TYPE-CERTIFICATE
DATA SHEET

EASA.A.060

Ae 270

Type Certificate Holder:

AIRCRAFT INTEGRATED SOLUTIONS LTD
The Business Centre
North Point House
North Point Business Park Mallow Road
Cork
T23AT2P
IRELAND

For models: Ae 270

Issue 05: 15 January 2021
0.I. Table of Content

SECTION 0:
  0.I.  Table of Content

SECTION A:  Ae 270
  A.I.  General
  A.II. Certification Basis
  A.III. Technical Characteristics and Operational Limitations
  A.IV. Operating and Service Instructions
  A.V.  Notes

ADMINISTRATIVE SECTION
  I.  Acronyms
  II. Type Certificate Holder Record
  III. Change Record
A.I. General

Data Sheet No.: EASA.A.060 Issue: 04 Date: 17 April 2018

1. a) Type: Ae 270  
b) Variant: -

2. Airworthiness Category: Normal

3. Type Certificate Holder: Aircraft Integrated Solutions Ltd  
The Business Centre  
North Point House  
North Point Business Park Mallow Road  
Cork  
T23AT2P  
Ireland

4. Contracted DOA Holder: S4A, SOLUTIONS FOR AVIATION S.L.  
See Note 2.  
C/Corazon de María 48B  
28002 Madrid  
SPAIN

5. Manufacturer: AERO Vodochody AEROSPACE a.s.  
U letiště 374  
250 70 Odolena Voda  
CZECH REPUBLIC

6. Certification Application Date:  
a. To CAA CZ 13.11.1998; last update 15.12.2004  
b. To FAA 08.06.1998; last update 15.12.2004  
c. To EASA N/A

7. EASA Type Certification Date: 12 December 2005

A.II. Certification Basis

1. Reference Date for determining the applicable requirements:  
   FAA: CRI G-1 Stage 4, issued 3.6.2005  
   CAA CZ: CRI A-1 Stage 6, issued 14.6.2004

2. (Reserved)

3. (Reserved)

   14 CFR 34 Amdt. 34-3, Eff. 2/3/1999  
   14 CFR 36 Amdt. 36-24, Eff. 8/7/2002

   Special Condition to 14 CFR 23.137  
   FAA ELOS to 14 CFR 23.145(b)(2)  
   FAA ELOS to 14 CFR 23.145(b)(4)


6. Requirements elected to comply: None

7. EASA Special Conditions: HIRF
A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition
   - BT0463EN - Ae 270 Technical Specification
   - BPOH01CZ - Ae 270 Flight Manual;
   - BMAI01CZ - Ae 270 Maintenance Manual
   - BT0674CZ - The List of Valid Drawings

2. Description:
   Single-engine turboprop, ten seats (including the crew), low-wing airplane, all-metal construction

3. Equipment:
   Equipment list Doc. No. BEQL01CZ / BEQL01EN appended to the POH, Doc. No. BPOH01CZ / BPOH01EN

4. Dimensions:
   - Wing Span: 14.130 m
   - Total Length: 12.230 m
   - Maximum Height: 4.783 m
   - Wing Area: 21.00 m²

5. Engine:
   - No. 1
   - Manufacturer: Pratt & Whitney Canada
   - Model: PT6A-66A
   - Certification basis: 14 CFR 33, Amdt. 33-10
   - Type Certificate:
     - Transport of Canada Type Certificate TCDS E21
     - FAA Type Certificate TCDS E26NE
     - EASA Type Certificate TCDS IM.E.008

5.1 Engine Limits:

<table>
<thead>
<tr>
<th>Power Setting</th>
<th>Power [SHP (kW)]</th>
<th>M_k [lb ft]</th>
<th>n_g [%]</th>
<th>n_p [RPM]</th>
<th>Max. ITT °C</th>
<th>Oil Pressure [psi]</th>
<th>Oil Temperature °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Takeoff</td>
<td>850 (634)</td>
<td>2,230</td>
<td>104</td>
<td>2,000</td>
<td>800</td>
<td>100 to 135</td>
<td>0 to 104</td>
</tr>
<tr>
<td>Max. Continuous</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Climb</td>
<td>850 (634)</td>
<td>10</td>
<td></td>
<td></td>
<td>785</td>
<td></td>
<td>10 to 104</td>
</tr>
<tr>
<td>Max. Cruise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground Idle</td>
<td>65</td>
<td></td>
<td></td>
<td></td>
<td>785</td>
<td>min. 60</td>
<td>–40 to 110</td>
</tr>
<tr>
<td>Flight Idle</td>
<td>73</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1000</td>
<td>max. 200</td>
<td>min. –40</td>
</tr>
<tr>
<td>Transient</td>
<td>2,750 (657)</td>
<td>104</td>
<td></td>
<td>2,205</td>
<td>870</td>
<td>40 to 200</td>
<td>0 to 110</td>
</tr>
<tr>
<td>Max. Reverse</td>
<td>800 (597)</td>
<td></td>
<td></td>
<td></td>
<td>1900</td>
<td>780</td>
<td>100 to 135</td>
</tr>
</tbody>
</table>
For propeller speed below 1,600 RPM, the torque is limited to 1,100 lb ft.

Normal oil pressure with gas generator speed above 72%. At normal oil temperature between 60 to 70°C and torque below 2,000 lb ft the minimum oil pressure is 60 psi. Oil pressures under 90 psi are undesirable. Under emergency conditions, to complete a flight, a lower oil pressure limit of 60 psi is permissible at reduced power level not exceeding 1,100 lb ft torque. If oil pressure drops below 60 psi, shutdown the engine or make a precautionary landing, using minimum power required to sustain flight.

During an extremely cold weather start, oil pressure may reach 200 psi.

Valid for the (Bleed Air) ECS switch in the position OFF.

For increased oil service life, an oil temperature below 80°C is recommended. A minimum oil temperature of 55°C is recommended for fuel heater operation at take-off power.

Oil temperature limits are −40 to 104°C with limited periods of 10 min at 104 to 110°C.

May be employed in an emergency condition, at all ratings, to complete a flight.

Climb power may be set by using nominal ITT of 735°C.

Max. continuous power may be set by using nominal ITT of 750°C.

Take-off power is limited to 5 minutes. 850 SHP (634 kW) up to 50.1°C OAT.

850 SHP (634 kW) up to 44.5°C OAT.

6. Propeller:

   No. 1
   Manufacturer: HARTZELL PROPELLER Inc.
   Model: HC-E4N-3P/D9511FASK/D-630-3
   Type Certificate TCDS P10NE
   Number of blades 4

   6.1. Sense of Rotation
   clockwise

   6.2. Diameter: 2438 mm

   6.3. Pitch:

   Pitch Angle on the radius r=30 in (762 mm):
   - fine pitch 21.5+/- 0.1º
   - reverse angle -12.8+/- 0.5º
   - feather 86.1+/-0.5º

7. Fluids:

7.1 Fuel:

For approved fuel grades and approved additives refer to the latest valid revision of the Pratt & Whitney Canada Service Bulletin No. 14004, including:

   Jet A–50 ASTM–D1655
   Jet A ASTM–D1655
7.2. Oil:

For approved oil grades refer to the latest valid revision of the Pratt & Whitney Canada Service Bulletin No. 14001, including:

- Aero Shell Turbine Oil 500
- Royco Turbine Oil 500
- Mobil Jet Oil II
- Castrol 5000
- Exxon Turbo Oil 2380
- Turbonycoil 525–2A

7.3 Coolant:

Not applicable

8. Fluid capacities:

9.1 Fuel:

<table>
<thead>
<tr>
<th>Description</th>
<th>Both Tanks</th>
<th>Each Tank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fuel Tanks Capacity</td>
<td>1152 l</td>
<td>576 l</td>
</tr>
<tr>
<td>Max. Allowable Fuel</td>
<td>700 l</td>
<td>350 l</td>
</tr>
<tr>
<td>Usable Fuel</td>
<td>653.0 l</td>
<td>326.5 l</td>
</tr>
<tr>
<td>Unusable Fuel</td>
<td>47.0 l</td>
<td>23.5 l</td>
</tr>
<tr>
<td>Maximum Allowable Fuel Unbalance</td>
<td>45 l</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Total Capacity</th>
<th>Drain Quantity</th>
<th>Operating Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel</td>
<td>14.0 l</td>
<td>13.7 l</td>
<td>1.50 l</td>
</tr>
</tbody>
</table>

8.2 Oil:

<table>
<thead>
<tr>
<th>Description</th>
<th>Total Capacity</th>
<th>Drain Quantity</th>
<th>Operating Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil</td>
<td>14.0 l</td>
<td>13.7 l</td>
<td>1.50 l</td>
</tr>
</tbody>
</table>

9. Air Speeds:

- $V_{MO}$ (maximum operating speed) $205 \text{ KIAS}$
- up to 16400 ft
- $V_{MO}$ (maximum operating speed) $0.42$
- above 16400 ft
- $V_{A}$ (Manoeuvring Speed at 3800 kg) $154 \text{ KIAS}$

- $V_{FE}$ (Maximum Flap Extended Speed)
  - flaps 20° $V_{FE_{20}}$ $148 \text{ KIAS}$
  - flaps 36° $V_{FE_{36}}$ $125 \text{ KIAS}$

- $V_{LO}$ (Maximum landing gear operating speed) $132 \text{ KIAS}$
10. Maximum Operating Altitude

26000 ft

11. Operational Flights

VFR Day, VFR Night, IFR

Flights into known icing conditions prohibited.

12. Maximum weight

<table>
<thead>
<tr>
<th>Weight</th>
<th>Forward C.G. Limit</th>
<th>Aft C.G. Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[lbs]</td>
<td>[kg]</td>
</tr>
<tr>
<td>Maximum Ramp Weight</td>
<td>3,820</td>
<td>2,815</td>
</tr>
<tr>
<td>Maximum Take-off Weight</td>
<td>3,800</td>
<td>2,877</td>
</tr>
<tr>
<td>Maximum Landing Weight</td>
<td>3,800</td>
<td>2,877</td>
</tr>
<tr>
<td>Maximum Zero Wing Fuel Weight</td>
<td>3,700</td>
<td>2,815</td>
</tr>
</tbody>
</table>

13. Centre of Gravity Range:

14. Datum:

Reference Datum is a distance of 116.5 in (2.960 m) from the firewall (bulkhead No. 1). The leading edge of the MAC is 199.8 in (5.076 m) aft of the Reference Datum and

15. Mean Aerodynamic Chord (MAC)

The MAC length is 61.7 in (1.568 m).

16. Levelling Means:

Refer to the "Ae 270 Maintenance Manual", Doc. No. BMAI01CZ / BMAI01EN, Chapter 8 or to the applicable Pilot’s Operating Handbook and Airplane Flight Manual, Sec. 6

17. Minimum Flight Crew:

1 (Pilot)

18. Maximum Passenger Seating Capacity:

8 passenger seats and 2 crew seats are installed in the flight deck.

Maximum of 9 passengers

19. Baggage / Cargo Compartments

Maximum Weight in Baggage Compartment 60 kg (133 lbs)

20. Wheels and Tyres

20.1. Nose Landing Gear Tire: Dunlop DR7730T or Mitas 6,00-6 M1TL

20.2. Main Landing Gear Tire: Dunlop DR12330T or Mitas 6,5-10 M1TL
A.IV. Operating and Service Instructions


1. Airplane Maintenance Manual
   "Ae 270 Airplane Maintenance Manual" Doc. No. BMAI01CZ (Czech Version), Doc. No. BMAI01EN (English Version), approved by the CAA Cz on 8.11.2005

A.V. Notes

1. From 29 September 2016 to 16 April 2018, the TC holder obligations were covered by an agreement signed between new TC holder (Aircraft Integrated Solutions Ltd) and Contracted DOA Holder (AERO Vodochody AEROSPACE a.s. / EASA.21J.071).

2. Since 17 April 2018, the TC holder obligations are covered by an agreement signed between new TC holder (Aircraft Integrated Solutions Ltd) and Contracted DOA Holder (S4A, SOLUTIONS FOR AVIATION S.L. / EASA.21J.409). For Continued Airworthiness and other technical issues contact directly the Contracted DOA Holder.
ADMINISTRATIVE SECTION

I. Acronyms

N/A

II. Type Certificate Holder Record

Up to 12 May 2013

Aero Vodochody a.s.
U letiště 374
250 70 Odolena Voda
CZECH REPUBLIC

Up to 28 September 2016

AERO Vodochody AEROSPACE a.s.
U letiště 374
250 70 Odolena Voda
CZECH REPUBLIC

Since 29 September 2016

Aircraft Integrated Solutions Ltd
29 Harley Street, Suite B
W1G 9QR, London
UNITED KINGDOM

Since 17 April 2018

Aircraft Integrated Solutions Ltd
International House, 12 Constance Street
E16 2DQ, London
UNITED KINGDOM

Since 17 January 2021

Aircraft Integrated Solutions Ltd
The Business Centre
North Point House
North Point Business Park Mallow Road
Cork
T23AT2P
Ireland
### III. Change Record

<table>
<thead>
<tr>
<th>Issue</th>
<th>Date</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>12 December 2005</td>
<td>Initial issue of TCDS No. EASA.A.060</td>
</tr>
<tr>
<td>02</td>
<td>13 May 2013</td>
<td>Change of the TC holder</td>
</tr>
<tr>
<td>03</td>
<td>29 September 2016</td>
<td>Change of the TC holder and reissuance of whole document / new layout</td>
</tr>
<tr>
<td>04</td>
<td>17 April 2018</td>
<td>Change of the TC holder's address / Change of contracted DOA</td>
</tr>
<tr>
<td>05</td>
<td>17 January 2021</td>
<td>Change of the TC holder's address</td>
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</tbody>
</table>