



calorex[®]

DEHUMIDIFIERS

DH75 and DH110



- **Indoor pool dehumidifier**
 - **Energy recovery to air**
 - **Remote or inbuilt humidistat**
 - **Automatic low temperature operation**
 - **Low noise levels**
 - **Air heating through the wall options**
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HIGH EFFICIENCY DEHUMIDIFIERS FOR HUMIDITY CONTROL AND ENERGY RECOVERY IN INDOOR SWIMMING POOLS



Why dehumidify?

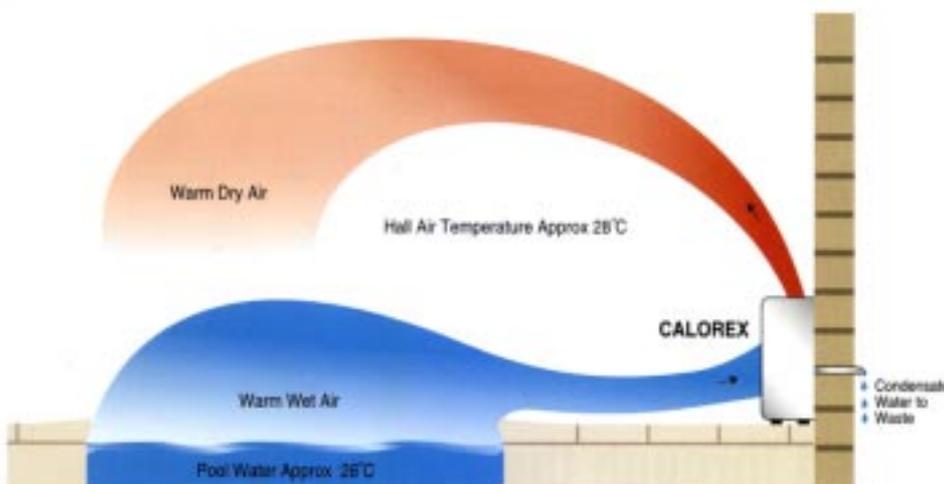
An indoor swimming pool is a wonderful leisure and exercise environment but the evaporation from the water surface poses real problems for the building structure. Prolonged exposure to high humidity causes walls, decorative finishes and roofs to deteriorate rapidly. Care must be taken to use the correct materials and techniques for the building and a Calorex dehumidifier which will continuously remove excess humidity from the air. Bathers appreciate comfortable humidity in the range 55%-65%.

Easy control and energy saving

Calorex 75/110 models remove moisture from the air and absorb its latent energy. Working on a heat pump principle, approximately 2.5kw of useful heat is returned to pool air for each 1kW consumed by the Calorex - a huge energy contribution to air heating. Solving the humidity problem therefore brings an energy bonus which reduces pool running costs. Dehumidification efficiency is the best available - an average of only 433 watts consumed per litre of moisture removed!

Each Calorex includes an adjustable humidistat controlling relative humidity (RH) in the ideal range of 55% - 65%. With RH under control, condensation will form only at low external temperatures in a properly constructed pool hall.

AIR FLOW DIAGRAM



Modern design

The modern and stylish appearance of the Calorex units complements a superbly efficient design - a revolutionary airflow pattern permits high moisture extraction for very low energy input, the whole unit being designed using zero ozone depleting R407C refrigerant. Easy maintenance is assured with quick-removal air filters and service panels.

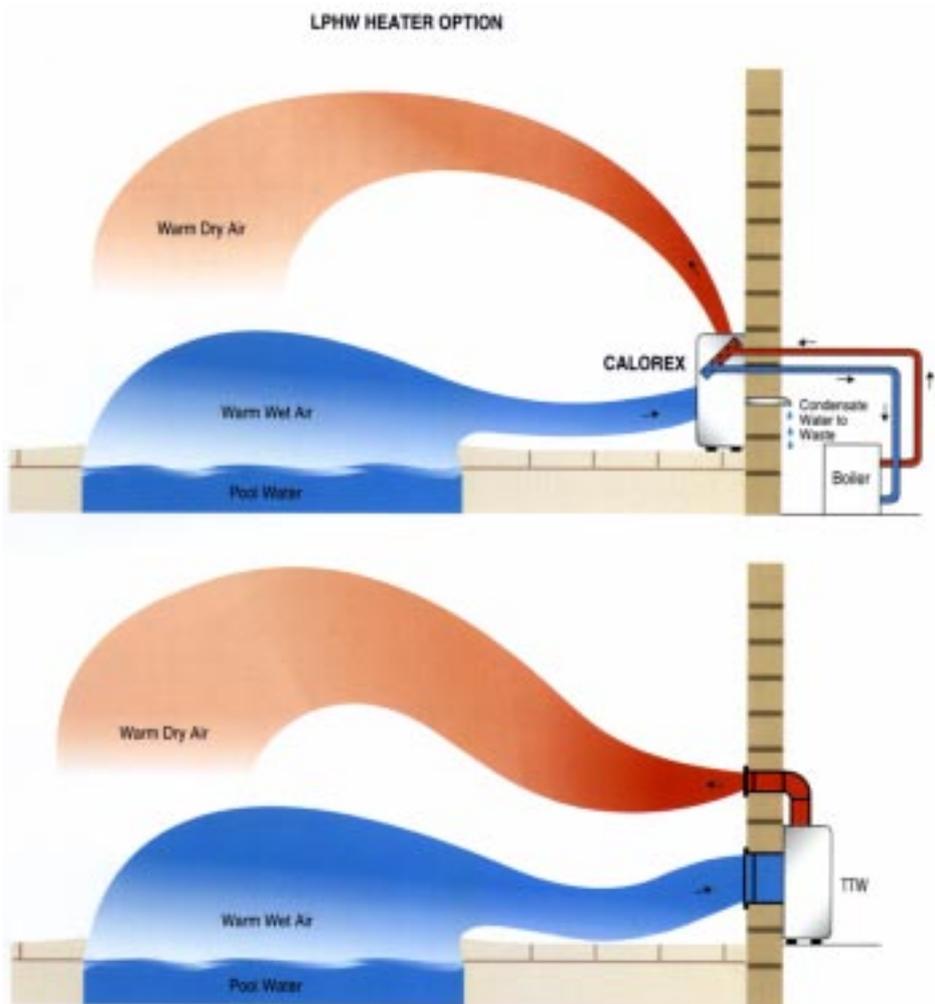
Air heating

Models 75 and 110 can provide pool hall primary air heating when fitted with optional low pressure hot water batteries. Connection of the Calorex to a hot water supply from a boiler permits the dehumidifier to distribute warm air as well as dehumidified air around the pool hall. Selecting this option usually eliminates the need for separate fan heaters or radiators. The DH75/110 provide 8.9kW of air heating.

Calorex LPHW units are supplied with a three way valve internally mounted and wired for control by optional 12V thermostat. Pipework for hot water flow/return may enter the unit at the rear or the side (right side).

Through the wall

When it is more convenient to mount the Calorex units in a plant room adjacent to the pool hall, the TTW variant provides all necessary items including wall grilles and air turning ducts. LPHW option is available in TTW form.



Defrost

For maximum operating capacity over a wide range of temperatures the 75/110 are able to operate down to 5°C thus allowing users to reduce the pool hall air temperatures over covered pools during winter periods or times of absence without losing the protection of their dehumidification system. A big plus for the energy conscious!

Instructions and controls

Installation of the two floor mounted units and their TTW variants should be carried out in accordance with the current electrical regulations governing swimming pools. DH75/110 are certified to P45 and may be fitted adjacent to the pool provided that they are located no closer than 2 metres from the waters edge and are fitted with an earth leakage circuit breaker.

Each unit is equipped with a built in humidistat providing all the required control to operate the dehumidifier. The client may prefer to fit a remote 12V humidistat — the connection terminals are already provided in the machine cabinet for easy connection.

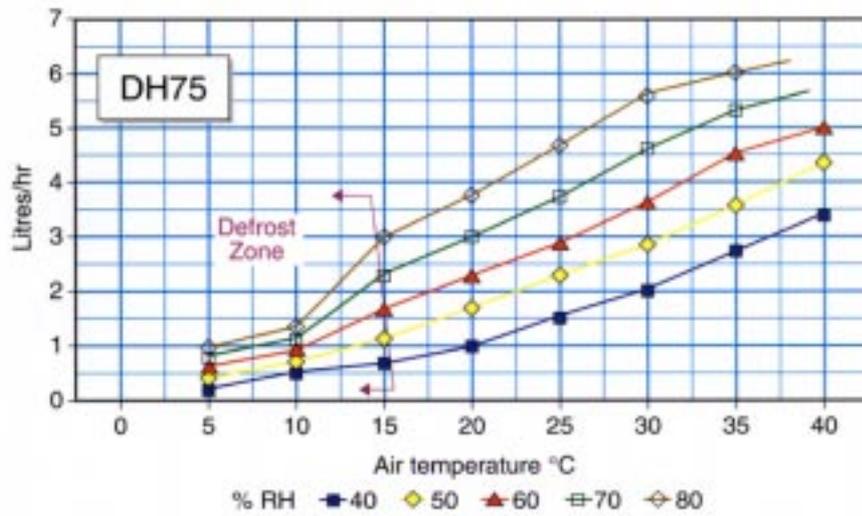
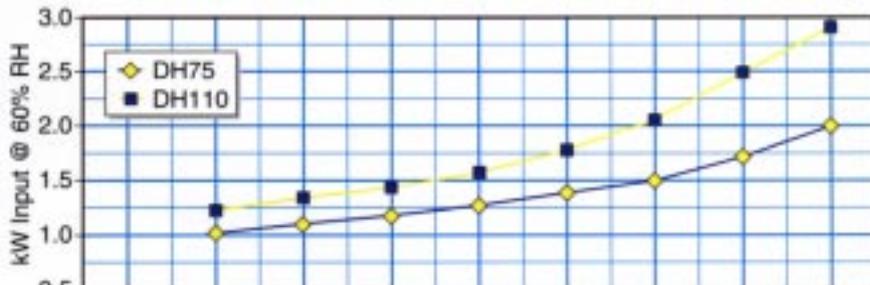
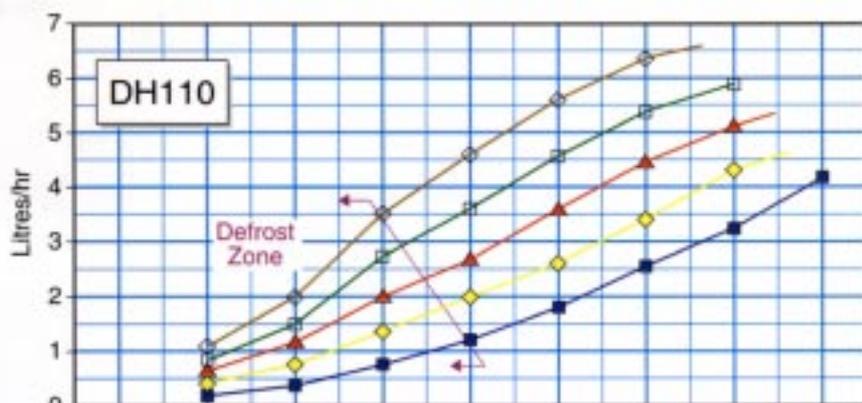
Where LPHW option is specified the client must fit a remote thermostat 12V to control operation of the three way valve - the connection terminals are already provided. Clients can choose whether the fan runs permanently or only when the compressor operates. Fan operation is controlled automatically when LPHW option fitted.

Calorex can supply individual or combined controls for operation of the 75/110 units. 110 model is also available in three phase.

MODERN RELIABLE TECHNOLOGY PURPOSE DESIGNED FOR SWIMMING POOLS

CALOREX DH75/110 TECHNICAL SPECIFICATIONS

- Highest moisture extraction for lowest power Consumption - the Calorex bonus
- Corrosion free, easy to clean aluminium casing with easy - clean air filter. All heat exchange surfaces polyester coated
- Quiet operation
- R407C zero ozone depletion ref rigerants
- Low internal operating pressures ensure long useful life High/low pressure and delay timer protections
- Air outlets variable 20° from vertical
- Automatic low temperature operation
- High capacity LPHW option
Control options



Technical Specifications	DH75	DH110
Water removal @ 30°C/60%RH (l/hr)	3.6	4.5
Water removal @ 30°C/70%RH (l/hr)	4.6	5.4
Airflow (m³/hr)	1180	1180
Power absorbed (kW)	1.46	2.1
Nominal amps (A)	6.4	9.3
Power supply	230V 1ph 50Hz	230V 1ph 50Hz/400V 3ph 50Hz
Heat recovered (kW)	4.0	5.2
LPHW battery (kW) (water at 80°C) optional	8.9	8.9
Condensate pipe o/d (mm)	22	22
Temperature operating range (°C)	5 - 40	5 - 35
Dimensions (mm) std model (unpacked)		
Width	1437	1437
Depth	325	325
Height	792	792
Weight (kg)	132	134



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