

- Small, compact size fan heater
  - Maintains minimum operating temperatures in enclosures
  - Helps to prevent failure of electronic components caused by condensation and corrosion
- Built-in overheat protection
- Heater can be purchased separately for OEM use\*
- DIN rail mountable



| Watts | Model Number        |           | Model Number |           |
|-------|---------------------|-----------|--------------|-----------|
|       | Complete Fan Heater |           | Heater Only  |           |
|       | 120 VAC             | 230 VAC   | 120 VAC      | 230 VAC   |
| 100W  | KSFHL100            | K2SFHL100 | KSEHV100     | K2SEHV100 |
| 150W  | KSFHL150            | K2SFHL150 | KSEHV150     | K2SEHV150 |
| 200W  | KSFHL200            | K2SFHL200 | KSEHV200     | K2SEHV200 |
| 300W  | KSFHL300            | K2SFHL300 | KSEHV300     | K2SEHV300 |
| 400W  | KSFHL400            | K2SFHL400 | KSEHV400     | K2SEHV400 |

### Applications:

- Electrical & Electronic enclosures
- Telecommunications systems
- Display panels
- Personnel booths
- Automatic teller machines (ATM's)
- Access & Parking control systems
- Ticket dispensers



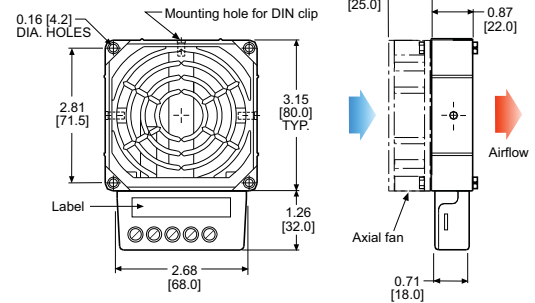
## TECHNICAL DATA

|   |   |
|---|---|
| Heating element:                                    | Resistance type cartridge heater  |
| Heat sink:  | Die-cast aluminum, glass bead finish  |
| Required fan size:<br>(included with KSFHL heaters) | 100/150W: 80 x 80 x 25 mm<br>min. air flow: 20 cfm (35 m³/h)<br>200/300/400W: 120 x 120 x 25 mm<br>min. air flow: 63 cfm (108 m³/h) |
| Overheat protection:                                | Built-in temperature limiter  |
| Air exit temperature:                               | Approx. 113°F (45°C) 2"(50 mm) above heater   |
| Wiring compartment:                                 | Plastic UL 94V-0  |
| Connection (heater):                                | 3-pole terminal, AWG 14 max. (2.5 mm²)  |
| Connection (axial fan):                             | 2-pole terminal (L2/N2), AWG 14 max. (2.5 mm²)  |
| Mounting:   | Clip for 35 mm DIN rail (EN 50022)  |
| Protection class:                                   | I (grounded)  |
| Protection type:                                    | IP 20   |
| Weight:   | 100/150W: 0.6 lbs (240 g) without fan<br>200/300/400W: 1.1 lbs (490 g) without fan  |
| Agency approvals:                                   | UL (all), VDE (230 VAC only)  |

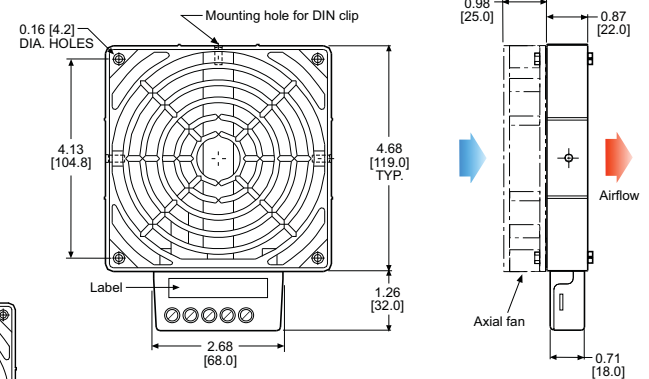
## DRAWINGS

Dimensions, inches [mm], are for reference only and are subject to change.

### 100W/ 150W Heater



### 200W/ 300W/ 400W Heater



**Caution: Heater may only be operated with fan!**

Determining the required heater size:

$$P_H = (A \times \Delta T \times k) - P_V$$

$P_H$  = Required heating power for your application in Watts (W)

$P_V$  = Heating power generated by existing components (e.g. a transformer) in Watts (W)

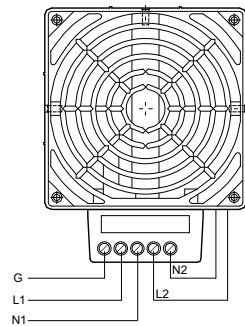
$A$  = Exposed enclosure surface area in square meters (m²)

$\Delta T$  = Temperature differential between the desired minimum interior temperature and the lowest possible external temperature of the enclosure in Kelvin (K), 1.8°F = 1°C = 1K

$k$  = Heat transmission coefficient of the enclosure material used:

|                    |          |
|--------------------|----------|
| Painted steel:     | 5.5W/m²K |
| Stainless steel:   | 3.7W/m²K |
| Aluminum:          | 12W/m²K  |
| Polyester/Plastic: | 3.5W/m²K |

For outdoor applications it is recommended to double the heating power.



KSFHL WIRING DIAGRAM

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.

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