



calorex®

## Porta Range

High performance portable dehumidifiers

Robust, portable dehumidifiers designed specifically to provide rapid drying solutions and humidity control

**CALOREX PORTA RANGE**

# Removing moisture cleanly and efficiently

Calorex portable dehumidifiers provide affordable solutions to drying problems, ensuring safe levels of dehumidification and humidity control.

**How does a Porta-Dry dehumidifier work?**

Porta-Dry dehumidifiers are fully contained, packaged units which incorporate a fan and a totally CFC-free refrigeration circuit. A fan draws room air through the machine which firstly passes across a refrigerated heat exchanger (evaporator) that cools and allows moisture contained within the air to condense. The cooled, dry air then passes across a warm heat exchanger (condenser) where it is reheated as a result of the dehumidification process, before being returned to the room in a dry, warm state. Moisture removed from the air is collected in a reservoir where it is fed away to waste.

Due to the unique nature of a refrigeration circuit, energy removed from the air during dehumidification process is converted into usable heat. Typically for every 1kW of energy that a dehumidifier consumes, it will give out 2.5kW of heat; by removing the moisture from the air rather than heating it to a high temperature, Porta-Dry dehumidifiers will dry in a gentle and more controllable manner, alleviating possible material shrinkage and cracking problems associated with heating methods.

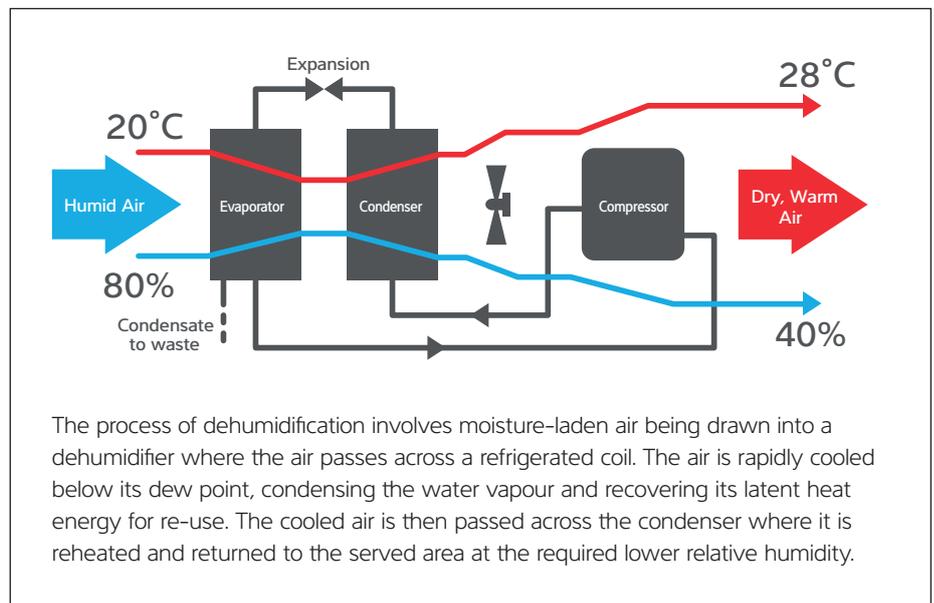
**Drying by dehumidification**

Dry air is a laboratory phenomenon. Atmospheric air will always contain moisture, often in quantities that prevent natural ventilation from providing an effective answer to drying buildings. Whether it be during construction, after fire or flood damage or even after a period of disuse, moisture will build up within buildings, often with damaging consequences. These problems can be disguised by the use of heat or ventilation (when the weather is occasionally suitable) but are unpredictable, slow, and potentially energy inefficient.

Dehumidifiers are the only method of positively removing moisture in a controllable, efficient manner from a space, and at a speed that can be dictated to suit the application.

During building construction, dehumidifiers can be used to accelerate the rate of drying wet processes such as concrete floors and plaster, not only allowing the construction work to proceed more rapidly, but in a way that ensures the drying will not encourage cracking and distortion. Further, concrete floors that are dried by dehumidifiers will always settle at the correct moisture content.

**How a Calorex dehumidifier works**



The process of dehumidification involves moisture-laden air being drawn into a dehumidifier where the air passes across a refrigerated coil. The air is rapidly cooled below its dew point, condensing the water vapour and recovering its latent heat energy for re-use. The cooled air is then passed across the condenser where it is reheated and returned to the served area at the required lower relative humidity.

## Porta-Dry

### Portable dehumidifiers

Porta-Dry dehumidifiers are a British designed and manufactured product evolved from over 35 years of manufacturing experience.

Porta-Dry dehumidifiers are specifically designed for mobile dehumidification and are built to withstand the rigours of construction sites and hire-related wear and tear. They are supported by a nationwide service network and technical support team to ensure the correct product is selected for your needs.

Available options: condensate pump kit, humidistat, hours-run meter, site wheels and handle (standard on models 300 and 600).

### Dehumidifier features

- CFC free – Porta-Dry uses R407°C
- Operation in temperatures down to 0°C – hot gas defrost supplied with Porta-Dry units
- Dual voltage – Porta-Dry units can be supplied with 110/240 volt option
- Non-marking wheels – no tyre marks left on floors
- Comprehensive UK-based service department, supported by a nationwide service engineer network
- 4.5 litres condensate collection reservoir (PD150) with auto shut off



## Porta-Cal

### Portable electrical fan heaters

Specifically designed to withstand the rigours of industrial/commercial space heating. Porta-Cal electric heaters are available in a range of sizes to suit most heating requirements.

### Heater features

- Three heat settings and a 'summer cooling' fan-only switch (models 65 & 95)
- Thermal safety cut-outs fitted as standard
- Double skinned for low outer case temperature
- Innovative reflector plates to prevent radiant heat damaging surfaces immediately around the heater
- Internal baffle plates to protect the fan motor from residual heat after switching off
- Castors and handles for easy manoeuvrability



## Porta-Air

### Portable electric fans

A robust and lightweight solution to ventilation issues. Up to 15m of ducting can be added without loss of performance, and the IP55 motors allow jet washing without danger of water ingress.

### Fan features

- Office ventilation/cooling
- Air distribution to maintain constant conditions throughout larger buildings
- Fume extraction
- Fresh air ventilation in confined spaces
- Optional duct flange supplied
- Efficient and quiet blade design
- Fans use IP55 3-speed motors
- Fans can be stacked for minimal floor usage



# Technical data

Specifications	Units	Porta-Dry 150	Porta-Dry 300	Porta-Dry 600
<b>Capacities</b>				
Maximum	l/day	23	53	100
Nominal 20°C/70%RH	l/day	15	31	59
Nominal 30°C/80%RH	l/day	18	46	70
<b>Electrical data</b>				
Voltage (AX model)	V/Hz	230/1ph/50	230/1ph/50	230/1ph/50
Dual voltage option (AJX model)	V/Hz	110/230/1ph/50	110/230/1ph/50	110/230/1ph/50
Recommended supply fuse (A)	A	13	13	13
Recommended size of dual voltage transformer	VA	600	800	1400
Nominal power consumption	kW	0.43	0.65	1.07
<b>Fan</b>				
Air flow	m <sup>3</sup> /h	200	380	750
<b>Sizing</b>				
Internal temperature greater than 15°C	m <sup>3</sup>	175	350	700
Internal temperature less than 15°C	m <sup>3</sup>	150	300	600
<b>Dimensions</b>				
Height x width x depth	mm	570 x 356 x 356	820 x 363 x 365	1020 x 630 x 585
Weight	kg	30	38	65

Specifications	Units	Porta-Cal 25	Porta-Cal 65	Porta-Cal 95
<b>Capacities</b>				
Heating	kW	3	6-9-12	9-13-18
<b>Electrical data</b>				
Voltage	V/Hz	230/1ph/50	400/3ph/50	400/3ph/50
Max current draw	A	13.6	18.0	27.2
Maximum ducting	m	5	5	5
∅ Air outlet	mm	155	300	300
<b>Fan</b>				
Air volume	m <sup>3</sup> /h	360	600	1520
<b>Dimensions</b>				
Height x width x depth	mm	360 x 260 x 350	450 x 360 x 610	580 x 410 x 470
Weight	kg	11	25	32

Specifications	Units	Porta-Air 4500	Porta-Air 4500HP	Porta-Air 7000
<b>Electrical Data</b>				
Electrical supply	v/Hz	230/50	230/50	230/50
Power consumed	kW	0.23	0.35	0.39
<b>Fan</b>				
Speed 1 without/with grille	m <sup>3</sup> /h	2170/1900	2170/1900	3300/3000
Speed 2 without/with grille	m <sup>3</sup> /h	3250/2900	3250/2900	5000/4500
Speed 3 without/with grille	m <sup>3</sup> /h	5050/4500	5050/4500	7760/7000
Maximum pressure available	Pa	86	250	86
Blade diameter	mm	450	450	550
Maximum ducting: 300mm	m	15	30	15
3 x 100mm	m	-	15	-
<b>Dimensions</b>				
Height x width x depth	mm	510 x 510 x 210	510 x 510 x 210	620 x 620 x 240
Weight	kg	12.5	12.5	15



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