Dehumidifiers

Take control of humidity and condensation with the Calorex industry leading range of dehumidifiers

full range of dehumidifiers for industrial and commercial applications

heat recovery and space heating options

save up to 75% on running costs and carbon emissions

Leaders in our field:

- Cold stores
- Utility buildings
- Computer rooms
- Switching & power stations
- Electronics production
- Pharmaceutical production
- Manufacturing areas
- Process drying
- Bottling & food plants
- Archives, museums & libraries
- Sports halls
- Wet clothes drying rooms
- Ice rinks
- Boiler rooms
- Ship building & offshore
- Underground rooms

THE CHALLENGE

Atmospheric air contains moisture which is a problem to materials and manufacturing processes

Protect your environment

Even when you cannot see it, moisture in the form of water vapour is all around us, held in suspension in the air. The relative humidity of the air in many cases determines the extent of corrosion of certain materials, the speed at which moulds develop and the rate of increase of bacteria that cause decay. Most materials and goods are best stored under cool dry conditions.

A false economy

Traditionally the problem was disguised by the use of heat or ventilation. This process is exceptionally energy inefficient and reliant on introducing outside air that is generally not suitable unless expensively heated. Drying by traditional heating involves continuously warming a stream of outside air on a constant 'in and out' cycle.

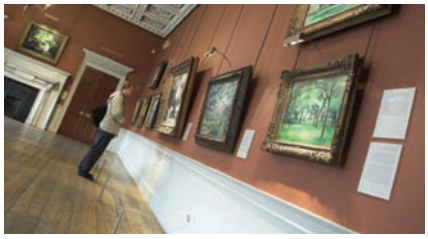
Heating and ventilation is extremely energy inefficient and expensive, luckily a solution does exist to make the air drier without heating – **Calorex dehumidification**

The challenges of excess moisture:

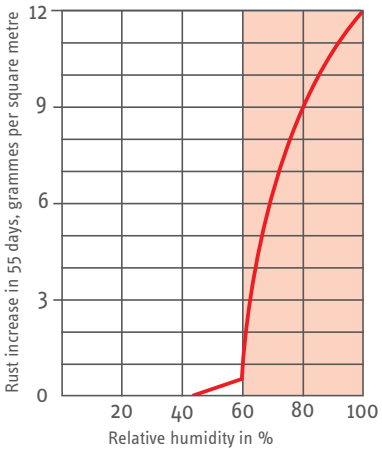
- Corrosion
- Product deterioration
- Condensation
- Damp
- Mould and mildew
- Prolonged drying
- Manufacturing delays
- Discomfort

Relative Humidity

Relative humidity (RH) is the expression used to define how much water vapour can be held in the air at a given temperature as a percentage of what it could contain at saturation (100% RH). That is when the relative humidity reaches the level at which air can hold no more moisture. The maximum amount can vary according to its temperature - warmer air is capable of holding more moisture than colder air.



Corrosion Speed of Steel



With an RH of over 60% the rate of corrosion on steel rises rapidly. At an RH of approximately 50%, virtually no corrosion occurs.

Drying flooded areas or new buildings
Preservation of buildings, plant, ships, drilling platforms & turbines
Applying industrial coatings
Maintaining bridges & locks

Storage of:
- vehicles
- metals
- chemical/technical materials
- electronic & electrical components
- hygroscopic substances
- sugar, salt, coffee, cocoa, herbs, tea etc.

- timber
- furniture
- ceramics & textiles
- paper & cardboard boxes
- beers, wines & spirits
- flowers & plants
- livestock & zoo animals
- military plant & equipment

THE SOLUTION!

The Calorex answer to this problem is its wide range of dehumidifiers suitable for every environment from warehouses and sub-stations to museums and garages

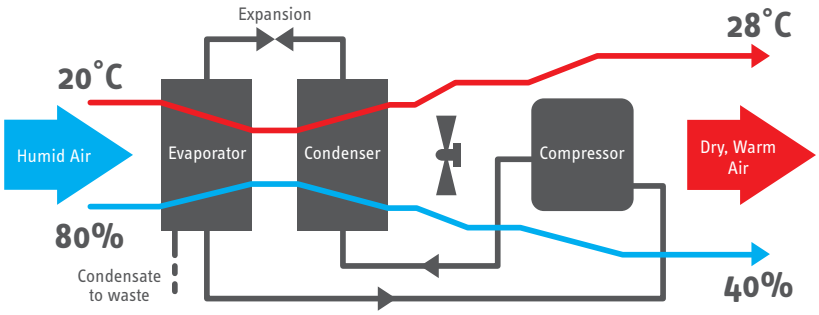
A better way

Dehumidification is much more sophisticated than heating. It recirculates the same air and physically removes moisture from it. This alleviates the need to continuously reheat incoming air. Not only that, a dehumidifier will cleverly convert energy taken out of the room as moisture (latent energy), to create 'sensible energy' that can be used to heat the room, accelerating the drying process.

Problem solved

Our wide range of units and operating temperatures ensure there is a system to fit every need. From high tech problems requiring sophisticated 'total loss' or 'keep dry recirculation' systems to a simple off the shelf mobile dehumidifier to plug in and go - Calorex are unique problem solvers in their field.

How a Calorex Dehumidifier Works



Principles of operation – air to air dehumidifier

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.

Key benefits of a Calorex dehumidifier:

- Energy efficient
- Low temperature operation
- Heat recovery to air
- Automatic operation
- Quality construction
- Optional features
- Simple installation
- Minimal maintenance
- Long service life
- Comprehensive service network
- Environmentally friendly R407C refrigerant

Calorex is the world's leading designer and manufacturer of industrial and commercial dehumidifiers

WALLMOUNTED
OTW 15

A wall mounted compact dehumidifier designed to fit above a standard doorway

- **Especially for use in:**
  - **Public buildings**
  - **Changing rooms**
  - **Store rooms and stairwells**
  - **Cellars and basements**
- **Self contained with fully automatic operation**
- **Integral humidistat**
- **Tamper proof controls**
- **Epoxy polyester painted zintec steel cabinet**
- **Hot gas defrost for low temperature operation**
- **Air filter**

SPECIFICATIONS	units	OTW15AX
Technical data		
Operating temperature range	°C	0 - 35
Dehumidification @ 30°C/60%RH	kg/24h	15
Heat recovered to air @ 30°C/60%RH	kW	0.9
Airflow	m³/h	225
External static pressure	Pa	0
Sound pressure level @ 3m	dB(A)	53
Refrigerant		R407C
Electrical data		
Supply	V/ph/Hz	230/1N/50
Nominal power consumption	kW	0.43
FLA	amps	3.8
Maximum supply fuse	amps	10
LRA (compressor start)	amps	18
Dimensions		
Width	mm	825
Depth	mm	363
Height	mm	320
Weight	kg	33
Condensate drain size (flexible plastic hose)	mm ID	10

Options

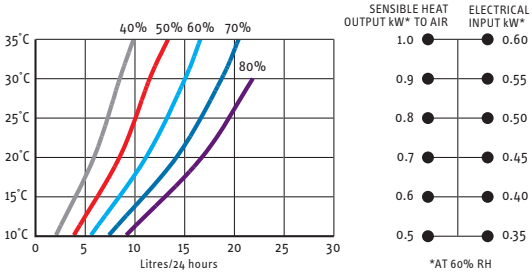
- Through the wall version

The OTW15 is tamper proof – ideal for use in public buildings

Free advice from staff qualified by years of experience and strong technical knowledge

Performance Data

OTW 15



CALOREX OTW 15

WALLMOUNTED
DH 30 / 60

Wall mounted compact dehumidifiers with air heating options

- **Ideal for dehumidification in:**
  - Clothes drying rooms
  - Warehousing and storage
  - Electrical sub-stations
  - Sports clubs and changing rooms
- **Self contained with fully automatic operation**
- **Integral humidistat**
- **Polyester coated evaporator and condenser**
- **Plastisol coated galvanised steel cabinet**
- **Hot gas defrost for low temperature operation (X models)**
- **Quiet centrifugal fans**

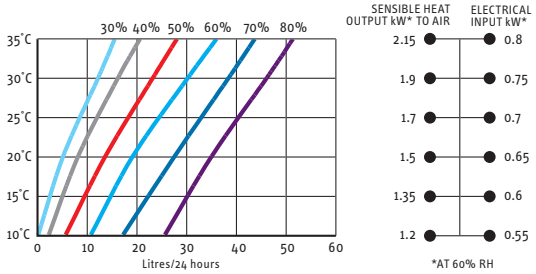
SPECIFICATIONS	units	DH30A/AX	DH30AP/AXP	DH60A/AX	DH60AP/AXP
Technical data					
Operating temperature range	°C	15-35/0-35	15-35/0-35	15-35/0-35	15-35/0-35
Dehumidification @ 30°C/60%RH	kg/24h	30	30	60	60
Heat recovered to air @ 30°C/60%RH	kW	1.9	1.9	3.5	3.5
Airflow	m³/h	700	700	1280	1280
External static pressure	Pa	0	0	0	0
Sound pressure level @ 3m	dB(A)	52	52	54	54
Refrigerant		R407C	R407C	R407C	R407C
Electrical data					
Supply	V/ph/Hz	230/1N/50	230/1N/50	230/1N/50	230/1N/50
Nominal power consumption	kW	0.75	0.75	1.2	1.2
FLA	amps	4.4	12.7	7.5	24.2
Maximum supply fuse	amps	10	20	13	32
LRA (compressor start)	amps	15.8	15.8	30.0	30.0
Heater	-	optional	standard	optional	standard
Type		LPHW	electric	LPHW	electric
Heat output	kW	3.0	2.0	5.0	4.0
Flow rate		5.0 L/min	-	5.0 L/min	-
Dimensions					
Width	mm	782	782	1247	1247
Depth	mm	256	256	256	256
Height	mm	648	648	648	648
Weight	kg	40	40	60	60
Condensate drain size (flexible plastic hose)	mm ID	10	10	10	10

Options

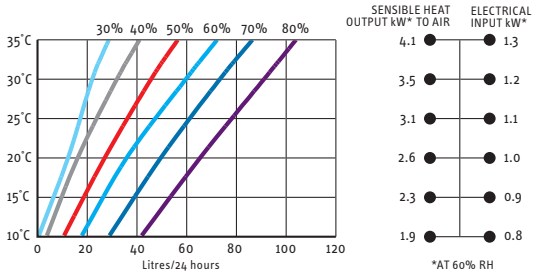
- Through the wall version
- Electric air heater
- LPHW air heater
- Inlet filter kit
- Remote humidistat

Performance Data

DH 30



DH 60



CALOREX DH 30 / 60

HIGH CAPACITY
DH 75 / 110

Floor standing high performance dehumidifiers with air heating options

- For a wide range of applications:
  - Warehousing and storage
  - Museums and art galleries
  - Offices and archives
  - Sports halls and gyms
- Self contained with fully automatic operation
- Integral humidistat
- Polyester coated evaporator and condenser
- Stove enamelled aluminium cabinet
- Hot gas defrost for low temperature operation
- Quiet centrifugal fans

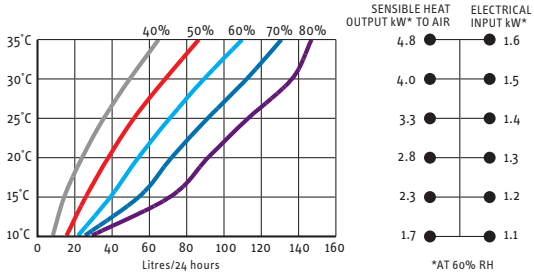
SPECIFICATIONS	units	DH75AX	DH110AX	DH110BX
Technical data				
Operating temperature range	°C	5 - 35	5 - 35	5 - 35
Dehumidification @ 30°C/60%RH	kg/24h	86	108	108
Heat recovered to air @ 30°C/60%RH	kW	4.0	5.2	5.2
Airflow	m³/h	1180	1180	1180
External static pressure	Pa	0	0	0
Sound pressure level @ 3m	dB(A)	53	53	53
Refrigerant		R407C	R407C	R407C
Electrical data				
Supply	V/ph/Hz	230/1N/50	230/1N/50	400/3N/50
Nominal power consumption	kW	1.5	2.1	2.0
FLA	amps	9.5	12	5.5
Maximum supply fuse	amps	13	20	10
LRA (compressor start)	amps	55	66	30
Heater		optional	optional	optional
Type		LPHW	LPHW	LPHW
Heat output @ 80°C flow	kW	8.9	8.9	8.9
Flow rate	L/min	9.6	9.6	9.6
Dimensions				
Width	mm	1520	1520	1520
Depth	mm	385	385	385
Height	mm	796	796	796
Weight	kg	143	144	144
Condensate drain size (brass compression)	mm	15	15	15

Options

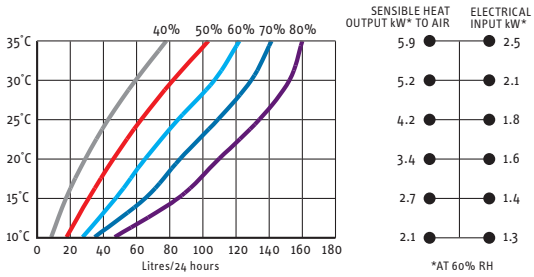
- Through the wall version
- LPHW air heater
- Remote humidistat

Performance Data

DH 75



DH 110



CALOREX DH 75 / 110

HIGH CAPACITY
DH 150 / 300 / 600

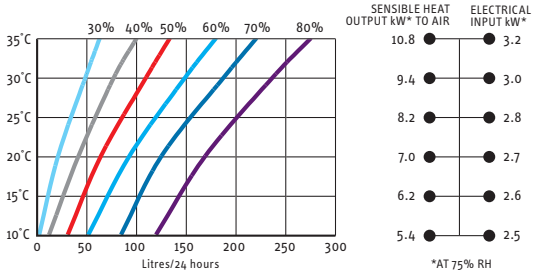
Floor standing high performance dehumidifiers for commercial premises and industrial environments

- **Humidity and dew point control for:**
  - **Warehousing and equipment storage**
  - **Metal and spare parts storage**
  - **Electrical sub-stations**
  - **Museums and furniture storage**
- **Self contained with fully automatic operation**
- **Integral humidistat**
- **Polyester coated evaporator and condenser**
- **Plastisol coated galvanised steel cabinet**
- **Hot gas defrost for low temperature operation (X models)**
- **Reverse cycle defrost for very low temperature operation (Y models)**

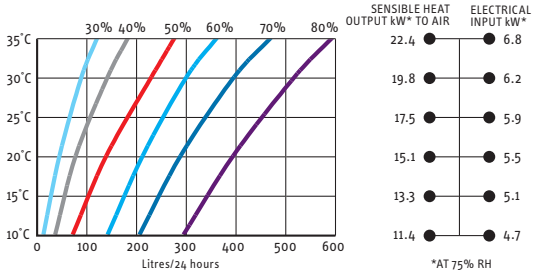
SPECIFICATIONS	units	DH150AX	DH150BX	DH300BY	DH600BY
Technical data					
Operating temperature range	°C	0 - 35	0 - 35	-15 - 35	-15 - 35
Dehumidification @ 30°C/60%RH	kg/24h	150	150	300	600
Heat recovered to air @ 30°C/60%RH	kW	7.4	7.4	14.7	29.7
Airflow	m³/h	2200	2200	5000	9000
External static pressure	Pa	30	30	60	80
Sound pressure level @ 3m	dB(A)	58	58	66	63
Refrigerant		R407C	R407C	R407C	R407C
Electrical data					
Supply	V/ph/Hz	230/1N/50	400/3N/50	400/3N/50	400/3N/50
Nominal power consumption	kW	2.5	2.5	6.7	10.0
FLA	amps	19.0	8.1	15	26
Maximum supply fuse	amps	30	16	24	35
LRA (compressor start)	amps	61	30	101	135
LRA (compressor soft-start option)	amps	28	13	34	55
Heater	optional:	top box	top box	-	-
Type		electric	electric	-	-
Heat output	kW	9kW	9kW	-	-
Power supply	V/ph/Hz	230/1N/50	400/3N/50	-	-
FLA	amps	36	12	-	-
Maximum fuse size	amps	50	16	-	-
Dimensions					
Width	mm	660	660	980	1730
Depth	mm	660	660	826	1250
Height	mm	1313	1313	1475	1600
Weight	kg	130	130	220	497
Condensate drain size	BSPM	¾	¾	1½	1½

Performance Data

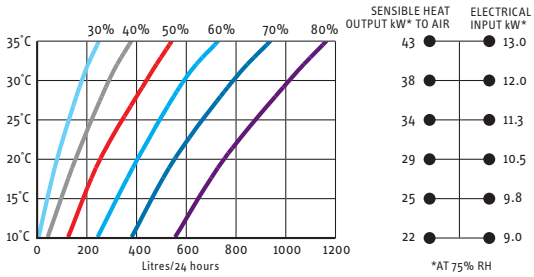
DH 150



DH 300



DH 600



CALOREX DH 150 / 300 / 600

Options

- Top or rear fan outlet
- High pressure fan
- Return air filter
- Condensate pump
- Compressor soft start
- Top discharge box with heater options
- LPHW heater
- Heat recovery to water
- External condenser unit
- Remote humidistat

Technical support and service:

Comprehensive engineering support is provided by our experienced and well qualified team

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COMPREHENSIVE SUPPORT

Calorex dehumidifiers are designed and are supported in the UK by our comprehensive customer service organisation.

To ensure equipment is correctly sized and specified, we offer a computerised quotation service which enables an accurate speedy response to enquiries.

Comprehensive engineering support is provided by our experienced and well qualified team.