



calorex®

Commercial hot water and space heating

Using dynamic renewable heat

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



Hot water production to 68°C



Space Heating through fan coils, radiators, underfloor system



Heat recovery from soil, rivers, lakes and chilled water systems



Space cooling as a by product of the heating process

Calorex heat pumps provide a sustainable heating solution which, compared to fossil fuel or direct electric systems, will dramatically cut operating costs and carbon emission.

Why a Calorex heat pump?

Calorex is a leading British manufacturer of swimming pool heat pumps and dehumidifiers. With nearly 40 years of design expertise, Calorex is renowned for its innovation, range and quality of products with an expert sales and services team dedicated to meeting our customer’s requirements. Our presence is international with thousands of Calorex units operating in over 60 countries worldwide.

Calorex air source heat pumps can use source heat from every climatic condition and are available in different designs to suit space or hot water heating.

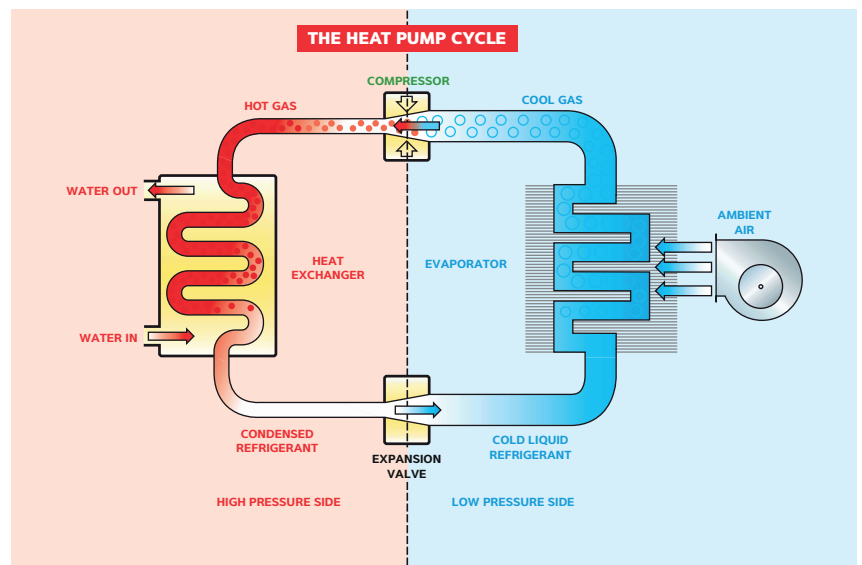
Calorex products offer industry leading standards of efficiency and durability and are supported by comprehensive technical support that guarantees correct product specification and after sales care.

Unrivalled efficiency

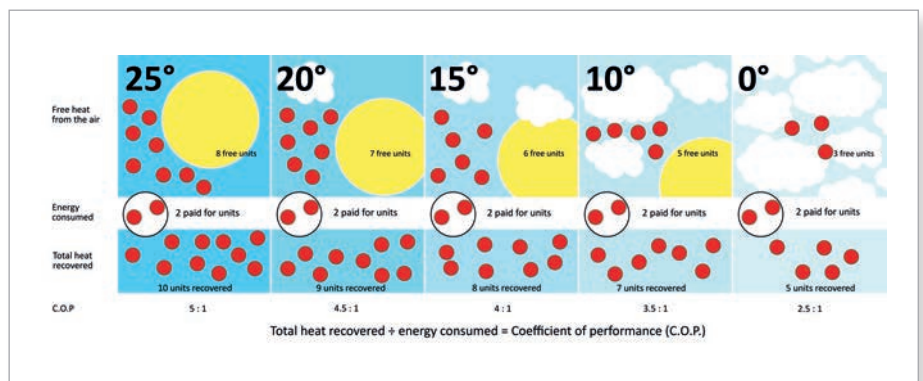
Unlike fossil fuel and direct electric heating systems, a Calorex heat pump is capable of delivering up to five times more energy than it consumes, and unlike solar systems, Calorex heat pumps do not need the sun to shine in order to provide this efficiency.

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 usable form of heat that is rejected to a water system. See diagram below.



Heat pump efficiency at differing air temperatures



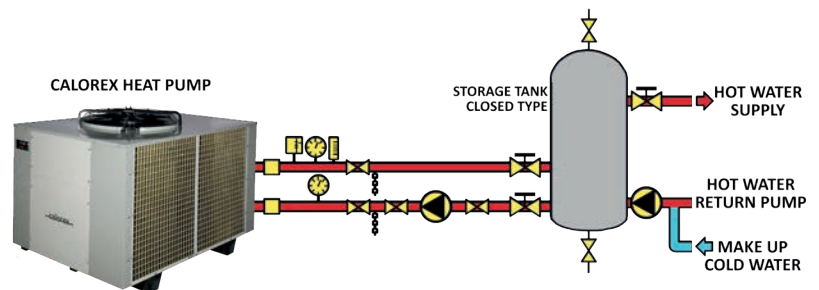
- ✓ Up to 400% running cost and carbon savings against electric heating
- ✓ Up to 48% running cost and carbon savings against fossil fuel system
- ✓ No flues or storage tanks
- ✓ Easy to retrofit
- ✓ Minimal service requirements

The Calorex range of hot water heat pumps are a quality range of packaged units specifically designed for hot water heating to 68°C and are the leading choice for heating and hot water in hotels, hospitals, industrial spaces, nursing homes, restaurants, schools and more.

Easy installation

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 kinder to the environment than traditional heating systems and exceptionally inexpensive to operate.

Typical installation diagram for Calorex hot water heat pump



Calorex Pro-Pac range

Pro-Pac heat pumps can be installed outside or in a plant room that has adjacent outside walls. Pro-Pac can be supplied with high speed axial fans.

Calorex 34 range

Designed for outdoor or plant room installation, all 34 range are provided with centrifugal fans as standard. A choice of fan external static pressure offers flexible installation and an ability for the units to provide cold air through a ducted system.

Heat pump features

- WRAS approved – seamless 90/10 cupro-nickel heat exchanger allows the units to be used in direct systems for potable water
- Range of capacities from 6kW to 140kW
- R134a ozone friendly refrigerant ensures reliable operation up to 68°C
- Fully weatherproof polyester or epoxy coated cabinet
- Choice of centrifugal fans (34 range only) – allows ducting from plant rooms or distribution of cold air for space cooling
- Manufactured in the UK to ISO9001 standards
- Option: Reverse cycle defrost allows operation down to -15°C



Technical data

Air source heat pumps for hot water up to 68°C during ambient temperature from 10°C to 50°C (-15°C to 50°C optional)		Units	834H	1234H	1534BH	3034BH	7034BH	PRO-PAC 30H	PRO-PAC 45H	PRO-PAC 70H	PRO-PAC 90H	PRO-PAC 140H
Duty – output to water @ 30°C/55°C												
Air on 30°C/90%RH	kW		8.4/7.5	12.6/11.2	16.0/14.1	31.4/27.8	49.8/43.9	26.5/23.3	33.0/29.1	49.8/43.9	66.0/58.2	99.6/88.0
Electrical input	kW		1.6/2.6	2.3/3.7	3.0/4.8	6.4/9.9	9.8/15.4	5.1/8.0	6.5/10.2	9.2/15.4	13.0/20.5	18.4/30.0
Air on 20°C/65%RH	kW		7.1/6.3	9.3/8.3	13.3/11.9	26.5/24.0	42.0/37.4	22.0/19.9	28.0/24.0	42.0/37.4	56.0/49.5	84.0/74.8
Electrical input	kW		1.5/2.2	1.8/2.8	2.9/4.4	5.7/8.6	8.7/13.4	4.4/7.0	5.8/8.9	8.1/12.8	11.5/17.7	16.2/25.5
Air on 10°C/85%RH	kW		6.0/5.3	7.9/7.0	11.2/10.0	22.4/20.0	35.0/31.7	18.9/16.8	23.5/20.1	35.5/31.7	47.1/42.0	71.0/63.3
Electrical input	kW		1.4/2.1	1.7/2.7	2.7/4.1	5.4/8.1	8.2/12.5	4.2/6.5	5.5/8.3	7.6/11.9	10.9/16.6	15.2/23.9
Air on 0°C/90%RH	kW		-	-	-	TBA	TBA	13.2/11.6	16.4/14.4	24.7/21.7	32.8/28.8	49.5/43.4
Electrical input	kW		-	-	-	TBA	TBA	3.8/6.0	5.0/7.6	6.9/10.9	9.9/15.2	13.8/21.8
Electrical data												
Electrical supply	AH	1 phase	230/50Hz	230/50Hz	-	-	-	-	-	-	-	-
	BH	3 phase	400/50Hz	400/50Hz	400/50Hz	400/50Hz	400/50Hz	400/50Hz	400/50Hz	400/50Hz	400/50Hz	400/50Hz
Minimum supply capacity (A)	AH	1 phase	15.7	22.7	-	-	-	-	-	-	-	-
	BH	3 phase	7.8	12.5	13.7	25	40	20	22	35	44	70
Recommended supply fuse (A)	AH	1 phase	25	32	-	-	-	-	-	-	-	-
	BH	3 phase	13	20	20	35	63	30	30	50	60	100
Air data												
Nominal air flow	m³/h		2650	3200	4000	10000	12500	5500	10000	14000	20000	28000
External static (standard units)	Pa		0	0	0	0	0	0	0	0	0	0
External static (uprated units)	Pa		150	150	Variable to 250Pa			N/A	60	60	60	100
Water data												
Water flow ±10%	L/min		33	33	33	66	130	66	66	130	130	260
Pressure drop (water)	m hd		5.8	7.0	8.3	4.5	3.9	2.1	4.2	3.9	4.2	5.3
Water connections	inches		¾ BSPM	¾ BSPM	¾ BSPM	1½ BSPM	1½ BSPM	1 BSPM	1½ BSPM	1½ BSPM	1½ BSPM	2 BSPM
General data												
Compressor	Type		1 x recip	1 x scroll	1 x scroll	1 x scroll	1 x scroll	1 x scroll	1 x scroll	1 x scroll	2 x scroll	2 x scroll
Condenser	Type	Cu tube in shell (WRAS approved Cu-Ni optional)										
Sound pressure level @ 10m	dB(A)		45	48	51	58	57	51	53	57	62	60
Sound pressure level @ 3m	dB(A)		57	59	62	69	68	64	66	70	65	70
Dimensions												
Width	mm		1060	1060	1210	1700	1950	1555	1665	1810	2065	2210
Depth	mm		705	705	755	1090	1340	790	1060	1190	1190	1650
Height	mm		807	807	807	1212	1212	1080	1330	1310	1350	1340
Weight	kg		119	130	156	393	569	247	329	490	632	858

Options

- Soft start
- High pressure fans
- RS485 compatible thermostat (Pro-Pac only)
- Reverse cycle defrost (excluding 834,1234 and 1534)
- Top or rear air discharge (3034 and 7034 only)



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