Renewable Heat for Installers

Cost effective domestic heating solutions.

dimplex.co.uk/renewables

Energy efficient heating solutions from a name you can trust.

With an unmatched reputation for quality, reliability and innovation, the Dimplex name is well known in both the public and private sectors from major home builders to housing associations and home owners. Recognised as the number one name in electric heating technology, today the brand is synonymous with energy-saving products and a commitment to excellence and customer satisfaction.

Renewable technologies such as heat pumps and solar thermal systems are not necessarily new, but expertise in the UK of how to most practically and efficiently apply them is. For Dimplex there's nothing new about renewables. We have been producing innovative heat pumps for over 30 years and our renewable heating solutions have been operating effectively in homes and commercial properties all over the UK for many years.

With the widest range of heat pumps available in the UK today, plus a suite of complementary products dedicated to energy efficient space and water heating, we have solutions for a wide variety of heating requirements. Take a closer look and see how we might be able to help you now.

Our experience

As part of the worldwide Glen Dimplex Group, Dimplex has a proven world-class track record in heat pump design with thousands of installations throughout Europe.

We are committed to developing heating solutions which utilise sustainable and renewable energy with the aim of minimising energy bills and reducing CO_2 emissions, and their impact on the environment.

From our manufacturing plants in the UK and Germany, Dimplex produces the widest range of heat pumps available on the UK market and leads the way in the development of energy efficient heat pump technologies.

Quality assured

Over the years, Dimplex has established strong relationships with its customers in all aspects of the construction and heating industries. Today Dimplex renewable and electric heating systems are operating efficiently across the UK in homes, schools, offices, hotels, libraries and retail units.

No other company can provide the depth of range, expertise and service back-up for economical, sustainable heating solutions

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Our products, your benefits

When you choose Dimplex for renewable heating, you get so much more...

Tried and tested technology

All Dimplex products are designed to meet the latest international performance and safety standards. They are subjected to rigorous testing and evaluation using state-of-the-art facilities that recreate challenging environments to ensure our products perform – every time.

Wide distribution network

Our wide distribution network utilises our national and regional partners to ensure full product availability through national and independent distributors.

Microgeneration Certification Scheme (MCS) approved

At Dimplex, we offer a wide range of ground and air source heat pumps that are MCS certified and our solar thermal kits are Solar Keymark approved, this ensures eligibility for RHI and their quality and performance.

Nationwide installer training

We operate a nationwide Accredited Installer Programme and only supply our systems through accredited installers, which ensures installations are delivered to the highest possible standards to maximise energy savings.

*When installed by a Dimplex Renewables Accredited Installer

Customer service

When you choose Dimplex Renewables, you have the support of our experienced customer service team, as well as backup provided by our specialist service engineers.

Product warranty*

For extra peace of mind, Dimplex offers comprehensive product warranties to ensure continued performance and protection against manufacturing defects. Dimplex heat pumps have the benefit of a 3-year warranty* with longer warranty options available on some models. EC-Eau cylinders, all variants, have a 25-year guarantee for the inner cylinder and our solar panels come with a 10-year guarantee. A 2-year warranty is offered on other solar components.

Full design service

Our in-house design team can provide detailed plans for the application of renewable technologies specific to an individual property. These include full heat loss calculations, energy saving estimates, plus a complete product and accessory specification.

Standard Assessment Procedure (SAP) Appendix Q listed

As SAP Appendix Q listed products, our ground and air source heat pumps can help achieve higher SAP ratings within a dwelling by including their measured performance data in SAP calculations, rather than default values for heat pumps.

Air Source

				Nominal rating (kW)	Indoor/ outdoor	Controller	Max. flow temp. (°C)
Single Phase	A-Class	Inverter		12-16	O	A-Class	65
	LA MI	Inverter		6-9	O	LA MI	55
Three Phase*	LA TU	High efficiency		25-60	O	WPM	58-65
	LI TES	High output		9-28	I	WPM	60
	LI AS	High output		40	I	WPM	58
	LA TUR+	Reversible		35-60	O	WPM	60

Ground Source

				Nominal rating (kW)	Indoor/ outdoor	Controller	Max. flow temp. (°C)
Single Phase	SIH ME	High temp.		4-11	I	WPM	70
	SI ME	Heating & hot water		14	I	WPM	58
	SIK ME	Integrated hydraulic components		16	I	WPM	55
Three Phase*	SI TE	High output		30-130	I	WPM	58
	SI TU	High efficiency		18-90	I	WPM	62
	SIH TE SIH TU	High temp.		20-90	I	WPM	70
	SI TER+ SI TUR+	Reversible		30-130	I	WPM	55-58

*See website for details.

Heat Pump Range Overview

Dimplex has set new standards with its latest generation of air source heat pumps – A-Class designed specifically for the UK environment. But, with the widest range of heat pumps in the UK, no matter what your choice of energy source (air or ground), there will be a solution in the Dimplex range ideally suited to your needs.

Flexibility

Our heat pumps can be combined with a wide number of fully compatible system accessories, including buffer tanks and domestic hot water systems to provide complete flexibility in terms of system design.

To simplify specification and installation, a number of our heat pumps are also offered in packages which include heat pump ready cylinders and/or buffer tanks, and all the components required to install a standard domestic system.

Performance

The Dimplex ethos is always to aim for the highest level of system efficiency, with our heat pumps designed to minimise energy use – no matter what the temperature or operating conditions.

Control

The comprehensive Dimplex heat pump manager provides complete system control over multiple heating and hot water circuits and, where needed, cooling functions. Self-explanatory display text provides simple operation.

Air Source Heat Pumps

Dimplex A-Class

Dimplex A-Class is our innovative new range of class-leading air source heat pumps. Designed from the 'ground up' specifically for the UK market, Dimplex A-Class is not just a new heat pump. Offering class-beating efficiency with seasonal performance figures comparable with ground source units even in the midst of UK winter temperatures, A-Class sets a whole new benchmark for air source technology.

Dimplex A-Class is designed specifically to maximise year-round heating system efficiency, no matter the weather conditions. It outperforms the UK's leading heat pumps and the efficiency assumptions in the industry best-practice Heat Emitter Guide. As a result, Dimplex A-Class will achieve a higher Seasonal Performance Factor (SPF) than other heat pumps at similar water flow temperatures. And better efficiency means lower running costs and a faster payback for homeowners.

Dimplex A-Class delivers full heat output, even at air temperatures as low as -7°C and at high water flow temperatures. This makes it easier to meet the requirements of the MIS3005 '100% sizing rule', even for properties requiring design temperature heat loads of up to 15kW, sparing homeowners the expense of upsizing. Plus, while many heat pumps can only heat water to 55°C, Dimplex A-Class has a maximum flow temperature of 65°C. So it can meet all the domestic hot water requirements without reliance on costly electrical backup. And it can still do this even when the outside temperature is unusually low, so customers never have to worry about unexpectedly high running costs or running out of hot water.

Respectable efficiency and no loss of heating capacity at higher water temperatures also mean that where it is not cost-effective or feasible to upgrade existing radiators, A-Class can still provide a viable solution. In many instances, A-Class can be paired with existing radiators without the need for resizing and still provide an attractive annual saving when compared with oil or LPG.

Range features:

- Three models with nominal heating capacities from 8-16kW, single phase
- Superior efficiency – CoPs up to 4.7
- Variable heating water flow from 25°C to 65°C, weather compensated
- Operational with external air temperatures from -20°C to +35°C
- Optimised inverter-driven compressor, providing variable output levels and low starting current
- Supplied complete with wall-mounted heating system controller
- Easy access to electrical and plumbing connections for ease of installation
- Designed to work efficiently with underfloor heating, Dimplex SmartRad or conventional radiators
- Matched Dimplex EC-Eau *Smart* heat pump ready cylinder for the efficient storage of domestic hot water
- Available in system packages with EC-Eau *Smart* cylinders/buffer tanks and controls, and ancillaries for ease of specification and installation
- Extended warranty of up to 7 years*
- MCS certified

*Terms & Conditions apply. Contact us for details.

Sophisticated heating made simple.

The A-Class Controller's user-friendly interface belies its true sophistication. It runs the complete home heating system: the A-Class heat pump, room and water temperatures, as well as timings in up to four heating zones. So it's ideal for large and even mixed installations.

There's no need for a separate heating thermostat which reduces system costs – this intelligent controller automatically uses the lowest possible amount of energy to deliver target temperatures. And lower energy consumption means lower running costs.

The large user interface with clear menu icons, and an intuitive rotate and push control button, make the system simple to use for the installer and home owner alike. Plus, it comes preconfigured with all default settings, so minimal system set-up is required, helping to make installation fast and efficient.

For installers there is a dedicated password protected installer area which is used to commission the heat pump and to make refinements after installation. For the home owner, the user interface is laid out to enable temperature and timing adjustments to be made with ease.

Complete system packages.

Dimplex A-Class comes in a range of pre-packaged options, carefully specified for both new build and existing homes, with everything needed for a quick and hassle-free installation.

Packages combine A-Class with the new EC-Eau Smart hot water cylinders, and for a fully integrated, high-efficiency, low-carbon heating system, just add SmartRad. For the ultimate Dimplex renewable system, integrate an A-Class system with solar thermal panels that use solar energy to heat the hot water cylinder to reduce running costs even further.

Dimplex A-Class

A8M

A 12/16 M

APPROVED PRODUCT

MCS

BRE GLOBAL LISTED

‡

Model	A8M	A12M	A16M
Operating limits			
Max. flow temperature (°C)	**65**	**65**	**65**
Air (°C)	**-20 to +30**	**-20 to +35**	**-20 to +35**
Performance			
Heat output / CoP A-7W35* (kW) /	7.0 / 2.9	12.0 / 3.0	14.3 / 3.0
Heat output / CoP A7W35* (kW) /	6.3 / 4.4**	12.0 / 4.7	12.0 / 4.7**
Nominal power consumption at A7/W35* (kW)	1.4	2.6	2.6
Sound power level (dB(A))	64	64	64
Sound pressure level at 1m (dB(A))	56	56	56
Sound pressure level at 10m (dB(A))	42	42	42
Heating water flow rate / at A7/W35 (m^3/h)	1.15	2.1	2.1
Heat source flow (m^3/hr)	2600	3700	3700
Mechanical/electrical			
Dimensions – WxHxD (mm)	932 x 1260 x 401	932 x 1571 x 401	932 x 1571 x 401
Weight (kg)	110	130	130
Rated voltage	1/N/PE ~230 V, 50 Hz		
Starting current (A)	Inverter start		
Fuse protection	C32	C40	C40
Refrigerant: type/total charge weight (kg)	R410A / 1.75	R410A / 2.0	R410A / 2.0
Defrost	Automatic		
Heating connections (inch)	1	1	1
Certification			
MCS certified	√	√	√
ETL listed	Pending	√	√

*According to EN 14511.
**Performance optimised to match building heat load and to maximise the SPF.
‡Extended warranties of up to 7 years available, terms and conditions apply. Contact us for details.

EC-Eau™ *Smart* heat pump cylinders

Innovative EC-Eau Smart heat pump cylinders are a key feature of the A-Class range of air source heat pumps. Utilising all of the benefits of the EC-Eau heat pump cylinder† and incorporating an onboard pre-wired 'water module' controller and integrated heating system hydraulics, EC-Eau Smart cylinders make the entire system as fast and cost effective to install as possible.

EC-Eau Smart model range

Range features:

- 3 model options 150, 210 and 250 litre with integrated 40l buffer
- NEW slimline model available – contact us for details
- Optimised for inverter heat pumps
- Onboard water module – pre-wired thermostats, immersions, sensors, pumps and valves
- Easy to install

Specifications

Dimensions

Model	Height (mm)	Diameter (mm)	T&P Valve (mm)	HW outlet (mm)	CW Inlet (mm)	HP return (mm)	HP flow (mm)	HP flow to buffer (mm)	Buffer flow to HP (mm)	Weight empty (kg)	Weight full (kg)
ECS150HP40A-580	1380	580	1150	1150	440	440	960	180	312	42	226
ECS210HP40A-580	1763	580	1520	1520	440	440	960	180	312	50	295
ECS250HP40A-580	2023	580	1797	1797	440	440	960	180	312	62	344

Measurements in mm, made from the bottom of the cylinder to the centre of the component.

Performance

Model	Capacity (l)	Primary hot water capacity (l)	Buffer capacity (l)	Number of immersions	Expansion vessel (l)	Heat pump coil size (kW)	Heat pump coil surface area (m^2)	Reheat time (mins)	Heat loss in 24 hrs (kW/24hrs)
ECS150HP40A-580	144	125	40	2	19	2.2	1.2	8(*)	1.31
ECS210HP40A-580	203	195	40	2	19	2.2	2.2	13(*)	1.53
ECS250HP40A-580	243	246	40	2	19	2.2	2.2	18(*)	1.79

*Determined in accordance with EN12897-2000.
†See page 17.

Air Source Heat Pumps

LA MI Range

The Dimplex LA MI range of inverter-driven air source heat pumps deliver superior energy efficiency and performance with achievable CoPs of up to 4.4. With models producing outputs of 6 and 9kW, Dimplex can provide a solution for most domestic applications from small, well-insulated new build homes, to retrofits in existing properties which have a moderate heat demand.

Easy to install, due to the range's monobloc configuration, the LA MI is the ideal choice for new developments looking to reduce CO_2 emissions and social housing refurbishment projects.

Employing an inverter-driven compressor to maximise heat pump efficiency enables the LA MI range to modulate heat pump output to match heating demand, so at warmer air temperatures when heating demand falls the heat pump output is reduced, which helps to improve efficiency (CoP).

Available in 6 and 9kW variants, LA MI heat pumps are supplied as fully integrated units, including circulation pump and expansion vessel, making installations easier to carry out and less time consuming. The LA MI models also come with the added advantage of low starting current (inverter compressor start up) and low noise levels.

Range features:

- Two models with nominal heating capacities from 6-9kW, single phase
- Superior efficiency – CoPs up to 4.4
- Variable heating water flow from 25°C to 55°C, weather compensated
- Operational with external air temperatures from -20°C to +35°C
- Inverter-driven compressor, providing variable output levels and low starting current
- 'Monobloc' heat pump unit with fully integrated system components
- Supplied complete with wall-mounted inverter heat pump manager
- Easy access to electrical and plumbing connections for ease of installation
- Designed to work efficiently with underfloor heating, Dimplex SmartRad or conventional radiators
- Ideal for use in conjunction with a Dimplex EC-Eau heat pump ready cylinder to produce domestic hot water
- Very low noise levels and 'Night Mode' for quiet night-time operation
- Available in system packages with EC-Eau cylinders/buffer tanks and controls and ancillaries for ease of specification and installation
- 3-year warranty*
- MCS certified

*When installed by a Dimplex Renewable Accredited Installer.

LA 6/9 MI

APPROVED PRODUCT

Model	LA 6 MI	LA 9 MI
Operating limits		
Max. flow temperature (°C)	**55**	**55**
Air (°C)	**-20 to +35**	**-20 to +35**
Performance		
Heat output / CoP A-7W35 (kW) /	5.9 / 2.8	8.9 / 2.4
Heat output / CoP A2W35* (kW) /	6.0 / 3.7	9.0 / 3.4
Heat output / CoP A7W35* (kW) /	6.0 / 4.4	9.0 / 3.9
Sound power level (dB(A))	58	61.5
Sound pressure level at 1m (dB(A))	54	54
Sound pressure level at 10m (dB(A))	44	41
Heating water flow rate / pressure drop (m^3/h/Pa)	1.0	1.6
Heat source flow (m^3/hr)	1.0	1.6
Mechanical/electrical		
Dimensions – WxHxD (mm)	1283 x 865 x 320	1283 x 865 x 320
Weight (kg)	122	122
Rated voltage	1/N/PE ~230 V, 50 Hz	
Starting current (A)	Gradual increase from 0-6	Gradual increase from 0-10
Fuse protection	C 20 A	C 20 A
Refrigerant: type/total charge weight (kg)	R410A / 1.45	R410A / 1.45
Defrost	Automatic reverse cycle	
Heating connections (inch)	1¼" ext thread	
Certification		
MCS certified	√	√
ETL listed	No	No

*According to EN 14511.

Ground Source Heat Pumps

Dimplex single phase (domestic) ground source heat pumps are available in a range of sizes and configurations to provide a sustainable, cost-effective heating and hot water solution for most domestic applications.

Ideal for use with underfloor heating, SmartRad or conventional radiator systems, Dimplex single phase ground source heat pumps are also able to provide domestic hot water. The range includes high temperature models which can produce water flow temperatures up to 70°C, providing the ability to fulfil all of the hot water demands of the property without the need for supplementary electric heating.

Installed inside the property, the range is available in outputs from 4 to 16kW in either standalone or integrated formats, providing maximum flexibility to meet the installation requirements of virtually any domestic scenario.

Integrated ground source heat pump – SIK ME

The SIK 16 ME fully integrated ground source heat pump provides easy installation and minimises space requirements, with the heat pump manager and key system components all fully integrated into one compact unit.

A complementary 100L buffer tank is available to complete the system.

- One model with nominal heating capacities of 16kW
- Variable heating water flow temperatures from 35°C to 55°C with weather compensation
- WPM 2007 heat pump manager with removable control panel
- Integrated system components, including circulation pumps, expansion vessels and safety assemblies for both the heating and ground collector circuits
- 3-year warranty*
- MCS certified

High temperature range – SIH ME

The SIH ME range provides flow temperatures up to 70°C, enabling 100% of a home's heating and hot water to be provided without the need for supplementary heating.

Single phase ground source heat pump – SI 14 ME

Identical in design to the SIH ME range, the popular SI 14 ME provides flow temperatures up to 58°C making it an ideal domestic heating solution.

Where space saving is an issue, the SIH ME and SI ME can be combined with a 100L buffer, which fits neatly below the heat pump unit.

Range features:

- 4 high temperature models with nominal heating capacities from 4 to 11kW and 1 standard temperature model with nominal heating capacity of 14kW
- Variable heating water flow temperatures from 35°C to 70°C with weather compensation (high temp. models)
- WPM 2007 heat pump manager with removable control panel
- Electronic soft-start control to reduce starting current loads
- Suitable for use with underfloor heating, Dimplex SmartRad fan convectors or conventional radiator systems.
- Can be used as the sole heating source or in 'bivalent' mode in combinations with an existing heating system
- Provides domestic hot water to 60°C with no need for supplementary heating (high temp. models)
- 3-year warranty*
- MCS certified

*When installed by a Dimplex Renewable Accredited Installer.

SIH ME / SI ME

SIK ME

Model	SIH 4 ME	SIH 6 ME	SIH 9 ME	SIH 11 ME	SI 14 ME	SIK 16 ME
Operating limits						
Max. flow temperature (°C)	**70**	**70**	**70**	**70**	**58**	**55**
Brine (°C)	**-5 to +25**					
Performance						
Heat output / CoP B0/W35* kW /	4.30 / 3.80	6.00 / 4.08	8.90 / 4.01	10.70 / 4.53	14.8 / 3.90	15.8 / 4.20
Heat output / CoP B0/W45 kW /	4.10 / 3.00	5.80 / 3.39	8.60 / 3.40	10.00 / 3.50	14.70 / 2.90	15.7 / 3.901.15
Nominal power consumption at B0/W35*	1.15	1.47	2.22	2.36	3.67	3.77
Sound power level (dB(A))	55	56	56	57	56	51
Max heating water flow rate / pressure drop (m^3/h/Pa).	0.75 / 1000	1.0 / 4100	0.75 / 1700	1.9 / 7000	2.6 / 19000	1.30 / 3500
Heat source flow (m^3/hr)	1.0	1.3	2.0	2.45	3.50	3.50
Mechanical/electrical						
Dimensions – WxHxD (mm)	650 x 805 x 462	650 x 805 x 462	650 x 805 x 462	650 x 805 x 462	650 x 805 x 462	652 x 1115 x 688
Weight (kg)	118	118	130	133	130	203
Rated voltage	1/N/PE ~230 V, 50 Hz					
Starting current with soft start (A)	38	38	43	45	50	50
Fuse protection	C 16 A	C 20 A	C 25 A	C 32 A	C 32 A	C 32 A
Refrigerant: type / total charge weight (kg)	R134a / 1.5	R134a / 1.8	R134a / 2.2	R134a / 2.4	R134a / 2.2	R1407c / 2.3
Heating connection (inch)	1¼					
Heat source connection (inch)	1¼					
Certification						
MCS certified	√	√	√	√	√	√
ETL listed	No	No	No	No	No	No

*According to EN 14511.

Heat Pump Accessories

Perfectly matched

Dimplex heat pumps offer a variety of services – providing the home with comfortable warmth is only one of them. They can also provide all the hot water needed for the kitchen and bathroom.

Dimplex provides all the components needed for these applications, including buffer tanks, EC-Eau unvented hot water cylinders, hydraulic accessories and SmartRad fan convectors, ensuring the components are optimally matched to ensure maximum system efficiency.

A range of ancillary products designed to simplify heating system and ground collector connections are also available, ensuring installation is as compact and simple as possible.

1. Buffer Tank
2. Heating/DHW System Connection
3. EC-Eau Unvented Hot Water Cylinder
4. WPM Heat Pump Manager

Buffer tanks

Connection of a buffer tank ensures minimum compressor run times and minimum water flow rates through the heat pump to maintain optimum efficiency. A buffer is essential for air source heat pumps as it provides the energy for defrosting. Where the heat pump provides the sole source of heating, an electric immersion element can also be integrated to provide supplementary heating if required.
For internal installations, the PSP range fits neatly under the heat pump to make best use of the space available.

Model	Capacity (litres)	Dimensions (mm)	For use with
PSW100	100	Ø512x850	Heat pumps up to 12kW
PSP100E	100	740x740x240	SI ME & SIK ME models
PSW200	200	Ø600x1300	Heat pumps up to 30kW
PSW500	500	Ø700x1950	All heat pumps

Note: A suitably sized immersion element must be ordered separately.

Distribution system

Modules matching the specific requirements of the heat pumps simplify connection to the heating system and offer the option of flexible expansion for domestic hot water or additional heating circuits.

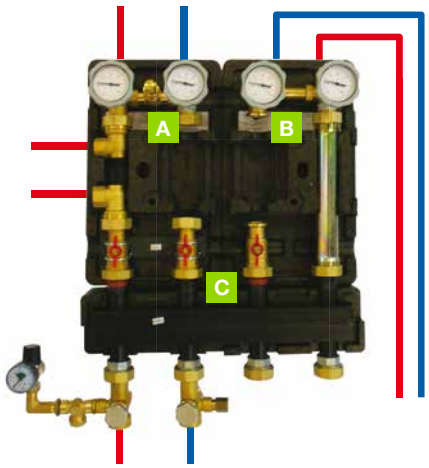
Most common components are:

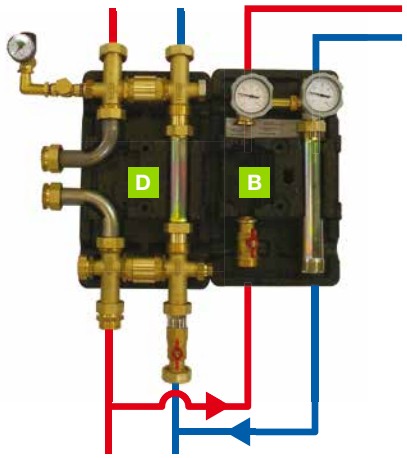
A Compact manifold (KPV) allows connection between heat pump, buffer tank and a single heating circuit, simplifying the installation process and reducing space

B Hot water module (WMM) allows connection between the heat pump and the hot water cylinder

C Manifold bar (VTB) allows simultaneous connection of the compact manifold and hot water module

D Dual differential pressureless manifold (DDV) allows efficient connection between heat pump, buffer tank and heating circuit to simplify installation





Model		DN25 up to 16kW	DN32 16-25 kW	DN40 25-35kW	DN50 35-45kW
KPV	Compact manifold	√			
EBK	Extension module for KPV	√			
DDV	Dual differ. Pressure less module	√	√	√	√
WWM	Heating circuit / hot water module	√	√		√
MMH	Mixed heating circuit module	√	√		√
VTB	Manifold bar	√			
MMB	Bivalent mixing manifold	√			
VCC	Coupling for DDV				√

Note: Circulation pumps are supplied separately in order to cater for differing flow rates (project specific).
Stated manifold kW capacity is given for guidance only, check the specific flow rate for the heat pump and the manifold.

Heat Pump Cylinders

EC-Eau™ heat pump cylinders

Dimplex EC-Eau heat pump cylinders are designed to operate seamlessly with heat pumps to provide an efficient and environmentally friendly way of supplying domestic hot water.

Employing a large surface area heat exchanger, EC-Eau heat pump cylinders maximise the transfer of renewable energy to the stored water, optimising heat pump efficiency and reducing running costs. EC-Eau heat pump cylinders are the ideal partner to Dimplex heat pumps and are available in capacities from 150 to 300 litres, suitable for most domestic hot water demands. Combined heat pump cylinder and buffer tank models are also available for applications where space is limited.

Range features:

- Models from 150 to 300 litres
- NEW slimline model available – contact us for details
- Optimally sized, high surface area heat exchangers for heat pump operation
- Tough easy to clean outer casing – made from recycled materials
- Immersion for sterilisation and backup heating
- 60mm of CFC / HCFC free injected foam for excellent heat retention – minimising heat loss and energy consumption

Heat pump cylinder range

Heat pump cylinder with buffer (cutaway)

Heat pump cylinders

Model	Height (mm)	Diameter (mm)	Capacity (l)	Weight empty (kg)	Number of immersions	Expansion vessel (l)	Heat pump coil size (kW)	Heat pump coil surface area (m²)	Reheat time (mins)	Heat loss in 24 hrs (kW/24hrs)
ECS150HP-580	1130	580	150	35	1	12	51(*)	2.8	7(*)	1.10
ECS210HP-580	1505	580	210	42	1	19	47(*)	3.0	12(*)	1.41
ECS250HP-580	1780	580	250	47	1	24	47(*)	3.0	17(*)	1.51
ECS300HP-580	2080	580	300	53	1	24	43(*)	3.2	20(*)	1.96

Heat pump cylinders with buffer

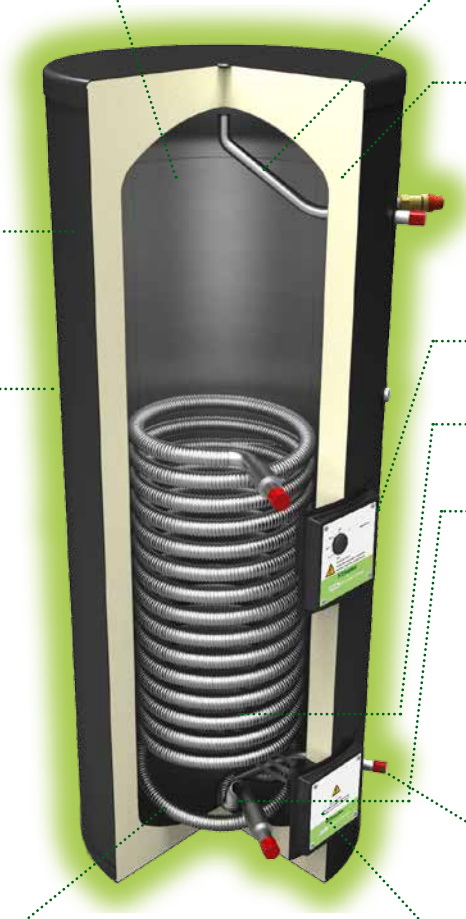
Model	Height (mm)	Diameter (mm)	Capacity (l)	Buffer capacity (l)	Weight empty (kg)	Number of immersions	Expansion vessel (l)	Heat pump coil size (kW)	Heat pump coil surface area (m²)	Reheat time (mins)	Heat loss in 24 hrs (kW/24hrs)
ECS150HP75-580	1705	580	150	72	49	2	12	51(*)	2.8	7(*)	1.10
ECS210HP75-580	2080	580	210	72	57	2	19	47(*)	3.0	12(*)	1.41

*Determined in accordance with EN12897-2000

Unvented stainless steel cylinders for heat pumps

Sustainable material

- Inner vessel manufactured from premium grade Duplex stainless steel
- Lightweight yet ultra-high strength and stress/corrosion resistant, ensuring long cylinder life
- 100% recyclable
- No need for sacrificial anode
- 25-year warranty
- HIPS/ABS outer cladding
- Produced from 100% recycled material
- Hard wearing, flexible and damage resistant
- CFC / HCFC free injected foam insulation
- High proportion of materials (excluding insulation) by volume recycled



Environmentally sound performance

- Designed for use with renewable sources of heat production – heat pumps and solar thermal systems
- Side hot water draw off connection, minimises heat losses through the top of the cylinder
- 60mm of injected polyurethane foam insulation
- Exceeds 'CHESS' best practice standards for low heat loss and heat recovery
- Completely void free, including insulation around immersions and thermostats
- Recessed immersion heater and thermostat housings reduce heat loss
- Large surface area coil for use with heat pumps
- Up to 125l dedicated solar volume (ECS ST models) to maximise use of renewable energy

25 year cylinder guarantee

Superior operational performance

- High flow rates for efficient hot water delivery
- Powerful showers and fast filling baths
- Corrugated coil construction maximises surface area while maintaining high usable volume

- Light and easy to handle for easy installation
- Surface-mounted thermostats and sensors for easy installation and maintenance/replacement

- Supplied complete with inlet safety group and external expansion vessel
- All connections accessible from the front

SmartRad® Fan Convector Radiators

The perfect heat pump partner

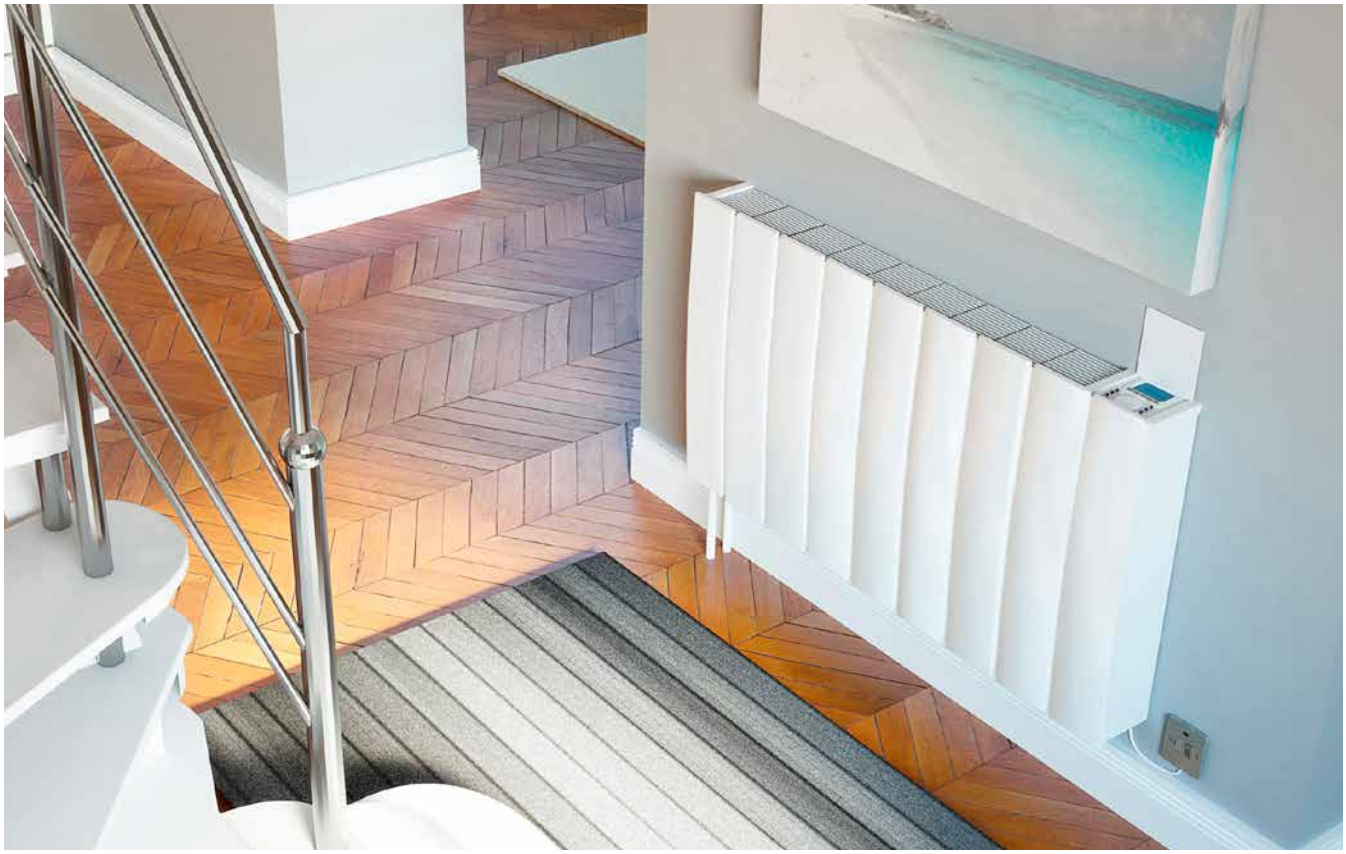
Dimplex SmartRad is an intelligent fan convector designed specifically to work with heat pumps.

Controllable, responsive and attractively designed SmartRad offers a practical, energy-efficient alternative to underfloor heating as a low temperature heating system.

Containing only 5% of the water volume of a conventional radiator, SmartRad's low thermal mass means heat-up time, responsiveness and ultimately comfort are significantly improved.

Key features:

- Ideal for use with heat pumps
- Cost effective, practical alternative to underfloor heating
- Designed for low water temperature operation:
  - Optimises heat pump CoP
  - Reduces heat pump running costs
- More energy efficient than conventional radiators:
  - 40% less energy consumption to bring a room from 10°C to 21°C
- Fast response/room heat up due to very low water content:
  - 2x faster than conventional radiators
- Integral electronic thermostatic control
- Optional plug-in 24-hour or 7-day programmers
- Stylish compact design, with a choice of metal or glass fronts



Finish	Nominal output kW	
	0.8	1.2
White metal	SRX080M	SRX120M
White glass	SRX080WG	SRX120WG

Finish	Nominal output kW	
	1.4	1.8
White metal	SRX140M	SRX180M
White glass	SRX140WG	SRX180WG

Operating limits	SRX080	SRX120	SRX140	SRX180
Heating water system / return °C	Max. 85/Min. 15 at 150 L/h			
Performance	***at medium fan speed and air inlet temp of 20°C**			
Heating capacity* mean water flow temp 40°C (kW)	0.6	0.9	1.1	1.5
Heating capacity* mean water flow temp 45°C (kW)	0.8	1.1	1.4	1.8
Heating capacity* mean water flow temp 50°C (kW)	1.0	1.4	1.7	2.2
Heating capacity* mean water flow temp 55°C (kW)	1.1	1.6	2.0	2.6
Heating capacity* mean water flow temp 60°C (kW)	1.3	1.8	2.3	2.9
Sound pressure level at 1m dB (A)				
Low	26			
Medium	29			
Boost	36			
Air flow rate				
Low (m^2/hr)	60	100	120	160
Medium (m^2/hr)	125	190	225	300
Boost (m^2/hr)	228	345	410	540
Dimensions (mm) HxWxD	530x503x145	530x670x145	530x740x145	530x911x145
Weight (kg)	13	16	18	23
Power input (W)				
Low	17	22	26	24
Medium	20	32	40	35
Boost	27	47	60	53
Standby power	1W			
Nominal voltage / fuse rating (V/A)	~230 / 3			
Hydraulic connections	15mm left and/or right hand connection or from rear			
Water content (l)	0.31	0.43	0.48	0.60
Cable supplied	1 metre			

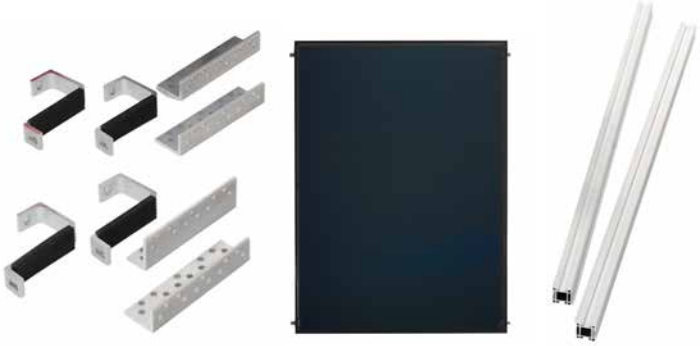
Solar Thermal Hot Water

Dimplex makes solar specification simple by combining all the necessary components for a standard installation into easy-to-purchase kits. Each component has been carefully selected for its quality and suitability for the UK climate and building stock to provide complete confidence in system performance both for installers and users alike. With a range of purpose-designed solar cylinders (in sizes suitable for a variety of properties) and flat plate collectors with a selection of roof mounting options, Dimplex has a solution for every solar water heating requirement.

For maximum efficiency the complete package can be custom designed by our heating design team for your application. Collectors and hot water cylinders will be sized to meet the requirements of the property, and site orientation plans will be provided to aid installation.

Roof kits:

- Choice of 1,2, 3 or 4 panel collector kits
- On roof mounting for plain or corrugated or slate tiles, portrait or landscape
- In roof mounting for tile or slate (portrait only)
- Free standing kits for flat roofs or ground level mounting (portrait only)



Hydraulic packs:

Suitable for the majority of domestic systems with a static height up to 7m.

Each pack includes:

- Pump station
- Controller
- Heat transfer fluid
- Expansion vessel and fixing kit

Integration with heat pumps

Ideal for properties with high summer water demand compared to the standard heating load, such as well-insulated houses or sports clubs, the SST 25 module provides the seamless integration of Dimplex solar thermal systems and heat pumps.

SOL202 – Flat plate collector

The SOL202 is a high-quality, high-efficiency flat plate solar collector with a 1524Wp output, making it the collector of choice for a wide range of domestic installations.

The SOL202 collector consists of a Harp-configured, laser-welded absorber, with a highly selective blue coating for maximum solar gain. The whole assembly is encased in a neatly constructed weatherproof aluminium frame, with bonded 3.2mm solar safety glass, providing a strong lightweight and durable construction for longevity and ease of installation. Up to 4 collectors can be connected in series in either portrait or landscape orientation to suit the available roof space.

Standard 22mm connections and modular roof fixing kits make the SOL202 easy to install. The extensive range of roof fixing options and accessories available for roof integrated, on-roof and free-standing installations means the SOL202 is suitable for a wide range of domestic situations.

The collector is Solar Keymark approved and has the benefit of a 10-year warranty assuring the quality and longevity of the panel.

Key features:

- High-efficiency solar thermal collector
- Suitable for portrait or landscape orientation with connection of up to 4 panels in series
- Easy-to-install Dimplex roof fixing kits suitable for:
  - Tile
  - Slate
  - Metal roof
  - Roof integrated (tile or slate)
  - Flat roof
  - Free standing
- 3.2mm solar safety glass with 90% transmission, allowing the collector to absorb a wide range of the solar spectrum
- Bonded aluminium frame provides lightweight all-weather protection for the absorber
- Standard 22mm compression connections ensure reliable and rapid installation
- A common collector for portrait or landscape mounting
- Left or right-hand connections for simple installation
- 10-year warranty
- Solar Keymark approved

Technical specifications	
Gross Collector Area	2.025 m^2
Aperture Area	**1.907 m^2**
Length	1730 mm
Width	1170 mm
Height	83 mm
Weight (empty)	33 kg
Liquid Content	1.56 litres
Glass	3.2 mm solar safety glass
Zero heat loss efficiency	**n0: 79.9%**
Heat Loss Coefficient	**a1: 4.174 W/m2K**
	a2: 0.009 W/m2K2
Stagnation Temperature	184°C
Peak Power	1524 W
Absorption	94%
Emission	5%
Connections	4 x 22mm
Max Operating Pressure	10 bar
Items above shown in bold are important when adjusting SAP's default values	

*When installed by a Dimplex Renewable Accredited Installer.

Solar Thermal Hot Water

EC-Eau solar cylinders

Dimplex EC-Eau solar cylinders provide efficient hot water storage for a variety of solar thermal applications and are designed specifically to work seamlessly with Dimplex solar thermal systems. Featuring a purpose-designed solar coil to maximise heat transfer of the solar energy to stored water, EC-Eau solar cylinders are available in a choice of single or dual coil options.

Features:

- Models from 175 to 300 litres
- Optimally sized, high surface area heat exchangers for solar operation
- Mains pressure hot water for fast filling baths and powerful showers
- Immersion for sterilisation and backup heating
- 60mm of CFC/HCFC free injected foam for excellent heat retention – minimising heat loss and energy consumption
- 25-year warranty

Specifications

Indirect solar cylinders

Dimensions model	Height (mm)	Diameter (mm)	T&P valve (mm)	Solar coil return (mm)	Solar coil flow (mm)	Aux. coil return (mm)	Aux. coil flow (mm)	Immersion (mm)	Thermostat 1 (mm)	Thermostat 2 (mm)	Weight empty (kg)	Weight packaged (kg)
ECSi210ST-580	1505	580	1275	190	525	837	1052	615	330	940	40	53
ECSi250ST-580	1780	580	1550	190	525	905	1120	640	330	1012	47	60
ECSi300ST-580	2080	580	1850	190	525	992	1207	640	330	1095	52	56

Measurements in mm, made from the bottom of the cylinder to the centre of the component.

Performance model	Capacity (l)	Aux. hot water capacity (l)	Dedicated solar volume (l)	Aux. coil size (kW)	Aux. coil surface area (m²)	Solar coil size (kW)	Solar coil surface area (m²)	Number of immersions	Aux. reheat (mins)	Solar reheat (mins)	Heat loss in 24 hours (kW/24hr)
ECSi210ST-580	210	100(*)	110(**)	20(*)	0.8	22(*)	1.1	1	15(*)	26(*)	1.41
ECSi250ST-580	250	140(*)	110(*)	17(*)	0.8	19(*)	1.1	1	24(*)	35(*)	1.51
ECSi300ST-580	300	175(*)	125(*)	18(*)	0.8	20(*)	1.1	1	31(*)	42(*)	1.96

Direct solar cylinders

Dimensions model	Height (mm)	Diameter (mm)	T&P valve (mm)	Solar coil return (mm)	Solar coil flow (mm)	Immersion 1 (mm)	Immersion 2 (mm)	Thermostat (mm)	Weight empty (kg)	Weight packaged (kg)
ECSd175ST-580	1280	580	1050	190	525	630	895	940	330	34
ECSd210ST-580	1505	580	1275	190	525	724	1117	330	38	49
ECSd250ST-580	1780	580	1550	190	525	790	1350	330	44	57
ESCd300ST-580	2080	580	1850	190	525	880	1620	330	50	54

Measurements in mm, made from the bottom of the cylinder to the centre of the component.

Performance model	Capacity (l)	Aux. heated water volume (l)	Dedicated solar volume (l)	Solar coil size (kW)	Aux. coil surface area (m²)	No. of Immersions	Aux. reheat (mins)	Reheat (mins)	Heat loss in 24 hours (kW/24hr)
ECSd175ST-580	175	100*	75**	24*	1.1	2	101*	21*	1.12
ECSd210ST-580	210	115*	95**	22*	1.1	2	128*	27*	1.41
ECSd250ST-580	250	151*	100**	22*	101	2	166*	33*	1.51
ECSd300ST-580	300	194*	105**	21*	1.1	2	208*	43*	1.96

*Determined in accordance with EN12897-2006.
**Determined in accordance with KIWA document for unvented hot water storage cylinders to the requirements of the UK building regulations, Annex D.

Support

Installer training

Whether you are an installer looking for new business opportunities or a specifier wishing to understand more about heat pump systems, Dimplex can help you with a variety of training courses. If you are an installer with demonstrable competency, experience and MCS accreditation, you could become an Accredited Dimplex Renewables installer. Our training courses are available throughout the UK and once you have passed the course, if you fulfil the joining criteria, you will be invited to join the scheme and you can start to reap the many benefits associated with this programme.

Full details of all of our training courses can be found on our website, or by emailing **training@dimplex.co.uk**

"The Dimplex heat pump course is excellent – I can honestly say I learnt more on the course than on any other training I've ever been on. It gives an in-depth understanding of all the elements of heat pump systems and their installation. The trainers are extremely knowledgeable and have years of experience of working with renewables.

Dimplex is taking a sound approach to the renewables market with its installer accreditation scheme. I don't think anyone can touch Dimplex when it comes to the product, so it makes sense that the quality is maintained with an expert installation.

We are quoting for a wide range of projects and are able to answer any queries with confidence. And in our marketing, the use of the Dimplex accredited installer logo really inspires confidence in the customers.

They know they're dealing with authorised installers and a trusted brand."

Peter Quinn of Manx Solar Energy Ltd.

"We found the course made a real difference to our business because it gives a thorough understanding of the technology. We can now talk knowledgeably to potential customers, giving us real credibility."

Mike Dowell, MD, Micaul Solar, South Wales.

Electronic support

In addition to web-based product information, we have a dedicated installer area on the website with warranty information, downloadable manuals and instructions, the latest installer promotions and systems design tools.

Heat pump calculator

This powerful tool helps to size and select the correct heat pump and accessories for a standard house type quickly and accurately without the need for detailed calculations. Within 15 minutes you can produce a professional-looking quotation that includes details about the product, installation and running costs, and expected RHI payments bespoke to the property.

Please visit **www.dimplexrenewables.co.uk/installers** for full details.

Training in action at our Southampton facility.

Specifications

Dimplex policy is one of continuous improvement; the Company therefore reserves the right to alter specifications without notice. The information contained in this brochure is correct at the time of printing. You are advised to consult your Dealer before purchasing.

Installation Guidance

This brochure is designed to assist you with your choice of Dimplex products and it is not intended as an installation guide. For safety, products should only be installed by a competent person, in accordance with current regulations and the manufacturer's instructions.

The Dimplex Range

Dimplex offers the widest range of renewable energy, electric space and water heating products in the world – over 400 – to cover everything, we have a wide range of brochures for both domestic and commercial applications. Please visit our website www.dimplex.co.uk for more information.

Commercial brochure

Electric fires brochure

Domestic heating brochure

Solid fuel brochure

Renewable heat for homes brochure

For more information on our wide range of renewable technologies, please visit:

dimplexrenewables.co.uk email: **marketing@dimplex.co.uk**

or call: Trade – **0844 879 3587** Consumer – **0844 879 3588**

Dimplexrenewables®

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