

SoliTherm® Thermoelectric Coolers



Applications

Thermoelectric elements utilize the Peltier Effect to create a temperature difference between the internal and ambient heat sinks, making internal air cooler while dissipating heat into the external environment. Fans assist the convective heat transfer from the heat sinks, which are optimized for maximum flow.

The Seifert SoliTherm® Peltier thermoelectric coolers can be mounted in nearly every position (except roof mounting) because they don't have a compressor or any moving parts aside from the fans. Depending on the application, condensation management may need to be considered. Seifert SoliTherm thermoelectric coolers are available as recessed with the internal heat sink and fan inside the enclosure and the ambient components on the outside. But, frames are available for external mounting. These thermoelectric coolers are resistant to extreme ambient conditions and can operate effectively even in environments that are dusty and oily. They comply with European standards IEC/TC 62610-1 and IEC/TC 62610-3, and can be used for both indoor and outdoor applications.

Construction

- Recessed mounting (flush-mounting kit sold separately)
- Cooling capacities from 100 to 680 BTU/H [30W to 200W]
- Operating Temperature Range: -4°F to 149°F [20°C to 65°C]
- AISI 304 stainless steel housing
- Condensate tray and drain sold separately
- Mounting nut torque: 3.3 lb-ft [4.5 Nm]
- Connection: Terminal block
- 24 VDC units require thermostat for set-point control

Agency Approvals

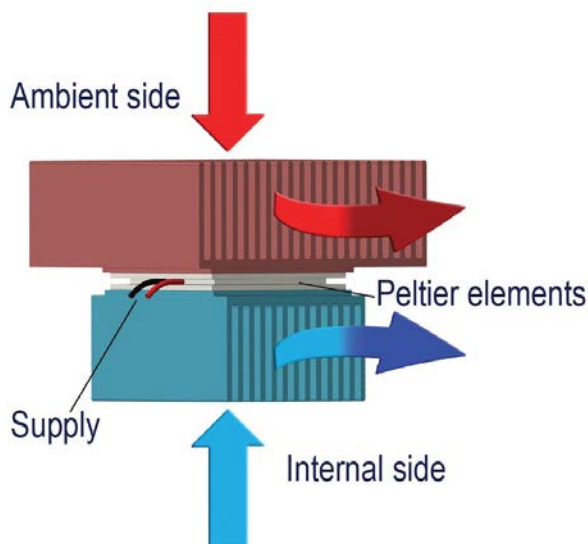
- CE, RoHS
- UL Recognized File number: SA32278
- NEMA 4X
- IP 66



SoliTherm® Thermoelectric Cooler General Specifications							
Part Number	Nominal Power / Max (W)	Cooling Capacity	Operating Voltage	Inrush Current (A)	Max Current (A)	Recommended Fuse Size (A)	Integral Thermostat
3035303	44 - 52	100 BTU/H [30W]	24 VDC	4.0	2.2	5	No
3050303	58 - 60	170 BTU/H [50W]		3.7	2.5	4	
3102303	115 - 118	340 BTU/H [100W]		7.4	4.9	8	
3152303	170 - 180	510 BTU/H [150W]		11	7.5	10	
3200303	260 - 280	680 BTU/H [200W]		17	11.6	16	
6105313	125 - 139	340 BTU/H [100W]	120 VAC	1.6	1.2	2	Yes
6105323			230 VAC	0.8	0.6	1	

Notes: Power and Cooling Capacity values are for 95°F [35°C] internal and ambient temperatures. Refer to Performance Graphs for values corresponding to other conditions.
Fuses are Class T Time Delay.

Airflow Example



THERMOELECTRIC COOLING PRINCIPLE

SoliTherm® Thermoelectric Coolers

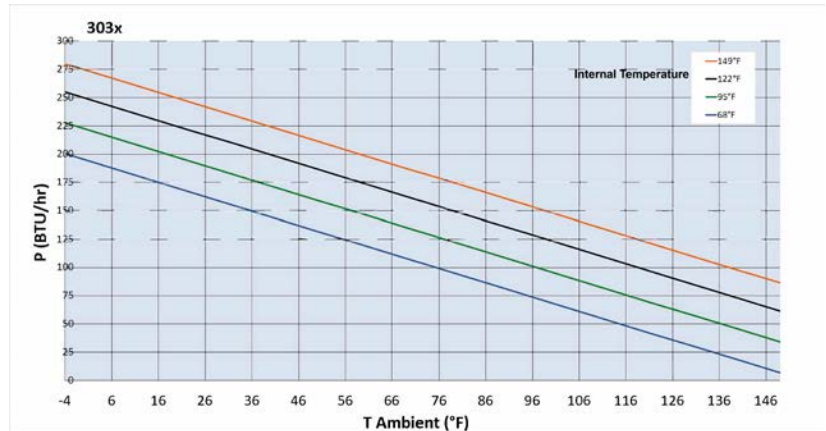


SoliTherm Thermoelectric Coolers					
Part Number	Price	Dimensions HxWxD	Cutout Dimensions	Weight (lb)	Drawing Link
3035303	606.00	6.04 x 4.33 x 5.07 [110 x 154 x 129]	4.80 x 3.23 [122 x 82]	4	PDF
3050303	805.00	8.11 x 6.06 x 5.31 [206 x 154 x 135]	6.69 x 4.72 [170 x 120]	7	PDF
3102303	1,415.00	7.87 x 11.97 x 5.43 [200 x 304 x 138]	10.24 x 6.30 [260 x 160]	13	PDF
3152303	1,846.00	15.75 x 7.09 x 6.73 [400 x 180 x 171]	14.61 x 6.10 [371 x 155]	20	PDF
3200303	1,757.00	15.75 x 7.09 x 6.73 [400 x 180 x 171]	14.61 x 6.10 [371 x 155]	22	PDF
6105313	1,849.00	11.02 x 13.78 x 6.5 [280 x 350 x 164]	12.68 x 9.92 [322 x 252]	21	PDF
6105323	1,849.00				PDF

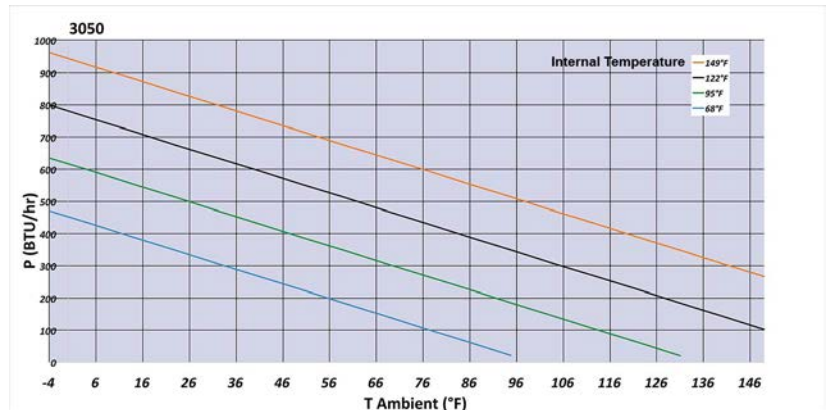
Note: Dimensions in inches [millimeters].



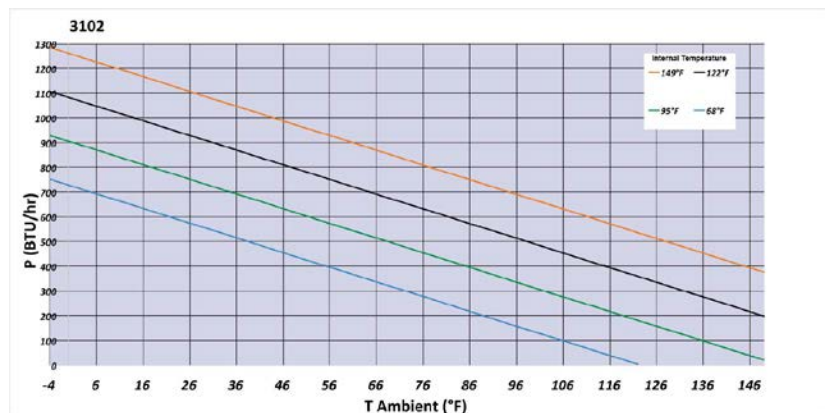
[3035303](#)
24VDC



[3050303](#)
24VDC



[3102303](#)
24VDC



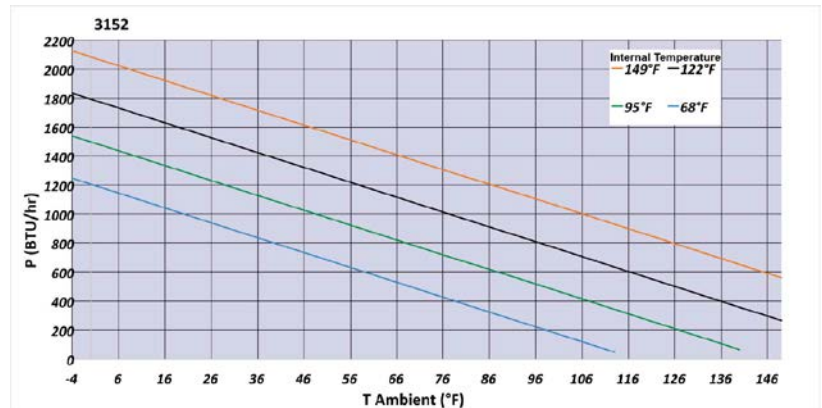
SoliTherm® Thermoelectric Coolers



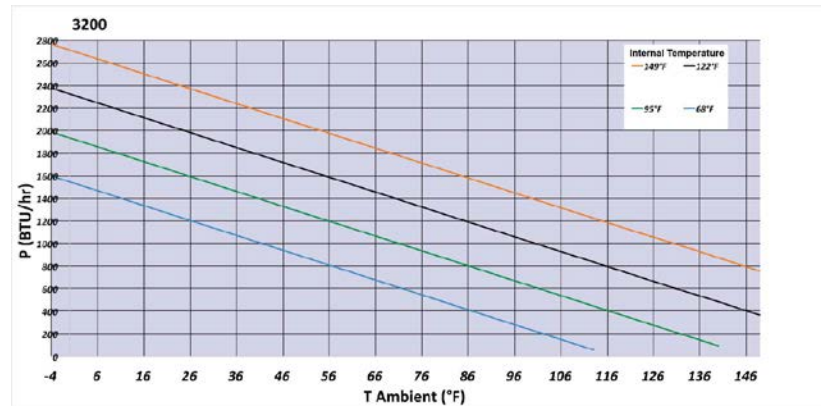
Performance Graphs



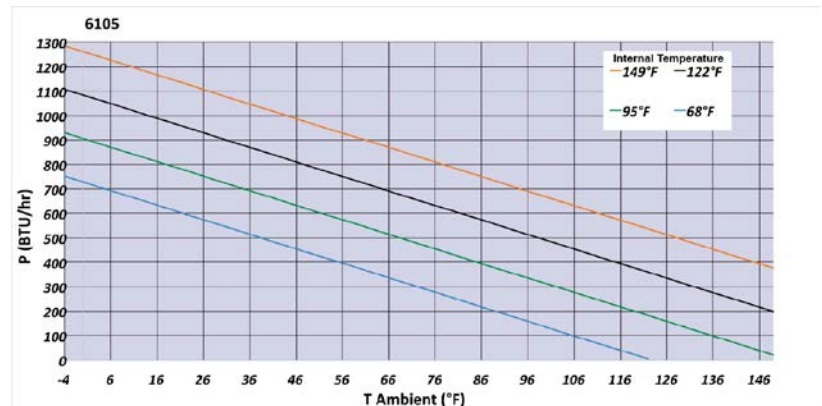
3152303
24VDC



3200303
24VDC



6105313 and 6105323
120 VAC 230 VAC



SoliTherm® Thermoelectric Coolers



External Mounting Kit



1012305

This kit is for external mounting of SoliTherm Thermoelectric Coolers. Add these kits when there isn't space in the enclosure for the internal heat sink and fan.

Features

- AISI 304 stainless steel
- Hardware included

SoliTherm Thermoelectric Cooler External Mounting Kit		
Part Number	Price	For Use With
1011305	134.00	3035303
1012305	155.00	3050303
1013305	89.00	3102303
1014305	132.00	3152303 3200303
1015305	118.00	6105313 - 6105323

Condensate Drain Kit



1001303

As with a conventional air conditioner, cooling air with a thermoelectric cooler may produce condensation. Consider adding condensation management in humid environments.

This kit contains a condensate tray and drain for use with SoliTherm Thermoelectric Coolers.

Mounts to cooler using existing mounting bolts for enclosure.

Features

- Stainless steel AISI 304
- Hardware included

SoliTherm Thermoelectric Cooler Condensate Drain Kit		
Part Number	Price	For Use With
1001303	142.00	3035303 3050303
1003303	164.00	3102303
1002303	147.00	3152303 3200303
1004303	176.00	6105313 - 6105323