Easy Steam Humidifier
EZDI & EZSW

GENERAL DESCRIPTION

The Best A/V Easy Steam Humidifier (EZDI/EZSW) is designed for low to medium capacities requirements and the most economical choice. The EZDI is suitable for DI/RO pure water, while EZW is for softened or city water.

Both featured with Stainless Steel Body and 4-side-isolated with 3/4” thick low-density hermetic air foam withstanding high temperature up to 120℃, Incoloy Heaters, Digital LED Display/Controller, SSR Controller, 3-in-one Breaker (Electric-Leakage, Over-Current and Short-Circuit breaker), and many other delicate controlling components. It is an effective and very low-cost humidifier unit, yet has simple preheat function and efficient proportional control system. When equip with Quick-Absorb steam dispersion panel can be installed directly in the AHU or duct for saving installation labor hour and space.

KEY FEATURES

Earth Leakage Breaker:

This unique breaker is with multiple functions as follows:

- Electric-Leakage breaker
- Over-Current breaker
- Short-Circuit breaker

Earth Leakage Breaker

Material: (for EZDI)

- The frame and most inside fittings is constructed with high quality stainless steel
- Withstands corrosive DI/RO pure water
- No mineral build-up
- Minimal or no maintenance

Material: (for EZSW)

- The frame and most inside fittings is constructed with high quality stainless steel
- Minimal maintenance

Capacity Range:

- From 4 to 120 kg/hr for each unit
- Available for multiple-series connection

Proven Performance:

Control can be up to ± 2% RH, if sensing location, sensor quality and temperature control are in good condition.

Vapor Chamber:

Inner cabinet is made of stainless steel and seamed with same quality welding.

Timer-Operated Solenoid Valve auto drainage: (for EZSW only)

- Automatically or manually draining water of vapor chamber in intervals, preventing mineral build-up and condensation.

- Draining interval can be set from 1 to 30 minutes and draining time from 1 to 30 seconds.
- Brass body, 3/4" NPT

SSR Controller:

Only the first one is SSR controller, the rest is/are relay/s controller. Major advantages of SSR control are:

- 3-Phases SSR modulation
- No connection points, hence no sparking
- Easy to control
- Quiet operation
- Linear proportional control: modulating humidifier output from 0% to 100% of maximum capacity

This device provides an accurate and easy way in controlling the output of power.

SSR Controller

Supply of Water:

RO/DI supply water are recommended for high efficient operation, reducing heat loss, prolong equipment's life span, and minimize maintenance time.

For EZDI: Reverse Osmosis or De-Ionized water.
(also adaptable to above 18MΩ pure water)

For EZSW: City Water, Softened Water.

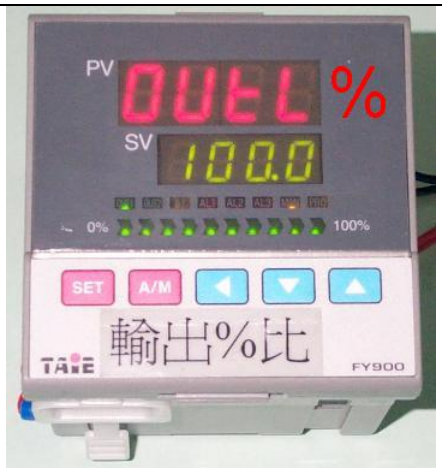
Low-Water Switch (protection) - Float Type or Electrode Pole Type:

- When supply water level is reaching the set low-water point, will turn off the power and stop the humidification operation.
- Float type is used for DI or RO water.
- Electrode Pole type is used for soften water or city water.

LED Digital Display:

- Control and Display the output of humidifier system in 0~100%
- Good humidification control by controlling humidification output proportionally

- Accepts control room's signal in 2~10V or 4~20mA
- Can be set manually on the humidification output



LED Digital Display

Heating Elements:

- Low watt density ensures heating element life for many seasons.
- In the unlikely event of an element burnout, heating elements can be removed easily with a small wrench.
- The heater is made of INCOLOY, is excellent for DI/RO water (also adaptable to above 18MΩ pure water) heating system and corrosion-proof.
- Can bear high current and voltage.

Heating Elements

Two Over-Heat Protections:

The unit provides three over-heat protections:

- Water Supply Solenoid Valve : control water levels. Recommended working pressure for Solenoid valve: 1~10kg/cm^{2}g. Bronze body, stainless steel float, 1/2" NPT, operating water pressure 1~4 kg/cm^{2}g is recommended.
- Ball Float: Low Water Switch or Electrode Pole – shall de-energize the humidifier when low water occurs and automatically re-energize when water level reaches factory-set level.

In sum, above protections are designed in a way to minimize the damages caused by overheat and hence to save a lot of money from replacing and downtime for customers.

One-Year Limited Warranty:

Best A/V ANDI or ANSW humidifier warrants to the original user that its products will be free from defects in materials and workmanship for a period of one year after delivery.

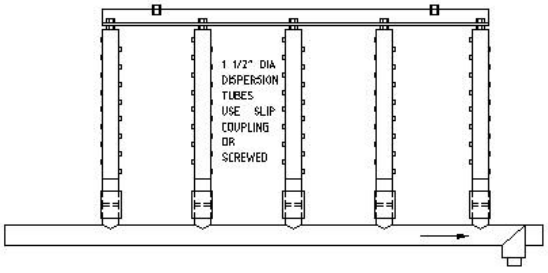
Steam Hose: (Optional)

- 17 bar (250psi) robust steam hose, high tensile steel cords
- Mainly made of EPDM, preventing loss of heat
- Rating: 17 bar / 236^{o}C
- Size range: 3/4” ~ 1-1/2”
- Easy installation, long life span, maintenance free.

Dispersion Panel: (optional)

In order to obtain high efficiency in dispersing of steam, equip the unique Best A/V Quick-Absorb dispersion tube panel is highly recommended.

- Quick-Absorb is an economic and ideal steam dispersion tube panel for limited absorption distance and middle capacity system. It is also made of stainless steel, a rapid and drip-free steam dispersion panel. Refer to the details described in quick-Absorb section of this catalog.



Quick-Absorb

Other Options:

- Temperature Controller with Preheat Function: shorter warm-up time, speed-up in producing steam, and faster response & action.

EZDI/EZSW Specifications & Capacities for each Unit / Chamber

MODEL		Steam Capacity kg/hr	Steam Outlet		Heater Q'TY	SSR Q'TY	Current Draw (Amps)					KW
			Q'TY	Connect. O.D. mm			Single-Phase		Three-Phase			
							110V	220V	220V	380V	480V	
EZDI EZSW	**4-1**	5.3	1	25.4	1	1	36.0	18.2	10.5	6.1	4.8	4
	6-1	8	1	25.4	1	1	54.5	27.3	15.7	9.1	7.2	6
	8-1	10.7	1	25.4	1	1		36.3	21.0	12.1	9.6	8
	12-1	16	1	38.1	1	1			31.5	18.2	14.4	12
	15-1	20	1	38.1	1	1			39.3	22.7	18.0	15
	30-2	40	2	38.1	2	1				45.5	36.0	30
	45-3	60	2	50.8	3	2				68.3	54.1	45
	60-4	80	2	50.8	4	3				91.1	72.1	60
	75-5	100	2	50.8	5	3				113.9	90.2	75
	90-6	120	2	63.5	6	3				136.7	108.2	90

Vapor Chamber Dimensions (unit: mm)

MODEL		L	W	H
EZDI EZSW	**4-1**	**380**	**290**	**220**
	6-1	**500**	**290**	**220**
	8-1	**500**	**290**	**220**
	12-1	**650**	**290**	**220**
	15-1	**650**	**290**	**220**
	30-2	**650**	**390**	**320**
	45-3	**650**	**490**	**420**
	60-4	**650**	**490**	**420**
	75-5	**650**	**490**	**420**
	90-6	**650**	**490**	**420**