European Union Aviation Safety Agency

TYPE-CERTIFICATE DATA SHEET

No. EASA.A.580

for

Dassault Falcon 6X

Type Certificate Holder:

DASSAULT AVIATION

9 Rond Point des Champs Elysees
75008 PARIS
France

For Model: Falcon 6X

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SECTION 1: Falcon 6X

I. General

1. Type/ Model/ Variant

Falcon 6X

2. Performance Class

A

3. Certifying Authority

EUROPEAN AVIATION SAFETY AGENCY
Konrad-Adenauer-Ufer 3
D-50668 Cologne
Germany

4. Manufacturer

Dassault Aviation
9 Rond Point des Champs Elysees
75008 PARIS
France

5. State of Design Authority Certification Application Date

Not applicable

6. EASA Type Certification Application Date

March 1st, 2011

7. State of Design Authority Type Certificate Date

Not applicable

8. EASA Type Certification Date

August 22nd,2023

II. Certification Basis

1. Reference Date for determining the applicable requirements

August 26th, 2018

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

Not applicable

3. State of Design Airworthiness Authority Certification Basis

Not applicable

4. EASA Airworthiness Requirements

CS-25 Amendment 21

CS-26 Issue 4

CS-AWO Initial Issue

CS-ACNS Initial Issue

CS-SIMD Initial Issue

CS-FCD Initial Issue

CS-MMEL Initial Issue

Except:

- CS 25.705 Amendment 24 for aircraft equipped with M-OPT0129 – "ROAAS function".

Note: CS-CCD "Cabin Crew Data" is not applicable since the maximum passenger configuration is below 20.

5. Special Conditions

B-01	High Incidence Protection System (icing and non-icing conditions)
B-02	Motion and effect of cockpit controls
B-03	Flight envelope protection
B-05	Static Directional, Lateral and Longitudinal Stability and Low energy awareness
C-13	Rudder Control Reversal Load Conditions
D-05	High Altitude Operations
D-08	Control Surface Position Awareness / Electronic Flight Control System and Flight control jams
D-09	Pilot Compartment view - Hydrophobic coatings in lieu of windshield wipers
D-12	All Engines Failed Condition
D-16	Use of Flaperons for Lift and Roll Control
D-37	Personal injury criteria of dynamic testing of side facing sofas
E-03	Water / Ice in Fuel System
F-09	Flight Recorders including Data Link recording
F-39	Security Protection of Aircraft Systems and Networks
F-43	Non-rechargeable Lithium Battery Installations
F-46	Airframe Ice Protection System performance above CS 25 Appendix C
F-48	Installation of a therapeutic oxygen system
F-55	Rechargeable Lithium Battery Installations
G-03	Performance Requirements for Operations on Contaminated Runways and Landing Distance Assessment at Time of Arrival
MCSD-01	OSD Maintenance Certifying Staff (MCSD) Certification Basis

6. Exemptions

None

7. Deviations

D-38	Wheel Flange Debris and Fuel Tank Protection
F-08	Data Link Services for the Single European Sky
F-59	Flight Crew Alerting

8. Equivalent Safety Findings

D-01	Flight Control System Failure Criteria
D-11	Pack off operations
D-28	Servicing Doors
D-30	Combined Aircraft Pressurization Outflow and Positive Pressure Differential Relief Valves
E-05	Fuel Tank Expansion
E-09	Ignition Switches
E-10	Powerplant Instruments - Colour Markings
E-12	Nacelle behind fire wall: TRAS compartment, absence of fire detection system
E-20	Thrust Reverser Testing
F-14	Landing Light Switch
F-29	Use of IRS for DFDR vertical acceleration
F-50	Minimum Mass Flow of Passenger Supplemental Oxygen
F-60	ESF to requirement CS25.1326(b)(2) - Flight instrument external probes heating systems alert
F-61	Terrain Information Display and Synthetic Vision System
ESF-F25-1303-01	Indication removal from Primary Flight Displays during ground phases (for aircraft equipped with M-OPT0131)

9. Environmental Protection

CS-34 Amendment 4

ICAO, Annex 16, Volume II, amendment 8, Part II, Chapter 2 for fuel venting
ICAO, Annex 16, Volume II, amendment 10, Part III, Chapter 2 and 4 for emissions

CS-36 Amendment 5

ICAO, Annex 16, Volume I, amendment 12, Part II, Chapter 1

10. Additional Airworthiness Specifications

The following paragraphs of Commission Implementing Regulation (EU) 2020/1159: Part 26.300, 26.301, 26.303, 26.304, 26.305

III. Technical Characteristics and Operational Limitations

1. Type Design Definition

The Type Design aircraft configuration is the F6TC Std TC.26 version stored in an electronic format under the virtual product management tool ENOVIA©.
The Type Design definition is defined in DGT 145126 "01-105 - F6X - Type Design Definition" Issue 1 or later approved revisions.

2. Description

The Falcon 6X is a twin engine jet, long range, large aeroplane category.

3. Equipment

The F6TC version referenced under III.1 also contains the type design list of equipment.

4. Dimensions

Length	25.546 m
Span	25.942 m
Height	7.856 m
Gross wing area	72,4 m²

5. Engines

Two rear mounted Pratt & Whitney Canada PW812D Engines

Refer to EASA Data Sheet IM.E.096

Note: Engine is approved for operation with thrust reverser per engine Installation and Operating Manual

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

6. Auxiliary Power Unit

APU model SPU150[DA], from Safran Power Units

APU is TSO-C77b category 1 (essential)

APU limitations: according to applicable EASA approved Aircraft Flight Manual (AFM); AFM is referenced in Chapter IV.1.

7. Propellers

Not applicable

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

The fluids are defined in the applicable EASA approved Aircraft Flight Manual (AFM). AFM is referenced in Chapter IV.1.

9. Fluid Capacities

9.1 Fuel

The fuel capacities are defined in the applicable EASA approved Aircraft Flight Manual (AFM). AFM is referenced in Chapter IV.1.

See NOTE 1

9.2 Oil

The oil capacity is defined in the applicable Installation and Operating Manual.

See NOTE 1

10. Airspeed Limits

The Airspeed Limits are defined in the applicable EASA approved Aircraft Flight Manual (AFM). AFM is referenced in Chapter IV.1.

11. Flight Envelope

The Flight Envelope are defined in the applicable EASA approved Aircraft Flight Manual (AFM). AFM is referenced in Chapter IV.1.
Maximum Operating Altitude: 15,544 m (51,000 ft)

12. Operating Limitations

12.1 Approved Operations

The Falcon 6X is eligible for the following kinds of operation when the appropriate equipment and instruments required by the operating requirements are installed, approved, and operating as defined by the MEL.

- VFR (Visual)
- IFR (Instrument)
- Day
- Night
- Icing
- Dry and wet runways operation
- Landing and take-off up to 9,000 ft.
- Manual or Automatic Category I approaches and non-precision approaches
- RNP RNAV operations
- Baro-VNAV and LPV approaches
- Polar operations (limited 85° North / 85° South)
- ADS-B Out function
- RVSM
- Steep Approach Landing (up to 5.5°)

12.2 Other Limitations

Other limitations as defined in the applicable EASA approved Aircraft Flight Manuals (AFM). AFM is referenced in Chapter IV.1.

13. Maximum Certified Masses

	Mass kg (lbs)
Take-off	35,153 (77,500)
Landing	30,028 (66,200)
Zero fuel	20,820 (45,900)

See Note 1: for weight and balance calculation, refer to the Loading Manual in Chapter IV.3.

14. Centre of Gravity Range

The Centre of Gravity ranges are defined in the applicable EASA approved Aircraft Flight Manual (AFM). AFM is referenced in Chapter IV.1.

15. Datum

0 % of mean aerodynamic chord (MAC) is 12.5196 m (492.9 in) from the forward end of the aircraft nose cone.

25 % of mean aerodynamic chord (MAC) is 13.3690 m (526.34 in) from the forward end of the aircraft nose cone.

16. Mean Aerodynamic Chord (MAC)

3.3978 m (133.772 in)

17. Levelling Means

Refer to Aircraft Maintenance Manual (AMM), part of Instructions for Continued Airworthiness (ICA) for level procedure.

18. Minimum Flight Crew

For all flights: 2 (pilot and co-pilot).

19. Minimum Cabin Crew

None

20. Maximum Seating Capacity

Total number of occupants shall not exceed 22: 2 pilots +1 crew (third crew member seat authorized for take-off and landing in the cockpit) + up to 19 passenger seats.

The number of passengers shall not exceed 19 as determined by emergency exit requirements, nor shall the number of passengers exceed the number of seating accommodations approved for take-off and landing.

See interior layout drawing for the maximum passenger capacities approved for each aeroplane when delivered.

See Note 2

21. Baggage/ Cargo Compartment

Refer to Falcon 6X Weight and Balance Manual

See Note 1.

22. Wheels and Tyres

Main wheels tires: H type radial tubeless tires - size H33 × 10.5 R17

Nose wheel tires: single chine radial tubeless tires - size 16 × 6.0 R6

23. ETOPS

None

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)[NOTE 3]

DGT 2013786, Airplane Flight Manual (AFM) Model Falcon 6X - Revision 1 dated 20th November 2023 or later approved revisions

2. Instructions for Continued Airworthiness and Airworthiness Limitations

Included in FIELD publication. ICA for Model Falcon 6X consists of:

- DGSM270636, Maintenance Planning Document (MPD)
- DGSM270635, Airworthiness Limitations Section (ALS) (section 5-40 of MPD) Rev. 1 dated October 2023 or later approved revisions. NOTE 3
- Aircraft Maintenance Manual (AMM)
- Illustrated Part Catalog (IPC) (part list section only)
- Illustrated Tool and Equipment Manual (ITEM)
- Fault Isolation Manual (FIM)
- Structural Repair Manual (SRM)
- Wiring Diagram Manual (WDM)
- Electrical Standard Practice Manual (ESPM)

3. Weight and Balance Manual (WBM)

DGT2020160, Loading Manual (LM) for Model Falcon 6X Original Issue dated 22nd August 2023 or later approved revisions.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Aviation Safety Agency under the EASA Type Certificate [original TC number] as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014. NOTE 3

1. Master Minimum Equipment List (MMEL)

The MMEL approved, as per the defined OSD certification basis in chapter II.4, is the Falcon 6X Operational Suitability Manual – Master Minimum Equipment List (OSM-MMEL) DGT 2016490 Original Issue dated 22nd August 2023 or later approved revisions.

2. Flight Crew Data

The Flight Crew Data approved, as per the defined OSD certification basis in chapter II.4, is the Falcon 6X Operational Suitability Manual – Flight Crew (OSM-FC) DGT 148655 Original Issue dated 22nd August 2023 or later approved revisions.

Pilot Type Rating: The license endorsement for the Falcon 6X is "Falcon 6X"

3. Cabin Crew Data

Not applicable

4. Simulator Data

The Simulator Data approved, as per the defined OSD certification basis in chapter II.4, is the Operational Suitability Manual - Simulator (OSM-SIM) DGT 2005884 Revision 4 dated 19th July 2023 or later approved revisions.

5. Maintenance Certifying Staff Data

The Maintenance Certifying Staff Data approved as per the CRI SC MCSD-01 in chapter II.5, is the Operational Suitability Manual - Maintenance Certifying Staff (OSM-MCS) DGSM 262153 Original Issue dated 22nd August 2023 or later approved revisions.

Maintenance Type Rating: Part 66 license endorsement for the Falcon 6X is "Falcon 6X (PW812D)"

VI. Notes

NOTE 1: a) The airplane must be loaded according to the appropriate approved Loading Manual (for Weight and Balance calculation). The list of equipment included in certificated empty mass must be provided for each airplane at the time of original certification. A current weight and balance report must be carried in the aircraft at all times from the moment the aircraft is originally certified. The certified empty mass and corresponding center of gravity location must include the fluids of chapter III.9

b) Loading of the aircraft must be accomplished in a manner that always maintains the center of gravity within the specified limits considering crew and passenger movements as well as fuel consumption and transfer.

NOTE 2: Cabin interior and seating configuration must be approved.

NOTE 3: An EASA approved change to the AFM, ALS and OSD elements can be released either through a full revision of the manual or through a Change Project (CP) number bearing the same reference as the related manual.

SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations

AFM	Airplane Flight Manual
ALS	Airworthiness Limitations Section
AMM	Aircraft Maintenance Manual
APU	Auxiliary Power Unit
AWO	All Weather Operation
CCD	Cabin Crew Data
CRI	Certification Review Item
CS	Certification Specification
EASA	European Union Aviation Safety Agency
ESF	Equivalent Safety Finding
ESPM	Electrical Standard Practice Manual
FCD	Flight Crew Data
FIM	Fault Isolation Manual
ICA	Instructions for Continued Airworthiness
ICAO	International Civil Aviation Organization
IPC	Illustrated Part Catalog
MAC	Mean Aerodynamic Chord
MCS	Maintenance Certifying Staff
MCSD	Maintenance Certifying Staff Data
MEL	Minimum Equipment List
MMEL	Master Minimum Equipment List
MPD	Maintenance Planning Document
OSD	Operational Suitability Data
P/N	Part Number
ROAAS	Runway Overrun Awareness and Alerting System
SC	Special Condition
SIMD	Simulator Data
SRM	Structural Repair Manual
TCDS	Type Certificate Data Sheet
TCDSN	Type Certificate Data Sheet for Noise
TRAS	Thrust Reverser Actuation System
WDM	Wiring Diagram Manual

II. Type Certificate Holder Record

Dassault Aviation
9 Rond Point Marcel Dassault
75008 PARIS
France

III. Change Record

Issue	Date	Changes	TC issue
01	22nd August 2023	Initial Issue	Initial Issue, 22nd August 2023
02	30th November 2023	Entry into Service update. Changes: - Section II.8 – Removed a mistake related to the ESF F-60 and included ESF-F25-1303-01. - Section III.12.1 - Added RVSM capability. - Sections IV & V – Operational, Maintenance and Operational Suitability Documentation references updated to include the EIS set.	--
03	5th May 2025	Changes: - Section II.4 – Added requirement 25.705 at Amendment 24 for ROAAS equipped aircraft. - Section III.12.1 - Added Steep Approach Landing capability	--

- END -