# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## **TOUCH-SAFE HEATERS**



#### **INDUSTRY STANDARDS**

cURus Component Recognized; File No. E150057

IP 20 CE

### APPLICATION

Protect electrical, mechanical equipment from low temperatures, condensation, and corrosion with this heater, which will maintain stable enclosure temperatures by using natural convection resulting in current circulation of warm air.

#### SPECIFICATIONS

- Heating element PTC resistor temperature limiting
  Double Insulated Protection
  Mounting clip for 35mm DIN rail, EN 60 715
  Vertical mount

## FINISH

· UL 94 V-0 Black Plastic Housing

## Performance Data

CATALOG NUMBERS			
	DAH101TS	DAH201TS	DAH501TS
Electrical Data			
Rated Voltage (AC/DC)	110/120	110/120	110/120
Power Consumption (Watts)	10	20	50
Start Nominal Current (Amps)	2.5	4.5	8
Unit Construction			
H x W x D (in./mm)	3.9 X 1.5 X 3.0/98 x 38 x 75	3.9 X 1.5 X 3.0/98 x 38 x 75	4.3 X 2.4 X 3.5/110 x 60 x 90
Weight (oz)	5.0	6.1	10.4



## SEMICONDUCTOR HEATERS



## **INDUSTRY STANDARDS**

cURus Component Recognized; File No. E150057

IEC IP54 CE

#### APPLICATION

Protect electrical, pneumatic, hydraulic and mechanical equipment from low temperatures, condensation and corrosion with this heater, which maintains a stable enclosure temperature.

#### SPECIFICATIONS

- PTC (Positive Temperature Coefficient) heating element
  Mounting clip for 35-mm DIN rails EN 50022

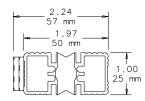
### FINISH

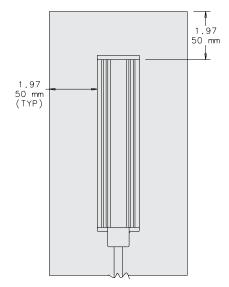
· Black anodized, extruded aluminum.

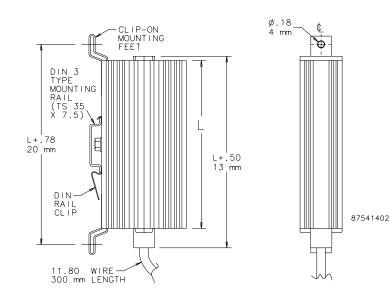
## Performance Data Semiconductor Heater

DAH101	DAH301	DAH601
AC/DC 110/120	AC/DC 110/120	AC/DC 110/250
10	30	60
0.8	1.2	2.5
10	30	60
1.97/50	3.93/100	5.5/140
0.45/0.20	0.66/0.30	1.10/0.50
	AC/DC 110/120 10 0.8 10 1.97/50	AC/DC 110/120         AC/DC 110/120           10         30           0.8         1.2           10         30           1.97/50         3.93/100

Clearance Range for DAH101 and DAH301

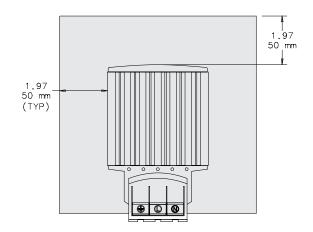


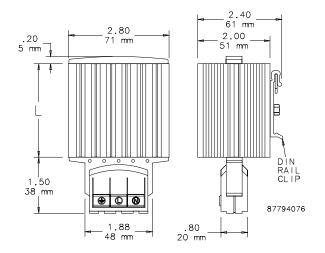






Clearance Range for DAH601





**ELECTRIC HEATERS** 



115/230 Volt 1300 Watt

### **INDUSTRY STANDARDS**

UL 508A Component Recognized; File No. E61997

CSA Certified, CSA File No. LR42186

### CE

## APPLICATION

Protect mechanical, electrical and electronic equipment from low temperatures, condensation and corrosion with this thermostatically controlled, fan-driven heater that maintains a stable enclosure temperature.

Fan draws cool air from the bottom of the enclosure and passes this air across the thermostat and heating element before being released into enclosure cavity. Heated air is discharged through the top of the heater unit.

## SPECIFICATIONS

- Aluminum housing
- Thermostat range adjustable from 0 F to 100 F (-18 C to 38 C)
- Four 10-32 x self-tapping screws are included with each heater
  Ball bearing fan
- Terminal strip with clamp connector that accepts both solid and stranded wire

#### FINISH

Brushed aluminum



ent hoffman

These electric heaters are not designed for use in dusty, dirty, corrosive, or hazardous locations. Portions of the heater can get hot. Adequate protection must be taken to protect people from potential burns, and to protect other components from this heat. nVent recommends this heater only be installed in a totally-enclosed metal enclosure.

DO NOT INSTALL HEATERS ON WOOD PANELS. Heat sensitive components should not be placed near the heater discharge area since this air can be quite warm. The clearance range defines the space that must be kept free of these components for proper and safe operation of the heater.



## Performance Data 100 and 200 Watt Heaters

DAH1001A	DAH1002A	DAH2001A	DAH2002A
115	230	115	230
50/60	50/60	50/60	50/60
100	100	200	200
0.98	0.49	1.89	0.95
100	100	200	200
1.6/0.73	1.6/0.73	1.6/0.73	1.6/0.73
4.00/102	4.00/102	6.00/152	6.00/152
	115 50/60 100 0.98 <b>100</b> 1.6/0.73	115         230           50/60         50/60           100         100           0.98         0.49           100         100           1.6/0.73         1.6/0.73	115         230         115           50/60         50/60         50/60           100         100         200           0.98         0.49         1.89           100         100         200           1.6/0.73         1.6/0.73         1.6/0.73

## Performance Data 400 and 800 Watt Heaters

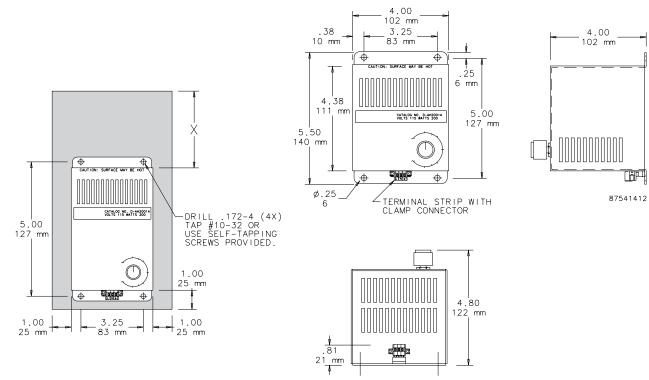
CATALOG NUMBERS				
	DAH4001B	DAH4002B	DAH8001B	DAH8002B
ELECTRICAL DATA				
Rated Voltage	115	230	115	230
Frequency (Hz)	50/60	50/60	50/60	50/60
Power Consumption (Watts)	400	400	800	800
Nominal Current (Amps)	3.72	1.86	7.37	3.69
HEATING PERFORMANCE				
Watts	400	400	800	800
UNIT CONSTRUCTION				
Weight (lb./kg)	2.2/1.00	2.2/1.00	2.2/1.00	2.2/1.00
X (in./mm)	6.00/152	6.00/152	8.00/203	8.00/203

## Performance Data 1300 Watt Heaters

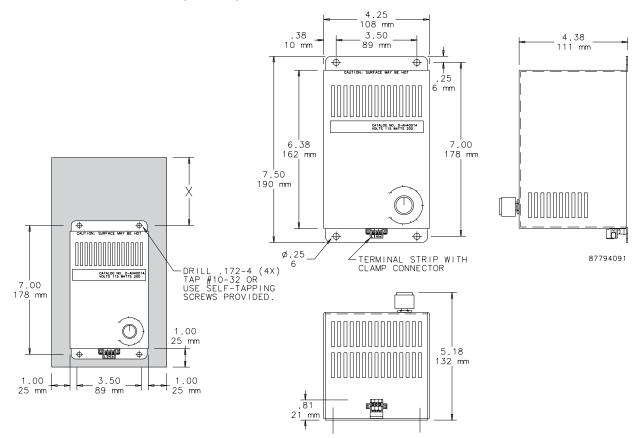
DAH13001C	DAH13002C
115	230
50/60	50/60
1300	1300
11.5	5.7
1300	1300
3.4/1.54	3.4/1.54
8.00/203	8.00/203
	115 50/60 1300 11.5 1300 3.4/1.54



Dimensions and Clearance Range Drawing for DAH1001A, -2A and DAH2001A, -2A

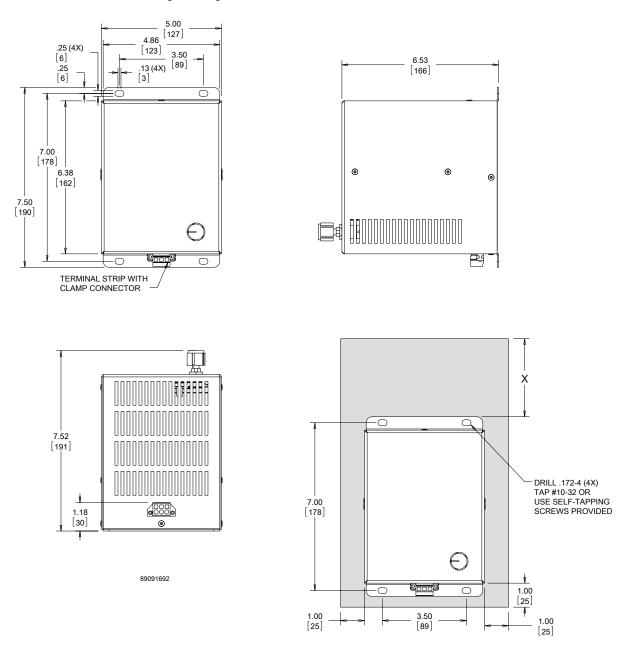


Dimensions and Clearance Range Drawing for DAH4001B, -2B and DAH8001B, -2B





Dimensions and Clearance Range Drawing for DAH13001C and DAH13002C





## HAZARDOUS LOCATION HEATER, ATEX



## INDUSTRY STANDARDS

CE Conformity Certificate LCIE (Laboratoire Central des Industries Electriques) LCIE 01 ATEX 6073

Electriques) LCIE 01 ATEX 6073 EEx d IIC T4/II 2 GD, IP6x T135°C IEC 60529, IP65/I (grounded)

## APPLICATION

Designed for use in hazardous locations where electrical components require protection from condensation and corrosion, sudden temperature drops and low temperatures.

## Performance Data Hazardous Location Heater

## FEATURES

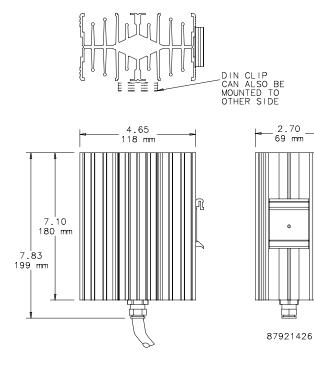
- Maintenance-free
- · High-performance heating cartridge (element)
- Large convection surface
- Extruded aluminum heat sink
- DIN clip for mounting
- Connection cable: Si HF-JZ 3 x AWG 18 x 3.3 ft. (0.75 mm<sup>2</sup> x 1 m)
- Operating voltage 110-120 VAC

#### FINISH

• Black anodized

CATALOG NUMBERS	
	HLHEAT100
DESIGN DATA	
Heating Power (Watts)	100
Surface Temperature T4 (°F/°C) *	275/135
UNIT CONSTRUCTION	
Unit Dimensions - H x W x D (in. / mm)	7.10/180 x 4.65/118 x 2.70/69

\* Surface temperature when mounted vertically.





## nVent HOFFMAN HAZARDOUS LOCATION HEATERS AND THERMOSTATS



#### INDUSTRY STANDARDS

CE cCSAus See additional certifications in product tables.

#### APPLICATION

Designed for use in hazardous locations where electrical components require protection from cold freezing temperatures, condensation and corrosion.

#### SPECIFICATIONS

- 50W, 80W, 200W, 300W, 400W and 600W models available Provides freeze protection down to -76 F / -60 C .

- Conductive and Convection heating types available 50W and 80W models can be mounted directly to manifolds, measuring or analyzing instruments, control valves, and similar equipment
- 200W, 300W, 400W, 600W models are finned heaters that heat the area by transferring the heat from the heater to surrounding air, creating a convection current.
- Two thermostat options available with a 50 F / 10 C or 68 F / 20 C set point

#### FINISH

Black Anodized Aluminum

## Performance Data 50W and 80W Hazardous Location Heaters

CATALOG NUMBERS				
	DAHHL501AC	DAHHL801AC		
HEATING PERFORMANCE				
Watts	50	80		
Heating Type	Conductive	Conductive		
Power Regulation	Self Limiting	Self Limiting		
HAZARDOUS LOCATION CERTIFICATIONS				
Agency Approvals	ATEX, IECEx, CE, cCSAus	ATEX, IECEx, CE, cCSAus		
ATEX / IECEx Certification	PTB 02 ATEX 1116 X	PTB 02 ATEX 1116 X		
	IECEx PTB 07.0055X	IECEx PTB 07.0055X		
	II 2 G Ex db IIC T4	II 2 G Ex db IIC T3		
	II 2 D Ex tb IIIC T135°C	II 2 D Ex tb IIIC T200°C		
NEC cCSAus Certification	CSA 1655545 (LR43674)	CSA 1655545 (LR43674)		
	Class I Zone 1 and 2 Group IIC	Class I Zone 1 and 2 Group IIC		
	Class I Div 1 Groups A,B,C,D T4	Class I Div 1 Groups A,B,C,D T3		
	Class II Div 1 Groups E,F,G	Class II Div 1 Groups E,F,G		
ELECTRICAL DATA				
Rated Voltage (VAC or VDC)	110 - 265	110 - 265		
Dperating Range				
Maximum (F/C)	302/150	302/150		
Minimum (F/C)	-76/-60	-76/-60		
UNIT CONSTRUCTION				
Material	Black, anodized, seav	Black, anodized, seawater-proof aluminium		
ACCESSORIES				
Thermostat*	HLTSTAT10C	HLTSTAT10C, HLTSTAT20C		
UNIT DIMENSIONS				
Height (in./mm)	3.5/90	3.5/90		
Width (in./mm)	1.6/40	1.6/40		
Depth (in./mm)	1.2/30	1.2/30		
Weight (lb./kg)	1.1/.50	1.1/.50		

\* Thermostats sold separately as an accessory.





## Performance Data 200W, 300W, 400W, 600W Hazardous Location Heaters

CATALOG NUMBERS						
	DAHHL200AC	DAHHL300AC	DAHHL4001A	DAHHL4002A	DAHHL6001A	DAHHL6002A
HEATING PERFORMANCE						
Watts	200	300	400	400	600	600
Heating Type	Convection	Convection	Convection	Convection	Convection	Convection
Power Regulation	Self Limiting	Self Limiting	Constant Power	Constant Power	Constant Power	Constant Power
HAZARDOUS LOCATION CERT						
Agency Approvals		, CE, cCSAus		, CE, cCSAus		, CE, cCSAus
ATEX / IECEx Certification		TEX 1116X		TEX 1041X		TEX 1041X
		3 07.0055 X		3 07.0052 X		3 07.0052 X
		db IIC T3		db IIC T3		db IIC T3
		IIIC T200°C		IIIC T200°C		IIIC T200°C
NEC cCSAus Certification		5 (LR43674)	CSA 165554	5 (LR43674)	CSA 165554	5 (LR43674)
		and 2 Group IIC		and 2 Group IIC		and 2 Group IIC
		oups A,B,C,D T3		oups A,B,C,D T3		oups A,B,C,D T3
	Class II Div 1	Groups E,F,G	Class II Div 1	Groups E,F,G	Class II Div 1	Groups E,F,G
ELECTRICAL DATA						
Rated Voltage (VAC or VDC)	110 - 265	110 - 265	108 - 132	207 - 253	108 - 132	207 -253
Operating Range						
Maximum ( F/C)	302/150	302/150	302/150	302/150	302/150	302/150
Minimum (F/C)	-76/-60	-76/-60	-76/-60	-76/-60	-76/-60	-76/-60
UNIT CONSTRUCTION				·		
Material	Black, anodized, seawater-proof aluminium					
ACCESSORIES						
Thermostat*			HLTSTAT10	C, HLTSTAT20C		
UNIT DIMENSIONS				·		
Height (in./mm)	8.9/225	12.8/325	8.9/225	8.9/225	12.8/325	12.8/325
Width (in./mm)	9.0/229	9.0/229	9.0/229	9.0/229	9.0/229	9.0/229
Depth (in./mm)	2.4/60	2.4/60	2.4/60	2.4/60	2.4/60	2.4/60
Weight (lb./kg)	8.7/3.95	12.5/5.65	8.7/3.95	8.7/3.95	12.5/5.65	12.5/5.65

 $^{\ast}$  A thermostat is required for 400W and 600W models. It is sold separately as an accessory.

## Performance Data Hazardous Location Thermostats CATALOG NUMBERS

CATALOG NOMBERS	HLTSTAT10C	HLTSTAT20C	
HAZARDOUS LOCATION CERTIFICATIONS			
Agency Approvals	ATEX, IECEx, CE, cCSAus	ATEX, IECEx, CE, cCSAus	
ATEX / IECEx Certification	PTB 03 ATEX 1136 X	PTB 03 ATEX 1136 X	
	IECEx PTB 07.0054	IECEx PTB 07.0054	
	II 2 G Ex db IIC T6	II 2 G Ex db IIC T6	
	II 2 D Ex tb IIIC T80°C	II 2 D Ex tb IIIC T80°C	
NEC cCSAus Certification	CSA 1655545 (LR43674)	CSA 1655545 (LR43674)	
	Class I Zone 1 and 2 Group IIC	Class I Zone 1 and 2 Group IIC	
	Class I Div 1 Groups A, B, C, D T6	Class I Div 1 Groups A,B,C,D T6	
	Class II Div 1 Groups E,F,G	Class II Div 1 Groups E,F,G	
ELECTRICAL DATA			
Rated Voltage (VAC or VDC)	0-275	0-275	
Max. Rated Current (Amps)	10	10	
Operating Range			
Maximum (F/C)	302/150	302/150	
Minimum (F/C)	-76/-60	-76/-60	
Thermostats Nominal Setpoints			
Switch-on Temperature (°F/°C)	50 F/10 C	68 F/20 C	
Switch-off Temperature (°F/°C)	64 F/18 C	82 F/28 C	
UNIT CONSTRUCTION			
Material	Black, anodized, seawater-proof aluminium		
UNIT DIMENSIONS			
Height (in./mm)	1.10/28	1.10/28	
Width (in./mm)	.90/24	.90/24	
Depth (in./mm)	4.30/108	4.30/108	
Weight (lb./kg)	.50/.20	.50/.20	