

Far Infrared Ceramic Plate Heaters / Far Infrared Plate Heaters

Far Infrared Ceramic Plate Heaters

RoHS 10

| Type | Heater | Material Element | Lead Wire | Accessory |
|---|----------------------------------|-------------------------|--------------------|-------------------------------|
| MCHN Standard | Ceramics | | | |
| MCHNN Heat Insulating Highly-efficient Type | Ceramic Heat Insulation Material | NCHW2 Nickel Alloy Wire | Glass Wool Coating | Bracket (304 Stainless Steel) |
| MCHNNS Heat Insulating Highly-efficiency Type with Built-in Temperature Sensor | | | | |

MCHNP

Far Infrared Emission Surface (Black)

Material:
 Plate Frame: 304 Stainless Steel
 Plate Surface: Aluminum + Far Infrared Coating
 Thermocouple: K Thermocouple (4030S only)

Ⓢ Sensor is attached to the center of the heater.

Far Infrared Ceramic Plate Heaters

| Part Number | Type | No. | A | B | C | (a) | (b) | (c) | W (Electrical Power) | V (Voltage) | Max. Surface Temperature (°C) | Emission Wavelength (μm) |
|--|------|-----|-------|-------|---------|---------|---------|---------|----------------------|-------------|-------------------------------|--------------------------|
| | | | | | | | | | | | | |
| MCHN MCHNN MCHNNS | | 1 | 60 | 245 | 45 (48) | 20 (18) | 25 (21) | 35 (32) | 400 | 200 | 600 | 2-20 |
| | | 2 | | | | | | | 600 | | | |
| | | 3 | 122 | 122 | 23 (8) | 25 (14) | 38 (25) | 400 | 600 | | | |
| | | 4 | (125) | (125) | | | | 600 | | | | |

Ⓢ Values in () are for MCHN.

Part Number Example

MCHN4

Far Infrared Plate Heaters

| Part Number | Type | No. | A | B | a | b | W (Electrical Power) | V (Voltage) | Max. Surface Temp. (°C) | Thermocouple Used | Weight (kg) |
|--------------|-----------------------------|-----|-----|-----|-----|-----|----------------------|-------------|-------------------------|---------------------|-------------|
| MCHNP | 4030 4030S | | 400 | 300 | 368 | 268 | 1000 | 200 | 250 | — K Thermocouple | 6.0 |

Features

- MISUMI's ceramic plate heaters are highly-efficient far infrared heaters.
- The far infrared ray uniformly heats the surface and interior of the object.
- There is little deterioration with time and remain highly-efficient for a long time.
- Lightweight, clean with no particle generation, and excels in thermal response.

Heat Insulating Highly-Efficient Type

Heat insulating material is embedded in conventional ceramic plate heaters. Heat insulation effect by air and heat insulating material enables less heat transfer and conduction to the backside of the heater, which enhances heat emission from heater surfaces. (Increased Temperature Properties Graph)

Heat Insulating Highly-Efficient Type with Built-In Temperature Sensor

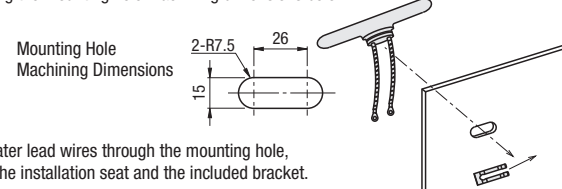
K Thermocouple is attached to measure the heater surface temperature. Suitable when the heater temperature control is required.

Far Infrared Plate Heaters

Large plate heater of 400 x 300 enables uniform heating of large area surfaces. Temperature unevenness will be smaller compared to combining conventional ceramic plate heaters.

How to Mount – Far Infrared Ceramic Plate Heaters

- (1) Decide the location of mounting the heater, and drill a hole following the mounting hole machining dimensions below.



- (2) Put heater lead wires through the mounting hole, insert the installation seat and the included bracket.

Ⓢ Mounting plate thickness should be within 1-2 mm.

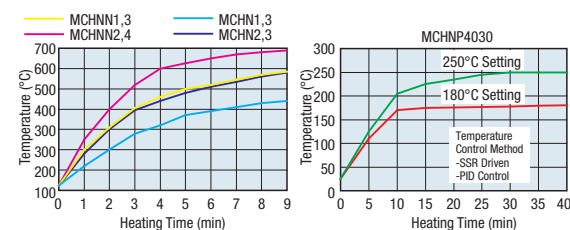
Precautions for Use

Do not use in places with high humidity. Short may result.

Usage

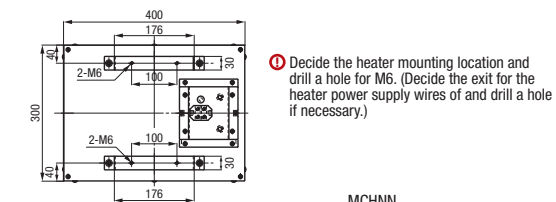
Suitable for clean heating as follows: LED industry, semiconductor industry, food industry, biotechnology industry and heating, burning, drying, softening, preheating, hardening, aging, heat retention of the plastic molding process.

Temperature Rise Characteristics of Far Infrared Ceramic Plate Heaters and Plate Heaters *For use in an insulated and windless environment.



Mounting Method (Far Infrared Plate Heaters)

Back Mounting Dimension Diagram for Far Infrared Plate Heaters



- (1) Decide the heater mounting location and drill a hole for M6. (Decide the exit for the heater power supply wires of and drill a hole if necessary.)

