

# HEATING



### Performance:

Compact high-performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric components.

- Switchable power levels
- Push-in terminal connection
- Compact design
- Clip fixing
- Long service life

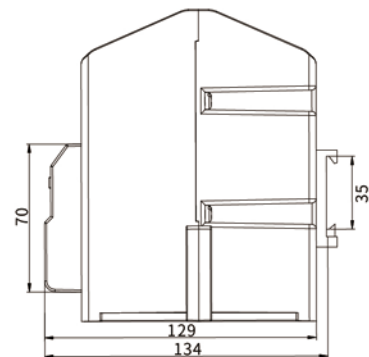
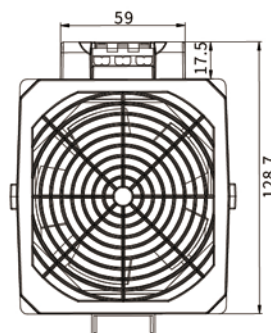
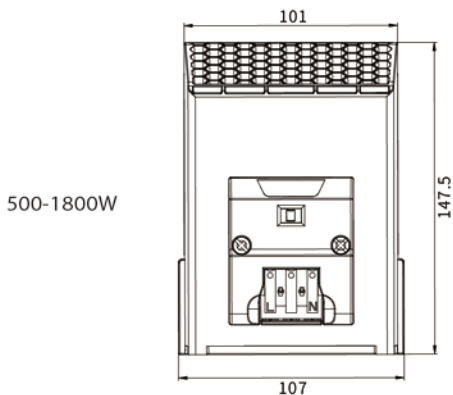
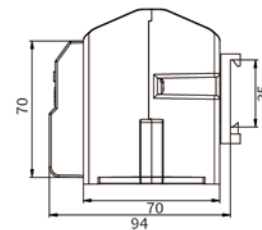
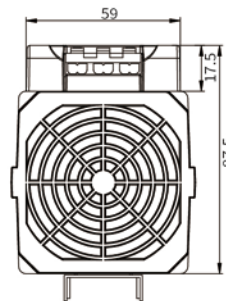
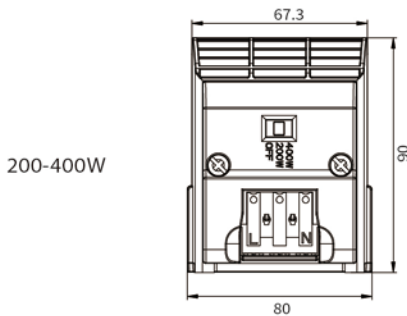


### SPECIFICATION

Model	LK145					
Power (switchable)	200/300W	200/400W	300/400W	500/800W	900/1200W	1000/1800W
Fan Air Flow	30 m <sup>3</sup> /h		50 m <sup>3</sup> /h		150 m <sup>3</sup> /h	150 m <sup>3</sup> /h
Rated Voltage	200-240V AC					
Frequency	50/60 Hz					
Housing Material	Plastic UL94 V-0					
Connection	Push in terminal					
Working Temperature	-30°C~+70°C					
Protection	IP20					
Mounting	DIN 35 Vertical					



### DIMENSION (mm)



**Performance:**

Compact fan heater prevents formation of condensation. The integrated high performance axial fan provides forced air circulation and so guarantees an even temperature in enclosures. With internal terminal connector.

- Compact design
- Clip fixing
- Long service life
- Maintenance free
- Temperature safety cut-out



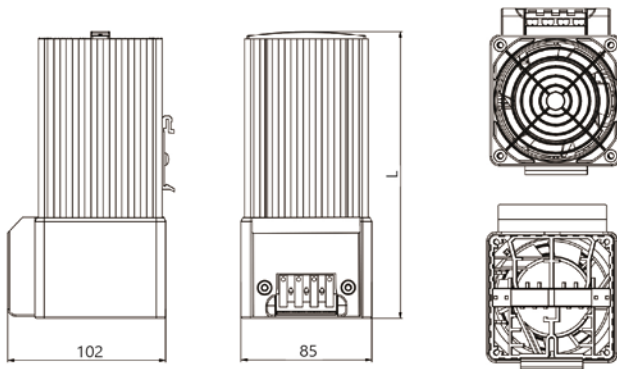
**SPECIFICATION**

Operating voltage	230V AC 50/60Hz
Heating element	PTC resistor, self regulating and temperature limiting
Temperature safety cut-out	To protect against overheating in case of fan failure
Heater body	Anodised extruded aluminium profile
Surface temperature	Max.75°C(400W)
Axial fan	Airflow, free flow AC: 45m <sup>3</sup> /h50Hz or 54m <sup>3</sup> /h(60Hz)
Mean life	50 000h at 25°C
Connection	Push-in terminal
Connection casing	Plastic according to UL94 V-0, black
Mounting	Clip for 35mm DIN rail, EN 50022
Fitting position	Vertical
Operating temperature	-30°C~+70°C
Protection class	IP20

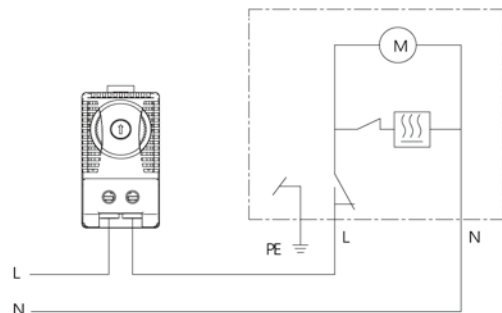


Model	Operating voltage	Heat production	Width/height/depth	Weight (kg)
LK046-100W	230V AC, 50/60HZ	100W	85x130x85mm	0.77kg
LK046-150W	230V AC, 50/60HZ	150W	85x130x85mm	0.77kg
LK046-200W	230V AC, 50/60HZ	200W	85x130x85mm	0.77kg
LK046-250W	230V AC, 50/60HZ	250W	85x183x85mm	1.10kg
LK046-400W	230V AC, 50/60HZ	400W	85x216x85mm	1.40kg

**DIMENSION (mm)**



**WIRING DIAGRAM**



### Performance:

Compact high-performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric components.

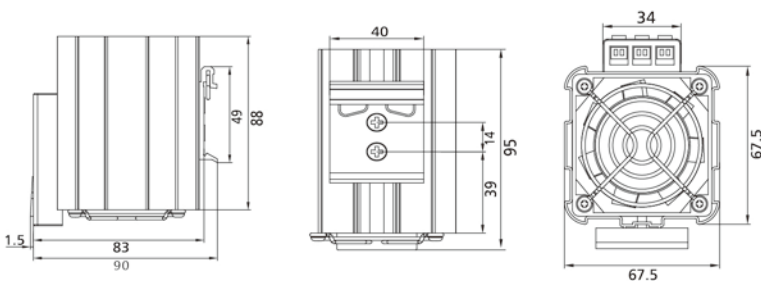
- Compact design
- Clip fixing
- Long service life
- Maintenance free
- UL(Option)



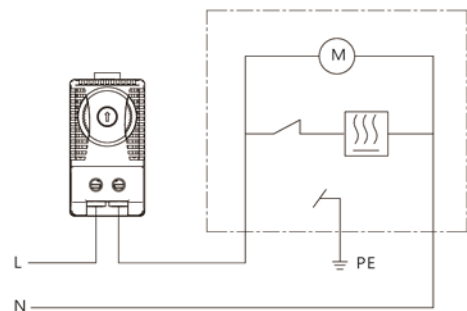
### SPECIFICATION

Model	LK143			
Rated output voltage (+5/-10%) at 10°C	150W	300W	400W	500W
Input voltage	110-240V AC			
Flat ratio	50-60Hz			
Maximum surface temperature (ambient temperature 25°C)	74°C			
Link method (cage connection)	Push-in			
Operating/storage temperature	-30°C~+70°C(RH<20%)			
Air flow rate (zero static pressure)	30m <sup>3</sup> /hr (18 CFM)			
Weight	300g			
Protection	IP20			
Mounting	DIN 35 Vertical			

### DIMENSION (mm)



### WIRING DIAGRAM



**Performance:**

Compact fan heater prevents formation of condensation. The integrated high performance axial fan provides forced air circulation and so guarantees an even temperature in enclosures. With internal terminal connector.

- Compact design
- Clip fixing
- Long service life
- Maintenance free
- Temperature safety cut-out



HGL046-200W

HGL046-250W

HGL046-500W

**SPECIFICATION**

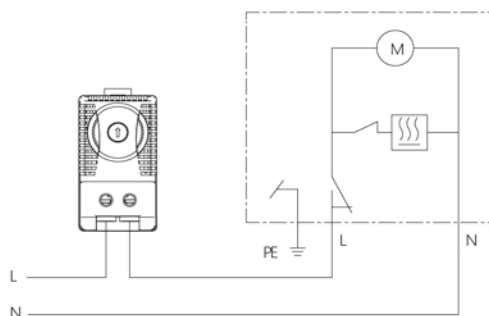
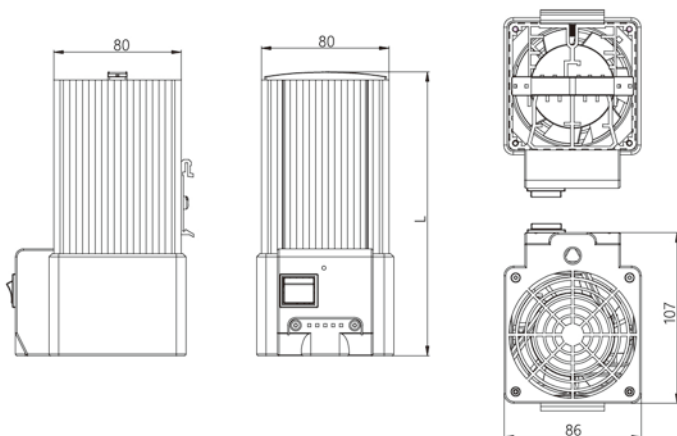
Operating voltage	230V AC 50/60Hz
Heating element	PTC resistor, self regulating and temperature limiting
Temperature safety cut-out	To protect against overheating in case of fan failure
Heater body	Anodised extruded aluminium profile
Surface temperature	Max.75°C(400W)
Axial fan	Airflow, free flow AC:45m <sup>3</sup> /h50Hz or 54m <sup>3</sup> /h(60Hz)
Mean life	50 000h at 25°C
Connection	Push-in terminal
Connection casing	Plastic according to UL94 V-0, black
Mounting	Clip for 35mm DIN rail, EN 50022
Fitting position	Vertical
Operating temperature	-30°C~+70°C
Protection class	IP20



Model	Operating voltage	Heat production	Width/height/depth	Weight (kg)
HGL046-100W	230V AC, 50/60HZ	100W	86x135x107mm	0.77kg
HGL046-150W	230V AC, 50/60HZ	150W	86x135x107mm	0.77kg
HGL046-200W	230V AC, 50/60HZ	200W	86x135x107mm	0.77kg
HGL046-250W	230V AC, 50/60HZ	250W	86x180x107mm	1.10kg
HGL046-400W	230V AC, 50/60HZ	400W	86x220x107mm	1.40kg
HGL046-500W	230V AC, 50/60HZ	500W	86x220x107mm	1.40kg

**DIMENSION (mm)**

**WIRING DIAGRAM**



### Performance:

These heaters are used in enclosures where damage from condensation must be prevented or where the temperature may not fall below a minimum value. The aluminium profile heater body design has a chimney effect and distributes the heat evenly. The pressure clamp connectors save time and simplify installation.

- Pressure clamp connectors
- Dynamic heating up
- Wide voltage range
- Temperature limiting
- Energy saving
- Quick installation with clip fixing



HG140-15W



HG140-150W

### SPECIFICATION

Operating voltage	110-250V AC/DC
Thermal element	PTC thermistor (PTC)
Heater body	Aluminium profile, anodised black
Connecting type	Push-in terminal
Connecting case	UL94 V-0, black plastic
Fitting position	Vertical
Operating	-30°C ~ +70°C
Protection	IP20
Certificate	CE



Heater burn protective cover (optional)



(15W-75W) Universal

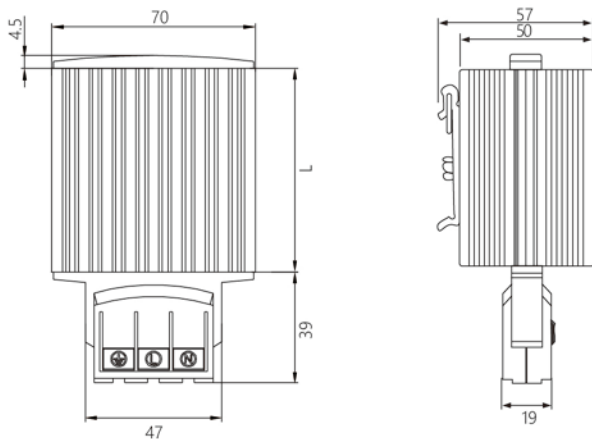


(100W-150W) Universal

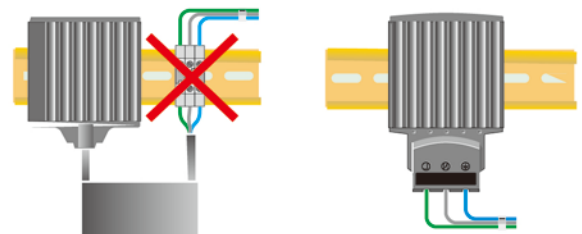
Operating voltage below 140V AC/DC will reduce the heat output by about 10%

Model	Heat output (W) 20°C ambient temperature	Maximum allowable current (A)	L (mm)	Weight (kg)
HG140-15W	15W	1.5	70	0.25
HG140-30W	30W	2.5	70	0.25
HG140-45W	45W	3.0	70	0.25
HG140-60W	60W	3.5	70	0.25
HG140-75W	75W	4.0	70	0.25
HG140-100W	100W	4.5	140	0.40
HG140-150W	150W	9.0	140	0.40

### DIMENSION (mm)



### WIRING DIAGRAM



**Performance:**

These heaters are used in enclosures where damage from condensation must be prevented or where the temperature may not fall below a minimum value. The aluminium profile heater body design has a chimney effect and distributes the heat evenly. The pressure clamp connectors save time and simplify installation.

- Screw terminal connector
- Dynamic heating up
- Wide voltage range
- Temperature limiting
- With indicator showing on/off
- Energy saving
- Clip fixing
- Quick installation



LK 140-15W



LK 140-150W

**SPECIFICATION**

Operating voltage	110-250VAC/DC
Thermal element	PTC thermistor (PTC)
Heater body	Aluminium profile, anodised silver
Connecting type	Screw terminal
Connecting case	UL94 V-0, black plastic
Fitting position	Vertical
Operating	-30°C~+70°C
Protection	IP20
Certificate	CE



Heater burn protective cover (optional)



(15W-75W) Universal

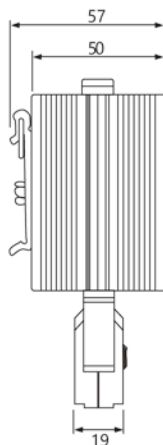
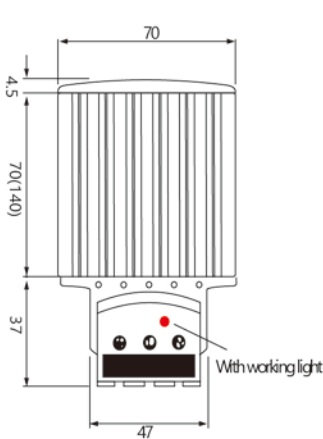


(100W-150W) Universal

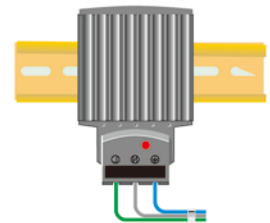
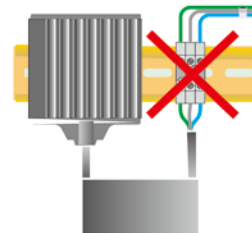
Operating voltage below 140V AC/DC will reduce the heat output by about 10%

Model	Heat output (W)20°C ambient temperature	Maximum allowable current (A)	L (mm)	Weight (kg)
LK140-15W	15W	1.5	70	0.25
LK140-30W	30W	2.5	70	0.25
LK140-45W	45W	3.0	70	0.25
LK140-60W	60W	3.5	70	0.25
LK140-75W	75W	4.0	70	0.25
LK140-100W	100W	4.5	140	0.40
LK140-150W	150W	9.0	140	0.40

**DIMENSION (mm)**



**WIRING DIAGRAM**



# LKHL120-75W

## FAN HEATER

- Compact design
- Clip fixing
- Dynamic heating-up
- Over-heating cut-off
- Long service life
- Simple installation

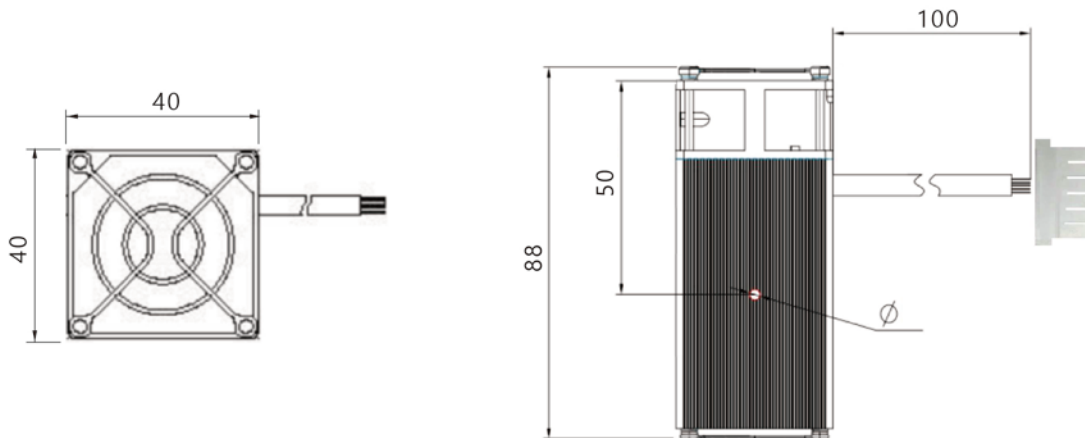


IP20 CE -30 +70 °C

### SPECIFICATION

Heating element	PTC Resistor
Input	AC220V 50/60Hz 75W
Dielectric strength	Input 1500V/0.5mA/5s
Safety protection	Fan over-heat cut-off
Axial Fan	13.8/17.4m <sup>3</sup> /h (50/60Hz)
Service Life	50000H at25°C
Heater	AC220V
Axial Fan	DC24V
Cable Holder (black)	UL94 V-0 plastic
Mounting	35mm DIN rail (vertical)
Operation Temperature	-30°C~+70°C
Protection class	IP20

### DIMENSION (mm)



**Performance:**

These heaters are used in enclosures where damage from condensation must be prevented or where the temperature may not fall below a minimum value. The aluminium profile heater body design has a chimney effect and distributes the heat evenly. The pressure clamp connectors save time and simplify installation.

- Pressure clamp connectors
- Dynamic heating up
- Wide voltage range
- Temperature limiting
- Energy saving
- Clip fixing, quick installation



**SPECIFICATION**

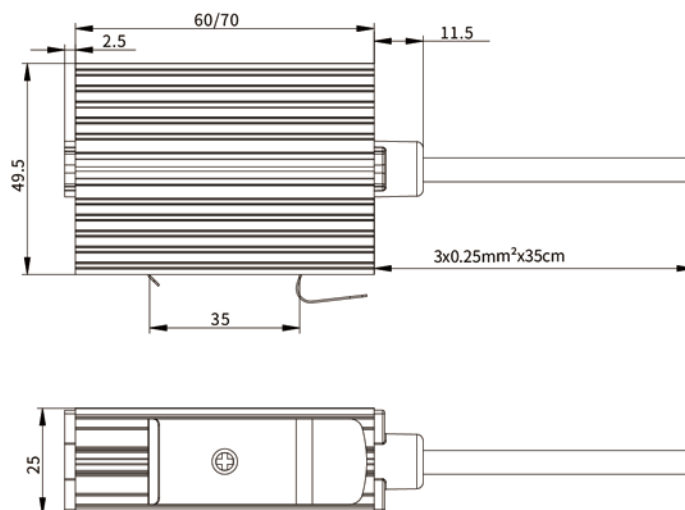
Operating voltage	110-250VAC/DC
Thermal element	PTC thermistor (PTC)
Heater body	Aluminium profile, anodised silver
Connecting type	Lead wire
Connecting case	UL94 V-0, black plastic
Fitting position	Vertical
Operating	-30°C~+70°C
Protection	IP20
Certificate	CE



Operating voltage below 140V AC/DC will reduce the heat output by about 10%

Model	Heating capacity	Maximum current (A)	L (mm)	Weight (kg)
LK047-10W	10W	1.0	50	0.19
LK047-20W	20W	1.5	60	0.2
LK047-30W	30W	2.5	70	0.21

**DIMENSION (mm)**



### Performance:

- Adopt ceramic semiconductor PTC heating element
- Aluminum alloy heat sink with high thermal conductivity
- Modular heaters specially designed to accommodate limited installation space
- 49/70/100mm three widths, uniform thickness, length can be customized
- Customizable power and table temperature
- Standard configuration of high temperature resistant silicone cable length 2 meters
- Each face is designed with a structure for installation
- 35mm DIN rail mounting

- Wide voltage(18~36V/110~240V AC/DC)
- Dynamic temperature rise
- Constant surface temperature
- High thermal efficiency
- Long service life
- High safety factor



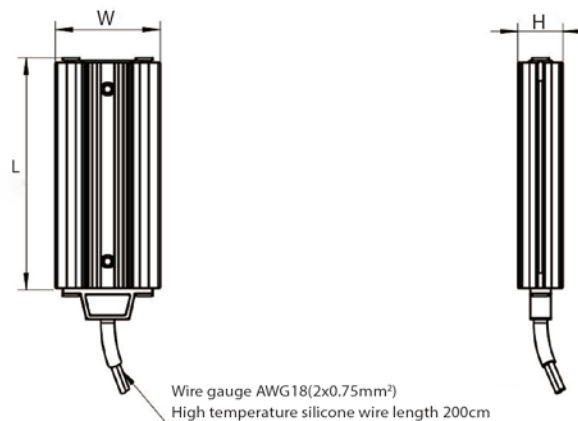
### SPECIFICATION

<b>Operating voltage</b>	AC/DC 110~240V (Min. 110V, Max. 265V) AC/DC 18~36V (Min. 16V, Max. 40V)
<b>Heating element</b>	Ceramic semiconductor PTC
<b>Heat sink material</b>	Aluminium alloy
<b>Connection mode</b>	Standard configuration high temperature resistant silicone cable 2x0.5mm <sup>2</sup> length 2 meters
<b>Installation mode</b>	Surface screw mounting / 35mm DIN rail mounting (additional accessories)
<b>Dielectric withstand voltage</b>	1500VAC 50/60Hz time 1 minute
<b>Insulation resistance</b>	100MΩ @500VDC
<b>Ambient humidity</b>	≤90%RH
<b>Ambient temperature</b>	-30°C~+70°C(storage -45°C~+120°C) no condensation, no icing
<b>Protection/safety level</b>	IP20



Model	Rated voltage	Heat sink size	Length	Power	Weight
	V AC/DC	mm	mm	W	g
LKP805-2050	110~240	W49xH21	110	50	277
LKP805-4015	18~36				
LKP807-2075	110~240	W70xH20	130	90	375
LKP807-4075	18~36				
LKP807-2100	110~240	W70xH20	160	120	435
LKP807-4100	18~36				
LKP810-2120	110~240	W100xH20	160	150	585
LKP810-4120	18~36				
LKP810-2150	110~240	W100xH20	200	165	685
LKP810-4150	18~36				

### DIMENSION (mm)



**Performance:**

- Adopt ceramic semiconductor PTC heating element
- Aluminum alloy heat sink with high thermal conductivity
- Ultra-thin, specially designed to fit in limited spaces
- Only 8.2mm thickness, 60/100mm two widths, length can be customized
- Customizable power and table temperature
- Wide operating voltage 18~36V/110~240V AC/DC universal
- Surface screw mounting



- Wide voltage(18~36V/110~240V AC/DC)
- High thermal efficiency
- Dynamic temperature rise
- Long service life
- Constant surface temperature
- High safety factor

**SPECIFICATION**

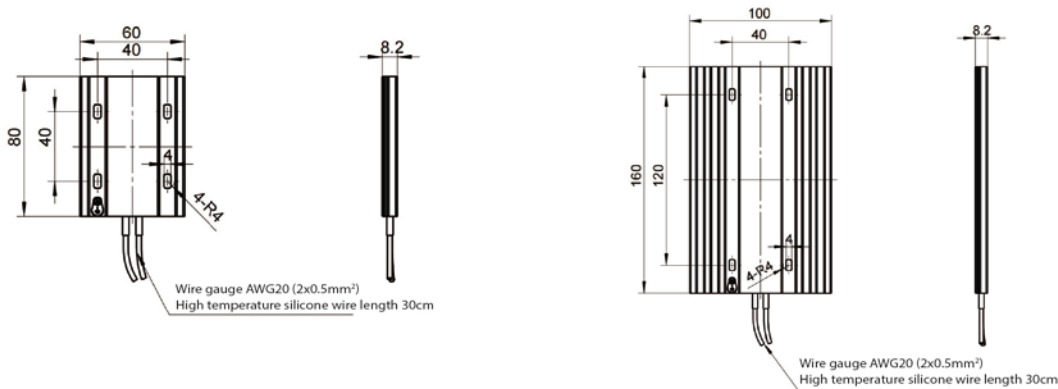
Operating voltage	AC/DC 110~240V (Min. 110V , Max. 265V) AC/DC 18~36V (Min. 16V, Max. 40V)
Heating element	Ceramic semiconductor PTC
Heat sink material	Aluminium alloy
Connection mode	Wire gauge AWG20(2x0.5mm <sup>2</sup> )High temperature resistant silicone wire length 300mm
Installation mode	Surface screw mounting/35mm DIN rail mounting (additional accessories)
Dielectric withstand voltage	1500VAC 50/60Hz time 1 minute
Insulation resistance	100MΩ @500VDC
Ambient humidity	≤90%RH
Ambient temperature	-30 °C~+70 °C(storage -45 °C~+120 °C) no condensation, no icing
Protection/safety level	IP20



Model	Rated voltage	Power	Surface temperature	Heat sink size	Length	Weight
	V AC/DC	W	°C	mm	mm	g
LKP506-2008	110~240	8	55	W60×H8	100	90
LKP506-2017	110~240	17	90			
LKP506-2022	110~240	22	115			
LKP506-4005	18~36	5	45			
LKP506-4016	18~36	16	95			
LKP506-4038	18~36	38	175			
LKP510-2031	110~240	31	90	W100×H8	160	215
LKP510-2043	110~240	43	110			
LKP510-2055	110~240	55	135			
LKP510-4010	18~36	10	45			
LKP510-4029	18~36	29	85			
LKP510-4069	18~36	69	160			



**DIMENSION (mm)**



### Performance:

Compact high-performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. This fan heater is available without fan (HV 031) and with fan (HVL 031).

- Compact
- Flat design
- High air through-flow
- Clip fixing
- Temperature safety cut-out
- UL (Option)



HVL031-100W



HVL031-200W

### SPECIFICATION

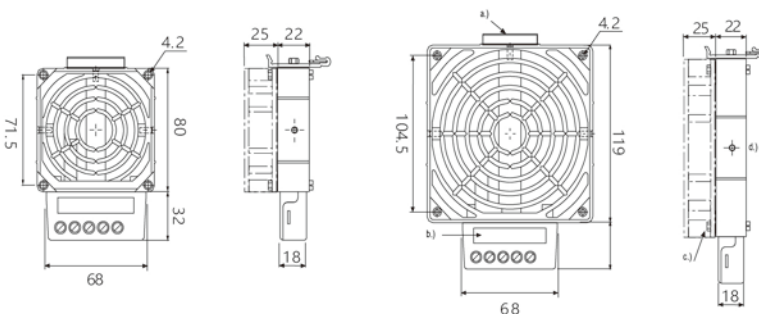
HVL 031/HV 031	Heater without fan/ Heater with fan
Heating element	High performance cartridge
Temperature safety cut-out	To protect against overheating in case of fan failure
Heater body	Die-cast aluminium
Connection	Screw terminal
Connection casing	Plastic according to UL94 V-0, black
Mounting	Clip for 35mm DIN rail
Fitting position	Vertical
Operating/ temperature	-30°C~+70°C
Protection type/Protection class	IP20
HVL 031	Heater with fan
Service life	50,000h at 25°C
Connection (axial fan)	2-pole screw connector 2.5mm <sup>2</sup> (L2/N2)



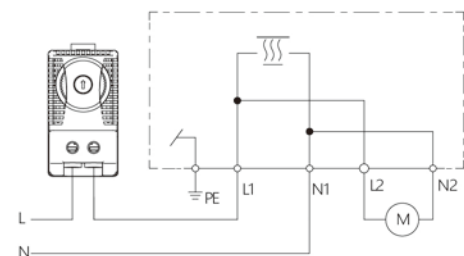
Art.no.HVL 031 (with fan)	Heating wattage	Air flow rate	Size	Weight (kg)
230V AC,50/60Hz		Free Blow		
HVL031-100W	100W	35m <sup>3</sup> /h	80X112X47mm	0.60kg
HVL031-150W	150W	35m <sup>3</sup> /h	80X112X47mm	0.60kg
HVL031-200W	200W	108m <sup>3</sup> /h	119X151X47mm	0.90kg
HVL031-300W	300W	108m <sup>3</sup> /h	119X151X47mm	0.90kg
HVL031-400W	400W	108m <sup>3</sup> /h	119X151X47mm	0.90kg

Art.no.HV 031 (W/O fan)	Heating wattage	Size	Weight (kg)
230V AC,50/60Hz			
HV031-100W	100W	80X112X47mm	0.40kg
HV031-150W	150W	80X112X47mm	0.40kg
HV031-200W	200W	119X151X47mm	0.50kg
HV031-300W	300W	119X151X47mm	0.50kg
HV031-400W	400W	119X151X47mm	0.50kg

### DIMENSION (mm)



### WIRING DIAGRAM



### Performance:

Compact fan heater prevents formation of condensation. The intergrated high performance axial fan provides forced air circulation and so guarantees an even temperature in enclosure.

- Compact design
- Long service life
- Maintenance free
- Built in high air flow axial fan
- PTC resistor, self regulating
- Guide rail installation, one card is closed

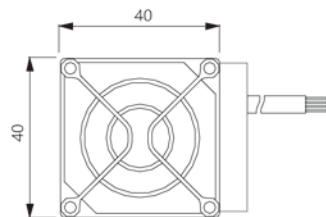


### SPECIFICATION

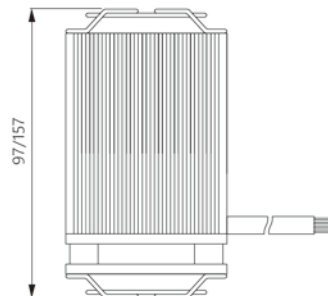
Feature	Unit	KHL120075.0-00	KHL120100.0-00	KHL120150.0-00	KHL120230.0-00	KHL120300.0-00
Heating capacity*	W	75	100	150	230	300
Voltage	V/Hz	110-250V AC/DC-Fan 24V AC/DC				
Maximum current	A	4	4	6	6	8
Heating element	-	PTC resistor, self regulating				
Radiator	-	Extruded aluminium profile, anodized				
Axial flow fan	-	Ball bearing, service life 50000 h at 25 °C (77°F) Fair flow rate 11 m <sup>3</sup> /h, free flow				
Electrical connections	-	Silicone cable, 4x0.5m <sup>3</sup> , length 400mm				
Protection level iec	-	Class I				
Protection level en60529	-	IP20				
Operating temperature	°C (°F)	-30~+70 (-4~+158)				
Storage temperature	°C (°F)	-30~+70 (-13~+158)				
Card slot installation	-	Clip for mounting on DIN rail 35mm EN50022				
Installation position	-	Best performance in vertical installation				
Size hxxxd	mm	97x40x40	97x40x40	132x40x40	142x40x40	157x40x40
Cable length	mm	400	400	400	400	400
Weight (packaging)	kg	0.20(0.21)	0.20(0.21)	0.26(0.28)	0.28(0.30)	0.40(0.42)
Certificate	-	CE				

\*Environmental temperature 20±(68 °)

### DIMENSION (mm)



### WIRING DIAGRAM



**Performance**

Compact fan heater prevents formation of condensation. The integrated high performance axial fan provides forced air circulation and so guarantees an even temperature in enclosure.

- Compact design
- Long service life
- Clip fixing
- Maintenance free
- Temperature safety cut-out

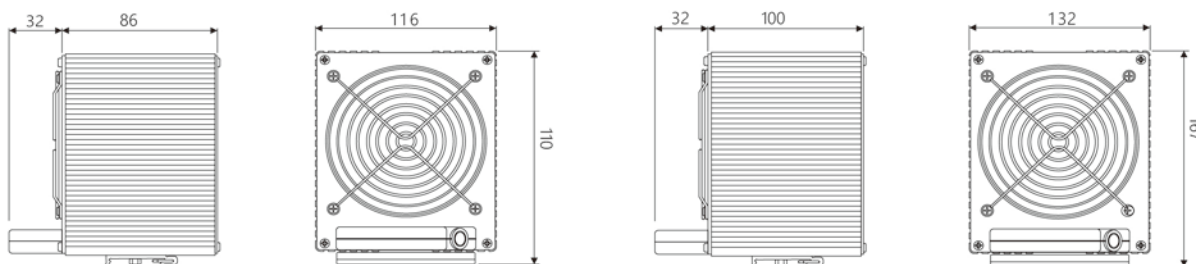


**SPECIFICATION**

Heating element	PTC
Temperature safety cut-out	To protect against overheating in case of fan failure
Heater body	Anodised extruded aluminium profile
Axial fan, ball bearing	Airflow, free flow, air volume: 35m <sup>3</sup> /h, service life: 50000h at 25 °C
Connection	5-pole screw connector 2.5mm <sup>2</sup>
Mounting	Clip for 35mm DIN rail
Fitting position	Vertical
Operating temperature	-30°C~+70°C
Storage temperature	-30°C~+70°C
Protection class	IP20

Model No.	Heating capacity	Dimensions	Weight
230vac, 50/60Hz			
150.0-00	150W	110x116x118mm	0.6kg
200.0-00	200W	110x116x118mm	0.6kg
250.0-00	250W	110x116x118mm	0.6kg
300.0-00	300W	110x116x118mm	0.6kg
400.0-00	400W	110x116x118mm	0.6kg
650.0-00	650W	110x116x129mm	1.1kg
800.0-00	800W	167x132x132mm	1.5kg
1000.0-00	1000W	167x132x132mm	1.5kg
1200.0-00	1200W	167x132x132mm	1.5kg
1500.0-00	1500W	167x132x132mm	1.5kg

**DIMENSION (mm)**



# KHP300(B)

## FAN HEATER

- Compact
- Design clip fixing
- Temperature safety cut-out
- Long service life
- Maintenance free

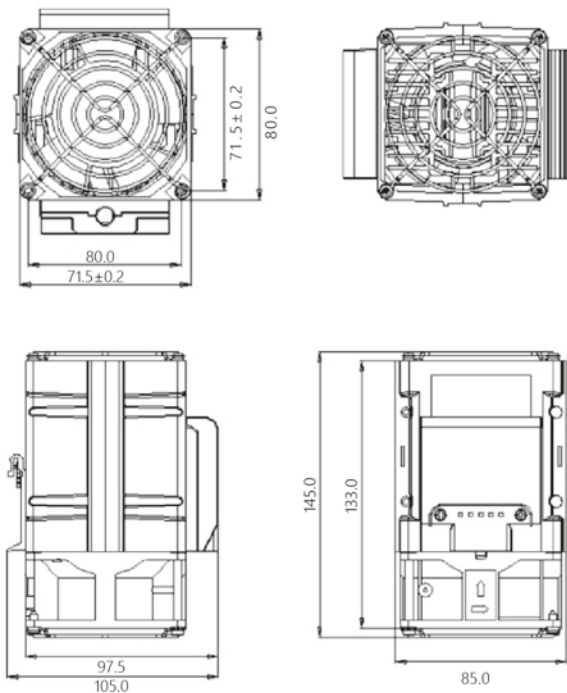


IP20 CE -30 +70 °C

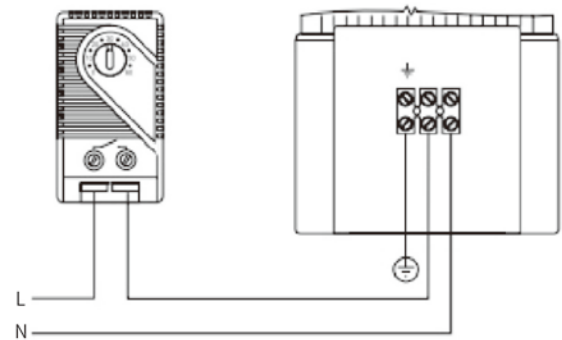
### SPECIFICATION

KHP300	With Fan
Heating element	PTC
Input voltage, frequency, power	AC 230V 50/60Hz 300-350W
Insulating property	2000V/0.5mA/5s
Surface Temperature	60°C (at 30 °C room temperature)
Axial fan, ball bearing	Air flow: AC: 24m <sup>3</sup> /h (50Hz) or 31m <sup>3</sup> /h (60Hz)
Speed	2400Rpm
Heater body	Aluminium alloy castings+PPS profile
Cooling methoed	Natural cooling
Connection Casing	Plastic according to UL94 V-0, black
Mounting	Clip for 35mm DIN rail
Fitting position	Vertical
Operating/Storage temperature	-30°C~+70°C
Protection class	IP20
Mean life	50000h at 25°C

### DIMENSION (mm)



### WIRING DIAGRAM



The product is composed of high-quality nickel-chromium alloy heat pipe, die-casting aluminum structure heat sink, high-performance axial fan, and temperature control switch. The electric heat pipe is placed in the center of the radiator body. The temperature control switch is near the electric heat pipe and hidden in the radiator body. The axial flow fan is close to the loose body.



SPECIFICATION

LKHB 300	With fan
Heating element	High performance core
Input voltage, frequency, power	AC 230V 50/60HZ 300W
Insulating property	2000V/0.5mA/5s
Temperature safety cut-out	to protect against overheating in case of fan failure
Heating body	Die-cast aluminium (glass bead blasted)
Speed	2700Rpm
Mounting	Use M6 screws for fixation
Connection	WAGO terminal, standard male and female
Fitting position	Vertical
Operating/storage temperature	-30°C~+70°C
Protection class	IP20
Mean life	50000h at 25°C
Cooling mode	Automatic cooling

Connection Example

WIRING DIAGRAM

