

COOLING SOLUTIONS

PLCU SERIES

PORTABLE LIQUID CHILLER UNITS

Increased Mission Length with Superior Performance

The PLCU600 [Portable Liquid Chiller Unit with 600 watts of cooling] mechanical chiller is specifically engineered for confined spaces and the harsh environments military vehicles are exposed to. Utilizing vapor compression cycle [VCC] technology, the PLCU600 eliminates the severe heat that affects both the crew and electronics within a vehicle.

The integration of the Chiller is customized to the requirements of each vehicle type. Allen Vanguard has designed this Chiller to meet Military Standards [MIL-STD-810F] for vibration, EMI, particulate and rugged operational use in the following, but not limited to, military vehicles: HMMWV, M2A3 Bradley, M1A2 Abrams, Leopard MBT, ARV and AEV.



ALLEN  **VANGUARD™**
Defeating the Threat

PLCU600 Features

Compatible and flexible, the PLCU600 is the smallest available Chiller based on VCC technology and requires minimal vehicle modifications during installation.

Cooling Capacity	600 W at 50° C (2049 BTU / hour at 122° F)
Number of users	1 to 4
Liquid coolant temperature	15 – 20°C (59 – 68° F)
Refrigerant	R134a
Pumping capacity	1.9 L / min (30.1 Gal / hour)
Dimensions without Brackets	25 x 29 x 24 cm (9.8" L x 11.3" W x 9.4" H)
Volume	12130 cm ³ (1359 in ³)
Unit weight	22.7 kg (50 lbs)
Power Requirements	28 VDC, 24 AMP Peak
Condenser	Air cooled
Controls	on/off power switch; optional remote
Electrical connectors	Application specific
Enclosure material	Painted cold rolled steel



PLCU1000 Features

Functional and rugged, the PLCU1000 is ideal for meeting the complete cooling requirements of vehicle crews and requires minimal vehicle modifications during installation.

Cooling Capacity	1000 W at 50°C (2730BTU / hour at 120°F to 122°F)
Number of users	1 to 5
Liquid coolant temperature	15 to 20°C (59 to 69° F)
Refrigerant	R134a
Pumping capacity	1.9 L / min (30.1 Gal / hour)
Dimensions without Brackets	34.3 x 29.2 x 29.2 cm (13.5" L x 11.5" W x 11.5" H)
Volume	12130 cm ³ (1359 in ³)
Unit weight	25.9 kg (57 lbs)
Power Requirements	28 VDC, 37 AMP Peak
Condenser	Air cooled
Controls	on/off power switch; remote
Electrical connectors	Application specific
Enclosure material	Painted cold rolled steel



SUMMARY

Users	Military, Security Forces, First Responders, Police EOD
Function	Vehicle mounted cooling system for personnel and electronic equipment
Advantage	Mitigates heat stress for operational effectiveness for electronics
Compatibility	All Allen Vanguard LCG and EPIC Systems



PLCU1000 installed in an M1114 HMMWV.

LCG Vest

The Allen Vanguard Liquid Circulating Garment [LCG] combines with the Chiller to provide a superior Micro Climate System. The LCG is engineered to circulate chilled water evenly over the body to provide the cooling essential in reducing the effects of heat stress as a result of environmental conditions, physical work rate, and protective clothing.



Due to continual product development, descriptions and specifications are subject to change without prior notification and such details must not be used for contractual purposes.

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