

# Thermo-dryer

New

With air temperature adjustment function



RoHS

Stable supply of temperature and pressure controlled dry clean air!

Possible to supply compressed air with the same conditions and quality regardless of the season.

**Air flow capacity** scfm (L/min[ANR])

IDH□4: 10.6 to 17.6 (100 to 500)

IDH□6: 7.1 to 28.3 (200 to 800)

## Application example

Supplying compressed air with constant conditions to air bearings mounted on the tool.

Air bearing

Compressed air



Machine tool

## All-in-One

Temperature control  
(Heater)

Outlet air temperature adjustment range:

**59 to 86°F (15 to 30°C)**

(possible to extend depending on the conditions)

Outlet air temperature stability:

**±0.18°F (±0.1°C)** \*1

Pressure regulation  
(Regulator)

Outlet air set pressure range:

**22 to 123psi (0.15 to 0.85 MPa)**

Dehumidification  
(Dryer)

Outlet air pressure dew point:

**50°F (10°C)**

Cleaning  
(Filter)

Nominal filtration rating:

**0.01 μm**

Outlet oil mist concentration:

**MAX. 10oz./ft<sup>3</sup>**

(≈0.008 ppm)

Outlet cleanliness:

**Particles of 0.3 μm or more:**

**0.9 particles/gal or less**

Built-in filter specifications<sup>\*2</sup>

\*1 Performance when the operation of each part is stable without fluctuations in operating conditions and power supply.

\*2 Performance of the built-in filter, which depends on the inlet air conditions.



Power supply available all over the world Single-phase 100 VAC, 200 VAC, 230 VAC (50/60 Hz)

Model	Air flow capacity (L/min [ANR])	Outlet air temperature adjustment range	Outlet air set pressure range	Outlet air temperature stability	Filter nominal filtration rating	Temperature control method	Port size
IDH□4	100 to 500	59 to 86°F (15 to 30°C)	22 to 123psi (0.15 to 0.85MPa)	±0.18°F (±0.1°C)	0.01 μm (99.9% filtration efficiency)	Heater operation PID control	Rc3/8
IDH□6	200 to 800						Rc1/2

Series IDH□



CAT.NAS30-14A

# Refrigerant R134a (HFC)

## Series IDH



RoHS

The IDH is for use in Japan and the U.S.

### How to Order



For use in ~~U.S.~~

IDH 6 - 10   -  

For use in Europe and Southeast Asia

IDHA 6 - 23   -  

#### Size

Size	Rated air flow capacity	Air compressor size
4	14.1 scfm (400 L/min [ANR])	3.7 kW
6	21.2 scfm (600 L/min [ANR])	5.5 kW

#### Option

Nil	None (Standard)
E	Auto drain normally closed

#### Voltage

Symbol	Voltage	Specification
10	Single-phase 100 VAC (50/60Hz)	For use in Japan
20	Single-phase 200 VAC (50/60Hz)	
23	Single-phase 230 VAC (50/60Hz)	For use in Europe and Southeast Asia

#### Combination of built-in products

Symbol	Regulator	Filter① (AMH)	Filter② (AME)
Nil	●	●	●
A	●	●	—
B	●	—	—

### Optional Specifications

**E**

Option symbol

**Auto drain normally closed**

The auto drain which exhausts dehumidified drainage and the auto drain on the built-in filter are changed to the "normally closed" specification. Recommended for small flow rate (100 to 150 L/min).

Descriptor	Filter details
<b>Filter① (AMH)</b>	Micro mist separator with pre-filter · Nominal filtration rating: 0.01 μm (99.9% filtration efficiency) · Outlet oil mist concentration: MAX. 0.1 mg/m <sup>3</sup> [ANR] (≈0.08 ppm)
<b>Filter② (AME)</b>	Super mist separator · Nominal filtration rating: 0.01 μm (99.9% filtration efficiency) · Outlet oil mist concentration: MAX. 0.01 mg/m <sup>3</sup> [ANR] (≈0.008 ppm) · Outlet oil mist concentration: Particles of 0.3 μm or more: 3.5 particles/L [ANR] or less

### Construction (Pneumatic/Refrigerant Circuit)

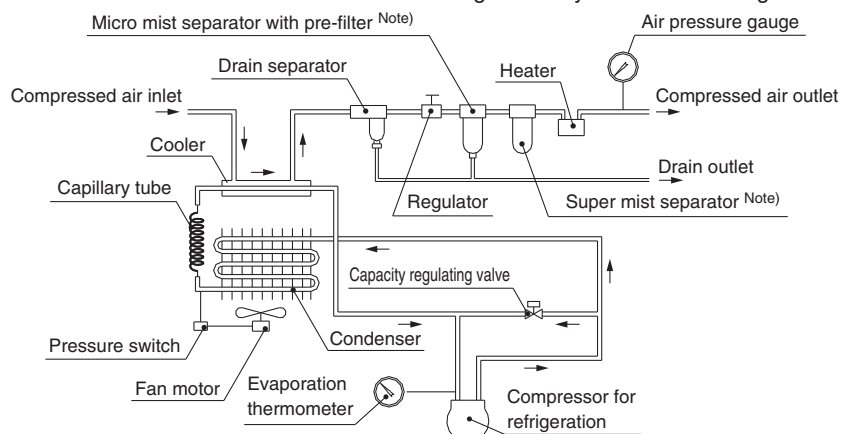
#### Pneumatic circuit

Hot and humid air entering this product is cooled down by the cooler. The moisture condensed at this time is separated by the drain separator and exhausted automatically. The pressure of the dry air is adjusted by the regulator, and oil mist and solid particles are separated by the micro mist separator with pre-filter and super mist separator. <sup>Note)</sup> The temperature of the dry and high purity air is adjusted by the heater and supplied to the outlet side.

Note) The type without filter is not applicable.

#### Refrigerant circuit

The HFC gas contained in the refrigerant circuit is compressed by the compressor, and cooled and liquefied by the condenser. When passing through the capillary tube, the HFC gas is regulated and its temperature decreases. While passing through the cooler part, it evaporates rapidly, taking the heat from the compressed air, and is sucked in by the compressor. The capacity regulating valve opens when the compressed air has been cooled sufficiently, and prevents condensed water from being frozen by excessive cooling.



## Output Signal

## Specifications

4