

LINEAR CRYOCOOLERS

Compact, low-vibration cooling for mission-critical thermal management

L3Harris' Linear Cryocoolers deliver precise, on-demand refrigeration for advanced thermal management in compact, high-performance systems. Designed to cool infrared sensors, high-temperature superconductive materials and high-speed data processors, these coolers help control heat build-up, maintain stable operating temperatures and improve overall system efficiency, reliability and power use.



Featuring a compact split-stirling design, L3Harris Cryocoolers provide excellent flexibility for tightly packaged system architectures. Available in a range of cooling capacities, sizes and weights, they can be tailored to meet diverse refrigeration requirements across demanding applications. A pneumatically driven displacer enables high cooling power per unit volume, while a balanced dual-opposed piston compressor design helps minimize transmitted vibration for quiet, stable operation.

Optionally available cooler drive electronics provide device control and precise temperature regulation while optimizing power consumption. Proven in fielded environments, L3Harris cryocoolers offer the long-life reliability needed for continuous-duty, mission-critical applications.



The B602 unit is a core component for the L3Harris Night Conqueror HD, delivering stable and efficient cooling to its high-performance electro-optical/infrared imaging sensors during demanding low-light or no-light missions.



COMMON APPLICATIONS

- > Infrared imaging and surveillance systems
- > High-temperature superconducting systems
- > High-speed data processing electronics
- > Spaceborne payloads
- > Airborne sensor systems
- > Scientific and precision instrumentation

KEY FEATURES

- > Compact form factor for space-constrained designs
- > Precise thermal management and temperature control
- > Low-vibration performance for sensitive payloads
- > Flexible cooling capacity configurations
- > Efficient power utilization
- > Continuous-duty operation
- > Long-life reliability
- > Optional drive electronics for enhanced control



MODEL L200E MICRO

Refrigeration Capacity (@120k in 23°C Ambient)	> 500 mW
Input Power	15 W max
Input Voltage	6.5 VAC
Environment	-40°C to 71°C
Weight	<.47 lb (213g)
Size (Compressor)	1.12 OD, 1.41 Lg in (28.4 OD, 35.8 Lg mm)
Size (Coldfinger)	.196 in (5 mm)



MODEL B512

Refrigeration Capacity (@77k in 23°C Ambient)	> 600 mW
Input Power	< 22 W
Input Voltage	17 to 32 VDC
Environment	-54°C to 71°C
Weight	1.10 lb (498 g)
Size (Compressor)	1.36 OD, 4.30 Lg in (34.5 OD, 109 Lg mm)
Size (Coldfinger)	.236 in (6 mm)



B600 SERIES	B600 (ENDCAP GTL)	B602 (SIDE-PORT GTL)
Refrigeration Capacity (@90k in 23°C Ambient)	> 1.0 W	> 1.5 W
Input Power	< 45 W	< 45 W
Input Voltage	24 to 32 VDC	24 to 32 VDC
Environment	-54°C to 71°C	-54°C to 71°C
Weight	1.60 lb (725 g)	1.60 lb (725 g)
Size (Compressor)	1.75 OD, 4.71 Lg in (44.4 OD, 119.6 Lg mm)	1.75 OD, 4.71 Lg in (44.4 OD, 119.6 Lg mm)
Size (Coldfinger)	.236 in (6 mm)	.354 in (9 mm)



B1000 SERIES	B1000	B1000+ UNDER DEVELOPMENT
Refrigeration Capacity (@77k in 23°C Ambient)	> 2.0 W	> 2.5 W
Input Power	90 W	90 W max
Input Voltage	24 to 32 VDC	24 to 32 VDC
Environment	-54°C to 71°C	-54°C to 71°C
Weight	< 4.0 lb (1,814 g)	< 4.0 lb (1,814 g)
Size (Compressor)	2.37 OD, 4.77 Lg in (60.1 OD, 121.1 Lg mm)	2.37 OD, 4.77 Lg in (60.1 OD, 121.1 Lg mm)
Size (Coldfinger)	.511 in (13 mm)	.511 in (13 mm)



MODEL B5000

Refrigeration Capacity (@77k in 23°C Ambient)	> 5.0 W
Input Power	200 W max
Input Voltage	28 VDC
Environment	-54°C to 71°C
Weight	< 10 lb (4,535 g)
Size (Compressor)	3.25 OD, 8.24 Lg in (82.5 OD, 209.2 Lg mm)
Size (Coldfinger)	.511 in (1 mm)

Linear Cryogenic Coolers

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