Thermo-dryer

With air temperature adjustment function ()



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.

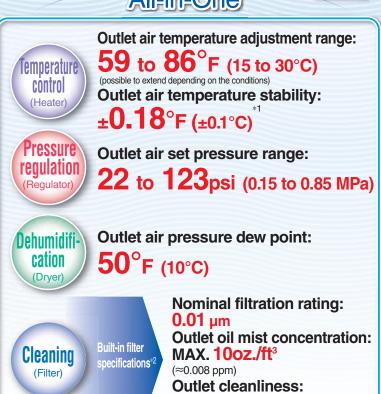
Air flow capacity scfm (L/min[ANR])

IDH□4:10.6 to 17.6 (100 to 500) IDH□6:7.1 to 28.3 (200 to 800)



Machine tool

All-in-One



*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.

IDHA6

IDHA6

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IN

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

Particles of 0.3 µm or more: 0.9 particles/gal or less

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





Refrigerant R134a (HFC)

Series IDH





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

How to Order

For use in >UdUb



For use in Europe and Southeast Asia

		0120
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 k\M

Voltage •

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

Optional Specifications



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).

Option

Nil	None (Standard)
Е	Auto drain normally closed

Combination of built-in products

Symbol	Regulator	Filter① (AMH)	Filter② (AME)					
Nil	•	•	•					
Α	•	•	_					
В	•	_	_					

Descripiton	Filter details
Filter① (AMH)	Micro mist separator with pre-filter · Nominal filtration rating: 0.01 μm (99.9% filtration efficiency) · Outlet oil mist concentration: MAX. 0.1 mg/m³ [ANR] (≈0.08 ppm)
Filter② (AME)	Super mist separator · Nominal filtration rating: 0.01 µm (99.9% filtration efficiency) · Outlet oil mist concentration: MAX. 0.01 mg/m³ [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)

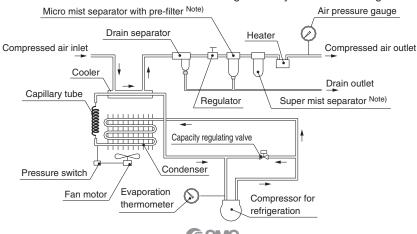
Pneumatic circuit

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. Note) The temperature of the dry and high purity air Note) 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.



Standard Specifications

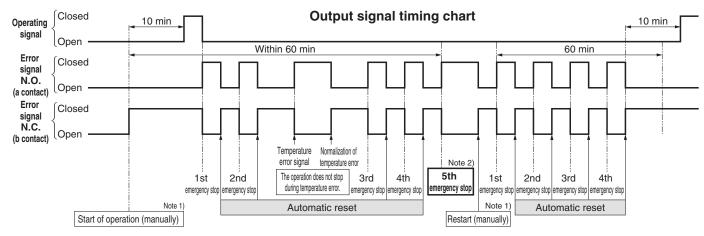
	Model	IDH4-10□	IDH4-20□	IDHA4-23□	IDH6-10□	IDH6-20□	IDHA6-23□		
Specifications							121110 202		
	Fluid	Compressed air							
	Air flow capacity	3.5 to 17.6 scfm (100 to 500 L/min [ANR]) 7.1 to 28.3 scfm (200 to 800 L/min [ANR])							
	Inlet air temperature	41 to 104°F (5 to 40°C)							
Note1) 2) Operating range	Inlet air pressure	44 to 145psi (0.3 to 1.0 MPa)							
operating range	Ambient temperature	59 to 86°F (15 to 35°C) (Relative humidity 85% or less)							
	Outlet air temperature adjustment range	59 to 86°F (15 to 30°C)							
	Outlet air set pressure range			22 to 123psi (0.	15 to 0.85 MPa)				
	Outlet all set pressure range	(The inlet a	ir pressure should	l be at least 22psi	(0.15 MPa) higher	r than the outlet air	r pressure.)		
	Air flow capacity	14.1	scfm (400 L/min [/	ANR])	21.2	scfm (600 L/min [A	ANR])		
	Inlet air pressure			102psi (0).7 MPa)				
Rated conditions	Inlet air temperature			95°F (35°C)				
	Ambient temperature		86°F (30°C)						
	Outlet air set temperature			86°F (30°C)				
Note 3)	Outlet air pressure dew point	50°F (10°C)							
Rated performance	Outlet air temperature stability	±0.18°F (±0.1°C)							
	Outlet air temperature display accuracy	±0.9°F (±0.5°C) (including accuracy of the sensor)							
	Power supply Note 4)	Single-phase 100 VAC	Single-phase 200 VAC	Single-phase 230 VAC	Single-phase 100 VAC	Single-phase 200 VAC	Single-phase 230 VAC		
	Power supply 11000 17	(50/60 Hz)	(50/60 Hz)	(50/60 Hz)	(50/60 Hz)	(50/60 Hz)	(50/60 Hz)		
Electric	Operating current	4.2 A	2.1 A	2.1 A	9.4 A	4.8 A	4.8 A		
specifications	Earth leakage breaker capacity	10 A	5 A	5 A	15 A	10 A	10 A		
	Compressor input	180/200 W 50/60 Hz			385/440 W 50/60 Hz				
	Heater input	220 W 420 W							
Built-in filter	Nominal filtration rating	g 0.01 µm (99.9% filtration efficiency)							
specifications Note 5) Cleanliness of the filter outlet side		Particles of 0.3 µm or more: 3.5 particles/L [ANR] or less							
Temperature control method		Heater operation, PID control							
Refrigerant type/Refrigerant charge		R134a/0.14 kg R134a/0.26 kg							
Noise level (reference value) Note 6)		52 dB(A) 55 dB(A)							
Weight		57 lbs (26 kg) 81.6 lbs (37 kg)							
Applicable drain tube O.D.		10 mm							
Coating color		Body panel: White 1 Base: Gray 2							
Applicable directive		Low Voltage Directive: 2006/95/EC EMC Directive: 2004/108/EC							

- Note 1) ANR is the value at 68° F (20° C), atmospheric pressure, and relative humidity of 65° 6.
- Note 2) The upper limit of the settable outlet air temperature varies depending on the conditions even within the operating range. Be sure to read the selection document before selecting the models.
- Note 3) Performance when the operation of each part is stable without fluctuations in operating conditions and power supply
- Note 4) Keep the voltage within -5 to +10% of the rated voltage. If there is voltage fluctuation, the outlet air temperature stability may decrease. So if highly accurate temperature adjustment is required, please use a stable power supply to make the voltage fluctuation smaller.
- Note 5) The specification changes depending on the cleanliness of the inlet side air. It may take time until the cleanliness of the filter outlet side air stabilizes immediately after start of operation. The filter performance only applies to the built-in type filter.
- Note 6) 1 m in front of the product, 1 m in height, without load, stable conditions

Output Signal

Specifications

Description	Terminal no.	Description of operation	Contact capacity	Minimum load
Operating signal N.O. (a contact)	1-2	Close after 10 minutes of operation	Resistance load 2 A,	
Error signal N.C. (b contact)	3-4	Open at an emergency stop or set temperature error	Induction load 80 VA,	5 VDC 2 mA
Error signal N.O. (a contact)	4-5	Close at an emergency stop or set temperature error	Lamp load 100 W	



Note 1) The operation can be started or restarted (manually) by the operation stop switch mounted on the thermo-dryer or a remote switch prepared by the user. Note 2) When emergency stop is generated 5 times in an hour or the heater protection equipment (thermo-stat) is operated, the emergency stop status will be held. At this time, the dryer can be restarted by reset operation using the switch stated in Note 1.