

Product Information Packet

Model AHP-250CPHC

Solid State Cold/Hot Plate

Part #1-L094-1-000

Thank you for your purchase. Information has been enclosed regarding the installation, specifications, and wiring of your solid-state assembly. Please read and follow all instructions carefully before installation. Only qualified technicians should install this equipment.

If you have any questions regarding your equipment, please do not hesitate to call us at 773-342-4900, and we will be happy to assist you. We are open from 8:00 am-4:30 pm Central Time.

Included in this packet you will find:

Product Literature and Specifications

Assembly Drawing # SK140535

Wiring Drawing # SK140529

Installation Drawing # SK140536

Warranty Information



ThermoElectric Cooling America Corporation
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sales@thermoelectric.com www.thermoelectric.com

AHP-250CP

Cold/Hot Plate

Air Cooled

General Purpose 12 VDC, 24 VDC
46 Watts

FEATURES

- Compact (only 6" X 4.75" X 4.4")
- Mounts and operates in any orientation: horizontal, vertical, etc.
- Low vibration and noise
- No moving parts except fan
- Environmentally safe
- No compressor, fluorocarbons or filters
- Heat via reverse polarity
- Virtually maintenance-free operation
- Weight 3.8 LBS. (1.7 KG)

INCLUDES

- Mounting gasket
- Mounting hardware
- Power input leads

OPTIONS

- Adaptable for TC-3400 controller
- Stainless steel exterior housing



PERFORMANCE RATINGS

Cooling (Traditional)	218 BTU/HR
Cooling (Din 3168)	46 WATTS
Cooling COP (at L35 L35)	0.64
Cooling (Traditional)	245 BTU/HR
Heating (Din 3168)	72 Watts

SPECIFICATIONS

MODEL	PART NUMBER	NOTES	PERFORMANCE RATING WATTS	VOLTAGE VDC	CURRENT AMPS.	TEMP. CONTROL	OPERATING AMBIENT °C
AHP-250CPHC	1-L094-1-000	Heat/Cool	46	12	6	None	-10/+60
AHP-250CPHC	1-L095-1-000	Heat/Cool	46	24	3	None	-10/+60

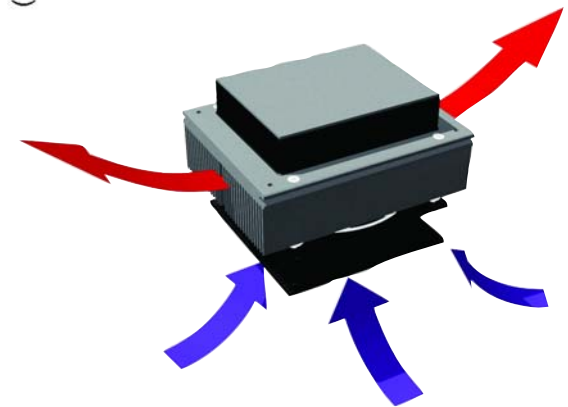
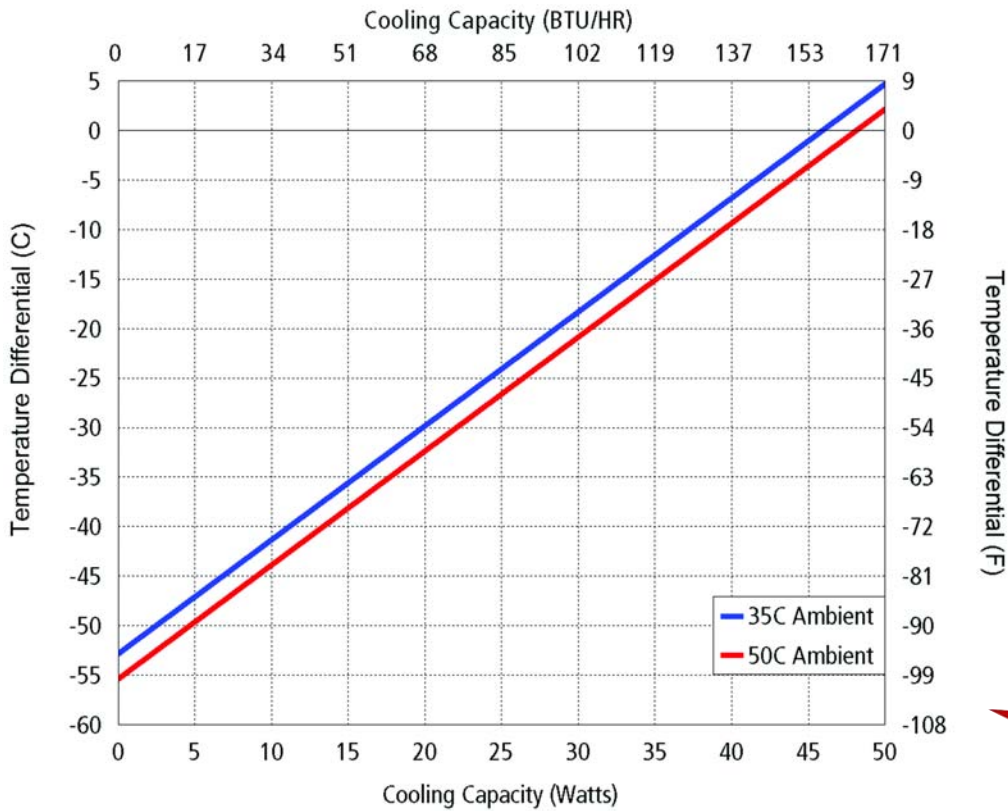
Heat function via reverse polarity (requires controller with H-Bridge)

AHP-250CP**ENVIRONMENTS**

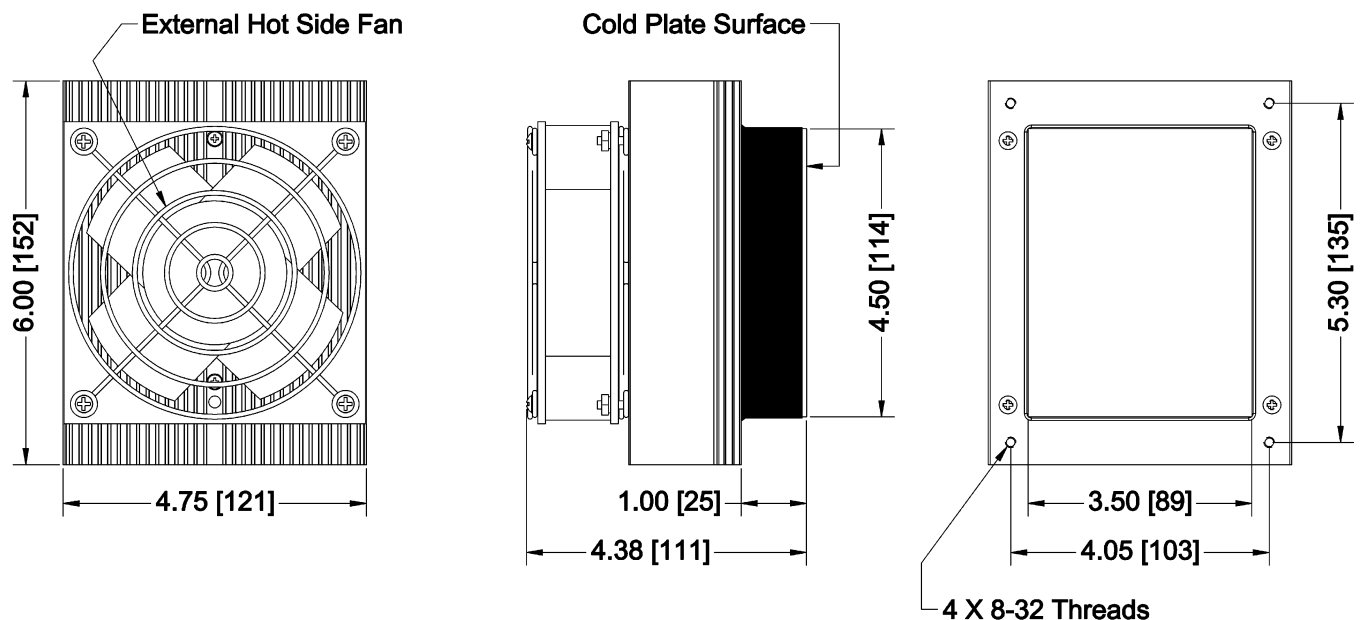
Bench Top, Factory, Industrial, OEM

COOLING CAPACITY

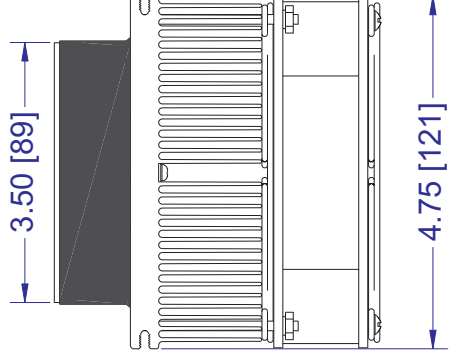
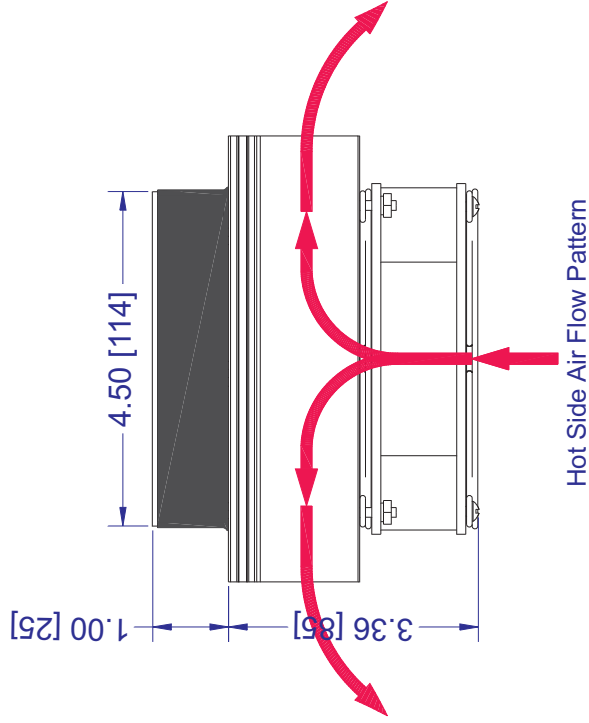
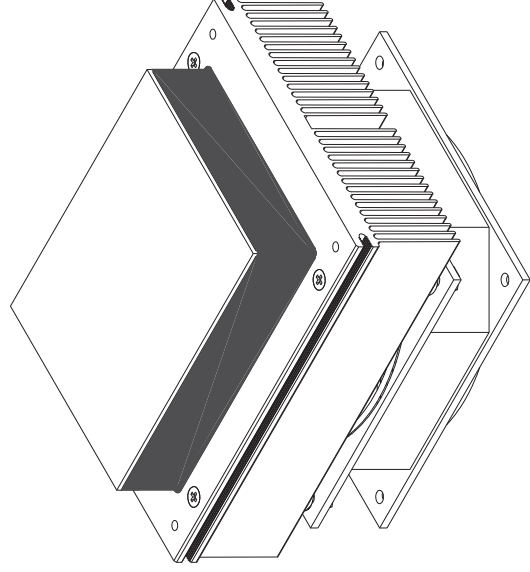
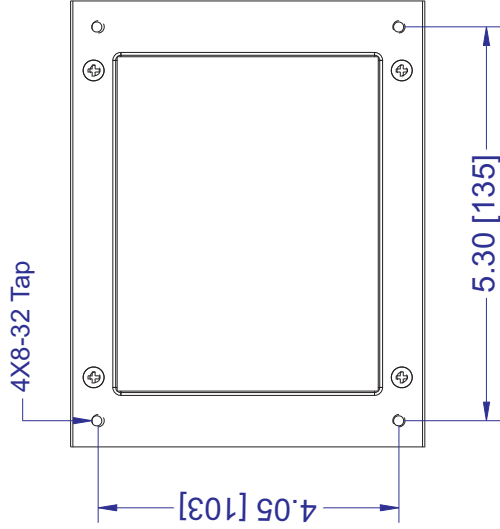
46 Watts @ 0 °C ΔT

PERFORMANCE CURVE

Air Flow Pattern

DIMENSIONS

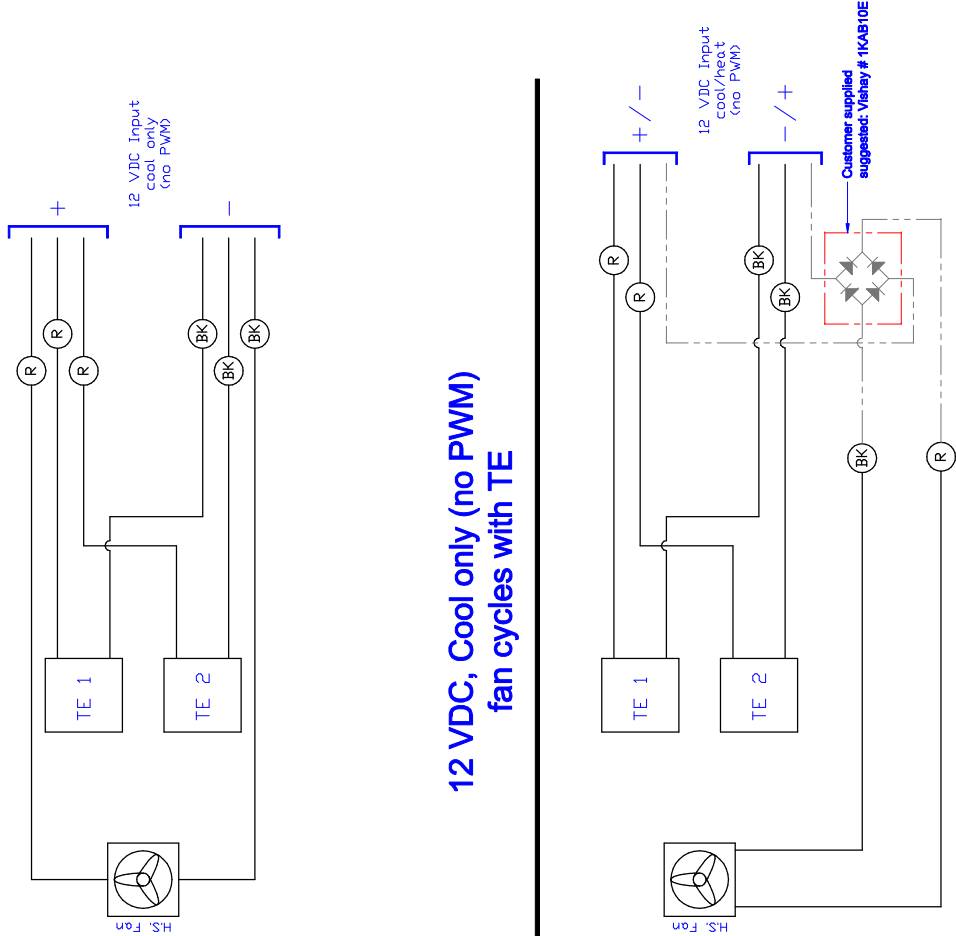
Dimension does not include hardware and sealant.
 Hardware and gasket included but not shown.
 Dimensions: Inches [Millimeters]



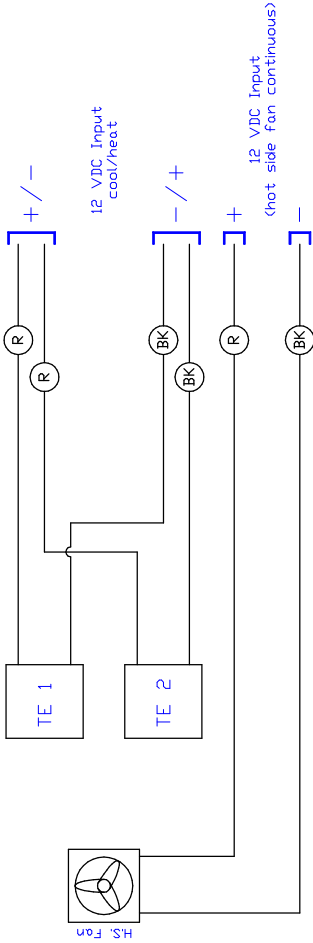
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INFORMATION DISCLOSED HEREIN IS THE CONFIDENTIAL PROPERTY OF TECA CORP. RECIPIENT SHALL NOT USE THE INFORMATION IN ANY UNAUTHORIZED MANNER. FINISH:			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMALS .XX +/- ANGLE +/- FRACTION XXX+/-			
MATERIAL:			
DRAWN BY: AA			
DATE: 05/13/2014			
DRAWING # SK140535			
SCALE D9190			
MASTER: MASTER			
REV LEVEL			
SHEET			

THE THERMOELECTRIC COOLING AMERICA CORP.

AHP-250CP, AHP-270CP SERIES
THERMOELECTRIC COLD PLATE



12 VDC, Cool only (no PWM)
fan cycles with TE

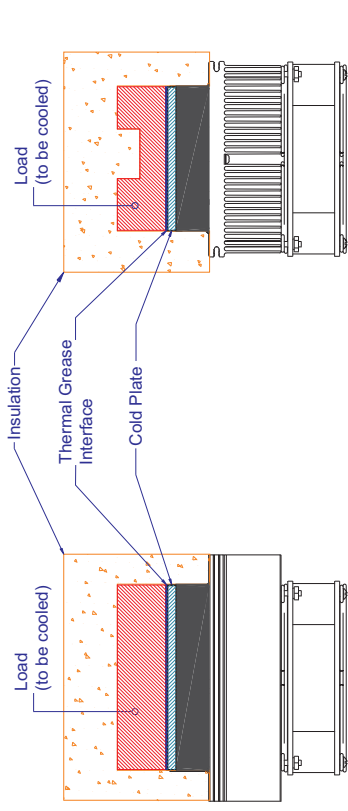


12 VDC, Heat/Cool via polarity reversal
hot side fan on continuous

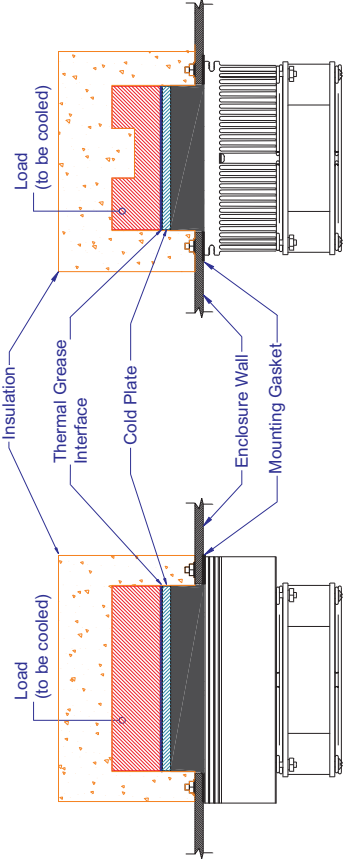
12 VDC, Heat/Cool via polarity reversal (no PWM)
hot side fan reverse polarity protected
and cycles with TE

REV	DESCRIPTION	Date	APPROVED
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:			
DECIMALS		ANGLE	+/-
XX +/-		FRACTION	+/-
XXX +/-		FRACTION	+/-
MATERIAL:		DRAWN BY: AA	
FINISH:		DATE: 05/13/2014	
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		SCALE	
		MASTER: MASTER	
		REV LEVEL	
		SHEET	

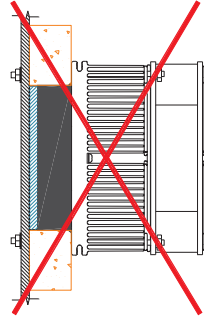
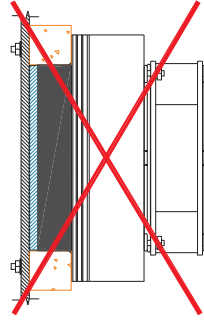
THERMOELECTRIC COOLING AMERICA CORP.			
AHP-250CP, AHP-270CP			
TYPICAL WIRING			
DRAWN BY: AA			
DATE: 05/13/2014			
D9184			
SCALE			
MASTER: MASTER			
REV LEVEL			
SHEET			



METHOD A



METHOD B



Note: Do not use this method.
Over compression may cause irreversible damage to the thermoelectrics and void the warranty.

INSTALLATION INSTRUCTIONS

- 1- Choose Mounting Method (A or B).
- 2- Prepare mounting surface/component as indicated. Ideal component surface flatness is ± 0.001 T.I.R.
- 3- Spread an even, approximately 10 MIL, layer of thermal grease (Dow type 340 or equivalent) on both thermal contact surfaces (component and cold plate). A speedball rubber roller works well for this.
- 4- Install unit without sliding against mating surface, rotate slightly to "seat" them.
- 5- Fit insulation around cold plate surfaces as required.
- 6- If desired, caulk insulation to seal and secure insulation.
- 7- Connect power per appropriate wiring diagram.

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FINISH:		MATERIAL:		SCALE D9191		MASTER: SK140535		SHEET
DESCRIPTION		Date		APPROVED		THERMoeLECTRIC COOLING AMERICA CORP. AHP-250CP, AHP-270CP SERIES INSTALLATION INSTRUCTIONS		

LIMITED WARRANTY

In the event a defect in material or workmanship is discovered in any of TECA's products within one year after the date they are delivered to Buyer, and if: (a) TECA is notified of the defect in writing by certified mail within 14 days of the date of discovery; (b) TECA may then either, at its sole discretion, inspect the product at Buyer's location, or require that the product be made available at Buyer's expense at TECA's premises for TECA's inspection within 14 days of the date of notification; and (c) the products are defective and the defects result from faulty materials and/or workmanship and not in any way from accident, misuse, misapplication, mishandling, modification, or alteration by the Buyer or the shipper, then TECA shall, at its sole option, repair or exchange defective products free of charge to Buyer, or credit to buyer the price of the defective products. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE EXCLUDED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL TECA BE LIABLE FOR ANY CLAIM BASED UPON BREACH OF EXPRESS OR IMPLIED WARRANTY OR ANY OTHER DAMAGES WHETHER SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, LOST PROFITS, BUSINESS INTERRUPTION, OR LOSS OF BUSINESS OR CUSTOMER RELATIONSHIPS.

RETURNED GOODS, RESTOCKING CHARGES

In order to return merchandise for any reason (repair, replacement, or credit) a return authorization number must be issued by TECA. New merchandise may not be returned for credit beyond 60 days from shipment. Charges for incidental or other damages may also be made. All returned goods must be sent freight prepaid. A restocking charge of 15% will apply. On special equipment and custom modified equipment orders, additional incremental cancellation charges may be made.