This data sheet, which is part of Type Certificate No. 2002T06, 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 C-212-CC (Transport Category Airplane), approved 22 July 2002.

**ENGINE**
Two Garrett Turbine Engine Co. Model TPE331-10-501C or TPE331-10R-501C Turboprop engines. (see note 6)

**FUEL**
See AFM for approved fuels and approved fuel additives.

**ENGINE LIMITS**

<table>
<thead>
<tr>
<th>Conditions</th>
<th>SHP:</th>
<th>ESHP:</th>
<th>% RPM</th>
<th>EGT (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Takeoff (initial) (5 minutes)</td>
<td>900</td>
<td>944</td>
<td>100</td>
<td>650</td>
</tr>
<tr>
<td>Takeoff (APR on) (5 minutes)</td>
<td>900</td>
<td>944</td>
<td>100</td>
<td>650</td>
</tr>
<tr>
<td>Maximum Continuous</td>
<td>900</td>
<td>944</td>
<td>100</td>
<td>650</td>
</tr>
</tbody>
</table>

Transient overspeed limits: 105.5% for 30 sec.; 106% for 5 sec. 100% RPM is defined as 41 730 rpm engine rotor speed, 1 591 rpm propeller shaft speed.  
Transient temperature (EGT) limit (1 sec.): 770°C  
See approved Airplane Flight Manual for additional information.

**OIL**
Oils conforming to Garrett Turbine Engine Co. Specification EMS 53110 (Type I and Type II). See approved AFM for a list of approved engine lubricating oils.

**PROPELLER AND PROPELLER LIMITS**
2 Hartzell Model HC-B4MN-5AL, constant speed hydraulic full feathering, reversible propellers.

<table>
<thead>
<tr>
<th>Blades</th>
<th>Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>4, Model LM 10585 B+4, or 4, Model LM 10585 ANK + 4</td>
<td>279 cm (110 in)</td>
</tr>
</tbody>
</table>

For %RPM as windmilling see approved Airplane Flight Manual.

Blade angle measured at 107 cm (42 in) radius station:

- Feathered: 83.0° ± 1.0°
- Flight Idle: 7.0° ± 0.3°
- Start Locks: -1.5° ± 0.2°
- Full Reverse: -10.0° ± 0.5°
AIRSPEED LIMITS (IAS)

- Maximum operating ($V_{mo}$): 200 kias
- Maneuvering ($V_A$) - sea level: 146 kias
- Flaps extended ($V_{fe}$)
  - 25° (takeoff): 135 kias
  - 37.5° (approach): 130 kias
  - 100° (landing): 115 kias
- Minimum control speed - Air ($V_{mca}$): 85 kias

C. G. RANGE

<table>
<thead>
<tr>
<th>Weight</th>
<th>FWD %MAC</th>
<th>AFT %MAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(kg)</td>
<td>(%)</td>
<td>(%)</td>
</tr>
<tr>
<td>7 700</td>
<td>16.00</td>
<td>30.00</td>
</tr>
<tr>
<td>7 450</td>
<td>15.90</td>
<td>30.00</td>
</tr>
<tr>
<td>5 013</td>
<td>15.00</td>
<td>30.00</td>
</tr>
<tr>
<td>4 300</td>
<td>15.00</td>
<td>30.00</td>
</tr>
</tbody>
</table>

Straight-line variation between points given.

DATUM

A jig point is located in forward fuselage frame No. 3 and marked on the underside of the fuselage. The C.G. reference datum is situated 111.5 cm (43.90 in) forward of the jig point.

LEVELING MEANS

Plumb-bob provisions on aft face of aft cockpit compartment bulkhead.

MEAN AERODYNAMIC CHORD

Length is 219.0 cm (86.22 in).

MAXIMUM WEIGHT

- Takeoff: 7 700 kg (16 976 lb)
- Landing: 7 450 kg (16 424 lb)
- Zero Fuel: 7 100 kg (15 653 lb)
- Ramp: 7 750 kg (17 086 lb)

MINIMUM CREW

The minimum flight crew is two pilots.

MAXIMUM PASSENGERS OR NUMBER OF SEATS

Not applicable. (See NOTE 8)

MAXIMUM BAGGAGE

- Aft baggage compartment: 400 kg (882 lb)
- Total – max. floor loading: $586 \text{ kg/m}^2$ (120 lb/sq. ft)
  - $700 \text{ kg/linear m}$ (470 lb/linear ft.)

Baggage and/or cargo load must comply with loading limitations of approved Airplane Flight Manual, and must be loaded in accordance with loading instructions of Weight and Balance Supplement to the approved Airplane Flight Manual.

FUEL CAPACITY

Total capacity: 2,074 liters (548.00 US Gal) in two wing tanks.
- Usable fuel: 1,998 liters (528.00 US Gal).
- Unusable fuel: 75.7 liters (20.00 US Gal).

(See NOTES 1 (b) and 1 (c) for data on system fuel and oil).

OIL CAPACITY

- Usable oil: 4.97 liters (5.25 quarts) in each engine tank.
- Unusable oil: (NONE)
**MAXIMUM OPERATING ALTITUDE**  7 620 m (25 000 ft)

<table>
<thead>
<tr>
<th>CONTROL SURFACE MOVEMENTS</th>
<th>Elevator: Up 30° ± 1°</th>
<th>Down 20° ± 1°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevator trim tab:</td>
<td>Up 15.5° ± 0.5°</td>
<td>Down 21° ± 0.5°</td>
</tr>
<tr>
<td>Rudder:</td>
<td>Right 27.5° ± 0.5°</td>
<td>Left 27.5° ± 0.5°</td>
</tr>
<tr>
<td>Rudder trim:</td>
<td>Right 12.5° ± 0.5°</td>
<td>Left 19° ± 0.5°</td>
</tr>
<tr>
<td>Aileron:</td>
<td>Up 20° ± 1°</td>
<td>Down 15° ± 1°</td>
</tr>
<tr>
<td>Aileron trim tab:</td>
<td>Up 15° ± 1°</td>
<td>Down 15° ± 1°</td>
</tr>
<tr>
<td>Wing flaps:</td>
<td>Down – 0 to 40°</td>
<td>Down – Approach 15°</td>
</tr>
<tr>
<td></td>
<td>Down – Takeoff 10°</td>
<td>Down – Landing 40°</td>
</tr>
</tbody>
</table>

**S/N'S ELIGIBLE**

A Certificate of Airworthiness for Export endorsed as noted under "Import Eligibility" must be submitted for each individual aircraft for which application for a Brazilian Certificate of Airworthiness is made. (See NOTE 9)

**IMPORT ELIGIBILITY**

A Brazilian Certificate of Airworthiness may be issued on the basis of a DGAC-Spain 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:

“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. 2002T06 and in condition of safe operation”.

The CTA Report H.10-2070-01, dated 22 July 2002 or further revisions, contains the Brazilian requirements for the acceptance of these airplanes. (See NOTE 4)

**CERTIFICATION BASIS**

Brazilian Type Certificate Nr. 2002T06 issued on 22 July 2002 based on:

- RBHA (Brazilian Requirements for Aeronautical Certification) 25, which endorses the FAR Part 25 effective 01 February 1965, as amended by 25-1 through 25-35;
- RBHA 36 corresponding to FAR Part 36, dated 01 December 1969, and OACI Annex 16 Volume 1, 3rd edition dated 1993; and
- FAA Special Condition nº 25-100-NN-6, dated 18 May 1981, related to installation of an automatic takeoff power control system (ATPCS) on the engines of the C-212 airplanes.

**PRODUCTION CERTIFICATION**

Not applicable.

**REQUIRED EQUIPMENT**

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

NOTE 1:  Weight and balance.
(a) Current weight and balance report, including list of equipment included in certificated empty weight, and loading instructions must be in each aircraft at the time of original certification.
(b) Unusable fuel and system oil and all hydraulic fluid must be included in the certified weight. Unusable fuel is that quantity of fuel remaining in the system and in the tanks when the fuel quantity indicators read zero. The approved unusable fuel of 75.7 liters (20.0 US Gal – 59.0 kg (130.0 lb) is considered of the system and tank fuel determined under RBHA/FAR 25.959.
(c) System oil is the amount of oil required to fill the oil system and the tanks up to its normal level.

NOTE 2:  Markings and placards.
All placards presented in the limitations section of the approved Airplane Flight Manual must be installed in the appropriate location on the aircraft.

NOTE 3:  Continuing Airworthiness.
(a) The service life limits for aircraft structural parts, which are fatigue critical, are listed in the approved Airframe Maintenance Manual, Chapter 5.
(b) Life limited parts for the Model TPE331-10 and –10R series engines are listed in FAA-Approved Garrett Service Bulletins TPE331-72-0180, dated 15 February 1978, or letter FAA-Approved revisions.

NOTE 4:  The differences of the Brazilian airplanes in relation to the basic DGAC-Spain type design are summarized below:
1. The Brazilian Airplane Flight Manual; and
2. Markings and placards in Portuguese or bilingual.

NOTE 5:  For the C-212-CC Model with TPE331-10R-501C engine installed the INTA-approved Airplane Flight Manual, Document 78-25-1 Revision 7, dated January 8, 1982, or letter approved revision is required.

NOTE 6:  Engine Models TPE331-10-511C and TPE331-10R-511C are the same as Models TPE331-10-501C, and TPE331-10R-501C with Garrett Service Bulletin No. TPE331-72-0395, effective 01 April 1983, Revision 1, dated 10 November 1983, or later revision incorporated and are eligible when CASA Service Bulletin 212-80-22 and 212-80-23 are incorporated upon installation of the later model engine.

NOTE 7:  Operation of the C-212-CC Model with a TPE331-10-501C or TPE331-10R-501C engine on one side and a TPE331-10-511C or TPE331-10R-511C engine on the other side is authorized for a maximum of 300 hours after the later model engine is installed. C-212-CC airplane performance is unaffected with mixed engine installed.
NOTE 8: The type design specified herein and approved by CTA Type Certificate N° 2002T06 is not intended to be used for passenger transportation purpose. The model approved is a restricted aircraft for survey use only.

NOTE 9: This Type Certificate Data Sheet is applicable only for airplane model C-212-CC39 serial number 245, model C-212-CC40 serial number 196, model C-212-CC50 serial number 265.

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