

THERMOCUBE PAO

Thermoelectric Chiller for Leak-Free Temperature Control of Aircraft Hydraulic Fluid (PAO)



Current Customer Applications

- Avionics bench testing
- Airborne cooling
- Power supply cooling
- Other point-of-use temperature control applications

The Right Temperature Without Fail

Solid State Cooling Systems



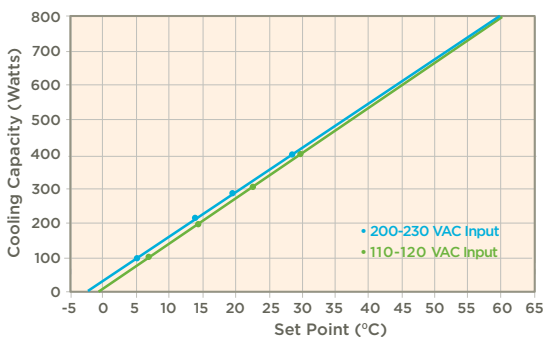
Compact, refrigerant-free and ultra-reliable thermoelectric technology

Available with a 275 Watt capacity, ThermoCube PAO delivers vibration-free thermal control to $\pm 0.1^\circ\text{C}$, even near ambient. Built on a core of thermoelectric modules with lifetimes exceeding 200,000 hours, ThermoCube PAO also offers worldwide power compatibility with its standard universal power input, and its variable voltage power control means you efficiently draw power only as needed.

ThermoCube PAO is built with an all stainless steel tank and plumbing with Swagelok fittings for leak-free operation. It can work with either aircraft hydraulic fluid (PAO) or Fluorinert, and it is air cooled, so it needs no house or facility chilled water. The standard pumps are capable of delivering up to 45 psig for avionics and other high pressure applications.

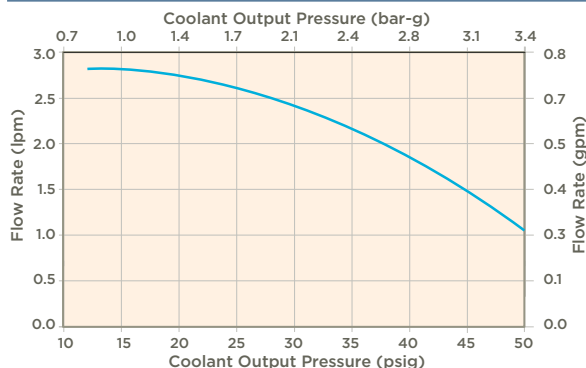
For complete information: sscooling.com/thermocubepao

THERMOCUBE PAO PERFORMANCE CURVE
20°C AMBIENT



Note: Cooling Capacity will vary with configuration

THERMOCUBE PAO PUMP CURVE
2 LPM MAGNETICALLY-COUPLED GEAR PUMP



SPECIFICATIONS

Operating Range	0 °C to +65 °C
Ambient Temperature	10°C to 40°C non-condensing
Repeatability	$\pm 0.1^\circ\text{C}$ (even near ambient)
Cooling Capacity	275 W at 20 °C (20 °C ambient)
Noise (at 1 meter)	< 63 dBA
Process Fluid	PAO (Poly-Alpha-Olefin), Options available for Fluorinert / Galden or HFE
Process Fluid Fittings	1/4" CPC metal
Pumps	1, 2 and 3 lpm at 30 psig magnetically coupled gear pump
Tank Volume	900 ml stainless steel tank with level sensor
Wetted Materials	Al, stainless steel and polymers
Fluid Filter	5 μm external filter with grounding strap
Size (L x W x H)	13" x 11" x 13" (32 x 28 x 32 cm) w/o filter
Weight	34 lbs. (15.4 kg)
Power Input	Universal: 115-230 VAC, 50/60 Hz, 7-5A max
Communications	Keypad or RS232 Interface
Alarms	Temperature, fluid level, component or system failure (display, RS232 and dry contact)
Standards	TUV listed to UL, CAN/CSA and EN 61010-1, CE 61010-1
Warranty	2 years

SOLID STATE COOLING SYSTEMS