Data Sheet

Airborne Laser Mine Detection System
Model 3459 - Environmental Control System (ECS)

01 Description

Meggitt Defense Systems is currently under a U.S. Navy contract with Northrop Grumman as part of the Airborne Laser Mine Detection System (ALMDS) program. Naval Surface Warfare Center, Coastal Systems Station (NSWC-CSS) is the Technical Design Agent (TDA) and Contracting Office for the U.S. Navy.

Meggitt Defense Systems is under contract to design and develop an Environmental Control System (ECS) chiller providing a constant supply of regulated temperature fluid to helicopter-borne pod electronics.

The ECS (Meggitt Defense Systems Model 3459) provides up to 4.0 kW of cooling capacity in a package that is 19.0 inches in diameter, 19.0 inches in length and weighs less than 135 lbs. The ECS based on Meggitt Defense Systems existing Model 3222 (April Showers), is designed to maintain and control precise fluid temperatures over the entire spectrum of the helicopter harsh operating environment and is specifically designed to withstand the severe salt-water operational environment.

The ECS consists of a high efficiency vapor cycle refrigeration cooling circuit and coolant re-circulation loop supplying temperature controlled coolant to the pod electronics cold plates. A heater is provided warm-up coolant during low ambient operation. An analog controller provides for ECS control and health/status monitoring. An access panel provided in the ECS cover provides for easy maintenance and servicing.

02 Key features and benefits

- Provides up to 4.0 kW of cooling
- Maintains and controls precise fluid temperatures
- Withstands severe salt water environment

03 Applications

Provides a constant supply of regulated temperature fluid to helicopter-borne pod electronics.

04 Contact

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05 Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Fluid</td>
<td>PAO</td>
</tr>
<tr>
<td>Length</td>
<td>19 inches</td>
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<tr>
<td>Diameter</td>
<td>19 inches</td>
</tr>
<tr>
<td>Weight</td>
<td>Less than 135 lbs</td>
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</tbody>
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Note: Due to continuous process improvement, specifications are subject to change without notice. TCO Review # 116