

A340-213

Four CFMI-CFM56-5C4

Refer to engine FAA-Type Certificate E37NE.

Fuel:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Engine Limits:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Airspeed Limits (Indicated Airspeed, IAS, unless otherwise stated):

- Maximum Operating Limit Speed/Mach, V_{MO}/M_{MO} 330 KIAS / .86 M
- Design Diving Speed, V_D 365 KIAS / .93 M
- Design Maneuvering Speed, V_A Refer to AFM performance Section
- Maximum Flaps/Slats Extended Speed or Operating Speed, V_{FE}

Configuration	Slats/Flaps °	V_{FE} (kt)	
1	20/0	240	Intermediate Approach
	20/17	215	Take-off
2	24/22	196	Take-off and Approach
3	24/26	186	Take-off, Approach, and Landing
FULL	24/32	180	Landing

- Minimum Control Speed, V_{MC} Refer to AFM performance Section (Performance Engineering Program/OCTOPUS)

Landing Gear Speeds:

- Maximum Speed with Landing Gear Operating (Extension and Retraction), V_{L0} 250 KIAS/.55 M
- Maximum Speed with Landing Gear Locked Down, V_{LE} 250 KIAS/.55M
- Tire Limit Speed (Ground Speed) 204 KTS

Center of Gravity Limits:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Datum:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Leveling Means:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Maximum Weight:

Variant	000 (Basic) kg/lb	001 (MOD 41302) kg/lb
Maximum Ramp Weight	254,400/560,850	257,900/568,620
Maximum Take-off Weight, MTOW	253,500 / 558,865	257,000 / 372,575
Maximum Landing Weight, MLW	181,000 / 399,030	181,000 / 399,030
Maximum Zero Fuel Weight, MZFW	169,000 / 372,575	169,000 / 372,575

Minimum Crew:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Number of Seats:

The maximum number of passengers approved for emergency evacuation is 375 passengers with a 3 pair Type A and 1 pair Type 1 exits configuration and 379 passengers with 4 pair Type A exits configuration.

Maximum Baggage:

Cargo Compartment	Maximum Load (kg/lb)
Forward	18,507/40,801
Aft	15,241/33,601
Rear	3,468/7646

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weight) see weight and Balance Manual: Airbus Industrie Document 00F080A0002/C2S for A340-211 and A340-212 and 00F080A0004/C0S for A340-213.

Fuel Capacity

Tank	3 Tank Airplane			
	Usable Fuel		Unusable Fuel	
	liters (kg)	gallons (lb)	liters (kg)	gallons (lb)
Wing	91,056 (72,845)	24,054 (164,052)	245 (196)	70 (41)
Center	41,468 (33,174)	10,955 (74,173)	83 (66)	22 (150)
Trim Tank	6,114 (4,891)	1,615 (11,014)	6 (5)	1.6 (11)
Total	138,638 (110,910)	36,627 (249,796)	334 (267)	88 (600)

Maximum Operating Altitude:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Control Surface Movements:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Manufacturer's Serial Numbers:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Import Requirements:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Certification Basis (A340-200 Series Airplanes):

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Production Basis:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Equipment:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Other Information Applicable to A340-200 Series Airplanes:Hydraulic Fluids:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Auxiliary Power Unit (APU):

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Tires:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Airplane Flight Manual:

Refer to Airbus Industrie Document AI/EV-O 34000 dated December 22, 1992, applicable to the specific airplane model and serial number.

Service and Operating Information:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Notes:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

II. Type A340-300 Series Transport Category Airplanes:**Airbus A340-311 - approved May 27, 1993:****Airbus A340-312 - approved July 7, 1994:****Airbus A340-313 - approved October 2, 1997:**

A340-311:	Definition of reference airplane by Airbus Industrie Documents: FAA A340-311 Type Design, ref. AI/EA-N415.02695/96 Issue 4, dated June 11, 1997 for type definition and Type Certification Standard Equipment List, ref. 00F000A0101/COS.
A340-312:	Definition of reference airplane by Airbus Industrie Documents: FAA A340-312 Type Design, ref. AI/EA-N415.0270/96 Issue 4, dated June 11, 1997 for type definition and Type Certification Standard Equipment List, ref. 00F000A0102/COS.
A340-313	Definition of reference airplane by Airbus Industrie Documents: FAA A340-313 Type Design, ref. AI/EA-N415.0272/96 Issue 4, dated June 11, 1997 for type definition and Type Certification Standard Equipment List, ref. 00F000A0103/COS.

The A340-300 series differs from the A340-200 series aircraft by the addition of 8 fuselage frames.

Engines

- A340-311 Four CFMI-CFM 56-5C2 or four CFM 56-5C2/F or four CFM 56-5C2/G. Engine intermix between 5C2 and 5C2/F and 5C2/G on the same aircraft is allowed. Refer to engine FAA-Type Certificate E37NE, Date of Issue:
- A340-312 Four CFMI-CFM 56-5C3/F or four CFM 56-5C3/G. Engine intermix between 5C3/F and 5C3/G on the same aircraft is allowed. Refer to engine FAA-Type Certificate E37NE.
- A340-313 Four CFMI-CFM56-5C4.
Refer to engine FAA-Type Certificate E37NE.

Fuel:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Engine Limits:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Airspeed Limits (Indicated Airspeed, IAS, unless otherwise stated):

- Maximum Operating Limit Speed/Mach, V_{MO}/M_{MO} 330 KIAS / .86 M
- Design Diving Speed, V_D 365 KIAS/ .93 M
- Design Maneuvering Speed, V_A Refer to AFM performance Section
- Maximum Flaps/Slats Extended Speed or Operating Speed, V_{FE}

Configuration	Slats/Flaps °	V_{FE} (kt)	
1	20/0	240	Intermediate Approach Take-off
	20/17	215	
2	24/22	196	Take-off and Approach
3	24/26	186	Take-off, Approach, and Landing
FULL	24/32	180	Landing

- Minimum Control Speed, V_{MC} Refer to AFM performance Section
(Performance Engineering Program/OCTOPUS)

Landing Gear Speeds:

- Maximum Speed with Landing Gear Operating (Extension and Retraction), V_{LO} 250 KIAS/.55 M
- Maximum Speed with Landing Gear Locked Down, V_{LE} 250 KIAS/.55 M
- Tire Limit Speed (Ground Speed) 204 KIAS

Center of Gravity Limits:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Datum:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Leveling Means:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Maximum Weight:

Variant	000 (Basic) kg/lb	001 (MOD 41302) kg/lb
Maximum Ramp Weight	254,400/560,850	257,900/ 568,620
Maximum Take-off Weight, MTOW	253,500 / 115,227	257,000 / 116,818
Maximum Landing Weight, MLW	186,000 / 84,545	186,000 / 84,545
Maximum Zero Fuel Weight, MZFW	174,000 / 79,090	174,000 / 79,090

Minimum Crew:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Number of Seats:

The maximum number of passengers approved for emergency evacuation is 375 passengers with a 3 pair Type A and 1 pair Type 1 exits configuration and 379 passengers with 4 pair Type A exits configuration.

Maximum Baggage:

Cargo Compartment	Maximum Load (kg/lb)
Forward	22,861/10,391
Aft	18,507/8,412
Rear	3,468/1,576

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weight) see weight and Balance Manual:

Ref. Airbus Industrie Document 00F080A0002/C3S for A340-311 and A340-312

Ref. Airbus Industrie Document 00F080A0004/C0S for A340-313

Fuel Capacity

Tank	3 Tank Airplane			
	Usable Fuel		Unusable Fuel	
	liters (kg)	gallons (lb)	liters (kg)	gallons (lb)
Wing	91,056 (72,845)	24,054 (164,052)	245 (196)	70 (41)
Center	41,468 (33,174)	10,955 (74,173)	83 (66)	22 (150)
Trim Tank	6,114 (4,891)	1,615 (11,014)	6 (5)	1.6 (11)
Total	138,638 (110,910)	36,627 (249,796)	334 (267)	88 (600)

Maximum Operating Altitude:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Control Surface Movements:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Manufacturers Serial Numbers:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Import Requirements:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Certification Requirements:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Other Information Applicable to A340-300 Series Airplanes:Hydraulic Fluids:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Auxiliary Power Unit (APU):

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Tires:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Airplane Flight Manual:

Refer to Airbus Industrie Document AI/EV-O 34000 dated December 22, 1992, applicable to the specific airplane model and serial number.

Service and Operating Information:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

Notes:

See Section III, Data pertinent to All A340-200 and A340-300 Model Series.

III. Data Pertinent to All A340-200 and -300 Model Series:Fuel:

Nomenclature	Specification		
	United States	France	United Kingdom
Kerosene	ASTM D 1655 (JET A) (JET A1)	AIR 3405C	DERD 2494/2453
Wide Cut	ASTM D 1655 (JET B)	AIR 3407B	DERD 2454/2486
	MIL-T 5624 (JP4)	AIR 3407B	DERD 2454/2486

Additives:
above

According to CFMI "Specific Operating Instructions", installation manual. The mentioned fuels are also suitable for the APU.

Engine Limits:

Engine Limitations	CFMI CFM 56 -5C2 -5C2/4 -5C2/F -5C2/F4 -5C2/G -5C2/G4	CFMI CFM 56 -5C3/F -5C3/F4 -5C3/G -5C3/G4	CFMI CFM 56 -5C4
	See FAA Data Sheet E37NE		
Static Thrust at Sea Level • Take-off (5 mn) ¹ (flat rated 30° C) • maximum continuous (flat rated 25° C)	13878 daN (31,200 lbs) 12587 daN (28,300lbs)	14456 daN (32,500 lbs) 13077 daN (29,400 lbs)	15124 daN (34,000 lbs) 13371 daN (30,060 lbs)
Maximum Engine Speed • N1 rpm (%) • N2 rpm (%)	4800 (100.3%) 15,183 (105%)	4800 (100.3%) 15,183 (105%)	4985 (104.2%) 15,183 (105%)
Maximum Gas Temperature • Take-off (5mn) ¹ • Maximum Continuous • Starting ²	950° C 915° C 725° C	965° C 930° C 725° C	965° C 930° C 725° C
Maximum Oil Temperature (Supply Pump Outlet) °C • Take-off, Stabilized • Transient (15 mn max.) Minimum Pressure	140° C 155° C 89.6 KPa differential	140° C 155° C 89.6 KPa differential	140° C 155° C 89.6 KPa differential
Approved oils	See CFMI Service Bulletin CFMI 79-001 or GE specification D50TF1, Type I and II		

Table references:

- (1) 10 minutes at take-off thrust allowed only in case of engine failure (at take-off or during go-around).
- (2) 4 consecutive cycles of 2 minutes each

Center of Gravity Limits:

Refer to DGAC-Approved AFM, US Version, Limitations Section for center of gravity envelope.

Note : 0% MAC is located 1275.51 in from the datum line.

Datum:

The aircraft reference zero datum point is located 251.29 in. forward of the fuselage nose, 275.6 in. under the fuselage centerline (datum line).

Leveling Means:

Inclinometer on cabin seat track rails (refer to AMM chapter 08.20.00).

Minimum Crew:

2 - Pilot and copilot

Maximum Operating Altitude

- 41,100 feet, Slats and Flaps Retracted (clean)
- 20,000 feet, Slats or Slats and Flaps Extended.

Control Surface Movements (Total one-way travel in each direction of each movable control surface on the aircraft.)

Control Surface	Maximum Travel
Aileron	+25°/-25°
#1 Spoiler	Speed Brake 25° Lift Dumper 35°
#2,3 Spoilers	Roll 35° Speed Brake 30° Lift Dumper 50°
#4,5 Spoilers	Roll 35° Speed Brake 30° Lift Dumper 50°
Aileron Droop	10°
Flaps	32°
Slats 1	21°
Slats 2 to 7	24°
Stabilizers	+2°/-14°
Elevator	+15°/-30°
Rudder	+31.6°/-31.6°

Manufacturer's Serial Numbers

A340 aircraft, all series and models, are produced in France under production approval P09 issued by the DGAC to Airbus Industrie.

Import Requirements:

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Section 21.183(c). For issuance of an airworthiness certificate in accordance with § 21.183(c) the Direction Generale De L'Aviation Civile (DGAC) must certify that the aircraft conforms to its U.S. type design (Type Certificate Number A43NM) and is in condition for safe operation. In that regard, the DGAC will certify that the aircraft complies with all applicable mandatory continuing airworthiness information (MCAI) it has issued.

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country of manufacture (e.g. third party country) is FAR 21.183(d). For issuance of an airworthiness certificate in accordance with § 21.183(d), the FAA certificating inspector, or other authorized person, must find, among other things, that the product is in a condition for safe operation. In order to make that finding, the FAA certificating inspector or other authorized person should contact the Manager, FAA International Branch, Transport Airplane Directorate prior to issuance to determine whether showing compliance with certain MCAI is necessary to support a finding that the airplane is in a condition for safe operation.

Certification Basis (A340-200 and A340-300)

- a. Part 25 of the FAR effective February 1, 1965, including amendments 25-1 through 25-63 and amendments 25-65, 25-66 and 25-77.
- b. Part 25 of the FAR amendment 25-64 with the following exceptions:
 - Cockpit seats will not meet FAR 25.562 amendment 25-64 but will meet FAR 25.561
 - Compliance with 25.785(a), (b), and (d) at amendment 25-64 for front row seats in front of a bulkhead will be based on ensuring a 35 inch free head strike envelope.
- c. Special Federal Aviation regulation FAR Part 34 as amended by Amendments 27-1, through 27-7.

- d. Part 36 of the FAR as amended by amendments 36-1 through 36-20.
- e. FAA Special conditions issued for the A340 in accordance with Section 21.16 of the FAR and published in the Federal Register April 15, 1993, (Docket No. NM-75, Special Conditions No. 25-ANM-69), as follows:
- (1) Electronic Flight Control System (EFCS) failures and Mode Annunciation
 - (2) Command Signal Integrity
 - (3) Protection From Lightning and Unwanted Effects of High Intensity Radiated Fields (HIRF)
 - (4) Interaction of Systems and Structures
 - (5) Design Dive Speed
 - (6) Design Maneuver Requirements
 - (7) Limit Pilot Forces
 - (8) Tail plane Tank Emergency Landing Loads
 - (9) Limit Engine Torque
 - (10) Ground Load Conditions for Center Landing Gear
 - (11) Flight Characteristics
 - (12) Flight Envelope Protection
 - (13) Side Stick Controllers
 - (14) Computerized Airplane Flight Manual (AFM) Performance Information
- f. For precision approach and landing, the applicable technical requirements are complemented by AC 120-29 and AC 120-28C.
- g. For the automatic flight control system, the applicable technical requirements are complemented by AC 20-57A for automatic landing and by AC 25.1329-1A for cruise.
- h. Equivalent safety findings have been made in accordance with FAR 21.21(b)(1) for the following paragraphs of the FAR:
- (1) 25.335(d) for design airspeeds
 - (2) 25.345 for high lift devices
 - (3) 25.349 for control surface loads
 - (4) 25.351(b) for unsymmetrical loads
 - (5) 25.371 for gyroscopic loads
 - (6) 25.373 for speed control devices
 - (7) 25.101(I); 25.105(c)(1); 25.109(a)(b)(c)(d)(e)(f); 25.113(a)(b)(c); 25.115(a); 25.735(f)(g)(h)(b) for rejected takeoff and landing performance
- i. Optional requirements elected:
- 25.801 for ditching.
 - 25.1419 for icing.

Production Basis:

A340 aircraft, all series and models, are produced in France under production approval P09 issued by the DGAC to Airbus Industrie.

Equipment:

- The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.
- Equipment approved for installation is listed in the Type Certification Standard Equipment Lists; 00F000A0101/C0S for the A340-211 and A340-311, 00F000A0102/C0S for the A340-212 and A340-312, and 00F000A0103/C0S for the A340-213 and A340-313.

- Cabin furnishings, equipment and arrangement shall conform to the following specification:
 - 00F252K0010/C01 for cabin seats.
 - 00F252K0006/C01 for galley.
 - 00F252K0020/C01 for cabin attendant seats

Other Information Applicable to A340-200 and -300 Series Airplanes:

Hydraulic Fluids:

Type IV - Specification NSA 30.7110

Auxiliary Power Unit (APU)

Garrett Airesearch	GTCP 331-350C (Specification 31-7677A)
Maximum Allowable Speed	(107%) 41,730 RPM
Maximum Gas Temperature:	
Turbine Outlet Temperature	650 °C
Starting	1250 °C

Approved oils: See Garrett report GT-7800 or Garrett Maintenance Manual.

Tires:

Refer to Airbus Industrie Service Bulletin (SB) A340-32-4007.

Service and Operating Information:

- Service and repair instructions (bulletins, letters, etc...), the structural repair manual, aircraft flight manual, and overhaul and maintenance manuals which contain a statement that the document is DGAC approved are accepted by the FAA and are considered as FAA approved. These approvals pertain to the type design only.
- Service Bulletins which have been approved under the authority of DGAC Design Organization Approval No. C01 (or, since Nov. 1996, approved under the authority of JAA Design Organization Approval No. F.JA.02), constitute DGAC approval and, therefore, FAA approval. The changes specified in the Service Bulletin have been approved by the DGAC when they are major, or under the authority of DGAC Design Organization Approval No.C01/F.JA.02 when they are minor. These approvals pertain to the type design only.
- Airplane operation must be in accordance with the DGAC-Approved Airplane Flight Manual (AFM), US version, Airbus Industrie Document AI/EV-O 34000 dated December 22, 1992, applicable to the specific airplane model and serial number.
- Weight & Balance Manual - Refer to Airbus Industrie Documents 00F080A0002/C2S for A340-211 and -212; Document 00F080A0001/C3S for A340-311 and -312; and Document 00F080A0004/C0S for A340-213 and -313. See Note 1 for information on Weight and Balance.

See Note 3 for reference to the Instructions for Continued Airworthiness required under § 21.50 for service life limits on components, required inspections and inspection intervals, and certification maintenance requirements.

Notes:

Note 1: A current Weight and Balance report including list of the equipment included in the certificated empty weight, and loading instructions, when necessary, must be provided for each aircraft at the time of original airworthiness certification and at all times thereafter.

Note 2: Airplane operation must be in accordance with the FAA approved Airplane Flight Manual. All placards required by either the FAA approved AFM, the applicable operating rules, or the certification basis must be installed in the airplane.

Note 3: Instructions For Continued Airworthiness:

- Component Life limitations are provided in chapter 5, “Time Limits and Maintenance Checks”, of the A340 Aircraft Maintenance Manual (AMM), approved by the DGAC.
- Maintenance criteria to comply with Certification Maintenance Requirements for systems (CMR's) are listed in Certification Maintenance Requirements Document 955.3019/92, included in Airbus Industrie Document 00F050A0003/C01 and as Appendix 1 to the Maintenance Review Board Report.
- Maintenance criteria to comply with certification requirements for structures are listed in Airbus Industrie Document 95A.0051/97, included in Airbus Industrie Document 00F050A0003/C01 and as Appendix 1 to the Maintenance Review Board Report.
- Maintenance Review Board Report 00F050A0002/C01.

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