

DESCRIPTION

The AT4 steam humidifier is a pressure less steam generator that utilizes an electrode heating. The unit is designed for air humidification through a steam distributor. Every time steam is requested, the electrodes are supplied with voltage through main contactor. At the same time the inlet valve opens and water enters the steam cylinder from the bottom through water cup and supply line. As soon as the electrodes come in contact with the water, current begins to flow between the electrodes, eventually heating and evaporating the water. Upon reaching the requested steam capacity, the inlet valve closes. If the steam generation decreases below a certain percentage of the required capacity the inlet valve opens until the required capacity is available again. A sensor provided in the steam cylinder cover detects when the water level gets too high. The moment the sensor comes in contact with water, the inlet valve closes. As a result of the evaporation process, the conductivity of the water increases due to an escalating mineral connection. Eventually, an inadmissibly high current consumption would take place if this concentration process were permitted to continue. To prevent this concentration from reaching a value, unsuitably high for the operation, a certain amount of water is periodically drained from the cylinder and replaced by fresh water. The interval controlled SC pump blows air into the steam cylinder. Thus keeping the solved minerals in the water in motion so they are discharged with the automatic drain cycles. The steam production can be controlled with the internal or an external continuous controller or an external humidistat (24 VDC On/Off control).

The AT4 is available with different heating voltages and steam capacities range from 5kg/h up to a maximum of 130kg/h.

TECHNICAL SPECIFICATION & DIMENSIONS

Heating voltage	Max. steam capacity [kg/h]	Type of AT4
400V3 (400 V/3~/50...60Hz)	5	534
	8	834
	15	1534
	23	2364
	32	3264
	45	4564
	64	6464
	65	6564
	90	9064
400V2 (400 V/2~/50...60Hz)	130	13064
	5	524
230V3 (230 V/3~/50...60Hz)	8	824
	5	532
	8	832
	15	1532
	23	2362
	32	3262
	46	4662
230V1 (230 V/1~/50...60Hz)	64	6462
	5	522
	8	822

Note: other heating voltages available on request.

Steam capacity [kg/h]	5	8	15	23	32	45	46	64	65	90	130	
Capacity range [kg/h]	1-5	1.6-8	3-15	4.6-23	6.4-32	9-45	9.2-46	12.8-64	13-65	18-90	26-90	
Nominal power [kW]	3.8	6.0	11.3	17.3	24.0	33.8	2x17.3	2x24.0	48.8	2x33.8	2x48.8	
Qty of steam cylinders	1	1	1	1	1	1	2	2	1	2	2	
Admissible water pressure [bar]	1-10											
Water quality	Untreated drinking water with a conductivity of 125...1250µS/cm											
Admissible water temp. [°C]	1-40											
Admissible ambient temp. [°C]	1-40											
Admissible ambient humidity	Max. 75%rH											
Admissible duct air pressure	-0.8-1.5kPa; overpressure kit (option) up to 10.0kPa											
Type of protection	IP21											
Dim. [mm]	H	388	388	468	468	563	563	966	966	563	966	966
	W	575	575	620	620	640	640	640	640	640	640	640
	G	255	255	345	345	350	350	350	350	350	350	350
Net weight [kg]	12	12	19	19	28	28	62	62	30	60	64	
Operating weight [kg]	17	17	29	29	65	65	116	116	67	116	116	
Water supply connector	G ¾" (male thread)											
Water drain connector	Ø31mm (outside diameter)											
Steam connector	Ø22	Ø22	Ø35	Ø35	Ø35	Ø35	2xØ35	2xØ35	Ø35	2xØ35	2xØ35	

