 dated 09 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

Other engine limitations: see the relevant Engine Type Certificate Data Sheet

Notes:

1. A320-212 (CFM 56-5A3 engines) - A320-211 (CFM 56-5A1/F engines, see note 1 in Chapter 5 "engines" for usual names and certified names). The maximum permissible gas

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temperature at take-off and max continuous is extended to 915° C and 880° C respectively. However, the ECAM indication remains at 890° C and 855° C.

2. A320-231 with modification 23872 (EGT redline increase for IAE engines):

- for consolidated bump rating operation (MOD 23408), the maximum permissible gas temperature is extended to 650° C at take-off. The ECAM indication remains at 635° C.
- for non rating bump operation, the maximum permissible gas temperature is extended to 640° C at take-off. The ECAM indication remains at 635° C.
- for maximum continuous and take-off operation, the maximum permissible gas temperature is extended to 615° C. The ECAM indication remains at 610° C.

3. A320-231 with modification 25000 (FADEC Standard SCN12C for IAE engines):

- for take-off operation, the maximum permissible gas temperature is extended to 650°
 C. The ECAM indication remains at 635°
- for maximum continuous operation, the maximum permissible gas temperature is extended to 625° C. The ECAM indication remains at 610°C.

12.1 Approved Operations

Transport commercial operations.

12.2 Other Limitations

For a complete list of applicable limitations see the appropriate approved Airplane Flight Manual.

13. Maximum Certified Masses

A320-211/A320-212/A320-231

VARIANT WEIGHT (Kg)	000 (BASIC) (MOD 20802)	001 (MOD 20966)	002 (MOD 21601)	003 (MOD 22269)	004 (MOD 21532)	005 (MOD 21711)
Max. Ramp Weight	73 900	68 400	70 400	75 900	71 900	67 400
Max. Take-off Weight	73 500	68 000	70 000	75 500	71 500	67 000
Max. Landing Weight	64 500	64 500	64 500	64 500	64 500	64 500
Max. Zero Fuel Weight	60 500	60 500	60 500	60 500	60 500	60 500
Minimum Weight	37 230	37 230	37 230	37 230	37 230	37 230

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VARIANT WEIGHT (Kg)	006 (MOD 22436)	007 (MOD 23264)	008 (MOD 23900)	009 (MOD 23900 & 22269)	010 (MOD 23900 & 23264)	011 ⁽⁵⁾ (MOD 30307)
Max. Ramp Weight	66 400	77 400	73 900	75 900	77 400	75 900
Max. Take-off Weight	66 000	77 000	73 500	75 500	77 000	75 500
Max. Landing Weight	64 500	64 500	64 500	64 500	64 500	66 000
Max. Zero Fuel Weight	60 500	60 500	61 000	61 000	61 000	62 500
Minimum Weight	37 230	37 230	37 230	37 230	37 230	37 230

VARIANT	012 ⁽⁵⁾ (MOD	013 (MOD	014 (MOD	016 ⁽⁵⁾ (MOD	018 ⁽⁵⁾ (MOD	019 (MOD
WEIGHT (Kg)	30479)	31132)	31385)	34094)	151710)	156523)
Max. Ramp Weight	77 400	71 900	73 900	73 900	71 900	70 400
Max. Take-off Weight	77 000	71 500	73 500	73 500	71 500	70 000
Max. Landing Weight	66 000	64 500	64 500	66 000	66 000	64 500
Max. Zero Fuel Weight	62 500	61 000	61 500	62 500	62 500	61 000
Minimum Weight	37 230	37 230	37 230	37 230	37 230	37 230

A320-214/A320-232/A320-233

VARIANT	000 (BASIC)	001 (MOD	002 (MOD	003* (MOD	005 (MOD	007* (MOD
WEIGHT (Kg)		20966)	21601)	22269)	21711)	23264)
Max. Ramp Weight	73 900	6 8400	70 400	75 900	67 400	77 400
Max. Take-off Weight	73 500	68 000	70 000	75 500	67 000	77 000
Max. Landing Weight	64 500	64 500	64 500	64 500	64 500	64 500
Max. Zero Fuel Weight	60 500	60 500	60 500	60 500	60 500	60 500
Minimum Weight	37 230	37 230	37 230	37 230	37 230	37 230

VARIANT WEIGHT (Kg)	008* ^{(3) (4)} (MOD 23900)	009* ^{(3) (4)} (MOD 23900) (MOD 22269)	010* ^{(3) (4)} (MOD 23900) (MOD 23264)	011 ⁽³⁾⁽⁴⁾⁽⁵⁾ (MOD 30307)	012 ^{(3) (4) (5)} (MOD 30479)	013 ^{(3) (4)} (MOD 31132)
Max. Ramp Weight	73 900	75 900	77 400	75 900	77 400	71 900
Max. Take-off Weight	73 500	75 500	77 000	75 500	77 000	71 500
Max. Landing Weight	64 500	64 500	64 500	66 000	66 000	64 500
Max. Zero Fuel Weight	61 000	61 000	61 000	62 500	62 500	61 000
Minimum Weight	37 230	37 230	37 230	37 230	37 230	37 230

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VARIANT	014 ^{(3) (4)}	015 ⁽³⁾	016 ^{(3) (4) (5)}	017 ^{(3) (5)}	018 ^{(3) (4) (5)}	019 ^{(3) (4)}
WEIGHT (Kg)	(MOD 31385)	(MOD 34047)	(MOD 34094)	(MOD 151634)	(MOD 151710)	(MOD 156523)
Max. Ramp Weight	73 900	78 400	73 900	78 400	71 900	70 400
Max. Take-off Weight	73 500	78 000	73 500	78 000	71 500	70 000
Max. Landing Weight	64 500	64 500	66 000	66 000	66 000	64 500
Max. Zero Fuel Weight	61 500	61 000	62 500	62 500	62 500	61 000
Minimum Weight	37 230	37 230	37 230	37 230	37 230	37 230

A320-215/A320-216

VARIANT WEIGHT (Kg)	000 (BASIC) (MOD 20802)	001* ⁽¹⁾ (MOD 20966)	002* (MOD 21601)	003* (MOD 22269)	005 ⁽²⁾ (MOD 21711)	008* ^{(3) (4)} (MOD 23900)
Max. ramp weight	73 900	68 400	70 400	75 900	67 400	73 900
Max. Take-off Weight	73 500	68 000	70 000	75 500	67 000	73 500
Max. Landing Weight	64 500	64 500	64 500	64 500	64 500	64 500
Max. Zero Fuel Weight	60 500	60 500	60 500	60 500	60 500	61 000
Minimum Weight	37 230	37 230	37 230	37 230	37 230	37 230

VARIANT WEIGHT (Kg)	009* ^{(3) (4)} (MOD 23900 & 22269)	011* ^{(3) (4) (5)} (MOD 30307)	013* ^{(3) (4)} (MOD 31132)	014* ^{(3) (4)} (MOD 31385)	016* ^{(3) (4) (5)} (MOD 34094)	018 ^{(3) (4) (5)} (MOD 151710)
Max. ramp weight	75 900	75 900	71 900	73 900	73 900	71 900
Max. Take-off Weight	75 500	75 500	71 500	73 500	73 500	71 500
Max. Landing Weight	64 500	66 000	64 500	64 500	66 000	66 000
Max. Zero Fuel Weight	61 000	62 500	61 000	61 500	62 500	62 500
Minimum Weight	37 230	37 230	37 230	37 230	37 230	37 230

VARIANT	019 ^{(3) (4)} (MOD
WEIGHT (Kg)	156523)
Max. ramp weight	70 400
Max. Take-off Weight	70 000
Max. Landing Weight	64 500
Max. Zero Fuel Weight	61 000
Minimum Weight	37 230

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Notes:

- * WV option certified concurrently with the basic WV at the time of the model's approval
- (1) WV001 applicable to A320-215 (and –216) model only from MSN 530 (Introduction of A320-214 model)
- (2) WV005 applicable to A320-215 (and –216) models only for a/c having modification 28154 embodied
- (3) MOD 160500 is approved for WV 008 to WV 019, only.
- (4) MOD 160080 is approved for WV 008 to 014, 016 & 018-019 only
- (5) MOD 158708 is approved for WV 011, 012, 016-018 only

A320-271N/-272N/-273N/-251N/-252N/-253N

VARIANT	050 BASIC (MOD 161248)	051* (MOD 161380)	052* (MOD 161379)	053* (MOD 161384)	054 * (MOD 161381)
Max. ramp weight	73 900	73 900	77 400	77 400	79 400
Max. Take-off Weight	73 500	73 500	77 000	77 000	79 000
Max. Landing Weight	66 300	67 400	66 300	67 400	66 300
Max. Zero Fuel Weight	62 800	64 300	62 800	64 300	62 800

VARIANT	055* (MOD 161249)	056* (MOD 161383)	057* (MOD 161382)	069 (MOD 157908)	071 (MOD 157910)	075** (MOD 157914)
Max. ramp weight	79 400	70 400	70 400	75 900	75 400	74 400
Max. Take-off Weight	79 000	70 000	70 000	75 500	75 000	74 000
Max. Landing Weight	67 400	66 300	67 400	67 400	67 400	67 400
Max. Zero Fuel Weight	64 300	62 800	64 300	64 300	64 300	64 300

VARIANT	083 (MOD 157922)	085 (MOD 157924)
Max. ramp weight	71 900	71 400
Max. Take-off Weight	71 500	71 000
Max. Landing Weight	67 400	67 400
Max. Zero Fuel Weight	64 300	64 300

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<u>In addition the following weight variants are also certified for the A320-271N/-272N/-251N</u>

VARIANT	068 (MOD 157907)		078 (MOD 157917)	082 (MOD 157921)
Max. ramp weight	75 900		72 900	71 900
Max. Take-off Weight	75 500		72 500	71 500
Max. Landing Weight	66 300		66 300	66 300
Max. Zero Fuel Weight	62 800		62 800	62 800

In addition the following weight variants are also certified for the A320-271N/-272N/-251N equipped with modifications 162744, 163215 and 23398 (ACJ320neo specific weight variants)

VARIANT	110 (MOD 160808)	111 (MOD 160809)	112 (MOD 160810)
Max. ramp weight	79 400	78 400	77 400
Max. Take-off Weight	79 000	78 000	77 000
Max. Landing Weight	67 400	67 400	67 400
Max. Zero Fuel Weight	55 300	55 300	55 300

Notes:

- * WV option certified concurrently with the basic WV at the time of the model's approval
- ** WV 075 is not approved for the A320-272N, -273N, -253N

A320-251N/-252N/-253N have a Minimum Weight of 40600.

A320-271N/-272N/-273N have a Minimum Weight of 40300.

14. Centre of Gravity Range

See approved Airplane Flight Manual.

15. Datum

Station 0.0, located 2.540 meters forward of airplane nose.

16. Mean Aerodynamic Chord (MAC)

4.1935 meters.

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17. **Levelling Means**

The A/C can be jacked on three primary jacking points.

See the appropriate approved Weight and Balance Manual.

18. **Minimum Flight Crew**

2 pilots.

19. Minimum Cabin Crew

See paragraph 20.

20. **Maximum Seating Capacity**

The table below provides the certified Maximum Passenger Seating Capacities (MPSC), the corresponding cabin configuration (exit arrangement and modifications) and the associated minimum numbers of cabin crew members used to demonstrate compliance with the certification requirement:

MPSC	Cabin configuration	Modification	Minimum CC
195	C*-III-III-C*	156723, 158708 or 158819	4
180	C-III-III-C		4
165	C*-III-C*	164024	4
150	C-III-III-C	150364	3
145	C-III-C	150016 or 35177	3

Note: C* is the over-performing exit according to modification 156723/158708/158819 The original maximum passenger seating capacity is 180.

The Modifications 156723, 158708 or 158819 enable the maximum seating capacity to be increased from 180 up to 195. These modifications define a virtual envelope of the Layout of Passenger Accommodations (LOPA) and do not constitute an authorization for the installation of seats in excess of 180. A separate approval is needed for the installation of the individual customized cabin layout and the necessary cabin adaptations up to 195 seats.

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The second Type III emergency exit can be de-activated by embodiment of Note: modification 35177 (aft overwing exit) or modification 150016 (forward overwing exit). The maximum number of passengers between any of the overwing exit doors and rear door is 90.

When modification 164024 applies: If modification 35177 or modification 150016 is installed with modification 156723 or 158708 or 158819 the maximum number of passengers between the overwing exit doors and the forward or rear door is 100.

For modification 164024 in combination with 150364 the MPSC is 150, the minimum cabin crew is 3.

With MOD 153648 "EQUIPMENT/FURNISHINGS - GENERAL - DELIVER AIRCRAFT WITH INCOMPLETE CABIN" embodied, the cabin is limited to zero occupancy and no cargo (i.e. no occupancy and no cargo in cabin) during all phases of flight, unless a separate approved Modification is embodied to remove the limitation.

21. **Baggage/ Cargo Compartment**

CARGO COMPARTMENT	MAXIMUM LOAD (kg)
Forward	3 402
Aft	4 536
Rear (bulk)	1 497

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights) see Weight and Balance Manual, ref. 00E080A0001/C1S Chapter 1.10.

22. Wheels and Tyres

See SB A320 32 1007 for A320-211/-212/-214/-215/-216/-231/-232/-233 SB A320 32 1439 for 320-271N/-272N/-273N/-251N/-252N/-253N

Aircraft incorporating modification 20139 and without modification 22129, are equipped with a four-wheel bogie landing gear (up to 73.5 T MTOW).

23. **ETOPS**

The Type Design, system reliability and performance of A320 models were found capable for Extended Range Operations when configured, maintained and operated in accordance with the current revision of the ETOPS Configuration, Maintenance and Procedures (CMP) document, SA/EASA: AMC 20-6/CMP.

This finding does not constitute an approval to conduct Extended Range Operations (operational approval must be obtained from the responsible Authority).

The following table provides details on the ETOPS approvals.

Aircraft model	Engine Type	120 min Approval Date	180 min Approval Date
A320-211	CFM56-5A1	17 September 1991	11 March 2004

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A320-212	CFM56-5A3	17 September 1991	11 March 2004
A320-214	CFM56-5B4	28 April 1995	11 March 2004
A320-215	CFM56-5B5	N/A	06 November 2006
A320-216	CFM56-5B6	N/A	06 November 2006
A320-231	V2500-A1	13 January 1992	11 March 2004
A320-232	V2527-A5	28 April 1995	11 March 2004
A320-233	V2527E-A5	14 February 1997	11 March 2004
A320-271N	PW1127G-JM	27 June 2017	27 June 2017 (10 Jan 2019 for ACJ320neo)
A320-251N	CFM LEAP-1A26	10 July 2017	10 July 2017 (10 Jan 2019 for ACJ320neo)
A320-251N	CFM LEAP- 1A26E1	07 May 2020	07 May 2020 (Including ACJ320neo)
A320-252N	CFM LEAP-1A24	17 January 2018	17 January 2018
A320-253N	CFM LEAP-1A29	19 August 2019	19 August 2019
A320-272N	PW1124G1-JM	19 August 2019	19 August 2019
A320-273N	PW1129G-JM	19 August 2019	19 August 2019

Note:

The Configuration, Maintenance and Procedure Standards for extended range twin-engine airplane operations are contained in ETOPS CMP document reference SA/EASA: AMC 20-6/CMP at latest applicable revision. Certificated models are A320-211/-212/-214/-215/-231/-232/-233/-271N/-251N/-252N/-253N/-272N/-273N, with all applicable engines

Embodiment of modification:

36666 provides ETOPS 120 mn capability for UK CAA 32009 provides ETOPS 180 mn capability for UK CAA

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

Approved Airplane Flight Manual for A320.

2. Instructions for Continued Airworthiness and Airworthiness Limitations Airworthiness Limitations

- Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Section (ALS) sub-parts 1-2 and 1-3.

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- Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Items document (ALS Part 2).
- Certification Maintenance Requirements are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Section (ALS) Part 3.
- System Equipment Maintenance Requirements are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Section (ALS) Part 4.
- Fuel Airworthiness Limitations are provided in the A318/A319/A320/A321 approved Fuel Airworthiness Limitations document (ALS Part 5).
- Maintenance Review Board Report

Note:

- For A320-211, -212, -231, -232 and -233 models, the embodiment of modification 37734 leads to change the maintenance program and its associated Maintenance Programme Publication Trigger (MPPT) from 48,000FC/60,000FH to 37,500FC/80,000FH (whichever occurs first).
- For A320-211, -212, -214, -215, -216, -231, -232, -233 models without sharklets, the embodiment of modification 39020 leads to change the maintenance program and its associated Maintenance Programme Publication Trigger (MPPT) from 48,000FC/60,000FH to 60,000FC/120,000FH (whichever occurs first).

Other limitations

See approved Flight Manual.

3. Weight and Balance Manual (WBM)

Airbus Compliance Document 00D80A0001/C1S

V. Operational Suitability Data (OSD)

Master Minimum Equipment List: CRI MMEL-01
Flight Crew Data: CRI FCD-01
Cabin Crew Data: CRI CCD-01

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.064 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

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1. Master Minimum Equipment List

- a. The Master Minimum Equipment List has been approved as per the defined Operational Suitability Data Certification Basis and as documented in A320 MMEL reference "MMEL STL11000" at the latest applicable revision.
- b. Required for entry into service by UK operator.

2. Flight Crew Data

- a. The Flight Crew data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in reference "A320 Operational Suitability Data Flight Crew - SA01RP1536744" at the latest applicable revision.
- b. Required for entry into service by UK operator.
- c. The aircraft models: A318, A319, A321 are determined to be variants to the A320 aircraft model.

3. Cabin Crew Data

- a. The Cabin Crew data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in reference "A320 Operational Suitability Data Cabin Crew SA01RP1534113" at the latest applicable revision.
- b. Required for entry into service by UK operator.
- c. The aircraft models: A318, A319, A321 are determined to be variants to the A320 aircraft model.

VI. Notes

1. For models A320-211 and A320-212, modification 21038 shall be installed to enable Cat IIIB precision approach.

For model A320-231, modification 21039 shall be installed to enable Cat IIIB precision approach.

A320-214, -215, -216, -232, -233 are qualified for Cat IIIB precision approach per basic design definition.

For A320-251N/-252N/-253N/-271N/-272N/-273N modification 161765 shall be installed to enable Cat IIIB precision approach.

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Section 3 A321 Series

1. Type/ Model/ Variant

Type: A321 Series

Model: A321-111 b)

A321-112

A321-131

A321-211

A321-212

A321-213

A321-231

A321-232

A321-271N

A321-251N

A321-253N

A321-272N

A321-252N

A321-251NX

A321-252NX

A321-253NX

A321-271NX

A321-272NX

Significant Product Level Changes i.a.w. 21.A.101:

A320-214/-2 MOD 160500 Sharklet applicable on

MOD 160023 Sharklet applicable on A321-211, A321-212, A321-213,

A321-231, A321-232

MOD 157272 Iss 1 Max Pax applicable on A321-211, A321-212, A321-213,

A321-231, A321-232

MOD 161002 Iss 1 A321-271N MOD 161005 lss 1 A321-251N

MOD 157272 Iss 2 Max Pax applicable on A321-271N

MOD 157272 lss 3 Max Pax applicable on A321-251N, A321-253N

MOD 159536 Iss 1 Max Pax applicable on A321-211,-212,-213,-231,-232 MOD 160766 Iss 1 A321-251NX,-252NX,-253NX,-

271NX,-272NX

MOD 157272 Iss 4 Max Pax applicable on A321-252N, A321-272N

2. **Performance Class**

Α

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3. Certifying Authority

European Union Aviation Safety Agency (EASA)

Postfach 101253

D-50452 Köln

Deutschland

4. Manufacturer

AIRBUS

2 rond-point Emile Dewoitine

31700 BLAGNAC - France

5. State of Design Authority Certification Application Date

A321-111: November 30, 1989 A321-112: November 30, 1989 A321-131: November 30, 1989

A321-211: July 17, 1996 A321-212: February 22, 2001 A321-213: February 22, 2001

A321-231: July 17, 1996

A321-232: September 15, 2000

6. EASA Type Certification Application Date

Mod 160023 08 April 2010 20 October 2014 Mod 157272 lss 1 Mod 161002 29 February 2012 Mod 161005 29 February 2012 Mod 161006 10 November 2016 Mod 157272 lss 2 28 October 2016 Mod 162038 10 November 2016 Mod 157272 lss 3 22 December 2016 Mod 162681 10 November 2016 Mod 159536 01 July 2016 Mod 160766 11 February 2015 Mod 157272 Iss 4 14 October 2019

7. UK CAA Type Validation Application Date

Prior to 31 December 2020, application dates for type certification are covered by EASA type certification application dates, as per Section 6 above.

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New applications for UK CAA type validation received after 01 January 2021 will be recorded in this section. At the current issue of this UK CAA TCDS, no new applications for type validation have been received since 01 January 2021.

8. State of Design Authority Type Certificate Date

May 27, 1994 A321-111: A321-112: February 15, 1994 A321-131: December 17, 1993 A321-211: March 20, 1997 A321-212: August 31, 2001 A321-213: August 31, 2001 March 20, 1997 A321-231: A321-232: August 31, 2001

Note: For A321 produced before December 21, 2005 DGAC-F TC 180 remains a valid reference.

9. **EASA Type Certification Date**

EASA TCDS EASA.A.064 issue 1 issued December 21, 2005

Mod 160023 issue 1 17 July 2013 (A321-211) Mod 160023 issue 2 30 July 2013 (A321-231) Mod 160023 issue 4

16 June 2014 (A321-212, -213, -232)

Mod 157272 issue 1 19 June 2015 (A321-211/-212/-213/-231/-232)

Mod 161002 issue 1 15 December 2016 (A321-271N)

Mod 161005 issue 1 01 March 2017 (A321-251N) Mod 161006 issue 1 03 March 2017 (A321-253N)

Mod 157272 issue 2 06 March 2017 (A321-271N)

Mod 162038 Issue 1 23 May 2017 (A321-272N)

Mod 157272 issue 3 31 May 2017 (A321-251N/-253N) Mod 162681 issue 1 18 December 2017 (A321-252N)

Mod 159536 issue 1 24 November 2017 (A321-211/-212/-213/-231/-232)

Mod 160766 issue 1 22 March 2018 (A321-251NX/-252NX/-253NX/-271NX/-272NX)

Mod 157272 issue 4 07 May 2020 (A321-252N/-272N)

10. **UK CAA Type Validation Date**

Date: 06 September 2022

Prior to 31 December 2020, dates of type certification are covered by EASA type certification, as per Section 9 above.

UK CAA type validation dates after 01 January 2021 will be recorded in this section. At the current issue of this UK CAA TCDS, no UK CAA type validations have been completed since 01 January 2021.

UK CAA TCDS UK.TC.A.00010 Issue 1 issued 06 September 2022.

11. Production conditions

A321 aircraft, all series, all models, were all produced in Hamburg - Germany - under approval I-A9 (until April 1999) or LBA.G.0009 (since April 1999) issued by LBA to AIRBUS INDUSTRIE

Since September 27th, 2004, A321 aircraft were produced in Hamburg - Germany under approval DE.21G.0009 issued by LBA to AIRBUS

From July 21st, 2008, A321 aircraft are produced in and Hamburg (Germany) under approval EASA.21G.0001 issued by EASA to AIRBUS

From March 8th 2016 A321 aircraft are produced in Hamburg (Germany) and Mobile (USA) under approval EASA.21G.0001 issued by EASA to AIRBUS.

From February 3rd 2017 A321 aircraft are produced in Hamburg (Germany) and Mobile (USA) and delivered from Blagnac (France), Hamburg (Germany) and Mobile (USA) under approval EASA.21G.0001 issued by EASA to AIRBUS.

II. Certification Basis

1. Reference Date for determining the applicable requirements

AIRBUS INDUSTRIE has applied for A321-100 certification on November 30, 1989 by letter AI/EA-410.106/89.

2. State of Design Airworthiness Authority Type Certification Data Sheet No.

Original French TCDS DGAC no. 180 was replaced by the EASA TCDS A.064.

3. State of Design Airworthiness Authority Certification Basis

Refer to EASA TCDS EASA.A.064.

4. UK CAA Airworthiness Requirements

. . _ _ _

Hereafter are listed the certification basis for the different A321 models. The amendments made to a particular basis at the occasion of further A321 models certification are identified per model.

4.1 JAR 25 Change 11 as amended by the following JAR 25 Change 13 paragraphs effective on the reference date November 30, 1989:

JAR 25X20	JAR 25.345(a)
JAR 25.101	JAR 25.365
JAR 25.105	JAR 25.812(e)
JAR 25.107(d)	JAR 25.853 (a)(b) since MSN 118
JAR 25.109(a)	JAR 25.857(d)(6)
JAR 25.113	JAR 25.1501(c)
JAR 25.119(b)	JAR 25.1533(b)
JAR 25.121	JAR 25.1581(b)
JAR 25.125	JAR 25.1583(k)
JAR 25.143(f)	JAR 25.1587
JAR 25.207	JAR 25X1591

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JAR 25.253

Associated to JAR 25 Change 13, the following paragraphs are deleted:

JAR 25X131 Change 11
JAR 25X132 Change 11
JAR 25X133 Change 11
JAR 25X135 Change 11
JAR 25X1588 Change 11

4.2 Airbus Industrie has applied for A321-200 certification on July 17, 1996 by letter AI/EA-S 413.1938/96.

The previous certification basis of the A321-100 remains applicable, except 4.3.b which is superseded by the Airbus Industrie elect-to-comply (letter AI/EA-S 413.0278/97 dated January 29, 1997) with NPA 25 BDG 244 dated January 1996, amended 24/04/96, 22/05/96, 07/06/96, 04/07/96) (see EtC F-3012).

- 4.3 JAR AWO Change 1 for autoland and operations in low visibility.
- 4.4 For the Extended Twin Engine Airplane Operations the applicable technical conditions are contained in AMC 20-6 (as initially published in AMJ 120-42/IL 20) and the A321 ETOPS CRI:

CRI G3006 ETOPS

CRI G3007 ETOPS One engine inoperative cruise speed.

4.5 Certification basis has been revised for MOD 160023 "Sharklet".

The certification basis is that of the A321-211,-212,-213,-231,-232 amended by the following:

CS 25 Amdt 8 for

§ 25.23	§ 25.481(a)(c) amended by SC A-2 for § 25.481(a)
§ 25.25	
	§ 25.483
§ 25.117	§ 25.485
§ 25.147	§ 25.489
§ 25.161	§ 25.491
§ 25.177 amended by SC-F16	§ 25.571(a)(b)(e)
§ 25.235	§ 25.581
§ 25.251	§ 25.601
§ 25.301	§ 25.603
§ 25.302	§ 25.605
§ 25.303	§ 25.607
§ 25.305(a)(b)(c)(e)(f)	§ 25.609
§ 25.307(a)(d)	§ 25.613

TCDS No.: UK.TC.A.00010 Issue: 1

Date: 06 September 2022

Section 3: A321 Series - continued

§ 25.321(a)(b)(c)(d)	§ 25.619
§ 25.331(a)(b)(c)	§ 25.623
§ 25.333(a)(b)	§ 25.625
§ 25.335(a)(c)(d)(e)(f) amended by SC A5003 for (b) and SC A-2 for (e)	§ 25.629
§ 25.337	§ 25.631
§ 25.341(a)(b)	§ 25.651
§ 25.343(a)(b)	§ 25.683
§ 25.345(a)(b)(c)(d)	§ 25.899
§ 25.349(a)(b) amended by SC A-2.2.2 for 25.349(a)	§ 25.903(d)(1)
§ 25.351	§ 25.1385
§ 25.365(a)(b)(d)	§ 25.1387
§ 25.367	§ 25.1389
§ 25.371	§ 25.1391
§ 25.373	§ 25.1393
§ 25.391	§ 25.1395
§ 25.393(b)	§ 25.1397
§ 25.427	§ 25.1401
§ 25.445	§ 25.1505
§ 25.457	§ 25.1511
§ 25.459	§ 25.1515
§ 25.471(a)(b)	§ 25.1527
§ 25.473	§ 25.1587
§ 25.479(a)(c)(d) amended by SC A-2 for § 25.479(a)	§ 25.1591

CS 25 Amdt 2 for

§ 25.253

JAR 25 Chg 15 for

§ 25.1517

JAR 25 Chg 14 for

§ 25.21 amended by A318 SC F5001 (for b)	§ 25.149 + OP96/1
§ 25.101 amended by SC F11/S79	§ 25.171 replaced by SC-F5004
§ 25.103 replaced by A318 SC F5001	§ 25.173 replaced by SC-F5004
§ 25.105 amended by SC F11/S79	§ 25.175 replaced by SC-F5004
§ 25.107 amended by A318 SC-F5001	§ 25.181
§ 25.109 amended by SC F11/S79	§ 25.201 + OP96/1, replaced by SC-F5001
§ 25.111	§ 25.203 + OP96/1, replaced by SC-F5001

§ 25.113 + OP96/1 amended by SC F11/S79	§ 25.207 amended by SC-F5001
§ 25.115 amended by SC F11/S79	§ 25.231
§ 25.119 + OP96/1 amended by A318 SC F5001 (for b)	§ 25.233
§ 25.121 + OP96/1, amended by A318 SC F5001 (for c & d)	§ 25.237
§ 25.123	§ 25X261
§ 25.125 + OP96/1, amended by A318 SC F5001	§ 25.1533
§ 25.143 + OP96/1, amended by SC F3, F7 & F8	§ 25.1581
§ 25.145 + OP96/1	§ 25.1585(a)

JAR 25 Chg 11 for

§ 25.671

§ 25.672

§ 25.1001

§ 25.1301

§ 25.1309

§ 25.1419 amended by AMC-F14

Interpretative Material:

IM E-39 Uncontained Engine Rotor Failure

Note: The original Interpretative material applicable to each model remains effective.

Acceptable Means of Compliance:

AMC F-14 Flight in icing condition.

Note: AMC F-14 applicability extended from A321/A319/A318 to A320 with MOD 160023.

ETOPS

AMC 20-6 Rev 1 paragraphs related to operation in icing conditions 8.b.(11) for ice shapes on the Sharklet device.

AMC 20-6 Rev 1 paragraphs related to performance data in the AFM supplement for ETOPS 8.f.(1) (iii).

AMJ 120-42 for ETOPS for non-affected areas.

Note: This corresponds to the certification basis used for the initial ETOPS demonstration (refer to A320 EtC G-1006).

4.6 Certification basis has been revised for MOD 157272 issue 1 "Max Pax".

The certification basis is that of the A321-200 equipped with Sharklets amended by the following:

CS 25 Amdt 15 for

§25.23	§25.489
§25.321	§25.801(d)
§25.331	§25. 803(c)

§25.341(a)(b) §25. 807(g) amended by SC E-3001 and

demonstrated through ESF D-02

 §25.351
 §25.1519

 §25.473
 §25.1529

§25.479(a)(c)(d) amended by SC A-2 for § \$25.1541(a)(b)

25.479(a)

§25.481(a)(c) amended by SC A-2 for § §25.1557(a)

25.481(a)

JAR 25 change 13

§25.305(a)(b) §25.812(k)(l)

§25.812(e) §25.853(a)1 amended by SC D-0306-000

JAR 25 change 12

§25.853(c)(d)(e)

JAR 25 change 11

§25.307(a)	§25.1301
§25.561	§25.1351(a)
§25.571(a)(b)	§25.1353(a)(b)
§25.785	§25.1359(a)(d)
§25.787(a)(b)	§25.1413
\$25,789(a)	\$25,1415(b)(c)(c

\$25.789(a) \$25.1415(b)(c)(d) \$25.791 \$25.1431(c) \$25.853(a)(b) \$25.1447(c)(1)

4.7 Certification basis for A321-271N, A321-272N, A321-251N, A321-252N and A321-253N

The certification basis has been revised for the A321-271N, A321-272N, A321-251N, A321-252N and A321-253N.

The certification basis is that for A321-200 equipped with Sharklets amended by the following:

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CS 25 Amdt 11 for

-	
25.23 (a) (b)	25.952 (a) (b) (for pylon area)
25.25 (a) (b)	25.954
25.27	25.955 (a)
25.101	25.961 (a) (b)
25.109	25.963 (a)
25.113	25.969
25.115	25.971 (a) (b) (c)
25.117	25.981 for pylon area only
25.145 (a)	25.993 (a) (b) (c) (d) (e) for Engines and Pylon area only.
25.147	25.994 for fuel system component in the pylon and powerplant system area
25.149	25.995 for engine and pylon areas only
25.161	25.997 (a) (b) (c) (d)
25.171 replaced by SAneo SC B-04 (Static Directional, Lateral and Longitudinal Stability and Low Energy awareness)	25.999 (a) (b)
25.173 replaced by SAneo SC B-04 (Static Directional, Lateral and Longitudinal Stability and Low Energy awareness)	25.1001
25.175 replaced by SAneo SC B-04 (Static Directional, Lateral and Longitudinal Stability and Low Energy awareness)	25.1011 (a) (b)
25.177 with subparagraphs (b) and (c) replaced by SAneo SC B-04 (Static Directional, Lateral and Longitudinal Stability and Low Energy awareness)	25.1013 (a) (b) (c) (d) (e) (f)
25.181	25.1015 (a) (b)
25.201 replaced by SAneo SC B-01 (Stalling and scheduled operating speeds), with reference to SAneo IM B-06 (Flight in icing conditions)	25.1017 (a) (b)
25.203 replaced by SAneo SC B-01 (Stalling and scheduled operating speeds),	25.1019 (a)
25.231	25.1021 (a) (b)
25.233	25.1023 (a) (b)
25.235	25.1025 (a) (c)
25.251	25.1041
25.301 (a) (b) (c)	25.1043 (a) (b) (c)
25.302 (for new or modified parts)	25.1045 (a) (b) (c)
25.303 (for new or modified parts)	25.1091 (a) (b) (c) (d) (e)
25.305 (a) (b) (c) (e) (f) (for new or modified parts)	25.1093 (b)
25.307 (a) (d) (for new or modified parts)	25.1103 (b) (c) (d)
25.321 (a) (b) (c) (d)	25.1121 (a) (b) (c) (d) (f) (g)

Issue: 1

05 004 (-) (b) (-)	05 4400 (-) (h) (-)
25.331 (a) (b) (c)	25.1123 (a) (b) (c)
25.333 (a) (b)	25.1141 (a) (b) (c) (d) (e) (f)
25.335 (a) (b) (c) (d) (e) (f) with sub-paragraph (b) replaced by Legacy SC A-5003 (Design Dive Speed Vd) and sub-paragraph (e) amended by Legacy SC A-2 (Stalling speeds for structural design)	25.1143 (a) (b) (c) (d) (e)
25.337 (a) (b) (c) (d)	25.1145 (a) (b) (c)
25.341 (a) (b) (c)	25.1155 (a) (b) (c) (d) (e)
25.343 (a) (b) (for new or modified parts)	25.1163 (a) (b) (c)
25.345 (a) (b) (c) (d)	25.1165 (a) (b) (c) (e) (f) (h)
25.349 (a) (b)	25.1167 (a) (b) (c)
25.351 (a) (b) (c) (d)	25.1181 (a) (b) amended by SAneo ESF E-44 (Fan Zone non-fire zone)
25.361 (a) (b)	25.1182 (a) (b)
25.362 (a) (b) (for new or modified parts)	25.1183 (a) (b) (c)
25.363 (a) (b)	25.1185 (a) (b) (c)
25.365 (a) (b) (c) (d) (e)(1) (for new or modified parts)	25.1187 (a) (b) (c) (d) (e)
25.367 (a) (b)	25.1189 (a) (b) (d) (e) (f)
25.371	25.1191 (a) (b)
25.373 (a) (b)	25.1193 (a) (b) (c) (d) (e) amended by SAneo SC E-45 (Engine Cowl Retention)
25.391 (a) (b) (c) (d) (e)	25.1195 (a) (b) (c)
25.427 (a) (b) (c) (d)	25.1197 (a) (b)
25.445 (a) (b)	25.1199 (a) (b) (c) (d) (e)
25.457	25.1201 (a) (b)
25.459	25.1203 (a) (b) (c) (d) (e) (f) (g)
25.471 (a) (b)	25.1207 (a) (b) (c) (d)
25.473 (a) (b) (c) (d) (e)	25.1301 amended by Legacy SC S-30 (Automatic Flight/Flight Management Functions),For newly designed systems only
25.479 (a) (c) (d) amended by Legacy SC A-2 for § 25.479(a)	25.1305 (a) (c) (d) amended by SAneo SC F- 13 (Fuel System Low Level Indication – Fuel Exhaustion)
25.481 (a) (c) amended by Legacy SC A-2 for § 25.481(a)	25.1309 (for newly designed systems) amended by:
	Legacy SE-2001 (SC S-76 – Effects of external radiations upon aircraft systems),
	Legacy SC SE-14 (SC S-76-1 – Protection from the effects of HIRF)
25.483 (a) (b)	25.1316 (a) (b) (c)
25.485 (a) (b)	25.1337 (a) (c) (d)
25.489	25.1353 (a) (b) (for engine and pylon areas)
25.491	25.1355 (c)

25.493 (b) (c) (d) (e)	25.1357 (a) (for newly designed systems)
25.495	25.1401 (b)
25.499 (a) (b) (c) (d) (e)	25.1403
25.503 (a) (b)	25.1419 (a) (b) (c) (d) (e) (f) (g) (h) for engine air intake protection
25.507 (a) (b) (c)	25.1431 amended by Legacy SE-2001(SC S76 - Effects of external radiations upon aircraft systems) Legacy SC SE14 (SC S76-1 – Protection from the effect of HIRF) For newly designed equipment only
25.509 (a) (c) (d)	25.1438 (for newly designed equipment)
25.511	25.1459 (a) (b) (c) (d) amended by
23.311	Legacy SC S-72 (HC-S72 – Flight recorders)
25.519 (a) (b) (c)	25.1461 (a) (b) (c) (d) For newly designed equipment
25.571 (a) (b) (c) (d) (e) (for new or modified parts)	25.1501
25.581 amended by Legacy SC SE-2004 (SC S-75 – Lightning protection indirect effects) for pylon and nacelle areas	25.1503
25.601 (for new or modified parts)	25.1507
25.603 (a) (b) (c) (for new or modified parts)	25.1511
25.605 (a) (b) (for new or modified parts)	25.1513
25.607 (a) (b) (for new or modified parts)	25.1515
25.609 (a) (b) (for new or modified parts)	25.1517
25.611 (a)	25.1519
25.613 (a) (b) (c) (d) (e) (f) (for new or modified parts)	25.1521 (a) (c) (d)
25.619 (a) (b) (c) (for new or modified parts)	25.1525
25.623 (a) (b) (for new or modified parts)	25.1527
25.625 (a) (b) (c) (d) (for new or modified parts)	25.1531
25.629 (a) (b) (c) (d) (e)	25.1533
25.631 (for new or modified parts)	25.1535 (a) (b) (c)
25.651 (for new or modified parts)	25.1549 (a) (b) (c) (d) amended by SAneo ESF E-51 (Oil temperature indication)
25.671 (a) (b) (c) (d) amended by legacy SC F-7 (SC F9 - Dual Control System)	25.1551
25.731 (a) (b) (c)	25.1553
25.733 (b) (c) (d)	25.1557 (b)
25.779	25.1581
25.831 (a) (e)	25.1583 (a) (b) (c) (d) (e) (f) (h) (i) (k)
25.841 (a)	25.1585
25.851 (b)	25.1587

25.855 (c)	25.1591
25.863 (a) (b) (c) (d)	25.1701 (a) (b) (c) for engines and pylon areas
25.865	25.1703 (a) (b) (d) (e) for engines and pylon areas
25.867 (a) (b)	25.1705 (a) (b) for engines and pylon areas
25.869 (a) (b) (c)	25.1707 (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) for engines and pylon areas
25.899 amended by Legacy SC SE-2004 (SC S75 – Lightning protection indirect effects), for Pylon and Nacelle areas only	25.1709 (a) (b) for engines and pylon areas
25.901 (a) (b) (c) amended by SAneo SC E-45 (Engine Cowl Retention),	25.1711 (a) (b) (c) (d) (e) for engines and pylon areas
25.903 (a) (b) (c) (d) (e)	25.1713 (a) (b) (c) for engines and pylon areas
25.904	25.1715 (a) (b) for engines and pylon areas
25.933 (a)	25.1717 for engines and pylon areas
25.934 amended by SAneo ESF E-43 (Thrust Reverser Testing).	25.1719 for engines and pylon areas
25.939 (a) (c)	25.1723 for engines and pylon areas
25.943	25.1725 (a) (b) for engines and pylon areas
25.951 (a) (b) (c) amended by SC E-37 (Water/Ice in Fuel System), for pylon area only.	25.1727 for engines and pylon areas 25.1731 (a) (b)
CS25 Amdt 8 for:	
25.683 (b)	
CS 25 Amdt 2 for:	
25.21 with sub-paragraph (b) added by SAneo SC B-01 (Stalling and Scheduled Operating Speeds)	25.123
25.103 replaced by SAneo SC B-01 (Stalling and Scheduled Operating Speeds)	25.125
25.105	25.143
	Sub-Paragraphs (j), (k), (l) added by SAneo SC B-03 (Motion and Effect of Cockpit control),
	Sub-paragraph (h) added by SAneo SC B-07 (Flight envelope protection),
	Sub paragraph (i) added by SAneo SC B-08 (Normal Load factor limiting System).
25.107	25.207 replaced by SAneo SC B-01 (Stalling and scheduled operating speeds).
25.111	25.237
25.119	25.253

25.121 25.1419

CS25 Amdt 1:

25.981 (a) (3) amended by generic SC E-48 - Fuel Tank Safety for all areas except engine and pylon areas

JAR 25 Chg 14 for:

25.145 (b) (c)

25.365 (e)(2), (e)(3)

25.1423 (a) (b) (c) (d) (e) (f) (g)

25.1583 (j)

JAR 25 Chg 13 for

25.365 (f) (g)

25.735 (a) (f) (g) (h) amended by

Legacy SC F-4012 (SC F-11 – Accelerate-stop distances and related performances, worn brakes)

Legacy SC SE-3003 (SC S-79 - Brake requirements, qualification and testing - A321)

25.853(a)(1)

JAR 25 Chg 12 for

25.853(c)

JAR 25 Chg 11 for:

25.561 (a) (b) (c)	25.1309 amended by Generic SC D-0332- 001 (Towbarless Towing) For systems adaptations.
25.563	25X1315

25.672 (a) (b) (c) 25.994 for all areas except engine and pylon areas

25.677 (b) 25.1301

25.1321 (d) 25.703 (a) (b) (c)

25.721 (a) (b) (c) 25.1322 (a) (b) (c) (d) amended by generic

SC D-0332-001 (Towbarless Towing)

25.729 (b) (c) (d) (e) (f) 25.1323 (a) (b) (c) 25.735 (b) (c) 25.1325 (b) (d) (e) 25.771 (e)

25.1329 (f) amended by:

Legacy SC S-30 (Automatic Flight/Flight

Management Functions),

25.777 Sub-paragraph (b) amended by SAneo SC B-03 (Motion and Effect of Cockpit Control) 25.1337 (b)

25.783 (a) (b) (c) (e) (f) (g)

25.1351 (a) (b) (d) where (d) is replaced by Legacy SC-S52 (Operation without normal

Electrical power)

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25.791 25.1353 (a) (b) (for all areas except pylon and engine) 25.801 25.1359 25.807 (a) (b) (c) (d) 25.1363 (a) (b) 25.1419 (a) (b) (c) (d) amended by AMC F-14 25.809 (a) (b) (c) (d) (e) (f) for all ATA300 areas except Engine Air intake protection and Wing ice shapes 25.843 (a) 25.1431 (for system adaptations) 25.853 (a) 25.1435 (a) (b) (c) (d) 25X899 amended by Legacy SC SE-2004 (SC 25.1457 (a) (b) (c) (d) (e) (f) (g) S75 – Lightning protection indirect effects) 25.959 25.1529 amended by SC H-01 25.963 (d) (e) 25A901 (c) 25.967 (d) 25A939 (a) 25.975 (a) 25A1521 25.981 for all paragraph except (a) (3) in all 25A1527

4.8 Certification basis has been revised for MOD 157272 issue 2 and Issue 3 "Max Pax".

The certification basis is that of the A321-271N,-251N,-253N amended by the following:

CS 25 Amdt 18 for

areas except engine and pylon areas

§25.23 §25.489 §25.305(a)(b) §25.571(a)(b) §25.307(a) §25.801(d) §25.321 §25. 803(c) §25.331 §25. 807(g) amended by SC E-3001 and demonstrated through ESF D-02 §25.341(a)(b) §25.901(c) §25.351 §25.1519 §25.365(a) §25.1529 §25.473 §25.1541(a)(b) §25.479(a)(c)(d) amended by SC A-2 for § §25.1557(a) 25.479(a) §25.481(a)(c) amended by SC A-2 for § 25.481(a)

CS 25 Amdt 11

§25.1357(a)

JAR 25 change 13

§25.812(e) §25.853(a)1 amended by SC D-0306-000

§25.812(k)(I)

JAR 25 change 12

§25.853(c)

§25.1301

JAR 25 change 11

\$25.1351(a) \$25.785 \$25.1353(a)(b) \$25.787(a)(b) \$25.789(a) \$25.1413 \$25.791 \$25.1415(b)(c)(d) \$25.853(a)(b) \$25.1431(c)

4.9 Certification basis has been revised for MOD 159536 issue 1 "Max Pax".

The certification basis is that of the A321-200 without modification 160021(reinforced wings) amended by the following:

§25.1447(c)(1)

CS 25 Amdt 18 for

§25.23 §25.489 §25.321 §25.801(d) §25. 803(c) §25.331(a)(b)(c1) §25.341(a) §25. 807(g) amended by SC E-3001 and demonstrated through ESF D-02 §25.1519 §25.351 §25.365(a) §25.1529 §25.473 §25.1541(a)(b) §25.479(a)(c)(d) amended by SC A-2 for § §25.1557(a) 25.479(a) §25.481(a)(c) amended by SC A-2 for § 25.481(a)

JAR 25 Change 14

\$25.305(a)(b) \$25.571(b2) \$25.331(c2) \$25.1357(a) \$25.341(b)

JAR 25 change 13

§25.812(e) §25.853(a)1 amended by SC D-0306-000 §25.812(k)(l)

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JAR 25 change 12

§25.853(c)

JAR 25 change 11

§25.307(a) §25.1351(a) §25.561 §25.1353(a)(b) §25.571(a)(b) §25.1357(a) §25.785 §25.1359(a)(d) §25.787(a)(b) §25.1413 §25.789(a) §25.1415(b)(c)(d) §25.791 §25.1431(c) §25.853(a)(b) §25.1447(c)(1)

4.10 Certification basis has been revised for MOD 160766 issue 1 A321-251NX, -252NX, -253NX, -271NX, -272NX.

The certification basis is that of the A321-271N,-272N,-251N, -252N,-253N amended by the following.

CS25 Amdt 15

§25.1301

§25.1 §2	5.623
§25.23 §2	5.625
§25.25 §2	5.629
§25.101(c)(d)(e)(f)(h) §2	5.631
§25.109	5.703(b)(c)
§25.113	5.723
§25.115	5.729(a)(b)(d)(e)
§25.117	5.731(a)(b)(c)
§25.147(c)(d) §2	5.733(b)(c)(d)
§25.201 as amended by SC B-01 §2	5.735(a)
§25.203 as amended by SC B-01 §2	5.735[f(2)]
§25.251(d)(e) §2	5.783
§25.301(a)(c) §2	5.783[e(4)]
§25.301(b) §25.301(b)	5.787(c)
§25.302	5.795(c[1])
§25.303	5.795(c[3](i))
§25.305(a)(b) §2	5.801(a)(d)
§25.305(c)(e)(f) §2	5.803(a)(c)
	5.807(a[3])(a[9])(b)(c)(e)(f)(g)(i) as nended by ESF D-09, ESF D-13, ESF D-14

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§25.809(a)

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§25.321

§25.331	§25.809(a)
§25.333	§25.809(b)(c)(e)(f) (g)(i)
§25.335(a)(c)(d)(e)(f) as amended by SC A-2	§25.810(a[1])(c)(d)
\$25.337(a)(b)(c)	§25.811
§25.341	§25.812(a)(b[1])(c)(d)(e)(f)(g)(h)(i)(j)(k) (l)
§25.343	
§25.345(a)(b)(d)	§25.812(e[1])(e[2]) (k)(l) §25.813(a)(b)(c) as amended by ESF D-11,
920.040(a)(b)(d)	ESF D-14
§25.349 (a1,5)(b)	§25.843(a)(b[4])
§25.351	§25.853(a)(d[1])
§25.361	§25.855(a)(c)
§25.362	§25.856 as amended by ESF E-18
§25.363	§25.857
§25.365(a)(b)(d)	§25.858
§25.365(e1)	§25.863(a)(b)(d)
§25.365(e[2])(e[3])(f)	§25.869(a[1])
§25.367	§25.899 as amended by SC S-75
§25.371	§25.901(c)
§25.373	§25.903(c)(d[1])
§25.391(a)(b)(d)(e)	§25.963(a)
§25.427(a)(b)(d)	§25.1001(a)(b)(c)(d)
§25.445(a)	§25.1301(a)
§25.457	§25.1301(b)
§25.459	§25.1305(c)(6)(7) as amended by ESF E-49
§25.471(a)(b)	§25.1309 as amended by SC S-76-1
§25.473	§25.1316
§25.479(a)(c)(d) as amended by SC A-2	§25.1353(a)(b)(e)
§25.481(a)(c) as amended by SC A-2	§25.1360
§25.483	§25.1411
§25.485	§25.1431(a)(c)(d) as amended by SC S-76-1
§25.489	§25.1511
§25.491	§25.1519
§25.493(b)(c)(d)(e)	§25.1533
§25.495	§25.1535(a)(b)(c)
§25.499	§25.1541
§25.503	§25.1545
§25.507(a)(b)	§25.1557(a)(c)
§25.509(a)(c)(d)	§25.1561
§25.509(b)	§25.1581
§25.511	§25.1583
§25.519	§25.1587

Section 3: A321 Series - continued

§25.561 §25.1591 25.562(a)(b)(c[1])(c[2])(c[3])(c[4])(c[7])(c[8])§25.1703(a)(b)(d) §25.1705(a) §25.571(a)(b) §25.1707(a)(d)(l) §25.571(c) §25.1709 §25.571(e) §25.581 §25.1711(a)(c)(d)(e) §25.601 §25.1713(a)(c) §25.603 §25.1715 §25.605 §25.1717 §25.607 §25.1719 §25.609 §25.1721(a)(b) §25.611(a) §25.1725(b) §25.611(b) §25.J951(a) §25.613 §25.J952(a) §25.619 §25.J955(a1) §25.621 §25.J993 §25.J994

CS25 Amdt 11

§25.335(b) as amended by SC A-5003 §25.1301(a[1][3])

§25.809(a) §25.1309 as amended by SC S-76-1

CS25 Amdt 2

§25.21(a)(d)§25.111§25.103§25.121§25.105§25.123

§25.143(a)(b[3])(g) as amended by SC B-01,

SC B-08

JAR25 Change 14

§25.1423

JAR25 Change 13

§25.853(a[1]) as amended by SC D-0306-000

JAR25 Change 12

§25.853(c)

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JAR25 Change 11

§25.561 §25.1309(a)(b)(c)(d) (g) as amended by SC S-76-1 §25.729(f) §25.1322 §25.785 as amended by ESF D-12, D-14. §25.1351(a[1]) §25.787(a)(b) §25.1353(a)(b) §25.789(a) §25.1357(a)(c)(g) §25.791 §25.1359(a)(d) §25.793 §25.1413 §25.815 §25.1415(a)(b)(c)(d) §25.817 §25.1431(c) §25.843(a)(b[4]) §25.1435(a[1])(a[5]) (a[6]) §25.851(a[1]) §25.1438 §25.853(a)(b) as amended by EtC E-28 and §25.1441 **ESF E-18**

§25.1447(a)(c[1]) (c[3])(c[4])

§25.1103(c)(d) §25.1529 as amended by SC H-01

§25.1301

§25.853(c)(d)(e)

4.11 Certification basis has been revised for MOD 157272 issue 4 "Max Pax"

The certification basis is that of the A321-252N,-272N amended by the following:

CS 25 Amdt 23 for

§25.23 §25.489 §25.321 §25.801(d) §25.331 §25. 803(c) §25.341(a)(b) §25. 807(g) amended by SC E-3001 and demonstrated through ESF D-02 §25.351 §25.901(c) §25.473 §25.1519 §25.479(a)(c)(d) amended by SC A-2 for § §25.1529 25.479(a) §25.481(a)(c) amended by SC A-2 for § §25.1541(a)(b) 25.481(a)

§25.1557(a)

CS 25 Amdt 18 for

CS 25 Amdt 11

§25.1357(a) §25.1431(c)

JAR 25 change 13

§25.812(e) §25.853(a)1 amended by SC D-0306-000

§25.812(k)(I)

JAR 25 change 12

§25.853(c)

JAR 25 change 11

 §25.561
 §25.1351(a)

 §25.785
 §25.1353(a)(b)

 §25.787(a)(b)
 §25.1359(a)(d)

 §25.789(a)
 §25.1413

§25.1301

5. Special Conditions

Reminder: Within the scope of the establishment of the A320 Joint Certification Basis, three types of special conditions were developed:

- Special conditions: rose to cover novel or unusual features not addressed by the JAR.
- Experience related conditions: rose to record an agreed text for the A320 Joint Certification Basis when evolution of JAR was in progress under the NPA procedure.
- Harmonization conditions: to record, for the purpose of the A320 Joint Certification Basis, a common understanding with respect to National variant. This should not be confused with the FAA/JAA harmonised regulations.

Compulsory

5.1 The following A320 Special Conditions, Experience Related Conditions and Harmonization Conditions are deleted:

a. Further to application of the updated requirements of above paragraphs 4.1 and 9.1:

HC-F103 ASD-TOD-TOR on wet runways

HC-F114 Approach and Target Threshold Speeds

EC-A.3.6.1 High Lift Devices

SC-A.4.3 Tuned Gust Loads (UK)

HC-A.4.4 Manoeuvre Loads - High Lift Devices Deployed

Section 3: A321 Series - continued

HC-S61 Design Landing Brake Kinetic Energy
HC-S62 Rejected Take-Off Brake Kinetic Energy
IM-AMC-F101 Wet Runway Friction Characteristics
IM-F103 ASD-TOD-TOR on Wet Runways
IM-A38 Discrete Gust Requirements
AMC-A43 Tuned Gust Loads (UK)

b. Further to JAR 25 requirements evolution:

EC-G11 General Definition

IM-F107 Landing Distance Determination

AMC-F111 Take-Off Speeds VMU

c. Further to issuance of A321 Special Conditions and Interpretative Materials listed in paragraph 5.2 below:

SC-A.2.1.1/IM-A.2.1.1 Certification criteria for aircraft designed with systems

interacting with structural performance

IM-A35 Rapid Decompression

IM-A47 Emergency Landing Conditions

5.2 New or updated A321 Special Conditions and Advisory Material:

Flight

SC-F1 and IM-F1 (SC F-3001) Stalling and Scheduled Operating Speeds

SC-F10 (SC F-3002) Accelerate - Stop Distance

IM-F4 (IM F-3003) Static Longitudinal Stability (low energy awareness)

IM-F12 (IM F-3004) Computerized Airplane Flight Manual

IM-F13 (IM F-3005) Landing Distance Extrapolation

AMC-F14 (MoC F-3006) Flight in Icing Conditions

Structure

SC-A1 and IM-A1 (SC A-3001) Interaction of Systems and Structure SC-A2 (SC A-3002) Stalling Speeds for Structural Design

IM-A3 (IM A-3003) Rapid Decompression

IM-A4 (IM A-3004) Crashworthiness of Fuel Tanks outside the fuselage

Propulsion

SC-P1 and IM-P1 FADEC

IM-P2 (MoC P-3003) Nacelle Cowling Resistance to Fire

Environment

SC-E1 and IM-E1 (SC E-3005) Resistance to Fire Terminology

AMC-E2 (E-3006) Emergency Evacuation Demonstration

SC-E3 (SC E-3001) Exit Configuration

IM-E4 (IM E-3002) Reclassification of door 2 and 3 to Type III

Systems

IM-S78 Low altitude autopilot engagement

SC-S79 and IM-S79 Brakes requirements qualification and testing

5.3 The following A320 Special Conditions and Interpretative Material are validated for A321:

SC-G17 (F) Operational proving flights

SC-G17 (G) Operational flight for certification

SC-F3 Cockpit Control - motion and effect of cockpit control

SC-F4 Static Longitudinal Stability

SC-F6 Static Directional and Lateral Stability

SC-F7/IM-F7 Flight Envelope Protection
SC-F8 Normal Load Factor Limiting

SC-F9 Dual Control System
AMC-F116 Take-off Speeds VMU

SC-A.2.2/IM-A.2.2.2 Design Manoeuvre requirement

SC-A.2.2.3/IM-A.2.2.3 Design Dive Speed

AMC-A23 Composite Aircraft Structure

IM-A313 Composite Turbulence - use of calculation resultsIM-A37 Emergency Landing Conditions and Landing Gear

IM-A39
 HC-A.4.5/IM-A.4.5
 Brake Roll Conditions
 HC-A.4.6
 Speed control device
 AMC-S1
 Digital Equipment

AMC-S5 Electrical bonding and lightning protection (direct effects)

SC-S11 Limit pilot forces and torques IM-S13 Standby gyroscopic horizon

IM/AMC-S14 Electrical flight controls (manual flight)

AMC-S20 Electronic instrument systems

IM-S21 Landing Gear

HC-S23/IM-S23 Standby Gyroscopic Horizon
HC-S24 VMO/MMO Warning (Setting)

IM/AMC-S27 Altitude Display System

EC-S30/AMC-S30 Autoflight System SC-S33 Autothrust System

IM-S35 Autopilot Synchronization

IM/AMC-S42IM-S51APU Rotor BurstEmergency Loads

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SC-S52/IM-S52 Operation without normal electrical power

SC-S54/IM-S54 Circuit protective devices

HC-S72/IM-S73 Flight recorder SC-S74 Abnormal attitudes

SC-S75 Lightning protection (indirect effects)

SC-S76/IM-S76 Effect of external radiations upon aircraft systems

SC-S77/IM-S77 Integrity of signal control

5.4 For any new application (new or modified aeroplane system and associated components) after July 10, 1998, SC/IM-S76 (Effect of external radiations upon aircraft systems) are superseded by SC/IM-S76-1 (SC SE-14).

- 5.5 For any further variant certification after Aug. 10, 1998, the HC-A.4.5 (Braked roll conditions) is superseded by JAR 25.493(d) at Change 14 (EtC A-7).
- 5.6 The following special conditions have been developed post Type Certification:

SC H-01 Enhanced Airworthiness Programme for Aeroplane Systems - ICA on

EWIS (applicable from May 2010)

SCD-0306 Heat release and smoke density requirements to seat material

(applicable from June 2010)

SC P-27 Flammability Reduction System (see Note below)

If fitted, the centre fuel tank of aircraft which have made their first flight after 1st of January 2012 must be equipped in production with a fuel tank Flammability Reduction System (modification 38062). This system shall remain installed and operative and can only be

dispatched inoperative in accordance with the provisions of the MMEL revision associated with modification 38062. If modification 38062 (Fuel Tank Inerting System (FTIS)) is embodied on A318, A319, A320,

or A321 airplanes, the airplane is compliant with paragraph FR Section 25.981(a) & (b) at amendment 25-102, Part 25 appendix M & N at amendment 25-125, and Section 26.33 at amendment 26-3.

SC E-48 Fuel Tank Safety (applicable from October 2013)

SC F-0311-001 Flight Recorders including Data Link Recording (applicable as per

operational regulations)

F-GEN-01 Installation of non-rechargeable lithium battery (applicable from March

2019)

5.7 Special Conditions for aircraft equipped with MOD 160023

SC F-16 Static directional and lateral stability

A318 SC F-5001 Stalling and scheduled operating speeds

A318 SC F-5004 Static Longitudinal Stability and Low energy awareness

A318 SC A-5003* Design Dive Speed V_D

Note: All other original Special Conditions applicable to each model remain effective.

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^{*}From 07th December 2018 SC B-14 is replacing SC A-5003

5.8	Special Conditions for	r A321-271N.	A321-272N	A321-251N	. A321-252N and A321-253N

B-01 Stalling and Scheduled Operating Speeds

B-03 Motion and effect of cockpit control

B-04 Static Directional, Lateral and Longitudinal Stability and Low energy

awareness

B-07 Flight Envelope Protection

B-08 Normal Load Factor limiting System

E-37 Water/Ice in Fuel System
E-45 Engine Cowl Retention

F-13 Fuel System Low Level Indication - Fuel Exhaustion

E-55* Fan Blade Loss

5.8.1 The following special conditions developed for previous models are also applicable to the A321-271N, A321-272N, A321-251N, A321-252N and A321-253N affected areas:

A2.2.2 Design Manoeuvre requirement

A-3001 (SC A1) Interaction of systems and structure

A-3002 (SC A2) Stalling Speeds for structural design (A321)

A-5003* Design dive speed Vd
D-0332-001 Towbarless Towing
E-48 Fuel Tank Safety

F4012 (SC F11) Accelerate-stop distances and relates performances, worn brakes

F7 (SC F-9) Dual Control System

H-01 Enhanced Airworthiness Programme for Aeroplane Systems - ICA on

EWIS

P-27 Flammability Reduction System (consisting of Cooled Serviced Air

System and Inert Gas Generation System

S11 Limit Pilot forces and torques

S30 Automatic Flight/Flight Management Functions

S-33 Autothrust system
S72 (HC-S72) Flight recorders

SE14 (SC S-76-1) Protection from the effect of HIRF SE2004 (SC S-75) Lightning protection indirect effects

SE3003 (SC S-79) Brake requirements, qualification and testing (A321)

5.8.2 The following special conditions developed for previous models are also applicable to the A321-271NX, A321-272NX, A321-251NX, A321-252NX and A321-253NX affected areas:

B-01 Stalling and Scheduled Operating Speeds

B-03 Motion and effect of cockpit control

^{*}Only applicable to CFM models

^{*}From 07th December 2018 SC B-14 is replacing SC A-5003

B-04	Static Directional, Lateral and Longitudinal Stability and Low energy awareness
B-07	Flight Envelope Protection
B-08	Normal Load Factor limiting System
E-37	Water/Ice in Fuel System
E-45	Engine Cowl Retention
F-13	Fuel System Low Level Indication - Fuel Exhaustion
E-55*	Fan Blade Loss
A-3002 (SC A2)	Stalling Speeds for structural design (A321)
A-5003**	Design dive speed Vd
D-0332-001	Towbarless Towing
E-48	Fuel Tank Safety
F4012 (SC F11)	Accelerate-stop distances and relates performances, worn brakes
F7 (SC F-9)	Dual Control System
H-01	Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS
P-27	Flammability Reduction System (consisting of Cooled Serviced Air System and Inert Gas Generation System)
S11	Limit Pilot forces and torques
S30	Automatic Flight/Flight Management Functions
S-33	Autothrust system
S72 (HC-S72)	Flight recorders
SE14 (SC S-76-1)	Protection from the effect of HIRF
SE2004 (SC S-75)	Lightning protection indirect effects

^{*}Only applicable to CFM models

Optional

5.9 The following special conditions have been developed post Type Certification:

B-12	Soft Go Around
D-08	Installation of Personal Electronic Device charging stowage for cabin crew use
D-15	Pilot Control Mode TaxiBot Operations
D-19	Incorporation of Inertia Locking Device in Dynamic Seats
D-24	Installation of Airbags in the backrest of seats
D-25	Installation of structure mounted airbag
D-27	Installation of Three Point Restraint & Pretensioner System
D-28	Installation of oblique seats
D-0322-001	Installation of suite type seating

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D-0332-001	Towbarless Towing	
E-10	High altitude airport operations (up to 14,100 ft)"	
E-13	Installation of inflatable restraints	
E-21	Flight Instrument External Probes – Qualification in Icing Conditions New UTAS Pitot Probes	
E-34	Seat with inflatable restraints	
F-119	Security Protection of Aircraft Systems and Networks	

6. Exemptions

No exemptions.

7. Deviations

Optional

ACNS-B-GEN-01 Removal of DM89 MONITORING message from the required CPDLC

downlink messages list

8. Equivalent Safety Findings

Compulsory

8.1 The following paragraphs JAR 25 have been complied with through equivalent safety demonstration:

JAR 25.783 (f) passenger doors and bulk door (see ESF SM-3001, SM-3002 and

SM-3004)

JAR 25.933 (a) Thrust reverser auto restow function (see ESF P-3008).

8.2 The following Equivalent Safety Findings have been developed post Type Certification:

FAR 25.856(b) Fuselage burnthrough protection in bilge area (see ESF E-32), see

note below

If modifications 150700, and 37270 (with CLS option only), 37048 and 36985 are embodied in production on A318, A319, A320, or A321 airplanes, the airplane is compliant with Fuselage Flame Penetration "Burnthrough" requirements addressed by paragraph 14 CFR Part

25.856(b) Amdt 25-111(See EtC E-28). (applicable as per operational regulations)

14CFR Part 25.856(a) Improved flammability standards for insulation materials

(ESF E-18)(applicable as per operational regulations)

8.3 Equivalent Safety Findings for aircraft equipped with MOD 160023

CS25.1419(c) F-19

Flight in natural icing condition

Note: The original ESFs applicable to each model remain effective.

8.4 Equivalent Safety Findings for aircraft equipped with MOD 157272 or 159536

CS25.807(g) D-02

Over-performing Type I exit

8.5 The following Equivalent Safety Findings have been developed for the A321-271N, A321-272N, A321-251N, A321-252N and A321-253N:

CS25.934, CS-E 890	E-43	Thrust Reverser Testing
CS25.1181(a)	E-44*	Fan Zone as non fire zone
CS25.1549(a)	E-51	Oil temperature indication
CS25.1181, CS25.1182	E-52	Nacelle area adjacent to fire
CS25.997(d)	E-49**	Fuel Filter Location

^{*} Applicable to IAE models only

8.5.1 The following ESF developed for previous models are also applicable to the A321-271N, A321-272N, A321-251N, A321-252N and A321-253N affected areas:

JAR AWO 313	SE-4005	Revised strategy for demonstrating a safe go-around 'Minimum Approach Break-off Height (MABH) (issued for A319)
JAR AWO 236	SE-5005	Cat III operations - Excess Deviation Alerts
JAR 25.1441(c)	F-21	Crew Determination of Quantity of Oxygen in Passenger Oxygen System
14CFR Part 25.856(a)	E-18	Improved flammability standards for thermal / acoustic insulation materials

8.6 The following Equivalent Safety Findings have been developed for the A321-271NX, A321-272NX, A321-252NX and A321-253NX:

CS 25.807(g)	D-09	Increase of seats' credit for oversized Type I (qualified to Type C) floor level exits
CS 25.813[c(4)(i)] CS 25.813[c(2)(i)]	D-11	Over wing Type III exit interior arrangement
JAR 25.785(h)	D-12	Single cabin attendant seat at door #3
CS 25.807(g)	D-13	Increase of seats' credit for Type III exit
CS 25.807(c)(g), 25.813(c) JAR 25.785(h)	D-14	De-rating of Door #3 to 45 or 35 passengers

Optional

8.7 The following Equivalent Safety Findings have been developed post Type Certification:

CS 25.251(b)	Vibration/buffeting compliance criteria for large external antenna installation (see ESF B-17) applicable from February 2021.
JAR 25.785(c)	Forward facing seats with more than 18° to aircraft centerline. (ESF D-0329-001) $$
CS 25.795(a)(1)	Application of reduced Intrusion Loads in certain areas of the flight deck boundaries (ESF D-31)
FAR 25.856(b)	Fuselage burnthrough protection in bilge area (see ESF E-32), see note below

^{**}Applicable to CFM models only

If modifications 150700, and 37270 (with CLS option only), 37048 and 36985 are embodied in production on A318, A319, A320, or A321 airplanes, the airplane is compliant with Fuselage Flame Penetration "Burnthrough" requirements addressed by paragraph 14 CFR Part

25.856(b) Amdt 25-111(See EtC E-28). (applicable as per operational regulations)

CS 25.811(e)(4) Green Arrow and "Open" placard for Emergency Exit Marking (ESF

SE-63)

Emergency exit marking reflectance (see E-16) JAR 25.811(f) Over-Wing Exit Interior Arrangement (ESF D-21) CS 25.813(c)(2)

JAR 25.812(b)(1)(ii) Photo-luminescent EXIT sign for MCD (Moveable Class Divider) (ESF

E-14)

Symbolic EXIT signs as an alternative to red EXIT signs for passenger JAR 25.812(b)(1)(i)(ii)

aircraft (ESF SE-42)

JAR 25.1443(c) Minimum Mass Flow of Supplemental Oxygen (ESF F-20) (optional) JAR 25.1441(c)

Crew Determination of Quantity of Oxygen in Passenger Oxygen

System (ESF F-21)

9. **Elect To Comply**

Compulsory

- 9.1 JAR 25 Requirements elected by the manufacturer (Letter AI/EA 412.0033/92 dated March 13, 1992).
 - JAR 25 paragraphs at Change 13 and amended by the NPA 25C205 Unified Discrete Gust Requirements introduced by Orange Paper 91/1:

JAR 25.305	JAR 25.349(b)
JAR 25.321	JAR 25.351
JAR 25.331	JAR 25.365
JAR 25.333	JAR 25.371
JAR 25.335(d)	JAR 25.373
JAR 25.341	JAR 25.391
JAR 25.343(b)(1)(ii)	JAR 25.427
JAR 25.345(a) and (c)	JAR 25.571(b)(2)

JAR 25 paragraphs at Change 13 and amended by the NPA 25 BDG 244 Accelerate Stop Distances and Associated Performance.

Refer to Special Conditions F-10, S-79 and IM-S79.

Optional

9.2 For all models, Airbus Elect To Comply with 14CFR Part 25.772(a) and (c) and 25.795 amendment 106 according to EtC E-12 - Reinforced Security Cockpit Door

- 9.3 For all models Airbus Elect To Comply to CS 25.851(a),(c) at Amdt 17 when halon free handheld fire extinguishers are installed (EtC D-GEN-AIRBUS-01).
- 9.4 For all models Airbus Elect to Comply to CS 25.562 initial issue for Improved Seats in Air Carrier Transport category Airplanes" for cabin and/or passenger seats (E-31)
- 9.5 For the A321-251NX, -252NX, -253NX, 271NX & 272NX with modification 163213 (up to 3 Additional Central Tanks) Airbus Elect To Comply to the following paragraphs as CS25 Amendment 15.

25.305 (a)(b)	25.979(b)(c)(d)(e)
25.307 (a)	25.981(a)(b)(d)
25.561(b)(c)(d)	25.993
25.571 (a)(b)	25.994 &25J994
25.581	25.995(b)
25.601	25.999(a)(b)
25.603	25.1141(a)(b)(c)(d)(f)
25.605	25.1189(h)
25.609	25.1301(a)
25.611 (b)	25.1301(b)
25.613	25.1302(a)(b)(c)
25.619	25.1305(a)(2)
25.625	25.1309 (a)
25.721(b)	25.1309(b)
25.777(a)	25.1309 (c)(d)
25.787(c)	25.1310
25.851(b)(2)	25.1315
25.855(e)(f)(g)(h)	25.1316
25.856(b)	25.1337(b)
25.863(a)(b)(c)(d)	25.1353(a)
25.869(a)(1)	25.1360
25.869(a)(3)	25.1381
25.899	25.1431(a)(c)(d)
25.903(d)(1)	25.1541
25.943	25.1543(b)
25.951(c)	25.1553
25.952(a)	25.1555(a)
25.954	25.1555(c)
25.957	25.1557(a)
25.959	25.1703 (a)(b)(d)
25.963(a)(b)(c)(e)(f)	25.1705(a)(b)

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25.1707 (a) (b)(c)(e)(l)

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25.963(d)

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25.965(a)(b)(c)(d)	25.1709
25.967(a)(b)(e)	25.1711
25.969	25.1717
25.971	25.1719
25.975(a)	25.1721(b)
25.977(a)(c)(d)	25.1723
	25.1725(b)

- 9.6 For all models Airbus Elect To Comply with CS-ACNS Subpart B Section 2 Data Link Services, Initial issue
- 9.7 For all models Airbus Elect To Comply with CS25-791 at Amdt 20 when Mod 160139 "Passenger information signs and placards" is installed
- 9.8 For all models Airbus Elect To Comply with CS 25.795(a)(1), 25.795(a)(2) and §25.795(c)(3)(ii) Amdt 22 when mod 167557 "Define Modified Airspace Lavatory A Option for 25.795 Compliance" is installed (ESF D-31).
- 9.9 For A321-251NX/-252NX/253NX/271NX/272NX Airbus Elect To Comply with §25.603(a) Amdt 19 (for new or modified parts) when Modification 166104 (Define Hero and welcome effect light for airspace cabin) is embodied.

10. Environmental Protection

ICAO Annex 16:

Vol. I, Part II	Noise Requirements
Vol. II, Part II	Fuel Venting
Vol. II, Part III Chapter 2	Emissions

Notes: For details of the certified noise levels see TCDSN no. UK.TC.A.00010.

III. Technical Characteristics and Operational Limitations

1. Type Design Definition

1.1 Certificated model: A321-111

Definition of reference airplane by AIRBUS INDUSTRIE Document AI/EA-A 413.1063/94 (00E000A0008/C21)

1.2 Certificated model: A321-112

Definition of reference airplane by AIRBUS INDUSTRIE Document AI/EA-A 414.0118/94 (00E000A0002/C11)

1.3 Certificated model: A321-131

Definition of reference airplane by AIRBUS INDUSTRIE Document AI/EA-A 414.0900/93 (00E000A0003/C21)

1.4 Certificated model: A321-211

Definition of reference airplane by AIRBUS INDUSTRIE Document AI/EA-S 413.0400/97 (00E000A0211/C21)

1.5 Certificated model: A321-212

Definition of reference airplane by AIRBUS INDUSTRIE Document AI/EA-S 413.1359/01 (00E000A0212/C21)

1.6 Certificated model: A321-213

Definition of reference airplane by AIRBUS INDUSTRIE Document AI/EA-S 413.1360/01 (00E000A0213/C21)

1.7 Certificated model: A321-231

Definition of reference airplane by AIRBUS INDUSTRIE Document AI/EA-S 413.0388/97 (00E000A0231/C21)

1.8 Certificated model: A321-232

Definition of reference airplane by AIRBUS INDUSTRIE Document AI/EA-S 413.1361/01 (00E000A0232/C21)

1.9 Certificated model: A321-271N

Definition of reference airplane by AIRBUS Document 00E000A5023/C20

1.10 Certificated model: A321-251N

Definition of reference airplane by AIRBUS Document 00E000A5026/C20

1.11 Certificated model: A321-253N

Definition of reference airplane by AIRBUS Document 00E000A5113/C20

1.12 Certificated model: A321-272N

Definition of reference airplane by AIRBUS Document 00E000A5114/C20

1.13 Certificated model: A321-252N

Definition of reference airplane by AIRBUS Document 00E000A5190/C00

1.14 Certificated model: A321-251NX

Definition of reference airplane by AIRBUS Document 00E000A5123/C00

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1.15 Certificated model: A321-252NX

Definition of reference airplane by AIRBUS Document 00E000A5124/C00

1.16 Certificated model: A321-253NX

Definition of reference airplane by AIRBUS Document 00E000A5125/C00

1.17 Certificated model: A321-271NX

Definition of reference airplane by AIRBUS Document 00E000A5121/C00

1.18 Certificated model: A321-272NX

Definition of reference airplane by AIRBUS Document 00E000A5122/C00

NOTES

a. Model conversions:

- If modification 34368 is embodied on A321-111 model powered with CFM56-5B1/2P engines, it is converted into A321-211 model, powered with CFM56-5B3/2P engines.
- If modification 34818 is embodied on A321-211 model powered with CFM56-5B3/P engines, it is converted into A321-212 model, powered with CFM56-5B1/P engines.
- If modification 35252 is embodied on A321-212 model powered with CFM56-5B1/P engines, it is converted into A321-211 model, powered with CFM56-5B3/P engines.
- If modification 35718 is embodied on A321-131 model powered with V2530-A5 engines, it is converted into A321-231 model, powered with V2533-A5 engines
- If modification 37836 is embodied on A321-232 model powered with V2530-A5 engines, it is converted into A321-231 model, powered with V2533-A5 engines.
- If modification 155204 is embodied on A321-211 model powered with CFM56-5B3/P engines, it is converted into A321-213 model, powered with CFM56-5B2/P engines

2. Description

Twin turbo-fan, short to medium range, single aisle, transport category airplane.

3. Equipment

A321-111

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00E000A0007/C1S

A321-112

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00E000A0006/C1S.

A321-131

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00E000A0004/C0S

A321-211

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00E000A0211/C0S.

A321-212

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00E000A0212/C0S.

A321-213

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00E000A0213/C0S.

A321-231

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00E000A0231/COS.

A321-232

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00E000A0232/C0S.

Certification Standard Equipment List is not applicable to the A321-271N, A321-272N, A321-251N, A321-252N, A321-253N, A321-271NX, A321-272NX, A321-251NX, A321-252NX, A321-253NX.

Note:

The type design definitions and certification standard equipment lists are complemented by doc. 00D000A0546/C0S "A319-100/A321-200 FMGC Type Std Evolution".

Cabin furnishings, equipment and arrangement shall be in conformance to the following specifications:

Cabin seats 2521M1F10000 lss 4 plus technical note SA2521ME1619350 issue 6

(technical note applicable to A321-251NX, -252NX, -253NX, -271NX,-

272NX)

Galleys 2530M1F000900 lss 2

4. Dimensions

Principal dimensions of A321 Aircraft:

•	Length:	44.51 m
•	Width:	34.10 m
	(If mod 160023 installed)	35.80m
•	Height:	11.76 m
•	Width at horizontal stabilizer:	12.45 m
•	Outside fuselage diameter:	3.95 m
•	Distance between engine axis:	11.51 m
•	Distance between main landing gear:	7.59 m
•	Distance between nose and main landing gear:	16.91 m

5. Engines

The list below lists the basic engines fitted on the aircraft models. The notes describe usual names and certified names as well as new engines variants.

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A321-111

Two CFMI CFM 56-5B1 jet engines (MOD 23083), or

CFM 56-5B1/2 jet engines (MOD 24404)

A321-112

Two CFMI CFM 56-5B2 engines (MOD 23152)

A321-131

Two IAE V2530 - A5 jet engines (MOD 22989)

A321-211

Two CFMI CFM 56-5B3/P jet engines (MOD 26359 + 25800), or

CFM 56-5B3/2P jet engines (MOD 27640)

A321-212

Two CFMI CFM 56-5B1 jet engines (MOD 23083), or

CFM 56-5B1/2 jet engines (MOD 24404)

A321-213

Two CFMI CFM 56-5B2 engines (MOD 23152)

A321-231

Two IAE V2533-A5 jet engines (MOD 25643)

A321-232

Two IAE V2530 - A5 jet engines (MOD 22989).

A321-271N/A321-271NX

Two IAE PW1133G-JM Geared Turbo Fan jet engines (MOD 161002)

A321-251N/A321-251NX

Two CFMI LEAP-1A32 jet engines (MOD 161005)

A321-253N/A321-253NX

Two CFMI LEAP-1A33 jet engines (MOD 161006)

A321-272N/A321-272NX

Two IAE PW1130G-JM Geared Turbo Fan jet engines (MOD 162038)

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A321-252N/A321-252NX

Two CFMI LEAP-1A30 jet engines (MOD 162681)

Notes:

1. If modification 25800 is embodied on models with CFM-5B engines, the engine performance is improved. The engine denomination changes to /P.

The modification is currently applicable for:

A321-111: CFM 56-5B1 (SAC) which changes to CFM 56-5B1/P
A321-112: CFM 56-5B2 (SAC) which changes to CFM 56-5B2/P
A321-212: CFM 56-5B1 (SAC) which changes to CFM 56-5B1/P
A321-213: CFM56-5B2 (SAC) which changes to CFM 56-5B2/P

CFM 56-5B/"non-P" engine can be intermixed with CFM 56-5B/P engine on the same aircraft. See notes 3 & 4 below as well.

2. If modification 26610 is embodied on models with CFM-5B/2 (DAC) engines, the engine performance and gaseous emission levels are improved. The engine denomination changes to /2P.

The modification is currently applicable for:

A321-111: CFM 56-5B1/2 (DAC) which changes to CFM 56-5B1/2P (DAC II C)
A321-212: CFM 56-5B1/2 (DAC) which changes to CFM 56-5B1/2P (DAC II C)

CFM 56-5B/2 "non P" (DAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

CFM 56-5B/P or /"non-P" (SAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

- 3. From March 31st 2008, there is no longer any CFM56-5B1 non /P in field or in production.
- 4. From March 31st 2008, there is no longer any CFM56-5B1/2 non /P in field or in production.
- A321-111 CFM 56-5B1 engine can be intermixed with CFM 56-5B1/2 engine (MOD 24404) on the same aircraft (AFM supplement).
- CFM56-5B3/P (SAC) engine (MOD 26359 + 25800) can be intermixed with CFM56-5B3/2P (DAC II C PIP) engine (MOD 27640) on the same aircraft (AFM supplement).
- 7. Introduction of CFM56-5Bx/3 "Tech Insertion" engine is done through embodiment of modification 37147 in production or 38770 in field. This modification is only applicable on CFM56-5Bx/P SAC engines.

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If modification 37147 is embodied on models with CFM-5B engines the engine denomination changes to /3.

The modification is currently applicable for:

A321-111: CFM 56-5B1 (SAC) which changes to CFM 56-5B1/3
A321-112: CFM 56-5B2 (SAC) which changes to CFM 56-5B2/3
A321-211: CFM 56-5B3 (SAC) which changes to CFM 56-5B3/3
A321-212: CFM 56-5B1 (SAC) which changes to CFM 56-5B1/3
A321-213: CFM 56-5B2 (SAC) which changes to CFM 56-5B2/3

The engine characteristics remain unchanged.

Modification 37147 has been demonstrated as having no impact on previously certified noise levels.

CFM56-5Bx/3 engine can be intermixed with CFM56-5Bx/P engine under considerations as prescribes in modification 38573.

8. Introduction of "BUMP" function is done through embodiment of modification 38946.

If modification 38946 is embodied on models with CFM-5B engines, the engine denomination changes to /P1 (SAC) or /2P1 (DAC) or /3B1 (Tech Insertion).

The modification is currently applicable for:

A321-211: CFM 56-5B3 (SAC) which changes to CFM 56-5B3/P1

Modification 38946 has been demonstrated as having no impact on previously certified noise levels.

The engine characteristics remain unchanged.

Intermix at aircraft level between "Non Bump" engine and "Bump" engine is not allowed.

- If modification 160684 (alternate climb) is installed on the A321-271N or A321-271NX equipped with IAE PW1133G-JM then the engine model is changed to PW1133GA-JM.
- 10. If modification 160820 is installed on the A321-253N equipped with CFM LEAP-1A33 then the engine model is changed to LEAP-1A35A.

6. Auxiliary Power Unit

APU GARRETT

The APU GARRETT AIRESEARCH GTCP 36-300 (A) installation is defined by MOD 20020 (Specification 31-5306B)

Approved oils: see GARRETT REPORT GT.7800

APU Pratt & Whitney Rzeszow S.A.

The APU Pratt & Whitney Rzeszow S.A. installation is defined by MOD 22562 or MOD 35864 Pratt & Whitney Rzeszow S.A. APS 3200 (Specification ESR 0802, Rev. A).

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Approved oils: in conformance to MIL-L-7808, MIL-L-23699 or DERD 2487

APU Honeywell International

The APU Honeywell International installation is defined by MOD 25888 or 37987 Honeywell International 131-9[A] (Specification 4900 M1E 03 19 01)

Approved oils: according to model Specification 31-12048A-3A

7. Propellers

N/A

8. Fluids (Fuel, Oil, Additives, Hydraulics)

Fuel

ENGINES	KEROSENE DESIGNATION
CFM56: Installation document CFM 2026 or CFM 2129)	JET A, JET A-1, JP5, JP8, N°3 Jet Fuel, JET B, JP 4, TS-1, RT(GOST), F44, F34, AVTUR, AVTUR/FSII, AVTAG/FSII, AVCAT/FSII
IAE V2500: IAE Standard Practices and processes Manual IAE 0043	JET A, JET A-1, JP5, JP8, N°3 Jet Fuel, JET B, JP 4, TS-1*, RT(GOST), F44, F34, AVTUR, AVTUR/FSII, AVTAG/FSII, AVCAT/FSII
IAE PW1100G-JM: (Service Bulletin PW1000G -100-73 00-0002-00A930AD)	JET A, JET A-1, JP5, JP8, N°3 Jet fuel, TS-1(GOST), RT(GOST), AVTUR, AVTUR/FSII, AVCAT/FSII
CFMI LEAP-1A: Service Bulletin LEAP-1A S/B 73-0001	JET A, JET A-1, JP5, JP8, N°3 Jet fuel, TS-1(GOST), RT(GOST), AVTUR, AVTUR/FSII, AVCAT/FSII

The above mentioned fuels are also suitable for the APU.

Refer to Consumable Material List (CML) for details on approved fuel specifications

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^{*} For IAE V2500 engines, TS-1 is cleared for transient use (less than 50% of operations)

<u>OIL</u>

Engine	CFMI CFM56-5B1 (**) CFM56-5B1/2 (**) CFM56-5B2 CFM56-5B3 (/P only) CFM56-5B3/2P	IAE V2530-A5 V2533-A5	PW1133G-JM PW1130G-JM	LEAP 1A30 LEAP-1A32 LEAP-1A33 LEAP-1A35A
Approved Oils	SB CFMI 79-001- OX	See doc IAE 0043 Sect 4.9 (MIL-L- 23699)	Service Bulletin PW1000G – 1000 – 79 – 00 – 0002 - 00A - 930A – D	SB LEAP-1A S/B 79-0001

^{(**):} see notes 3 and 4 in chapter 5 for engine models no longer in prod/service.

Additives:

Refer to Airbus Consumable Material List (CML).

Engine	CFMI CFM56-5B1 CFM56-5B1/2 CFM56-5B2 CFM56-5B3(/P only) CFM56-5B3/2P	IAE V2530-A5 V2533-A5	PW1133G-JM PW1130G-JM	LEAP-1A30 LEAP-1A32 LEAP-1A33 LEAP-1A35A
Approved Additives	Specific Operating Instructions Document & CFM SB 73-0182/73-0122 for CIS fuel additives	IAE Standard Practices and Processes Manual	Service Bulletin PW1000G-1000- 73-00-0002-00A- 930A-D	Service Bulletin LEAP-1A S/B 73- 0001

The above mentioned fuels and additives are also suitable for the APU

Hydraulics

Hydraulic fluids: Type IV or Type V Specification NSA 30.7110

9. Fluid Capacities

Fuel quantity (0.8 kg/liter) (see note 1 below)

For A321-111/-112/-131/-211/-212/-213/-232 the following table applies:

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	3 TANK AIRP	LANE	4 or 5 TANK AIRPLANE (*) (**)	
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)
WING	15 500	22.6	15 500	22.6
	(12 400)	(18)	(12 400)	(18)
CENTER	8 200	23.2	8 200	23.2
	(6 560)	(18.6)	(6 560)	(18.6)
ACT (*) (**)		2 900 or 2 992 / 5 984 ** (2 320) or (2 393 / 4 786) **	17 / 34 (13.6 / 27.2)	
TOTAL	23 700	45.8	26 600 or 26 692 / 29 684 **	62.8 / 79.8
	(18 960)	(36.6)	(21 280) or (21 353 / 23 746) **	(50.2 / 63.8)

For A321-271N, A321-272N, A321-251N, A320-252N and A321-253N the following table applies:

	3 TANK AIRP	LANE	4 or 5 TANK AIRPLANE (*) (**)		
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	
WING	15 380 (12 073)	22.6 (18)	15 380 (12 073)	22.6 (18)	
CENTER 8 200 23.2 (6 437) (18.6)			8 200 (6 437)	23.2 (18.6)	
ACT (*) (**)			2 900 or 2 992 / 5 984 ** (2 320) or (2 393 / 4 786) **	17 / 34 (13.6 / 27.2)	
TOTAL	23 580 (18 510)	45.8 (36.6)	26 480 or 26 572 / 29 564** (20 830) or (20 903 / 23 296)	62.8 / 79.8 (50.2 / 63.8)	

^{*} See notes 2 and 3 below

Note:

- 1. On series A321-200 equipped with CFM56 engines, introduction of standard of wingbox without dry bay (modification 38616) will increase the fuel capacity by 350 liters.
- 2. On the series A321-200, one Additional Center Tank (ACT) in bulk version is defined by modification 25453 (high pressure system). Its approval together with structural and system provisions is subject of Major Change E2-001 (compliance to MoC P-9).
- 3. On the series A321-200, one or two Additional Center Tanks (ACT) in bulk version are defined by modification 30422 (low pressure system). Their approval together with structural and system provisions is subject of Major Change E2-002 (compliance to MoC P-9).

^{** 1} ACT high pressure system, 2900 liters on A321-200, on additional centre tanks 1 / 2 ACT low pressure system 2992/5984 liters on A321-200

For A321-271NX, A321-272NX, A321-251NX, A320-252NX and A321-253NX the following table applies:

	3 TANK AIRF	PLANE	ANE 4 TANK AIRPLANE			5 TANK AIRPLANE	
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	
WING	15 380 (12 073)	22.6 (18)	15 380 (12 073)	22.6 (18)	15 380 (12 073)	22.6 (18)	
CENTER	8 200 (6 437)	23.2 (18.6)	8 200 (6 437)	23.2 (18.6)	8 200 (6 437)	23.2 (18.6)	
AFT ACT 1	-	-	3 121 (2450)	17 (13.6)	3121 (2450)	17 (13.6)	
AFT ACT 2	-	-	-	-	3 121 (2450)	17 (13.6)	
FWD ACT	-	-	-	-	-	-	
TOTAL	23 580 (18 510)	45.8 (36.6)	26 701 (20960)	62.8 (53.6)	29 822 (23410)	79.8 (63.8)	

	6 TANK AIRPLANE			
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)		
WING	15 380 (12 073)	22.6 (18)		
CENTER	8 200 (6 437)	23.2 (18.6)		
AFT ACT 1	3 121 (2450)	17 (13.6)		
AFT ACT 2	3 121 (2450)	17 (13.6)		
FWD ACT	3 121 (2450)	17 (13.6)		
TOTAL	32 943 (25860)	96.8 (77.4)		

10. Airspeed Limits (Indicated Airspeed – IAS – unless otherwise stated)

Maximum Operating Mach (MMO): 0.82

Maximum Operating Speed (VMO): 350 km

Manoeuvring Speed VA: see Limitations Section of the approved Flight

Manual

Extended Flaps/Slats Speed (VFE): see table below

For A321-111/-112/-131/-211/-212/-213/-231/-232 the following table applies:

Configuration	Slats/Flaps (°)	VFE (kt)	
1	18/0	230 **	Intermediate approach
	18/10	215 **	Take-off
2	22/14	205	Take-off and approach
		215*	
3	22/21	195	Take-off, approach, landing
Full	27/25	190	Landing

^{*} See note 1

For A321-271N / -272N / -251N /-252N/ -253N/ -271NX/ -272NX/ -251NX/ -252NX/ -253NX the following table applies:

Configuration	Slats/Flaps (°)	VFE (kt)	
1	18/0	238*	Intermediate approach
	18/10	225	Take-off
2	22/14	215	Take-off and approach
3	22/21	195	Take-off, approach, landing
Full	27/34	186	Landing

^{*}For A321-251NX,-252NX,-253NX,-271NX,-272NX models 243 kt

Landing gear:

VLE - Extended: 280 kt/Mach 0.67

VLO - Extension: 250 kt Retraction: 220 kt

Tyres limit speed (ground speed): 195.5 kt (225 mph)

Notes:

- If FWC Standard D2 and FAC Standard BAM 0510 are fitted on A321 aircraft, VFE speed in Configuration 2 is increased from 205 kts to 215 kts (as identified by speed limitation placard installed by modification 24641).
- On the series A321-200, Weight Variant 001, 002 & 011, VFE speed in Configuration 1 is increased from 230 to 235 kts, and in Configuration 1+F increased from 215 to 225 kts (as identified by speed limitation placard installed by modification 28960 or 28721).

11. Flight Envelope

Maximum Operating Altitude:

39 100 ft (pressure altitude)

39 800 ft (pressure altitude) if modification 30748 is embodied

^{**} See note 2

See the appropriate approved Airplane Flight Manual.

12. Operating Limitations

See the appropriate approved Airplane Flight Manual.

Powerplant (2.2482 lb/daN)

<u>A321-111 or -212 / A321-112 or -213 / A321-131 or -232</u>

Engine	CFMI CFM56-5B1 (**) CFM56-5B1/2 (**)	CFMI CFM56-5B2	IAE V2530-A5
Data sheets	E37NE (FAA) E38NE (FAA) EASA.E.003 ⁽¹⁾	E37NE (FAA) E38NE (FAA) EASA.E.003 ⁽¹⁾	E40NE (FAA) EASA.IM.E.069 ⁽²⁾
Static thrust at Sea level			
Take-off (5 minutes)* (Flat rated 30° C)	13 344 daN (30 000 lbs)	13 789 daN (31 000 lbs)	13 300 daN) (29 900 lbs)
Maximum continuous (Flat rated 25° C)	12 940 daN (29 090 lbs)	12 940 daN (29 090 lbs)	11 988 daN (26 950 lbs)

^{* 10} minutes at take-off thrust allowed only in case of engine failure (at take-off or during goaround) in accordance with DGAC "Fiche de Caractéristiques moteur"

Other engine limitations: see the relevant Engine Type Certificate Data Sheet

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^{**} see notes 3 and 4 in chapter 5 for engine models no longer in prod/service.

^{(1):} UK CAA Type Certificate EASA.E.003 and associated Type Certificate Data Sheet EASA.E.003, Issue 5 dated 12 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

^{(2):} UK CAA Type Certificate EASA.IM.E.069 and associated Type Certificate Data Sheet EASA.IM.E.069, Issue 4 dated 12 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

A321-211/-231

Engine	CFMI CFM56-5B3 (/P only) CFM56-5B3/2P	IAE V2533-A5
Data sheets	E37NE (FAA) E38NE (FAA) EASA.E.003 ⁽¹⁾	E40NE (FAA) EASA.IM.E.069 ⁽²⁾
Static thrust at Sea level		
Take-off (5 minutes)* (Flat rated 30° C)	14 234 daN (32 000 lbs)	14 055 daN (31 600 lbs)
Maxi continuous (Flat rated 25° C)	12 940 daN (29 090 lbs)	11 988 daN (26 950 lbs))

^{* 10} minutes at take-off thrust allowed only in case of engine failure (at take-off or during goaround) in accordance with DGAC "Fiche de Caractéristiques Moteur"

Other engine limitations: see the relevant Engine Type Certificate Data Sheet

(1): UK CAA Type Certificate EASA.E.003 and associated Type Certificate Data Sheet EASA.E.003, Issue 5 dated 12 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

(2): UK CAA Type Certificate EASA.IM.E.069 and associated Type Certificate Data Sheet EASA.IM.E.069, Issue 4 dated 12 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

A321-271N/-272N/-271NX/-272NX

Engine	PW1133G-JM PW1133GA-JM	PW1130G-JM
Data sheets	E87NE (FAA) EASA.IM.E.093 ⁽¹⁾	E87NE (FAA) EASA.IM.E.093 ⁽¹⁾
Static thrust at sea level		
Take-off (5 min)* (Flat rated 30° C)	14728 daN (33110 lbs)	14728 daN (33110 lbs)
Maximum continuous (Flat rated 25° C)	14581 daN (32780 lbs)	14581 daN (32780 lbs)

(1): UK CAA Type Certificate EASA.IM.E.093 and associated Type Certificate Data Sheet EASA.IM.E.093, Issue 7 dated 09 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

A321-251N/-252N/-253N/-251NX/-252NX/-253NX

Engine	LEAP-1A32	LEAP-1A33/- 1A35A	LEAP-1A30
Data sheets	E00089EN (FAA)	E00089EN (FAA)	E00089EN (FAA)
	EASA.E.110 ⁽¹⁾	EASA.E.110 ⁽¹⁾	EASA.E.110 ⁽¹⁾
Static thrust at sea level			
Take-off (5 min)*	14 305 daN	14 305 daN	14 305 daN
(Flat rated 30° C)	(32160lbs)	(32160lbs)	(32160lbs)
Maximum continuous (Flat rated 25° C)	14 096 daN	14 096 daN	14 096 daN
	(31690lbs)	(31690lbs)	(31690lbs)

(1): UK CAA Type Certificate EASA.E.110 and associated Type Certificate Data Sheet EASA.E.110, Issue 9 dated 20 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

12.1 Approved Operations

Transport commercial operations.

12.2 Other Limitations

For a complete list of applicable limitations see the appropriate approved Airplane Flight Manual.

13. Maximum Certified Masses

A321-111/A321-112

VARIANT	000 (BASIC)	002 (MOD	003 (MOD	004 (MOD	005 (MOD	006 (MOD	007 (MOD	008 (MOD
WEIGHT (Kg)	, ,	24178)	24899)	24308)	25649)	26600*)	26888	30334)
Max. Ramp Weight	83 400	83 400	85 400	78 400	83 400	78 400	80 400	89 400
Max. Take-off Weight	83 000	83 000	85 000	78 000	83 000	78 000	80 000	89 000
Max. Landing Weight	73 500	74 500	74 500	73 500	75 000	74 500	73 500	75 500
Max. Zero Fuel Weight	69 500	70 500	70 500	69 500	71 000	70 500	69 500	71 500
Minimum Weight	47 500	47 500	47 500	47 500	47 500	47 500	47 500	47 500

A321-131

VARIANT WEIGHT (Kg)	000 (BASIC)	002 (MOD 24178)	003 (MOD 24899)	004 (MOD 24308)	006 (MOD 26600*)	007 (MOD 26888	008 (MOD 30334)
Max. Ramp Weight	83 400	83 400	85 400	78 400	78 400	80 400	89 400
Max. Take-off Weight	83 000	83 000	85 000	78 000	78 000	80 000	89 000
Max. Landing Weight	73 500	74 500	74 500	73 500	74 500	73 500	75 500
Max. Zero Fuel Weight	69 500	70 500	70 500	69 500	70 500	69 500	71 500
Minimum Weight	47 500	47 500	47 500	47 500	47 500	47 500	47 500

Note:

On the series A321-100, Weight Variant 006 is defined either by MOD 26600, building up on Weight Variant 003, or MOD 30310, building up on Weight Variant 000.

A321-211/A321-231

VARIANT WEIGHT (Kg)	000 (BASIC)	001 (MOD 28960)	002 (MOD 28721)	003 (MOD 31613)	004 (MOD 31614)	005 (MOD 27553)	006 (MOD 31616)	008 (MOD 31618)	010 (MOD 31321)
Max. Ramp Weight	89 400	93 400	89 400	91 400	87 400	85 400	83 400	80 400	85 400
Max. Take-off Weight	89 000	93 000	89 000	91 000	87 000	85 000	83 000	80 000	85 000
Max. Landing Weight	75 500	77 800	77 800	77 800	75 500	75 500	75 500	73 500	77 800
Max. Zero Fuel Weight	71 500	73 800	73 800	73 800	71 500	71 500	71 500	69 500	73 800
Minimum Weight	47 500	47 500	47 500	47 500	47 500	47 500	47 500	47 500	47 500

VARIANT WEIGHT (Kg)	011 (MOD 32456)
Max. Ramp Weight	93 900
Max. Take-off Weight	93 500
Max. Landing Weight	77 800
Max. Zero Fuel Weight	73 800
Minimum Weight	47 500

Notes:

(1) MOD 160023 is approved for WV 000 to WV11.

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A321-212/A321-213/A321-232

VARIANT WEIGHT (Kg)	000 BASIC	001* (MOD 28960)	002* (MOD 28721)	003* (MOD 31613)	004* (MOD 31614)	005* (MOD 31615	006* (MOD 31616)	007* (MOD 31617)	008* (MOD 31618)	009* (MOD 31619)	010* (MOD 31321)	011 (MOD 32456)
Max. Ramp Weight	89 400	93 400	89 400	91 400	87 400	85 400	83 400	83 400	80 400	78 400	85 400	93 900
Max. Take- off Weight	89 000	93 000	89 000	91 000	87 000	85 000	83 000	83 000	80 000	78 000	85 000	93 500
Max. Landing Weight	75 500	77 800	77 800	77 800	75 500	75 500	75 500	73 500	73 500	73 500	77 800	77 800
Max. Zero Fuel Weight	71 500	73 800	73 800	73 800	71 500	71 500	71 500	69 500	69 500	69 500	73 800	73 800
Minimum Weight	47 500	47 500	47 500	47 500	47 500	47 500	47 500	47 500	47 500	47 500	47 500	47 500

Notes:

- * WV option certified concurrently with the basic WV at the time of the model's approval
- (1) MOD 160023 is approved for WV 000 to WV11.

A321-271N / -272N / -251N / -252N/ -253N

VARIANT WEIGHT (Kg)	50 BASIC (MOD 161448)	51* (MOD 161555)	52* (MOD 161556)	53* (MOD 161557)	56 (MOD 158238)	63 (MOD 158245)	65 (MOD 158247)	70* (MOD 161735)
Max. Ramp Weight	89 400	89 400	93 900	93 900	92 900	91 400	90 900	80 400
Max. Take-off Weight	89 000	89 000	93 500	93 500	92 500	91 000	90 500	80 000
Max. Landing Weight	77 300	79 200	77 300	79 200	77 300	79 200	79 200	71 500
Max. Zero Fuel Weight	73 300	75 600	73 300	75 600	73 300	75 600	75 600	67 000

Notes:

Minimum Weight:

A321-271N/-272N 46 300 Kg A321-251N/-252N/-253N 46 600 Kg

^{*} WV option certified concurrently with the basic WV at the time of the model's approval

A321-271NX / -272NX / -251NX / -252NX/ -253NX

VARIANT WEIGHT (Kg)	50 BASIC (MOD 161448)	51* (MOD 161555)	52* (MOD 161556)	53* (MOD 161557)	56 (MOD 158238)	63 (MOD 158245)	65 (MOD 158247)
Max. Ramp Weight	89 400	89 400	93 900	93 900	92 900	91 400	90 900
Max. Take-off Weight	89 000	89 000	93 500	93 500	92 500	91 000	90 500
Max. Landing Weight	77 300	79 200	77 300	79 200	77 300	79 200	79 200
Max. Zero Fuel Weight	73 300	75 600	73 300	75 600	73 300	75 600	75 600

VARIANT WEIGHT (Kg)	70* (MOD 161735)	71* (MOD 160287)	72* (MOD 160288)
Max. Ramp Weight	80 400	97 400	97 400
Max. Take-off Weight	80 000	97 000	97 000
Max. Landing Weight	71 500	77 300	79 200
Max. Zero Fuel Weight	67 000	73 300	75 600

Notes:

Minimum Weight:

A321-271NX/-272NX 46 300 Kg A321-251NX/-252NX/-253NX 46 600 Kg

14. Centre of Gravity Range

See the appropriate approved Airplane Flight Manual.

15. Datum

Station 0.0, located 2.540 meters forward of airplane nose.

16. Mean Aerodynamic Chord (MAC)

4.1935 meters.

17. Levelling Means

The A/C can be jacked on three primary jacking points.

See the appropriate approved Weight and Balance Manual.

18. Minimum Flight Crew

2 pilots.

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^{*} WV option certified concurrently with the basic WV at the time of the model's approval

19. Minimum Cabin Crew

See paragraph 20.

20. Maximum Seating Capacity

The table below provides the certified Maximum Passenger Seating Capacities (MPSC), the corresponding cabin configuration (exit arrangement and modifications) and the associated minimum numbers of cabin crew members used to demonstrate compliance with the certification requirements:

MPSC	Cabin configuration	Modification	Minimum CC
230	C*-C-C*	157272 ⁽¹⁾ or 159536 ⁽¹⁾	5
220	C-C-C-C		5
200	C-C-C-C		4
200	C-I-I-C		4
200	C*-(III-III)+-0-C*	160908(1)(2)	4
244	C*-(III-III)+-C-C*	160766(1)(3)	5
180	C-(III-III)+-0-C	160908 ⁽²⁾ and 162227	4
235	C-(III-III)+-C-C	160766 ⁽³⁾ and 162227	5
224	C*-(0-III)+-C-C* Or C*-(III-0)+-C-C*	160906(2)(3)	5
200	C-(0-III)+-C-C Or C-(III-0)+-C-C	160906 ⁽²⁾⁽³⁾ and 162227	4
204	C-(0-III)+-C-C Or C-(III-0)+-C-C	160906 ⁽²⁾⁽³⁾ and 162227	5
169	C*-(0-III)+-0-C* Or C*-(III-0)+-0-C*	160907(2)(3)	4
149	C-(0-III)+-0-C Or C-(III-0)+-0-C	160907 ⁽²⁾⁽³⁾ and 162227	3

- (1) C* is the overperforming Type C as defined by ESF D-02
- (2) 0 is a plugged door

(3) C* is the overperforming Type C as defined by ESF D-09 and (III-III)⁺ or III⁺ are the overperforming Type III (double or single) as defined by ESF D-13

Note:

- The original maximum passenger seating capacity is 220.
- The modifications 157272 or 159536 enable the maximum seating capacity to be increased from 220 up to 230. This modification defines a virtual envelope of the Layout of Passenger Accommodations (LOPA) and does not constitute an authorization for the installation of seats in excess of 220. A separate approval is needed for the installation of the individual customized cabin layout and the necessary cabin adaptations up to 230 seats.
- The modification 160908 enables a maximum seating capacity of 200. This modification defines a virtual envelope of the Layout of Passenger Accommodations (LOPA) and does not constitute an authorization for the installation of seats up to 200. A separate approval is needed for the installation of the individual customized cabin layout and the necessary cabin adaptations up to 200 seats.
- The modification 160766 enable the maximum seating capacity to be increased from 220 up to 244. This modification defines a virtual envelope of the Layout of Passenger Accommodations (LOPA) and does not constitute an authorization for the installation of seats in excess of 220. A separate approval is needed for the installation of the individual customized cabin layout and the necessary cabin adaptations up to 244 seats.
- The modification 160906 enables a maximum seating capacity of 224. This modification defines a virtual envelope of the Layout of Passenger Accommodations (LOPA) and does not constitute an authorization for the installation of seats up to 224. A separate approval is needed for the installation of the individual customized cabin layout and the necessary cabin adaptations up to 224 seats.
- The modifications 160907 enable the maximum seating capacity of 169. This modification defines a virtual envelope of the Layout of Passenger Accommodations (LOPA) and does not constitute an authorization for the installation of seats in excess of 169. A separate approval is needed for the installation of the individual customized cabin layout and the necessary cabin adaptations up to 169 seats.
- The modification 162227 installs a narrow slide.
- With MOD 153648 "EQUIPMENT/FURNISHINGS GENERAL DELIVER AIRCRAFT WITH INCOMPLETE CABIN" embodied, the cabin is limited to zero occupancy and no cargo (i.e. no occupancy and no cargo in cabin) during all phases of flight, unless a separate approved Modification is embodied to remove the limitation.

21. Baggage/ Cargo Compartment

For A321-111/-112/-131/-211/-212/-213/-231/-232/-271N/-272N/-251N/-252N/-253N

CARGO COMPARTMENT	MAXIMUM LOAD (kg)
Forward	5 670
Aft	5 670
Rear (bulk)	1 497

For A321-271NX/-272NX/-251NX/-252NX/-253NX

CARGO COMPARTMENT	MAXIMUM LOAD (kg)
Forward	5 670
Aft	5 670
Rear (bulk)	800

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights) see Weight and Balance Manual, ref. 00E080A0001/C1S Chapter 1.10.

22. Wheels and Tyres

See SB A320-32-1007 for A321-111/-112/-131/-211/-212/-213/-231/-232 and SB A320 32 1439 for A321-271N/-272N/-251N/-252N/-253N/-271NX/-272NX/-251NX/-252NX/-253NX.

23. ETOPS

The Type Design, system reliability and performance of A321 models were found capable for Extended Range Operations when configured, maintained and operated in accordance with the current revision of the ETOPS Configuration, Maintenance and Procedures (CMP) document, SA/EASA: AMC 20-6/CMP.

This finding does not constitute an approval to conduct Extended Range Operations (operational approval must be obtained from the responsible Authority).

The following table provides details on the ETOPS approvals.

Aircraft model	Engine Type	120 min Approval Date	180 min Approval Date
A321-111	CFM56-5B1	29 May 1996	11 March 2004
A321-112	CFM56-5B2	29 May 1996	11 March 2004
A321-131	V2530-A5	29 May 1996	11 March 2004
A321-211	CFM56-5B3	28 July 1997	11 March 2004
A321-212	CFM56-5B1	N/A	28 April 2006
A321-213	CFM56-5B2	N/A	28 April 2006

Aircraft model	Engine Type	120 min Approval Date	180 min Approval Date
A321-231	V2533-A5	28 July 1997	11 March 2004
A321-232	V2530-A5	N/A	28 April 2006
A321-271N	PW1133G-JM	27 June 2017	27 June 2017
A321-272N	PW1130G-JM	27 June 2017	27 June 2017
A321-251N	LEAP-1A32	10 July 2017	10 July 2017
A321-253N	LEAP-1A33	10 July 2017	10 July 2017
A321-252N	LEAP-1A30	17 January 2018	17 January 2018
A321-271NX	PW1133G-JM	5 June 2018	5 June 2018
A321-272NX	PW1130G-JM	5 June 2018	5 June 2018
A321-251NX	LEAP-1A32	5 June 2018	5 June 2018
A321-253NX	LEAP-1A33	5 June 2018	5 June 2018
A321-252NX	LEAP-1A30	5 June 2018	5 June 2018

Note:

The Configuration, Maintenance and Procedure Standards for extended range twin-engine airplane operations are contained in ETOPS CMP document reference SA/EASA: AMC 20-6/CMP at latest applicable revision. Certificated models are A321-111/-112/-131/-211/-212/-213/-231/-232/251N/-252N/-253N/-271N/-272N/251NX/-252NX/-253NX/-271NX/-272NX with all applicable engines.

Embodiment of modification:

36666 provides ETOPS 120 mn capability for UK CAA 32009 provides ETOPS 180 mn capability for UK CAA

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

Approved Airplane Flight Manual for A321.

2. Instructions for Continued Airworthiness and Airworthiness Limitations <u>Airworthiness Limitations</u>

- Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Section (ALS) sub-parts 1-2 and 1-3.
- Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Items document (ALS Part 2).
- Certification Maintenance Requirements are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Section (ALS) Part 3.

- System Equipment Maintenance Requirements are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Section (ALS) Part 4.
- Fuel Airworthiness Limitations are provided in the A318/A319/A320/A321 approved Fuel Airworthiness Limitations document (ALS Part 5).
- Maintenance Review Board Report

Note:

- For A321-211, -212, -213, -231, -232 models without Sharklets, the embodiment of modification 154881 leads to change the maintenance program and its associated Maintenance Programme Publication Trigger (MPPT) from 48,000FC/60,000FH to 37,000FC/74,000FH (whichever occurs first).
- For A321-111,-112,-131,-211,-212,-213,-231,-232 models without Sharklets, the embodiment of modification 156130 leads to change the maintenance program and its associated Maintenance Programme Publication Trigger (MPPT) from 48,000FC/60,000FH to 60,000FC/120,000FH (whichever occurs first).

Other limitations

See approved Flight Manual.

3. Weight and Balance Manual (WBM)

Airbus Compliance Document 00E80A0001/C1S.

V. Operational Suitability Data (OSD)

Master Minimum Equipment List: CRI MMEL-01 Flight Crew Data: CRI FCD-01

Cabin Crew Data: CRI CCD-01 and CCD.400(a)

CCD.400(a) applicable only to A321-271NX,-272NX,-251NX,-252NX,-253NX

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.064 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List

- a. The Master Minimum Equipment List has been approved as per the defined Operational Suitability Data Certification Basis and as documented in A320 MMEL reference "MMEL STL11000" at the latest applicable revision.
- b. Required for entry into service by UK operator.

2. Flight Crew Data

- a. The Flight Crew data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in reference "A320 Operational Suitability Data Flight Crew SA01RP1536744" at the latest applicable revision.
- b. Required for entry into service by UK operator.
- The aircraft models: A318, A319, A321 are determined to be variants to the A320 aircraft model.

3. Cabin Crew Data

- a. The Cabin Crew data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in reference "A320 Operational Suitability Data Cabin Crew - SA01RP1534113" at the latest applicable revision.
- b. Required for entry into service by UK operator.
- c. The aircraft models: A318, A319, A321 are determined to be variants to the A320 aircraft model.

VI. Notes

1. For models A321-111 and A321-112, modification 25199 shall be installed to enable Cat IIIB precision approach.

For models A321-131, modification 25200 shall be installed to enable Cat IIIB precision approach.

A321-211/-212/-213/-231/-232 are basically qualified for Cat IIIB precision approach.

For A321-251N/-252N/-253N/-271N/-272N/251NX/-252NX/-253NX/-271NX/-272NX modification 161765 shall be installed to enable Cat IIIB precision approach.

For A321-111/-112/-131/-211/-212/-213/-231/-232/-271N/-272N/-251N/-252N/-253N/-271NX/-272NX/-251NX/-252NX/-253NX DOOR 2 and/or DOOR 3 may be derated to Type III.

Section 4 A319 Series

I. General

1. Type / Variant or Model

a) Type: A319 Series

b) Model: A319-111

A319-112

A319-113

A319-114

A319-115

A319-131

A319-132

A319-133

A319-151N

A319-153N

A319-171N

Significant Product Level Changes i.a.w. 21.A.101:

160500 Sharklet applicable on A319-111/-112/-115/-131/-132/-133 including

157777 Max Pax applicable on A319-111 /-112 / -113 / -114 / -115/ -131/ - 132 /-133

160080 Sharklet retrofit applicable on A319-111/-112/-115/-131/-132/-133 including CJ

159535 Max Pax applicable on A319-111 /-112 / -113 / -114 / -115/ -131/ - 132 /-133

161004 applicable on A319-151N161001 applicable on A319-171N

159533 Max Pax applicable on A319-111/ -112/ -115/ -131/ -132/ -133

ACJ319neo* A319-153N

2. Performance Class

Α

3. Certifying Authority

European Union Aviation Safety Agency (EASA)

Postfach 101253

D-50452 Köln

Deutschland

TCDS No.: UK.TC.A.00010 Issue: 1

^{*}Commercial designation only

4. Manufacturer

AIRBUS

2 rond-point Emile Dewoitine

31700 BLAGNAC - France

5. State of Design Authority Certification Application Date

A319-111	June 17, 1992
A319-112	June 17, 1992
A319-113	June 17, 1992
A319-114	June 17, 1992
A319-115	September 14, 1998
A319-131	June 17, 1992
A319-132	June 17, 1992
A319-133	September 14, 1998

6. EASA Type Certification Application Date

MOD 160500	08 April 2010
MOD 157777	13 March 2015
MOD 160080	24 April 2012
MOD 159535	01 July 2016
MOD 159533	19 January 2017
MOD 161004	18 December 2013
MOD 161001	30 November 2014
MOD 165511	04 December 2018
ACJ319neo	June 06, 2015

7. UK CAA Type Validation Application Date

Prior to 31 December 2020, application dates for type certification are covered by EASA type certification application dates, as per Section 6 above.

New applications for UK CAA type validation received after 01 January 2021 will be recorded in this section. At the current issue of this UK CAA TCDS, no new applications for type validation have been received since 01 January 2021.

8. State of Design Authority Type Certificate Date

A319-111	April 10, 1996
A319-112	April 10, 1996
A319-113	May 31, 1996
A319-114	May 31, 1996
A319-115	July 30, 1999
A319-131	December 18, 1996
A319-132	December 18, 1996
A319-133	July 30, 1999

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Note: For A319 produced before the 21st of December 2005, DGAC-F TC 180 remains a valid reference.

9. EASA Type Certification Date

EASA TCDS EASA.A.064 issue 1 issued December 21, 2005

MOD 160500 iss.4 May 28, 2013	A319-111,-112,-115 excluding CJ
MOD 160500 iss 5 September 06, 2013	A319-112 (CJ), A319-115 (CJ), A319-131 (PAX), A319-132 (PAX and CJ), A319-133 (PAX and CJ)
MOD 157777 iss 1 July 01, 2015	A319-111 /-112 / -113 / -114 / -115/ -131/ - 132 /-133
MOD 160080 iss 2 December 17, 2015	A319-111/-112/-115/-131/-132/-133 including CJ
MOD 159535 iss 1 September 06, 2017	A319-111 /-112 / -113 / -114 / -115/ -131/ - 132 /-133
MOD 161004 iss 1 December 14, 2018	A319-151N
MOD 161001 iss 1 November 29, 2019	A319-171N
MOD 159533 iss 1 February 18, 2019	A319-111 / -112 / -115 / -131 / -132 / -133
MOD 165511 iss 1 May 20, 2019	A319-153N
ACJ319neo lss 1 July 09, 2019	A319-153N(CJ)

10. UK CAA Type Validation Date

Prior to 31 December 2020, dates of type certification are covered by EASA type certification, as per Section 9 above.

UK CAA type validation dates after 01 January 2021 will be recorded in this section. At the current issue of this UK CAA TCDS, no UK CAA type validations have been completed since 01 January 2021.

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11. Production conditions

A319 aircraft, all series, all models, were produced in Hamburg (Germany) under approval I-A9 (until April 1999) or LBA.G.0009 (since April 1999) issued by LBA to AIRBUS INDUSTRIE

Since September 27, 2004, A319 aircraft were produced in Hamburg - Germany under approval DE.21G.0009 issued by LBA to AIRBUS

From July 21st, 2008, A319 aircraft were produced in Hamburg (Germany) under approval EASA.21G.0001 issued by EASA to AIRBUS.

From May 06th, 2009, A319 aircraft are produced in Hamburg (Germany) and Tianjin (People's Republic of China) under approval EASA.21G.0001 issued by EASA to AIRBUS.

From March 8th, 2016 A319 aircraft are produced in Hamburg (Germany), Tianjin (People's Republic of China) and Mobile (USA) under approval EASA.21G.0001 issued by EASA to AIRBUS.

From February 3rd, 2017, A319 aircraft are produced in Hamburg (Germany) and Mobile (USA) and delivered from Blagnac (France), Hamburg (Germany) and Mobile (USA) under approval EASA.21G.0001 issued by EASA to AIRBUS.

II. Certification Basis

1. Reference Date for determining the applicable requirements

AIRBUS INDUSTRIE has applied for A319 certification on June 17, 1992 by letter AI/EA 410.0122/92.

2. State of Design Airworthiness Authority Type Certification Data Sheet No.

Original French TCDS DGAC no. 180 was replaced by the EASA TCDS A.064.

3. State of Design Airworthiness Authority Certification Basis

Refer to EASA TCDS EASA.A.064.

4. UK CAA Airworthiness Requirements

Hereafter are listed the certification bases for the different A319 models. The amendments made to a particular basis at the occasion of further A319 models certification are identified per model.

4.1 JAR 25 Change 11

- except Subpart BB,
- except all National Variants,
- except, due to the application of the procedure for establishing the Joint Type Certification Basis for derivative large aeroplanes, the following JAR 25 paragraphs which are upgraded at Change 13 and eventually amended by Orange Paper 90/1 or Orange Paper 91/1:

25 X 20	25.253
25.107(d)	25.365 amended by OP 91/1
25.121	25.807(c) amended by OP 90/1
25.125	25.812(e)
25.143(f)	25.853(a)(b) since MSN 118
25.207	25.857(d)(6)

except, due to the Elect to Comply with SC-F11 and SC-S79, the following deleted paragraphs:

25x131 25x132 25x133

25x135

25x1588

- the following JAR 25 paragraphs upgraded at Change 13 and amended by SC-F11 and SC-S79:

25.101

25.105

25.109

25.113

25.115

25.735

25x1591

- 4.2 JAR AWO at Change 1 for autoland and operations in low visibility.
- 4.3 For the Extended Twin Engine Airplane Operations the applicable technical conditions are contained in AMC 20-6 (as initially published in AMJ 120-42/IL 20) and the A319 ETOPS CRI:

CRI G4006 ETOPS

CRI G4007 ETOPS - One engine inoperative cruise speed.

4.4 Certification basis has been revised for MOD 160500 "Sharklet" and MOD 160080 "Sharklet retrofit".

The certification basis is that of the A319-111/-112/-115/-131/-132/-133 amended by the following:

CS 25 Amdt 8 for

§ 25.23	§ 25.481(a)(c) amended by SC A-2 for § 25.481(a)
§ 25.25	§ 25.483
§ 25.117	§ 25.485
§ 25.147	§ 25.489
§ 25.161	§ 25.491
§ 25.177 amended by SC-F16	§ 25.571(a)(b)(e)
§ 25.235	§ 25.581
§ 25.251	§ 25.601
§ 25.301	§ 25.603
§ 25.302	§ 25.605
§ 25.303	§ 25.607
§ 25.305(a)(b)(c)(e)(f)	§ 25.609
§ 25.307(a)(d)	§ 25.613
§ 25.321(a)(b)(c)(d)	§ 25.619
§ 25.331(a)(b)(c)	§ 25.623

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Section 4: A319 Series - continued

§ 25.333(a)(b)	§ 25.625
§ 25.335(a)(c)(d)(e)(f) amended by SC A5003 for (b) and SC A-2 for (e)	§ 25.629
§ 25.337	§ 25.631
§ 25.341(a)(b)	§ 25.651
§ 25.343(a)(b)	§ 25.683
§ 25.345(a)(b)(c)(d)	§ 25.899
§ 25.349(a)(b) amended by SC A-2.2.2 for 25.349(a)	§ 25.903(d)(1) (see IM E-39 for interpretative material)
§ 25.351	§ 25.1385
§ 25.365(a)(b)(d)	§ 25.1387
§ 25.367	§ 25.1389
§ 25.371	§ 25.1391
§ 25.373	§ 25.1393
§ 25.391	§ 25.1395
§ 25.393(b)	§ 25.1397
§ 25.427	§ 25.1401
§ 25.445	§ 25.1505
§ 25.457	§ 25.1511
§ 25.459	§ 25.1515
§ 25.471(a)(b)	§ 25.1527
§ 25.473	§ 25.1587
§ 25.479(a)(c)(d) amended by SC A-2 for § 25.479(a)	§ 25.1591

CS 25 Amdt 2 for

§ 25.253

JAR 25 Chg 15 for

§ 25.1517

JAR 25 Chg 14 for

§ 25.21 amended by A318 SC F5001 (for b)	§ 25.149 + OP96/1
§ 25.101 amended by SC F11/S79	§ 25.171 replaced by SC-F5004
§ 25.103 replaced by A318 SC F5001	§ 25.173 replaced by SC-F5004
§ 25.105 amended by SC F11/S79	§ 25.175 replaced by SC-F5004
§ 25.107 amended by A318 SC-F5001	§ 25.181
§ 25.109 amended by SC F11/S79	§ 25.201 + OP96/1, replaced by SC-F5001
§ 25.111	§ 25.203 + OP96/1, replaced by SC-F5001
§ 25.113 + OP96/1 amended by SC F11/S79	§ 25.207 amended by SC-F5001
§ 25.115 amended by SC F11/S79	§ 25.231
§ 25.119 + OP96/1 amended by A318 SC F5001 (for b)	§ 25.233

§ 25.121 + OP96/1, amended by A318 SC F5001 (for c & d)	§ 25.237
§ 25.123	§ 25X261
§ 25.125 + OP96/1, amended by A318 SC F5001	§ 25.1533
§ 25.143 + OP96/1, amended by SC F3, F7 & F8	§ 25.1581
§ 25.145 + OP96/1	§ 25.1585(a)

JAR 25 Chg 11 for

§ 25.671

§ 25.672

§ 25.1001

§ 25.1301

§ 25.1309

§ 25.1419 amended by AMC-F14

Interpretative Material:

IM E-39 Uncontained Engine Rotor Failure

Note: The original Interpretative material applicable to each model remains effective.

Acceptable Means of Compliance:

AMC F-14 Flight in icing condition.

Note: AMC F-14 applicability extended from A321/A319/A318 to A319 with MOD 160500 and 160080.

4.5 ETOPS

AMC 20-6 Rev 1 paragraphs related to operation in icing conditions 8.b.(11) for ice shapes on the Sharklet device.

AMC 20-6 Rev 1 paragraphs related to performance data in the AFM supplement for ETOPS 8.f.(1) (iii).

AMJ 120-42 for ETOPS for non-affected areas.

Note: This corresponds to the certification basis used for the initial ETOPS demonstration (refer to A320 EtC G-1006).

4.6 Certification basis has been revised for MOD 157777 "Max Pax" for aircraft equipped with wing tip fence.

The certification basis is that of the A319-111, -112, -113, -114, -115, -131, -132, -133 amended by the following:

CS 25 Amdt 15 for

§25.23 §25.479(a)(c)(d) amended by SC A-2 for §

25.479(a)

25.481(a)

§25.321 §25.489

§25.331(a)(b)(c)(1) amended by IM A.2.2.2 §25.801(d)

§25.341(a) §25.803(c)

§25.351 §25.807(g) amended by ESF E-4001 and

demonstrated through ESF D-03

§25.473 §25.1529

JAR 25 change 13

§25.331(c)(2) §25.812(e)(1)(2)

§25.341(b) §25.812(k)(l)

§25.365(a) §25.853(a)1 amended by SC D-0306-000

JAR 25 change 12

§25.787(a)(b) §25.853(c)(d)(e)

JAR 25 change 11

\$25.307(a) \$25.1301 \$25.561 \$25.1351(a) \$25.571(a)(b) \$25.1353(a)(b) \$25.785 \$25.1359(a)(d) \$25.789(a) \$25.1413

4.7 Certification basis revised for MOD 159535 "Max Pax" for aircraft equipped with wing tip fence.

The certification basis is that of the A319-111, -112, -113, -114, -115, -131, -132, -133 amended by the following:

CS 25 Amdt 18 for

\$25.23 \$25.489 \$25.305(a)(b) \$25.801(d) \$25.321 \$25.803(c)

§25.331(a)(b)(c)(1) amended by IM A.2.2.2 §25.807(g) amended by ESF E-4001 and

demonstrated through ESF D-03

§25.341(a) §25.1519 §25.351 §25.1529

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25.479(a)

 $\S25.481(a)(c)$ amended by SC A-2 for \S

25.481(a)

JAR 25 change 13

§25.331(c)(2) §25.812(e) §25.341(b) §25.812(k)(l)

§25.365(a) §25.853(a)1 amended by SC D-0306-000

JAR 25 change 12

§25.853(c)

JAR 25 change 11

 §25.307(a)
 §25.1301

 §25.561
 §25.1351(a)

 §25.571(a)(b)
 §25.1353(a)(b)

 §25.785
 §25.1357(a)

 §25.787(a)(b)
 §25.1359(a)(d)

 §25.789(a)
 §25.1413

 825.701
 825.1415(b)(a)

\$25.791 \$25.1415(b)(c)(d) \$25.853(a)(b) \$25.1431(c) \$25.1447(c)1

4.8 Certification basis for A319-151N/-153N/-171N

The certification basis for the A319-151N/-153N/-171N has been revised.

The certification basis is that of the "Sharklet" amended by the following:

CS 25 Amdt 15 for

§25.23 (a) (b) §25.951 (a) (b) amended by SC E-37 (Water/Ice in Fuel System), for pylon area

only.

§25.25 (a) (b) §25.951(c) amended by SC E-37

(Water/Ice in Fuel System), for pylon area

only.

§25.27 §25.952 (a) (b) (for pylon area)

\$25.101 \$25.954 \$25.109 \$25.955 (a) \$25.113 \$25.961 (a) (b)

§25.115 §25.963 (a) (e)(2) (subparagraph (e)(2)

applicable only for A319-171N)

§25.117	§25.969
§25.143(k)	§25.971 (a) (b) (c)
§25.145 (a)	§25.981 for pylon area only
§25.147	§25.993 (a) (b) (c) (d) (e) for Engines and Pylon area only.
§25.149	§25.994 for fuel system component in the pylon and powerplant system area
§25.161	§25.995 for engine and pylon areas only
§25.171 replaced by SAneo SC B-04 (Static Directional, Lateral and Longitudinal Stability and Low Energy awareness)	§25.997 (a) (b) (c) (d)
§25.173 replaced by SAneo SC B-04 (Static Directional, Lateral and Longitudinal Stability and Low Energy awareness)	§25.999 (a) (b)
§25.175 replaced by SAneo SC B-04 (Static Directional, Lateral and Longitudinal Stability and Low Energy awareness)	§25.1001
§25.177 with subparagraphs (b) and (c) replaced by SAneo SC B-04 (Static Directional, Lateral and Longitudinal Stability and Low Energy awareness)	§25.1011 (a) (b)
§25.181	§25.1013 (a) (b) (c) (d) (e) (f)
§25.201 replaced by SAneo SC B-01 (Stalling and scheduled operating speeds)	§25.1015 (a) (b)
§25.203 replaced by SAneo SC B-01 (Stalling and scheduled operating speeds),	§25.1017 (a) (b)
§25.231	§25.1019 (a)
§25.233	§25.1021 (a) (b)
§25.235	§25.1023 (a) (b)
§25.251	§25.1025 (a) (c)
§25.301 (a) (b) (c)	§25.1041
§25.302 (for new or modified parts)	§25.1043(a)(b)(c)
§25.303 (for new or modified parts)	§25.1045 (a) (b) (c)
§25.305 (a) (b) (c) (e) (f) (for new or modified parts)	§25.1091 (a) (b) (c) (d) (e)
§25.307 (a) (d) (for new or modified parts)	§25.1093 (b)
§25.321 (a) (b) (c) (d)	§25.1103 (b) (c) (d)
§25.331 (a) (b) (c)	§25.1121 (a) (b) (c) (d) (f) (g)
§25.333 (a) (b)	§25.1123 (a) (b) (c)
§25.335 (a) (b) (c) (d) (e) (f) with sub-paragraph (b) replaced by Legacy SC B-14 (Design Dive Speed Vd) and sub-paragraph (e) amended by Legacy SC A-2 (Stalling speeds for structural design)	§25.1141 (a) (b) (c) (d) (e) (f)
§25.337 (a) (b) (c) (d)	§25.1143 (a) (b) (c) (d) (e)
§25.341(a)(b)(c)	§25.1145 (a) (b) (c)
§25.343 (a) (b) (for new or modified parts)	§25.1155 (a) (b) (c) (d) (e)
§25.345 (a) (b) (c) (d)	§25.1163 (a) (b) (c)

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§25.349 §25.349(a) amended by SC A-2.2.2.2 (b)	§25.1165 (a) (b) (c) (e) (f) (h)
§25.351	§25.1167 (a) (b) (c)
§25.361 (a) (b)	§25.1181 (a) (b) amended by SAneo ESF E-44 (Fan Zone non-fire zone)
§25.362 (a) (b) (for new or modified parts)	§25.1182 (a) (b)
§25.363 (a) (b)	§25.1183 (a) (b) (c)
§25.365 (a) (b) (c) (d) (e)(1) (for new or modified parts)	§25.1185 (a) (b) (c)
§25.367 (a) (b)	§25.1187 (a) (b) (c) (d) (e)
§25.371	§25.1189 (a) (b) (d) (e) (f)
§25.373 (a) (b)	§25.1191 (a) (b)
§25.391 (a) (b) (c) (d) (e)	§25.1193 (a) (b) (c) (d) (e)(1)(2) amended by SAneo SC E-45 (Engine Cowl Retention)
	§25.1193(e)(3) amended by SAneo SC E-45 (Engine Cowl Retention)
§25.427 (a) (b) (c) (d)	§25.1195 (a) (b) (c)
	§25.1197(a)(b)
§25.445 (a) (b)	§25.1199 (a) (b) (c) (d) (e)
§25.457	§25.1201 (a) (b)
§25.459	§25.1203 (a) (b) (c) (d) (e) (f) (g)
§25.471 (a) (b)	§25.1207 (a) (b) (c) (d)
§25.473 (a) (b) (c) (d) (e)	§25.1305(a)(c)(d)
§25.479 (a) (c) (d) amended by Legacy SC A-2 for § 25.479(a)	§25.1309 (for newly designed systems) amended by:
	Legacy SC SE-2001 (SC S-76 – Effects of external radiations upon aircraft systems), Legacy SC SE-14 (SC S-76-1 – Protection from the effects of HIRF)
§25.481 (a) (c) amended by Legacy SC A-2 for § 25.481(a)	§25.1316 (a) (b) (c)
§25.483 (a) (b)	§25.1337 (a) (c) (d)
§25.485 (a) (b)	§25.1353 (a) (b) (for engine and pylon areas)
§25.489	§25.1355 (c)
§25.491	§25.1357 (a) (for newly designed systems)
§25.493 (b) (c) (d) (e)	§25.1401 (b)
§25.495	§25.1403
§25.499 (a) (b) (c) (d) (e)	§25.1419 (a) (b) (c) (d) (e) (f) (g) (h) for engine air intake protection
§25.503 (a) (b)	§25.1431 amended by Legacy SC SE-2001 (SC S76 - Effects of external radiations upon aircraft systems) Legacy SC SE-14 (SC S76-1 – Protection from the effect of HIRF)
	For newly designed equipment only

§25.507 (a) (b) (c)	§25.1438 (for newly designed equipment)
§25.509	§25.1459 (a) (b) (c) (d) amended by Legacy SC S-72 (HC-S72 – Flight recorders)
§25.511	§25.1461 (a) (b) (c) (d) For newly designed equipment
§25.519 (a) (b) (c)	§25.1501(a) (b)
§25.571 (a) (b) (c) (d) (e) (for new or modified parts)	§25.1503
§25.581 amended by Legacy SC SE-2004 (SC S75 – Lightning protection indirect effects) for pylon and nacelle areas	§25.1507
§25.601 (for new or modified parts)	§25.1511
§25.603 (a) (b) (c) (for new or modified parts)	§25.1513
§25.605 (a) (b) (for new or modified parts)	§25.1515
§25.607 (a) (b) (for new or modified parts)	§25.1517
§25.609 (a) (b) (for new or modified parts)	§25.1519
§25.611 (a)	§25.1521 (a) (c) (d)
§25.613 (a) (b) (c) (d) (e) (f) (for new or modified parts)	§25.1525
§25.619 (a) (b) (c) (for new or modified parts)	§25.1527
§25.623 (a) (b) (for new or modified parts)	§25.1531
§25.625 (a) (b) (c) (d) (for new or modified parts)	§25.1533
§25.629 (a) (b) (c) (d) (e)	§25.1535 (a) (b) (c)
§25.631 (for new or modified parts)	§25.1549 (a) (b) (c) (d) amended by SAneo ESF E-51 (Oil temperature indication)
§25.651 (for new or modified parts)	§25.1551
§25.671 (a) (b) (c) (d) amended by legacy SC F-7 (SC F-9 - Dual Control System)	§25.1553
§25.731 (a) (b) (c)	§25.1557 (b)
§25.733 (b) (c) (d)	§25.1581
§25.777(i) Sub-paragraph (b) amended by SAneo SC B-03 (Motion and Effect of Cockpit Control)	§25.1583 (a) (b) (c) (d) (e) (f) (h) (i) (k)
§25.779	§25.1585
§25.831 (a) (e)	§25.1587
§25.841 (a)	§25.1591
§25.851(b)(c)	§25.1593
§25.855(c)	§25.1701 (a) (b) (c) for engines and pylon areas
	§25.1703 (a) (b) (d) (e) for engines and pylon areas
§25.863 (a) (b) (c) (d)	§25.1705 (a) (b) for engines and pylon areas
§25.865	§25.1707 (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) for engines and pylon areas

§25.867 (a) (b)	§25.1709 (a) (b) for engines and pylon areas
§25.869 (a) (b) (c)	§25.1711 (a) (b) (c) (d) (e) for engines and pylon areas
§25.899 amended by Legacy SC SE-2004 (SC S-75 – Lightning protection indirect effects), for Pylon and Nacelle areas only	§25.1713 (a) (b) (c) for engines and pylon areas
§25.901 (a) (b) (c) amended by	§25.1715 (a) (b) for engines and pylon
SAneo SC E-45 (Engine Cowl Retention),	areas
§25.903 (a) (b) (c) (d) (e)	§25.1717 for engines and pylon areas
§25.904	§25.1719 for engines and pylon areas
§25.933 (a)	§25.1723 for engines and pylon areas
§25.934 amended by SAneo ESF E-43 (Thrust Reverser Testing).	§25.1725 (a) (b) for engines and pylon areas
§25.939 (a) (c)	§25.1727 for engines and pylon areas §25.1731 (a) (b)
§25.943	

CS 25 Amdt 13 for

§25.963(e)(1)

Note: "The A319-171N was granted a reversion to CS25.963(e)(1) at Amdt 13 based on a justification that takes credit from specific design features that are present in the aircraft A319-171N Type Design

(refer to EASA Reversion E-65 "Fuel Tanks Reversion from CS25.963(e)(1) at Amdt 15 to CS25.963(e)(1) at Amdt 13").

The validity of this justification must be reassessed in case of any subsequent type design change, modification, or repair to ensure the level of safety of the A319-171N is maintained."

§25.963(e)(2) (applicable only for A319-151N)

CS25 Amdt 8 for:

§25.683 (b)

CS 25 Amdt 2 for:

§25.21 with sub-paragraph (b) added by SAneo SC B-01 (Stalling and Scheduled Operating Speeds)	§25.123
§25.103 replaced by SAneo SC B-01 (Stalling and Scheduled Operating Speeds)	§25.125
§25.105	§25.143
	Sub-Paragraphs (j), (k), (l) added by SAneo SC B-03 (Motion and Effect of Cockpit

Sub-paragraph (h) added by SAneo SC B-07 (Flight envelope protection),

Sub paragraph (i) added by SAneo SC B-08 (Normal Load factor limiting System).

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control),

§25.107	§25.207 replaced by SAneo SC B-01 (Stalling and scheduled operating speeds).
§25.111	§25.237
§25.119	§25.253
§25.121	§25.1419

CS25 Amdt 1:

§25.981 (a) (3) amended by generic SC E-48 – Fuel Tank Safety for all areas except engine and pylon areas

JAR 25 Chg 14 for:

§25.145 (b) (c)

§25.365 (e)(2), (e)(3)

§25.1423 (a) (b) (c) (d) (e) (f) (g)

§25.1583 (j)

JAR 25 Chg 13 for

§25.365 (f) (g)

§25.735 (a) (f) (g) (h) amended by

Legacy SC F-4012 (SC F-11 – Accelerate-stop distances and related performances, worn brakes)

Legacy SC SE-3003 (SC S-79 - Brake requirements, qualification and testing – A321)

§25.853(a)(1)

JAR 25 Chg 12 for

§25.853(c)

JAR 25 Chg 11 for:

§25.561 (a) (b) (c)	§25.1309 amended by Generic SC D-0332- 001 (Towbarless Towing) For systems adaptations.
§25.563	§25X1315
§25.672 (a) (b) (c)	§25.994 for all areas except engine and pylon areas
§25.677 (b)	§25.1301
§25.703 (a) (b) (c)	§25.1321 (d)
§25.721 (a) (b) (c)	§25.1322 (a) (b) (c) (d) amended by generic SC D-0332-001 (Towbarless Towing)
§25.729 (b) (c) (d) (e) (f)	§25.1323 (a) (b) (c)
§25.735 (b) (c)	§25.1325 (b) (d) (e)
§25.771 (e)	§25.1329 (f) amended by: Legacy SC S-30 (Automatic Flight/Flight

Management Functions),

§25.1337 (b)

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§25.783 (a) (b) (c) (e) (f) (g)	§25.1351 (a) (b) (d) where (d) is replaced by Legacy SC-S52 (Operation without normal Electrical power)
§25.791	§25.1353 (a) (b) (for all areas except pylon and engine)
§25.801	§25.1359
§25.807 (a) (b) (c) (d)	§25.1363 (a) (b)
§25.809 (a) (b) (c) (d) (e) (f)	§25.1419 (a) (b) (c) (d) amended by AMC F-14 for all ATA300 areas except Engine Air intake protection and Wing ice shapes
§25.843 (a)	§25.1431 (for system adaptations)
§25.853 (a)	§25.1435 (a) (b) (c) (d)
§25X899 amended by Legacy SC SE-2004 (SC S75 – Lightning protection indirect effects)	§25.1457 (a) (b) (c) (d) (e) (f) (g)
§25.959	§25.1529 amended by SC H-01
§25.963 (d) (e)	§25A901 (c)
§25.967 (d)	§25A939 (a)
§25.975 (a)	§25A1521
§25.981 for all paragraph except (a) (3) in all areas except engine and pylon areas	§25A1527

4.9 Certification basis has been revised for MOD 159533 "Max Pax" for aircraft equipped with modification 160500 (Sharklets).

The certification basis is that of the A319-111, -112, -115, -131, -132, -133 equipped with modification 160500 amended by the following:

CS 25 Amdt 18 for

§25.23	§25.489
	§25.801(d)
§25.321	§25.803(c)
§25.331	§25.807(g) amended by ESF E-4001 and demonstrated through ESF D-03
§25.341(a)(b)	§25.1519
§25.351	§25.1529
§25.473	§25.1541(a)(b)
§25.479(a)(c)(d) amended by SC A-2 for § 25.479(a)	§25.1557(a)
§25.481(a)(c) amended by SC A-2 for § 25.481(a)	

JAR 25 change 13

§25.305(a)(b)	§25.812(k)(l)
§25.365(a)	§25.853(a)1 amended by SC D-0306-000

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§25.812(e)

JAR 25 change 12

§25.853(c)

JAR 25 change 11

§25.307(a)	§25.1301
§25.561	§25.1351(a)
§25.571(a)(b)	§25.1353(a)(b)
§25.785	§25.1357(a)
§25.787(a)(b)	§25.1359(a)(d)
§25.789(a)	§25.1413

§25.1447(c)1

4.10 Certification basis revised for ACJ319neo.

The certification basis is that of the A319-153N amended by the following:

CS25 Amdt 16 for the following chapters

25.23	25.957
25.25	25.959
25.27	25.963 (a)(b)(c)(e)(1)(d)(1)(d)(3)(f) (d)(4)(e)(1)(e)(2)
25.29	25.965 (a) (b) (c) (d)
25.101 (c)(d)(e)(f)(h)	25.967 (a) (b) (e)
25.109 (a)(b)	25.969
25.113 (a)(b)	25.971 (a) (b) (c)
25.115 (a)(b)	25.975 (a)
25.117	25.977 (a) (c) (d)
25.147 (c)(d)	25.979 (b) (c) (d) (e)
25.175 replaced by SC B-04	25.981 (a)(d)
25.201 replaced by SC B-01	25.993 (a) (b) (c) (d) (e) (f)
25.203 replaced by SC B-01	25.994
25.235	25.995 (b)

25.301 (a)(b)(c) 25.999 (a) (b) 25.302 25.1001 (a)(b)

25.303 25.1141 (a)(b)(c)(d)(f)

25.305 (a)(b)(c)(e)(f) 25.1189 (h)

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25.307 (a)	25.1301 (a)(b)
25.321 (a)(b)(c)(d)	25.1302 (a) (b) (c)
25.331 (a)(b)(c)	25.1305 (a)(2)
25.333 (a)(b)	25.1309 (a) (b) (c) (d)
25.335 (a)(b)(c)(d)(e)(f), (b) amended by SC B14 and (e) amended by SC A2	25.1310
25.337 (a)(b)(c)	25.1315
25.341 (a)(b)(c)	25.1316 (a) (b) (c)
25.343 (a) (b)(1)(b)(2)(b)(3)	25.1337 (b)
25.351 (a)(b)(c)(d)	25.1353 (a) (b)
25.361 (a)	25.1381 (a)(2)(ii)(b)
25.362 (a)(b)	25.1431 (a) (c) (d)
25.363 (a)(b)	25.1511
25.365 (a)(b)(d)(e)(f)	25.1517
25.367 (a)(b)	25.1519
25.371	25.1527
25.373 (a)(b)	25.1533
25.391 (a)(b)(d)(e)	25.1535 (a) and AMC 20-6 rev2
25.427 (a)(b)(d)	25.1543 (b)
25.445 (a)	25.1553
25.457	25.1555 (a) (c)
25.459	25.1581
25.471 (a)(b)	25.1583 (c)(f)(h)
25.473 (a)(b)(c)(d)(e)	25.1585 (a)(b)(c)(e)(f)
25.479 (a)(c)(d) amended by SC A2	25.1587
25.481 (a)(c), (a) emended by SC A2	25.1591
25.483 (a)(b)	25.1703 (a1)(a2)a(3)(a4) (b) (d)
25.485 (a)(b)	25.1705 (a) (b)(4)(b)(9)(b)(16)
25.489	25.1707 (a)(b)(c)(e)(l)
25.491	25.1709 (a) (b)
25.493 (b)(c)(d)(e)	25.1711 (a) (b) (c) (d) (e)
25.495	25.1713
25.499 (a)(b)(c)(d)(e)	25.1715 (a) (b)
25.503 (a)(b)	25.1719
25.507 (a)(b)	25.1721 (b)
25.509 (a)(c)(d)	25.1723
25.511 (a)(b)(c)(d)(e)(f)	25.1725(b)
25.519 (a)(b)(c)	
25.561 (a)(b)(c)(d)	
25.571 (a)(b)(c)(e)	
25.581 (a) (b) (c)	
25.611	

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25.619
 25.625
 25.629 (a)(b)(c)(d)(e)
 25.631
 25.721 (b)
 25.723 (b)
 25.733 (b)(c)
 25.777 (a)
 25.843 (a)
 25.851 (b)(2)
 25.855 (a) (c) (e) (f) (g)(h)(1)(h)(2)(h)(3)
 25.857
 25.858
 25.863 (a) (b) (c) (d)
 25.869
 25.899 (a) (b)
 25.901 (c)
 25.903 (c) (d)(1)
 25.943
 25.951 (c)
 25.952 (a)
 25.954 (a) (b) (c)
CS 25 Amdt 11 for the following chapters
 25.101 (c)(d)(e)(f)(g)(h)
                                                    25.671 (c)
 25.109 (a)(b)
                                                    25.855 (c)(e)(1)
 25.113 (a)(b)
                                                    25.901 (b)(c)
 25.115 (a)(b)
                                                    25.1001 (a)(b)
 25.117
                                                    25.1301 (a)(1)(a)(2)(a)(3)
 25.143 (i) introduced by SC B-08
                                                    25.1309 (a)(b)
 25.251
                                                    25.1519
 25.305 (a) (b)
                                                    25.1533 (a)
 25.307 (a)
                                                    25.1527
 25.335 (b)
                                                    25.1581 (a)(b)
                                                    25.1587 (b)
 25.365 (e)
 25.561 (b)(3)
                                                    25.1591 (b)
 25.601
CS 25 Amdt 2 for the following chapters
                                                    25.121 (a)(b)(c)
 25.21 (a)(c)(d)
 25.103 replaced by SC B-01
                                                    25.123
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25.105 (a) 25.125 (a)(b) 25.107 (a)(b)(c)(d)(e)(f)(g) 25.143 (a)(b)(3)(g) 25.111 (a)(b)(c)(d) 25.253 (a)

25.1419, (b)

JAR 25 Change 13 for the following chapters

25.365 (e)(2)(3)(f)(g)

JAR 25 Change 11 for the following chapters

25.571 (a)(3) (c) 25.1309 (a)(b)(c)(d)(g)

25.672 25.1351 (a) 25.689 (f) 25.1353 (b)

25.775 (a)(b)(c)(d) 25.1529 amended by SC H-01

25.1103 (d) 25.1541 25.1301 (a) (b) (c) (d) 25.1557 (a)

With the removal of the aft cargo compartment through embodiment of the modification 165550 on ACJ319neo,

- FAR 25.856(b) (EtC E-28 plus ESF E-32) was not demonstrated in the aft cargo compartment. Instead, the passenger capacity is limited to 19 passengers.
- "Class C" cargo compartment airworthiness requirements CS25.855(a)(b)(c)(e)(f)(g)(h)(i) and CS25.857(c) are not applicable anymore for the changed AFT lower deck compartment.

5. Special Conditions

5.1 The following A320 Special conditions, Experience Related Conditions and Harmonization Conditions which are kept for the A319:

Reminder: Within the scope of the establishment of the A320 Joint Certification Basis, three types of special conditions were developed:

- Special conditions: rose to cover novel or unusual features not addressed by the JAR.
- Experience related conditions: rose to record an agreed text for the A320 Joint Certification Basis when evolution of JAR was in progress under the NPA procedure.
- Harmonization conditions: to record, for the purpose of the A320 Joint Certification Basis, a common understanding with respect to National variant. This should not be confused with the FAA/JAA harmonised regulations.

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(DGAC-F) SC-G17

Compulsory

	,	1 0 0
	(CAA-UK) SC-G17	Operational flight before certification
	SC-F3	Cockpit control - motion and effect of cockpit control
	SC-F4	Static longitudinal stability
	SC-F6	Static directional and lateral stability
	SC-F7	Flight envelope protection
	SC-F8	Normal load factor limiting
	SC-F9	Dual control system
	SC-A.2.2.2.	Design manoeuvre requirement
	SC-A.2.2.3.	Design dive speed
	HC-A.4.5.	Braked roll conditions
	HC-A.4.6.	Speed control device
	SC-S11	Limit pilot forces and torques
	HC-S23	Standby gyroscopic horizon
	HC-S24	VMO/MMO Warning (setting)
	EC-S30	Autoflight system
	SC-S33	Autothrust system
	SC-S52	Operation without normal electrical power
	EC-S54	Circuit protective devices
	HC-S72	Flight recorder
	SC-S74	Abnormal attitudes
	SC-S75	Lightning protection indirect effects
	SC-S76	Effect of external radiations up on aircraft systems
	SC-S77	Integrity of control signal
5.2	The following Special (Conditions developed for the A319:
	SC-A2	"Stalling Speeds for Structural Design" (see SC A-4002)
	SC-F1	"Stalling and Scheduled Operating Speeds" (see SC F-4001)
	SC-F11	"Accelerate-Stop distances and related performances, worn brakes" (see SC F-4012)
	SC-S79	"Brakes requirements, qualification and testing" (see SC SE-4003)
5.3	For A319, Airbus Indus	strie has elected to comply with the following A321 Special Conditions:
	SC-A1	"Interaction of Systems and Structure" (see SC A-4001)
	SC-P1	"FADEC" (see SC P-4001)

Operational proving flights

5.4 For any new application (new or modified aeroplane system and associated components) after July 10, 1998, SC/IM-S76 (Effect of external radiations upon aircraft systems) are superseded by SC/IM-S76-1 (SC SE-14).

"Resistance to Fire Terminology" (see SC E-4005)

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SC-E1

- 5.5 For A319 weight variant 002 and for any further variant certification after Aug. 10, 1998, the HC-A.4.5 (Braked roll conditions) is superseded by JAR 25.493(d) at Change 14 (EtC A-7).
- 5.6 For A319-115 and -133 models, the following JAR 25 paragraphs and Special Conditions are upgraded at Change 14 and Orange Paper 96/1:

25.119(a)

25.121(d)/SC-F1 Appendix 3

25.145(b)(c)

25.149(f)(g)(h)(i) and associated ACJ

This is introduced as Special Condition applicable to the "Third Rating", with a wording as close as possible to those paragraphs of the NPA 25B-261 involving the Go-around rating (SC F-8).

5.7 The following special conditions have been developed post Type Certification:

SC H-01 Enhanced Airworthiness Programme for Aeroplane Systems - ICA on

EWIS (applicable from May 2010)

SC D-0306 Heat release and smoke density requirements to seat material

(applicable from June 2010)

SC P-27 Flammability Reduction System

If fitted, the centre fuel tank of aircraft which have made their first flight after 1st of January 2012 must be equipped in production with a fuel tank Flammability Reduction System (modification 38062). This system shall remain installed and operative and can only be

dispatched inoperative in accordance with the provisions of the MMEL revision associated with modification 38062. If modification 38062 (Fuel Tank Inerting System (FTIS)) is embodied on A318, A319, A320, or A321 airplanes, the airplane is compliant with paragraph FR

Section 25.981(a) & (b) at amendment 25-102, Part 25 appendix M & N at amendment 25-125, and Section 26.33 at amendment 26-3.

SC E-48 Fuel Tank Safety (applicable from October 2013)

SC F-0311-001 Flight Recorders including Data Link Recording (applicable as per

operational regulations)

F-GEN-01 Installation of non-rechargeable lithium battery (applicable from March

2019)

5.8 Special Conditions for aircraft equipped with MOD 160500 & 160080

SC F-16 Static directional and lateral stability

A318 SC F-5001 Stalling and scheduled operating speeds

A318 SC F-5004 Static Longitudinal Stability and Low energy awareness

A318 SC A-5003* Design Dive Speed Vd

*From 07th December 2018 SC B-14 is replacing SC A-5003

Note: All other original Special Conditions applicable to each model remain effective.

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5.9 Special Conditions for A319-151N/-153N/-171N

B-01	Stalling and Scheduled Operating Speeds
B-03	Motion and effect of cockpit control
B-04	Static Directional, Lateral and Longitudinal Stability and Low energy awareness
B-07	Flight Envelope Protection
B-08	Normal Load Factor limiting System
E-37	Water/Ice in Fuel System
E-45	Engine Cowl Retention
F-13	Fuel System Low Level Indication - Fuel Exhaustion
E-55*	Fan Blade Loss

^{*}Only applicable to CFM models

5.9.1 The following special conditions developed for previous models are also applicable to the A319-151N/-153N/-171N affected areas:

A2.2.2	Design Manoeuvre requirement			
A-3001 (SC A1)	Interaction of systems and structure			
A-4002 (SC A2)	Stalling Speeds for structural design			
B-14	Design dive speed Vd			
D-0332-001	Towbarless Towing			
E-48	Fuel Tank Safety			
F4012 (SC F11)	Accelerate-stop distances and relates performances, worn brakes			
F7 (SC F-9)	Dual Control System			
H-01	Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS			
P-27	Flammability Reduction System (consisting of Cooled Serviced Air System and Inert Gas Generation System			
S11	Limit Pilot forces and torques			
S30	Automatic Flight/Flight Management Functions			
S-33	Autothrust system			
S72 (HC-S72)	Flight recorders			
SE14 (SC S-76-1)	Protection from the effect of HIRF			
SE2004 (SC S-75)	Lightning protection indirect effects			
SE4003 (SC S-79)	Brake requirements, qualification and testing (A321)			

Optional

5.10 The following special conditions have been developed post Type Certification:

D-08	Installation of Personal Electronic Device charging stowage for cabin crew use
D-15	Pilot Control Mode TaxiBot Operations
D-19	Incorporation of Inertia Locking Device in Dynamic Seats

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D-24	Installation of Airbags in the backrest of seats			
D-25	Installation of structure mounted airbag			
D-27	Installation of Three Point Restraint & Pretensioner System			
D-28	Installation of oblique seats			
D-0322-001	Installation of suite type seating			
D-0332-001	Towbarless Towing			
E-10	High altitude airport operations (up to 14,100 ft)"			
E-13	Installation of inflatable restraints			
E-21	Flight Instrument External Probes – Qualification in Icing Conditions New UTAS Pitot Probes			
E-34	Seat with inflatable restraints			
F-119	Security Protection of Aircraft Systems and Networks			

6. Exemptions

No exemptions.

7. Deviations

Optional

ACNS-B-GEN-01 Removal of DM89 MONITORING message from the required CPDLC

downlink messages list

8. Equivalent Safety Findings

Compulsory

8.1 Equivalent Safety findings to the following requirements are granted,:

JAR 25-783(f)	"Doors" (see ESF SM-4004 "Passenger doors"; The same Equivalent Safety finding was previously granted for A320 and A321).
JAR 25-807(c)(1)	"Passengers emergency exits" (see ESF E-4001 - "Exit configuration" issued on the basis of the JAA policy dated December 1995).
JAR 25-813(c)(1)	"Emergency exit access" (see ESF E-4105 - "Type III over wing emergency exit access", issued on the basis of A320 E-2105 issue 3).
JAR 25-933(a)(1)	"Reversing systems" (see ESF P-4008 - "Thrust Reverser Auto restow", issued on the basis of A320 ESF P-1002).
JAR AWO 313	"Minimum approach break-off height" (see ESF SE-4005 - "Minimum approach break-off height").

8.2 The following Equivalent Safety Findings have been developed post Type Certification:

FAR 25.856(b) Fuselage burnthrough protection in bilge area (see ESF E-32)

If modifications 150700, and 37270 (with CLS option only), 37048 and 36985 are embodied in production on A318, A319, A320, or A321 airplanes, the airplane is compliant with Fuselage Flame Penetration "Burnhough" requirements addressed by paragraph 14 CFR Part

25.856(b) Amdt 25-111 (See EtC E-28).

Regarding the fuselage skin in the bilge area, EASA issued an

equivalent level of safety finding through EtC E-28.

(applicable as per operational regulations)

14CFR Part 25.856(a) Improved flammability standards for insulation materials

(ESF E-18) (applicable as per operational regulations)

8.3 Equivalent Safety Findings for aircraft equipped with MOD 160500 & 160080

25.1419(c)

F-19

Flight in natural icing condition

Note: The original ESFs applicable to each model remain effective.

8.4 Equivalent Safety Findings for aircraft equipped with MOD 157777, 159533 or 159535

CS25.807(g) D-03 Over-performing Type I exit

8.5 The following Equivalent Safety Findings have been developed for the A319-151N/-153N/171N:

CS25.934, CS-E 890	E-43	Thrust Reverser Testing
CS25.1549(a)	E-51	Oil temperature indication
CS25.1181, CS25.1182	E-52	Nacelle area adjacent to fire
CS25 007(d)	E 40*	Fuel Filter Location

CS25.997(d) E-49* Fuel Filter Location

CS25.1181(a) E-44** Fan Zone as non fire zone

Optional

8.6 The following Equivalent Safety Findings have been developed post Type Certification:

CS 25.251(b)	Vibration/buffeting compliance criteria for large external antenna installation (see ESF B-17) applicable from February 2021.
JAR 25.785(c)	Forward facing seats with more than 18° to aircraft centerline. (ESF D-0329-001) $$
CS 25.795(a)(1)	Application of reduced Intrusion Loads in certain areas of the flight deck boundaries (D-31)
JAR 25.811(f)	Emergency exit marking reflectance (ESF E-16)
JAR 25.812(b)(1)(ii)	Photo-luminescent EXIT sign for MCD (Moveable Class Divider) (ESF E-14)
JAR 25.812(b)(1)(i)(ii)	Symbolic EXIT signs as an alternative to red EXIT signs for passenger aircraft (ESF SE-42)

Minimum Mass Flow of Supplemental Oxygen (ESF F-20)

JAR 25.1441(c) Crew Determination of Quantity of Oxygen in Passenger Oxygen

System (ESF F-21)

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JAR 25.1443(c)

^{*}Applicable to CFM models only

^{**}Applicable to IAE models only

9. Elect To Comply

Compulsory

9.1 Airbus Elect to Comply with NPA 25-C205, the following JAR 25 paragraphs which are upgraded at Change 13 and amended by Orange Paper 91/1:

25.305	25.349 (b)
25.321	25.351
25.331	25.365 (e)
25.333	25.371
25.335 (d)	25.373
25.341	25.391
25.343 (b) (1) (ii)	25.427
25.345 (a) and (c)	25.571 (b) (2)

Optional

9.2 If modification 153945 is embodied on A319 aircraft, the following paragraph is upgraded at CS25 amendment 11 due to an Elect-to-Comply:

25.813(c)(2)(ii)

- 9.3 For all models Airbus Elect To Comply with 14CFR Part 25.772(a) and (c) and 25.795 amendment 106 according to EtC E-12 –Reinforced Security Cockpit Door.
- 9.4 For all models Airbus Elect To Comply to CS25.851(a),(c) at Amdt 17 when halon free handheld fire extinguishers are installed (EtC D-GEN-AIRBUS-01).
- 9.5 For all models Airbus Elect to Comply to CS 25.562 initial issue for Improved Seats in Air Carrier Transport category Airplanes" for cabin and/or passenger seats (E-31)
- 9.6 For all models Airbus Elect To Comply with CS-ACNS Subpart B Section 2 Data Link Services. Initial issue
- 9.7 For all models Airbus Elect To Comply with CS25-791 at Amdt 20 when Mod 160139 "Passenger information signs and placards" is installed.
- 9.8 For all models Airbus Elect To Comply with CS 25.795(a)(1), 25.795(a)(2) and §25.795(c)(3)(ii) Amdt 22 when mod 167557 "Define Modified Airspace Lavatory A Option for 25.795 Compliance" is installed (ESF D-31).
- 9.9 Airbus elect to comply to JAR AWO 140 and 183 at change 2 for A319-151N/-153N when equipped with optional modification 161765.

10. Environmental Protection

ICAO Annex 16:

Vol. I, Part II	Noise Requirements
Vol. II, Part II	Fuel Venting
Vol. II, Part III Chapter 2	Emissions

Note: For details of the certified noise levels see TCDSN no. UK.TC.A.00010.

III. Technical Characteristics and Operational Limitations

1. Type Design Definition

1.1 Certificated model: A319-111

Definition of reference airplane by doc: AI/EA-S 413.0700/96 (00J000A0011/C21).

1.2 Certificated model: A319-112

Definition of reference airplane by doc: AI/EA-S 413.0505/96 (00J000A0003/C21).

1.3 Certificated model: A319-113

Definition of reference airplane by doc: AI/EA-S 413.1377/96 (00J000A0113/C21).

1.4 Certificated model: A319-114

Definition of reference airplane by doc: AI/EA-S 413.1400/96 (00J000A0114/C21).

1.5 Certificated model: A319-115

Definition of reference airplane by doc: AI/EA-S 413.1204/99 (00J000A0115/C21).

1.6 Certificated model: A319-131

Definition of reference airplane by doc: AI/EA-S 413.3250/96 (00J000A0131/C21).

1.7 Certificated model: A319-132

Definition of reference airplane by doc: AI/EA-S 413.3300/96 (00J000A0132/C21).

1.8 Certificated model: A319-133

Definition of reference airplane by doc: AI/EA-S 413.1205/99 (00J000A0133/C21).

1.9 Certificated model: A319-151N

Definition of reference airplane by doc: 00J000A5025/C20

1.10 Certificated model: A319-153N

Definition of reference airplane by doc: 00J000A5240/C00

1.11 Certificated model: A319-171N

Definition of reference airplane by doc: 00J000A5022/C20

NOTES

Model conversions:

- If modification 30149 is embodied on A319-113 model powered with CFM56-5A4 engines, it is converted into A319-114 model, powered with CFM56-5A5 engines.
- If modification 34281 is embodied on A319-111 model powered with CFM56-5B5/P engines, it is converted into A319-112 model, powered with CFM56-5B6/P engines.
- If modification 34815 is embodied on A319-132 model powered with V2524-A5 engines, it is converted into A319-133 model, powered with V2527M-A5 engines.
- If modification 156502 is embodied on A319-111 model powered with CFM56-5B5/3 engines, it is converted into A319-112 model, powered with CFM56-5B6/3 engines.
- If modification 155359 is embodied on A319-131 model powered with V2522-A5 engines, it is converted into A319-132 model, powered with V2524-A5 engines.
- If modification 39029 is embodied on A319-112 model powered with CFM56-5B6/3 engines, it is converted into A319-115 model, powered with CFM56-5B7/3 engines
- If modification 39122 is embodied on A319-115 model powered with CFM56-5B7/3 engines, it is converted into A319-112 model, powered with CFM56-5B6/3 engines
- If modification 152186 is embodied on A319-115 model powered with CFM56-5B7/P or /3 engines, it is converted into A319-111 model, powered with CFM56-5B5/P or /3 engines
- If modification 153779 is embodied on A319-111 model powered with CFM56-5B5/3 or /P engines, it is converted into A319-115 model, powered with CFM56-5B7/3 or /P engines
- If modification 39236 is embodied on A319-112 model powered with CFM56-5B6/3 or /P engines, it is converted into A319-111 model, powered with CFM56-5B5/3 or /P engines

2. Description

Twin turbo-fan, short to medium range, single aisle, transport category airplane.

3. Equipment

A319-111

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00J000A0012/COS.

A319-112

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00J000A0004/COS.

A319-113

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00J000A0113/C0S.

A319-114

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00J000A0114/C0S.

A319-115

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00J000A0115/C0S.

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A319-131

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00J000A0131/C0S.

A319-132

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00J000A0132/C0S.

A319-133

Equipment approved for installation is listed in the Certification Standard Equipment List ref. 00J000A0133/C0S.

Certification Standard Equipment List is not applicable to the A319-151N/-153N/-171N.

Note:

The type design definitions and certification standard equipment lists are complemented by doc. 00D000A0546/COS "A319-100/A321-200 FMGC Type Std Evolution" and doc. 00J000A0067/COS "A319-111/112 ATC Transponder Type Std Evolution".

Cabin furnishings, equipment and arrangement shall be in conformance to the following specifications:

Cabin seats 2521M1F10000 Iss4 plus technical note J2521RP1719259 issue 2

00 04

Galleys 2530M1F000900 lss 2

4. Dimensions

Principal dimensions of A319 Aircraft:

•	Length:	33.84 m
•	Width:	34.10 m
	(if MOD 160500 is installed)	35.80 m
•	Height:	11.76 m
•	Width at horizontal stabilizer:	12.45 m
•	Outside fuselage diameter:	3.95 m
•	Distance between engine axes:	11.51 m
•	Distance between main landing gear:	7.59 m
•	Distance between nose and main landing gear:	11.04 m

5. Engines

The list below lists the basic engines fitted on the aircraft models. The notes describe usual names and certified names as well as new engines variants.

A319-111

Two CFMI CFM 56-5B5 jet engines (MOD 24932)

A319-112

Two CFMI CFM 56-5B6 jet engines (MOD 25287), or CFM 56-5B6/2 jet engines (MOD 25530)

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A319-113

Two CFMI CFM 56-5A4 jet engines (MOD 25238), or

CFM 56-5A4/F jet engines (MOD 23755)

A319-114

Two CFMI CFM 56-5A5 jet engines (MOD 25286), or

CFM 56-5A5/F jet engines (MOD 23755)

A319-115

Two CFMI CFM 56-5B7 jet engines (MOD 27567)

A319-131

Two IAE V2522-A5 jet engines (MOD 26152)

A319-132

Two IAE V2524-A5 jet engines (MOD 26298)

A319-133

Two IAE V2527M-A5 jet engines (MOD 27568)

A319-151N

Two CFMI LEAP-1A24 jet engines (MOD 161004)

<u>A319-153N</u>

Two CFMI LEAP-1A26 jet engines (MOD 165511), or

LEAP-1A26E1 jet engines (MOD 166794)

ACJ319neo

Two CFMI LEAP-1A26CJ jet engines (MOD 165333)

A319-171N

Two IAE PW1124G-JM Geared Turbo Fan jet engines (MOD 161001)

Notes:

From March 31st 2008, there is no longer any CFM56-5B5 non /P in field or in production.

2. From March 31st 2008, there is no longer any CFM56-5B6 non /P in field or in production.

3. From March 31st 2008, there is no longer any CFM56-5B6/2 non /P in field or in production.

4. From March 31st 2008, there is no longer any CFM56-5B7 non /P in field or in production.

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5. If modification 25800 is embodied on models with CFM-5B engines, the engine performance is improved. The engine denomination changes to /P. The modification is currently applicable for:

A319-111: CFM 56-5B5 (SAC) which changes to CFM 56-5B5/P
A319-112: CFM 56-5B6 (SAC) which changes to CFM 56-5B6/P
A319-112: CFM 56-5B6/2 (DAC) which changes to CFM 56-5B6/2P
A319-115: CFM 56-5B7 (SAC) which changes to CFM 56-5B7/P

CFM 56-5B/"non-P" engine can be intermixed with CFM 56-5B/P engine on the same aircraft.

- 6. A319-112 CFM 56-5B6 engine can be intermixed with CFM 56-5B6/2 engine (MOD 25532) on the same aircraft (AFM supplement).
- 7. If modification 26610 is embodied on models with CFM-5B/2 (DAC) engines, the engine performance and gaseous emission levels are improved.

A319-112: CFM 56-5B6/2 (DAC) which changes to CFM 56-5B6/2P (DAC II C)

CFM 56-5B/2 "non P" (DAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

CFM 56-5B/P or / "non P" (SAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

Modification 26610 is not compatible with modification 160080 (sharklet retrofit).

8. Introduction of CFM56-5Bx/3 "Tech Insertion" engine is done through embodiment of modification 37147 in production or 38770 in field.

This modification is only applicable on CFM56-5Bx /P SAC engines.

If modification 37147 is embodied on models with CFM-5B engines, the engine denomination changes to /3.

The modification is currently applicable for:

A319-111: CFM 56-5B5 (SAC) which changes to CFM 56-5B5/3
A319-112: CFM 56-5B6 (SAC) which changes to CFM 56-5B6/3
A319-115: CFM 56-5B7 (SAC) which changes to CFM 56-5B7/3

Modification 37147 has been demonstrated as having no impact on previously certified noise levels.

The engine characteristics remain unchanged.

CFM56-5Bx/3 engine can be intermixed with CFM56-5Bx/P engine under considerations as prescribes in modification 38573.

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- 9. CFM56-5B engines are not compatible with modification 160080 (Sharklet retrofit) unless modification 37147 or modification 38770 are installed.
- 10. If modification 165533 is installed on the A319-153N equipped with CFM LEAP-1A26 engines then the engine model is changed to LEAP-1A26CJ"

6. Auxiliary Power Unit

APU GARRETT

The APU GARRETT AIRESEARCH GTCP 36-300 (A) installation is defined by mod 20020. (Specification 31-5306B)

Approved oils: see GARRETT REPORT GT.7800

APU Pratt & Whitney Rzeszow S.A. (Option)

The APU Pratt & Whitney Rzeszow S.A. installation is defined by MOD 22562 or MOD 35864.

Pratt & Whitney Rzeszow S.A. APS 3200 (Specification ESR 0802, Rev. A).

Approved oils: in conformance to MIL-L-7808, MIL-L-23699 or DERD 2487.

APU AlliedSignal (Option)

The APU Honeywell International installation is defined by MOD 25888 or 37987.

Honeywell International 131-9[A] (Specification 4900 M1E 03 19 01).

Approved oils: according to model Specification 31-12048A-3A.

7. Propellers

N/A.

8. Fluids (Fuel, Oil, Additives, Hydraulics)

<u>Fuel</u>

ENGINES	KEROSENE DESIGNATION		
CFM56: Installation document CFM 2026 or CFM 2129)	JET A, JET A-1, JP5, JP8, N°3 Jet Fuel, JET B**, JP 4**, TS-1, RT(GOST), F44, F34, AVTUR, AVTUR/FSII, AVTAG/FSII, AVCAT/FSII		
IAE V2500: IAE Standard Practices and processes Manual IAE 0043	JET A, JET A-1, JP5, JP8, N°3 Jet Fuel, JET B**, JP 4**, TS-1*, RT(GOST), F44, F34, AVTUR, AVTUR/FSII, AVTAG/FSII, AVCAT/FSII		
IAE PW1100G-JM: (Service Bulletin PW1000G -100-73 00-0002-00A930AD)	JET A, JET A-1, JP5, JP8, N°3 Jet fuel, TS-1(GOST), RT(GOST), AVTUR, AVTUR/FSII, AVCAT/FSII		
CFMI LEAP-1A: Service Bulletin LEAP-1A S/B 73-0001	JET A, JET A-1, JP5, JP8, N°3 Jet fuel, TS-1(GOST), RT(GOST), AVTUR, AVTUR/FSII, AVCAT/FSII		

The above mentioned fuels are also suitable for the APU.

Refer to Consumable Material List (CML) for details on approved fuel specifications

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OIL

For oil specification:

Engine	CFM56-5B5 CFM56-5B6 CFM56-5B6/2 CFM56-5B7 CFM56-5A4 CFM56-5A4/F CFM56-5A5/F	IAE V2522-A5 IAE V2524-A5 IAE V2527M-A5	CFMI-LEAP- 1A24 CFMI-LEAP- 1A26	PW1124G1-JM
Approved Oils	SB CFMI 79-001- OX	See doc IAE 0043 Sect 4.9 (MIL-L- 23699)	Service Bulletin LEAP-1A S/B 73- 0001	Service Bulletin PW1000G – 1000 – 79 – 00 – 0002 - 00A - 930A – D

Additives

Refer to Airbus Consumable Material List (CML).

Engine	CFM56-5B5 CFM56-5B6 CFM56-5B6/2 CFM56-5B7 CFM56-5A4 CFM56-5A4/F CFM56-5A5 CFM56-5A5/F	IAE V2522-A5 IAE V2524-A5 IAE V2527M-A5	LEAP-1A24 CFMI-LEAP- 1A26	PW1124G1-JM
Approved Additives	Specific Operating Instructions Document & CFM SB 73- 0182/73-0122 for CIS fuel additives	IAE Standard Practices and Processes Manual	Service Bulletin LEAP-1A S/B 73- 0001	Service Bulletin PW1000G-1000- 73-00-0002-00A- 930A-D

The above mentioned fuels and additives are also suitable for the APU

Hydraulics

Hydraulic fluids: Type IV or Type V - Specification NSA 30.7110.

^{*} For IAE engines, TS-1 is cleared for transient use (less than 50% of operations)

^{**} JET B and JP 4 fuels are not authorized for use in aircraft fitted with jet pumps (modification 154327)

9. Fluid Capacities

Fuel quantity (0.8 kg/liter)

A319-111/-112/-113/-114/-115/-131/-132/-133 aircraft (without MOD 160001)

	3 TANK AIRPLANE		4 or 5 TANK AIRPLANE*		4 or 5 TANK AIRPLANE**	
Tank	Usable fuel	Unusable fuel	Usable fuel	Unusable fuel	Usable fuel	Unusable fuel
	liters (kg)	liters (kg)	liters (kg)	liters (kg)	liters (kg)	liters (kg)
Wing	15 609	58.9	15 609	58.9	15 609	58.9
	(12 487)	(47.1)	(12 487)	(47.1)	(12 487)	(47.1)
Center	8 250	23.2	8 250	23.2	8 250	23.2
	(6 600)	(18.6)	(6 600)	(18.6)	(6 600)	(18.6)
ACT			3 121 / 6 242 (2 497 / 4 994)	17 / 34 (13.6 / 27.2)	2 992 / 5 984 (2 393 / 4 786)	17 / 34 (13.6 / 27.2)
TOTAL	23 859 (19 087)	82.1 (65.7)	26 980 / 30 101 (21 584 / 24 081)	99.1 / 116.1 (79.3 / 92.9)	26 851 / 29 843 (21 480 / 23 873)	99.1 / 116.1 (79.3 / 92.9)

^{*} see note 1 below

^{**} see note 2 below

	6 or 7 TANK AIRF	PLANE*	8 or 9 TANK AIRF	9 TANK AIRPLANE*		
Tank	Usable fuel	Unusable fuel	Usable fuel	Unusable fuel		
	liters (kg)	Liters (kg)	liters (kg)	liters (kg)		
Wing	15 609	58.9	15 609	58.9		
	(12 487)	(47.1)	(12 487)	(47.1)		
Center	8 250	23.2	8 250	23.2		
	(6 600)	(18.6)	(6 600)	(18.6)		
ACT	8 428 / 10 614	56 /78	13 660 / 16 781	90 / 107		
	(6 743 / 8 492)	(44.8 / 62.4)	(10 929 / 13 426)	(72 / 85.6)		
TOTAL	32 287 / 34 473	138.1 / 160.1	37 519 / 40 640	172.1 / 189.1		
	(25 830 / 27 579)	(110.5 / 128.1)	(30 016 / 32 513)	(137.7 / 151.3)		

^{*} see note 1 below

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<u>A319-111/-112/-113/-114/-115/-131/-132/-133 aircraft (without MOD 160001 and with MOD 37331)</u>

	3 TANK AIRPLANE		4 or 5 TANK AIRPLANE*		4 or 5 TANK AIRPLANE**	
Tank	Usable fuel	Unusable fuel	Usable fuel	Unusable fuel	Usable fuel	Unusable fuel
	liters (kg)	liters (kg)	liters (kg)	liters (kg)	liters (kg)	liters (kg)
Wing	15 959	58.9	15 959	58.9	15 959	58.9
	(12 767)	(47.1)	(12 767)	(47.1)	(12 767)	(47.1)
Center	8 250	23.2	8 250	23.2	8 250	23.2
	(6 600)	(18.6)	(6 600)	(18.6)	(6 600)	(18.6)
ACT			3 121 / 6 242 (2 497 / 4 994)	17 / 34 (13.6 / 27.2)	2 992 / 5 984 (2 393 / 4 786)	17 / 34 (13.6 / 27.2)
TOTAL	24 209	82.1	27 330 / 30 451	99.1 / 116.1	27 201 / 30 193	99.1 / 116.1
	(19 367)	(65.7)	(21 864 / 24 361)	(79.3 / 92.9)	(21 760 / 24 154)	(79.3 / 92.9)

^{*} see note 1 below

^{**} see note 2 below

	6 or 7 TANK AIRF	PLANE*	8 or 9 TANK AIRPLANE*		
Tank	Usable fuel	Unusable fuel	Usable fuel	Unusable fuel	
	liters (kg)	Liters (kg)	liters (kg)	liters (kg)	
Wing	15 959	58.9	15 959	58.9	
	(12 767)	(47.1)	(12 767)	(47.1)	
Center	8 250	23.2	8 250	23.2	
	(6 600)	(18.6)	(6 600)	(18.6)	
ACT	8 428 / 10 614	56 /78	13 660 / 16 781	90 / 107	
	(6 743 / 8 492)	(44.8 / 62.4)	(10 929 / 13 426)	(72 / 85.6)	
TOTAL	32 637 / 34 823	138.1 / 160.1	37869 / 40 990	172.1 / 189.1	
	(26 110 / 27 859)	(110.5 / 128.1)	(30 296 / 32 793)	(137.7 / 151.3)	

^{*} see note 1 below

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A319-111/-112/-113/-114/-115/-131/-132/-133 aircraft (with MOD 37331 and MOD 160001)

	3 TANK AIRP	3 TANK AIRPLANE		4 TANK AIRPLANE		4 or 5 TANK AIRPLANE *	
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	
WING	15 919 (12 735)	58.9 (47.1)	15 919 (12 735)	58.9 (47.1)	15 919 (12 735)	58.9 (47.1)	
CENTER	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)	
ACT (*)			2992 (2 393)	17 (13.6)	2 992 / 5 984 (2 393 / 4 786)	17 / 34 (13.6 / 27.2)	
TOTAL	24 167 (19 334)	82.1 (65.7)	27 159 (21 727)	99.1 (79.3)	27 159 / 30 151 (21 727 / 24 121)	99.1 / 116.1 (79.3 / 92.9)	

^(*) On the A319 aircraft, the certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 33973.

An alternative is the installation of one ACT only (with the provisions for only one ACT), as defined by modification 37226.

	6 or 7 TANK AIRF	PLANE*	8 or 9 TANK AIRPLANE*		
Tank	Usable fuel	Unusable fuel	Usable fuel	Unusable fuel	
	liters (kg)	Liters (kg)	liters (kg)	liters (kg)	
Wing	15 919	58.9	15 919	58.9	
	(12 735)	(47.1)	(12 735)	(47.1)	
Center	15 919	58.9	15 919	58.9	
	(12 735)	(47.1)	(12 735)	(47.1)	
ACT	8 428 / 10 614	56 /78	13 660 / 16 781	90 / 107	
	(6 743 / 8 492)	(44.8 / 62.4)	(10 929 / 13 426)	(72 / 85.6)	
TOTAL	32 595 / 34 781	138.1 / 160.1	37 827 / 40 948	172.1 / 189.1	
	(26 076 / 27 825)	(110.5 / 128.1)	(30 262 / 32 759)	(137.7 / 151.3)	

^{*} see note 1 below

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<u>A319-111/-112/-113/-114/-115/-131/-132/-133</u> aircraft (without MOD 37331 and with MOD 160001)

	3 TANK AIRPLANE		4 TANK AIRP	4 TANK AIRPLANE		4 or 5 TANK AIRPLANE *	
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	
WING	15 569 (12 455)	58.9 (47.1)	15 569 (12 455)	58.9 (47.1)	15 569 (12 455)	58.9 (47.1)	
CENTER	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)	8 248 (6 598)	23.2 (18.6)	
ACT (*)			2992 (2 393)	17 (13.6)	2 992 / 5 984 (2 393 / 4 786)	17 / 34 (13.6 / 27.2)	
TOTAL	23 817 (19 054)	82.1 (65.7)	26 809 (21 447)	99.1 (79.3)	26 809 / 29 801 (21 447 / 23 841)	99.1 / 116.1 (79.3 / 92.9)	

^(*) On the A319 aircraft, the certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 33973.

An alternative is the installation of one ACT only (with the provisions for only one ACT), as defined by modification 37226.

	6 or 7 TANK AIRF	PLANE*	8 or 9 TANK AIRPLANE*		
Tank	Usable fuel	Unusable fuel	Usable fuel	Unusable fuel	
	liters (kg)	Liters (kg)	liters (kg)	liters (kg)	
Wing	15 569	58.9	15 569	58.9	
	(12 455)	(47.1)	(12 455)	(47.1)	
Center	8 248	23.2	8 248	23.2	
	(6 598)	(18.6)	(6 598)	(18.6)	
ACT	8 428 / 10 614	56 /78	13 660 / 16 781	90 / 107	
	(6 743 / 8 492)	(44.8 / 62.4)	(10 929 / 13 426)	(72 / 85.6)	
TOTAL	32 245 / 34 431	138.1 / 160.1	37 477 / 40 598	172.1 / 189.1	
	(25 796 / 27 545)	(110.5 / 128.1)	(29 982 / 32 479)	(137.7 / 151.3)	

^{*} see note 1 below

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A319-151N/-153N/-171N

	3 TANK AIRPLANE					
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)				
WING	15476.7 (12427.8)	58.9 (47.3)				
CENTER	8248.0 (6623.1)	23.2 (18.6)				
TOTAL	23724.7 (19050.9)	82.1 (65.9)				

A319-153N equipped with modification 163214 (ACJ319neo)

	3 TANK AIRF	PLANE	4 TANK AIRF	PLANE	5 TANK AIRF	5 TANK AIRPLANE		
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)		
WING	15476.7 (12427.8)	58.9 (47.3)	15476.7 (12427.8)	58.9 (47.3)	15476.7 (12427.8)	58.9 (47.3)		
CENTER	8248.0 (6623.1)	23.2 (18.6)	8248.0 (6623.1)	23.2 (18.6)	8248.0 (6623.1)	23.2 (18.6)		
FWD								
AFT 1			3121 (2506.2)	17 (13.6)	3121 (2506.2)	17 (13.6)		
AFT 2					2186 (1755.4)	22 (17.7)		
AFT 3								
AFT 4								
TOTAL	23724.7 (19050.9)	82.1 (65.9)	26845.7 (21557.1)	99.1 (79.6)	29031.7 (23312.5)	121.1 (97.2)		

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	6 TANK AIRF		6 TANK AIRF Fuel Sequen			6 TANK AIRPLANE Fuel Sequence C	
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	
WING	15476.7	58.9	15476.7	58.9	15476.7	58.9	
	(12427.8)	(47.3)	(12427.8)	(47.3)	(12427.8)	(47.3)	
CENTER	8248.0	23.2	8248.0	23.2	8248.0	23.2	
	(6623.1)	(18.6)	(6623.1)	(18.6)	(6623.1)	(18.6)	
FWD			3121 (2506.2)	17 (13.6)			
AFT 1	3121	17	3121	17	3121	17	
	(2506.2)	(13.6)	(2506.2)	(13.6)	(2506.2)	(13.6)	
AFT 2	2186	22	2186	22	2186	22	
	(1755.4)	(17.7)	(1755.4)	(17.7)	(1755.4)	(17.7)	
AFT 3	2186 (1755.4)	22 (17.7)					
AFT 4					3046 (2445.9)	12 (9.6)	
TOTAL	31217.7	143.1	32152.7	138.1	32077.7	133.1	
	(25067.8)	(114.9)	(25818.6)	(110.9)	(25758.4)	(106.9)	

	7 TANK AIRF		7 TANK AIRF		8 TANK AIRPLANE		
TANK	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	Usable fuel liters (kg)	Unusable fuel liters (kg)	
WING	15476.7	58.9	15476.7	58.9	15476.7	58.9	
	(12427.8)	(47.3)	(12427.8)	(47.3)	(12427.8)	(47.3)	
CENTER	8248.0	23.2	8248.0	23.2	8248.0	23.2	
	(6623.1)	(18.6)	(6623.1)	(18.6)	(6623.1)	(18.6)	
FWD	3121	17	3121	17	3121	17	
	(2506.2)	(13.6)	(2506.2)	(13.6)	(2506.2)	(13.6)	
AFT 1	3121	17	3121	17	3121	17	
	(2506.2)	(13.6)	(2506.2)	(13.6)	(2506.2)	(13.6)	
AFT 2	2186	22	2186	22	2186	22	
	(1755.4)	(17.7)	(1755.4)	(17.7)	(1755.4)	(17.7)	
AFT 3	2186 (1755.4)	22 (17.7)			2186 (1755.4)	22 (17.7)	
AFT 4			3046 (2445.9)	12 (9.6)	3046 (2445.9)	12 (9.6)	
TOTAL	34338.7	160.1	35198.7	150.1	35198.7	172.1	
	(27574)	(128.6)	(28264.6)	(120.5)	(28264.6)	(138.2)	

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Notes:

 On <u>A319ceo for Corporate Jet use</u>, the certification of installing up to six Additional Center Tanks (ACT) in bulk version is defined by modification 28238. The approval together with structural and system provisions is subject of Major Change J1-CJT (compliance to MoC P-9).

A319ceo for Corporate Jet use are defined through the following set of modifications:

modification 28238: Installation of up to 6 ACTs

• modification 28162: Extension of the flight envelope up to 41000ft

• modification 28342: Extension of the forward C.G.

- 2. The certification of installing one or two Additional Center Tanks (ACT) in bulk version is defined by modification 33973. The approval together with structural and system provisions is subject of Major Change J-33973 (compliance to MoC P-9).
- 3. On the series A319 equipped with IAE engines, introduction of standard of wingbox with dry bay (modification 37332) will decrease the fuel capacity by 350 liters.
- 4. A319-153N for Corporate Jet use (commercially identified as ACJ319neo) is defined through the following set of modifications:

Modification 163214: INSTALL UP TO 5 ACTS ON A319 ACJNEO

Modification 163216: EXTEND FLIGHT ENVELOPE UP TO 41000 FT

Modification 162337: EXTEND GROUND AND FLIGHT FORWARD CG

LIMITATIONS

Modification 23398: Install stairs at fwd pax door.

Modification 162193: Lower Cabin Altitude activation

Modification 162338: Certify Envelope for design weight of ACJ319neo

10. Airspeed Limits (Indicated Airspeed – IAS – unless otherwise stated)

Maximum Operating Mach (MMO): 0.82

Maximum Operating Speed (VMO): 350 kt

Manoeuvring Speed (VA): see Limitations Section of the approved Flight

Manual

Extended Flaps/Slats Speed (VFE): see table below

Configuration	Slats/Flaps (°)	VFE (kt)	
1	18/0	230	Intermediate approach
	18/10*	215	Take-off
2	22/15	200	Take-off and approach
3	22/20	185	Take-off, approach, landing
Full	27/40	177	Landing

^{*} Auto flap retraction at 210 kt in Take-off configuration

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Landing gear:

VLE - Extended: 280 kt/Mach 0.67

VLO - Extension: 250 kt Retraction: 220 kt

Tyres limit speed (ground speed): 195.5 kt (225 mph)

11. Flight Envelope

Maximum operating altitude:

39 100 ft (pressure altitude)

41 100 ft (pressure altitude) if modification 28162 is embodied

(A319-112/-115/-132/-133 only)

39 800 ft (pressure altitude) if modification 30748 is embodied

41 000 ft (pressure altitude) if modification 163216 is embodied (A319-153N

(ACJ319neo) only)

12. Operating Limitations

See the appropriate approved Airplane Flight Manual

Powerplant (2.2482 lb/daN)

CFMI Engines

	СҒМІ								
Engine	CFM56-5B5	CFM56-5B6	CFM56-5B7	CFM56-5A4	CFM56-5A5				
		CFM56-5B6/2		CFM56-5A4/F	CFM56-5A5/F				
Data sheets	E37NE (FAA)	E37NE (FAA)	E37NE (FAA)	E28NE (FAA)	E28NE (FAA)				
	E38NE (FAA)	E38NE (FAA)	E38NE (FAA)						
	EASA.E.003 ⁽¹⁾	EASA.E.003 ⁽¹⁾	EASA.E.003 ⁽¹⁾	EASA.E.067 ⁽²⁾	EASA.E.067 ⁽²⁾				
Static thrust									
at sea level									
Take-off (5 min)*	9 786 daN	10 453 daN	12 010 daN	9 786 daN	10 453 daN				
(Flat rated 30° C)	(22 000 lbs)	(23 500 lbs)	(27 000 lb)	(22 000 lbs)	(23 500 lbs)				
Maximum	9 008 daN	9 008 daN	10 840 daN	9 195 daN	9 195 daN				
continuous	(20 250 lbs)	(20 250 lbs)	(24 370 lb)	(20 670 lbs)	(20 670 lbs)				
(Flat rated 25° C)									

^{* 10} minutes at take-off thrust allowed only in case of engine failure (at take-off or during goaround) in accordance with DGAC "Fiche de Caractéristiques Moteur".

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^{(1):} UK CAA Type Certificate EASA.E.003 and associated Type Certificate Data Sheet EASA.E.003, Issue 5 dated 12 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

^{(2):} UK CAA Type Certificate EASA.E.067 and associated Type Certificate Data Sheet EASA.E.067, Issue 2 dated 17 April 2018, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

	CFM	CFM
Engine	LEAP-1A24	LEAP-1A26
Data sheets	E00089EN (FAA) EASA.E.110 ⁽¹⁾	E00089EN (FAA) EASA.E.110 ⁽¹⁾
Static thrust at sea level		
Take-off (5 min)* (Flat rated 30° C)	10 680daN (24 010 lbs)	12 064 daN (27 120 lbs)
Maximum continuous (Flat rated 25° C)	10 676daN (24 000 lbs)	11 868 daN (26 680 lbs)

Other engine limitations: see the relevant Engine Type Certificate Data Sheet.

(1): UK CAA Type Certificate EASA.E.110 and associated Type Certificate Data Sheet EASA.E.110, Issue 9 dated 20 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

IAE Engines

Engine	V2522-A5	V2524-A5	V2527M-A5
Data sheets	E40NE (FAA)	E40NE (FAA)	E40NE (FAA)
	EASA.E.069 ⁽¹⁾	EASA.E.069 ⁽¹⁾	EASA.E.069 ⁽¹⁾
Static thrust at sea level			
Take-off (5 min)*	10 249 daN	10 889 daN	11 031 daN
(Flat rated 30° C)	(23 040 lb)	(24 480 lb)	(24 800 lb)
Maximum continuous (Flat rated 25° C)	8 540 daN	8 540 daN	9 893 daN
	(19 200 lb)	(19 200 lb)	(22 240 lb)

^{* 10} minutes at take-off thrust allowed only in case of engine failure (at take-off or during goaround) in accordance with DGAC "Fiche de Caractéristiques Moteur".

^{(1):} UK CAA Type Certificate EASA.E.069 and associated Type Certificate Data Sheet EASA.E.069, Issue 4 dated 12 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

Engine	PW1124G1-JM
Data sheets	E87NE (FAA)
	EASA.IM.E.093 ⁽¹⁾
Static thrust	
at sea level	
	10 782 daN
Take-off (5 min)*	(24 240 lbs)
(Flat rated 30° C)	
Maximum	10 691 daN
continuous	(24 035 lbs)
(Flat rated 25° C)	

(1): UK CAA Type Certificate EASA.IM.E.093 and associated Type Certificate Data Sheet EASA.IM.E.093, Issue 7 dated 09 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

Other engine limitations: see the relevant Engine Type Certificate Data Sheet.

Note:

A319-113/-114 (CFM 56-5A4/F or -5A5/F engines):

- The maximum permissible gas temperature at take-off and max. continuous is extended to 915° C and 880° C respectively. However, the ECAM indication remains at 890° C and 855° C.
- CFM 56-5A4 engines can be intermixed with CFM 56-5A4/F engine (MOD 23755) on the same aircraft.
- CFM 56-5A5 engines can be intermixed with CFM 56-5A5/F engine (MOD 23755) on the same aircraft.

12.1 Approved Operations

Transport Commercial operations.

12.2 Other Limitations

For a complete list of applicable limitations, see the appropriate approved Airplane Flight Manual.

13. Maximum Certified Masses

A319-111/A319-112/A319-113/A319-114/A319-115/A319-131/A319-132/A319-133

VARIANT WEIGHT (Kg)	000 BASIC	001 MOD 25328	002 MOD 27112	003 MOD 26457	004 MOD 28053	005 MOD 28136	006 MOD 33418
Max. Ramp Weight	64 400	70 400	75 900	68 400	68 400	70 400	73 900
Max. Take-off Weight	64 000	70 000	75 500	68 000	68 000	70 000	73 500
Max. Landing Weight	61 000	61 000	62 500	61 000	62 500	62 500	62 500
Max. Zero Fuel Weight	57 000	57 000	58 500	57 000	58 500	58 500	58 500
Minimum Weight	35 400	35 400	35 400	35 400	35 400	35 400	35 400

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VARIANT WEIGHT (Kg)	007 MOD 35197	008 MOD 36291	009 MOD 36292	010 (*) MOD 39021	011 MOD 36933	012 MOD 36934	013 (**) MOD 153453
Max. Ramp Weight	75 900	64 400	66 400	76 900	66 400	62 400	75 900
Max. Take-off Weight	75 500	64 000	66 000	76 500	66 000	62 000	75 500
Max. Landing Weight	61 000	62 500	62 500	62 500	61 000	61 000	62 500
Max. Zero Fuel Weight	57 000	58 500	58 500	58 500	57 000	57 000	52 000
Minimum Weight	35 400	35 400	35 400	35 400	35 400	35 400	35 400

^{*} WV010 is only certified for A319 in Corporate Jet configuration (modifications 28238, 28162 and 28342).

Note:

- 1. MOD 160500 and 160080 are approved for WV 00 to WV 12, only
- 2. For A319-111/-112/-113/-114/-131/-132 models the WV 01 was certified concurrently with the basic WV at the time of the model's approval
- 3. For the A319-115/-133 models the WV 01 to WV 05 were certified concurrently with the basic WV at the time of the model's approval

A319-151N/-153N/-171N

VARIANT WEIGHT (Kg)	050 MOD 161385	051* MOD 161386	052* MOD 161387	053* MOD 161388	054* MOD 161389	055* MOD 161390
Max. Ramp Weight	64 400	64 400	70 400	70 400	75 900	75 900
Max. Take-off Weight	64 000	64 000	70 000	70 000	75 500	75 500
Max. Landing Weight	62 800	63 900	62 800	63 900	62 800	63 900
Max. Zero Fuel Weight	58 800	60 300	58 800	60 300	58 800	60 300
Minimum Weight	39 600	39 600	39 600	39 600	39 600	39 600

Notes: $\,^*$ WV option certified concurrently with the basic WV at the time of the model's approval

In addition the following weight variant are also certified for the A319-153N equipped with modifications 163214, 163216, 162337, 23398 and 162193 (ACJ319neo specific weight variants)

VARIANT	110* (MOD 160801)	111* (MOD 160802)	112* (MOD 160803)	113* (Mod 160804)	114* (Mod 160805)	115* (Mod 160806)	116* (Mod 160807)
Max. ramp weight	77 700	77 700	77 700	76 900	76 900	76 900	75 900
Max. Take-off Weight	77 300	77 300	77 300	76 500	76 500	76 500	75 500
Max. Landing Weight	63 900	62 800	63 900	63 900	62 800	63 900	63 900
Max. Zero Fuel Weight	60 300	58 800	53 800	60 300	58 800	53 800	53 800

^{**} WV013 is only certified for A319-133, MSN 4042

VARIANT	120* (MOD 164385)
Max. ramp weight	78 600
Max. Take-off Weight	78 200
Max. Landing Weight	63 900
Max. Zero Fuel Weight	53 000

Notes: A319-153N weight variants 050, 051, 052 and 053 are excluded from ACJ319neo weight variants* WV option certified concurrently at the time of ACJ319neo approval

14. Centre of Gravity Range

See approved Airplane Flight Manual.

15. Datum

Station 0.0, located 2.540 meters forward of airplane nose.

16. Mean Aerodynamic Chord (MAC)

4.1935 meters.

17. Levelling Means

The A/C can be jacked on three primary jacking points.

See the appropriate approved Weight and Balance Manual.

18. Minimum Flight Crew

2 pilots.

19. Minimum Cabin Crew

See paragraph 20.

20. Maximum Seating Capacity

The table below provides the certified Maximum Passenger Seating Capacities (MPSC), the corresponding cabin configuration (exit arrangement and modifications) and the associated minimum numbers of cabin crew members used to demonstrate compliance with the certification requirements:

MPSC	Cabin configuration	Modification	Minimum CC
160	C-III-III-C	32208	4
160	C*-III-C*	159535 or 159533	4
150	C-III-III-C	32208 and 150365	3
150	C*-III-C*	157777	3
145	C-III-C		3

Note: C* is the over-performing exit according to modification 157777, 159533 or 159535

The original maximum passenger seating capacity is 145.

The Modification 157777 enables the maximum seating capacity to be increased from 145 up to 150. This modification defines a virtual envelope of the Layout of Passenger Accommodations (LOPA) and does not constitute an authorization for the installation of seats in excess of 145. A separate approval is needed for the installation of the individual customized cabin layout and the necessary cabin adaptations up to 150 seats.

The Modifications 159535 or 159533 enable the maximum seating capacity to be increased from 145 up to 160. This modification defines a virtual envelope of the Layout of Passenger Accommodations (LOPA) and does not constitute an authorization for the installation of seats in excess of 145. A separate approval is needed for the installation of the individual customized cabin layout and the necessary cabin adaptations up to 160 seats.

Notes:

A second pair of overwing emergency exit (Type III) can be installed by embodiment of modification 32208.

- 1. The LH & RH rear passenger doors can be de-activated by embodiment of modification 37807. In this case, the maximum number of passengers is 80.
- 2. The Type III emergency exit hatch can be de-activated by embodiment of modification 152777. In this case, the maximum number of occupants in the passenger cabin is limited to zero during taxi, take-off, flight and landing, unless terms and conditions to occupy specific cabin areas have been approved by operator's competent airworthiness authority
- 3. With MOD 165550, EtC E-28 and ESF E-32 are not applicable and therefore Maximum capacity is limited to 19 Passengers.
- 4. The modification 167900 deactivates the forward over-wing emergency exits. The maximum number of occupants in the cabin is then limited to 0 (zero).

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21. Baggage/ Cargo Compartment

CARGO COMPARTMENT	MAXIMUM LOAD (kg)
Forward	2 268
Aft	3 021
Rear (bulk)	1 497

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights) see Weight and Balance Manual, ref. 00 J 080 A 0001/C1S Chapter 1.10.

With MOD 153648 "EQUIPMENT/FURNISHINGS - GENERAL - DELIVER AIRCRAFT WITH INCOMPLETE CABIN" embodied, the cabin is limited to zero occupancy and no cargo (i.e. no occupancy and no cargo in cabin) during all phases of flight, unless a separate approved Modification is embodied to remove the limitation.

22. Wheels and Tyres

See SB A320-32-1007 for A319-111/-112/-113/-114/-115/-121/-132/-122 SB A320-32-1439 for A319-151N/-153N/-171N

23. ETOPS

The Type Design, system reliability and performance of A319 models were found capable for Extended Range Operations when configured, maintained and operated in accordance with the current revision of the ETOPS Configuration, Maintenance and Procedures (CMP) document, SA/EASA: AMC 20-6/CMP.

This finding does not constitute an approval to conduct Extended Range Operations (operational approval must be obtained from the responsible Authority).

The following table provides details on the ETOPS approvals.

Aircraft model	Engine Type	120 min Approval Date	180 min Approval Date
A319-111	CFM56-5B5	14 February 1997	11 March 2004
A319-112	CFM56-5B6	14 February 1997	11 March 2004
A319-113	CFM56-5A4	14 February 1997	11 March 2004
A319-114	CFM56-5A5	14 February 1997	11 March 2004
A319-115	CFM56-5B7	25 November 1999	11 March 2004
A319-131	V2522-A5	14 February 1997	11 March 2004
A319-132	V2524-A5	14 February 1997	11 March 2004
A319-133	V2527M-A5	25 November 1999	11 March 2004
A319-151N	CFM LEAP-1A24	19 August 2019	19 August 2019
A319-153N	CFM LEAP-1A26	19 August 2019	19 August 2019 (including ACJ319neo)
A319-153N	CFM LEAP-1A26E1	07 May 2020	07 May 2020 (including the ACJ319neo)
A319-171N	PW1124G-JM	07 May 2020	07 May 2020

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Note:

The Configuration, Maintenance and Procedure Standards for extended range twin-engine airplane operations are contained in ETOPS CMP document reference SA/EASA: AMC 20-6/CMP at latest applicable revision. Certificated models are A319-111/-112/-113/-114/-115/-131/-132/-133/-151N/-153N/-171N, with all applicable engines.

Embodiment of modification:

36666 provides ETOPS 120 mn capability for UK CAA 32009 provides ETOPS 180 mn capability for UK CAA

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

Approved Airplane Flight Manual for A319.

2. Instructions for Continued Airworthiness and Airworthiness Limitations

Airworthiness limitations

- Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Section (ALS) sub-parts 1-2 and 1-3.
- Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Items document (ALS Part 2).
- Certification Maintenance Requirements are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Section (ALS) Part 3.
- System Equipment Maintenance Requirements are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Section (ALS) Part 4.
- Fuel Airworthiness Limitations are provided in the A318/A319/A320/A321 approved Fuel Airworthiness Limitations document (ALS Part 5).
- Maintenance Review Board Report

Note:

• For A319-111, 112, -113, -114, -115, -131, -132, -133 models without sharklets, the embodiment of modification 155789 leads to change the maintenance program and its associated Maintenance Programme Publication Trigger (MPPT) from 48,000FC/60,000FH to 60,000FC/120,000FH (whichever occurs first).

Other limitations

See approved Flight Manual.

3. Weight and Balance Manual (WBM)

Airbus Compliance Document 00J080A0001/C1S for A319-111/-112/-113/-114/-115/-131/-132/-133, 00J080A0002/C1S for A319-151N/-153N/-171N

V. Operational Suitability Data (OSD)

Master Minimum Equipment List: CRI MMEL-01
Flight Crew Data: CRI FCD-01
Cabin Crew Data: CRI CCD-01

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.064 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List

- a. The Master Minimum Equipment List has been approved as per the defined Operational Suitability Data Certification Basis and as documented in A320 MMEL reference "MMEL STL11000" at the latest applicable revision.
- b. Required for entry into service by UK operator.

2. Flight Crew Data

- a. The Flight Crew data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in reference "A320 Operational Suitability Data Flight Crew SA01RP1536744" at the latest applicable revision.
- b. Required for entry into service by UK operator.
- c. The aircraft models: A318, A319, A321 are determined to be variants to the A320 aircraft model.

3. Cabin Crew Data

- a. The Cabin Crew data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in reference "A320 Operational Suitability Data Cabin Crew - SA01RP1534113" at the latest applicable revision.
- b. Required for entry into service by UK operator.
- c. The aircraft models: A318, A319, A321 are determined to be variants to the A320 aircraft model.

VI. Notes

For models A319-111, A319-112, A319-113 and A319-114, modification 26799 (FM without ACARS) or 26968 (FM ACARS) shall be installed to enable Cat IIIB precision approach.

For models A319-131 and A319-132, modification 26716 (FM without ACARS) or 26717 (FM ACARS) shall be installed to enable Cat IIIB precision approach.

- 2. A319-115, -131, -132, -133 are basically qualified for Cat IIIB precision approach.
- 3. For A319-151N/-153N, modification 161765 shall be installed to enable Cat IIIB precision approach.

Section 5 A318 Series

I. General

1. Type/ Model/ Variant

a) Type: A318 Seriesb) Model: A318-111

A318-112 A318-121 A318-122

2. Performance Class

Α

3. Certifying Authority

European Union Aviation Safety Agency (EASA)

Postfach 101253

D-50452 Köln

Deutschland

4. Manufacturer

AIRBUS

2 rond-point Emile Dewoitine

31700 BLAGNAC - France

5. State of Design Authority Certification Application Date

Airbus Industrie has applied for A318 certification on December 11, 1998 by letter AI/EA S 413.2952/1998.

6. EASA Type Certification Application Date

N/A

7. UK CAA Type Validation Application Date

Prior to 31 December 2020, application dates for type certification are covered by EASA type certification application dates, as per Section 6 above.

New applications for UK CAA type validation received after 01 January 2021 will be recorded in this section. At the current issue of this UK CAA TCDS, no new applications for type validation have been received since 01 January 2021.

8. State of Design Authority Type Certificate Date

A318-111 May 23, 2003 A318-112 May 23, 2003

9. EASA Type Certification Date

EASA TCDS EASA.A.064 issue 1 issued December 21, 2005

A318-121 December 21, 2005 A318-122 December 21, 2005

Note: For A318-111/-112 models produced before the 21st of December 2005, DGAC-F TC 180 remains a valid reference

10. UK CAA Type Validation Date

Prior to 31 December 2020, dates of type certification are covered by EASA type certification, as per Section 9 above.

UK CAA type validation dates after 01 January 2021 will be recorded in this section. At the current issue of this UK CAA TCDS, no UK CAA type validations have been completed since 01 January 2021.

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11. Production conditions

A318 aircraft, all series, all models, were produced in Hamburg (Germany) under approval LBA.G.0009 issued by LBA to AIRBUS.

Since September 27th, 2004, A318 aircraft were produced in Hamburg - Germany under approval DE.21G.0009 issued by LBA to AIRBUS.

From July 21st, 2008, A318 aircraft are produced in Hamburg (Germany) under approval EASA.21G.0001 issued by EASA to AIRBUS.

II. Certification Basis

1. Reference Date for determining the applicable requirements

Airbus Industrie has applied for A318 certification on December 11, 1998 by letter AI/EA S 413.2952/1998.

2. State of Design Airworthiness Authority Type Certification Data Sheet No.

Original French TCDS DGAC no. 180 was replaced by the EASA TCDS A.064.

3. State of Design Airworthiness Authority Certification Basis

Refer to EASA TCDS EASA.A.064.

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4. UK CAA Airworthiness Requirements

Hereafter are listed the certification bases for the different A318 models. The amendments made to a particular basis at the occasion of further A318 models certification are identified per model.

The applicable Joint Certification Basis is:

4.1 JAR 25 Change 11

- except Subpart BB which remains at Change 10,
- except all National Variants,

JAR 25 X 20 Change 14	JAR 25.335 Change 15
JAR 25.21 Change 14	JAR 25.341 Change 15
JAR 25.23 Change 14	JAR 25.343 Change 15
JAR 25.25 Change 14	JAR 25.345 Change 15
JAR 25.27 Change 14	JAR 25.349 Change 15
JAR 25.29 Change 14	JAR 25.351 Change 15
JAR 25.31 Change 14	JAR 25.361 Change 15 ONLY for A318- 121/-122
JAR 25.101 Change 14	JAR 25.363 Change 15 ONLY for A318- 121/-122
JAR 25.103 Change 14	JAR 25.365 Change 13
JAR 25.105 Change 14	JAR 25.367 Change 15 ONLY for A318- 121/-122
JAR 25.107 Change 14	JAR 25.371 Change 15
JAR 25.109 Change 14	JAR 25.373 Change 15
JAR 25.111 Change 14	JAR 25.391 Change 15
JAR 25.113 Change 14 amended by OP 96/1	JAR 25.415 Change 15
JAR 25.115 Change 14	JAR 25.427 Change 15
JAR 25.117 Change 14	JAR 25.445 Change 15
JAR 25.119 Change 14 amended by OP 96/1	JAR 25.473 Change 15
JAR 25.121 Change 14 amended by OP 96/1	JAR 25.479 Change 15
JAR 25.123 Change 14	JAR 25.481 Change 15
JAR 25.125 Change 14 amended by OP 96/1	JAR 25.483 Change 15
JAR 25.143 Change 14 amended by OP 96/1	JAR 25.485 Change 15
JAR 25.145 Change 14 amended by OP 96/1	JAR 25.491 Change 15
JAR 25.147 Change 14	JAR 25.493(d) Change 14 amended by OP 96/1
JAR 25.149 Change 14 amended by OP 96/1	JAR 25.499 Change 15
JAR 25.161 Change 14	JAR 25.511 Change 15
JAR 25.171 Change 14	JAR 25.X519 Change 13
JAR 25.173 Change 14	JAR 25.561(c) Change 15
JAR 25.175 Change 14	JAR 25.562 Change 14 (see E-5001)

JAR 25.177 Change 14 amended by OP 96/1	JAR 25.571 Change 15
JAR 25.181 Change 14	JAR 25.801 Change 14
JAR 25.201 Change 14 amended by OP 96/1	JAR 25.803 Change 14
JAR 25.203 Change 14 amended by OP 96/1	JAR 25.807 Change 14
JAR 25.207 Change 14	JAR 25.809 Change 14
JAR 25.231 Change 14	JAR 25.810 Change 14
JAR 25.233 Change 14	JAR 25.811 Change 14
JAR 25.235 Change 14	JAR 25.812 Change 14
JAR 25.237 Change 14	JAR 25.813 Change 14
JAR 25.251 Change 14	JAR 25.853 Change 14
JAR 25.253 Change 14 amended by OP 96/1	JAR 25.855 Change 14
JAR 25.255 Change 14	JAR 25.857 Change 14
JAR 25X261 Change 14	JAR 25.858 Change 14
JAR 25.305 Change 15	JAR 25.901 Change 15 ONLY for A318- 121/-122
JAR 25.321 Change 15	JAR 25.903 Change 15 ONLY for A318- 121/-122
JAR 25.331 Change 15	JAR 25.933 Change 15 ONLY for A318- 121/-122
JAR 25.333 Change 15	JAR 25.934 Change 15 ONLY for A318- 121/-122
JAR 25.939 Change 15 ONLY for A318-121/-122	JAR 25.1143 Change15 ONLY for A318- 121/-122
JAR 25.941 Change 15 ONLY for A318-121/-122	JAR 25.1163 Change15 ONLY for A318-121/-122
JAR 25.943 Change 15 ONLY for A318-121/-122	JAR 25.1165 Change15 ONLY for A318- 121/-122
JAR 25.945 Change 15 ONLY for A318-121/-122	JAR 25.1167 Change15 ONLY for A318- 121/-122
JAR 25.1041 Change15 ONLY for A318-121/- 122	JAR 25.1181 Change15 ONLY for A318-121/-122
JAR 25.1043 Change15 ONLY for A318-121/- 122	JAR 25.1182 Change15 ONLY for A318-121/-122
JAR 25.1045 Change15 ONLY for A318-121/- 122	JAR 25.1183 Change15 ONLY for A318-121/-122
JAR 25.1091 Change15 ONLY for A318-121/- 122	JAR 25.1185 Change15 ONLY for A318-121/-122
JAR 25.1093 Change15 ONLY for A318-121/- 122	JAR 25.1187 Change15 ONLY for A318- 121/-122
JAR 25.1103 Change15 ONLY for A318-121/- 122	JAR 25.1189 Change15 ONLY for A318- 121/-122
JAR 25.1105 Change15 ONLY for A318-121/- 122	JAR 25.1191 Change15 ONLY for A318-121/-122
JAR 25.1107 Change15 ONLY for A318-121/- 122	JAR 25.1193 Change15 ONLY for A318- 121/-122

JAR 25.1121 Change15 ONLY for A318-121/-122	JAR 25.1501 Change 14
JAR 25.1123 Change15 ONLY for A318-121/-122	JAR 25.1517 Change 15
JAR 25.1125 Change15 ONLY for A318-121/-122	JAR 25.1583 Change 14
JAR 25.1127 Change15 ONLY for A318-121/- 122	JAR 25.1587 Change 14
JAR 25.1141 Change15 ONLY for A318-121/- 122	JAR 25.X1591Change 14 (replacing JAR 25X131, 25X132, 25X133, 25X135, 25X1588 at Change 11)

- 4.2 JAR AWO at Change 1 for autoland and operations in low visibility.
- 4.3 For the Extended Twin Engine Airplane Operations the applicable technical conditions are contained in AMC 20-6 (as initially published in AMJ 120-42/IL 20) and the A318 ETOPS CRI:

CRI G-22 ETOPS approval.

5. Special Conditions

5.1 The following A320 Special Conditions, Experience Related Conditions and Harmonization Conditions which are kept for the A318:

Reminder: Within the scope of the establishment of the A320 Joint Certification Basis, three types of special conditions were developed:

- Special conditions: rose to cover novel or unusual features not addressed by the JAR.
- Experience related conditions: rose to record an agreed text for the A320 Joint Certification Basis when evolution of JAR was in progress under the NPA procedure.
- Harmonization conditions: to record, for the purpose of the A320 Joint Certification Basis, a common understanding with respect to National variant. This should not be confused with the FAA/JAA harmonised regulations.

Compulsory

(DGAC-F) SC-G17	Operational proving flights
(CAA-UK) SC-G17	Operational flight before certification
SC-F3	Cockpit control - motion and effect of cockpit control
SC-F6	Static directional and lateral stability
SC-F7	Flight envelope protection
SC-F8	Normal load factor limiting
SC-F9	Dual control system
SC-A2.2.2	Design manoeuvre requirements

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SC-S11	Limit pilot forces and torques
SC-S33	Auto-thrust system
SC-S52	Operation without normal electrical power
SC-S74	Abnormal attitudes
SC-S75	Lightning protection indirect effects
SC-S77	Integrity of control signal
HC-A4.6	Speed control device
HC-S23	Standby gyroscopic horizon
HC-S24	VMO/MMO warning (setting)
HC-S72	Flight recorder
EC-G11	General definition
EC-S30	Autoflight system
EC-S54	Circuit protective devices

5.2 The following A319 Special Conditions, are kept for the A318:

SC-A2	Stalling speeds for structural design
SC-F11	Accelerate-stop distances and relates performances, worn brakes
SC-A1	Interaction of systems and structure
SC-P1	FADEC for CFM56 and AMJ20X-1 change 14 for PW6000
SC-S79	Brakes requirements, qualification and testing

5.3 The following A319/A320/A321 Special Conditions are kept for the A318:

SC-S76-1 Effect of external radiations upon aircraft systems (modified by SC SE-14)

5.4 The following Special Conditions are developed for the A318:

SC-F5001	Stalling and scheduled operation speed
SC-F5004	Static longitudinal stability and low energy awareness
SC-A5001	Engine Failure Loads (PW engine only)
SC-A5003*	Design Dive Speed
SC-P5004	Engine Sustained Imbalance (PW engine only)
SC-SE5002	AFM – RVR limits

From 07th December 2018 SC B-14 is replacing SC A-5003

5.5 The following special conditions have been developed post Type Certification:

SC D-0306	Heat release and smoke density requirements to seat material (applicable from June 2010)
SC E-48	Fuel Tank Safety (applicable from October 2013)
SC F-0311-001	Flight Recorders including Data Link Recording (applicable as per operational regulations)

F-GEN-01	Installation of non-rechargeable lithium battery (applicable from March 2019)
SC H-01	Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS (applicable from May 2010)
SC P-27	Flammability Reduction System (see Note 4.3.8)
	If fitted, the centre fuel tank of aircraft which have made their first flight after 1st of January 2012 must be equipped in production with a fuel tank Flammability Reduction System (modification 38062). This system shall remain installed and operative and can only be dispatched inoperative in accordance with the provisions of the MMEL revision associated with modification 38062. If modification 38062 (Fuel Tank Inerting System (FTIS)) is embodied on A318, A319, A320, or A321 airplanes, the airplane is compliant with paragraph FR Section 25.981(a) & (b) at amendment 25-102, Part 25 appendix M & N at amendment 25-125, and Section 26.33 at amendment 26-3.

Optional

5.6 The following special conditions have been developed post Type Certification:

D-15	Pilot Control Mode TaxiBot Operations	
D-19	Incorporation of Inertia Locking Device in Dynamic Seats	
D-24	Installation of Airbags in the backrest of seats	
D-25	Installation of structure mounted airbag	
D-27	Installation of Three Point Restraint & Pretensioner System	
D-0322-001	Installation of suite type seating	
D-0332-001	Towbarless Towing	
E-13	Installation of inflatable restraints	
E-21	Flight Instrument External Probes – Qualification in Icing Conditions New UTAS Pitot Probes	
E-34	Seat with inflatable restraints	
F-5011	Steep approach	
F-119	Security Protection of Aircraft Systems and Networks	

6. Exemptions

No exemptions.

7. Deviations

Optional

ACNS-B-GEN-01 Removal of DM89 MONITORING message from the required CPDLC downlink messages list

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8. Equivalent Safety Findings

Compulsory

8.1 Equivalent Safety findings to the following requirements are granted:

JAR 25.783(f) "Doors (see A319 ESF SM-4004 "passenger doors") JAR 25.807(d) "Passenger emergency exits" (see ESF E-5004 "Exit configuration" similar to A319 ESF E-4001) "Emergency exit access" (see ESF E-5005 "Type III overwing JAR 25.813(c)(1) emergency exit access") "Ventilation" (see ESF E-5006 "Packs Off Operation") JAR 25.831(a) "Reversing systems" (see A319 ESF P-4008 "Thrust Reverser Auto JAR 25.933(a)(1) restow") "Minimum Approach Break-Off Height") (see A319 ESF SE-4005 JAR AWO 313 "Minimum Approach Break-Off Height")

JAR AWO 236 "Excess Deviation Alerts" (see ESF SE-5005 "Cat III Operation –

Excess Deviation Alert")

NPA AWO 10 "Airworthiness Harmonization package n°2" (see ESF SE-5002 "AFM

- RVR limits")

8.2 The following Equivalent Safety Findings have been developed post Type Certification:

FAR 25.856(b) Fuselage burnthrough protection in bilge area (see ESF E-32).

If modifications 150700, and 37270 (with CLS option only), 37048 and 36985 are embodied in production on A318, A319, A320, or A321 airplanes, the airplane is compliant with Fuselage Flame Penetration "Burn through" requirements addressed by paragraph 14 CFR Part 25.856(b) Amdt 25-111 (see ESF E-28). (applicable as per operational

regulations)

14CFR Part 25.856(a) Improved flammability standards for insulation materials

(ESF E18) (applicable as per operational regulations)

Optional

8.3 The following Equivalent Safety Findings have been developed post Type Certification:

CS 25.251(b) Vibration/buffeting compliance criteria for large external antenna installation (see ESF B-17) applicable from February 2021.

JAR 25.785(c) Forward facing seats with more than 18° to aircraft centerline. (ESF D-

0329-001)

CS 25.795(a)(1) Application of reduced Intrusion Loads in certain areas of the flight

deck boundaries (ESF D-31)

CS 25.811(e)(4) Green Arrow and "Open" placard for Emergency Exit Marking

JAR 25.811(f) Emergency exit marking reflectance (ESF E-16)

JAR 25.812(b)(1)(ii) Photo-luminescent EXIT sign for MCD (Moveable Class Divider) (ESF

E-14)

JAR 25.812(b)(1)(i)(ii) Symbolic EXIT signs as an alternative to red EXIT signs for passenger

aircraft (ESF SE-42)

JAR 25.1443(c) Minimum Mass Flow of Supplemental Oxygen (ESF F-20)

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JAR 25.1441(c) Crew Determination of Quantity of Oxygen in Passenger Oxygen System (ESF F-21)

9. Elect To Comply

Optional

- 9.1 For all models Airbus Elect To Comply with 14 CFR part 25.772(a) and (c) and 25.795 amendment 106 according to ESF E-12 Reinforced Security Cockpit Door
- 9.2 For all models Airbus Elect to Comply to CS25.851(a),(c) at Amdt 17 when halon free handheld fire extinguishers are installed (EtC D-GEN-AIRBUS-01).
- 9.3 For all models Airbus Elect to Comply to CS 25.562 initial issue for Improved Seats in Air Carrier Transport category Airplanes" for cabin and/or passenger seats (E-31)
- 9.4 For all models Airbus Elect To Comply with CS-ACNS Subpart B Section 2 Data Link Services, Initial issue
- 9.5 For all models Airbus Elect To Comply with CS25-791 at Amdt 20 when Mod 160139 "Passenger information signs and placards" is installed.
- 9.6 For all models Airbus Elect To Comply with CS 25.795(a)(1), 25.795(a)(2) and §25.795(c)(3)(ii) Amdt 22 when mod 167557 "Define Modified Airspace Lavatory A Option for 25.795 Compliance" is installed (ESF D-31).

10. Environmental Protection

ICAO Annex 16:

Vol. I, Part II	Noise Requirements	
Vol. II, Part II	Fuel Venting	
Vol. II, Part III Chapter 2	Emissions	

Notes: For details of the certified noise levels see TCDSN no. UK.TC.A.00010.

III. Technical Characteristics and Operational Limitations

1. Type Design Definition

1.1 Certificated model: A318-111

Definition of reference airplane by doc.: D03006056 (00P000A0111/C21).

1.2 Certificated model: A318-112

Definition of reference airplane by doc.: D03006716 (00P000A0112/C21).

1.3 Certificated model: A318-121

Definition of reference airplane by doc.: D05028326 (00P000A0121/C21).

1.4 Certificated model: A 318-122

Definition of reference airplane by doc.: D05028327 (00P000A0122/C21).

NOTES

Model conversions:

- If modification 152796 is embodied on A318-121 model powered with PW6122A engines, it is converted into A318-122 model, powered with PW6124A engines.
- If modification 153997 is embodied on A318-111 model powered with CFM56-5B8/P or /3 engines, it is converted into A318-112 model, powered with CFM56-5B9/P or /3 engines.
- If modification 153998 is embodied on A318-112 model powered with CFM56-5B9/P or /3 engines, it is converted into A318-111 model, powered with CFM56-5B8/P or /3 engines.

2. Description

Twin turbo-fan, short to medium range, single aisle, transport category airplane.

3. Equipment

Not applicable.

Cabin furnishings, equipment and arrangement shall be in conformance to the following Specifications:

Cabin seats 2521M1F10000 Iss 4
Galleys 2530M1F000900 Iss 2

4. Dimensions

Principal dimensions of A318 Aircraft:

•	Length:	31.45 m
•	Width:	34.10 m
•	Height:	12.79 m
•	Width at horizontal stabilizer:	12.45 m
•	Outside fuselage diameter:	3.95 m
•	Distance between engine axes:	11.51 m
•	Distance between main landing gear:	7.59 m
•	Distance between nose and main landing gear:	11.04 m

5. Engines

The list below lists the basic engines fitted on the aircraft models. The notes describe usual names and certified names as well as engines variants.

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A318-111

Two CFMI CFM 56-5B8/P jet engines (MOD 32028)

A318-112

Two CFMI CFM 56-5B9/P jet engines (MOD 32029)

A318-121

Two PW 6122A jet engines (MOD 30034)

A318-122

Two PW 6124A jet engines (MOD 31882)

Notes:

1. Introduction of CFM56-5Bx/3 "Tech Insertion" engine is done through embodiment of modification 37147 in production or 38770 in field.

This modification is only applicable on CFM56-5Bx /P SAC engines. If modification 37147 is embodied on models with CFM-5B engines, the engine's denomination changes to /3.

The modification is currently applicable for:

A318-111: CFM 56-5B8 (SAC) which changes to CFM 56-5B8/3
A318-112: CFM 56-5B9 (SAC) which changes to CFM 56-5B9/3

The engine characteristics remain unchanged.

Modification 37147 has been demonstrated as having no impact on previously certified noise levels.

CFM56-5Bx/3 engine can be intermixed with CFM56-5Bx/P engine under considerations as prescribes in modification 38573.

6. Auxiliary Power Unit

Basic

- A318-111/-112

HONEYWELL AIRESEARCH GTCP 36-300 (A) (Specification 31-5306 B)

Approved oil: See Garrett report GT 7800.

- <u>A318-121/-122</u>

Pratt & Whitney Rzeszow S.A. APS 3200 (Specification ESR 0802, Rev. A).

APU Pratt & Whitney Rzeszow S.A. installation defined by MOD 35864.

Approved oils: in conformance to MIL-L-7808, MIL-L-23699 or DERD 2487.

Option

- <u>A318-111/-112</u>

Pratt & Whitney Rzeszow S.A. APS 3200 (Specification ESR 0802, Rev. A).

APU Pratt & Whitney Rzeszow S.A. installation defined by MOD 22562 or 35864.

Approved oils: in conformance to MIL-L-7808, MIL-L-23699 or DERD 2487.

Or

Honeywell International I 131-9[A] (Specification 4900 M1E 03 19 01)

The APU Honeywell International installation is defined by MOD 25888.

Approved oils: according to model Specification 31-12048A-3A.

- A318-121/-122

Honeywell International I 131-9[A] (Specification 4900 M1E 03 19 01)

The APU Honeywell International installation is defined by MOD 25888.

Approved oils: according to model Specification 31-12048A-3A.

Note: For A318 models, the APU Pratt & Whitney Rzeszow S.A. APS 3200 (MOD 35864) is the production standard from MSN 2686

7. Propellers

N/A

8. Fluids (Fuel, Oil, Additives, Hydraulics)

<u>Fuel</u>

ENGINES	KEROSENE DESIGNATION	
CFM56: Installation document CFM 2129)	JET A, JET A-1, JP5, JP8, N°3 Jet Fuel, JET B*, JP 4*, F44, F34, AVTUR, AVTUR/FSII, AVTAG/FSII*, AVCAT/FSII	
PW6000: Installation document PWA-7707	JET A, JET A-1, JP5, JP8, N°3 Jet Fuel, JET B*, JP 4*, F44, F34, AVTUR, AVTUR/FSII, AVTAG/FSII*, AVCAT/FSII	

The above mentioned fuels are also suitable for the APU.

Refer to Consumable Material List (CML) for details on approved fuel specifications

^{*} Wide cut is only certified for CFM engines

OIL

For oil specification:

Engine		PW6122A PW6124A
Approved Oils	SB CFMI 79-001-OX	SB PW 238

Additives

Refer to Airbus Consumable Material List (CML) and CFM SB 73-0122 or PW SB 2016 for CIS fuel additives

The above-mentioned fuels and additives are also suitable for the APU.

Hydraulics

Hydraulic fluids: Type IV or Type V - Specification NSA 30.7110.

9. Fluid Capacities

Fuel quantity (0.8 kg/liter)

A318-100 series (without MOD 160001)

	3 TANK AIRPLANE		
Tank	Usable fuel liters (kg) Unusable fuel Liters (kg)		
Wing	15 609 (12 487)	58.9 (47.1)	
Center	8 250 (6 600)	23.2 (18.6)	
TOTAL	23 859 (19 087)	82.1 (65.7)	

A318-100 series (with MOD 37331 and without MOD 160001)

	3 TANK AIRPLANE		
Tank	Usable fuel liters (kg)	Unusable fuel Liters (kg)	
Wing	15 959 (12 767)	58.9 (47.1)	
Center	8 250 (6 600)	23.2 (18.6)	
TOTAL	24 209 (19 367)	82.1 (65.7)	

A318-100 series (without MOD 37331 and with MOD 160001)

	3 TANK AIRPLANE		
Tank	Usable fuel liters (kg)	Unusable fuel Liters (kg)	
Wing	15 568 (12 454)	58.9 (47.1)	
Center	8 248 (6 598)	23.2 (18.6)	
TOTAL	23 816 (19 052)	82.1 (65.7)	

A318-100 series (with MOD 37331 and with MOD 160001)

	3 TANK AIRPLANE		
Tank	Usable fuel liters (kg)	Unusable fuel Liters (kg)	
Wing	15 918 (12 734)	58.9 (47.1)	
Center	8 248 (6 598)	23.2 (18.6)	
TOTAL	24 166 (19 332)	82.1 (65.7)	

10. Airspeed Limits (Indicated Airspeed – IAS – unless otherwise stated)

Maximum Operating Mach (MMO): 0.82

Maximum Operating Speed (VMO): 350 kt

Manoeuvring Speed (VA): see Limitations Section of the approved Flight

Manual

Extended Flaps/Slats Speed (VFE): see table below

Configuration	Slats/Flaps (°)	VFE (kt)	
1	18/0	230	Intermediate approach
	18/10*	215	Take-off
2	22/15	200	Take-off and approach
3	22/20	185	Take-off, approach, landing
Full	27/40	177	Landing

^{*} Auto flap retraction at 210 kt in Take-off configuration

Landing gear:

VLE - Extended: 280 kt/Mach 0.67

VLO - Extension: 250 kt
- Retraction: 220 kt

Tyres Limit Speed (Ground speed): 195.5 kt (225 mph)

11. Flight Envelope

Maximum operating altitude

39 800 ft (pressure altitude)

41 100 ft (pressure altitude) if modification 39195 is embodied

(models A318-111/-112 only)

12. Operating Limitations

See the appropriate approved Airplane Flight Manual

Powerplant (2.2482 lb/daN)

CFMI Engines

	СҒМІ	
Engine	CFM565B8/P	CFM56-5B9/P
Data sheets	E37NE, E38NE (FAA) EASA.E.003 ⁽¹⁾	E37NE, E38NE (FAA) EASA.E.003 ⁽¹⁾
Static thrust at sea level		
Take-off (5 min)*	9 608 daN	10 364 daN
(Flat rated 30° C)	(21 600 lbs)	(23 300 lbs)
Maximum continuous	8478 daN	9 008 daN
(Flat rated 25° C)	(19060 lbs)	(20 250 lbs)

^{* 10} minutes at take-off thrust allowed only in case of engine failure (at take-off or during goaround) in accordance with DGAC "Fiche de Caractéristiques Moteur".

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^{(1):} UK CAA Type Certificate EASA.E.003 and associated Type Certificate Data Sheet EASA.E.003, Issue 5 dated 12 December 2019, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

PW Engines

	PW6000	
Engine	PW6122A	PW6124A
Data sheets	EASA.IM.E.020 ⁽¹⁾	
	E00064EN (FAA)	
Sea level static thrust ratings		
Take-off (5 min)*	9 830 daN	10 587 daN
(Flat rated 30° C)	(22 100 lbs)	(23 800 lbs)
Maximum continuous	9030 daN	9297 daN
(Flat rated 25° C)	(20 300 lbs)	(20 900 lbs)

^{* 5} min TO time limit can be extended to 10 min for one engine inoperative

(1): UK CAA Type Certificate EASA.IM.E.020 and associated Type Certificate Data Sheet EASA.IM.E.020, Issue 1 dated 08 June 2005, as accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

Other engine limitations: see the relevant Engine Type Certificate Data Sheet.

12.1 **Approved Operations**

Transport commercial operations.

12.2 Other Limitations

For a complete list of applicable limitations see the appropriate approved Airplane Flight Manual

13. **Maximum Certified Masses**

VARIANT WEIGHT (Kg)	000 BASIC	001* MOD 31672	002* MOD 31673	003* MOD 31674	004* MOD 31675	005* MOD 31676
Max. Ramp Weight	59 400	61 900	63 400	64 900	66 400	68 400
Max. Take-off Weight	59 000	61 500	63 000	64 500	66 000	68 000
Max. Landing Weight	56 000	56 000	57 500	57 500	57 500	57 500
Max. Zero Fuel Weight	53 000	53 000	54 500	54 500	54 500	54 500
Minimum Weight	34 500	34 500	34 500	34 500	34 500	34 500

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VARIANT	006* MOD	007* MOD	008* MOD
WEIGHT (Kg)	33235	33126	33128
Max. Ramp Weight	56 400	61 400	64 400
Max. Take-off Weight	56 000	61 000	64 000
Max. Landing Weight	56 000	56 000	56 000
Max. Zero Fuel Weight	53 000	53 000	53 000
Minimum Weight	34 500	34 500	34 500

Notes:

14. Centre of Gravity Range

See the appropriate approved Airplane Flight Manual.

15. Datum

Station 0.0, located 2.540 meters forward of airplane nose.

16. Mean Aerodynamic Chord (MAC)

4.1935 meters.

17. Levelling Means

The A/C can be jacked on three primary jacking points.

See the appropriate approved Weight and Balance Manual.

18. Minimum Flight Crew

2 pilots.

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19. Minimum Cabin Crew

See paragraph 20.

20. Maximum Seating Capacity

The table below provides the certified Maximum Passenger Seating Capacities (MPSC), the corresponding cabin configuration (exit arrangement and modifications) and the associated minimum numbers of cabin crew members used to demonstrate compliance with the certification requirements:

^{*} WV option certified concurrently with the basic WV at the time of the model's approval

MPSC	Cabin configuration	Modification	Minimum CC
136	C-III-C		3

Notes:

- 1. The LH & RH rear passenger doors can be de-activated by embodiment of modification 37807. In this case, the maximum number of passengers is 80.
- The Type III emergency exit can be de-activated by embodiment of modification 39673.
 In this case, the maximum number of passengers is 110 when operating overland and 32 when operating overwater.
- 3. With MOD 153648 "EQUIPMENT/FURNISHINGS GENERAL DELIVER AIRCRAFT WITH INCOMPLETE CABIN" embodied, the cabin is limited to zero occupancy and no cargo (i.e. no occupancy and no cargo in cabin) during all phases of flight, unless a separate approved Modification is embodied to remove the limitation.

21. Baggage/ Cargo Compartment

CARGO COMPARTMENT	MAXIMUM LOAD (kg)
Forward	1614
Aft	2131
Rear (bulk)	1372

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights) see Weight and Balance Manual, ref. 00 P 080 A 0001/C1S Chapter 1.10.

22. Wheels and Tyres

See SB A320-32-1007.

23. ETOPS

The Type Design, system reliability and performance of A318 models were found capable for Extended Range Operations when configured, maintained and operated in accordance with the current revision of the ETOPS Configuration, Maintenance and Procedures (CMP) document, SA/EASA: AMC 20-6/CMP.

This finding does not constitute an approval to conduct Extended Range Operations (operational approval must be obtained from the responsible Authority).

The following table provides details on the ETOPS approvals.

Aircraft model	Engine Type	120 min Approval Date	180 min Approval Date
A318-111	CFM56-5B8	N/A	06 November 2006
A318-112	CFM56-5B9	N/A	06 November 2006
A318-121	PW6122A	N/A	16 November 2010
A318-122	PW6124A	N/A	16 November 2010

Note:

The Configuration, Maintenance and Procedure Standards for extended range twin-engine airplane operations are contained in ETOPS CMP document reference SA/EASA: AMC 20-6/CMP at latest applicable revision. Certificated models are A318-111/-112/-121/-122, with all applicable engines.

Embodiment of modification:

36666 provides ETOPS 120 min capability for UK CAA, 32009 provides ETOPS 180 min capability for UK CAA

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

Approved Airplane Flight Manual for A318.

2. Instructions for Continued Airworthiness and Airworthiness Limitations

Airworthiness Limitations

- Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Section (ALS) sub-parts 1-2 and 1-3.
- Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Items document (ALS Part 2).
- Certification Maintenance Requirements are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Section (ALS) Part 3.
- System Equipment Maintenance Requirements are provided in the A318/A319/A320/A321 approved Airworthiness Limitations Section (ALS) Part 4.
- Fuel Airworthiness Limitations are provided in the A318/A319/A320/A321 approved Fuel Airworthiness Limitations document (ALS Part 5).
- Maintenance Review Board Report

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Other limitations

See approved Flight Manual.

3. Weight and Balance Manual (WBM)

Airbus Compliance Document 00P80A0001/C1S.

V. Operational Suitability Data (OSD)

Master Minimum Equipment List: CRI MMEL-01
Flight Crew Data: CRI FCD-01
Cabin Crew Data: CRI CCD-01

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.064 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List

- a. The Master Minimum Equipment List has been approved as per the defined Operational Suitability Data Certification Basis and as documented in A320 MMEL reference "MMEL STL11000" at the latest applicable revision.
- b. Required for entry into service by UK operator.

2. Flight Crew Data

- a. The Flight Crew data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in reference "A320 Operational Suitability Data Flight Crew SA01RP1536744" at the latest applicable revision.
- b. Required for entry into service by UK operator.
- c. The aircraft models: A318, A319, A321 are determined to be variants to the A320 aircraft model.

3. Cabin Crew Data

- a. The Cabin Crew data has been approved as per the defined Operational Suitability Data Certification Basis and as documented in reference "A320 Operational Suitability Data Cabin Crew - SA01RP1534113" at the latest applicable revision.
- b. Required for entry into service by UK operator.
- c. The aircraft models: A318, A319, A321 are determined to be variants to the A320 aircraft model.

VI. Notes

All models are basically qualified for Cat IIIB precision approach.

Section 6 Administration

I. **Acronyms and Abbreviations**

Acronym / Abbreviation	Definition
ACARS	Aircraft Communications Addressing and Reporting System
ACT	Additional Centre Tank
AFM	Airplane Flight Manual
ALS	Airworthiness Limitations Section
AMC	Acceptable Means of Compliance
APU	Auxiliary Power Unit
AWO	All Weather Operations
CAA	(United Kingdom) Civil Aviation Authority
CCD	Cabin Crew Data
CML	Consumable Materials List
CRI	Certification Review Item
CS	Certification Specification
DGAC	Direction Générale de l'Aviation Civile (French CAA)
EASA	European Union Aviation Safety Agency
EC	Experience related Condition
ECAM	Electronic Centralized Aircraft Monitor
EtC	Elect to Comply
ESF	Equivalent Safety Finding
ETOPS	Extended-range Twin-engine Operational Performance Standards
EU	European Union
EWIS	Electrical Wiring Interconnection System
FAA	Federal Aviation Administration
FADEC	Full Authority Digital Engine Control
FCD	Flight Crew Data
FTIS	Fuel Tank Inerting System

Acronym / Abbreviation	Definition
HC	Harmonisation Condition
HIRF	High Intensity Radiated Field
ICA	Instructions for Continued Airworthiness
ICAO	International Civil Aviation Organization
IM	Interpretive Material
JAA	Joint Aviation Authorities
JAR	Joint Aviation Regulations
LBA	Luftfahrt-Bundesamt (German CAA)
LOPA	Layout Of Passenger Accommodations
МАВН	Minimum Approach Breakoff Height
MAC	Mean Aerodynamic Chord
MCD	Moveable Class Divider
MMEL	Master Minimum Equipment List
Ммо	Maximum Operating Limit Speed (Mach)
MPPT	Maintenance Programme Publication Trigger
MPSC	Maximum Passenger Seating Capacity
MSN	Manufacturer's Serial Number
MTOW	Maximum Take Off Weight
NPA	Notice of Proposed Amendment
OSD	Operational Suitability Data
SC	Special Condition
TC	Type Certificate
TCDS	Type Certificate Data Sheet
TCDSN	Type Certificate Data Sheet for Noise
UK CAA	United Kingdom Civil Aviation Authority
V _D	Design Dive Speed
V _{FE}	Velocity Flap/Slat Extended (max)

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Section 6: Administration - continued

Acronym / Abbreviation	Definition
VLE	Velocity Landing Gear Extended (max)
VLO	Velocity Landing Gear Extension (max)
V _{MO}	Velocity Maximum Operating
V _{MU}	Velocity Minimum Unstick
WBM	Weight and Balance Manual

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II. Type Certificate Holder Record

TCH Record	Period
Airbus S.A.S.	Present. No changes.
2 Rond-Point Emile Dewoitine	
31700 Blagnac	
France	

III. Amendment Record

TCDS Issue No.	TCDS Issue Date	Changes	TC Issue and Date
1	06 Sep 2022	The content of the initial issue of this UK CAA TCDS was taken from EASA TCDS No. EASA.A.064 Issue 46 dated 25 June 2020 which was the current EASA version at 31 December 2020 and therefore the version of the TCDS for the A318/319/320/321 accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement, except as listed below:	Issue 1 06 Sep 2022

Changes related to UK.ADMIN.00003:

- Sec 4, II, 4.10: Modification: Paragraph 4.8 to be corrected to 4.10
- Sec 4, II, 4.10: Addition: With the removal of the aft cargo compartment through embodiment of the modification 165550 on ACJ319neo,- FAR 25.856(b) (EtC E-28 plus ESF E-32) was not demonstrated in the aft cargo compartment. Instead, the passenger capacity is limited to 19 passengers.- "Class C" cargo compartment airworthiness requirements CS25.855(a)(b)(c)(e)(f)(g)(h)(i) and CS25.857(c) are not applicable anymore for the changed AFT lower deck compartment.
- Sec 4, III, 20: Addition:3. With MOD 165550, EtC E-28 and ESF E-32 are not applicable and therefore
 Maximum capacity is limited to 19 Passengers.4. The
 modification 167900 deactivates the forward over-wing
 emergency exits. The maximum number of occupants
 in the cabin is then limited to 0 (zero).
- Sec 4, III, 5: Addition: 10. If modification 165533 is installed on the A319-153N equipped with CFM LEAP-1A26 engines then the engine model is changed to LEAP-1A26CJ"
- Sec 2, III, 20: Addition: With MOD 153648
 "EQUIPMENT/FURNISHINGS GENERAL DELIVER
 AIRCRAFT WITH INCOMPLETE CABIN" embodied,
 the cabin is limited to zero occupancy and no cargo
 (i.e. no occupancy and no cargo in cabin) during all
 phases of flight, unless a separate approved
 Modification is embodied to remove the limitation.
- Sec 3, III, 20: Addition: With MOD 153648
 "EQUIPMENT/FURNISHINGS GENERAL DELIVER
 AIRCRAFT WITH INCOMPLETE CABIN" embodied,
 the cabin is limited to zero occupancy and no cargo
 (i.e. no occupancy and no cargo in cabin) during all

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phases of flight, unless a separate approved Modification is embodied to remove the limitation.

- Sec 4. III. 21: Addition: With MOD 153648 "EQUIPMENT/FURNISHINGS - GENERAL - DELIVER AIRCRAFT WITH INCOMPLETE CABIN" embodied, the cabin is limited to zero occupancy and no cargo (i.e. no occupancy and no cargo in cabin) during all phases of flight, unless a separate approved Modification is embodied to remove the limitation.
- Sec 5. III. 20: Addition: With MOD 153648 "EQUIPMENT/FURNISHINGS - GENERAL - DELIVER AIRCRAFT WITH INCOMPLETE CABIN" embodied, the cabin is limited to zero occupancy and no cargo (i.e. no occupancy and no cargo in cabin) during all phases of flight, unless a separate approved Modification is embodied to remove the limitation.
- Sec 2, II, 8.4: Addition: CS 25.251(b) Vibration/buffeting compliance criteria for large external antenna installation (see ESF B-17) applicable from February 2021.&CS 25.795(a)(1) Application of reduced Intrusion Loads in certain areas of the flight deck boundaries (D-31)
- Sec 3, II, 8.6: Addition: CS 25.251(b) Vibration/buffeting compliance criteria for large external antenna installation (see ESF B-17) applicable from February 2021.&CS 25.795(a)(1) Application of reduced Intrusion Loads in certain areas of the flight deck boundaries (D-31)
- Sec 4, II, 8.6: Addition: CS 25.251(b) Vibration/buffeting compliance criteria for large external antenna installation (see ESF B-17) applicable from February 2021.&CS 25.795(a)(1) Application of reduced Intrusion Loads in certain areas of the flight deck boundaries (D-31)
- Sec 5, II, 8.3: Addition: CS 25.251(b) Vibration/buffeting compliance criteria for large external antenna installation (see ESF B-17) applicable from February 2021.&CS 25.795(a)(1) Application of reduced Intrusion Loads in certain areas of the flight deck boundaries (D-31)
- Sec 2, III, 5: Addition: ACJ320neo Two CFMI LEAP-1A26CJ jet engines (MOD 165333) Two IAE PW1127G-JM Geared Turbo Fan jet engines Two IAE PW1127G1-JM Geared Turbo Fan jet engines
- Sec 2, II, 5.8: Addition (in Optional section): D-28 Installation of oblique seats
- Sec 3, II, 5.9: Addition: D-28 Installation of oblique seats
- Sec 4, II, 5.10: Addition: D-28 Installation of oblique
- Sec 2, II, 9.8: Addition: 9.8 For all models Airbus Elect To Comply with CS 25.795(a)(1), 25.795(a)(2) and §25.795(c)(3)(ii) Amdt 22 when mod 167557 "Define

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Modified Airspace Lavatory A Option for 25.795 Compliance" is installed (ESF D-31).

- Sec 3, II, 9.8: Addition: 9.8 For all models Airbus Elect To Comply with CS 25.795(a)(1), 25.795(a)(2) and §25.795(c)(3)(ii) Amdt 22 when mod 167557 "Define Modified Airspace Lavatory A Option for 25.795 Compliance" is installed (ESF D-31).
- Sec 4, II, 9.8: Addition: 9.8 For all models Airbus Elect To Comply with CS 25.795(a)(1), 25.795(a)(2) and §25.795(c)(3)(ii) Amdt 22 when mod 167557 "Define Modified Airspace Lavatory A Option for 25.795 Compliance" is installed (ESF D-31).
- Sec 5, II, 9.6: Addition: 9.6 For all models Airbus Elect To Comply with CS 25.795(a)(1), 25.795(a)(2) and §25.795(c)(3)(ii) Amdt 22 when mod 167557 "Define Modified Airspace Lavatory A Option for 25.795 Compliance" is installed (ESF D-31).
- Sec 4, II, 9.9: Addition: 9.9 Airbus elect to comply to JAR AWO 140 and 183 at change 2 for A319-151N/-153N when equipped with optional modification 161765.
- Sec 3, II, 9.9: Addition: 9.9 For A321-251NX/-252NX/253NX/271NX/272NX Airbus Elect To Comply with §25.603(a) Amdt 19 (for new or modified parts) when Modification 166104 (Define Hero and welcome effect light for airspace cabin) is embodied.
- Sec 2, II, 4.10: Modification: CS25 Amdt 2, §25.21(b) corrected to §25.21(c)
- General: Modification: Throughout the entire document EASA have replaced 'CRI' with the actual type of CRI (SC, EtC, ESF)
- Sec 2, II, 4.1: Addition: and 25.853(a) and (b) which are at Change 13 since MSN 118
- Sec 3, II, 4.1: Addition: JAR 25.853(a)(b) since MSN
- Sec 4, II, 4.1: Addition: 25.853(a)(b) since MSN 118

Editorial changes/Changes to reflect EU Exit:

- Sec 1: Added, subsequent sections re-numbered as required.
- Sec 2.I.1: Updated to reflect UK CAA TCDS Template
- Sec 2.I.7: Section added.
- Sec 2.I.8: "...this current TCDS" updated to "EASA TCDS EASA.A.064"
- Sec 2.I.9: EASA TCDS number reference added.
- · Sec 2.I.10: Section added.
- Sec 2.II.3: Reference updated from paragraph 4, to EASA TCDS EASA.A.064.
- Sec 2.II.4: Title updated from "EASA..." to "UK CAA...."
- Sec 2.II.8.3.1: Section number corrected from 8.5.1

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- Sec 2.II.10: Reference to EASA TCDSN updated to reference UK CAA TCDSN.
- Sec 2.III.10: "EASA approved flight manual" updated to "approved flight manual"
- Sec 2.III.11: "EASA approved flight manual" updated to "approved flight manual"
- Sec 2.III.12: "EASA approved flight manual" updated to "approved flight manual". Notes added to tables to clarify references to applicable UK CAA Engine TCs & TCDSs.
- Sec 2.III.12.2: "EASA approved flight manual" updated to "approved flight manual"
- Sec 2.III.17: "EASA approved Weight and Balance Manual" updated to "approved Weight and Balance Manual"
- Sec 2.III.23: References under "Embodiment of Modifications" updated from EASA to UK CAA
- Sec 2.IV.1: "EASA approved flight manual" updated to "approved flight manual"
- Sec 2.IV.2: "EASA approved flight manual" updated to "approved flight manual"
- Sec 2.V: Approval statement updated to reflect acceptance of EASA approved OSD under UK-EU Trade and Cooperation Agreement.
- Sec 2.V.1: "EU operator" updated to "UK operator"
- Sec 2.V.2: "EU operator" updated to "UK operator"
- Sec 2.V.3: "EU operator" updated to "UK operator"
- Sec 3.I.1: Updated to reflect UK CAA TCDS Template
- Sec 3.I.7: Section added.
- Sec 3.I.9: EASA TCDS number reference added.
- Sec 3.I.10: Section added.
- Sec 3.II.3: Reference updated from "see below", to EASA TCDS EASA.A.064.
- Sec 3.II.4: Title updated from "EASA..." to "UK CAA...."
- Sec 3.II.8.7: Section number corrected from 8.6
- Sec 3.II.10: Reference to EASA TCDSN updated to reference UK CAA TCDSN.
- Sec 3.III.10: "EASA approved flight manual" updated to "approved flight manual"
- Sec 3.III.11: "EASA approved flight manual" updated to "approved flight manual"
- Sec 3.III.12: "EASA approved flight manual" updated to "approved flight manual". Notes added to tables to clarify references to applicable UK CAA Engine TCs & TCDSs.
- Sec 3.III.12.2: "EASA approved flight manual" updated to "approved flight manual"

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- Sec 3.III.14: "EASA approved flight manual" updated to "approved flight manual"
- Sec 3.III.17: "EASA approved Weight and Balance Manual" updated to "approved Weight and Balance Manual"
- Sec 3.III.23: References under "Embodiment of Modifications" updated from EASA to UK CAA
- Sec 3.IV.1: "EASA approved flight manual" updated to "approved flight manual"
- Sec 3.IV.2: "EASA approved flight manual" updated to "approved flight manual"
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- Sec 3.V.1: "EU operator" updated to "UK operator"
- Sec 3.V.2: "EU operator" updated to "UK operator"
- Sec 3.V.3: "EU operator" updated to "UK operator"
- Sec 4.I.1: Updated to reflect UK CAA TCDS Template
- Sec 4.I.7: Section added.
- Sec 4.I.9: EASA TCDS number reference added.
- Sec 4.I.10: Section added.
- Sec 4.II.3: Reference updated from "see below", to EASA TCDS EASA.A.064.
- Sec 4.II.4: Title updated from "EASA..." to "UK CAA....'
- Sec 4.II.10: Reference to EASA TCDSN updated to reference UK CAA TCDSN.
- Sec 4.III.10: "EASA approved flight manual" updated to "approved flight manual"
- Sec 4.III.12: "EASA approved flight manual" updated to "approved flight manual". Notes added to tables to clarify references to applicable UK CAA Engine TCs & TCDSs. CFM56-5A4/-5A5 TC & TCDS numbers updated.
- Sec 4.III.12.2: "EASA approved flight manual" updated to "approved flight manual"
- Sec 4.III.14: "EASA approved flight manual" updated to "approved flight manual"
- Sec 4.III.17: "EASA approved Weight and Balance Manual" updated to "approved Weight and Balance Manual"
- Sec 4.III.23: References under "Embodiment of Modifications" updated from EASA to UK CAA
- Sec 4.IV.1: "EASA approved flight manual" updated to "approved flight manual"
- Sec 4.IV.2: "EASA approved flight manual" updated to "approved flight manual"

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	Sec 4.V: Approval statement added to reflect Sec 4.V: Approval statement added to reflect	
	acceptance of EASA approved OSD under UK-EU Trade and Cooperation Agreement.	
	Sec 4.V.1: "EU operator" updated to "UK operator"	
	Sec 4.V.2: "EU operator" updated to "UK operator"	
	• Sec 4.V.3: "EU operator" updated to "UK operator"	
	Sec 5.I.1: Updated to reflect UK CAA TCDS Template	
	Sec 5.I.7: Section added.	
	 Sec 5.I.9: EASA TCDS number reference added. 	
	Sec 5.I.10: Section added.	
	 Sec 5.II.3: Reference updated from "see below", to EASA TCDS EASA.A.064. 	
	 Sec 5.II.4: Title updated from "EASA" to "UK CAA" 	
	 Sec 5.II.10: Reference to EASA TCDSN updated to reference UK CAA TCDSN. 	
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	 Sec 5.III.17: "EASA approved Weight and Balance Manual" updated to "approved Weight and Balance Manual" 	
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	• Sec 5.V.3: "EU operator" updated to "UK operator"	

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