



**TYPE CERTIFICATE DATA SHEET Nº EA-2017T07**

Type Certificate Holder:

**CIRRUS DESIGN CORPORATION**

4515 Taylor Circle

Duluth, MN 55811

**USA**

EA-2017T07-00  
Sheet 01

CIRRUS

SF50

16 October 2017

This data sheet, which is part of Type Certificate No. 2017T07, prescribes conditions and limitations under which the product, for which the Type Certificate was issued, meets the airworthiness requirements of the Brazilian Aeronautical Regulations.

**I - Model SF50 (Normal Category), approved 16 October 2017.**

**ENGINE**

Williams International FJ33-5A (EM 9303)

**FUEL**

Jet A, Jet A-1 or JP-8

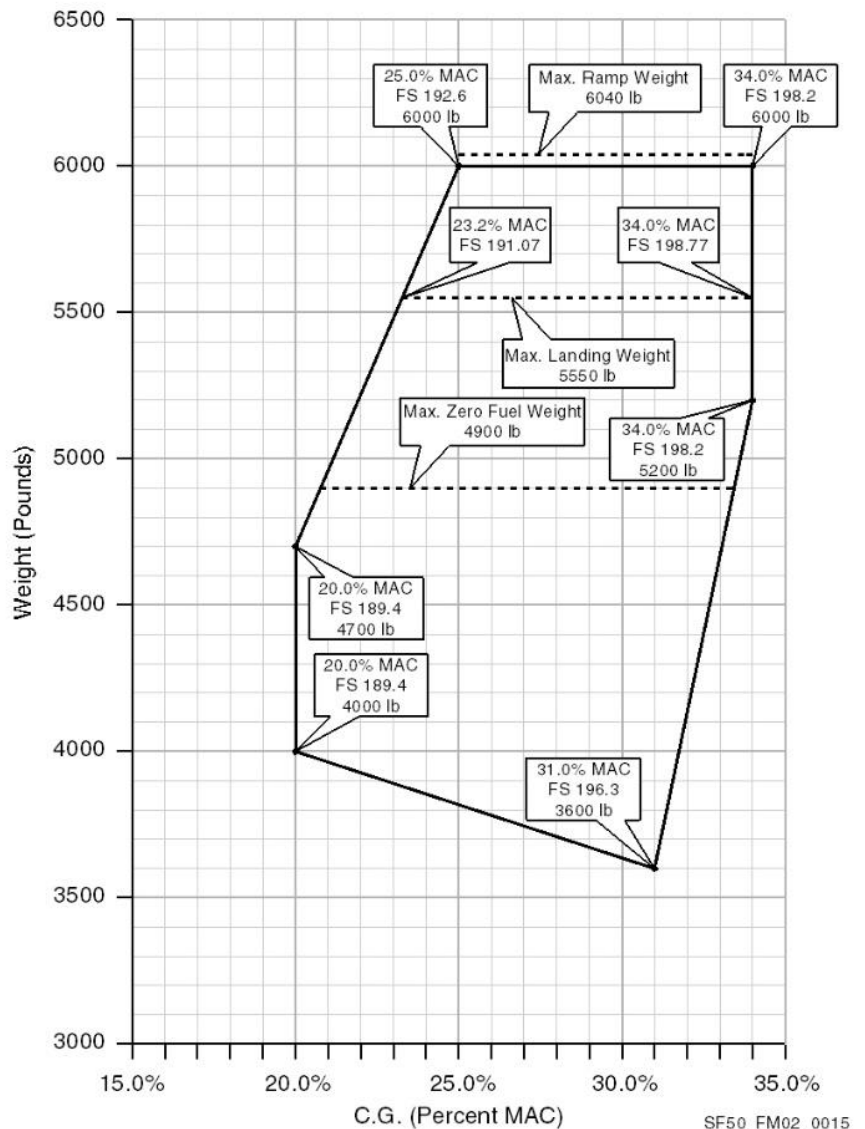
**ENGINE LIMITS**

Thrust Setting	Thrust kg (lb)	ITT°C	N1 RPM (%)	N2 RPM (%)
Takeoff	837.3 (1 846)	877 (10 sec.)	23 566 (104.7%)	51 703 (100.4%)
		862 (5 min)	23 791 (105.7%)	51 844 (100.7%)
Max. Continuous	837.3 (1 846)	836	For 30 sec.	For 30 Sec.

**AIRSPEED LIMITS (CAS)**

Maximum operating ( $V_{MO}$ ): 250 kias  
 Maximum operating ( $M_{MO}$ ): 0.53 mias  
 Operating Maneuvering Speed ( $V_O$ ): 150 kias  
 Flaps extended ( $V_{FE}$ )  
 - 100% 150 kias  
 - 50% 190 kias  
 L. G. operation - extend ( $V_{LO}$ ): 210 kias  
 L. G. operation - retract ( $V_{LO}$ ): 150 kias  
 L. G. extended ( $V_{LE}$ ): 210 kias

**CG RANGE**



**CG RANGE**  
(Empty weight)

None

**DATUM**

2.26 m in front of the flat surface of forward cabin bulkhead

**LEVELING MEANS**

Refer to the Airplane Maintenance Manual (31448-001)

**MEAN AERODYNAMIC CHORD**

1.58 m (62.21 inches)

**MAXIMUM WEIGHT**

Takeoff: 2 722 kg (6 000 lb)  
 Landing: 2 517 kg (5 550 lb)  
 Zero Fuel: 2 223 kg (4 900 lb)  
 Ramp: 2 740 kg (6 040 lb)

**MINIMUM CREW**

1 pilot

**MAXIMUM PASSENGERS**

7 maximum  
 Refer to the AFM for seat configurations, moment arms and limitations

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<b>MAXIMUM BAGGAGE</b>	Aft Compartment 136 kg (300 lb) Refer to the AFM for load distribution and moment arm																											
<b>FUEL CAPACITY</b>	Total : 1 130 l (298.5 US gal) at 5.16 m (203 in) Usable: 1 121 l (296 US gal) Unusable: 9.5 l (2.5 US gal)																											
<b>OIL CAPACITY</b>	2.08 l (2.2 quarts) (full line) Refer do AFM for approved oils																											
<b>MAXIMUM OPERATING ALTITUDE</b>	28 000 ft MSL																											
<b>CONTROL SURFACE MOVEMENTS</b>	<table border="0"> <tr> <td>Ruddervator Pitch:</td> <td>Up 20.0° ±1.0°</td> <td>Down 15.0° ±1.0°</td> </tr> <tr> <td>Ruddervator Yaw:</td> <td>Up 9.0° ±0.5°</td> <td>Down 9.0° ±0.5°</td> </tr> <tr> <td>Ruddervator trim tab:</td> <td>Up 7.0° ±1.0°</td> <td>Down 18.0° ±1.0°</td> </tr> <tr> <td>Aileron:</td> <td>Up 15.0° ± 1.0°</td> <td>Down 11.5° ± 1.0°</td> </tr> <tr> <td>Aileron trim tab:</td> <td>Up 10.0° ± 1.0°</td> <td>Down 10.0° ± 1.0°</td> </tr> <tr> <td>Yaw SAS</td> <td>Up 15.0° ± 1.5°</td> <td>Down 15.0° ± 1.5°</td> </tr> <tr> <td>Wing flaps:</td> <td>Up 0.0° ± 0.5°</td> <td></td> </tr> <tr> <td></td> <td>Down 50% 15.0° ± 0.5°</td> <td></td> </tr> <tr> <td></td> <td>Down 100% 39.0° ± 0.5°</td> <td></td> </tr> </table>	Ruddervator Pitch:	Up 20.0° ±1.0°	Down 15.0° ±1.0°	Ruddervator Yaw:	Up 9.0° ±0.5°	Down 9.0° ±0.5°	Ruddervator trim tab:	Up 7.0° ±1.0°	Down 18.0° ±1.0°	Aileron:	Up 15.0° ± 1.0°	Down 11.5° ± 1.0°	Aileron trim tab:	Up 10.0° ± 1.0°	Down 10.0° ± 1.0°	Yaw SAS	Up 15.0° ± 1.5°	Down 15.0° ± 1.5°	Wing flaps:	Up 0.0° ± 0.5°			Down 50% 15.0° ± 0.5°			Down 100% 39.0° ± 0.5°	
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<b>SERIAL NUMBER ELIGIBLE</b>	0004 and on																											
<b>IMPORT ELIGIBILITY</b>	<p>A Brazilian Certificate of Airworthiness may be issued on the basis of on an FAA Export Certificate on Airworthiness (or a third country Export Certificate on Airworthiness, in case of used aircraft imported from such country), including the following statement:</p> <p>“The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by the Brazilian Type Certificate no. 2017T07 and in condition of safe operation”.</p>																											
<b>CERTIFICATION BASIS</b>	<p>Brazilian Type Certificate No. 2017T07 issued on 05 October 2017 based on the RBAC 21.29 and RBAC 23 amendment 62, which endorses the 14 CFR Part 23 effective 1 February 1965, as amended by 23-1 through 23-62.</p> <p>Special Conditions:</p> <ul style="list-style-type: none"> <li>- 23-267-SC, issued 14 September 2015, Full Authority Digital Engine Control System</li> <li>- 23-272-SC, issued 02 December 2015, Auto Throttle</li> <li>- 23-275-SC, issued 6 July 2016, Whole Airplane Parachute Recovery System</li> </ul> <p>Equivalent levels of safety findings:</p> <ul style="list-style-type: none"> <li>- ACE-14-06, dated 10 April 2014: RBAC / 14 CFR part 23, §23.1559, §23.1567 – Electronic Placards</li> <li>- ACE-15-04, dated 17 October 2016: RBAC / 14 CFR part 23, §23.729(f) – Landing Gear Warning Horn</li> <li>- ACE-15-14, dated 25 June 2015: RBAC / 14 CFR part 23, §23.781(b) – Cockpit Control Knob Shape</li> <li>- TC6444CH-A-F-2, dated 12 July 2016: RBAC / 14 CFR part 23, §23.221 – Spin Requirements</li> <li>- TC06444CH-A-F-5, dated 15 July 2016: RBAC / 14 CFR part 23, §23.45, §23.51, §23.63, §23.67, §23.73, §23.77, §23.161,</li> </ul>																											

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- §23.181, §23.221, §23.251, §23.253, §23.571, §23.785, §23.831, §23.1195, §23.1197, §23.1199, §23.1201, §23.1527, §23.1545, §23.1583 – Amendment 62 Corrections
- TC6444CH-A-S-11, dated 23 June 2016: RBAC / 14 CFR part 23, §23.1353(h) – Storage Battery Design and Installation

Exemptions:

- Exemption No. 9948 dated 23 October 2009, RBAC / 14 CFR part 23, § 562(b) and §23.785(a), Installation of seats limited to occupants weighing 90 pounds or less.
- Exemption No. 11092 dated 23 October 2014, RBAC / 14 CFR part 23, §23.177(b), use of electric roll trim for static lateral stability
- Exemption No. 16970 dated 23 June 2016, RBAC / 14 CFR part 23, §23.1419(a), 61 knot stall speed with critical ice accretions

Noise requirements: RBAC / 14 CFR part 36 effective 1 December 1969 as amended by amendments 36-1 through 36-28

Emission requirements: RBAC 36 amendment 4 which endorses the 14 CFR Part 34 effective 10 September 1990, as amended by 34-1 through 34-4. Additionally, based on RBAC 21.29(1)(a)(ii) the following requirements are applicable: 14 CFR Part 34, as amended by amendment 34-5A

Other Certification Basis:

- Compliance has been shown for flight into known and forecast icing conditions
- The SF50 has not received Group Approval for Reduced Vertical Separation Minimum (RVSM) operations

**REQUIRED EQUIPMENT**

The basic required equipment, as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane.

**DATA PERTINENT TO ALL MODELS:**

**NOTES:**

- NOTE 1**     Weight and balance.  
A current weight and balance report, including list of equipment included in the certificated empty weight and loading instructions when necessary, must be provided for each aircraft at the time of original certification.
- NOTE 2**     Markings and placards. Airplane operation must be in accordance with the Brazilian Approved Airplane Flight Manual and Brazilian Airplane Flight Manual Supplement P/N 31452-102.  
All placards required by the Flight Manual, the applicable operating rules and the Certification Bases must be installed in the airplane.
- NOTE 3**     Continuing Airworthiness. Airworthiness Limitation are included in Section 4 of the Airplane Maintenance Manual (AMM), Document No. 31448-001.
- NOTE 4**     The differences of the Brazilian airplanes in relation to the basic FAA type design are summarized below:  
1. The Brazilian Airplane Flight Manual cover page  
2. The Brazilian Airplane Flight Manual Supplement P/N 31452-102.

3. Markings and placards



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**Cesar Rodrigues Hess**  
General Manager - Acting  
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