



# IHP-500 Series

## Internal Mount Kiosk & Enclosure

### Temperature Control System

Product Manual  
V01-2

teca



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## IHP-570

Air Cooled  
Internal Mounted  
Nema-12, 4, 4X

## Internal Mount Air Conditioner/Heat Exchanger

24 VDC  
High Efficiency  
240 BTU/HR

### FEATURES

- Compact (only 17.4" X 8" X 7.8")
- Mounts and operates in any orientation, inside enclosure
- Available in two installation styles:
  - **Style A:** Installs from inside of the enclosure
  - **Style B:** Installs from outside of the enclosure
- Low vibration and noise
- No moving parts except fans
- Environmentally safe
- No compressor, fluorocarbons or filters
- Virtually maintenance-free operation
- Stainless steel housing
- Efficient heat exchanger mode (ECO-Mode)
- Weight 16 LBS.

### CONTROL TEMPERATURES

Active Cooling	35 °C
Heat Exchanger (ECO-Mode)	25 °C
Active Heating	10 °C
Typical Hysteresis	5 °C
Operating Ambient	-40/+70 °C
Operating Enclosure	-10/+60 °C

### POWER INPUTS

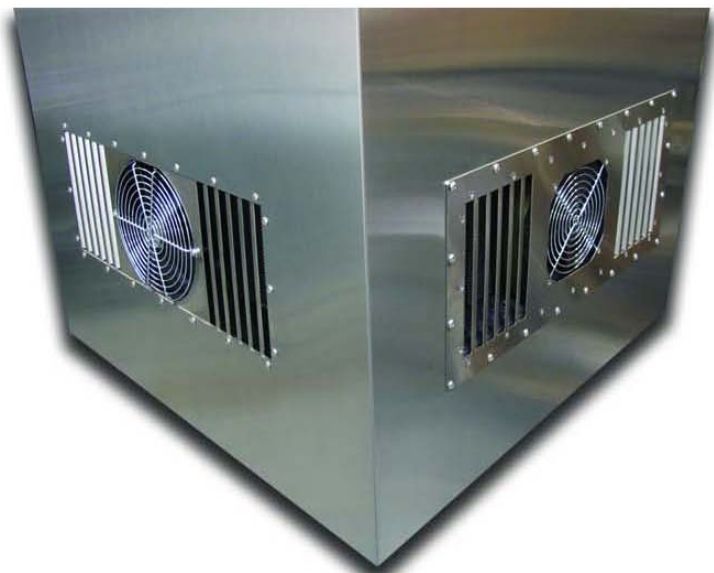
Voltage	24 VDC
Current, Active	3.0 AMPS
Current, ECO-Mode	0.3 AMPS

### PERFORMANCE RATINGS

Cooling (Traditional)	240 BTU/HR
Cooling (Din 3168)	70 WATTS
Cooling COP (at L35 L35)	0.97
Heating (Traditional)	> 245 BTU/HR
Heating (Din 3168)	> 72 WATTS
Heating COP	> 1.0

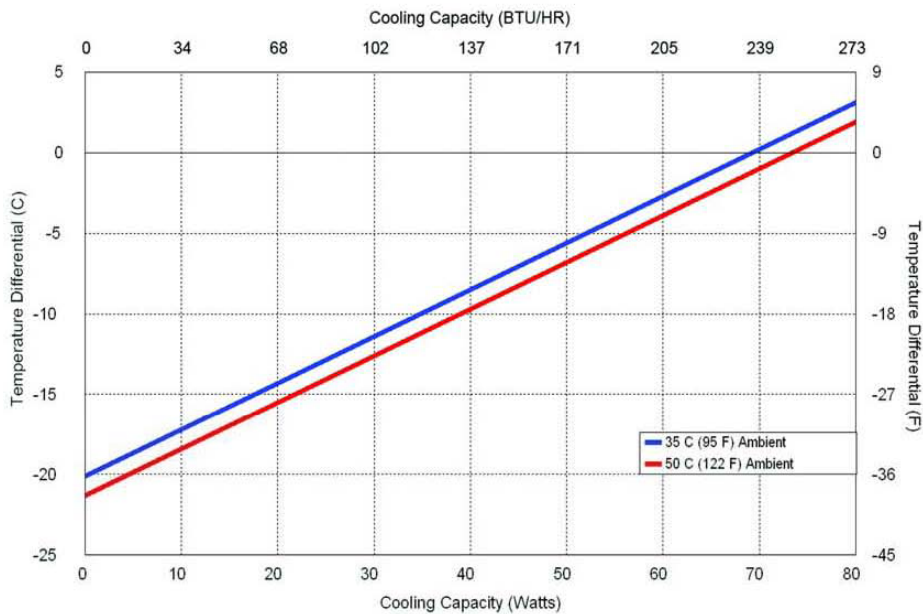
### INCLUDES

- Temperature controller
- Mounting gasket
- Mounting hardware
- Power input leads
- Power saving heat exchanger mode (ECO-Mode)



Picture above shows both installation styles  
Shown on the left is the **Style A** (installs from inside of the enclosure)  
Shown on the right is the **Style B** (installs from outside of the enclosure)

## PERFORMANCE CURVE



Equation of Line: $y = \Delta T(^{\circ}\text{C})$ $x = \text{Capacity (Watts)}$			
Ambient Temp	35°C	50°C	
IHP-570	$y = .29x - 20.1$	$y = .29x - 21.3$	

## Air Conditioner - Air Cooled

### IHP-570

#### MOUNTING STYLE

Internal Mounted

#### ENVIRONMENTS SERVED

NEMA-12 IP 52

NEMA-4,4X IP 56

#### RATING (TRADITIONAL)

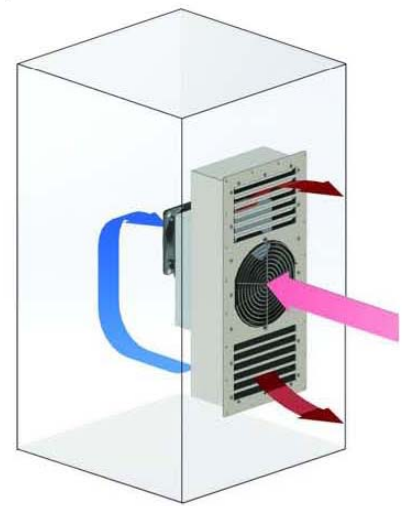
240 BTU/hr @ 0 °F  $\Delta T$

367 BTU/hr @ +20 °F  $\Delta T$

#### RATING (DIN 3168)

70 Watts L35 L35

22 Watts L35 L50



Air Flow Pattern

## CONFIGURATIONS

MODEL	PART NUMBER	NOTES	INSTALLATION STYLE	TEMPERATURE CONTROL	ENVIRONMENT
IHP-570	B-G0J5-0-000	Cool only, industrial fans	A	TC-4F	NEMA-12, IP 52
IHP-570HC	B-G095-1-000	Heat/Cool, industrial fans	A	None*	NEMA-12, IP 52
IHP-570HC	B-G0I5-1-000	Heat/Cool, industrial fans	A	TC-7F	NEMA-12, IP 52
IHP-570XE	B-G0J5-4-000	Cool only, sealed hot side fan	A	TC-4F	NEMA-4, IP 56
IHP-570XEHC	B-G095-5-000	Heat/Cool, sealed hot side fan	A	None*	NEMA-4, IP 56
IHP-570XEHC	B-G0I5-5-000	Heat/Cool, sealed hot side fan	A	TC-7F	NEMA-4, IP 56
IHP-570X	B-G0J5-2-000	Cool only, Mil. grade hot side fan	A	TC-4F	NEMA-4X, IP 56
IHP-570XHC	B-G095-3-000	Heat/Cool, Mil. grade hot side fan	A	None*	NEMA-4X, IP 56
IHP-570XHC	B-G0I5-3-000	Heat/Cool, Mil. grade hot side fan	A	TC-7F	NEMA-4X, IP 56
IHP-570	B-G0J5-0-100	Cool only, industrial fans	B	TC-4F	NEMA-12, IP 52
IHP-570HC	B-G095-1-100	Heat/Cool, industrial fans	B	None*	NEMA-12, IP 52
IHP-570HC	B-G0I5-1-100	Heat/Cool, industrial fans	B	TC-7F	NEMA-12, IP 52
IHP-570XE	B-G0J5-4-100	Cool only, sealed hot side fan	B	TC-4F	NEMA-4, IP 56
IHP-570XEHC	B-G095-5-100	Heat/Cool, sealed hot side fan	B	None*	NEMA-4, IP 56
IHP-570XEHC	B-G0I5-5-100	Heat/Cool, sealed hot side fan	B	TC-7F	NEMA-4, IP 56
IHP-570X	B-G0J5-2-100	Cool only, Mil. grade hot side fan	B	TC-4F	NEMA-4X, IP 56
IHP-570XHC	B-G095-3-100	Heat/Cool, Mil. grade hot side fan	B	None*	NEMA-4X, IP 56
IHP-570XHC	B-G0I5-3-100	Heat/Cool, Mil. grade hot side fan	B	TC-7F	NEMA-4X, IP 56

\* For controller options contact TECA; Heating function via reverse polarity (controller dependent)

## IHP-590

Air Cooled  
Internal Mounted  
Nema-12, 4, 4X

# Internal Mount Air Conditioner/Heat Exchanger

24 VDC  
315 BTU/HR

### FEATURES

- Compact (only 17.4" X 8" X 7.8")
- Mounts and operates in any orientation, inside enclosure
- Available in two installation styles:
  - **Style A:** Installs from inside of the enclosure
  - **Style B:** Installs from outside of the enclosure
- Low vibration and noise
- No moving parts except fans
- Environmentally safe
- No compressor, fluorocarbons or filters
- Virtually maintenance-free operation
- Stainless steel housing
- Efficient heat exchanger mode (ECO-Mode)
- Weight 16 LBS.

### CONTROL TEMPERATURES

Active Cooling	35 °C
Heat Exchanger (ECO-Mode)	25 °C
Active Heating	10 °C
Typical Hysteresis	5 °C
Operating Ambient	-40/+70 °C
Operating Enclosure	-10/+60 °C

### POWER INPUTS

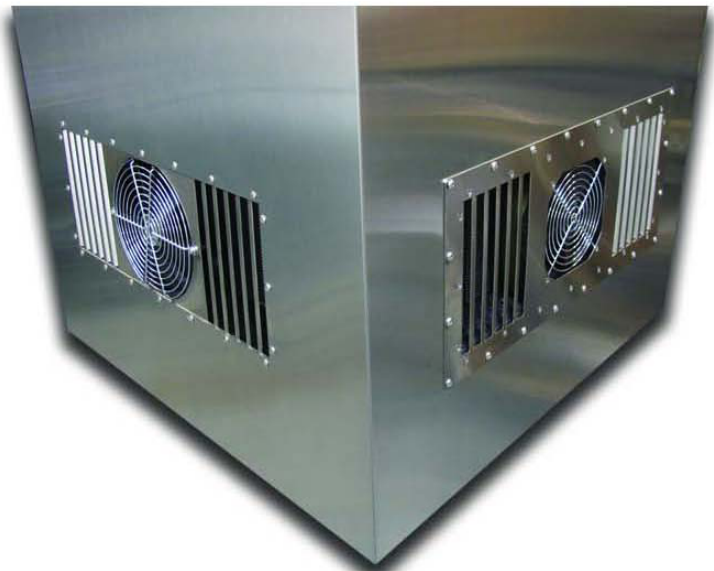
Voltage	24 VDC
Current, Active	6.9 AMPS
Current, ECO-Mode	0.3 AMPS

### PERFORMANCE RATINGS

Cooling (Traditional)	315 BTU/HR
Cooling (Din 3168)	92 WATTS
Cooling COP (at L35 L35)	0.56
Heating (Traditional)	> 562 BTU/HR
Heating (Din 3168)	> 165 WATTS
Heating COP	> 1.0

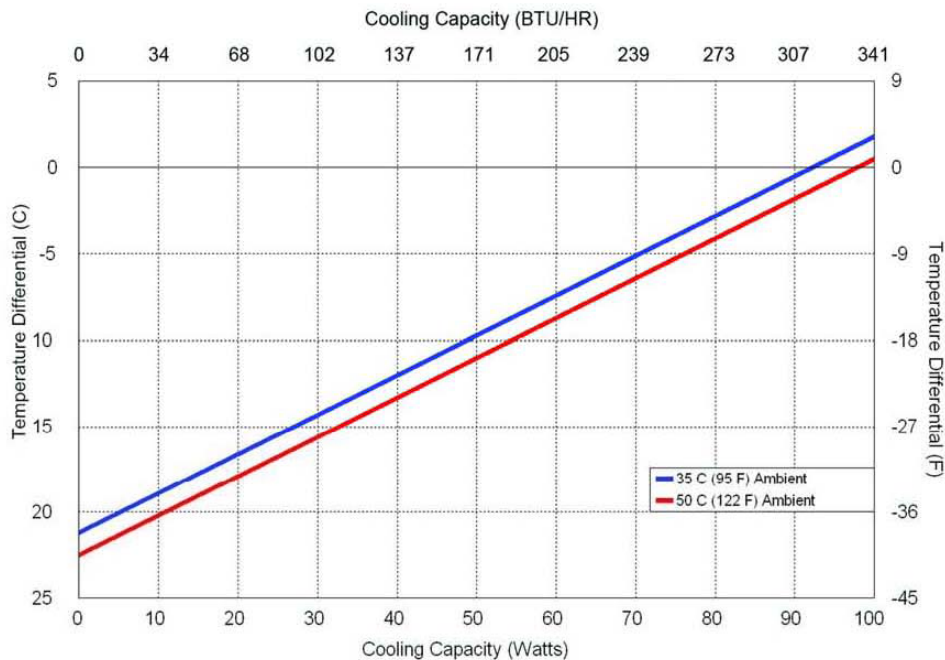
### INCLUDES

- Temperature controller
- Mounting gasket and hardware
- Power input leads
- Power saving heat exchanger mode (ECO-Mode)



Picture above shows both installation styles  
Shown on the left is the **Style A** (installs from inside of the enclosure)  
Shown on the right is the **Style B** (installs from outside of the enclosure)

## PERFORMANCE CURVE



Equation of Line: $y = \Delta T(^{\circ}\text{C})$ $x = \text{Capacity (Watts)}$		
Ambient Temp	35°C	50°C
IHP-590	$y = .23x - 21.2$	$y = .23x - 22.5$

## Air Conditioner - Air Cooled

### IHP-590

#### MOUNTING STYLE

Internal Mounted

#### ENVIRONMENTS SERVED

NEMA-12 IP 52

NEMA-4,4X IP 56

#### RATING (TRADITIONAL)

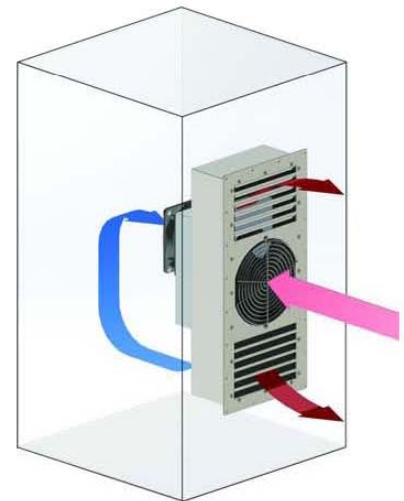
315 BTU/hr @ 0 °F  $\Delta T$

479 BTU/hr @ +20 °F  $\Delta T$

#### RATING (DIN 3168)

92 Watts L35 L35

32 Watts L35 L50

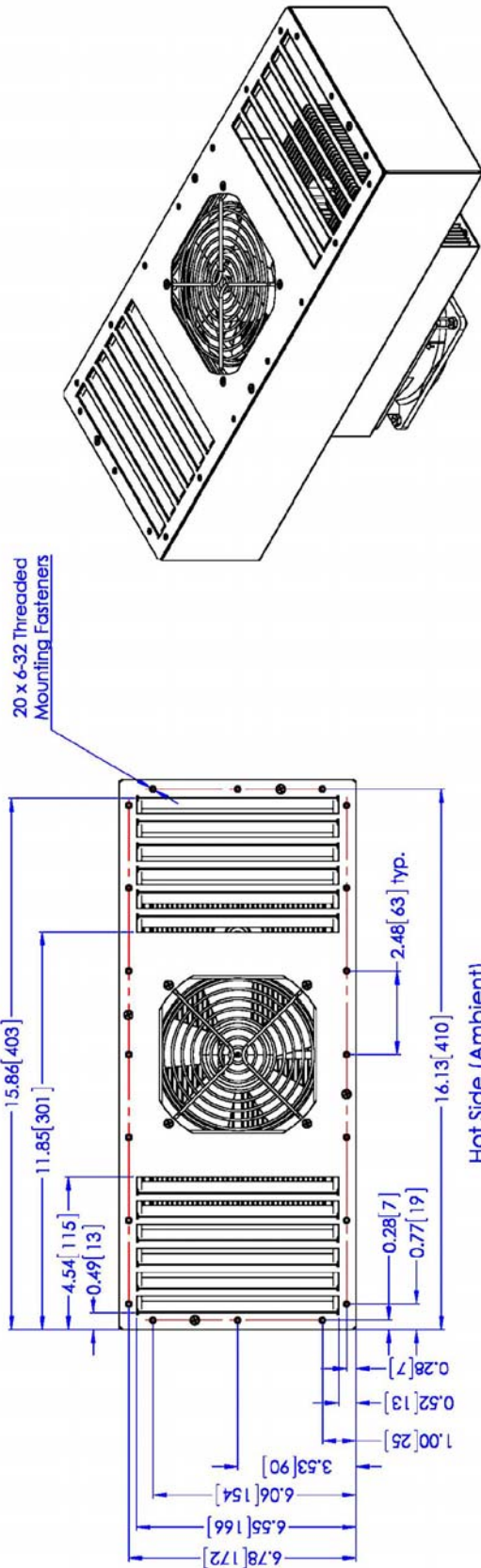


Air Flow Pattern

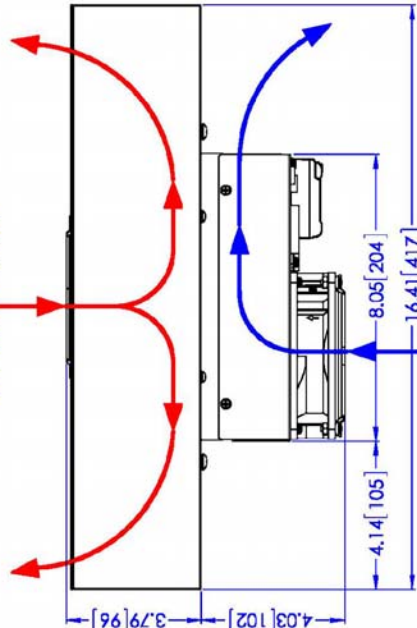
## CONFIGURATIONS

MODEL	PART NUMBER	NOTES	INSTALLATION STYLE	TEMPERATURE CONTROL	ENVIRONMENT
IHP-590	B-G0J5-0-001	Cool only, industrial fans	A	TC-4F	NEMA-12, IP 52
IHP-590HC	B-G095-1-001	Heat/Cool, industrial fans	A	None*	NEMA-12, IP 52
IHP-590HC	B-G0I5-1-001	Heat/Cool, industrial fans	A	TC-7F	NEMA-12, IP 52
IHP-590XE	B-G0J5-4-001	Cool only, sealed hot side fan	A	TC-4F	NEMA-4, IP 56
IHP-590XEHC	B-G095-5-001	Heat/Cool, sealed hot side fan	A	None*	NEMA-4, IP 56
IHP-590XEHC	B-G0I5-5-001	Heat/Cool, sealed hot side fan	A	TC-7F	NEMA-4, IP 56
IHP-590X	B-G0J5-2-001	Cool only, Mil. grade hot side fan	A	TC-4F	NEMA-4X, IP 56
IHP-590XHC	B-G095-3-001	Heat/Cool, Mil. grade hot side fan	A	None*	NEMA-4X, IP 56
IHP-590XHC	B-G0I5-3-001	Heat/Cool, Mil. grade hot side fan	A	TC-7F	NEMA-4X, IP 56
IHP-590	B-G0J5-0-101	Cool only, industrial fans	B	TC-4F	NEMA-12, IP 52
IHP-590HC	B-G095-1-101	Heat/Cool, industrial fans	B	None*	NEMA-12, IP 52
IHP-590HC	B-G0I5-1-101	Heat/Cool, industrial fans	B	TC-7F	NEMA-12, IP 52
IHP-590XE	B-G0J5-4-101	Cool only, sealed hot side fan	B	TC-4F	NEMA-4, IP 56
IHP-590XEHC	B-G095-5-101	Heat/Cool, sealed hot side fan	B	None*	NEMA-4, IP 56
IHP-590XEHC	B-G0I5-5-101	Heat/Cool, sealed hot side fan	B	TC-7F	NEMA-4, IP 56
IHP-590X	B-G0J5-2-101	Cool only, Mil. grade hot side fan	B	TC-4F	NEMA-4X, IP 56
IHP-590XHC	B-G095-3-101	Heat/Cool, Mil. grade hot side fan	B	None*	NEMA-4X, IP 56
IHP-590XHC	B-G0I5-3-101	Heat/Cool, Mil. grade hot side fan	B	TC-7F	NEMA-4X, IP 56

\* For controller options contact TECA; Heating function via reverse polarity (controller dependent)



Hot Side (Ambient)  
Air Flow Pattern

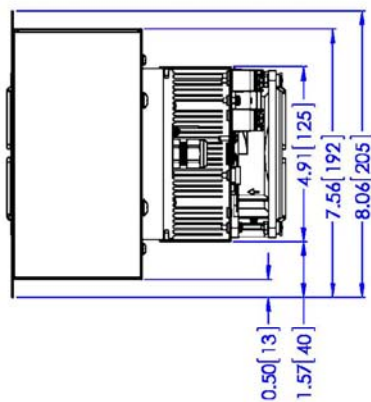


Cold Side (Enclosure)  
Air Flow Pattern

Dimensions: Inches [Millimeters]

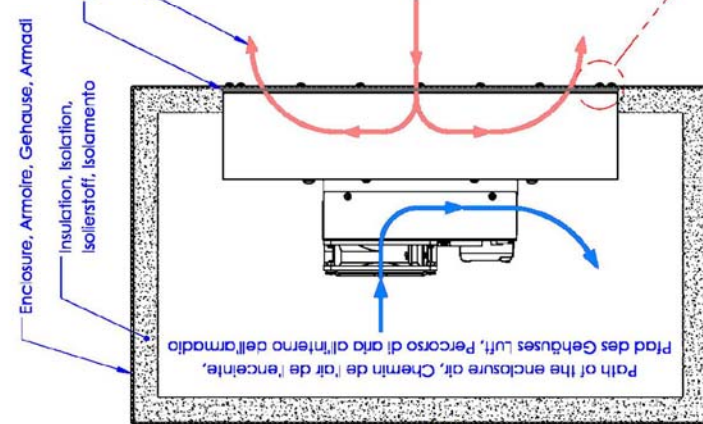
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DIMENSIONS ARE IN INCHES	DRAWN	AA	11/18/15
TOLERANCES:	CHECKED		
FRACTIONAL: ±			
ANGULAR: MACH ±			
BEND ±			
TWO PLACE DECIMAL ±			
THREE PLACE DECIMAL ±			
INTERPRET GEOMETRIC TOLERANCING PER:			
MATERIAL			
FINISH			
DO NOT SCALE DRAWING			

<b>teca</b> ThermoElectric Cooling America Corporation Chicago, Illinois U.S.A.	
IHP-400 / IHP-500 SERIES ASSEMBLY (INSTALLATION STYLE A)	
SIZE	REV
DWG. NO.	
<b>A</b>	<b>SK151147</b>
S0415	SHEET 1 OF 1

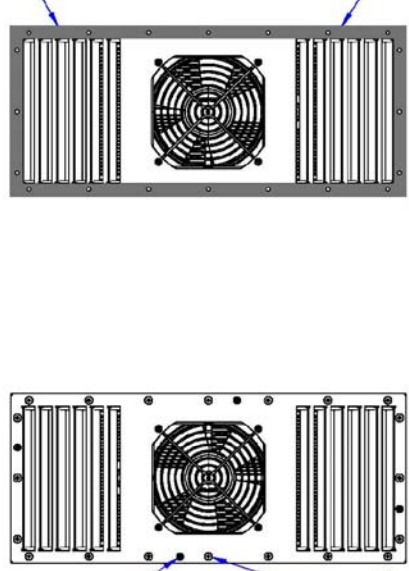


Dimensions: Inches [Millimeters]

9 of 14

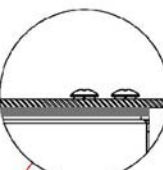


Install the gasket and clear the mounting holes as shown,  
 Installez le joint et effacez les trous de fixation comme le montre,  
 Installieren Sie die Dichtung und deaktivieren Sie die Befestigungsflächen wie gezeigt,  
 Installare la guarnizione e pulire i fori di montaggio come mostrato



Do not remove the flat head screws,  
 Ne pas retirer les vis à tête cylindrique,  
 Entfernen Sie nicht die Flachkopfschrauben,  
 Non rimuovere le viti a testa tonda

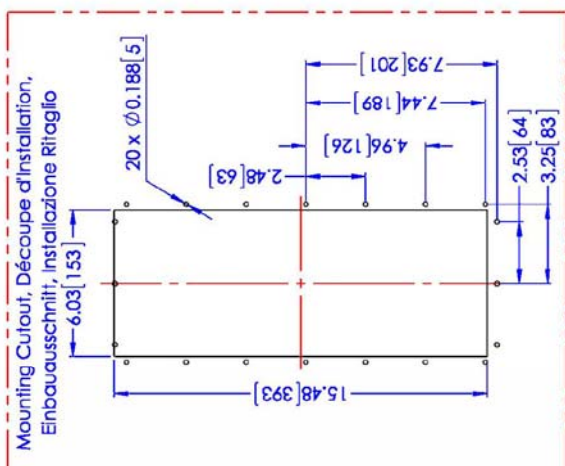
Remove the pan head screws,  
 Retirer les vis à tête cylindrique,  
 Entfernen Sie die Zylinderkopfschrauben,  
 Rimuovere le viti a testa tonda



Use Butyl caulking or RTV caulking in place of the gasket for a better seal,  
 Utilisez Butyl caulkage ou RTV en place du joint d'étanchéité pour une meilleure étanchéité.  
 Utilisez Butyl caulkage ou RTV caulkage en place du joint d'étanchéité pour une meilleure étanchéité,  
 Verwenden Butyl abdichten oder RTV Abdichten anstelle der Dichtung für einen besseren Dichtung.  
 Utilizzare butile mastice o RTV calafataggio al posto della guarnizione per una migliore tenuta

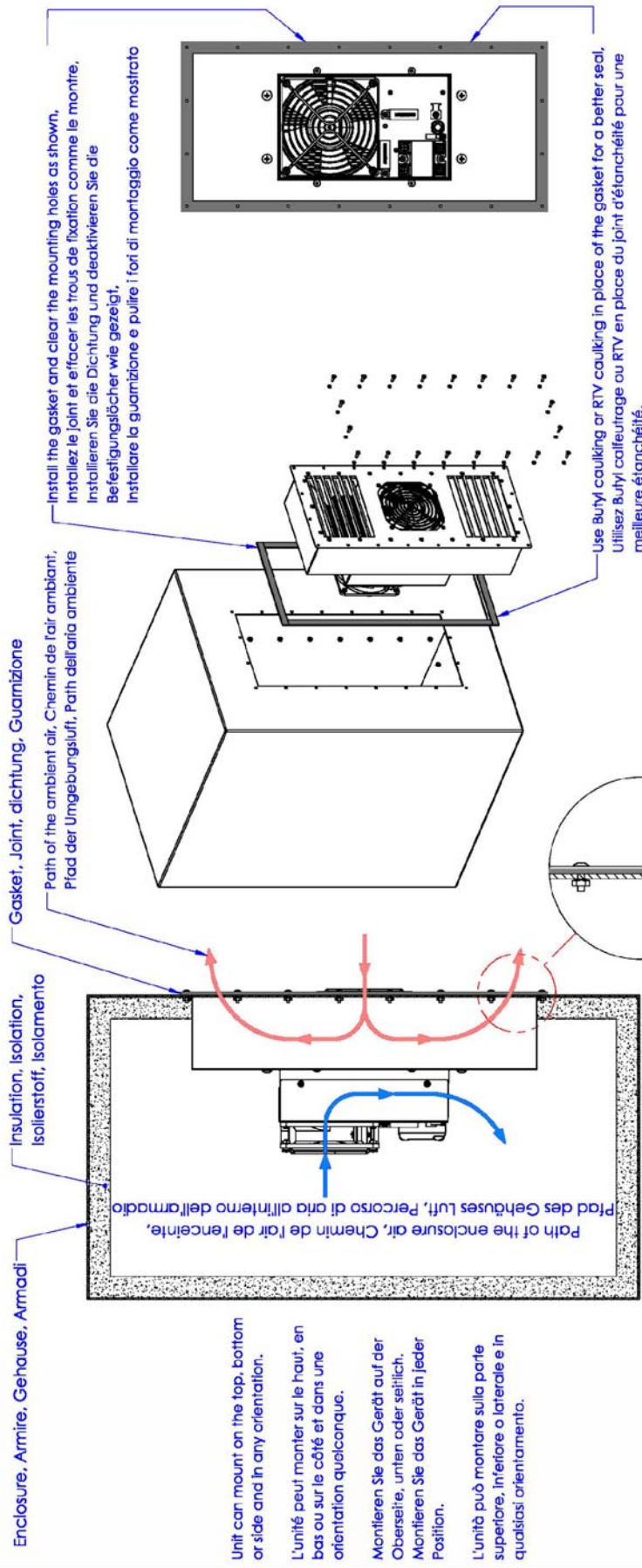
English, Français, Deutsch, Italiano  
 Dimensions: Inches [Millimeters]

Typical field mounting IHP series installation style A (installation from inside the enclosure),  
 Montage typique IHP série Style A Installation (installation à partir de l'intérieur de l'enceinte),  
 Typische montage IHP-Serie Installations Style A (montage von der Innenseite des Gehäuses),  
 Tipico di montaggio IHP Serie Stile Installazione A (installazione all'interno dell'armadio)

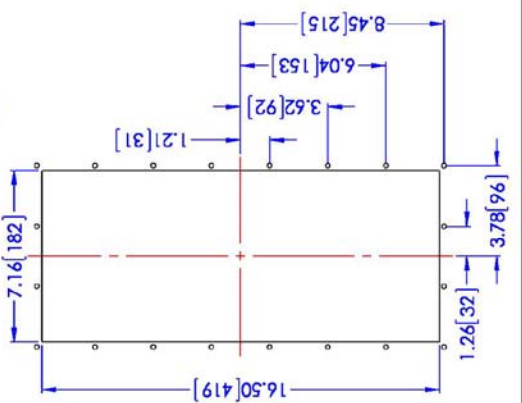


Mounting Cutout, Découpe d'installation,  
 Einbauausschnitt, Installazione Ritaglio

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		AA	11/18/15
TOLERANCES:		DRAWN	
FRACTIONAL: ±		CHECKED	
ANGULAR: MACH ±		<b>PROPRIETARY AND CONFIDENTIAL</b> THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF TECA CORPORATION. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF TECA CORPORATION IS PROHIBITED.	
TWO PLACE DECIMAL ±			
THREE PLACE DECIMAL ±			
INTERPRET GEOMETRIC TOLERANCING PER:		MATERIAL	
FINISH		DO NOT SCALE DRAWING	
DO NOT SCALE DRAWING		S0419	
SHEET 1 OF 1		REV	
SIZE		DWG. NO.	
A		SK151151	
IHP SERIES (INSTALLATION STYLE A)		TECA® ThermoElectric Cooling America Corporation Chicago, Illinois U.S.A.	



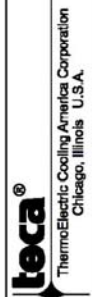
**Mounting Cutout, Découpe d'installation, Einbausschnitt, Installazione Ritaglio**



**English, Français, Deutsch, italiano**  
**Dimensions: Inches [Millimeters]**

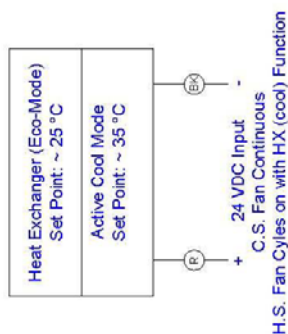
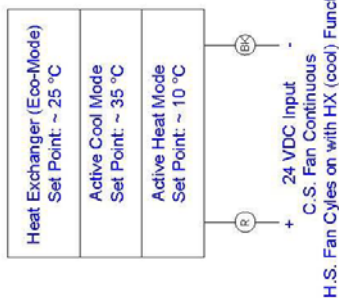
**Typical field mounting IHP series installation style A (installation from inside the enclosure), Montage typique IHP série Style A Installation (installation à partir de l'intérieur de l'enceinte), Typische montage IHP-Serie installations Style A (montage von der Innenseite des Gehäuses), Tipico di montaggio IHP Serie Stile Installazione A (installazione all'interno dell'armadio)**

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN	AA	11/19/15
TOLERANCES:	CHECKED		
FRACTIONAL: ±			
ANGULAR: MACH ±			
TWO PLACE DECIMAL ±			
THREE PLACE DECIMAL ±			
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INTERPRET GEOMETRIC TOLERANCING PER:			
MATERIAL			
FINISH			
DO NOT SCALE DRAWING			
		SIZE	REV
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		DWG. NO.	REV
		<b>SK151152</b>	
		S0420	SHEET 1 OF 1



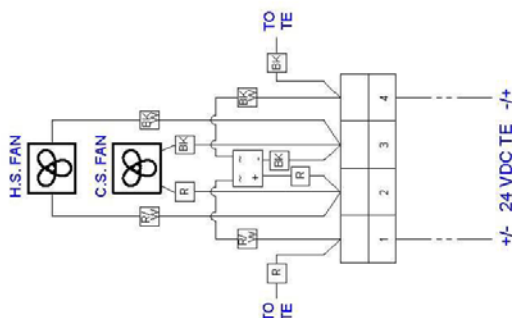
**IHP SERIES (INSTALLATION STYLE B)**

IHP Series typical wiring  
Heat/Cool with TC-7F control



## IHP Series factory wiring

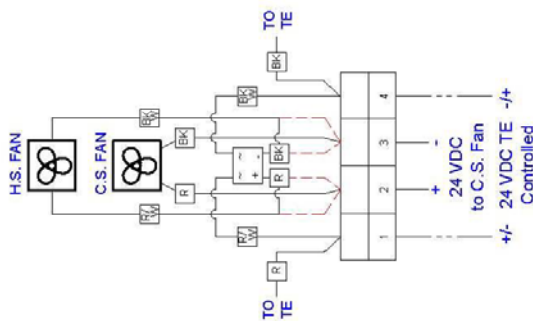
Controller: None or customer supplied



H.S. &amp; C.S. Fans Cycle with TE

## IHP Series modified wiring

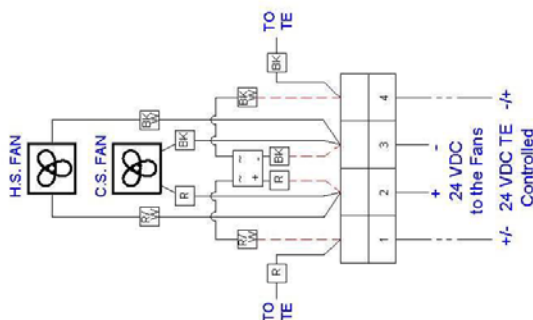
Controller: None or customer supplied



### H.S. Fan Cycles with TE

## IHP Series modified wiring

Controller: None or customer supplied



C.S. &amp; H.S. Fan Continuous

REV	DESCRIPTION	Date	APPROVED	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:	INFORMATION DISCLOSED HEREIN IS THE CONFIDENTIAL PROPERTY OF TECA CORP. RECIPIENT SHALL NOT USE THE INFORMATION IN ANY UNAUTHORIZED MANNER.	FINISH:	MATERIAL:	DECIMALS .XX + / - .XXX + / -	ANGLE + / - FRACTION + / -	DRAWN BY: AA	DATE: 11/23/15	DRAWING # SK151153	REV LEVEL	THERMOELECTRIC COOLING AMERICA CORP.	

[illegible]

