DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A00075CE
Revision 4
Vulcanair S.p.A.
Vulcanair V1.0
July 20, 2021

TYPE CERTIFICATE DATA SHEET A00075CE

This data sheet which is a part of Type Certificate No. A00075CE prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder. Vulcanair S.p.A.
Via Giovanni Pascoli, 7
80026 Casoria (Naples), Italy

I. Model Vulcanair V1.0 (Utility Category), Approved December 20, 2017.

Engine. One Lycoming IO-360-M1A

Fuel. Aviation and automotive fuels listed in the Aircraft Flight Manual, Operating Limitations Section.

Oil. Single or multi-viscosity oils, in accordance with Lycoming Service Instruction 1014 (latest issue).

Engine Limits. For all operations 2700 rpm (180 HP).
Other engine's limitations listed in the Aircraft Flight Manual, Operating Limitations Section.

Propeller and Propeller Limits. One Hartzell HC-C2YR-1BFP/F7497
Diameter 74 in. (No reduction permitted)
Governor: Hartzell model S-1-63
Spinner: Hartzell model 103585

One - MT188R135-4G
Diameter 74 in.
MT-Propeller 2-blades laminated wood composite
Model MT188R135-4G (fixed pitch)
Spinner: MT-Propeller p/n P-1629
See Note 5.

Airspeed Limits (CAS).

Never exceed	168	knots
Maximum structural cruising	125	knots
Maneuvering	122	knots
Flaps fully extended	78	knots

Datum. Tangent to the wing leading edge.

C.G. Range. (+16.06 in.) to (+18.31 in.) at 2546 lb.
(+10.24 in.) to (+18.31 in.) at 1874 lb. and less
Straight line variation between points.

Minimum Crew. 1 pilot.

Maximum Weights.

Take-Off	2546 lb. (See NOTE 2)
Landing	2425 lb.

Number of Seats. 4 - (2 at +19.3in.), (2 at +44.1 in.)

Maximum Baggage. 88.2 lb. (at +63.0 in.)

Fuel Capacity. 52.8 gal. total (2 wing tanks 26.4 gal. each at +25.6 in.)
1.3 gal. unusable per tank (See NOTE 1 for data on unusable fuel).

Oil Capacity. 2 gal. total (at -37.4 in.)
0.5 gal. unusable

Leveling Means. Longitudinal and lateral: plumb weight hanging from the dedicated plate located on the cabin right roof, down to the target located on the cabin floor.

Control Surface Movements.

Wing flaps	1st position Down	13.5º ± 2°
	2nd position Down	28º ± 2°
	3rd position Down	42º ± 2°
Ailerons	Up 28° ± 2°	Down 15° ± 1°
Rudder	Right 20° ± 2°	Left 20° ± 2°
Stabilator L.E.	Up 14° ± 1°	Down 8° ± 1°
Stabilator Tab (with respect to stabilator chord)	Up 9° ± 1°	Down 9° ± 1°

Load Factors.

Positive	+4.4 g (Flaps UP)
Negative	-1.0 g (Flaps UP)

Manouvre Limits.

Acrobatic manoeuvres approved	Speed (IAS)
Climbing Turn	129 knots
Lazy Eight	140 knots
Steep Turn	108 knots
Stalls (except whip stall)	Slow deceleration

Spin is prohibited.

At speeds in excess of design maneuvering speed (125 knots IAS), it is forbidden to use the flight controls fully or abruptly deflected.

Serial Numbers Eligible. s/n 1001 and subsequent.

Each individual aircraft manufactured under this type certificate must be accompanied by an Export Certificate of Airworthiness as noted below under "Import Requirements" when an application for a U.S. airworthiness certificate is made.

Certification Basis.
FAR 21-17

Per section 2.1.3 of the FAA/EASA TIP, the Vulcanair model V1.0 certification basis contains regulations using the applicable airworthiness standards in effect on the date of application made to EASA, or the applicable airworthiness authority for its type certificate. It is specifically noted that the original date of application for the baseline model P.64B “Oscar B 1155” was January 30, 1968 (see IP G-1 Stage 4 closed May 14, 2017).

CAR Part 3 effective May 15, 1956, including Amendments 3-1 through 3-8.

For the replacement of the 180HP Lycoming IO-360-M1A, the following regulations are in effect for the areas of affected change:

FAR 23 original issue, effective Feb. 1, 1965:
§§ 23.33(a)(d), 23.301, 23.303, 23.305, 23.307, 23.361, 23.363, 23.1011(a)(b)(c), 23.1041, 23.1121(a), 23.1125, 23.1183, 23.1581, 23.1583(b), 23.1585(a), 23.1587(a), and 23.1589.

FAR 23 Amendment 23-51 (JAR 23 Amendment 1, effective Feb. 1, 2001):
§§ 23.21, 23.25, 23.29, 23.601, 23.603, 23.605, 23.607, 23.609, 23.611, 23.613, 23.619, 23.623, 23.625(a)(b)(c), 23.627, 23.777(a)(b)(c)(d)(f)(h), 23.781(b), 23.831(a), 23.901(a)(b)(c)(e), 23.903(a)(d)(f), 23.905(a)(b)(c)(d), 23.907, 23.925(a)(d), 23.951(a)(b), 23.955(a)(c)(e), 23.961, 23.991, 23.993, 23.995,

23.1093, 23.1141(a)(b)(c)(d)(f)(g), 23.1301, 23.1309, 23.1501, 23.1521(a)(b)(c)(d), 23.1529, 23.1541, and 23.1549.

FAR 36 effective Dec. 1, 1965, included Amendments 36-1 through 36-30.

For the installation of the Garmin G500 and JPI JDM-930 displays and aircraft power generation system to 24VDC, the following regulations are in effect for the areas of affected change:

FAR 23 original issue, effective Feb. 1, 1965:
§§ 23.207, 23.301, 23.303, 23.305, 23.1307(b), 23.1581, 23.1583(a)(b), 23.1585(a), and 23.1589.

FAR 23 Amendment 23-51 (JAR 23 Amendment 1, effective Feb. 1, 2001):
§§ 23.25, 23.29, 23.601, 23.603, 23.605, 23.607, 23.609, 23.611, 23.613, 23.619, 23.623, 23.625(a)(b)(c), 23.627, 23.697(b), 23.699, 23.771(a), 23.773(a), 23.777(a)(b)(c)(d)(f), 23.779, 23.781, 23.867(a)(b), 23.955(c), 23.963(e), 23.991(b), 23.995, 233.1141(a)(b)(c)(d), 23.1143(a)(b)(c)(g), 23.1145(a)(c), 23.1147, 23.1149(a), 23.1163(a)(b), 23.1165(a)(b)(c)(d), 23.1301, 23.1303, 23.1305(a)(b)(c)(d)(f)(g)(h), 23.1309, 23.1311, 23.1321(a)(c)(d)(e), 23.1322, 23.1323(a)(e)(f), 23.1325(a)(b)(c)(d)(g), 23.1327, 23.1331(a), 23.1337(a)(b)(c), 23.1351, 23.1353(a)(b)(c)(d)(e)(h), 23.1357, 23.1359, 23.1361, 23.1365, 23.1367, 23.1381, 23.1383, 23.1385, 23.1387, 23.1389, 23.1391, 23.1393, 23.1395, 23.1397, 23.1401, 23.1431, 23.1501, 23.1523, 23.1525, 23.1529, 23.1541, 23.1543(b)(c), 23.1545(a)(b)(c), 23.1547, 23.1549, 23.1553, and 23.1555.

FAR 23 Amendment 23-57: § 23.1308.

FAR 23 Amendment 23-61: § 23.1306.

For the activation of the Terrain SVT feature on Garmin G500 avionics system, the following regulations are in effect for the areas of affected change:

FAR 23 Amendment 23-51 (JAR 23 Amendment 1, effective Feb. 1, 2001):
§§ 23.1301, 23.1309(a)(b), 23.1311(a), 23.1321(a), 23.1322(a)(b)(d)(e), 23.1431(a), 23.1501, 23.1525, 23.1581, and 23.1585(a).

FAR 23 Amendment 23-57: § 23.1308.

FAR 23 Amendment 23-61: § 23.1306.

Validation Basis.

Type Certificate A00075CE was issued pursuant to FAR 21.29 in validation of the EASA certification of compliance with the aforementioned certification basis, and in accordance with the standard airworthiness certificate provisions of FAR 21.183(c).

Note: The airworthiness provisions of FAR 21.183(d) may be cited as the basis for issuance of standard airworthiness certificates for aircraft imported from a country other than the country of manufacture.

Equipment.

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for standard airworthiness certification. In addition, the following items of equipment are required:

a) Pre-stall warning indicator, Safe Flight Instrument Corp. Type 164R, or equivalent.
b) EASA approved Aircraft Flight Manual (EASA approval No. 10057053).

Import requirements

The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Ente Nazionale per l'Aviazione Civile (ENAC) on behalf of the European Community. The Export C of A should contain the following statement: "The aircraft covered by this certificate has been examined, tested, and found to comply with TC No. EASA.A.613 approved under U.S. Type Certificate No. A00075CE and to be in a condition for safe operation".

Country other than Manufacturer (U.S. bilateral agreement and the original Export Certificate of Airworthiness issued by the country of manufacture must exist): A U.S. airworthiness certificate may be issued on the basis of a log book certifying statement endorsed by an authorized representative of the civil aviation authority of the exporting country. It is incumbent upon the exporting civil aviation authority to determine that the

certifying statement includes evidence of acceptable service history and modification deviations and the following statement: "The aircraft covered by this certificate has been examined, tested, inspected in accordance with the provisions of FAR 21.183(d) or its equivalent, and found to conform to the type design approved under Type Certificate A00075CE and is in a condition for safe operation".

For issuance of an airworthiness certificate in accordance with 14 CFR Part 21.183(c), the Ente Nazionale per l'Aviazione Civile of Italy must certify that the airplane conforms to the type design and is in a condition for safe operation. The Ente Nazionale per l'Aviazione Civile of Italy will certify that the airplane complies with all applicable mandatory continuing airworthiness information (MCAI) it has issued.

Refer to the applicable bilateral agreement to verify eligibility for import into the United States of both new and used aircraft based on the scope of the agreement, to identify any required statements by the exporting authority on the export certificate of airworthiness (or equivalent document), and for procedures for coordinating exceptions to conformity statements on these documents. Refer to FAA Order 8130.2, Airworthiness Certification of Aircraft, for requirements for issuance of an airworthiness certificate for imported aircraft.

Service Information

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or - for approvals made before September 28, 2003 - by the Ente Nazionale per l'Aviazone Civile (ENAC). (These approvals pertain to the design data only).

Service Bulletins
Structural Repair Manuals
Vendor Manuals
Aircraft Flight Manuals, and
Overhaul and Maintenance Manuals

The FAA accepts such documents and considers them FAA-approved unless one of the following conditions exists:

- The documents change the limitations, performance, or procedures of the FAA approved manuals; or
- The documents make an acoustical or emissions change to this product's U.S. type certificate as defined in 14 CFR § 21.93.

The FAA uses the post type validation procedures to approve these documents. The FAA may delegate on case-by-case to EASA to approve on behalf of the FAA for the U.S. type certificate. If this is the case it will be noted on the document.

NOTE 1. Current weight and balance report including list of equipment in certificated empty weight, and loading instructions, must be provided for each aircraft at the time of original airworthiness certification.
The certificated empty weight and corresponding center of gravity location must include unusable fuel (15.9 lb. at +25.6 in.).

NOTE 2. a) The following placards must be displayed in full view of the pilot:

- "THIS AIRCRAFT MUST BE OPERATED AS AN UTILITY CATEGORY AIRPLANE, IN ACCORDANCE WITH THE OPERATING LIMITATIONS PRESCRIBED BY PLACARDS, MARKINGS AND APPLICABLE FLIGHT MANUAL"
- "MAXIMUM TAKE-OFF WEIGHT OF 1155 Kg (2546 lb.) IS ALLOWED ONLY IF THE LANDING WEIGHT CALCULATED ON THE BASIS OF FUEL CONSUMPTION IS NOT HIGHER THAN 1100 Kg (2425 lb.)"

In addition, all placards required in the EASA approved Airplane Flight Manual must be installed in the appropriate location.

b) Each individual airplane must be equipped with a placard that specifies the kind of operation such as VFR, or IFR, DAY or NIGHT, to which the operation of the airplane is limited by the equipment installed.

NOTE 3. All the service life limits, overhaul limits, instructions for continued airworthiness, airworthiness limitations, special inspections and mandatory maintenance requirements that are published on Vulcanair Aircraft Maintenance Manuals at the date of Type Certificate A00075CE are considered FAA approved. These airworthiness limitations may not be changed without FAA-approval.

NOTE 4. Vulcanair V1.0 aircraft model is approved for sailplane glider towing if the aircraft is modified as per Vulcanair Service Bulletin VA-03.

NOTE 5. V1.0 model aircraft from s/n 1001 onwards may be optionally equipped with the following propeller: MT-Propeller model MT188R135-4G.
Lycoming SI1435 conversion required for installation on Lycoming model IO-360-M1A.
Vulcanair Major Change MOD.V1/22 “Fixed pitch propeller - MT-Propeller” (EASA Approval 10072391).

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