



TYPE CERTIFICATE DATA SHEET Nº EA-2014T06

Type Certificate Holder:

GA8 AIRVAN PTY Ltd (GippsAero)
ACN 119 523 830
C/- GippsAero Pty Ltd
Latrobe Regional Airport, Airfield Road
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Australia

EA-2014T06-00
Sheet 01

GA8 AIRVAN PTY
(GippsAero)

GA8, GA8-TC 320.

22 Oct. 2014

This data sheet, which is part of Type Certificate No. 2014T06, 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 GA8 (Normal Category), approved 22 October 2014.

ENGINE	Textron Lycoming IO-540-K1A5 ANAC Type Certificate No. EM-8209
ENGINE LIMITS	Maximum Takeoff Power: 2700 RPM and 300HP Maximum Continuous Power: 2500 RPM and 275 HP
PROPELLER AND PROPELLER LIMITS	Hartzell HC-C2YR-1BF/F8475R, two blade, metal constant speed ANAC Type Certificate No. EH-8810 Not over 2134 mm (84 in) diameter Not under 1981 mm (78 in) diameter No further reduction is permitted Minimum Blade Angle: 12 ± 0.2 degrees
<i>or</i>	Hartzell HC-C3YR-1RF/F8068, three blade, metal constant speed ANAC Type Certificate No. EH-8711 Not over 2134 mm (84 in) diameter Not under 1981 mm (78 in) diameter No further reduction is permitted Minimum Blade Angle: 12.8 ± 0.2 degrees
AIR SPEED LIMITS (IAS)	V _{NE} (Never Exceed) 185 kts V _{NO} (Max. Structural Cruise) 143 kts V _A (Maneuvering) 121 kts V _{FE} (Flap Extended) 97 kts
C.G. RANGE	Forward Limit: +1219 mm (48.0 in) aft of datum at 1089 kg (2400 lbs) or less; +1422 mm (56.0 in) aft of datum at 1814 kg (4000 lbs) Variation is linear between 1089 Kg (2400 lbs) and 1814 kg (4000 lbs) Aft Limit: +1626 mm (64.0 in) aft of datum at 1814 kg (4000 lbs) or less.
MAXIMUM TAKE OFF WEIGHT	1814 kg (4000 lb)

MAXIMUM LANDING WEIGHT	1814 kg (4000 lb)
SERIAL NUMBERS ELIGIBLE	GA8-03-026 and subsequent.
CERTIFICATION BASIS	<p>RBAC 23 [corresponding to: 14 CFR Part 23, dated December 18, 1964, as amended by Amendment 23-1 through Amendment 23-54 (Normal Category Aircraft)].</p> <p>For aircraft eligible for IFR operations the certification basis is RBAC 23 [corresponding to: 14 CFR Part 23, dated December 18, 1964, as amended by Amendment 23-1 through Amendment 23-55 (Normal Category Aircraft)].</p> <p><u>Noise certification:</u></p> <p>- For GA8 models equipped with Hartzell HC-C2YR-1BF/F8475R propellers and Textron Lycoming IO-540-K1A5 engines with limits of 2500 rpm and full throttle (275 hp), the applicable noise requirements are equivalent to RBHA 36 corresponding to ICAO Annex 16, Volume 1, Chapter 10, Third Edition, Amendment 6.</p> <p>- For GA8 models equipped with Hartzell HC-C3YR-1RF/F8068 three blade (Engineering release GA8-9661149 or Service Bulletin GA8-SB-2009-62) propellers and Textron Lycoming IO-540-K1A5 engines with limits of 2700 rpm and full throttle (300hp), the applicable noise requirements are equivalent to RBHA 36 corresponding to ICAO Annex 16, Volume 1, Chapter 10, Third Edition, Amendment 6</p>

II- Model GA8-TC 320 (Normal Category), approved 22 October 2014

ENGINE	Textron Lycoming TIO-540-AH1A ANAC Type Certificate No. EM-8210	
ENGINE LIMITS	Normal Takeoff	2500 RPM and 38 in HG MAP (300 HP)
	Alternate Takeoff	2500 RPM. and 40 in HG MAP below 5,000 feet pressure altitude (See Note 4).
	Max. Continuous Power	2500 RPM at 38 in HG (300 HP)
PROPELLER AND PROPELLER LIMITS	Hartzell HC-C3YR-1RF/F8068, three blade, metal constant speed ANAC Type Certificate No. EH-8711 Not over 2134 mm (84 in) diameter Not under 1981 mm (78 in) diameter No further reduction is permitted Minimum Blade Angle: 14.5 ± 0.2 degrees	
AIRSPEED LIMITS (IAS)	V _{NE} (Never Exceed)	185 kts
	V _{NO} (Max. Structural Cruise)	143 kts
	V _A (Maneuvering)	121 kts
	V _{FE} (Flap Extended)	97 kts
C. G. RANGE	<p>Forward Limit: +1219 mm (48.0 in) aft of datum at 1089 kg (2400 lbs) or less; +1422 mm (56.0 in) aft of datum at 1814 kg (4000 lbs) Variation is linear between 1089 Kg (2400 lbs) and 1814 kg (4000 lbs).</p> <p>Aft Limit: +1626 mm (64.0 in) aft of datum at 1814 kg (4000 lbs) or less.</p>	
MAXIMUM TAKE OFF WEIGHT	1814 kg (4000 lb)	

MAXIMUM LANDING WEIGHT	1814 kg (4000 lb)
SERIAL NUMBERS ELIGIBLE	GA8-TC 320-08-130 and subsequent
CERTIFICATION BASIS	The certification basis for the aircraft model GA8-TC 320 is RBAC 23 [corresponding to: 14 CFR Part 23, dated December 18, 1964, as amended by Amendment 23-1 through Amendment 23-55 (Normal Category Aircraft)]. <u>Noise certification:</u> - For GA8-TC 320 models (original type design configuration) and GA8-TC 320 models incorporating SB-GA8-2011-65 (Increased Gross Weight – IGW), the applicable noise requirements are equivalent to ANAC RBAC 36 Amendment 28 corresponding to 14 CFR Part 36, Appendix G, Amendment 28.

For aircraft incorporating Service Bulletin SB-GA8-2011-65 the following limits apply:

AIRPEED LIMITS (IAS)	V_{NE} (Never Exceed)	190 kts
	V_{NO} (Max. Structural Cruise)	147 kts
	V_A (Maneuvering)	121 kts
	V_{FE} (Flap Extended)	100 kts

MAXIMUM TAKE OFF WEIGHT 1905 kg (4200 lb)

MAXIMUM LANDING WEIGHT 1814 kg (4000 lb)

C. G. RANGE

Forward Limit:
+1219 mm (48.0 in) aft of datum at 1089 kg (2400 lbs) or less;
+1448 mm (57.0 in) aft of datum at 1905 kg (4200 lbs)
Variation is linear between 1089 Kg (2400 lbs) and 1905 kg (4200 lbs)

Aft Limit:
+1626 mm (64.0 in) aft of datum at 1905 kg (4200 lbs) or less.

DATA PERTINENT TO ALL MODELS:

FUEL 100LL or 100/130 aviation gasoline

EMPTY WEIGHT C.G. RANGE None.

DATUM Aft face of Fuselage firewall at fuselage station 0 (stated arms are positive aft; negative forward)

NUMBER OF SEATS Eight (8):
2 at +38in (+965mm) aft of datum;
2 at +69.8in (+1772mm) aft of datum;
2 at +99.3in (+2523mm) aft of datum; and
2 at +127.8in (+3247mm) aft of datum.

LEVELING MEANS Longitudinal: Level between pop rivets so marked, on left hand side of fuselage.
Lateral: Level across floor rear door.

FUEL CAPACITY	Main wing tanks	2 (1 tank each wing)	
	Total each tank	170 liters at +1715 mm (+67.5 in)	
	Useable each tank	166 liters at +1715 mm (+67.5 in)	
	Unusable each tank	4 liters at +1829 mm (+72.0 in)	
	Sump tank	9 liters at +705 mm (+27.75 in)	
	Sump tank is designated unusable fuel		
OIL CAPACITY	Total	11.4 liters at -540 mm (-21.3 in)	
	Unusable	2.6 liters at -540 mm (-21.3 in)	
CROSSWIND COMPONENT	Maximum demonstrated for take-off and landing		15 Knots
CONTROL SURFACE MOVEMENTS	Aileron	Up	17°±0.5°
		Down	16°± 0.5°
	Elevator	Up	15°± 0.5° ⁽¹⁾
		Down	19°± 0.5° ⁽¹⁾
	Rudder	L & R	21°± 0.5°
	Horizontal Stabilizer	Up	2°± 0.5° ⁽²⁾
		Down	5°± 0.5° ⁽²⁾
	Wing flaps	Retracted	0°± 1.0°
		Take-off	14°± 1.0°
		Landing	38°± 1.0°
	(1) Elevator control surface movements measured between the chord line of the Elevator and the chord line of the horizontal stabilizer with the horizontal stabilizer in the full leading edge down position.		
	(2) Horizontal Stabilizer movement measured between the chord line of the Horizontal Stabilizer and the airplane horizontal reference.		
MAXIMUM BAGGAGE AFT LUGGAGE	Baggage shelf	113 kg (249.1 lbs)	at +3763 mm (148.1 in)
	Bin	22 kg (48.5 lbs)	at +4623 mm (182.0 in)
PRODUCTION BASIS	Production Certificate No. 053049, dated 15 August 2003 or Production Certificate No. 763691, dated 06 May 2010.		
PLACARDS	The required translated placards are described in Flight Manual Supplement for Operations in Brazil, document No. C01-04-126, and must be installed in appropriate locations.		
EQUIPMENT	The basic required equipment as applicable in the applicable airworthiness and operational regulations (see Certification Basis) must be installed in the airplane for certification.		
IMPORT ELIGIBILITY	A Brazilian Airworthiness Certificate may be issued on the basis of a Export Certificate of Airworthiness signed by a representative of a local export Civil Aviation Authority containing the following statement: "The airplane covered by this certificate has been examined, tested and found to conform to the type design approved under ANAC Type Certificate No. 2014T06, and to be in condition for safe operation".		
NOTES:			
NOTE 1	A current weight and balance report, including a list of equipment included in the certificated empty weight, an approved load data sheet and an approved loading system must be provided for each aircraft at the time of issue of a Certificate of Airworthiness.		
NOTE 2	Aircraft which are not manufactured with IFR capability may be modified to be IFR capable by complying with Service Bulletin SB-GA8-2003-08.		
NOTE 3	Cargo Pod installation options GA8-255004-11, GA8-255004-15, GA8-255004-17 or GA8-255004-19 is approved when incorporated accordance with Service Bulletin SB-GA8-2004-14.		

- NOTE 4** The TIO-540-AH1A has an alternate take-off rating of 40.0 in.Hg at 2500 rpm limited to 5000 feet pressure altitude.
- NOTE 5** The optional Hartzell HC-C3YR-1RF/F8068 three blade propeller for the GA8 model is approved when installed by GippsAero in accordance with Engineering Release GA8-9661149 (Option 149), or when incorporated on a specific aircraft serial number in accordance with GippsAero Service Bulletin GA8-SB-2009-62.
- NOTE 6** The differences of the Brazilian airplanes in relation to the basic CASA type design are summarized below:
1. The Brazilian Aircraft Flight Manual front page:
 - For GA8 aircraft model, the Brazilian Aircraft Flight Manual, Doc. No. C01-01-03 BRAZIL; and
 - For GA8-TC 320 aircraft model, the Brazilian Aircraft Flight Manual, Doc. No. C01-01-08 BRAZIL.
 2. Markings and placards. (See PLACARD section in this TCDS);
 3. Incorporation in the Brazilian AFM, as referred above, of the Flight Manual Supplement for Operations in Brazil, Doc. No. C01-04-126.
- NOTE 7** The GA8 aircraft model (naturally aspirated) with incorporation of Increased Gross Weight Service Bulletin No. SB-GA8-2011-66 does not comply with Brazilian applicable noise requirements. These aircraft are not eligible for airworthiness certification in Brazil.
- NOTE 8** For Brazilian operations, the Alternator's life-limit (Bosch P/N BXU1296A) is limited in 1,000 Flight Hours.
- NOTE 9** The aircraft models GA8 and GA8-TC 320 are collectively referred in manufacturers marketing literature as "Airvan 8". This name is strictly a marketing designation and is not part of the official models designations.

**HELIO TARQUINIO JUNIOR**

**Gerente-Geral de Certificação de Produto Aeronáutico
(General Manager, Aeronautical Product Certification)**