

Product Information Packet

Model AHP-1 200CPHC

Solid State Cold Plate

for Remote Temperature Control

Part #1-3055-1-000

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:

Installation Notes for Air Conditioners

Product Literature and Specifications

Assembly Drawing # SK100310

Wiring Drawing # SK100232

Installation Drawing # 1200-B-F56

Warranty Information



ThermoElectric Cooling America Corporation
4048 W. Schubert Avenue • Chicago, IL (U.S.A.) 60639
Ph: 773/342-4900 Fx: 773/342-0191
sales@thermoelectric.com www.thermoelectric.com

AHP-1200CP Cold Plate

Air Cooled
Flush Mount
NEMA-12

General purpose 24 VDC input

FEATURES

- Direct contact cooling as much as 48 °C below room temperature
- Weighs only 19 lbs. (8.6 kg)
- Mount thru bench top or enclosure wall
- No compressor, fluorocarbons or filters
- Virtually maintenance-free operation
- Stainless steel exterior housing
- Mounts in any orientation



INCLUDES

- Cold plate accessory tapped holes
- Cold plate mounting taps
- Rubber feet
- Power input cord

SPECIFICATIONS

MODEL	PART NUMBER	NOTES	PERFORMANCE RATING BTU/HR	VOLTAGE VAC 50/60 HZ	CURRENT AMPS.	WEIGHT LBS. (KG)	TEMP. CONTROL *	OPERATING AMBIENT °C
AHP-1200CP	1-3095-0-000	Cool only	830-950	24	9.0	18(8.2)	None	-10/+70
AHP-1200CP	1-3055-0-000	Cool only	830-950	24	9.0	18(8.2)	EXT*	-10/+70
AHP-1200CPHC	1-3055-1-000	Heat/Cool	830-950	24	9.0	19(8.6)	EXT**	-10/+70

* Unit is set for 5-32 VDC external control signal, relay included

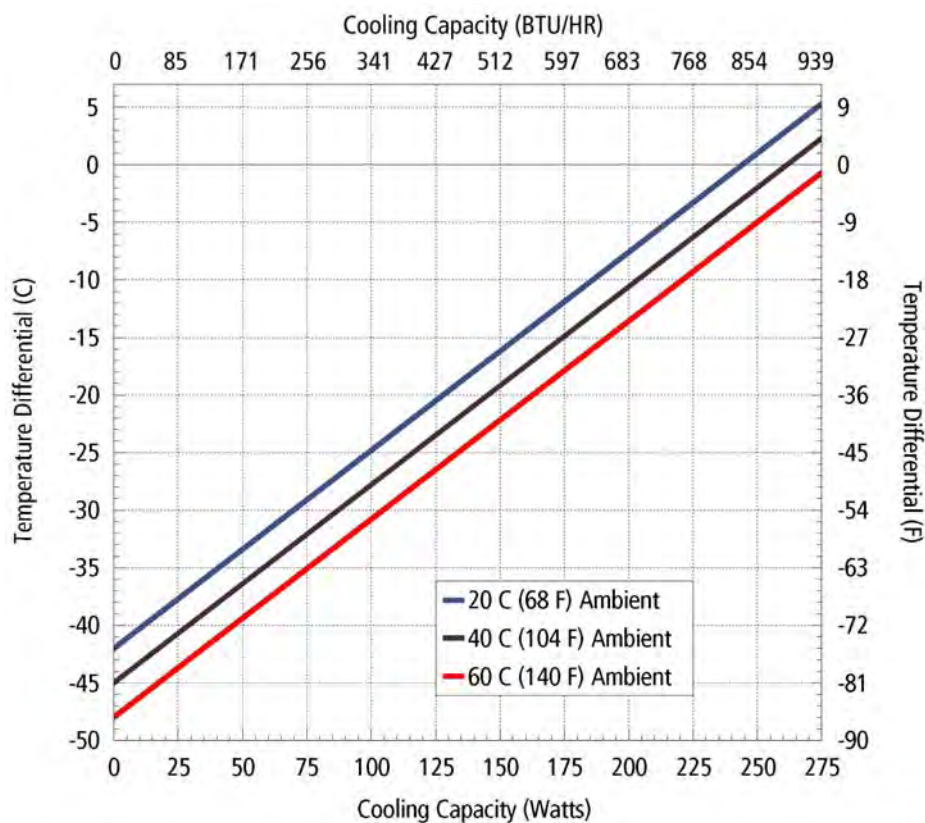
** Unit is set for 5-32 VDC external control signal, H-Bridge relay(s) included

AHP-1200CP**ENVIRONMENTS**

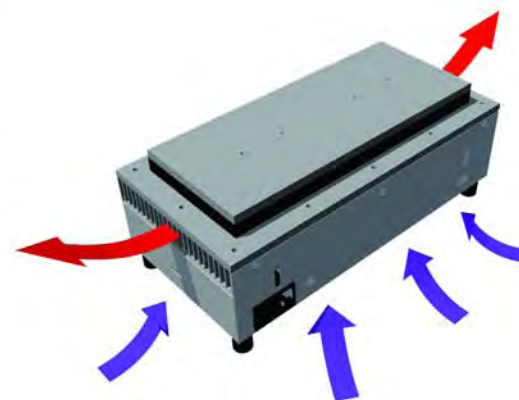
Bench top
Laboratory
Industrial

COOLING CAPACITY

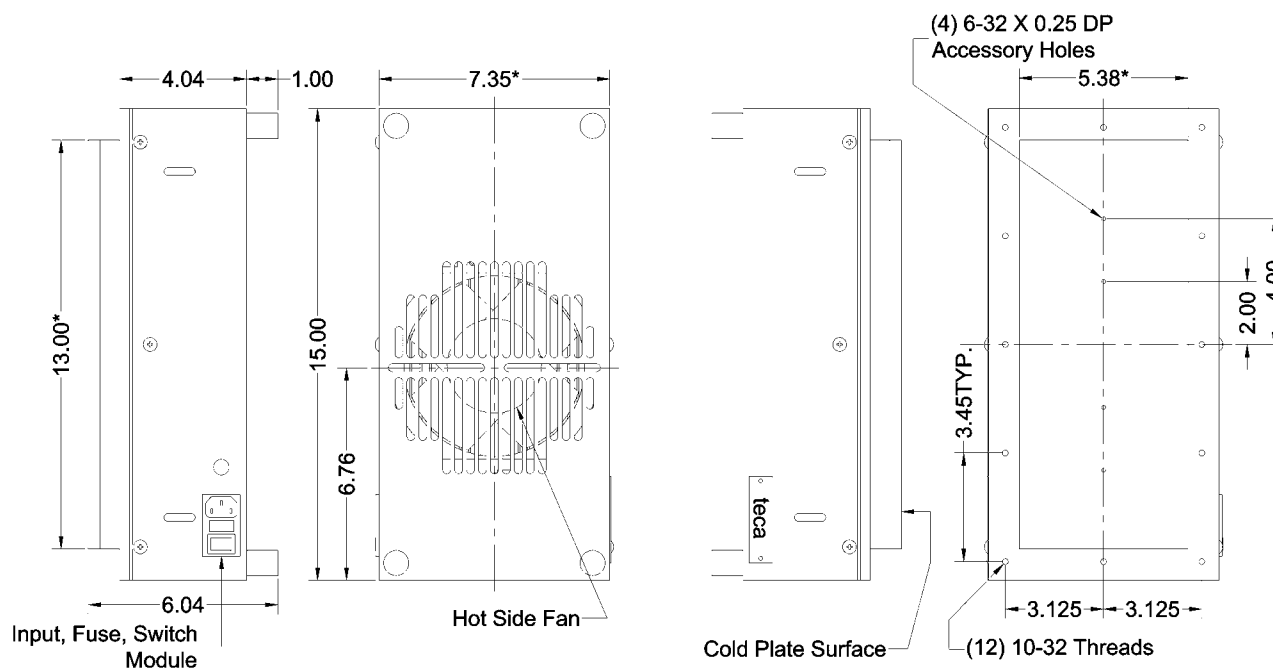
260 Watts @ 0 °C ΔT



Equation of line: $y = \Delta T(^{\circ}\text{C})$ $x = \text{Capacity (Watts)}$			
Ambient Temp	20°C	40°C	60°C
Cold Plate	$y = .172x - 44.0$	$y = .172x - 45.0$	$y = .172x - 48.0$



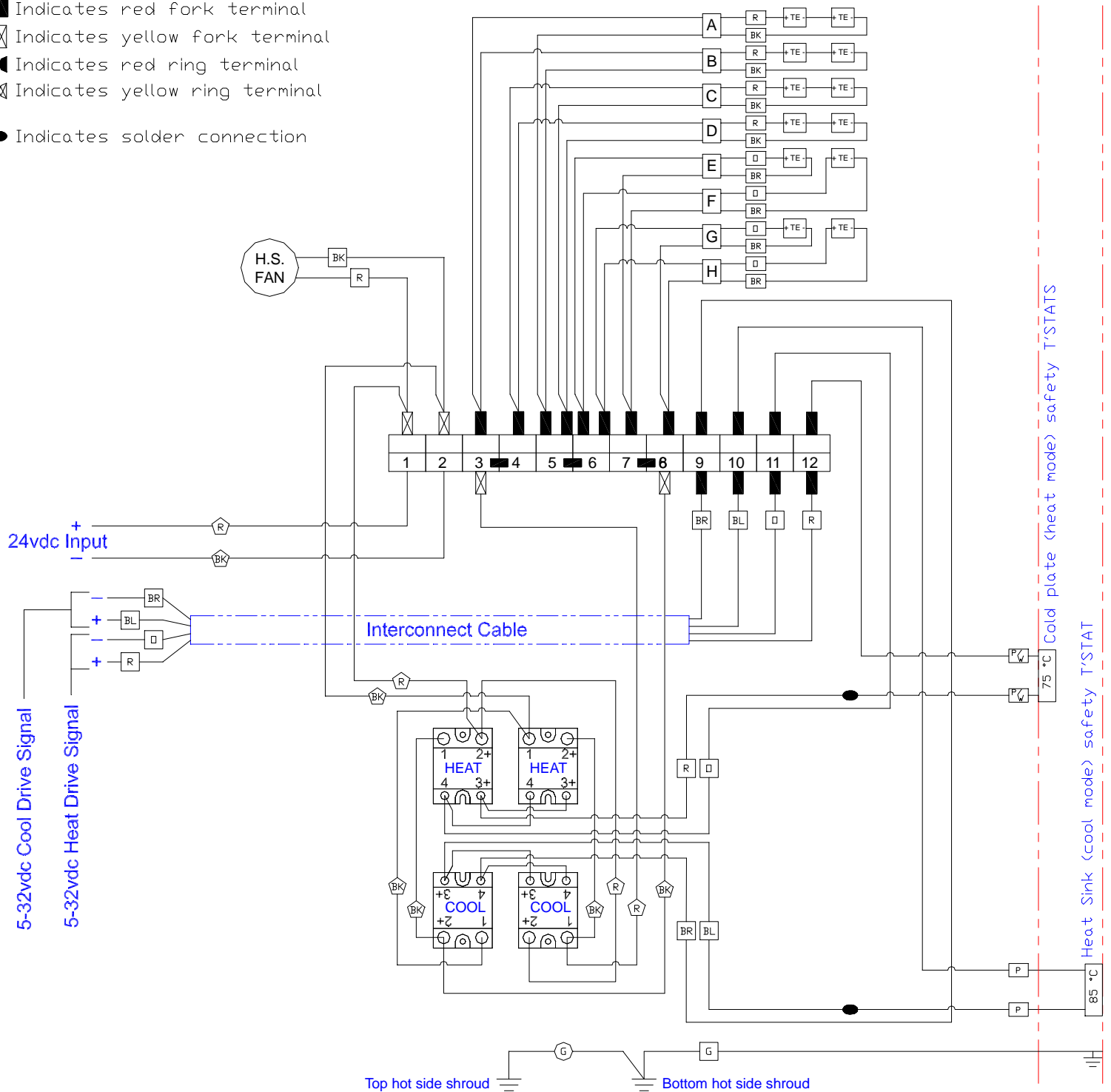
Ambient Air Path

DIMENSIONS

* Dimension does not include hardware, insulation.
Dimension: Inches

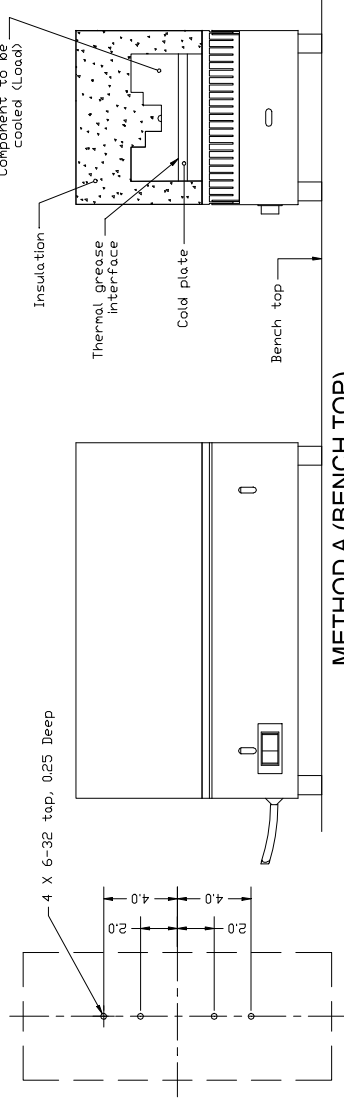
- ◊ Indicates 12 AWG wire
- ◻ Indicates 22 AWG wire
- Indicates 18 AWG wire

- Indicates red fork terminal
- ▤ Indicates yellow fork terminal
- Indicates red ring terminal
- ◻ Indicates yellow ring terminal
- Indicates solder connection

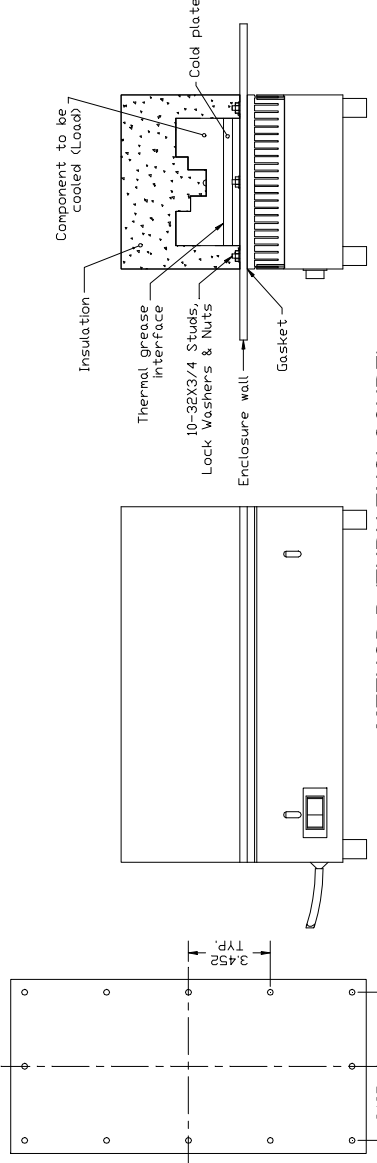


Factory wired for standard capacity (8 VDC/TE) Reference drawing # SK081010.

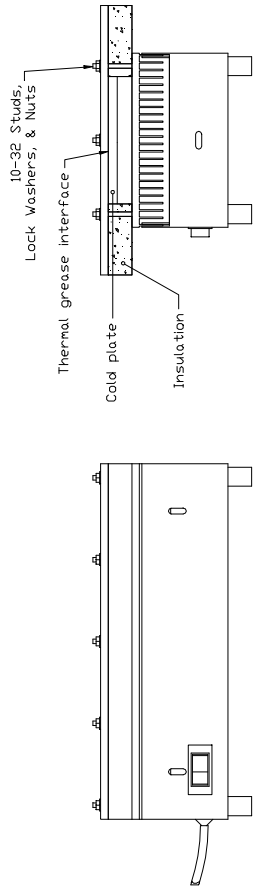
INFORMATION DISCLOSED HEREIN IS THE CONFIDENTIAL PROPERTY OF TECA CORP. RECIPIENT SHALL NOT USE THE INFORMATION IN ANY UNAUTHORIZED MANNER.		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		THERMOELECTRIC COOLING AMERICA CORP.		
		DECIMALS .XX +/- .XXX +/-	ANGLE +/- FRACTION +/-	AHP-1200CPHC DC WIRING DIAGRAM		
FINISH:	MATERIAL:		DRAWN BY: AA	DRAWING # SK100232	REV LEVEL B	SHEET
			DATE: 02/25/2010	SCALE D7750	MASTER: MASTER	



METHOD A (BENCH TOP)



METHOD B (THRU ENCLOSURE)



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 $\pm .001$ 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 using stainless steel screws and lock washers if available. Rotate slightly to "seat" them. Torque screws until snug. Do not overtighten.
- 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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DRAWN BY: AA		DRAWING #		REV. LEVEL	
DATE: 05/24/00		SCALE		MASTER	
D5336		1200-B-F56		SHEET	

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.