M. AIRTECHNOLOGY / AMETEK®

Pilot Cooling Unit (PCU)

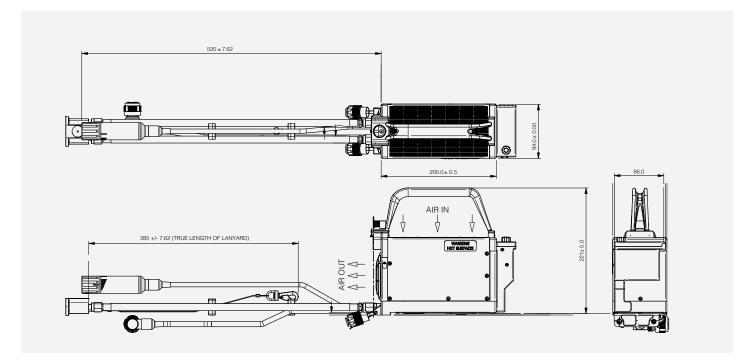


Description

The Pilot Cooling Unit (PCU) provides personal cooling when aircrew are wearing a Liquid Cooling Vest. It provides a continuous supply temperature controlled liquid that is circulated through the LCV, thereby maintaining the pilot's body core temperature.

The PCU contains a miniature vapour cycle liquid cooling system and is capable of operation in both ground and flight conditions. Components have been optimised to minimise size and weight. The unit operates from a 28V DC electrical supply. For ground operation, an optional Lithium Polymer rechargeable battery pack is available.

Pilot Cooling Unit



Technical Data

PCU	
Nom. Cooling Duty	190 W @ 49 °C operating temperature
Nom. Fuild Flow Rate	1.0 litres/min
Refrigerant	R134a
Power Supply	28V DC
Nom. Power Consumption	305 W
Weight	3.9 kg
Dimensions	200mm (L) x 94mm (W) x 221mm (H)

Battery	
Weight	3 kg
Voltage @ Full SoC	33.6 V
Voltage @ Low Soc	22 V
Discharge Current	< 10.5 A
Protection	Charge Discharge & Over Current Protection
Cell Technology	Lithium Polymer (Li-Pol)
Housing	Metal Housing with Chem Bio Sealing
RF/EMC Compatibility	Compatible
Connectors	Mil-D-38999
Usage Time	>30 min at Full Power
Design Life	3 years
Storage Life	3 years (at 50% SoC)

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