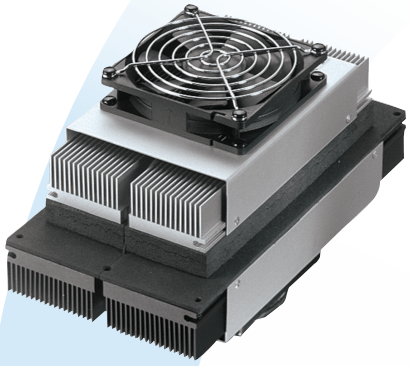
Laird TECHNOLOGIES

Innovative **Technology** for a **Connected** World

AA-100 / AA-150 / AA-200
Outdoor Thermoelectric Cooler Assemblies



THERMOELECTRIC COOLING UNITS FOR OUTDOOR ENCLOSURES AND KIOSKS

Laird Technologies is the leading manufacturer of thermoelectric cooling assemblies with hundreds of thousands of units supplied in the field. Our broad range of outdoor cooling units have passed rigorous Telcordia test requirements conducted by our customers, such as earthquake resistance, salt fog, wind-driven rain, high temperature exposure, dust, etc.

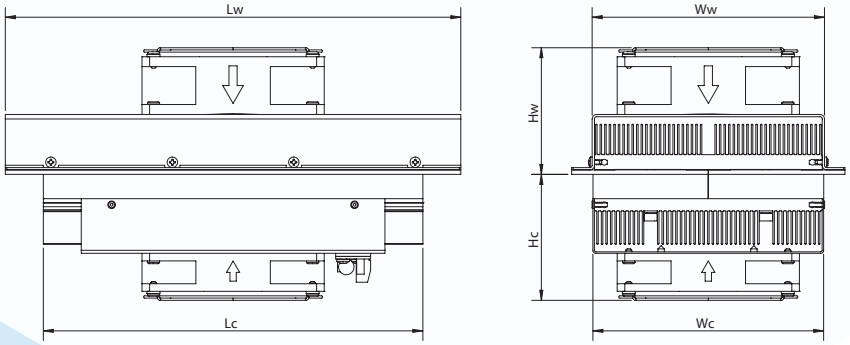
These outdoor units have the reputation for high reliability due to the selection of world class components such as major brand fans with the highest degree of environmental protection and lifetime guaranteed waterproof connectors, heavy duty anodization on the high-density heat sinks, overheat protection, and double environmental seals for the TE modules. TE Coolers are also known as Peltier and Solid State coolers.

FEATURES AND BENEFITS

- 100W, 150W, 200W capacities rated at ΔTamb = 0°C, Text = 32°C
- DC power options available for +24VDC and -48VDC
- Wide operating temperature range of -40°C to +55°C
- Telcordia GR-487-CORE tested and verified by customers when integrated in telecom outdoor enclosures
- Gaskets, connectors, and fans provide a NEMA 4 seal for the enclosure
- UL60950 and UL50 approval obtained by customers when integrated in telecom outdoor enclosures
- Environmentally friendly solid state operation – no compressor or CFC refrigerants
- Cooling and heating in the same unit; optional temperature controller reverses the polarity of current to generate heating
- Optional equipment: sheet metal shrouds, power supplies, and spares

APPLICATIONS

- Outdoor telecom enclosures
- Outdoor kiosks and displays
- Harsh condition electronic cabinets
- Battery cabinets



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SPECIFICATIONS	AA-100-…	AA-150-…	AA-200-…
Technical			
Technology	Thermoelectric (TE) modules, forced air, closed loop (non-mixing), filterless, non-refrigerant		
Cooling at dT = 0°C, and nominal / float voltage.[1]	102/113W (348/386 Btu/h)	143/159W (488/543 Btu/h)	193/214W (659/731 Btu/h)
Heating[2]	125W (427 Btu/h)	150W (512 Btu/h)	250W (853 Btu/h)
Voltage (nominal / maximum)	24/28 VDC 48/56 VDC	24/28 VDC 48/56 VDC	24/28 VDC 48/56 VDC
Grounding (all voltages)	Positive or negative		
Current draw, ±10% (nominal / startup)	5.6/7.2 A (24V version) 2.8/3.6 A (48V version)	7.9/10.0 A (24V version) 3.9/5.0 A (48V version)	11.3/14.3 A (24V version) 5.6/7.2 A (48V version)
Dimensions, cold side (L_C x W_C x H_C)	230 x 122 x 83 mm (9.1 x 4.8 x 3.3 in)	250 x 152 x 83 mm (9.8 x 6.0 x 3.3 in)	350 x 152 x 89 mm (13.8 x 6.0 x 3.5 in)
Dimensions, warm side (L_W x W_W x H_W)	300 x 152 x 78 mm (11.8 x 6.0 x 3.1 in)	300 x 180 x 84 mm (11.8 x 7.1 x 3.3 in)	400 x 180 x 89 mm (15.7 x 7.1 x 3.5 in)
Weight	4.1 kg (9.0 lbs)	5.1 kg (11.2 lbs)	6.6 kg (14.5 lbs)
Panel mounting	Through		
Fan life (L_{10} at +40°C)	≥70,000 hours		
Number of connectors (with / without controller)	1/3		
Connector type (on unit / mating side)	On unit: AMP part number: 350777-1, 794269, 350547-6, 794270-1 Mating side: AMP part number : 350778-1, 350550-6, 794270-1		
Hi-pot testing	707 VDC		
Environmental			
Temperature range[3] (external ambient)	-40°C to +55°C (-40°F to +131°F)		
Temperature range (internal enclosure)	-20°C to +55°C (-4°F to +131°F)		
Degree of protection, enclosure[4]	NEMA 4 (IP55)		
Degree of protection, unit[5]	IP54		
Sound level (1m distance)	58 dB(A)	58 dB(A)	63 dB(A)
Controllers (optional)			
LK-81 – Thermostatic control (solid state)	Cooling, set point 25°C (77°F), +/- 2°C (3.5°F) Heating, set point 10°C (50°F), +/- 2°C (3.5°F)		
LK-81 – Low Voltage Disconnect / Re-connect (LVD / LVD-R)	25.0 / 26.0V, +/- 0.5V (24 VDC versions) 50.2 / 51.4V, +/- 0.5V (48 VDC version A) 47.0 / 49.0V, +/- 0.5V (48 VDC version B)		
LK-81 – Regulation	ON/OFF		
Ordering codes			
24V, without controller	AA-100-24-44-00-XX	AA-150-24-44-00-XX	AA-200-24-44-00-XX
24V, with controller		AA-150-24-44-LK-XX	AA-200-24-44-LK-XX
48V, without controller	AA-100-48-44-00-XX	AA-150-48-44-00-XX	AA-200-48-44-00-XX
48V, with controller		AA-150-48-44-LK-XX	AA-200-48-44-LK-XX

[1] Cooling capacities at nominal / float voltage are rated at external temperatures of 32°C and 46°C respectively. Float voltage is defined as 27 and 54 VDC.

[2] Heating capacity is rated at external temperature of -40°C, nominal voltage, and dT = -45°C.

[3] Controller function shall not operate the external fan during heating mode.

[4] The highest environmental protection level requires an external shroud and is defined as the protection level for the enclosure.

[5] Rating for unit without protective shroud.

Note: The specified performance of any Laird Technologies cooling unit is dependent on how it is handled and incorporated into the final product. This includes elements such as the system design, insulation design, and assembly method. While Laird Technologies is able to provide general guidelines based upon our experience, it is ultimately the responsibility of the device manufacturer to validate each product and its performance for its intended use.

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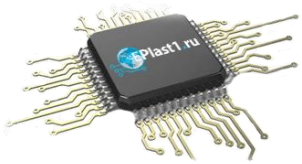
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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