Energy Efficient Hot Water Heating

Harness the heat you don't have to pay for with our range of hot water heat pumps

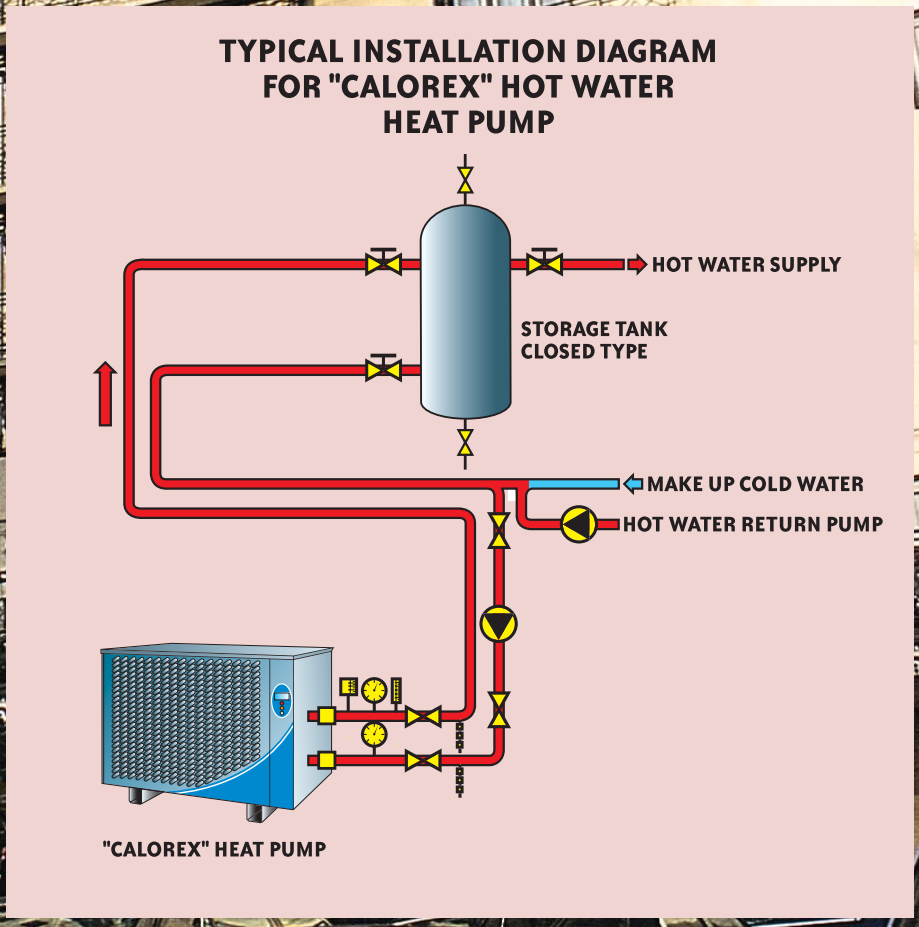
calorex®

Specialist designers and manufacturers of air to water heat pumps

Heat Pump Featur

- *Range of capacities from 6kW to*
- *R134A ozone friendly refrigerant*
- *Fully weatherproof polyester coa*
- *High electrical protection and wa*
- *Seamless 90/10 cupro-nickel hea systems for potable water*
- *Centrifugal fans fitted as standar of cold air for space cooling.*

Calorex hot water heat pumps are a units specifically designed for heati



Why a Calorex heat pump ?

Calorex is Europe's leading and largest manufacturer of Air to Water heat pumps and is renowned for it's innovation, range and quality of product. A proud claim supported by over 25 years of design, manufacture and operational experience with thousands of units operating in many countries throughout the world.

Calorex heat pumps are simple to install, require little maintenance and alleviate the need for fuel storage tanks and flues that are normally associated with fossil fuel heating systems.

Further, due to their unique ability to collect and enhance "free" heat from the air around them they are environmentally friendly and exceptionally inexpensive to operate.

Our product is our reputation. It's the best.

es

59kW
ensures reliable operation up to 70ºC
ted cabinet
ter thermostats are standard fitment
t exchanger allows the units to be used in direct

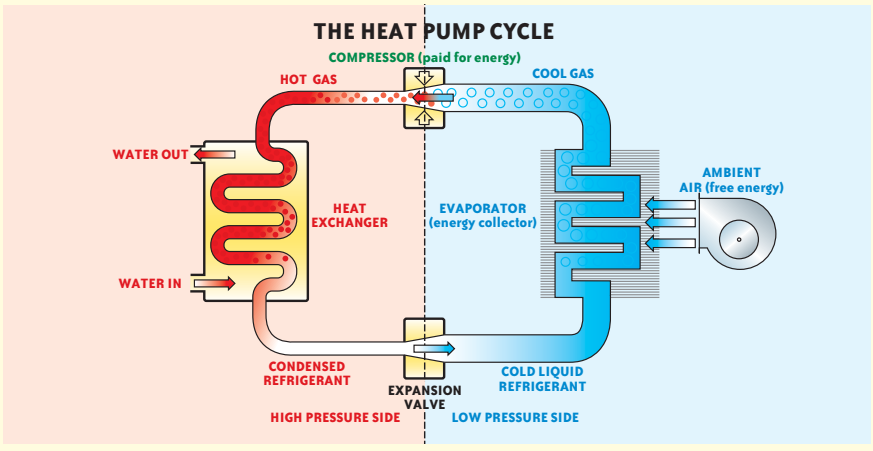
d – allows ducting from plant rooms or distribution

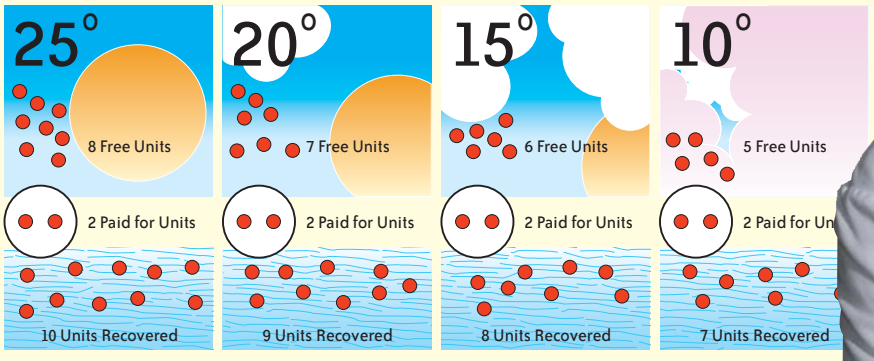
quality range of packaged
ng hot water to 70˚C

How a Calorex Air to Water Hot Water Heat Pump works

Calorex Hot Water Heat Pumps are electro mechanical machines that extract energy from an air source and upgrade this energy to a useable form of heat that is rejected to a water system. Unlike other water heating systems a Calorex heat pump is capable of delivering up to 5 times more energy than it consumes and unlike solar systems Calorex heat pumps don't need the sun to shine in order to provide this efficiency.

Calorex heat pumps are supplied as weather proof packaged units that contain a refrigeration circuit *as illustrated below*. By no means a strange invention the refrigeration circuit utilises an Evaporator that is capable of absorbing
energy from air that passes across it. By use of a Compressor that also pumps refrigerant around the system this energy is upgraded to a useable form of heat, typically allowing water to be heated to 70ºc. The collected heat is then rejected to a water circuit by a highly efficient tube in shell heat exchanger.





Free Heat from the Air	8 Free Units	7 Free Units	6 Free Units	5 Free Units
Energy Consumed	2 Paid for Units	2 Paid for Units	2 Paid for Units	2 Paid for Un
Total Heat recovered	10 Units Recovered	9 Units Recovered	8 Units Recovered	7 Units Recovered
*C.O.P.	5:1	4.5:1	4:1	3.5:1

Total Heat Recovered ÷ Energy Consumed = Coefficient of Performance (C.O.P.)

HEAT PUMPS FOR HOT WATER HEATING (70˚C)

MODEL	UNITS	834BH	1234BH	1534BH	3034BH	7034BH
COMPRESSOR						
LRA-lphN	amps	76	99	N/A	N/A	N/A
RLA-lphN	amps	7.2	8.8	N/A	N/A	N/A
SOFT START AMPS 1 ph N	amps	31	34	N/A	N/A	N/A
LRA-3phN	amps	42	64	75	127	198
SOFT START AMPS 3 ph N	amps	16	18	37	63	100
MAIN FAN						
AIR FLOW (Anemometer-air on grille, dry evaporator)	m^3/hr	2650	3200	4000	10000	11700
MAX EXTERNAL STATIC PRESSURE (standard fan)*	mmWg	4	4	4	4	4
PERFORMANCE						
WATER HEATING MODE						
AMBIENT 10˚C, WATER 30˚C	kWhr	6	8	10	20	35
AMBIENT 30˚C, WATER 30˚C	kWhr	10	12	18	35	60
WATER FLOWS ETC						
WATER FLOW RATE	litres/min	33	33	33	66	130
WATER PRESSURE DROP (@ Rate Flow)	metres hd	5.8	7.0	8.3	4.5	3.9
MAX WORKING WATER PRESSURE	bar	3.5	3.5	3.5	3.5	3.5
WATER CONNECTION	inches	3/4" BSPM	3/4" BSPM	3/4" BSPM	1 1/2" BSPM	1 1/2" BSPM
CONDENSATE DRAIN CONNECTION	inches	3/4" DOMESTIC WASTE	3/4" DOMESTIC WASTE	3/4" DOMESTIC WASTE	1 1/2" BSPM	1 1/2" BSPM
ELECTRICAL						
TOTAL POWER CONSUMED						
WATER HEATING MODE						
AMBIENT 10˚C, WATER 30˚C	kWhr	2.0	2.6	3.3	6.0	10.5
AMBIENT 30˚C, WATER 30˚C	kWhr	2.2	3.0	4.0	7.0	12.5
MIN SUPPLY CAPACITY (Max F LA) 1ph N	amps	10.8	14.0	N/A	N/A	N/A
MIN SUPPLY CAPACITY (Mas F LA) 3ph N	amps	6.0	7.4	15	25	30
MAX SUPPLY FUSE 1ph N	amps	15	22	N/A	N/A	N/A
MAX SUPPLY FUSE 3ph N	amps	10	12	25	35	45
DIMENSIONS						
WIDTH (unpacked)	mm	1060	1060	1210	1700	1950
DEPTH (unpacked)	mm	705	705	755	1090	1340
HEIGHT (unpacked)	mm	807	807	807	1212	1212
WEIGHT (unpacked)	kg	119	130	156	330	480
SOUND PRESSURE LEVELS AT 3 METERS	dbA	57	59	62	67	69

For accurate application sizing consult Calorex Heat Pumps Ltd

Options:
Soft start
High pressure fan*
Top or rear air discharge (3034/7034)
Reverse cycle defrost (allows operation to –15˚C (3034/7034)

Notes:
Maximum operating water temperature 70˚C
Minimum operating air temperature 6˚C
(3034/7034 optional –15˚C)
Maximum operating air temperature is 55˚C

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