

A world of new product innovation

2010 new product launches



HURLSTONES

Solletico House 6 Potters Lane Wednesbury WS10 0AS 0121 502 2517

Welcome to our world

Dimplex is proud to announce four new products that significantly enhance our range of renewable energy technologies.

They are welcome additions to our already extensive renewables offering, which of course comes with all the expertise, technical and sales support you expect from Dimplex.



For more information on our wide range of renewables technologies, please visit www.hurlstones.net
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Free, zero carbon
electricity from the sun



LA TU

High Efficiency Air Source Heat Pumps

Key features

High efficiency air source heat pumps for high capacity heating systems, for outdoor installation

- Model range:
9 – 40kW, three phase
60kW available summer 2010
- High CoPs, even at low ambient air temperatures, due to higher performance evaporator
- Variable heating water flow temperatures from 35°C to 58°C, weather compensated
- Twin compressors (models 17kW and over) for higher capacity output and two performance capability
- Intelligent load switching between compressors to maximise compressor life
- Suitable for use with underfloor heating, Dimplex SmartRad fan convectors or conventional radiators and to provide domestic hot water
- Operational temperatures from -25°C to +35°C
- Sound-optimised through electronically controlled, low-speed axial-flow fan with low, natural-sounding acoustics and insulated, decoupled compressor housing
- Supplied complete with wall mounted WPM EconPlus heat pump manager and integrated heat meter
- Energy optimised auto adaptive defrost cycle
- Option of flexible expansion for:
 - Bivalent or bivalent-renewable operating mode
 - Distribution systems with mixed and unmixed heating circuits

The new Dimplex LA TU series sets new standards of performance for air source heat pumps.

Designed specifically to maximise energy efficiency at low ambient air temperatures, Dimplex high efficiency air source heat pumps are able to deliver seasonal efficiencies comparable with ground source systems.

High capacity outputs expand the scope of the applications for high efficiency heating solutions with a range of increased output models ranging from 9-60kW.

Optimised twin compression operation ensures that the LA TU can meet the high heat consumption demands of buildings such as offices, schools, hotels or retail outlets. Multiple occupancy buildings can be catered for with multiple heat pumps connected in parallel to provide a centralised building wide heating solution.



Performance

MODEL	LA 9 TU	LA 12 TU	LA 17 TU	LA 25 TU	LA 40 TU	LA 60 TU
HEAT OUTPUT A7/W35 (kW)						
1 compressor	9.2	11.6	10.0	13.9	20	31.9
2 compressors	–	–	19.6	26.1	35.7	60.1
COEFFICIENT OF PERFORMANCE A7/W35						
1 compressor	4.2	4.3	4.5	4.5	4.6	4.3
2 compressors	–	–	4.4	4.4	4.4	4.1
HEAT OUTPUT A2/W35 (kW)						
1 compressor	7.5	9.4	8.2	11.3	16.8	26.4
2 compressors	–	–	14.6	19.6	30	50.6
COEFFICIENT OF PERFORMANCE A2/W35						
1 compressor	3.7	3.7	3.8	3.8	3.9	3.7
2 compressors	–	–	3.7	3.7	3.8	3.6

Mechanical/electrical

MODEL	LA 9 TU	LA 12 TU	LA 17 TU	LA 25 TU	LA 40 TU	LA 60 TU
Connection voltage	400	400	400	400	400	400
Maximum Flow Temperature (°C)	58	58	58	58	58	65
Thermal energy metering	Integrated as standard					
Minimum water heating flow@Internal pressure differential (m³/hr / Pa)	0.6/1100	0.9/600	1.7/2900	2.2/2100	3.0/950	5.3/2100
Air Flow (m³/h)	2,500	4,100	5,500	7,500	11,000	14,000
Sound Pressure Level at 10m dB(A)	30	32	37	40	43	TBD
Refrigerant Type/Total Charge Weight (kg)	R404A/3.4	R404A/4.2	R404A/8.2	R404A/10.2	R404A/11.8	R417A/19.4
Height (mm)	1460	1810	1940	1940	2100	2300
Width (mm)	910	1250	1600	1600	1735	1900
Depth (mm)	750	750	955	955	980	1000
Weight (including packaging) (kg)	208	250	436	510	585	915
Nominal Voltage / Fuse Rating (V/A)	400 / 16	400 / 16	400 / 16	400 / 25	400 / 25	TBD
Starting current with soft start (A)	17	18	17	22	30	TBD

Control and regulation

LA TU air source heat pumps utilise the WPM EconPlus heat pump manager, which monitors, regulates and controls the entire heating system.

The heat pump, heating and hot water circulation pumps for up to 3 individually programmable circuits, mixer motors, any supplementary heating sources and defrost cycle are all automatically activated by the heat pump manager, allowing the heat pump to provide maximum flexibility, control and efficiency.

Specification

- Internally wall mounted, up to 30m from heat pump unit
- Dynamic menu based programming, customised to the configuration of the heat pump – settings that are not required are hidden
- Interface for remote control unit with identical menu options
- Individual time / temperature controlled operation over 3 separate heating circuits, including production of domestic hot water
- User definable domestic hot water pasteurisation cycle period
- Weather compensated water flow temperature control
- Automatic actuation of supplementary heat sources (electric immersion heater or oil / gas boiler)
- Automatic actuation of mixer valves for supplementary heat generators (gas/oil boiler or solar energy storage system)
- Diagnostics system for monitoring important heat pump functions
- Integrated data logging for heat meter
- Pressure sensors in the refrigerant circuit for optimised heating operation



LAB M

Domestic Air Source Heat Pumps

Key features

- Model range: 7, 9, 11kW, single phase
- Low CO₂, low running cost solution for space and domestic hot water heating for individual households
- Suitable for use with underfloor heating, Dimplex SmartRad fan convectors or conventional radiators
- Variable heating water flow temperatures from 30°C to 52°C, weather compensated
- Operational temperatures from -25°C to +35°C
- Integrated circulating pump and expansion vessel
- Supplied complete with inline flow boiler for flexible system design
- Minimal maintenance and no requirement for annual safety inspection

Dimplex air source heat pumps use the freely available heat in the ambient air to provide efficient heating and hot water for the modern home.

Extending the already comprehensive range of Dimplex air source heat pumps, the new LAB M range is ideal for single domestic dwellings. Available in outputs of 7 – 11kW, the LAB M range is designed to provide both heating and domestic hot water and will operate at outside temperatures as low as -25°C.

With escalating energy costs and initiatives such as the Code for Sustainable Homes driving reductions in CO₂ emissions from domestic buildings, air source heat pumps are increasingly becoming the solution of choice for social housing providers and new build housing developers.



LAB M Specifications

OPERATING LIMITS	LAB 7 M	LAB 9 M	LAB 11M
Heating water system/return °C	52	52	52
Air °C	-15°C to +30°C	-15°C to +30°C	-15°C to +30°C
PERFORMANCE			
Heating capacity A7/W35 (kW)	6.86	9.45	11.06
Coefficient of Performance A7/W35	3.3	3.3	3.4
Heating capacity A2/W35 (kW)	5.44	7.45	8.77
Coefficient of Performance A2/W35	2.83	2.88	2.92
Sound Pressure level at 10m dB(A)	36.8	36.8	33.8
Dimensions (mm): HxWxL	850 x 931 x 367	1000 x 931 x 367	1250 x 1151 x 441
Heating water flow with internal pressure differential	1.18m ³ /hr@2800Pa	1.63m ³ /hr@3000Pa	1.9m ³ /hr@3500Pa
Air Flow (m ³ /h)	3350	3450	5300
Weight (kg)	80	90	133
Electrical heating element (max) kW	4	4	4
Nominal Voltage	230 / 1 ph	230 / 1 ph	230 / 1 ph
Starting current with soft starter (A)	45	45	45
Nominal running current (A)	18.7	24.5	27.5
Defrosting	Automatic, reverse cycle	Automatic, reverse cycle	Automatic, reverse cycle
Refrigerant: type/total charge weight (kg)	R407C / 2.52	R407C / 2.94	R407C / 3.83

Buffer cylinders

A buffer cylinder is essential for an air source heat pump to provide an energy source for the defrost cycle.

At low air temperatures, ice will form on the heat pump evaporator when heat is removed from the air.

To defrost this ice, the heat pump needs to run in reverse for a short period. The buffer tank provides the source of this heat and saves energy being removed from the heating system itself.

Accessories and complementary products

The following accessories and products are available to work with the LAB M heat pump range;

- Hot water cylinders: 150L and 225L, with heat pump coil
- Combined hot water cylinder and buffer tanks: 150L + 75L buffer and 225L + 100L buffer, with heat pump coil
- Buffer tanks: 100L, 200L

- Hydraulic controls kits: Options available for heating only systems or for heating and hot water systems. Kits include:

- Non return valves
- Programmable room thermostat
- Programmable immersion heater timer
- Wiring centre



SmartRad

Energy efficient radiators for use with heat pumps

Key features

- Stylish design, with a choice of metal or glass fronts
- Energy efficient alternative to conventional radiators
- Cost effective, practical alternative to underfloor heating
- Designed for low water temperature operation:
 - Optimises heat pump CoP
 - Reduces heat pump system running costs
 - Reduces heat pump system CO₂ emissions
 - 3½ times less wall space required than a conventional radiator
- Low thermal inertia due to ultra-low water content allows energy saving through:
 - 4 x faster room heat up time and 70% less energy consumption than a standard radiator with comparable output to bring a room from 10°C to 21°C
 - Responsive reaction to incidental heat gains (e.g. solar gain) prevents over heating and energy wastage
- Individual heater temperature control
 - Close tolerance electronic thermostat providing automatic control over fan speed output
 - Delivers high levels of comfort through improved room temperature stability,
- Optional plug in 24 hour or 7 day programmers

Dimplex SmartRad wall mounted fan convector radiators provide a controllable, responsive and energy efficient alternative to under floor heating for use with heat pump systems.

Containing only 5% of the water volume of a conventional steel radiator, SmartRads low thermal mass allows it to heat up 4x more quickly and react more responsively to changes in room temperature, meaning improved control, comfort and energy saving.

SmartRad is also optimised for use with heat pumps by achieving excellent performance at water heating temperatures as low as 40°C.

SmartRad is ideal for retrofit installations in place of conventional radiators or in new buildings instead of or in conjunction with underfloor heating.



Specification

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		530x503 x145	530x670 x145	530x740 x145	530x911 x145
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				

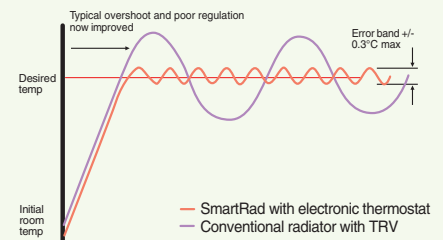


Electronic temperature control

Each Dimplex SmartRad features its own onboard electronic thermostatic control, providing accurate individual room temperature control and superior comfort and operating efficiency.

As the room temperature nears the desired set point, fan speed is reduced, and the room temperature closely monitored to an accuracy of less than 0.3°C, minimising overshoot and temperature drift, resulting in better energy-efficiency through less fan power usage and improved user comfort.

Low thermal inertia also results in fast room heat up and response to incidental heat gains.



Optional plug-in programmers control room temperature output based on occupancy pattern (24 hour or 7 day options).

For more information, please refer to our SmartRad product brochure



Solar PV

Free, zero carbon electricity from the sun

Key features

- Produces renewable electricity directly from daylight
- A 2kWp (peak output) system can provide approximately 50% of a typical domestic household's annual electricity needs
- Significantly reduces energy costs and building CO₂ emissions
- Future proofs against inevitable future energy price increases
- Easily meets planning requirements for minimum contribution from renewable energy
- Provides a carbon reduction solution for properties under the Code for Sustainable Homes and other building standards
- Feed in Tariffs through the Clean Energy Cash back scheme provide income for every kWh produced
- Complete system packages including:
 - Polycrystalline modules (panels)
 - G83 approved inverter
 - Generation meter
 - Isolation switches (AC/DC)
 - Mounting solutions for a range of roof types
 - 1.44 – 4.7kW outputs
- Available in custom format for larger installations
- Accessories available, including energy display meter
- Available for Clean Energy Cashback tariffs
- Available summer 2010

Dimplex Solar PV uses free energy from the sun to produce electricity. Solar PV panels produce their energy from day light (rather than solar radiation) meaning they will still produce energy even on a cloudy day. The electricity produced is used directly in the building to power electricity consuming appliances or sold back to the grid if not needed.

Solar PV is suitable for homes, businesses, schools or community buildings and with no moving parts provides one of the easiest and most reliable ways to future proof against rising energy costs and reduce CO₂ emissions.

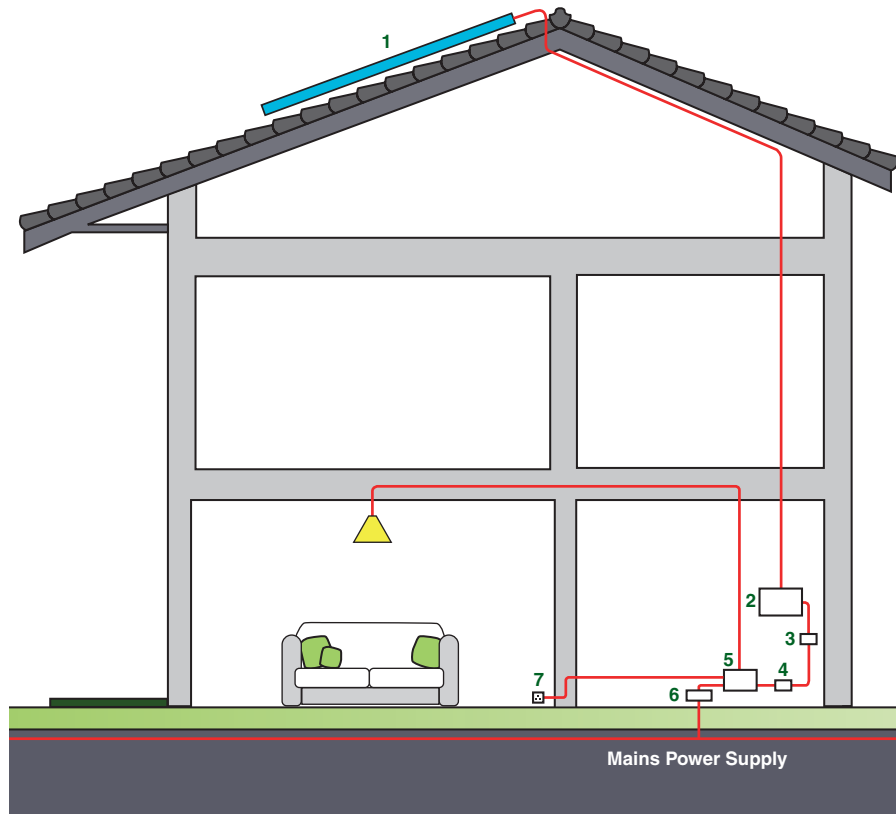
From April 2010, the Government's Clean Energy Cashback scheme will enable householders, businesses and

communities to receive fixed, guaranteed payments for 25 years for the low carbon, renewable solar electricity they produce.

In very low energy buildings – for example the zero-carbon homes that will be required by 2016 – solar PV will provide an important element in the total energy saving solution, alongside heat pumps, solar hot water and heat recovery systems.



What Clean Energy Cashback means for a domestic household



1. Solar PV Collector Array 2. DC/AC Inverter 3. ACV Isolation Switch 4. Credit Meter
5. Consumer Unit 6. Electricity Meter 7. AC Power

Typical grid connected PV system

- The solar modules (panels) convert (1) daylight into DC electricity.
- A DC to AC inverter (2) converts this into AC power, allowing it to be used to power appliances within the building
- The PV system is connected to the mains supply via a consumer unit (5) for safety purposes
- The voltage of the solar produced electricity is slightly higher than the power from the grid, meaning the free, renewable energy is used first when there is an electricity demand
- The solar PV system generates electricity whenever there is sufficient daylight. Any unused electricity is exported to the grid
- At times when there is an electricity demand but there is insufficient produced from the solar PV system, the demand gap is met by energy from the grid

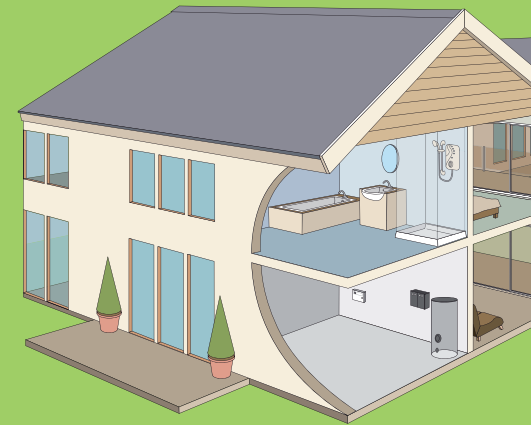
Clean Energy Cashback

From April 1st the Clean Energy Cashback scheme will provide householders, businesses and communities who install Solar PV systems to be paid a substantial premium for all of the solar electricity generated.

Key points:

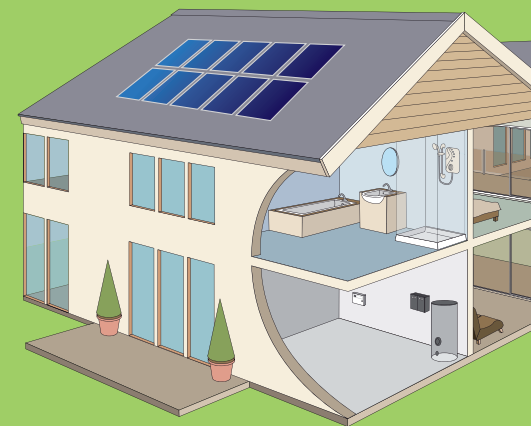
- Up to 41.3p/kWh* per unit generated by a solar PV system
- An additional payment of 3p per unit exported to the grid
- Payments guaranteed for 25 years
- Payments are index linked, so will increase with inflation

* Variable depending on system size. Rate reduces for new installations after April 2012



Domestic property without Solar PV

Income from Solar PV: £0/yr
Income from exported elec: £0/yr
Annual elec bill: £462/yr
Total Elec Cost: £462/yr
Total CO₂ emissions: 1419kg/yr



Domestic 10 panel / 2.1kWp PV system

Income from Solar PV: £693/yr
Income from exported elec: £25/yr
Annual elec bill: £227/yr
Total Elec Credit: £491/yr
Total CO₂ emissions: 697kg/yr
Total Solar PV Benefit:
£491 + £462 = £953/yr
Total CO₂ saving:
1419kg – 697kg = 722kgCO₂/yr

Long term benefit:

Installation cost	£10,000
Total system income over 25 years:	£23,800
Total profit over 25 years:	£13,800

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

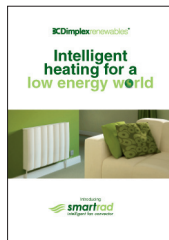
This brochure is designed to assist you with your choice of Dimplex products and it is not intended as an installation guide. For safety, products should only be installed by a competent person, in accordance with current regulations and the manufacturers instructions.

The Dimplex Range

Dimplex offers the widest range of electric space and water heating products in the world – nearly 400 – to meet almost any heating need. In addition to this publication, we have a wide range of brochures for both domestic and commercial applications. Please visit our website www.dimplex.co.uk for more information.



Renewables brochure



SmartRad brochure



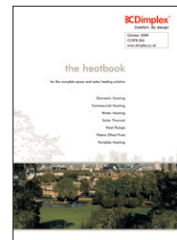
Heat pumps brochure



Solar brochure



Commercial brochure



Domestic heating brochure



Fires brochure

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Dimplex renewables®



Mixed Sources

Product group from well-managed forests and recycled wood or fibre
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