

# Enclosure Heaters

## 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 35 mm DIN rail, EN 60 715
- Vertical mount

### FINISH

UL 94 V-0 Black Plastic Housing

### PERFORMANCE DATA

Catalog Number	DAH101TS	DAH201TS	DAH501TS
<b>Electrical Data</b>			
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
<b>Unit Construction</b>			
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

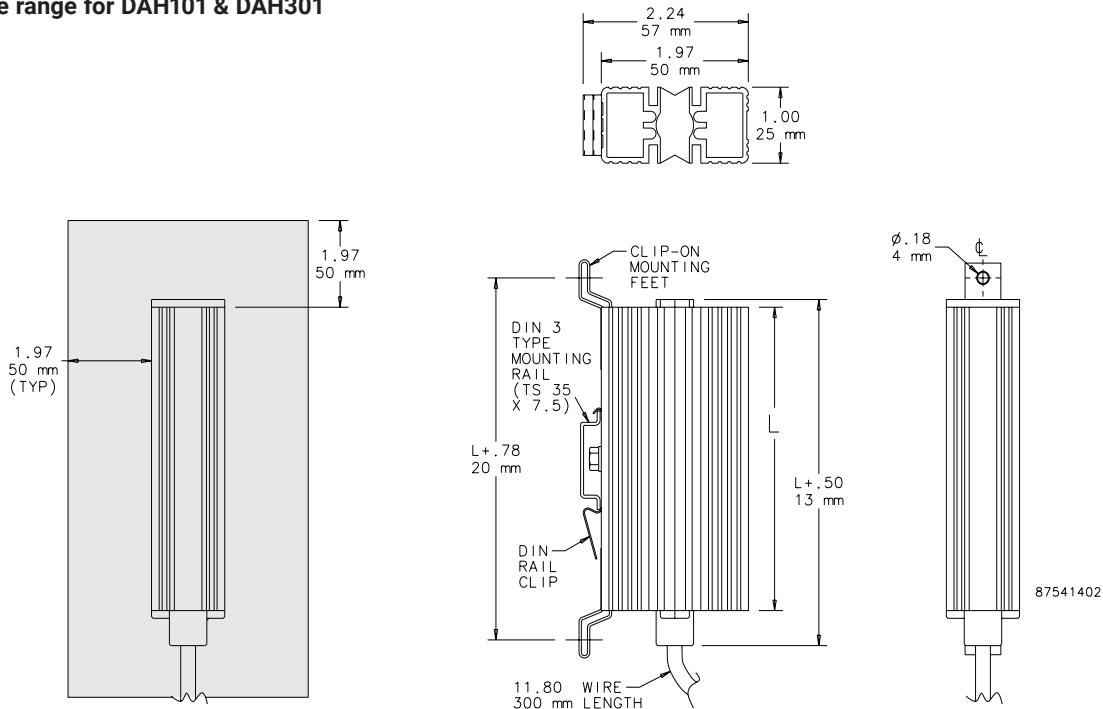
## FINISH

- Black anodized, extruded aluminum

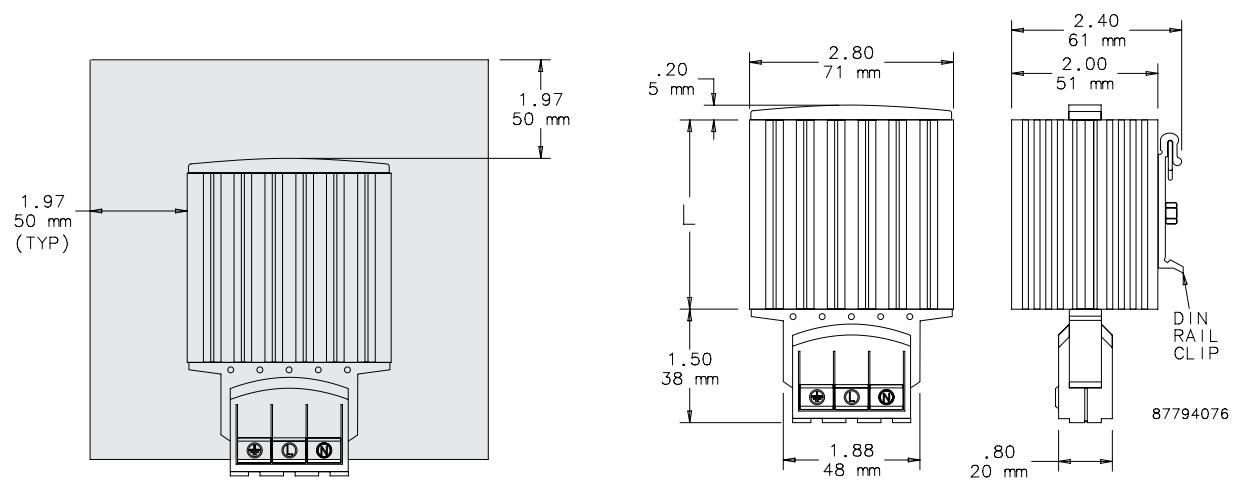
## PERFORMANCE DATA SEMICONDUCTOR HEATER

Catalog Number	DAH101	DAH301	DAH601
<b>Electrical Data</b>			
Rated Voltage (AC/DC)	110/120	110/120	110/250
Power Consumption (Watts)	10	30	60
Start Nominal Current (Amps)	0.8	1.2	2.5
<b>Heating Performance</b>			
Watts	10	30	60
<b>Unit Construction</b>			
L (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 (lb./kg)	0.45/0.20	0.66/0.30	1.10/0.50

## Clearance range for DAH101 & DAH301



## Clearance range for DAH601



# Electric Heaters



**115/230 Volt  
100/200 Watt**



**115/230 Volt  
400/800 Watt**



**115/230 Volt  
1300 Watt**

## INDUSTRY STANDARDS

UL 508A Component Recognized; File No. E61997  
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

### **⚠ CAUTION:**

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

Catalog Number	DAH1001A	DAH1002A	DAH2001A	DAH2002A
<b>Electrical Data</b>				
Rated Voltage	115	230	115	230
Frequency (Hz)	50/60	50/60	50/60	50/60
Power Consumption (Watts)	100	100	200	200
Nominal Current (Amps)	0.98	0.49	1.89	0.95
<b>Heating Performance</b>				
Watts	100	100	200	200
<b>Unit Construction</b>				
Weight (lb./kg)	1.6/0.73	1.6/0.73	1.6/0.73	1.6/0.73
X (in./mm)	4.00/102	4.00/102	6.00/152	6.00/152

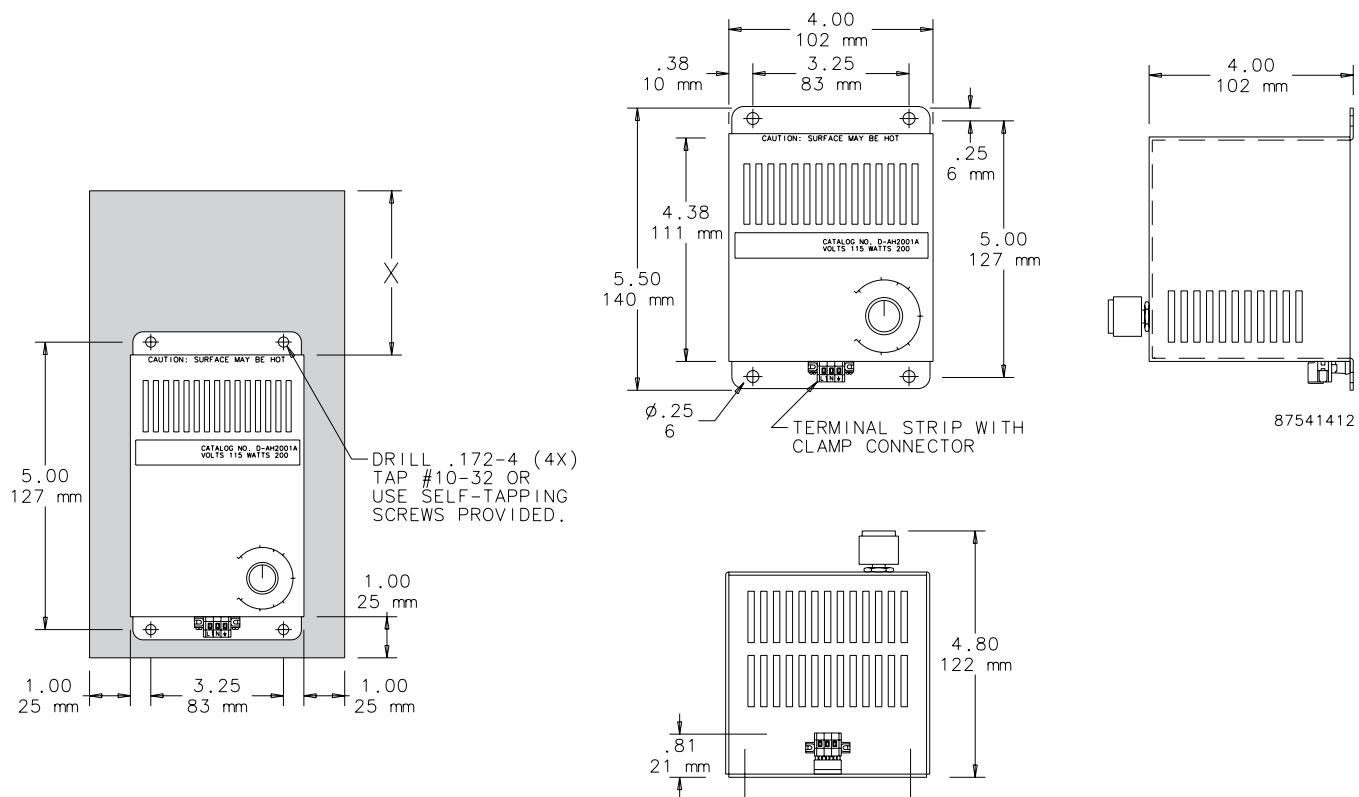
## PERFORMANCE DATA 400 AND 800 WATT HEATERS

Catalog Number	DAH4001B	DAH4002B	DAH8001B	DAH8002B
<b>Electrical Data</b>				
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
<b>Heating Performance</b>				
Watts	400	400	800	800
<b>Unit Construction</b>				
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

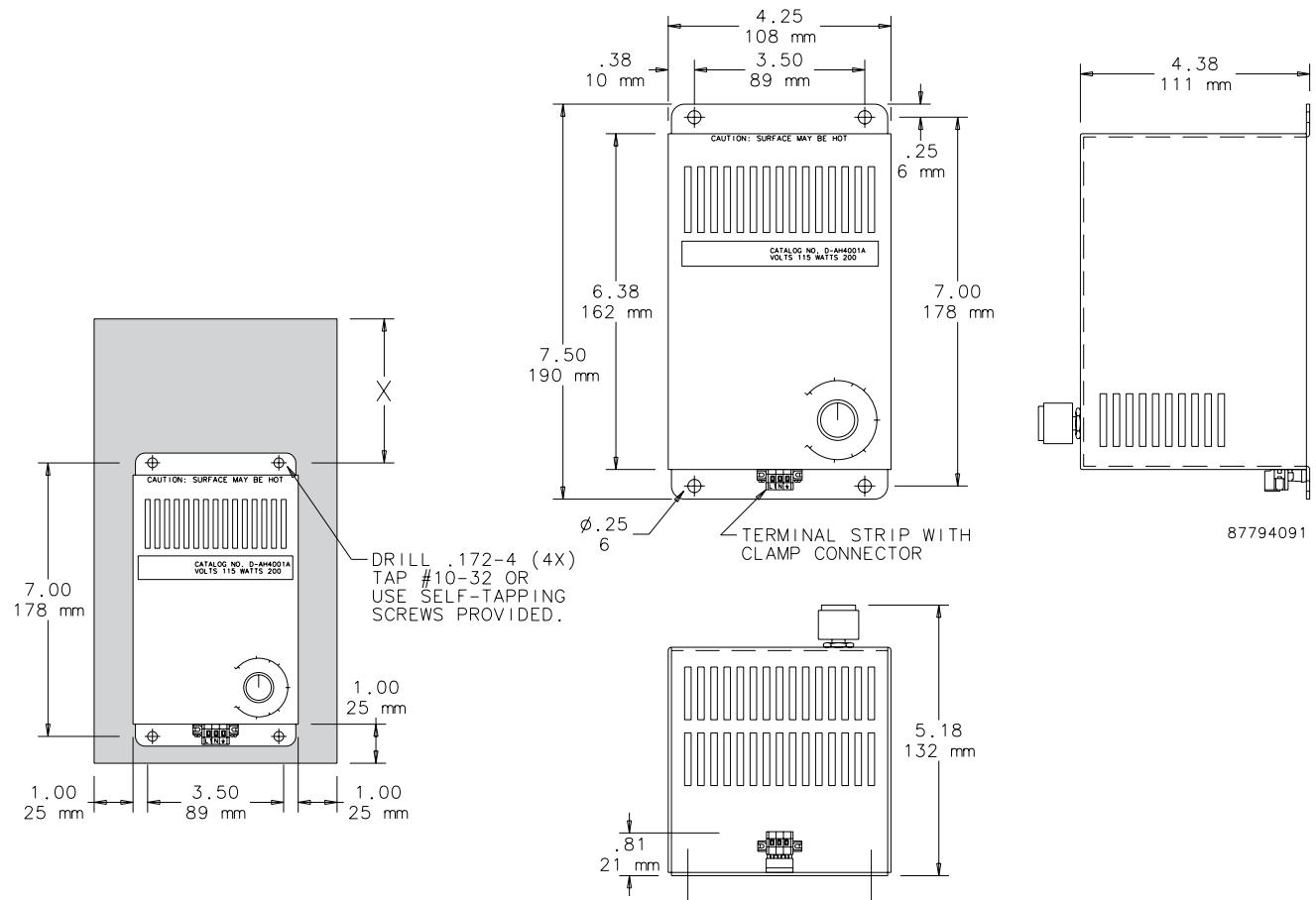
## PERFORMANCE DATA 1300 WATT HEATERS

Catalog Number	DAH13001C	DAH13002C
<b>Electrical Data</b>		
Rated Voltage	115	230
Frequency (Hz)	50/60	50/60
Power Consumption (Watts)	1300	1300
Nominal Current (Amps)	11.5	5.7
<b>Heating Performance</b>		
Watts	1300	1300
<b>Unit Construction</b>		
Weight (lb./kg)	3.4/1.54	3.4/1.54
X (in./mm)	8.00/203	8.00/203

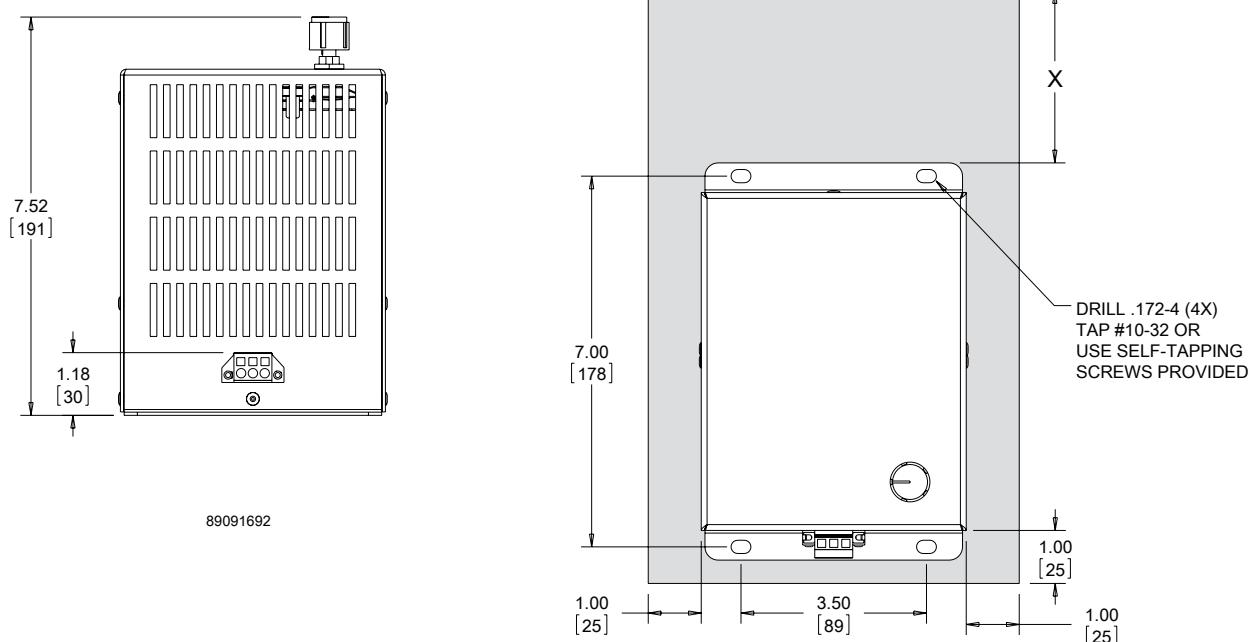
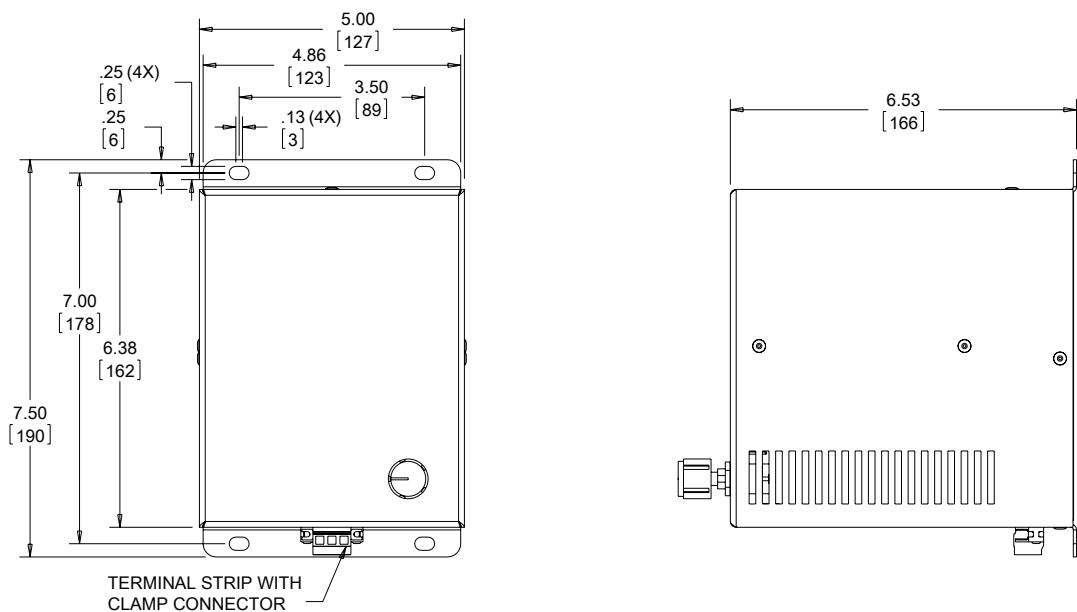
**Dimensions and Clearance Range Drawing for DAH1001A, -2A and DAH2001A, -2A**



**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  
EE x 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.

## SPECIFICATIONS

- 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

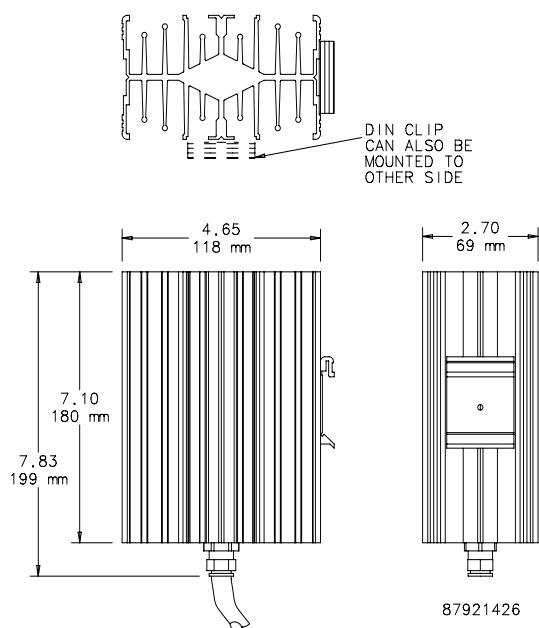
## FINISH

- Black anodized

## PERFORMANCE DATA SEMICONDUCTOR HEATER

Catalog Number	HLHEAT100
<b>Design Data</b>	
Heating Power (Watts)	100
Surface Temperature T4 (°F/°C) *	275/135
<b>Unit Construction</b>	
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.



# 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

- 50 W, 80 W, 200 W, 300 W, 400 W and 600 W models available
- Provides freeze protection down to  $-76^{\circ}\text{F}/-60^{\circ}\text{C}$
- 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  $50^{\circ}\text{F}/10^{\circ}\text{C}$  or  $68^{\circ}\text{F}/20^{\circ}\text{C}$  set point

## FINISH

- Black anodized aluminium



## PERFORMANCE DATA 50W AND 80W HAZARDOUS LOCATION HEATERS

Catalog Number	DAHHL501AC	DAHHL801AC
<b>Heating Performance</b>		
Watts	50	80
Heating Type	Conductive	Conductive
Power Regulation	Self Limiting	Self Limiting
<b>Hazardous Location Certifications</b>		
Agency Approvals	ATEX, IECEEx, CE, cCSAus	ATEX, IECEEx, CE, cCSAus
ATEX / IECEEx Certification	PTB 02 ATEX 1116 X; IECEEx PTB 07.0055X II 2 G Ex db IIC T4; II 2 D Ex tb IIIC T135°C	PTB 02 ATEX 1116 X; IECEEx PTB 07.0055X II 2 G Ex db IIC T3; II 2 D Ex tb IIIC T200°C
NEC cCSAus Certification	CSA 1655545 (LR43674) Class I Zone 1 and 2 Group IIC Class I Div 1 Groups A,B,C,D T4 Class II Div 1 Groups E,F,G	CSA 1655545 (LR43674) Class I Zone 1 and 2 Group IIC Class I Div 1 Groups A,B,C,D T3 Class II Div 1 Groups E,F,G
<b>Electrical Data</b>		
Rated Voltage (Vac or Vdc)	110 – 265	110 – 265
<b>Operating Range</b>		
Maximum ( $^{\circ}\text{F}/^{\circ}\text{C}$ )	302/150	302/150
Minimum ( $^{\circ}\text{F}/^{\circ}\text{C}$ )	-76/-60	-76/-60
<b>Unit Construction</b>		
Material	Black, anodized, seawater-proof aluminium	
<b>Accessories</b>		
Thermostat*	HLTSTAT10C, HLTSTAT20C	
<b>Unit Dimensions</b>		
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 Number	DAHHL200AC	DAHHL300AC	DAHHL4001A	DAHHL4002A	DAHHL6001A	DAHHL6002A
<b>Heating Performance</b>						
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
<b>Hazardous Location Certifications</b>						
Agency Approvals	ATEX, IECEx, CE, cCSAus					
ATEX / IECEx Certification	PTB 02 ATEX 1116X IECEx PTB 07.0055 X II 2 G Ex db IIC T3 II 2 D Ex tb IIIC T200°C	PTB 02 ATEX 1041X IECEx PTB 07.0052 X II 2 G Ex db IIC T3 II 2 D Ex tb IIIC T200°C	PTB 02 ATEX 1041X IECEx PTB 07.0052 X II 2 G Ex db IIC T3 II 2 D Ex tb IIIC T200°C	PTB 02 ATEX 1041X IECEx PTB 07.0052 X II 2 G Ex db IIC T3 II 2 D Ex tb IIIC T200°C	PTB 02 ATEX 1041X IECEx PTB 07.0052 X II 2 G Ex db IIC T3 II 2 D Ex tb IIIC T200°C	PTB 02 ATEX 1041X IECEx PTB 07.0052 X II 2 G Ex db IIC T3 II 2 D Ex tb IIIC T200°C
NEC cCSAus Certification	CSA 1655545 (LR43674) Class I Zone 1 and 2 Group IIC Class I Div 1 Groups A,B,C,D T3 Class II Div 1 Groups E,F,G	CSA 1655545 (LR43674) Class I Zone 1 and 2 Group IIC Class I Div 1 Groups A,B,C,D T3 Class II Div 1 Groups E,F,G	CSA 1655545 (LR43674) Class I Zone 1 and 2 Group IIC Class I Div 1 Groups A,B,C,D T3 Class II Div 1 Groups E,F,G	CSA 1655545 (LR43674) Class I Zone 1 and 2 Group IIC Class I Div 1 Groups A,B,C,D T3 Class II Div 1 Groups E,F,G	CSA 1655545 (LR43674) Class I Zone 1 and 2 Group IIC Class I Div 1 Groups A,B,C,D T3 Class II Div 1 Groups E,F,G	CSA 1655545 (LR43674) Class I Zone 1 and 2 Group IIC Class I Div 1 Groups A,B,C,D T3 Class II Div 1 Groups E,F,G
<b>Electrical Data</b>						
Rated Voltage (Vac or Vdc)	110–265	110–265	108–132	207–253	108–132	207–253
<b>Operating Range</b>						
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
<b>Unit Construction</b>						
Material	Black, anodized, seawater-proof aluminium					
<b>Accessories</b>						
Thermostat*	HLTSTAT10C, HLTSTAT20C					
<b>Unit Dimensions</b>						
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

\* A thermostat is required for 400W and 600W models. It is sold separately as an accessory.

## PERFORMANCE DATA HAZARDOUS LOCATION THERMOSTATS

Catalog Number	HLTSTAT10C	HLTSTAT20C
<b>Hazardous Location Certifications</b>		
Agency Approvals	ATEX, IECEx, CE, cCSAus	ATEX, IECEx, CE, cCSAus
ATEX / IECEx Certification	PTB 03 ATEX 1136 X IECEx PTB 07.0054 II 2 G Ex db IIC T6 II 2 D Ex tb IIIC T80°C	PTB 03 ATEX 1136 X IECEx PTB 07.0054 II 2 G Ex db IIC T6 II 2 D Ex tb IIIC T80°C
NEC cCSAus Certification	CSA 1655545 (LR43674) Class I Zone 1 and 2 Group IIC Class I Div 1 Groups A,B,C,D T6 Class II Div 1 Groups E,F,G	CSA 1655545 (LR43674) Class I Zone 1 and 2 Group IIC Class I Div 1 Groups A,B,C,D T6 Class II Div 1 Groups E,F,G
<b>Electrical Data</b>		
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

Catalog Number	HLTSTAT10C	HLTSTAT20C
Thermostats Nominal Setpoints		
Switch-on Temperature (°F/°C)	50/10	68/20
Switch-off Temperature (°F/°C)	64/18	82/28
<b>Unit Construction</b>		
Material	Black, anodized, seawater-proof aluminium	
<b>Unit Dimensions</b>		
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



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