

WALL & FLOOR POOL DEHUMIDIFIERS

DanVex DEH-WP Series

80–120 l/day · Full Inverter dehumidification, ultra-quiet operation

The DanVex DEH-WP Series comprises two wall- and floor-mountable dehumidifiers – DEH-800WP (80 l/day) and DEH-1200WP (120 l/day) – for swimming pools, SPA facilities, food production and demanding commercial premises. A Full Inverter system – inverter compressor, EC fan and electronic expansion valve (EEV) – cuts energy consumption by up to 40% versus fixed-speed units and keeps noise below 36 dB(A) at 1 metre.

The two models share the same design and feature set, differing in capacity and coverage: the DEH-800WP serves pools up to 35 m² and rooms of 80–130 m², the DEH-1200WP pools up to 60 m² and rooms of 110–240 m². Each unit ships ready for wall or floor installation – the same unit, two mounting options.

Up to 120 l/day

DEHUMIDIFICATION

Ultra-quiet

< 36 DB(A)

E-Coating

ANTI-CORROSION

Wi-Fi / Modbus

CONTROL / BMS

UV Steriliser

AIR PURIFICATION

- ✓ Full Inverter: compressor + EC fan + EEV
- ✓ Up to 40% lower energy consumption
- ✓ E-Coating on evaporator and condenser
- ✓ Wi-Fi + Modbus RTU RS-485 – app and BMS / SCADA
- ✓ Washable G4 filter
- ✓ Hot Gas Defrost – 3-minute cycle, from +5 °C
- ✓ UV Steriliser + Anion Generator
- ✓ 5-in-1 air sensor: CO₂ · PM2.5 · TVOC · RH · T°
- ✓ Wall mount (bracket incl.) or floor (6 adj. feet)
- ✓ IPX4 · composite-coated control board



Full Inverter: three components, one system

The compressor varies its speed continuously against real humidity readings, the EC fan adjusts airflow independently, and the EEV meters refrigerant flow electronically instead of a fixed capillary tube. Working together, they hold humidity stable without on/off cycling, peak-current surges or the noise steps of fixed-speed machines – and enable continuous 24/7 duty.



Electronic expansion valve (EEV)

Precise refrigerant control with EEV

An electronic expansion valve replaces the fixed capillary tube, metering refrigerant flow at every operating point – 15–20% more efficient than conventional thermostatic valves. The circuit follows the inverter compressor smoothly across its whole modulation range.

Corrosion protection for aggressive environments

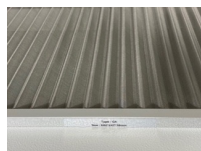
The evaporator and condenser carry E-Coating – an electrochemical anti-corrosion layer – and the control board is protected with a composite compound. This resists chlorine and chloramine vapours above pool water, salt spray in coastal facilities, and the cleaning agents of food production – conditions that corrode unprotected exchangers within years.



E-Coating on the heat exchanger circuit



5-in-1 air quality sensor



Washable G4 filter

Filtration and air quality control

A washable G4 filter protects the heat exchangers, a UV-C lamp in the airflow path eliminates bacteria and mould spores, and an anion generator precipitates airborne particulates. The 5-in-1 sensor continuously monitors CO₂, PM2.5, TVOC, relative humidity and temperature – on the unit display and remotely.

Fast defrost, operation from +5 °C

Hot Gas Defrost clears icing from the evaporator in a 3-minute cycle – versus 20–30 minutes for passive defrosting, during which dehumidification stops entirely. The unit keeps working at low temperatures from +5 °C with no risk of the heat exchanger icing up.

Additional cooling for 24/7 duty

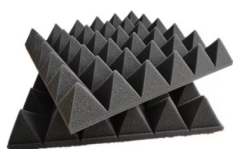
The compressor driver is additionally cooled with refrigerant, keeping the power electronics within temperature limits at any load. This allows the unit to run round-the-clock without overheating.



Refrigerant cooling of the compressor driver

Wi-Fi and Modbus RTU RS-485

Both protocols are active simultaneously on every model: Wi-Fi for remote app control and parameter monitoring, Modbus RTU RS-485 for direct integration into a BMS or SCADA system – run the unit from an app, or as part of building automation.



Internal pyramid sound absorption

Casing: durable, quiet, serviceable

The rigid powder-coated casing with internal pyramid sound absorption keeps operation quiet even at full capacity. All service is carried out through the front panel – the unit stays on the wall.

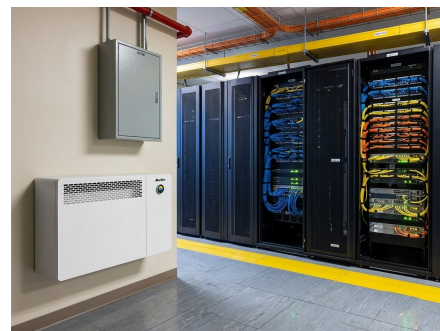
Where it is used



Locker rooms & sports facilities



Museums & galleries



Server & technical rooms

- Indoor pools and SPA complexes
- Hotel pools and wellness centres
- Gyms, locker rooms and fitness facilities
- Food and beverage production
- Museums and archival storage
- Server and technical rooms
- Coastal facilities with salt-laden air
- Warehouses and storage facilities

Specifications

Parameter	DEH-800WP	DEH-1200WP
Dehumidification capacity (30 °C / 80% RH)	80 l/day	120 l/day
Supply airflow	500–800 m³/h	850–1 150 m³/h
Advised pool surface	≤ 35 m²	≤ 60 m²
Advised room / hall size	80–130 m²	110–240 m²
Operating temperature range	+5 ... +42 °C	
Rated power (variable)	820–1 260 W	900–1 720 W
Current	3.7–5.7 A	4.0–7.8 A
Voltage / Frequency	220–230 V / 50–60 Hz, single-phase	
Compressor / Fan	Inverter compressor · EC fan, variable speed	
Expansion valve	EEV (electronic)	
Noise level at 1 m	< 36 dB(A)	
Filtration / Air purification	Washable G4 filter · UV Steriliser + Anion Generator	
Air quality sensor	5-in-1: CO ₂ · PM2.5 · TVOC · RH · T°	
Defrost system	Hot Gas Defrost, 3 min cycle	
Heat exchanger / board protection	E-Coating · composite compound on control board	
Refrigerant	R-32 × 460 g	R-32 × 650 g
Water protection	IPX4	
Connectivity / BMS	Wi-Fi + Modbus RTU RS-485	
Installation	Wall mount (bracket incl.) / floor (6 adjustable feet)	
Dimensions (L×W×H)	1 170 × 304 × 741 mm	
Net / gross weight	75 kg / 85 kg	80 kg / 95 kg