

MERLIN[®]

TECHNOLOGY



Direct humidifier

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MERLIN[®] PURUS

Efficient and convincingly economical.

The ultrasonic principle makes the air humidifier MERLIN[®] PURUS an absolute master in saving: For each kg humidification capacity the humidifier on average requires an energy expenditure of merely 0.092 kW/h. The adiabatic humidification system withdraws transformation energy from the room air; the thus created cooling effect can be used 1:1. Compared with isothermal systems, e.g. steam humidifiers, 93 % of energy costs are therefore saved.

Industrial sectors and fields of application

- food industry,
(meat, pastry, fruit and vegetables),
- air conditioning technology,
- mechanical engineering,
- electronics,
- paint shops and clean rooms,
- medical manufacturing facilities.

Functional principle

Water is atomized by ultrasonic vibrations of 1.7 MHz into aerosols of 1µ. An integrated fan distributes them via the air flow into the room, the aerosol mist (cold vapour) mixes with the ambient air, evaporates completely and is distributed in the room absolutely evenly.

Your MERLIN sales engineer will be pleased to advise you on further application possibilities in the individual case

 **Air humidification**

Better Business Conditions.

Device description

- Corrosion-free stainless steel
- Dry run, thermal and overflow protection
- Oscillator of ceramic-piezoelectric material
- Mains filter for protection against voltage peaks
- Cross flow fan for aerosol transport
- Hygiene management AquaDrain®
- Disinfection programme Contra-Keim®

Optional accessories

- Duct hygostat
- Control cabinet with microprocessor controller
- Various reverse osmosis systems
- Online-conductance measuring
- Various transformers

Controlling

- Hygostat control
- Constant controlling of all usual control signals
- Adjustable capacity fan
- Linear path control
- Potential-free output

Operating conditions

Max. air humidity	< 90% relative humidity
Air temperature	5°C to 45°C
Pure water pressure	min: > 1 bar dynamic max: < 6 bar static
Pure water quality	Totally desalinated
Conductance value pure water	< 20 µS/cm³
Low voltage	48 VAC – 50 Hz

Technical data

Type	Humidification capacity Kg/h	Capacity VA	Voltage V/Hz	Weight kg	Length mm	Height mm	Depth mm
PURUS 4	2,0	180	48V/50Hz	9,0	470	275	290
PURUS 6	3,0	240	48V/50Hz	11,0	580	275	290
PURUS 8	4,0	310	48V/50Hz	13,0	690	275	290
PURUS 10	5,0	370	48V/50Hz	15,0	780	275	290
PURUS 16	8,0	620	48V/50Hz	21,0	1050	275	290

Application examples



MERLIN® PURUS in the duct system.



MERLIN® PURUS direct room humidification.