

# ROSAHL

## Instruction Manual

ELECTROLYTIC DEHUMIDIFIER

Separated Type

「RDHB-5J1 RDHB-7J1 RDHB-10J1」

### NOTICE

1. Please read this manual before you use the dehumidifier, and use it correctly.
2. The person who operates, manages and maintains the dehumidifier must keep this manual.










**RYOSAI TECHNICA CO., LTD.**

1-1 Tsukaguchi-Honmachi 8-chome  
Amagasaki, Hyogo Prefecture, 661-0001, Japan  
Tel: +81-6-6497-9078 Fax: +81-6-6497-9082

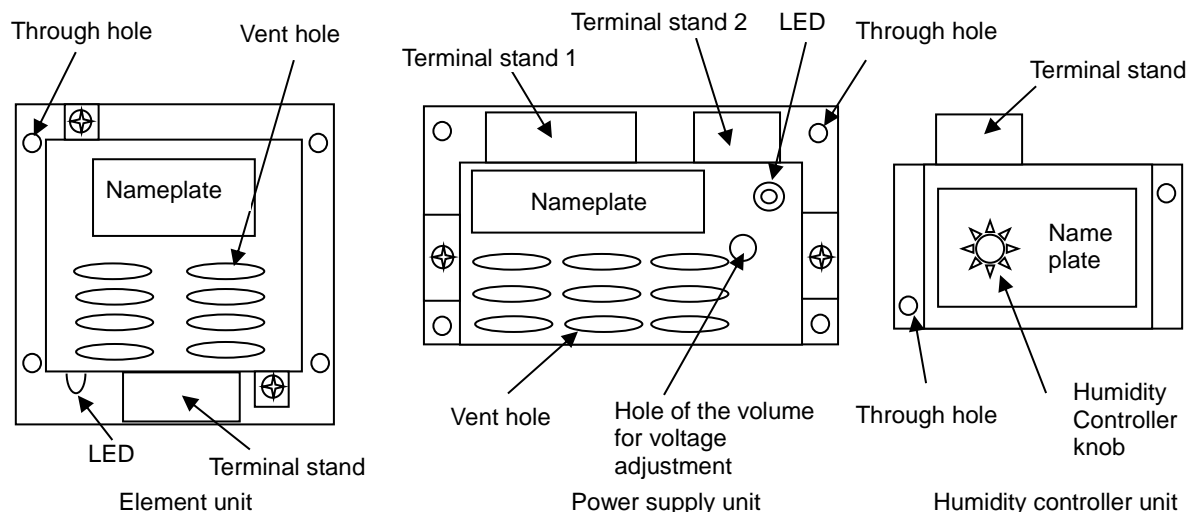
### Contents

①	Element unit with a packing	1	set
②	Power supply unit	1	set
③	Connecting cable(between Power supply unit and Element unit)	1	piece
④	Instruction manual	1	piece
⑤	(Humidity controller unit <option>)	1	set

### For proper usage

<ul style="list-style-type: none"> <li>● Make sure to use the dehumidifier with the AC100V or AC200V in order to avoid fire, electrical leakage and damage of the dehumidifier.</li> </ul>	 Compulsory
<ul style="list-style-type: none"> <li>● DO NOT expose the moisture discharging hole to wind and rain directly. When using outdoors, please attach the rainproof cover with anti-insect net to protected from water or insects. (Refer to the installation method and location)</li> </ul>	 Prohibited
<ul style="list-style-type: none"> <li>● Keep the moisture discharging side unsealed and well ventilated.</li> </ul>	 Prohibited
<ul style="list-style-type: none"> <li>● DO NOT put pin or wire etc. into the moisture discharging hole. It may cause an electric shock and the element may be damaged or deteriorate.</li> </ul>	 Prohibited
<ul style="list-style-type: none"> <li>● DO NOT use a silicon-based sealing agents to make a container airtight. They quickly degrades the performance of the dehumidifying element.</li> </ul>	 Prohibited
<ul style="list-style-type: none"> <li>● DO NOT use with vapor phase corrosion inhibitor or insect repellent. DO NOT use in an environment with a lot of organic gas. They may degrade the performance of the dehumidifying element.</li> </ul>	 Prohibited
<ul style="list-style-type: none"> <li>● DO NOT attempt to disassemble, repair or modify the dehumidifier. It may cause an electric shock and the performance deterioration, as this may damage it.</li> </ul>	 Prohibited

## Name of Each Part



## Installation Method and Location

- 1 It is preferable that the dehumidifier is installed in the center of the inner side surface of the container as to read the nameplate upright with packings to ensure airtightness of the container.
- 2 Please never install the device on the ceiling or on the floor to avoid its failures.
- 3 Make a moisture discharging hole and installation holes shown in Figure 1-4 and Table 1-2 on the container.
- 4 Please fix Element unit with the packing, Power supply unit and Humidity controller unit(option) firmly with 2-8 screws in the container.  
When using outdoors, please attach the rainproof cover with anti-insect net(perforated metal) shown in Figure 5 to protected from water or insects.
- 5 Make a sealed moisture-impermeable container as much as possible to bring a high performance into the dehumidifier.
- 6 Connect the product with AC100V power supply.
- 7 Connect FG of the product to ground.

### Attention

- (1) Please use the specified electric wire for the power supply connection.  
(Refer to the product specification)
- (2) The customer should prepare electric wire, ground cable, installation screw, rainproof cover and anti-insect net(perforated metal).

● Panel boring dimensions

**Table 1 Element unit, Power supply unit, Humidity controller unit**

Unit name	Model name	Installation dimensions							Moisture discharging hole dimensions		Remarks
		a	b	c	d	e	f	g	h	k	
Element unit	S-5J1	91	40	60	—	—	—	5	60	67	Figure 1
	S-7J1	118	50	50	—	—	—	5	80	87	Figure 1
	S-10J1	148	43.5	56.5	100	75	88	5	110	117	Figure 2
Power supply unit	D-3006JW	173	84	—	—	—	—	5	—	—	Figure 3
	D-3010JW	216	84	—	—	—	—	5	—	—	Figure 3
Humidity controller unit	C-M1J	102	40	—	—	—	—	5	—	—	Figure 4

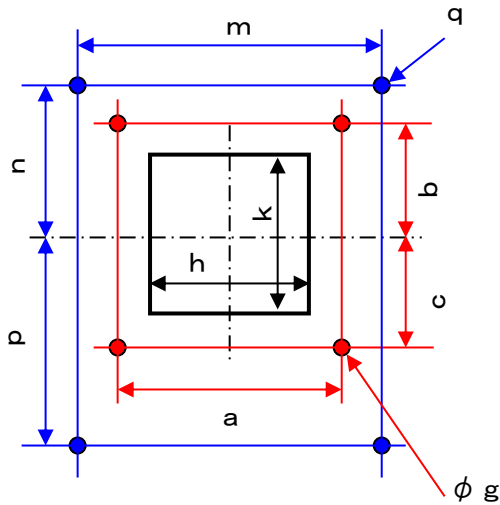


Figure 1

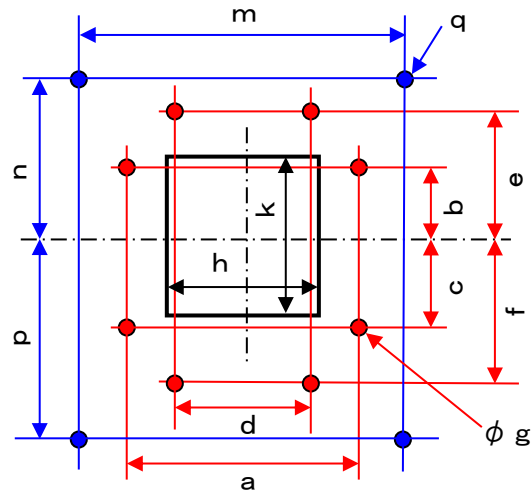


Figure 2

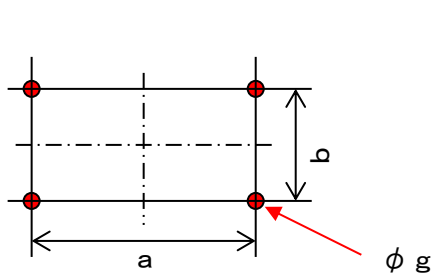


Figure 3

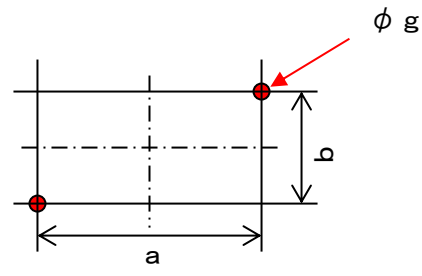
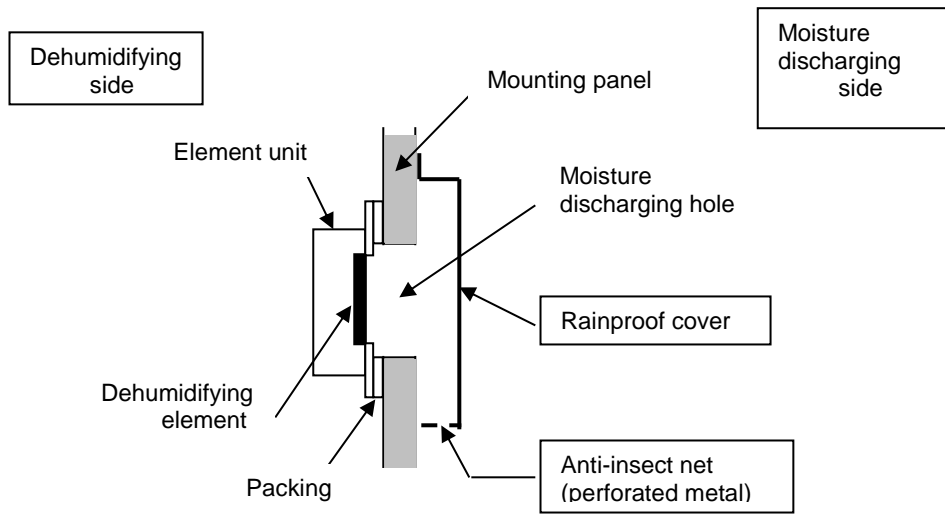


Figure 4

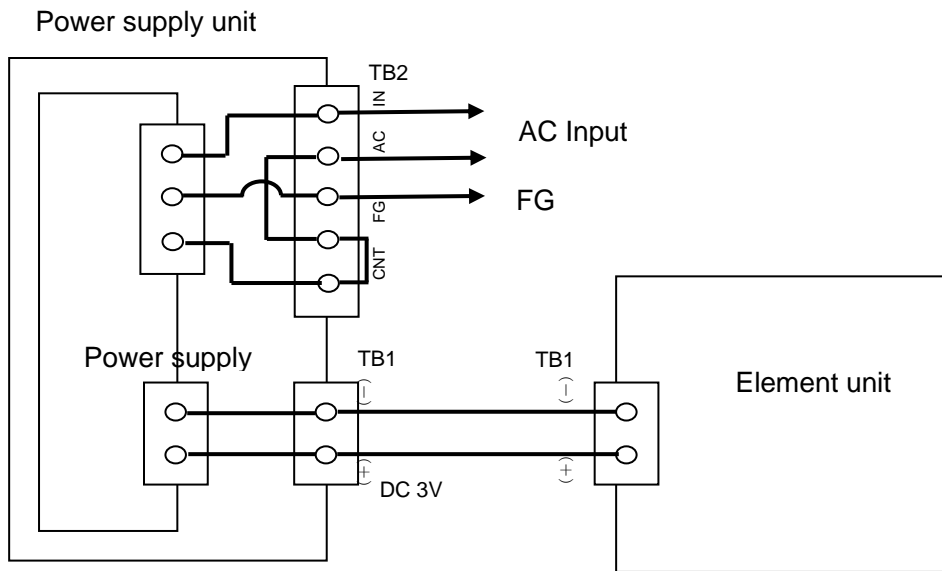
**Table 2 Rainproof cover**

Installation method	Applicable model name ※1	Rainproof cover installation dimensions				Remarks
		m	n	p	q	
Direct installation method	For RDH-5J1	135	55	70	M4screw	Figure 1
	For RDH-7J1	175	65	85	M4screw	
	For RDH-10J1	225	90	90	M4screw	Figure 2

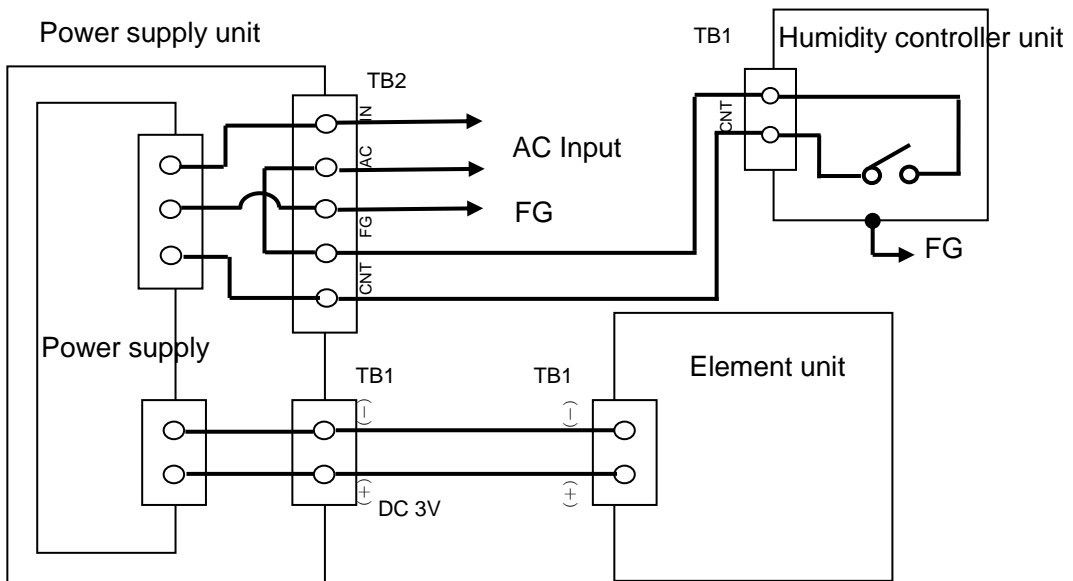
※ 1 Select a suitable rainproof cover for Element unit.  
Example: S-5J1 → For RDH-5J1



**Figure 5**



**Figure 6 Connection diagram between the unit (without Humidity controller unit)**



**Figure 7 Connection diagram between the unit (with Humidity controller unit)**

※ Please remove the wiring of the CNT both ends of the power supply unit terminal stand.

## Usage

※ Please confirm the following procedure of item 2-4 when there is not the humidity controller unit.

1 Please set the dial of the humidity controller unit as the right side of it as possible (low humidity side).

2 Please turn on the AC power supply and get energized.(Please use AC100V or AC200V.)

3 Please confirm lighting of the LED of the power supply unit and the element unit.  
( It is a usage state)  
※It might take 3-5 minutes to light the LED on the initial stage of turning on the power supply.  
This is not abnormal.

### ●Emergency

Please confirm the following matters when the LED doesn't light.

(1)when both LEDs of the power supply unit and the element unit don't light,

(a)Is the power supply correctly connected?

(b)Is the connection between units correctly connected?

(c)Does not the moisture discharging side of the element unit get wet?

(In this case, the overcurrent protection circuit of the power supply functions and LED does not light. If the wet state is canceled, it returns to normal state.)

(2)when LED of the power supply unit light and LED of the element unit doesn't light,

(a)Is the power supply unit and the element unit connected?

(b)Is not the polarity of the wiring between the power supply unit and the element unit wrong?

Please let agent or us know when you confirm the matter mentioned above and still LED does not turn on for a long time.

4 Please adjust it by the volume for voltage adjustment of the power supply unit so that the supply voltage to the element unit enters the range of DC2.95 - 3.05V in the element unit terminal stand after both LEDs of the power supply unit and the element unit light for 15-20 minutes.

5 Please set humidity controller's dial at the value you want.

### ●Regarding the humidity controller unit

- (1) There might be a gap of  $\pm 10\%$  in the set value.
- (2) Humidity in the container might vary with changes of surrounding environment (temperature etc.).  
(The function is not to keep the humidity in the container near the prescribed range.)
- (3) Please turn the knob of the humidity controller slowly.

## Product Specification

■The element unit and power supply unit are supplied in a set. Use the model name below to order.

### ●Set model name

	RDHB-5J1	RDHB-7J1	RDHB-10J1
Element unit	S-5J1	S-7J1	S-10J1
Power supply unit	D-3006JW		D-3010JW

●Element unit

The element unit only can also be purchased.

Model name	S-5J1	S-7J1	S-10J1
Dehumidifying capacity(g/day)*1	8	16	29
Applicable volume (m <sup>3</sup> )*2	Up to 1	UP to 2	Up to 4
Element terminal voltage (v)	3VDC		
Power consumption (w)*3	3	4	8
Dimensions (mm) *4	111×130×30	138×150×30	168×185×30
Weight (kg)	0.4	0.5	0.7
Operating temperature (°C)	-10 to 50		

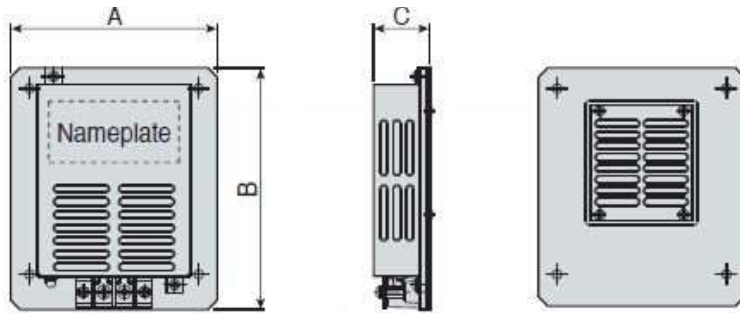
\*1 The initial value at the temperature of 30°C and humidity 60%RH.

(The dehumidifying capacity will degrade during use. How much it degrades depends on the operating environment and conditions. If any signs of abnormality are seen, early replacement is recommended.)

\*2 The applicable volume is for a sealed, moisture-impermeable container, and may vary depending on the material of the container, state of sealing and required humidity.

\*3 The annual average power consumption in average condition in Japan. ( 20°C ,60%RH)

\*4 The dimensions of AxBxC in the following figure.



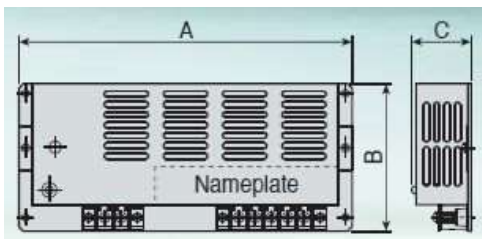
●Power supply unit

Model name	D-3006JW	D-3010JW
Applicable device unit	S-5J1,S-7J1	S-10J1
Rated voltage(V)	85 to 264 AC	
Rated power consumption(VA) *1	24	40
Rated output voltage(v) *2	3DC(6A)	3DC(10A)
Dielectric strength(V)	2000AC(per minute)	
Dimensions (mm) *3	182x100x41	225x100x41
Weight (kg)	0.7	0.9
Operating temperature (°C)	-10 to 50	

\*1 The power consumption when the load is applied.

\*2 The value in ( ) is the rated output current.

\*3 The dimensions of AxBxC in the following figure.



●Humidity controller unit (option)

Model name	C-M1J
Dielectric strength(V)	2000AC (per minute)
Dimensions (mm) *1	78x112x50
Weight (kg)	0.2
Humidity set range (%RH)	20 to 80
Operating temperature (°C)	-10 to 50

\*1 The dimensions of AxBxC in the following figure. The height of the knob is 15mm.)

