Drain evaporator
EVAPRO

~ The smart way to manage condensation water from coolers ~

Vaporization type with absorbent filter

RoHS

No more worrying about drainage problem!

Processing ability 20ml/h 40ml/h
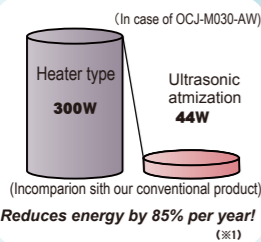Water is absorbed in the filter and vapors by function of fan.

Ultrasonic atomization type

RoHS

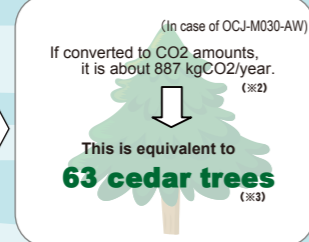### Processing ability 300ml/h 600ml/h
Water is turned into atomized particles by means of an ultrasonic transducer.

Energy-saving
(In case of OCJ-M030-AW)

Heater type **300W**

Ultrasonic atmization **44W**

(Incomparison sith our conventional product)
Reduces energy by 85% per year!
(※1)

CO2-reduction
(In case of OCJ-M030-AW)
If converted to CO2 amounts, it is about 887 kgCO2/year. (※2)

This is equivalent to
63 cedar trees (※3)
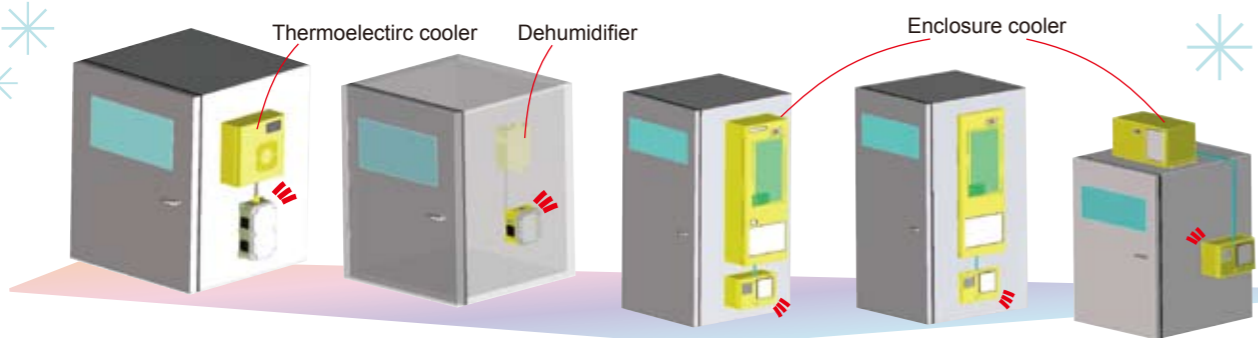
(※1) Calculation basis is 300 days/year, 24 hours/day operation.
(※2) CO2 emission coefficient may differ depending on the amount of acutual energy consumption per month.
(※3) Calculated on the basis that one cedar tree absorbs 14kg of CO2 in a year.

APPLICATION

Thermoelectirc cooler   Dehumidifier   Enclosure cooler

Vaporization type is suitable for drain treatment of electronic coolers or dehumidifiers.

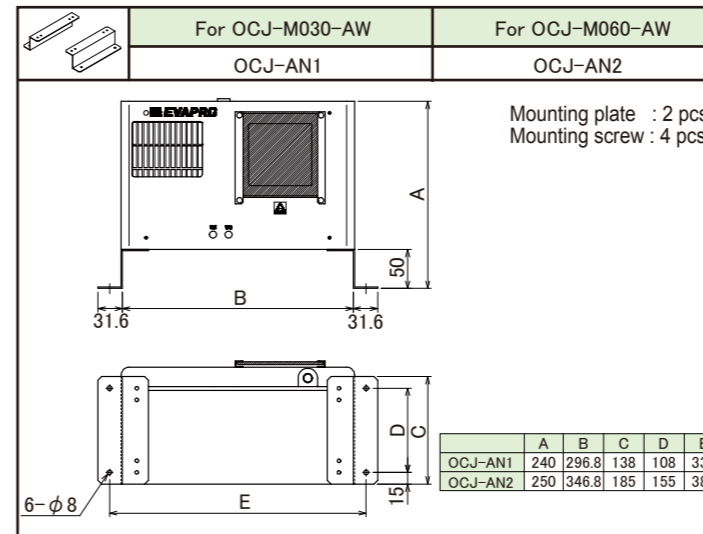*Atomization type is suitable for large amount of water from enclosure coolers.*

0910 O-01

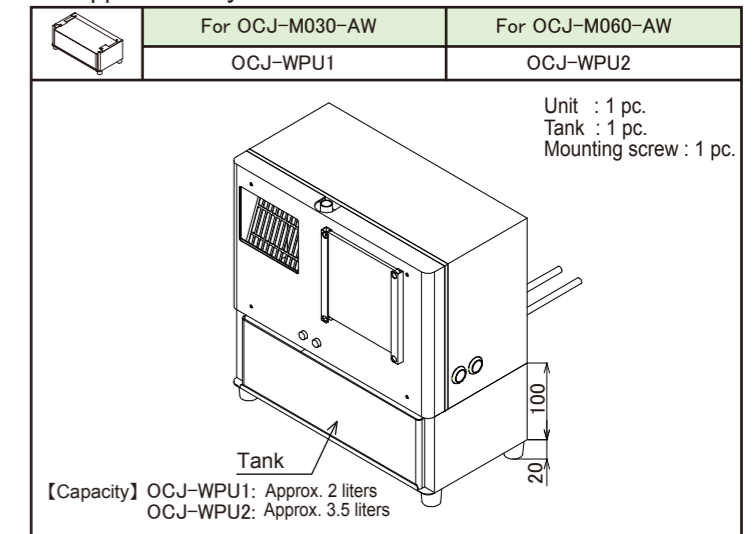---

Option

■Filter（1 piece）

For OCJ-F002-D24	For OCJ-F004-D24	For OCJ-M030-AW	For OCJ-M060-AW
EPF-S1	EPF-S2	EPF-S3	

■Stationary mount bracket

	For OCJ-M030-AW	For OCJ-M060-AW
	OCJ-AN1	OCJ-AN2

Mounting plate : 2 pcs.
Mounting screw : 4 pcs.

	A	B	C	D	E
OCJ-AN1	240	296.8	138	108	330
OCJ-AN2	250	346.8	185	155	380

6-φ8

■Supplementary drain receiver

	For OCJ-M030-AW	For OCJ-M060-AW
	OCJ-WPU1	OCJ-WPU2

Unit : 1 pc.
Tank : 1 pc.
Mounting screw : 1 pc.

Tank
【Capacity】 OCJ-WPU1: Approx. 2 liters
OCJ-WPU2: Approx. 3.5 liters

How to select a model

For selecting an appropriate model, the cooling capacity of the cooler and the working conditions of the enclosure are required. Find the following values.

＜Example of working conditions＞

1) Total surface area of the enclosure S
   Outline dimensions of the enclosure
   W 2000× H 2000× D 600〔mm〕
   S =12.8〔m2〕

2) Total aperture area Sk
   Sum of the opening sections of the enclosure
   W 200× H 200〔mm〕
   Sk =0.04〔m2〕

3) Cooling capacity of the cooler Q
   Q =600〔W〕
   *Capacities measured by Double-Box Calorimeter Test Method

4) Find the maximum dehumidification amount per watt Jm at the given internal temperature and humidity using the graph in the right.
   Jm =0.95〔ml/W〕

5) Calculate the aperture ratio R and seek for the aperture factor C by the graph "Aperture factor" in the right.
   $R = Sk/S = 0.04/12.8×100 = 0.3$〔%〕
   Find the value of the aperture factor on the "Aperture factor" graph.
   C =0.3

＜Calculation formula＞
Calculate the amount of discharge water from the cooler per hour J.
   $J = Q × Jm × C ×1.2$（Safety margin）
   $=600×0.95×0.3×1.2$
   $=205.2$〔ml/h〕

External temp. : 30℃
External humidity : 80%
Internal temp. : 30℃
Internal humidity : 70%
Cooler : 600W
2000mm
200mm
200mm
600mm
2000mm
Aperture area
Cable entry hole, ventilation hole, etc.

Max. dehumidification

Max. amount of water dehumidified (ml/h)
Temperature inside
40℃
35℃
30℃
Relative humidity inside (%)

Aperture factor

Aperture factor
Aperture ratio (%)

OCJ-M030-AW
10℃ 30℃ 50℃
Capability (ml/h)
Humidity (%RH)

Treatability chart

Treatability of each model Js is as shown on the chart.

Select a model so its processable amount is always larger than the discrage amount (Js > J).

In this example,
Under the condition that external temperature T1 is 30℃ and relative humidity Rh1 is 80%, the treatability Js of OCJ-M030-AW is 300ml/h by the chart. Thus, it is found that an appropriate model is selected because this is larger than the value of J (205.2).

＜Caution＞
(1) For simplifying the calculation, absolute humidity by volume in the cabinet interior air is excluded because such amount is very few.
(2) The graph "Max.dehumidification" is based on the measurement of our cooling unit COOLCABI. The values may differ in other cooling units.
(3) The graph "Aperture factor" shows the value with our standard aperture rate. Ther values may differ depending on aperture conditions or air movement in the cabinet.
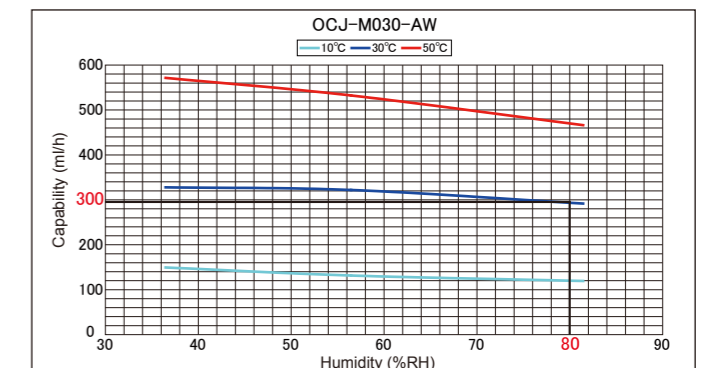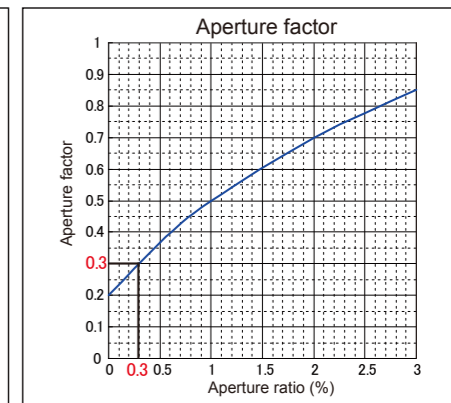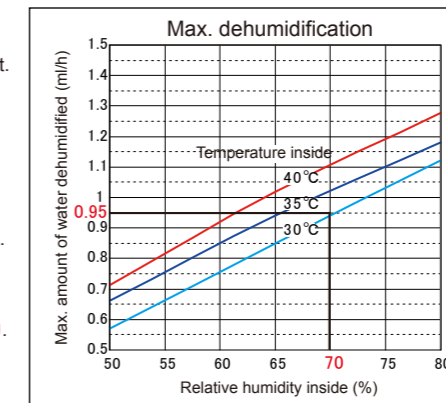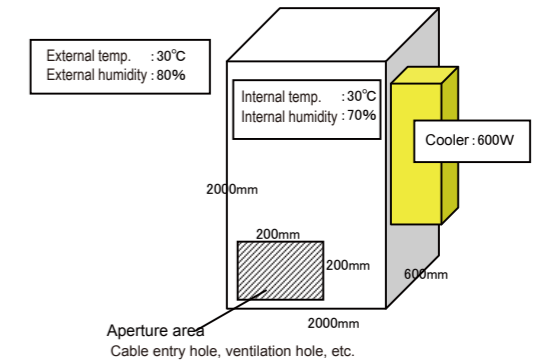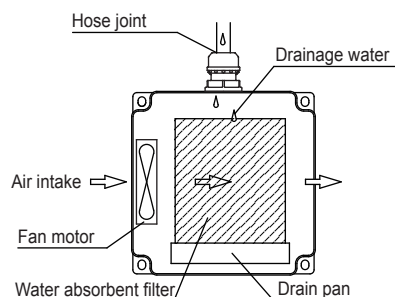
Features

Designed small and lightweight!

Enegy saving! (Electric consumption is 3W or less)

Easy to see filter replacement time!

Easy to replace a filter!

EVAPRO

Structure

The air inhaled by fan evaporates drainage water passing over the water absorbent filter.

Features

Small size!

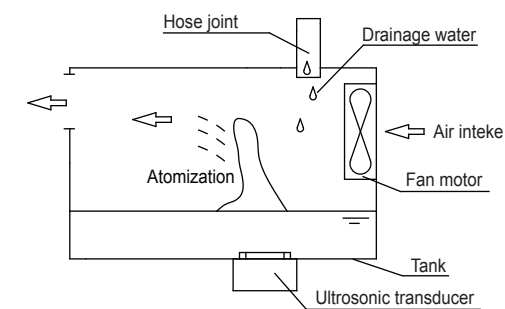*Meets wide range of supply voltage (100 to 240VAC)*

Energy saving! (Achieved 85% reduction from heater type)

Recessed mounting is enabled!

*Contact output for overflow!*

EVAPRO

Structure

Atomization of drainage water is caused by ultrasonic transducer and the atomized particles are discharged by the fan to evaporates in the air.

Specifications

Model	OCJ-F002-D24	OCJ-F004-D24
Processing method	Absorbent filter evaporation	
Type of mounting	Lateral mounting	
Treatability (*1)	20ml/h	40ml/h
Rated voltage	24VDC±10%	
Current consumption (*2)	1.5W	3W
Working temperature	+10 to +50℃	
Working humidity	85%RH or less, free from condensation	
Protective function	Not provided	
Error output	Not provided	
Noise	46dBA	49dBA
Site of use	Indoor only	
Secondary drain port (*3)	R1/8	
Outline dimensions (*4)	W135×H135×D80mm	W135×H220×D80mm
Weight (*5)	600g	900g

(*1) Drainage processing capability at 30℃ ambient temp. and 60%RH.
(*2) Maximum value within the working temp. range (*3) This port is plugged when shipped.
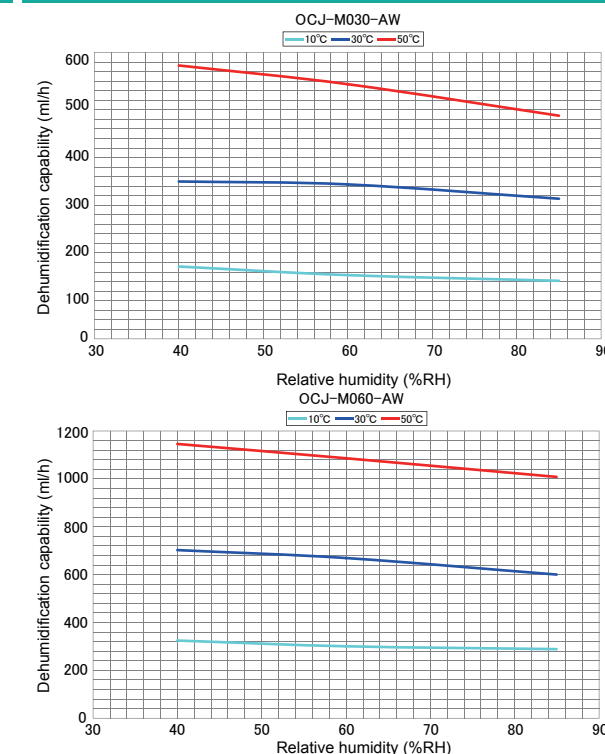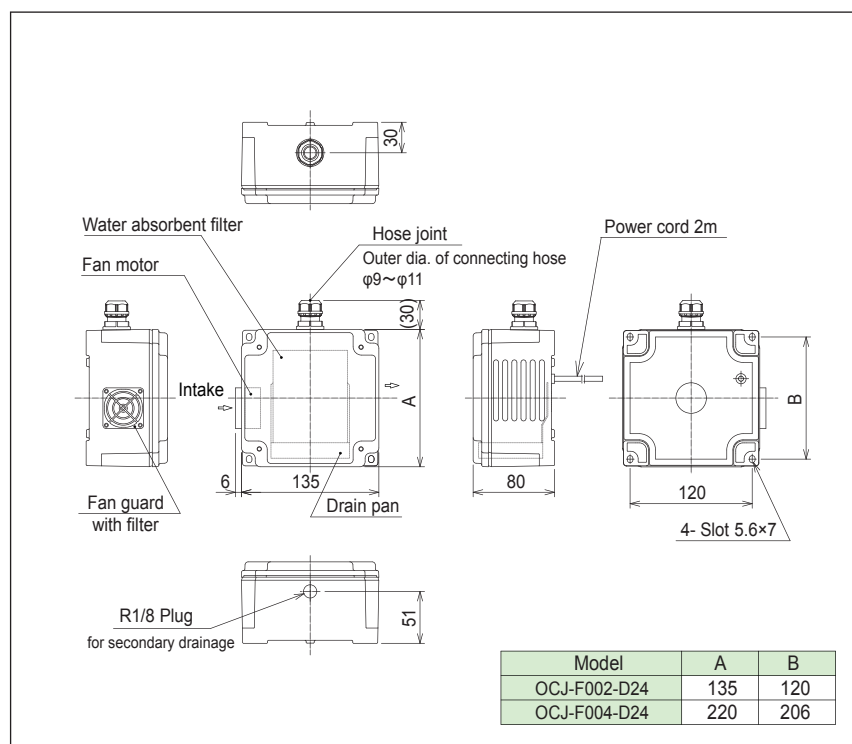(*4) Excluding projections(*5) Weight in the dry state

Performance chart

OCJ-F002-D24

OCJ-F004-D24
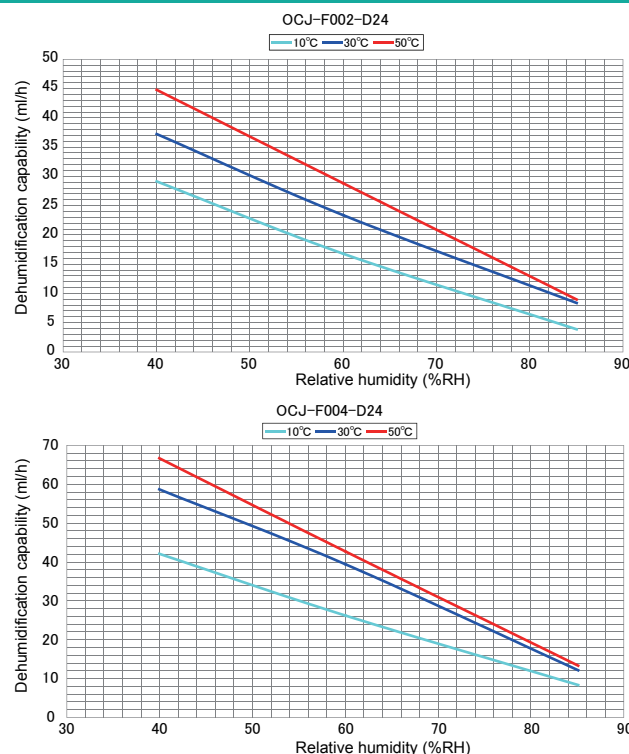
Specifications

Model	OCJ-M030-AW	OCJ-M060-AW
Processing method	Ultrasonic atomization	
Type of mounting	Lateral, Recessed or Stationary mounting	
Treatability (*1)	320ml/h	650ml/h
Rated voltage	Single phase, 100VAC-240VAC ±10%	
Stand-by time power consumption (*2)	5W	5W
Operating time power consumption (*2)	44W	82W
Working temperature	+10 to +50℃	
Working humidity	85%RH or less, free from condensation	
Atomization operation	ON/OFF by float switch	
Protective function	Overflow detection	
Error output	1 contact output for overflow	
Noise	52dBA	
Site of use	Indoor only	
Secondary drain pipe dia.	13 mm	
Outline dimensions	W300×H190×D150mm	W350×H200×D200mm
Weight	4.8kg	6.5kg

(*1) Drainage processing capability at 30℃ ambient temp. and 60%RH.
(*2) Maximum value within the working temp. range
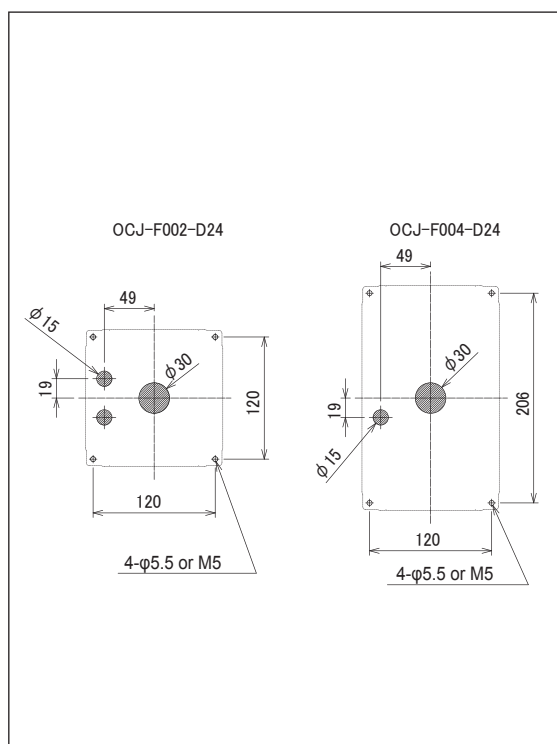(*3) Excluding projections (*4) Weight in the dry state
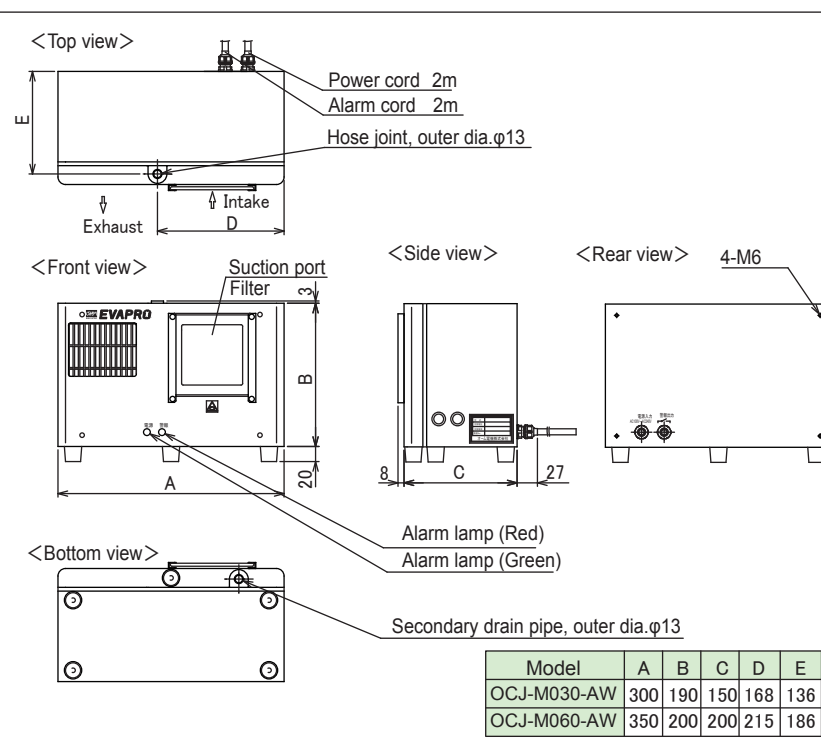
Performance chart

OCJ-M030-AW

OCJ-M060-AW

Outline drawing

Model	A	B
OCJ-F002-D24	135	120
OCJ-F004-D24	220	206

Mounting Cutout

OCJ-F002-D24

4-φ5.5 or M5

OCJ-F004-D24

4-φ5.5 or M5

Outline drawing

Model	A	B	C	D	E
OCJ-M030-AW	300	190	150	168	136
OCJ-M060-AW	350	200	200	215	186

Mounting Cutout

<External mounting>

<Recessed mounting>

Model	a	b	c	d	e	f	g	h	i	j
OCJ-M030-AW	160	270	170	222	164	270	150	172	250	280
OCJ-M060-AW	170	320	180	272	174	320	160	182	300	330

The contents of this catalog are subject to change without prior notice.