



IMMERSED ELECTRODE HUMIDIFIER MODEL **UE**

Technical sheet with latest revision 03/2023

Suitable for call centers, hotels, bookshops, seasonings, food industries, Turkish baths and more.



Product code: UE

Supplier: TECNOKLIMA SRL
Via della Repubblica, 1 ABCD 40057 Granarolo dell'Emilia (BO) Italy
Telephone (+39) 051/6056846 - 051/6066593 - Fax (+39) 051/761367
Email info@tecnoklima.it - assistenza@tecnoklima.it
Web site: www.tecnoklima.it

Immersed electrode humidifiers suitable for installation in civil environments, offices, hospitals, industrial plants, etc. Designed both for installation in environments, with the ventilated steam diffuser, and for installation in an air duct, with linear steam distributors.

They work with mains water with a conductivity between 75 and 1250 $\mu\text{s}/\text{cm}$ and its control software automatically adapts to the characteristics of the water, in order to optimize the duration of operation without maintenance. Immersed electrode humidifiers are the rational choice suitable for every application. Range of immersed electrode humidifiers ideal for humidification and installation in environments such as offices, homes and industrial plants.



AFS system (Anti Foaming System): reveals and manages the foam to avoid the emission of drops together with the steam

Cylinders with galvanized electrodes and anti-limestone filter on the bottom; openable and fireproof cylinders are also available

Steam production with continuous modulation from 20% to the rated flow rate



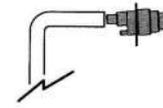
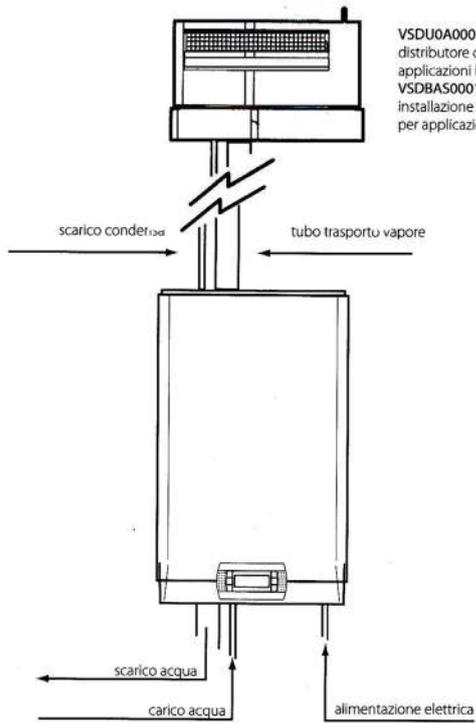
Units equipped with conductivity sensor and control software to optimize both energy efficiency and maintenance costs with constant performance over the life of the cylinder

Modulating limit probe for maximum safety in AHU/duct.

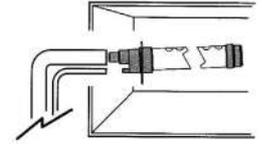
The operation of immersed electrode humidifiers is based on a very simple physical principle. Since common drinking water contains a certain quantity of dissolved mineral salts and is therefore slightly conductive, by applying a voltage to metal electrodes immersed in it a passage of electric current is obtained which heats it (Joule effect) until boiling, conducts steam. The amount of steam produced is proportional to the electric current, which in turn is proportional to the water level.

The electric current is measured by an amperometric transformer: by controlling the water level by means of the filling solenoid valve and by the evaporation itself, the current is modulated and, consequently, the production of steam. Since the steam does not carry mineral salts, the water increases due to its saline concentration and therefore its conductivity, therefore it is automatically and periodically diluted, discharging a small part by means of the drain pump and replacing it with supply water. Furthermore, over time the limestone deposits and occupies part of the cylinder, which must be replaced or cleaned periodically.

ACCESSORIES



SDPOEM*: ugello diffusore in plastica fino a 18 kg/h vapore, per bagni turchi



DP*: distributore lineare di vapore (ingresso Ø 22 mm, Ø 30 mm, Ø 40 mm), per applicazioni in condotta

Sonde

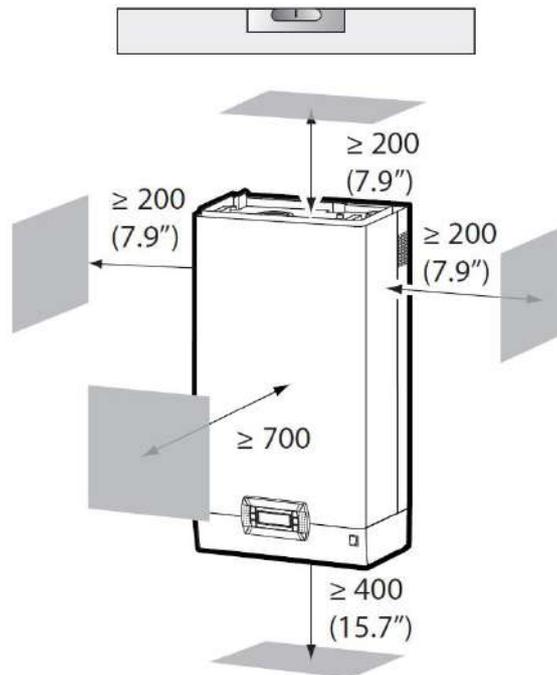


DPW*: sonda di temperatura e umidità per ambiente civile



DPP*: sonda di temperatura e umidità per ambiente industriale

PLACEMENT AND DISTANCE



The unit is designed for wall mounting with sufficient capacity to support the weight and operating conditions. To ensure proper steam distribution, place the humidifier near the steam distribution point. Position the humidifier horizontally, observing the minimum spaces, to allow for the necessary maintenance operations. Warning: during operation of the humidifier, the external metal casing heats up, and the rear part leaning against the wall can reach temperatures exceeding 60°C (140°F).

Compared to humidifiers with immersed heaters or gas, to which they are complementary, humidifiers with immersed electrodes:

- They have a cheaper purchase price;
- They work with drinking water (not demineralised or softened);
- They require periodic replacement (or cleaning) of the cylinder;
- They have a modulation suitable for comfort or industrial applications without extreme requirements.

	001*	003*	005*	008*	009*	010*	015*
GENERAL							
Nominal steam production (kg/h)	1,5	3	5	8	9	15	15
Absorbed electric power (kW)	1,12	2,25	3,75	6,00	6,75	7,5	11,25
200, 208-230 Vac 15/10% 50/60 Hz single phase	√	√	√		√		
200, 208-230 Vac 15/10% 50/60 Hz three-phase		√	√	√		√	√
400, 460-575 Vac - 15/10%, 50/60 Hz single phase		√	√	√		√	√
Steam connection (mm)	Ø 22/30		Ø 30				
Delivery pressure limits (Pa)	-600...1500		-600...1300		-600...1350		
Boiler number	1						
Operating conditions	1T40°C,10...90% U.R. not condensed						
Storage conditions	-10T70°C,5...95% U.R. not condensed						
Security level	IP20						
Certifications	CE, ETL, (UL998), TUV e EAC (GOST)						
WATER LOAD							
Connection	3/4"G male						
Temperature limits (°C)	1T40						
Water pressure limits (MPa-bar)	0,1...0,8 - 1...8						
Instantaneous flow rate (l/m)	0,6	0,6	0,6	0,6	1,1	1,1	1,1
Total hardness (°fH) *	10...40						
Conductivity limits (µS/cm) *	75...1250						
DRAIN WATER							
Connection	Ø 40						
Temperature (°C)	≤ 100						
Instantaneous flow rate (l/m)	8						
VENTILATED DISTRIBUTOR							
Number	1						
Type	VSDU0A *						
Power supply (Vac)	24						
Nominal Power (W)	37						
Nominal airflow (m3/h)	192						
SIZING							
Height x Width x Depth (mm)	712 x 365 x 275						

√ standard; (*) for EU 25, 35, 45 kg/h models produced up to October 2003 or with serial number lower than 501.000, use the Y fitting.

TECNOKLIMA SRL

Air treatment for companies and individuals

Administrative headquarters and warehouse:
Via della Repubblica, 1 ABCD
40057 Granarolo dell'Emilia (BO) Italy

Telephone +39 051/6056846 - 051/6066593
Email info@tecnoklima.it
Web www.tecnoklima.it



The manufacturer reserves the right to make improvements to its products without notice. Features may vary depending on changes made for any customizations.