



Enclosure Heaters and Fan Heaters

ISC carries innovative products for heating, cooling, temperature and humidity control of electronic enclosures. Our products are renowned for their reliability, long service life, high quality and simplicity of use.

Our Models

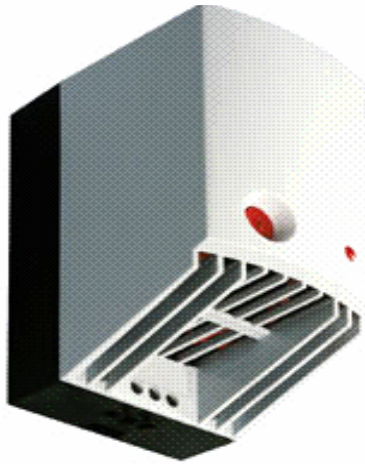
EHCR 027	PTC Fan Heater	400W to 650W
EHCR 030	Foot Mount Fan Heater	950W
EHCS 028	Touch Safe PTC Fan Heater	150W
EHCS 030	Foot Mount Fan Heater	1200W
EHCS 130	Panel Mount Fan Heater	1200W
EHHG 140	PTC Heater	15W to 150W
EHCS 060	Touch Safe Heater	50W to 150W
EHCSK 060	Touch Safe Heater	10W & 20W
EHCSL 028	Touch Safe PTC Fan Heater	250W & 400W
EHHVL 031	Fan Heater	100W to 400W
EHCSF 060	Touch Safe Heater	50W to 150W
EHHGL 046	Fan Heater	250W & 400W
EHCR 130	Panel Mount Fan Heater	950W
EHCREx	Explosion Proof Heater	50W & 100W

Please see individual pages for approvals.

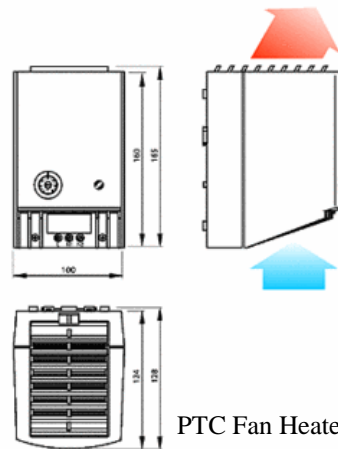


EHCR 027 PTC Fan Heater 400 - 650W

- Compact fan heater
- Heating power adjusts to ambient temperature
- Integrated adjustable thermostat
- Built-in overheat protection
- DIN rail mountable



Semiconductor fan heaters prevent the formation of condensation and ensure an even temperature in enclosures. The integrated thermostat is used to set the desired temperature.



PTC Fan Heater CR 027

Technical Data

Heating element	PTC resistor - temperature limiting
Overheat protection	built-in temperature limiter
Axial fan, ball bearing	service life 50,000h at 77°F (25°C)
Air flow, free blowing	see table below
Connection	2-pole terminal AWG 14 max. (2.5mm ²), torque 0.8Nm max.
Housing	plastic, UL 94V-0, light grey
Function control light	LED
Mounting	clip for 35mm DIN rail, EN 60 715
Mounting position	vertical
Operating/Storage temp	-49 to +158°F (-45 to +70°C)
Dimensions	6.5x3.94x5.0" (165x100x128mm)
Protection class	II (double insulated)
Protection type	IP20
Approvals	UL File No. E204590

Part No.	Heating capacity ¹ (@50hz)	Heating capacity ¹ (@60hz)	Operating voltage	Max inrush	Air flow, free blowing	Therm setting range	Weight (approx)
EHCR027550C220V	475W	550W	220-240VAC	11.0A	20 cfm (35m ³ /h)	0 to 60°C	2.0 lbs
EHCR027650C220V	550W	650W	220-240VAC	13.0A	26 cfm (45m ³ /h)	0 to 60°C	2.4 lbs
EHCR027550F100V	400W	550W	100-120VAC	14.0A	20 cfm (35m ³ /h)	32 to 140°F	2.0 lbs
EHCR027650F100V	510W	650W	100-120VAC	15.0A	26 cfm (45m ³ /h)	32 to 140°F	2.4 lbs

¹ at 68°F (20°C) ambient temperature

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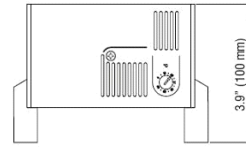
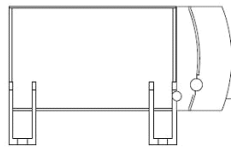
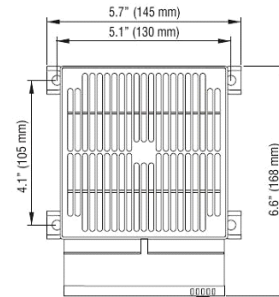


EHCR 030 Foot-mount Fan Heater 950W

- Compact design
- Integrated adjustable thermostat or fixed hygrostat
- Built-in overheat protection
- Double insulated plastic housing



The compact CR 030 high performance fan heater prevents formation of condensation and provides an evenly distributed air temperature in enclosures. This fan heater is available with an integrated thermostat for temperature control or a pre-set hygrostat for humidity control. The CR 030 was designed as a stationary unit for the bottom of the enclosure. For panel or DIN rail mount, the CR 130 fan heater is recommended.



Technical Data

Heating element	high performance cartridge
Overheat protection	built-in temperature limiter
Heater body	extruded aluminum
Axial fan, ball bearing	service life 50,000h at 77°F (25°C)
Air Flow, free blowing	94 cfm (160m ³ /h)
Connection	2-pole terminal AWG 16 max. (1.5mm ²) with strain relief, clamping torque 0.8Nm. Max.
Housing	plastic, UL 94V-0, black
Mounting	M5 screws (not included)
Mounting position	horizontal
Operating*/Storage temperature	-49 to +158°F (-45 to +70°C)
Dimensions	3.9x5.7x6.6" (100x145x168mm)
Weight	approx 3.1 lbs (1.4kg)
Protection class	II (double insulated)
Protection type	IP20

*operating temp of heater w/integrated hygrostat +32 to 140°F

Part No.	Heating capacity	Operating voltage	Setting range	Approvals
EHCR030950230C	950W	230VAC, 50/60Hz	0 to 60°C	UL File No. E234324, VDE
EHCR030950230RH	950W	230VAC, 50/60Hz	65% RH, factory set	UL File No. E234324, VDE
EHCR030950120F	950W	120VAC, 50/60Hz	32 to 140°F	UL File No. E234324
EHCR030950120N	950W	120VAC, 50/60Hz	none(no integrated controls)	UL File No. E234324

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EHCS028 Touch - Safe PTC Fan Heater 150W

- Compact Size
- Quiet Operation
- Heating power adjusts to ambient temperature
- DIN rail or screw mount available

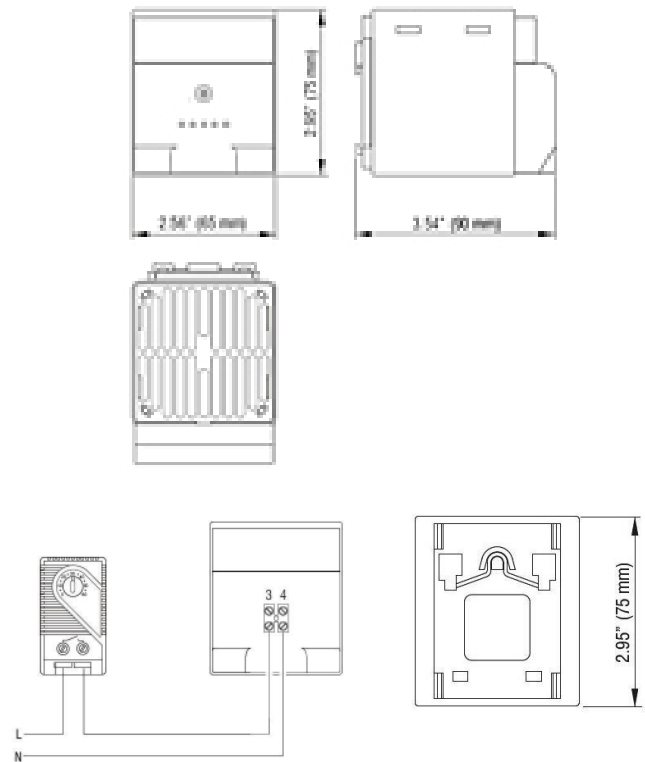


The CS 028 fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures. The heater is connected using the internal terminal connectors. The surface temperatures on the accessible side surfaces of the housing are minimized as a result of the heater design. The CS 028's small size make it ideal for use in enclosures where space is at a premium.



Technical Data

Heating element	PTC resistor - temperature limiting
Max. current (inrush)	2A @ 230VAC, 5 A @ 120VAC
Surface temperature	max. 122°F (50°C) at housing, 212°F (100°C) at top grill; measured at 68°F (20°C) ambient temperature
Axial fan, ball bearing	service life 40,000h at 104°F (40°C)
Air flow, free blowing	approx 8 cfm (13.8m ³ /h)
Connection	2-pole terminal AWG 14 max. (2.5mm ²), torque 0.8Nm max.
Mounting	clip for 35mm DIN rail, EN 60 715 or screw mount
Housing	plastic, UL 94V-0, black
Weight	approx. 10.6 oz. (300g)
Mounting position	vertical
Operating/Storage temp	-49 to 158°F (-45 to +70°C)
Protection class	II (double insulated)
Protection type	IP20
Note	other voltages available upon request



Part No.	Heating capacity ¹	Operating voltage	Dimensions	Mounting	Approvals
EHCS028150W230D	150W	230VAC, 50/60 Hz.	2.95x2.56x3.54" (75x65x90mm)	DIN clip	UL submitted, VDE
EHCS028150W230S	150W	230VAC, 50/60 Hz.	4.49x2.56x3.54" (114x65x90mm)	Screw mount	UL submitted, VDE
EHCS028150W120D	150W	120VAC, 50/60 Hz.	2.95x2.56x3.54" (75x65x90mm)	DIN clip	UL submitted
EHCS028150W120S	150W	120VAC, 50/60 Hz.	4.49x2.56x3.54" (114x65x90mm)	Screw mount	UL submitted

¹ at 68°F (20°C) ambient temperature



EHCS 030 Foot-mount Fan Heater 1200W

- Compact design
- Built-in overheat protection
- Integrated adjustable thermostat (optional)
- Double insulated plastic housing



The compact CS 030 high performance fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures. This fan heater is available with an optional integrated thermostat for temperature control. The CS 030 was designed as a stationary unit for the bottom of the enclosure. For panel or DIN rail mount, the CS 130 fan heater is recommended.

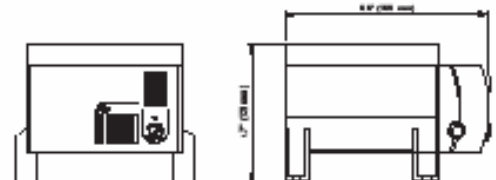
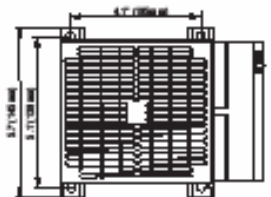


Technical Data

Heating element	PTC resistor - temperature limiting
Overheat protection	built-in temperature limiter
Axial fan, ball bearing	service life 50,000h at 77°F (25°C)
Air flow, free blowing	94 cfm (160m ³ /h)
Connection	2-pole terminal AWG 16 max. (1.5mm ²) with strain relief, clamping torque 0.8Nm max.
Housing	plastic, UL 94V-0, black
Mounting	M5 screws (not included)
Mounting position	horizontal
Operating/Storage temperature	-49 to 158°F (-45 to +70°C)
Dimensions	4.7x5.7x6.6" (120x145x168mm)
Weight	approx. 2.6 lbs. (1.2kg)
Protection class	II (double insulated)
Protection type	IP20



Wiring diagram



Part No.	Heating capacity ¹	Operating voltage	Max. (inrush)	Setting range	Approvals
EHCS0301200230C	1200W	230VAC, 50/60 Hz.	13.0A	0 to 60°C	UL File No. E150057, VDE
EHCS0301200230N	1200W	230VAC, 50/60 Hz.	13.0A	none(no integrated controls)	UL File No. E150057, VDE
EHCS0301200120F	1200W	120VAC, 50/60 Hz.	16.0A	32 to 140°F	UL File No. E150057
EHCS0301200120N	1200W	120VAC, 50/60 Hz.	16.0A	none(no integrated controls)	UL File No. E150057

¹ at 68°F (20°C) ambient temperature

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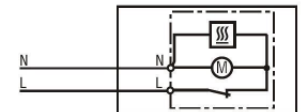


EHCS 130 Panel-mount Fan Heater 1200W

- Compact design
- Built-in overheat protection
- Integrated adjustable thermostat (optional)
- Double insulated plastic housing
- Panel or DIN rail mounting

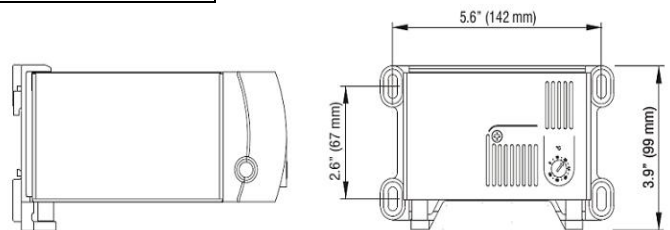
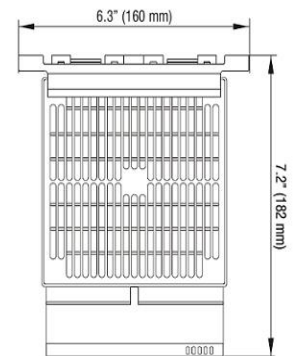


The compact CS 130 high performance fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures. This fan heater is available with an optional integrated thermostat for temperature control. The CS 130 was designed as a stationary unit for panel or DIN rail mounting. For foot mounting on the bottom of an enclosure, the CS 030 fan heater is recommended.



Technical Data

Heating element	PTC resistor - temperature limiting
Overheat protection	built-in temperature limiter
Axial fan, ball bearing	service life 50,000h at 77°F (25°C)
Air flow, free blowing	94 cfm (160m ³ /h)
Connection	2-pole terminal AWG 16 max. (1.5mm ²) with strain relief, clamping torque 0.8Nm max.
Housing	plastic, UL 94V-0, black
Mounting	clip for 35mm DIN rail, EN 60 715 or M6 screws (not included)
Mounting position	horizontal
Operating/Storage temp	-49 to +158°F (-45 to +70°C)
Dimensions	4.7x6.3x7.2" (120x160x182mm)
Weight	approx 2.6 lbs (1.2kg)
Protection class	II (double insulated)
Protection type	IP20



Part No.	Heating capacity ¹	Operating voltage	Max inrush	Setting range	Approvals
EHCS1301200230C	1200W	230VAC, 50/60Hz	13.0A	0 to 60°C	UL File No. E150057, VDE
EHCS1301200230N	1200W	230VAC, 50/60Hz	13.0A	none(no integrated controls)	UL File No. E150057, VDE
EHCS1301200120F	1200W	120VAC, 50/60Hz	16.0A	32 to 140°F	UL File No. E150057
EHCS1301200120N	1200W	120VAC, 50/60Hz	16.0A	none(no integrated controls)	UL File No. E150057

¹ at 68°F (20°C) ambient temperature

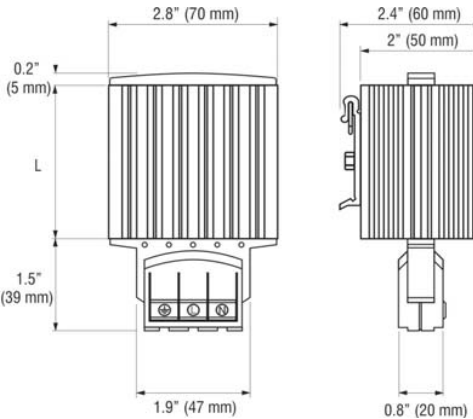
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EHHG 140 PTC Heater 15 - 150W

- **Compact size**
- **Wide voltage range**
- **Heating power adjusts to ambient temperature**
- **Cage clamp connectors for quick & easy wiring**
- **DIN rail mountable**

These heaters are used in enclosures where damage from condensation must be prevented, or where the temperature must be maintained above a minimum value. The aluminum profile heater body design has a chimney effect to distribute heat evenly. The cage clamp connectors save time and simplify installation.



Technical Data

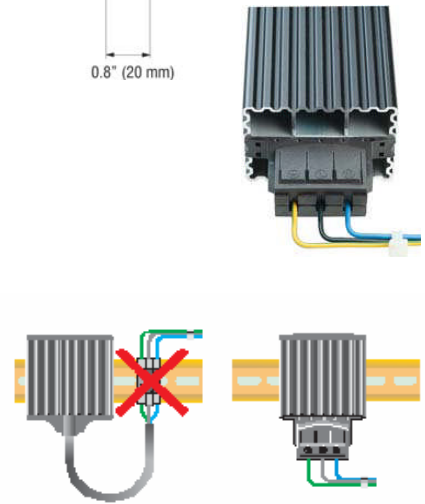
Operating voltage*	120-240V AC/DC (min 110V, max 265V)
Heating element	PTC resistor - temperature limiting
Heater body	extruded aluminum profile, anodized
Connection	3 cage clamps for solid wire AWG 20-14 (0.5-2mm ²), and stranded wire AWG 20-16 (0.5-1.5mm ²) with wire end ferrule
Connection casing	plastic, UL 94V-0, black
Mounting	clip for 35mm DIN rail, EN 60 715
Mounting position	vertical
Operating/Storage temperature	-49 to +158°F (-45 to +70°C)
Protection class	I (grounded)
Protection type	IP20
Approvals	UL File No. E150057, VDE
Note	other voltages available upon request

*Operating with voltages below 140V AC/DC reduces heating performance by approx. 10%.

Part No.	Heating capacity ¹	Max inrush	Length (L)	Weight (approx.)
EHHG140-15W	15W	1.5A	2.56" (65mm)	10.6 oz. (300g)
EHHG140-30W	30W	3.0A	2.56" (65mm)	10.6 oz. (300g)
EHHG140-45W	45W	3.5A	2.56" (65mm)	10.6 oz. (300g)
EHHG140-60W	60W	2.5A	5.5" (140mm)	14.1 oz. (400g)
EHHG140-75W	75W	4.0A	5.5" (140mm)	17.6 oz. (500g)
EHHG140-100W	100W	4.5A	5.5" (140mm)	17.6 oz. (500g)
EHHG140-150W	150W	9.0A	8.66" (220mm)	24.7 oz. (700g)

¹ at 68°F (20°C) ambient temperature

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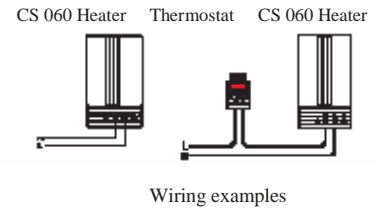
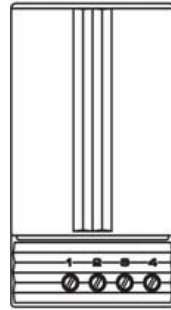
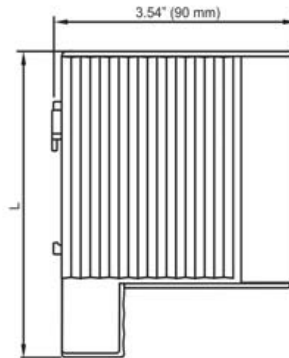
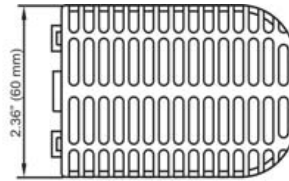


EHCS 060 Touch-Safe Heater 50 - 150W

- Low surface temperature
- Compact size
- Wide voltage range
- Double insulated protection
- DIN rail mountable



The CS 060 is a touch-safe heater for use in enclosures. The design of the heater utilizes natural convection which results in a circulating current of warm air. The surface temperatures on the accessible side surfaces of the housing are minimized as a result of the heater design. The CS 060 is also available in a version with a plug-in thermostat requiring no additional wiring (CSF 060).



Technical Data

Operating voltage*	120-240VAC (min. 110V, max. 265V)
Heating capacity	see table
Heating element	PTC resistor - temperature limiting
Surface temperature	< 176°F (80°C), except upper protective grill
Connection	4-pole terminal AWG 14 max (2.5mm ²), torque 0.8Nm max.
Housing	plastic, UL 94V-0, black
Mounting	clip for 35mm DIN rail, EN 60 715
Mounting position	vertical
Operating / Storage temperature	-4 to +158°F (-20 to +70°C) / -49 to +158°F (-45 to +70°C)
Protection class / Protection type	II (double insulated) / IP20
Approvals	UL File No. E150057, VDE

Note: other voltages available upon request

Part No.	Heating capacity ¹	Max. current (inrush)	Air outlet temperature ²	Dimensions	Weight (approx.)
EHCS06050W	50W	2.5A	187°F (86°C)	4.3 x 2.36 x 3.54" (110 x 60 x 90mm)	290g
EHCS060100W	100W	4.5A	248°F (120°C)	4.3 x 2.36 x 3.54" (110 x 60 x 90mm)	300g
EHCS060150W	150W	8A	293°F (145°C)	5.9 x 2.36 x 3.54" (150 x 60 x 90mm)	440g

¹ see Heating capacity / Ambient temperature diagram

² measured 2" (50mm) above protective grill

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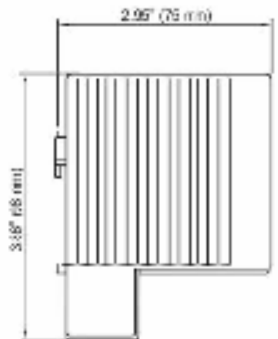
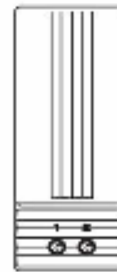


EHCSK 060 Touch-Safe Heater 10 & 20W

- Low surface temperature
- Compact size
- Wide voltage range
- Double insulated protection
- DIN rail mountable

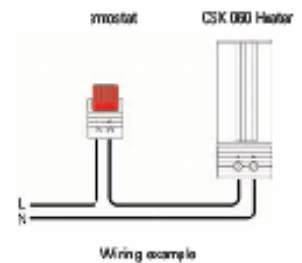


The CSK 060 is a touch-safe heater for use in enclosures. The design of the heater utilizes natural convection which results in a circulating current of warm air. The surface temperatures on the accessible side surfaces of the housing are minimized as a result of the heater design.



Technical Data

Heating capacity	see table
Heating element	PTC resistor - temperature limiting
Surface temperature	< 176°F (80°C), except upper protective grill
Connection	4-pole terminal AWG 14 max (2.5mm ²), torque 0.8Nm max.
Mounting	clip for 35mm DIN rail, EN 60 715
Housing	plastic, UL 94V-0, black
Mounting position	vertical
Operating temperature	-4 to +158°F (-20 to +70°C)
Storage temperature	-49 to +158°F (-45 to +70°C)
Protection class	II (double insulated)
Protection type	IP20
Approvals	UL File No. E150057, VDE
Note	other voltages available upon request



Part No.	Heating capacity ¹	Operating voltage ²	Max. (inrush)	Dimensions	Weight (approx)
EHCSK060020120/240	20W	AC/DC 120-240V	2.5A	3.86x2.95x1.5"(98x75x38mm)	10.6 oz (300g)
EHCSK060010120/240	10W	AC/DC 120-240V	1.0A	3.86x2.95x1.5"(98x75x38mm)	7.1 oz. (200g)
EHCSK06001012/30V	10W	AC/DC 12-30V	8A	3.86x2.95x1.5"(98x75x38mm)	7.1 oz. (200g)

¹ at 68°F (20°C) ambient temperature

² operating high voltage heaters below AC/DC 140V reduces heating performance by approx. 10% (min 110V, max 265V).

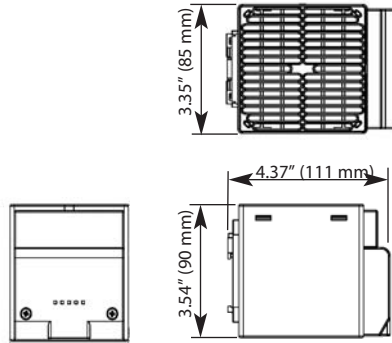


CSL 028 Touch-Safe PTC Fan Heater 250 & 400W



- Compact size
- Quiet operation
- Heating power adjusts to ambient temperature
- DIN rail or screw mount available

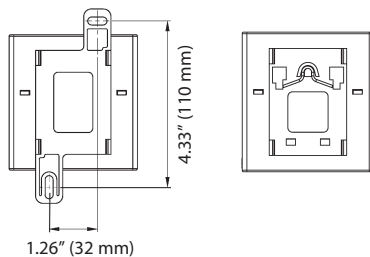
The CSL 028 fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures. The heater is connected using the internal terminal connectors. The surface temperatures on the accessible side surfaces of the housing are minimize as a result of the heater design. The CSL 028's small size make it ideal for use in enclosures where space is at a premium.



View: back side

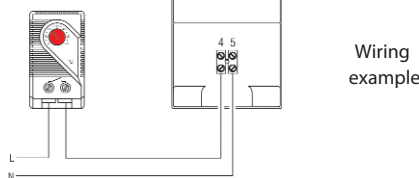
Screw mount

DIN clip



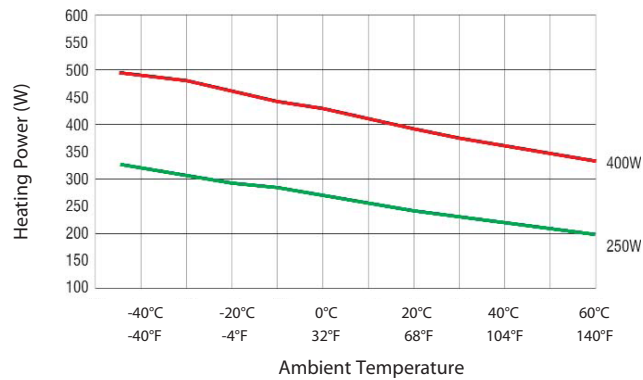
Thermostat

CSL 028 Fan Heater



Technical Data

Heating element	PTC resistor - temperature limiting
Surface temperature	250W: max. 122°F (50°C) except upper protective grill 400W: max. 149°F (65°C) except upper protective grill measured at 68°F (20°C) ambient temperature
Axial fan, ball bearing	service life 40,000h at 104°F (40°C)
Air flow, free blowing	32 cfm (54 m ³ /h) at 120 VAC; 26 cfm (45 m ³ /h) at 230VAC
Connection	2-pole terminal AWG 14 max. (2.5mm ²) with strain relief, screw torque 0.8Nm max.
Mounting	clip for 35mm DIN rail, EN 60 715 or screw mount
Housing	plastic, UL 94V-0, black
Weight	approx. 17.6 oz. (500g)
Mounting position	vertical
Operating / Storage temperature	-49 to +158°F (-45 to +70°C)
Protection class	II (double insulated)
Protection type	IP20



Part No.	Heating ¹⁾ capacity	Operating voltage	Max. current (inrush)	Dimensions	Mounting	Approvals
EHCSL028400W230D	400W	230VAC, 50/6	15A	3.54 x 3.35 x 4.37" (90 x 65 x 111mm)	DIN clip	UL File No. E150057, VDE
EHCSL028400W230S	400W	230VAC, 50/6	15A	5.08 x 3.35 x 4.37" (129 x 65 x 111mm)	Screw mount	UL File No. E150057, VDE
EHCSL028400W120D	400W	120VAC, 50/6	9A	3.54 x 3.35 x 4.37" (90 x 65 x 111mm)	DIN clip	UL File No. E150057
EHCSL028400W120S	400W	120VAC, 50/6	9A	5.08 x 3.35 x 4.37" (129 x 65 x 111mm)	Screw mount	UL File No. E150057
EHCSL028250W230D	250W	230VAC, 50/6	9A	3.54 x 3.35 x 4.37" (90 x 65 x 111mm)	DIN clip	UL File No. E150057, VDE
EHCSL028250W230S	250W	230VAC, 50/6	9A	5.08 x 3.35 x 4.37" (129 x 65 x 111mm)	Screw mount	UL File No. E150057, VDE
EHCSL028250W120D	250W	120VAC, 50/6	6A	3.54 x 3.35 x 4.37" (90 x 65 x 111mm)	DIN clip	UL File No. E150057
EHCSL028250W120S	250W	120VAC, 50/6	6A	5.08 x 3.35 x 4.37" (129 x 65 x 111mm)	Screw mount	UL File No. E150057

¹⁾at 68°F (20°C) ambient temperature

Specifications are subject to change without notice. Suitability of this product for its intended use and any associated risks must be determined by the end customer/ buyer in its final application.

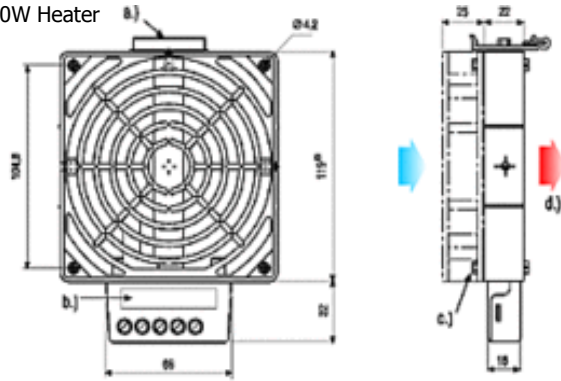


EHHVL 031 Fan Heater 100-400W

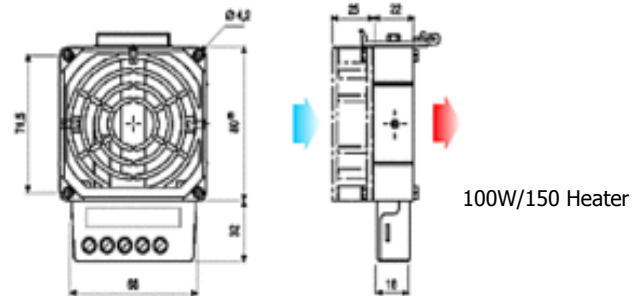
The compact HVL 0314 high-performance fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures. For large OEM use, this fan heater can also be provided without the fan, in which case the OEM/customer must provide a fan which meets the minimum airflow requirements



200W/300W/400W Heater



Caution: Heater may only be operated with fan. Operating without a fan creates the danger of overheating.



Technical Data

Heating element	high performance cartridge
Overheat protection	built-in temperature limiter
Heater body	die-cast aluminum, glass bead finish
Connection	3-pole terminal AWG 14 max. (2.5mm ²), torque 0.8Nm max
Connection housing	plastic, UL 94V-0, black
Mounting	clip for 35mm DIN rail, EN 60 715
Mounting position	horizontal
Operating/Storage temp	-49 to +158°F (-45 to +70°C)
Protection class/Protection type	I (grounded) / IP20
Axial fan, ball bearing	service life 50,000h at 77°F (25°C)
Air flow, free blowing	see table below
Axial fan connection	2-pole terminal AWG 14 max. (2.5mm ²), terminals L2/N2
Approvals	UL File No. E187294 (all), VDE (230VAC only)

Part No - 120VAC	Part No - 230VAC	Heating Capacity	Min airflow (free blowing)	Dimensions (as mounted)	Weight (approx)
EHHVL031100120	EHHVL031100230	100W	20 cfm (35m ³ /h)	1.85x3.15x4.41" (47x80x112mm)	1.3 lbs
EHHVL031150120	EHHVL031150230	150W	20 cfm (35m ³ /h)	1.85x3.15x4.41" (47x80x112mm)	1.3 lbs
EHHVL031200120	EHHVL031200230	200W	63 cfm (108m ³ /h)	1.85x4.68x5.94" (47x119x151mm)	2.0 lbs
EHHVL031300120	EHHVL031300230	300W	63 cfm (108m ³ /h)	1.85x4.68x5.94" (47x119x151mm)	2.0 lbs
EHHVL031400120	EHHVL031400230	400W	63 cfm (108m ³ /h)	1.85x4.68x5.94" (47x119x151mm)	2.0 lbs

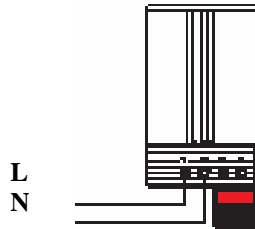
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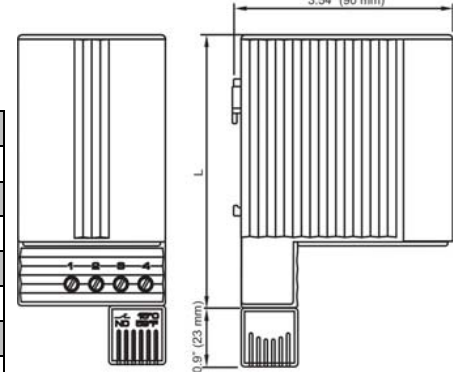
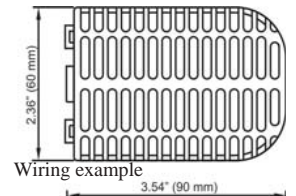
EHCSF 060 Touch-Safe Heater 50W - 150W

- Low surface temperature
- Integrated thermostat
- Compact size
- Wide voltage range
- Double insulated protection
- DIN rail mountable

The CSF 060 is a touch-safe heater for use in enclosures. The design of the heater utilizes natural convection which results in a circulating current of warm air. The surface temperatures on the accessible side surfaces of the housing are minimized as a result of the heater design. This model with plug-in thermostat does not require additional wiring. The CSF 060 is also available in a version without thermostat (CS 060).



CSF 060 Heater



Technical Data

Operating voltage*	120-240VAC (min. 110V, max 265V)
Heating capacity	see table
Heating element	PTC resistor - temperature limiting
Surface temperature	<176°F (80°C), except upper protective grill
Connection	4-pole terminal AWG 14 max (2.5mm ²), torque 0.8Nm max.
Housing	plastic, UL 94V-0, black
Mounting	clip for 35mm DIN rail, EN 60 715
Mounting position	vertical
Operating/Storage temperature	-4 to +158°F (-20 to +70°C)/-49 to +158°F (-45 to +70°C)
Protection class	II (double insulated)
Protection type	IP20
Approvals	VDE

*Operating with voltages below 140VAC reduces heating performance by approx 10%.

Part No.	Heating Capacity ¹	Max. current	Air Outlet Temperature ²	Switch-off Temperature ³	Switch-on Temperature ³	Dimensions	Weight (approx.)
EHCSF06050-59/41	50W	2.5A	187°F (86°C)	59°F (15°C)	41°F (5°C)	5.24 x 2.36 x 3.54" (133 x 60 x 90mm)	10.6 oz. (300g)
EHCSF06050-77/49	50W	2.5A	187°F (86°C)	77°F (25°C)	59°F (15°C)	5.24 x 2.36 x 3.54" (133 x 60 x 90mm)	10.6 oz. (300g)
EHCSF060100-59/41	100W	4.5A	248°F (120°C)	59°F (15°C)	41°F (5°C)	5.24 x 2.36 x 3.54" (133 x 60 x 90mm)	10.9 oz. (310g)
EHCSF060100-77/59	100W	4.5A	248°F (120°C)	77°F (25°C)	59°F (15°C)	5.24 x 2.36 x 3.54" (133 x 60 x 90mm)	10.9 oz. (310g)
EHCSF060150-59/41	150W	8.0A	293°F (145°C)	59°F (15°C)	41°F (5°C)	6.8 x 2.36 x 3.54" (173 x 60 x 90mm)	15.5 oz. (440g)
EHCSF060150-77/59	150W	8.0A	293°F (145°C)	77°F (25°C)	59°F (15°C)	6.8 x 2.36 x 3.54" (173 x 60 x 90mm)	15.5 oz. (440g)

¹ see Heating capacity / Ambient temperature diagram

² measured 2" (50mm) above protective grill

³ tolerance of ± 5K

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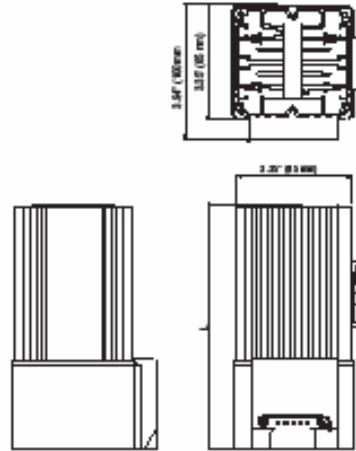


EHHGL 046 Fan Heater 250 & 400W

- Compact size
- Built-in overheat protection
- Long service life
- DIN rail mountable



The compact HGL 046 fan heater prevents formation of condensation. The integrated high performance axial fan provides forced air circulation and so guarantees an even temperature in enclosures. The heater is wired using the internal terminal connectors.

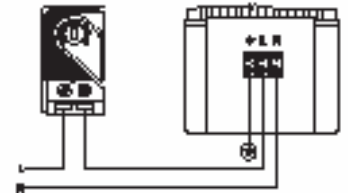


Technical Data

Heating element	resistance - micanite
Overheat protection	built-in temperature limiter
Heater body	extruded aluminum, anodized
Surface temperature	400W heater - max. 167°F (75°C)
Axial fan, ball bearing	service life 50,000h at 77°F (25°C)
Air flow, free blowing	AC: 26 cfm (45m ³ /h) - 50Hz; 32 cfm (54m ³ /h) - 60Hz DC: 32 cfm (54m ³ /h)
Connection	3-pole terminal AWG 16 max. (1.5mm ²) with strain relief, clamping torque 0.8Nm max.
Connection housing	plastic, UL 94V-0, black
Mounting	clip for 35mm DIN rail, EN 60 715
Mounting position	vertical
Operating / Storage temperature	-49 to +158°F (-45 to +70°C)
Protection class	I (grounded)
Protection type	IP20

Pilot contact
e.g. KT 011 Thermostat

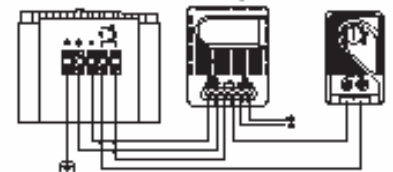
Heater
Fan Heater HGL 046
(120VAC or 230VAC)



Heater
Fan Heater HGL 046
(24VDC or 48VDC)

SM 010
Electronic
relay

Pilot contact
e.g. KT 011
Thermostat



Note: In the case of 24VDC and 48VDC, the fan heater must be switched via a relay. For this application, the SM 010 Electronic Relay (Part No. 01000.0-00 or 01001.0-00) is recommended.

Part No.	Heating capacity	Operating voltage	Length (L)	Weight (approx.)	Approvals
EHHGL046250-230	250W	230VAC, 50/60 Hz	7.2" (182mm)	2.4 lbs (1.1kg)	UL File No. E150057, VDE
EHHGL046400-230	400W	230VAC, 50/60 Hz	8.7" (222mm)	3.1 lbs (1.4kg)	UL File No. E150057, VDE
EHHGL046250-120	250W	120VAC, 50/60 Hz	7.2" (182mm)	2.4 lbs (1.1kg)	UL File No. E150057, VDE
EHHGL046400-120	400W	120VAC, 50/60 Hz	8.7" (222mm)	3.1 lbs (1.4kg)	UL File No. E150057, VDE
EHHGL046250-24V	250W	24VDC	7.2" (182mm)	2.4 lbs (1.1kg)	-
EHHGL046250-48V	250W	48VDC	7.2" (182mm)	2.4 lbs (1.1kg)	-
EHHGL046400-48V	400W	48VDC	8.7" (222mm)	3.1 lbs (1.4kg)	-

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EHCR 130 Panel-mount Fan Heater 950W

- Compact design
- Built-in overheat protection
- Integrated adjustable thermostat or fixed hygrostat
- Double insulated plastic housing
- Panel or DIN rail mounting

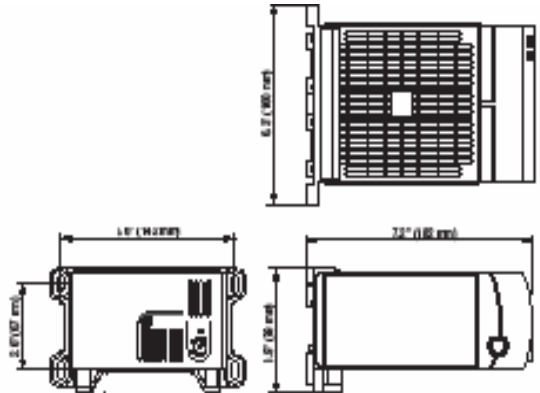
The compact CR 130 high performance fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures. This fan heater is available with an integrated thermostat for temperature control or a pre-set hygrostat for humidity control. The CR 130 was designed as a stationary unit for panel or DIN rail mounting. For foot mounting on the bottom of an enclosure, the CR 030 fan heater is recommended.



Technical Data

Heating element	high performance cartridge
Overheat protection	built-in temperature limiter
Heater body	extruded aluminum
Axial fan, ball bearing	service life 50,000h at 77°F (25°C)
Air flow, free blowing	94 cfm (160m ³ /h)
Connection	2-pole terminal AWG 16 max. (1.5mm ²) with strain relief, clamping torque 0.8Nm max.
Housing	plastic, UL 94V-0, black
Mounting	clip for 35mm DIN rail, EN 60 715 or M6 screws (not included)
Mounting position	horizontal
Operating* / Storage temperature	-49 to +158°F (-45 to +70°C)
Dimensions	3.9 x 6.3 x 7.2" (99 x 160 x 182mm)
Weight	approx. 3.1 lbs. (1.4kg)
Protection class	II (double insulated)
Protection type	IP20

* Operating temperature of heater with integrated hygrostat: +32 to +140°F (0 to +60°C)



Wiring diagram

Part No.	Heating capacity	Operating voltage	Setting range	Approvals
EHCR130950230C	950W	230VAC, 50/60Hz	0 to 60°C	UL File No. E234324, VDE
EHCR13095030RH	950W	230VAC, 50/60Hz	65% RH, factory-set	UL File No. E234324, VDE
EHCR13095020F	950W	120VAC, 50/60Hz	32 to 140°F	UL File No. E234324
EHCR130950120N	950W	120VAC, 50/60Hz	none (no integrated controls)	UL File No. E234324

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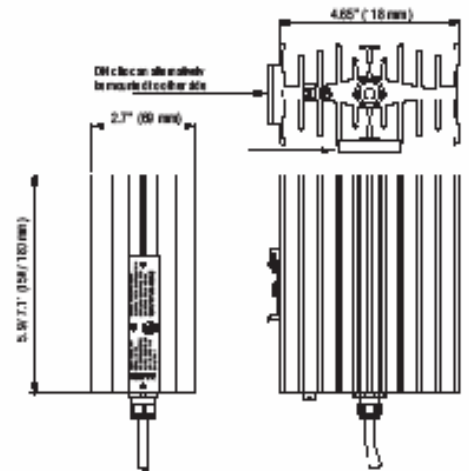


EHCREx 020 Explosion-proof Heater

- Large convection surface
- Maintenance free
- DIN rail mountable



The CREx 020 convection heaters are used in areas with explosion hazard to maintain minimum operating temperatures to help prevent failure of electronic components caused by condensation and corrosion.



Technical Data

Explosion protection according to EN	LCIE (Laboratoire Central des Industries Electriques)
Conformity certificate	01 ATEX 6073/03, LCIE N°06 ATEX Q8011, IECEx LCI 07. 0021
Heating element	high performance cartridge
Heater body	aluminum profile, black anodized
Connection	Si HF - JZ 3 x AWG 18 (0.75mm ²), length 3.3 ft (1m)
Connection PE	4mm ²
Mounting	clip for 35mm DIN rail, EN 60 715
Mounting position	vertical
Operating / Storage temperature	-49 to +158°F (-45 to +70°C)
Protection class	I (grounded)
Protection type	IP65

Part No.	Operating voltage	Heating capacity	Ex protection type	Surface temperature	Length (L)	Weight (approx.)
EHCREX02050-230	230-240VAC	50W	II 2 GD - EEx d IIC T5 IP6x T100°C	212°F (100°C)	5.9" (150mm)	2.9 lbs. (1.3kg)
EHCREX02050-120	110-120VAC	50W	II 2 GD - EEx d IIC T5 IP6x T100°C	212°F (100°C)	5.9" (150mm)	2.9 lbs. (1.3kg)
EHCREX020100-230	230-240VAC	100W	II 2 GD - EEx d IIC T4 IP6x T135°C	275°F (135°C)	7.1" (180mm)	3.3 lbs. (1.5kg)
EHCREX020100-120	110-120VAC	100W	II 2 GD - EEx d IIC T4 IP6x T135°C	275°F (135°C)	7.1" (180mm)	3.3 lbs. (1.5kg)

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