

# Product Information Packet

## Model AHP-690CPHC

24 VDC Solid State Cold/Hot Plate

Reverse Polarity Capable

Part #1-M095-1-000

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 # SK140711

Wiring Drawing # SK140747

Installation Drawing # SK140710

Warranty Information



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# AHP-690CP

# Cold/Hot Plate

Air Cooled

General Purpose 24 VDC  
163 Watts

## FEATURES

- Flat aluminum plate (8" x 4.70") [203 x 119]
- Standard 6-32X.25 UNC threads
- Compact (only 10" x 5.9" x 5.2") [254 x 150 x 132]
- 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
- Cools and heats via reverse polarity
- Virtually maintenance-free operation
- Pivot clean
- Weight 9 LBS. (4 KG)

## INCLUDES

- Mounting gasket
- Mounting hardware
- Power input leads

## OPTIONS

- Custom cold plate threads and/or inserts
- Flat plate without holes or threads
- Stainless steel exterior fan shroud and housing
- Custom fans: Quiet, Speed Control, Waterproof
- Use with TC-3400 and TC-4600 controls



## PERFORMANCE RATINGS

Cooling	163 WATTS
Cooling COP	0.57
Heating	> 288 Watts

## SPECIFICATIONS

MODEL	PART NUMBER	NOTES	PERFORMANCE RATING WATTS	VOLTAGE VDC	CURRENT AMPS.	TEMP. CONTROL	OPERATING AMBIENT °C
AHP-690CPHC	1-M095-1-000	Heat/Cool	163	24	14	None	-10/+60

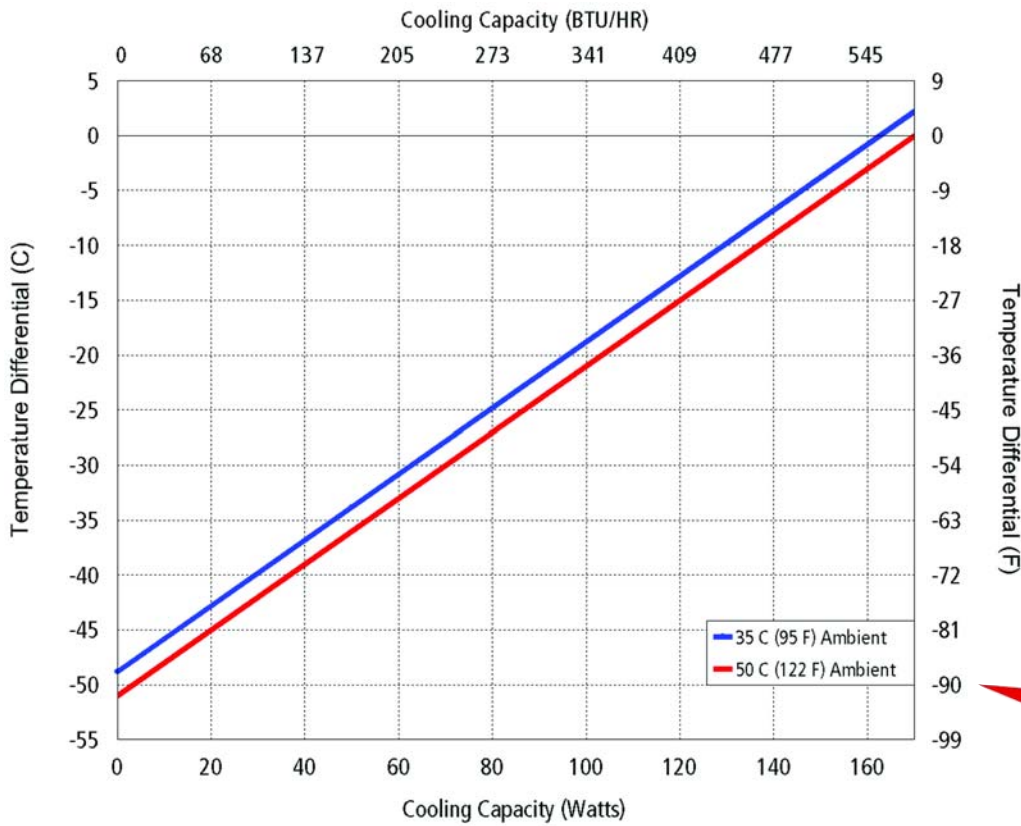
Heat function via reverse polarity (requires controller with H-Bridge)

**AHP-690CP****ENVIRONMENTS**

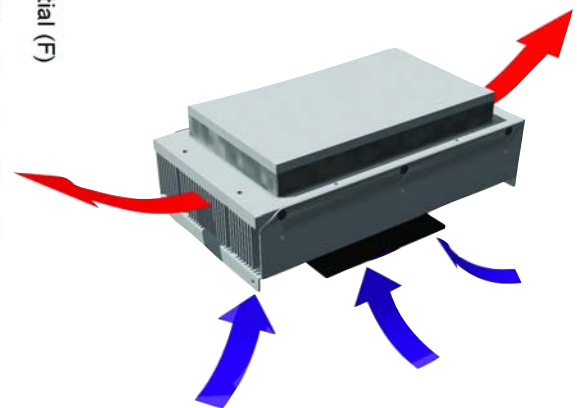
Bench Top, Factory, Industrial, OEM

**COOLING CAPACITY**

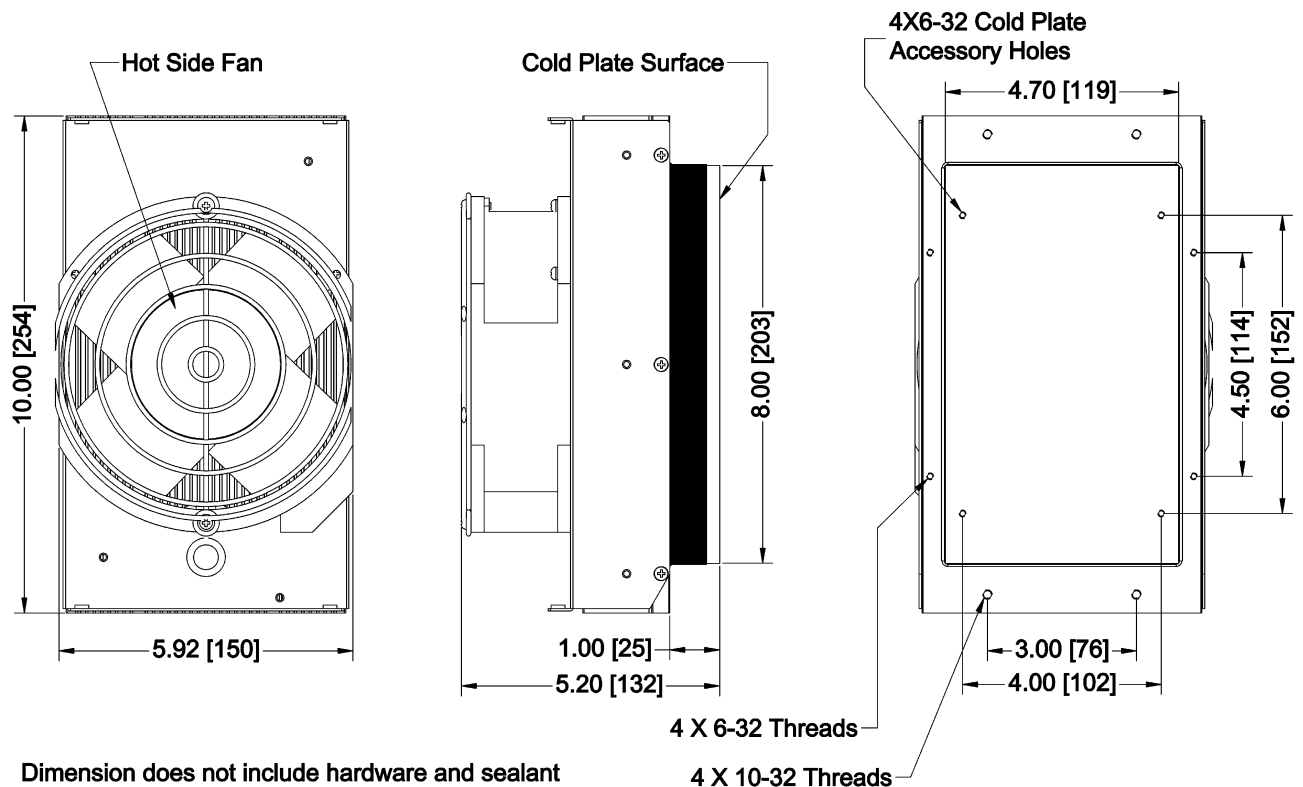
163 Watts @ 0 °C ΔT

**PERFORMANCE CURVE**

Equation of Line: $y = \Delta T(^{\circ}\text{C})$ $x = \text{Capacity (Watts)}$			
Ambient Temp		35°C	50°C
Cold Plate		$y = 0.30x - 48.8$	$y = 0.30x - 51$



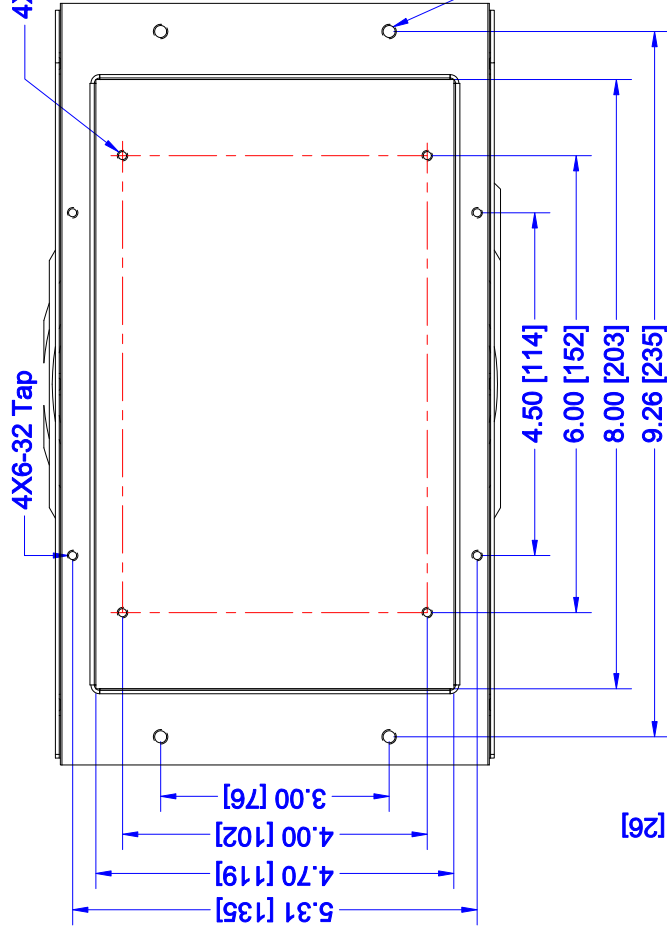
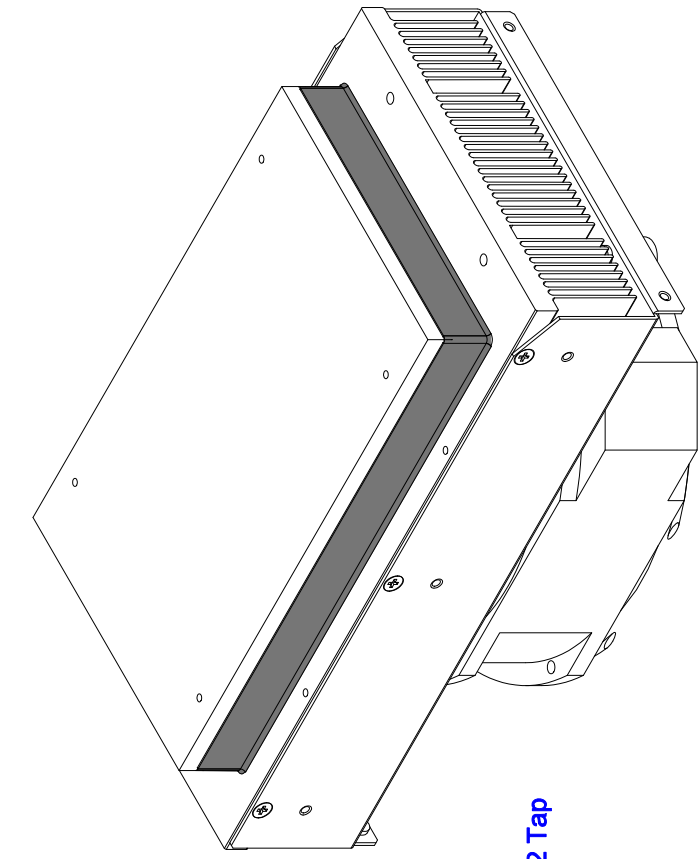
Air Flow Pattern

**DIMENSIONS**

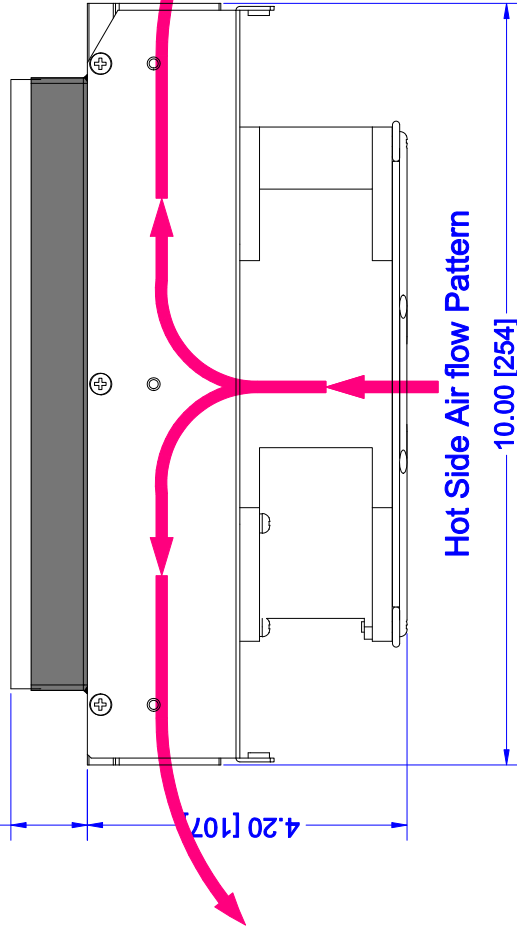
Dimension does not include hardware and sealant  
 Hardware and gasket included but not shown  
 Dimensions: Inches [Millimeters]

4X6-32 Tap

4X10-32 Tap

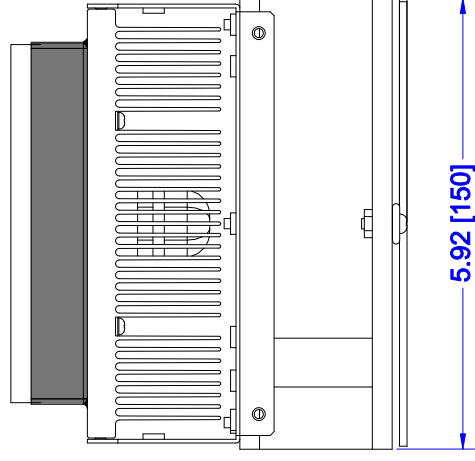


1.01 [26]



Hot Side Air flow Pattern

5.92 [150]



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FINISH:

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCES ARE:  
DECIMALS .XX +/-  
FRACTION XX +/-  
ANGLE +/-  
MATERIAL:

**THERMOELECTRIC COOLING AMERICA CORP.**

**AHP-690CP SERIES  
THERMOELECTRIC COLD PLATE**

REV	DESCRIPTION	Date	APPROVED

DRAWN BY: <b>AA</b>	DRAWING # <b>SK140711</b>	REV LEVEL
DATE: <b>07/03/2014</b>	SCALE <b>D9307</b>	SHEET
	MASTER: <b>MASTER</b>	





## 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.