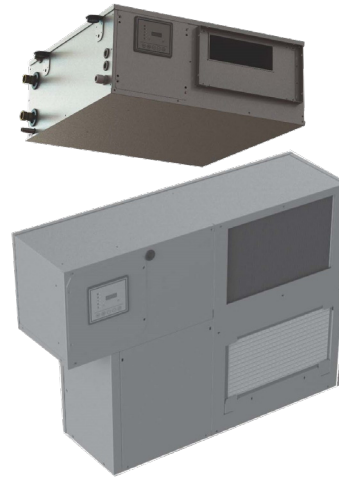


DMH - DMV

Dehumidifier for radiant air-conditioning systems

Dehumidifying capacity 22 l/24h ÷ 36 l/24h

- Better performance compared to traditional dehumidifiers
- Reduced consumption
- Prevents the formation of condensate on the surface of the pavement
- Unit only for indoor installation



DESCRIPTION

Dehumidifiers are refrigerant cycle machines combined with radiant air-conditioning systems, from which they draw a certain water flow rate to increase the dehumidification efficiency and reduce electricity consumption.

The cooling systems employ chilled water at temperatures between 15°C and 20°C, which is enough to take the rooms to the desired temperature, but not suitable for dehumidification. To lower the latter, you would need water at 7°C, resulting in a reduction in the performance of the water chiller compared to when the water is produced at 15-20°C.

Water-cooled refrigerant cycle dehumidifiers are used to keep the air humidity at optimal values (55-65%) in rooms, with the following benefits compared to other systems:

- They employ the chilled water available in the radiant panel system;
- They are used to process the air without modifying its temperature and, therefore, without affecting the operation of the radiant panels and their adjustment system.
- They prevent the formation of condensation on the floor surface in radiant air conditioning systems.

FEATURES

Structure: galvanised sheet metal panels, lined on the inside with a sound-proofing polyethylene covering.

Filter section: 12 mm thick synthetic filtering baffle made with a galvanised sheet metal frame, efficiency class ISO 16890 COARSE 50% (G3 EN 779), can be removed from the front.

Cooling circuit: consisting of a R134a alternative refrigerant compressor, freon filter, expansion capillary, evaporator and condenser with copper pipes and continuous louvered fin louvers, with hydrophilic treatment and aluminium frame (for "-C" cooling versions, with "I" integration, water-freon condenser).

Hydraulic circuit: with pre-treatment and post-cooling coils featuring with copper pipes and continuous louvered fin louvers, with hydrophilic treatment and aluminium frame; for "-C" cooling versions, plate water condenser (no post-cooling); stainless steel condensate drip tray extended to the whole treatment.

Fan: double intake centrifugal fan with blades facing forwards, with multi-speed motor directly coupled; 3 different electrical connections available (H/M/L) for the functioning speed; the manufacturer's default setting is medium (M) speed.

ACCESSORIES

DMUM: Wall mounted environment humidistat.

DMWB: Outer casing for vertical model. Vertical installation.

DMFP: Front panel for outer casing. Vertical installation.

PERFORMANCE SPECIFICATIONS

| | | DMV220 | DMV220I | DMH220 | DMH220C | DMH220I | DMH360C | DMH360I | DMH360 | |
|--|-------------------|-------------------------------|---------|--------|---------|---------|---------|---------|--------|--|
| Performances (1) | | | | | | | | | | |
| Condensed humidity | l/24h | 22 | 22 | 22 | 22 | 22 | 36 | 36 | 36 | |
| Power at the evaporator | W | 1020 | 1020 | 1050 | 1050 | 1050 | 1480 | 1480 | 1480 | |
| Power dissipated with water | W | 870 | 1820 | 870 | 1820 | 1820 | 2680 | 2680 | 1540 | |
| Nominal water flow rate | m ³ /h | 240 | 240 | 240 | 240 | 240 | 390 | 390 | 390 | |
| Water pressure drop | kPa | 3 | 3 | 3 | 3 | 3 | 10 | 10 | 10 | |
| Available sensitive power | W | - | 840 | - | 840 | 840 | 1340 | 1340 | - | |
| Total input power | W | 350 | 350 | 350 | 350 | 350 | 580 | 580 | 580 | |
| Input current | A | 2,0 | 2,0 | 2,0 | 2,0 | 2,0 | 3,2 | 3,2 | 3,2 | |
| Fan | | | | | | | | | | |
| Type | type | Centrifugo doppia aspirazione | | | | | | | | |
| Available fan speeds | | H / M / L | | | | | | | | |
| Nominal fan setting | | M | | | | L | | | | |
| Air flow rate | m ³ /h | 220 | 220 | 220 | 220 | 220 | 360 | 360 | 360 | |
| High static pressure | Pa | 0 | 0 | 20 | 20 | 20 | 20 | 20 | 20 | |
| Compressor | | | | | | | | | | |
| Type | type | Ermetico alternativo | | | | | | | | |
| Refrigerant | type | R134a | | | | | | | | |
| Refrigerant charge | g | 340 | 270 | 340 | 340 | 270 | 460 | 410 | 460 | |
| Operating limits | | | | | | | | | | |
| Intake air temperature | °C | | | | | 15 ~ 32 | | | | |
| Water inlet temperature (dehumidifying mode) | °C | | | | | 10 ~ 21 | | | | |
| Sound data | | | | | | | | | | |
| Sound pressure level (1 m) | dB(A) | 39,0 | 39,0 | 42,0 | 42,0 | 42,0 | 47,0 | 47,0 | 47,0 | |

(1) At nominal air flow rate at the following conditions: ambient air 26°C BS, RH 65%; incoming water temperature 15°C

Condensed humidity with ambient temperature of 26°C

| | | DMV220 | DMV220I | DMH220 | DMH220C | DMH220I | DMH360C | DMH360I | DMH360 |
|---|-------|--------|---------|--------|---------|---------|---------|---------|--------|
| Hydraulic circuit water temperature 21°C - Relative humidity 55% | | | | | | | | | |
| Condensed humidity | l/24h | 12 | 12 | 12 | 12 | 12 | 20 | 20 | 20 |
| Hydraulic circuit water temperature 18°C - Relative humidity 55% | | | | | | | | | |
| Condensed humidity | l/24h | 14 | 14 | 14 | 14 | 14 | 22 | 22 | 22 |
| Hydraulic circuit water temperature 15°C - Relative humidity 55% | | | | | | | | | |
| Condensed humidity | l/24h | 15 | 15 | 15 | 15 | 15 | 25 | 25 | 25 |
| Hydraulic circuit water temperature 21°C - Relative humidity 65% | | | | | | | | | |
| Condensed humidity | l/24h | 17 | 17 | 17 | 17 | 17 | 28 | 28 | 28 |
| Hydraulic circuit water temperature 18°C - Relative humidity 65% | | | | | | | | | |
| Condensed humidity | l/24h | 19 | 19 | 19 | 19 | 19 | 31 | 31 | 31 |
| Hydraulic circuit water temperature 15°C - Relative humidity 65% | | | | | | | | | |
| Condensed humidity | l/24h | 22 | 22 | 22 | 22 | 22 | 36 | 36 | 36 |

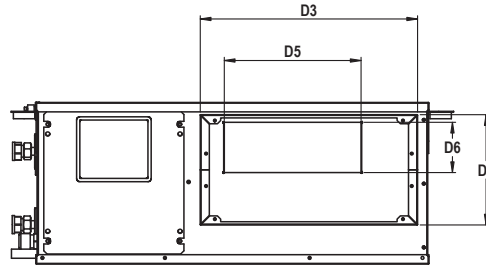
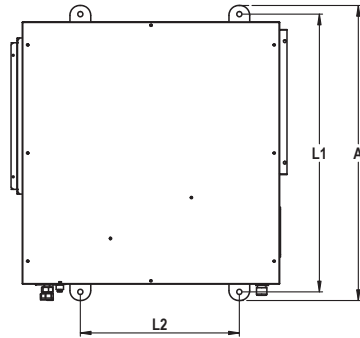
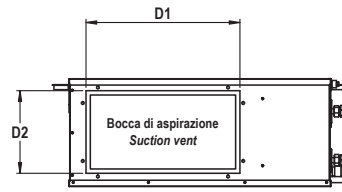
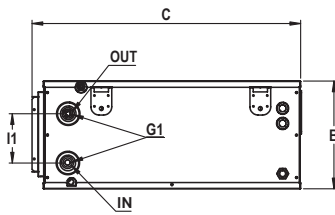
Condensed humidity with ambient temperature of 24°C

| | | DMV220 | DMV220I | DMH220 | DMH220C | DMH220I | DMH360C | DMH360I | DMH360 |
|---|-------|--------|---------|--------|---------|---------|---------|---------|--------|
| Hydraulic circuit water temperature 21°C - Relative humidity 55% | | | | | | | | | |
| Condensed humidity | l/24h | 10 | 10 | 10 | 10 | 10 | 17 | 17 | 17 |
| Hydraulic circuit water temperature 18°C - Relative humidity 55% | | | | | | | | | |
| Condensed humidity | l/24h | 12 | 12 | 12 | 12 | 12 | 19 | 19 | 19 |
| Hydraulic circuit water temperature 15°C - Relative humidity 55% | | | | | | | | | |
| Condensed humidity | l/24h | 13 | 13 | 13 | 13 | 13 | 21 | 21 | 21 |
| Hydraulic circuit water temperature 21°C - Relative humidity 65% | | | | | | | | | |
| Condensed humidity | l/24h | 14 | 14 | 14 | 14 | 14 | 23 | 23 | 23 |
| Hydraulic circuit water temperature 18°C - Relative humidity 65% | | | | | | | | | |
| Condensed humidity | l/24h | 17 | 17 | 17 | 17 | 17 | 27 | 27 | 27 |
| Hydraulic circuit water temperature 15°C - Relative humidity 65% | | | | | | | | | |
| Condensed humidity | l/24h | 18 | 18 | 18 | 18 | 18 | 30 | 30 | 30 |

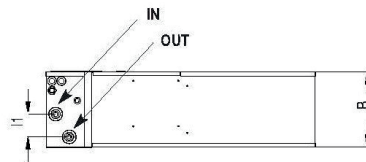
Operating limits

- Intake air temperature 15 ~ 30°C
- Hydraulic circuit water temperature 12 ~ 20°C

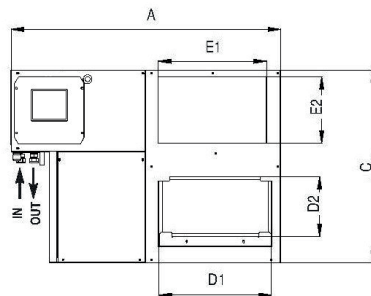
DIMENSIONS AND WEIGHTS



DMH220 / DMH220C / DMH220I
DMH360 / DMH360C / DMH360I



DMV220 / DMV220I



| | | DMH220 | DMH220C | DMH220I | DMV220 | DMV220I | DMH360 | DMH360C | DMH360I |
|-------------------------------|----|--------|---------|---------|--------|---------|--------|---------|---------|
| Dimensions and weights | | | | | | | | | |
| A | mm | 680 | 680 | 680 | 850 | 850 | 775 | 775 | 775 |
| B | mm | 250 | 250 | 250 | 240 | 240 | 270 | 270 | 270 |
| C | mm | 623 | 623 | 623 | 615 | 615 | 623 | 623 | 623 |
| D1 | mm | 337 | 337 | 337 | 337 | 337 | 437 | 437 | 437 |
| D2 | mm | 172 | 172 | 172 | 172 | 172 | 192 | 192 | 192 |
| D3 | mm | 335 | 335 | 335 | - | - | 435 | 435 | 435 |
| D4 | mm | 170 | 170 | 170 | - | - | 195 | 195 | 195 |
| D5 | mm | 210 | 210 | 210 | - | - | 250 | 250 | 250 |
| D6 | mm | 77 | 77 | 77 | - | - | 95 | 95 | 95 |
| E1 | mm | - | - | - | 350 | 350 | - | - | - |
| E2 | mm | - | - | - | 215 | 215 | - | - | - |
| I1 | mm | 115 | 115 | 115 | 75 (1) | 75 (1) | 125 | 125 | 125 |
| L1 | mm | 640 | 640 | 640 | - | - | 745 | 745 | 745 |
| L2 | mm | 370 | 370 | 370 | - | - | 370 | 370 | 370 |
| G1 | ∅ | 1/2" F | 1/2" F | 1/2" F | 1/2" F | 1/2" F | 1/2" F | 1/2" F | 1/2" F |
| Net weight | kg | 35,0 | 35,0 | 35,0 | 40,0 | 40,0 | 40,0 | 40,0 | 40,0 |

(1) Pre-shearing for hydraulic and electrical connections on the side, rear and bottom panel

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
responsibility or liability for errors or omissions.

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