

introducing


 **Dimplex**[®]

SOLAR HEATING SYSTEMS

Eclipse^{SOLAR™}

the low carbon water heating system

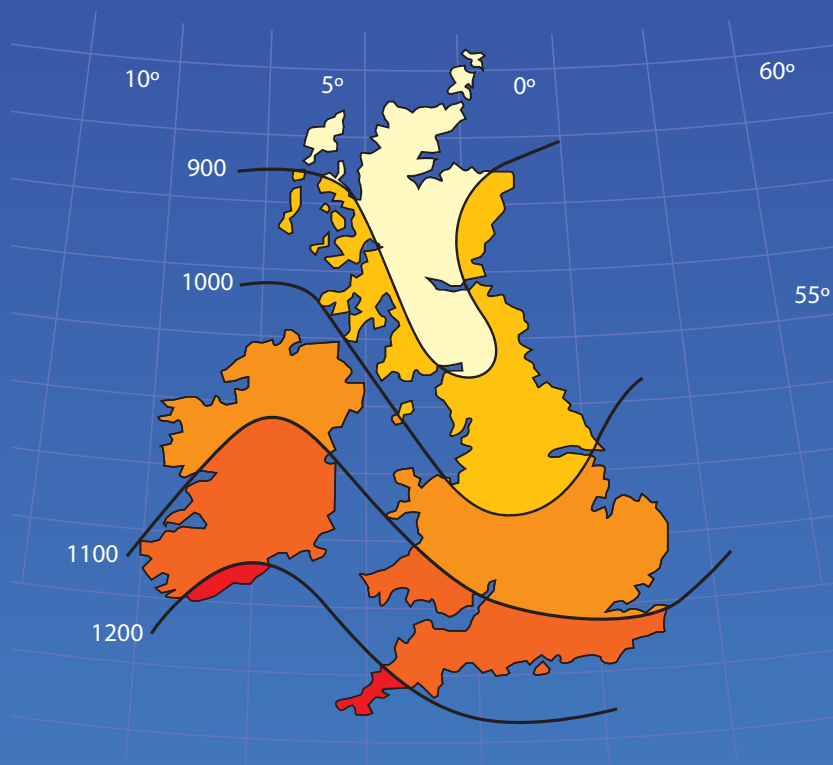


A photograph of a desert landscape with large orange sand dunes under a clear blue sky. On the left, a dead, gnarled tree stands in the foreground. On the right, two people wearing green backpacks are walking away from the viewer towards the dunes.

In this environmentally
challenging world,
it's time to rethink
our heating...

..while we still have time.

There's nothing new about renewable energy for Dimplex. As part of the worldwide Glen Dimplex Group we have been producing renewable energy solutions for nearly 30 years. And with our national network of engineers, our own dedicated training programmes and a customer service operation, Dimplex offer the full package your business demands.



kWh/m² of solar energy per year in Ireland

It's time to harness the sun's energy

Every year the sun provides over 8000 times as much energy as we consume worldwide. In Ireland we receive between 900 and 1200 kWh of energy per m² per year. This is enough to provide up to 60% of a property's total water heating needs, reducing fuel bills and building carbon emissions.

The all-electric low carbon solution

The new Solar Eclipse™ solar hot water system from Dimplex offers a sustainable energy solution for the future with a range of packages designed for the individual needs of properties throughout Ireland.

The Solar Eclipse™ system offers 25 pre-packaged kits to choose from, making specification simple and installation easy. And when combined with Dimplex electric heating offers the ideal low carbon all-electric home that is not only compliant with Part L of the Building Regulations but future proof with low running costs guaranteed.



introducing Dimplex[®] Eclipse[™] SOLAR

the complete solar
thermal water
heating system
from a name
you'll recognise

The Dimplex Solar Eclipse[™] package is made simple by combining all the components into easy to purchase kits containing all the necessary solar components needed for a standard installation.* Each component has been carefully selected for its quality and suitability to the Irish climate.

With a range of cylinder sizes suitable for each property and a selection of integrated kits and roof mounting options the Dimplex solution has an answer for every solar water heating requirement.



* By a suitably qualified person

the flexible solution

- Complete solar hot water package – including 2, 4, 6, 8 and 10m² collector kits, heat transfer system, full range of installation accessories and choice of solar hot water cylinders.
- Purpose designed solar cylinders with high efficiency coils, fully optimised for solar water heating. Choice of options for electric heating or boiler based systems.
- Choice of roof mounting options for slate, tile or flat roofs or integrated flush roof mounting.
- Separate control and pump station allowing flexible and convenient installation in relation to the cylinder.
- 25 year solar cylinder warranty.
- 10 year solar collector warranty.

Range features

Collector

- 3.2mm collector glass ensures high solar transmission rates
- Laser welded absorber retains absorber coating, with no visible seams
- Anthracite aluminium collector frame provides lightweight protection for the absorber that blends with the roof
- High levels of insulation on back and sides ensure maximum captured heat is transferred to the heating system
- 4 plumbing connections allows flexible collector configuration

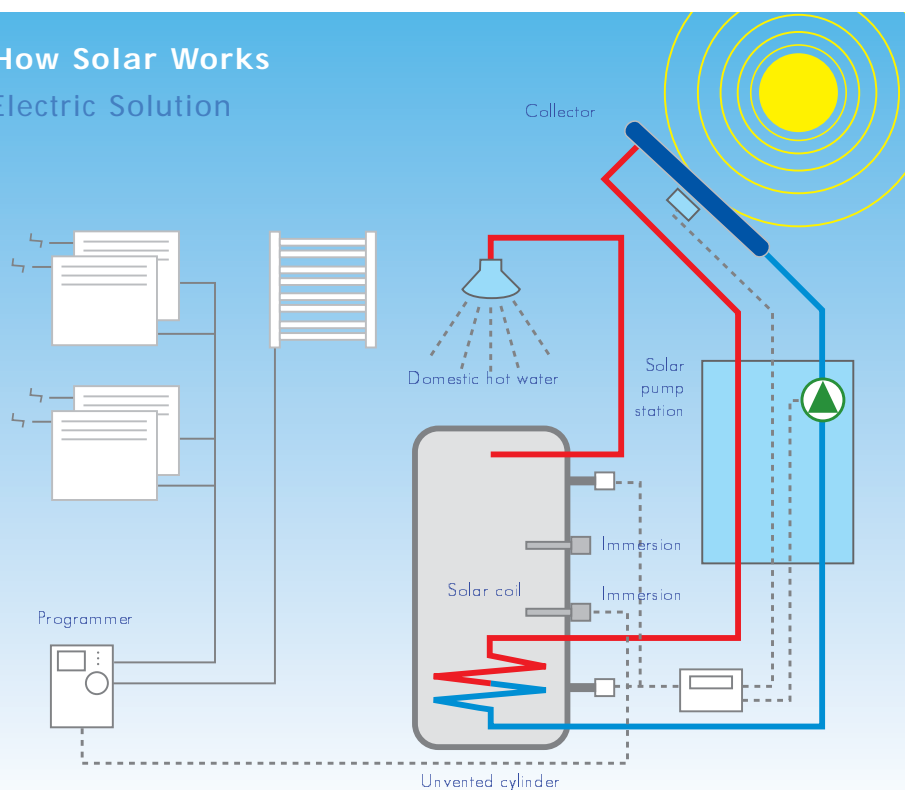
Heat transfer system

- Variable pump speed control for maximum solar energy gain
- LCD controller with 3 temperature probes for accurate temperature measurement and system operation
- Pump station incorporating pressure relief valve, two non-return valves, flow meter and two flush and fill connections for quick and easy install
- Optional 1.5m flexible insulated hose for fast and reliable installation

Hot water storage

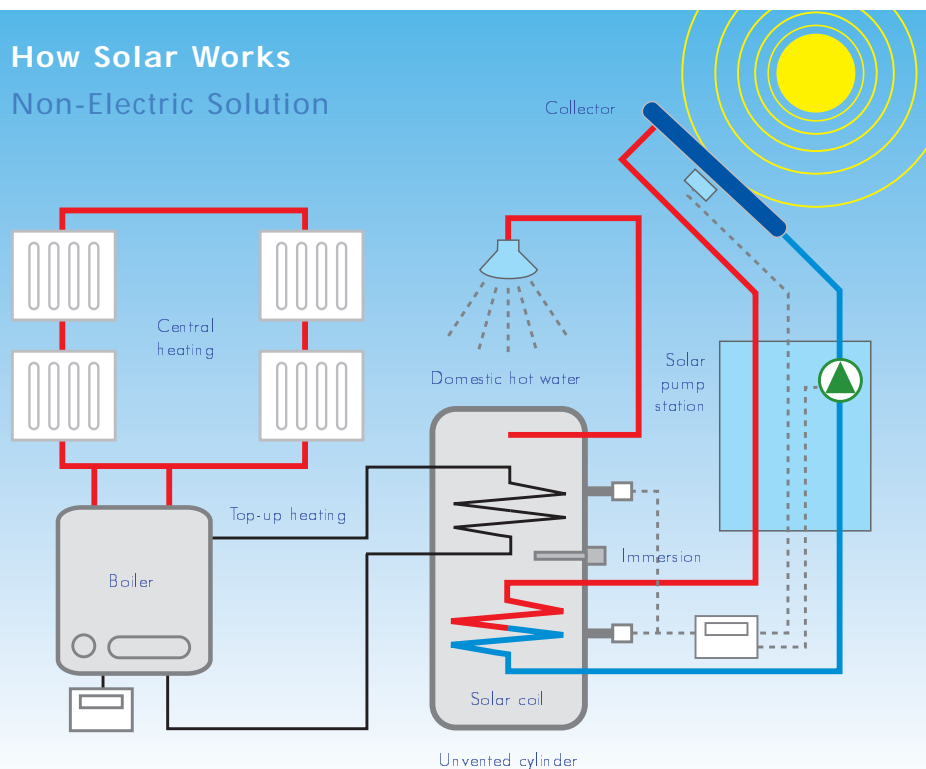
- Choice of cylinders from 175-305 litre capacity available in direct (single coil) or indirect (dual coil) options
- Duplex stainless steel construction with 60mm thick insulation for low heat loss
- High heat transfer via corrugated coil design maximises transfer of solar energy to the water

How Solar Works Electric Solution



Note: Pilot wire interface unit needed for towel rail and immersion heater

How Solar Works Non-Electric Solution



selecting the right kit for your installation

With 25 pre-configured kits to choose from, each designed to suit the needs of differing properties, choosing the right kit for your installation is easy using our three step selection process.

Step 1 Size of property and water usage

The solar package is selected according to how much water is used in the property. The table below provides a guide as to the cylinder size for a given property. Once selected this will determine how many solar collectors are required to heat the water. The solar kit can then be read off from the table.

Property size	Stored usable water volume (litre)		Solar cylinder size (litre)	No of collectors
	Indirect	Direct		
1 bed/1 shower	90	100	175	1
2 bed/1 bath & 1 shower	90	100	175	1
3 bed/1 bath & 2 showers	90/130	100/140	175/215	1/2
4 bed/1 bath & 2 showers	130/170	140/180	215/255	2/3
4 bed/1 bath & 3 showers	170	180/230	255/305	3
5 bed/2 bath & 2 showers	215	230	305	3

Step 2 What roofing kit is needed

Once the number of collectors and cylinder size has been determined, select the roof kit. This should be selected to suit the roof type of the property. The kits come with the following mounting options:

- Pitched tile roof
- Pitched slate roof
- Mounted flush with the roof using the integrated roof kit*
- Flat roof – a dedicated roof kit that provides the correct elevation for the collector.

*This requires a section of the roof covering to be removed which is then replaced with the solar panel.

Step 3 Select Dimplex solar kit

Step 1 will have determined the number of collectors you require and Step 2 the roof type.

Once these requirements have been determined the appropriate solar kit can easily be selected from the table below.

If you have any questions regarding the selection of the correct kit for your needs, please contact us on 01 842 4833

STEP 1	Property type	1 bed 1 shower 2 bed 1 bath + 1 shower				3 bed 1 bath + 2 showers 4 bed 1 bath + 2 showers				4 bed 1 bath + 3 showers 5 bed 2 bath + 2 showers			
		1 Collector Kit 2m ²				2 Collector Kit 4m ²				3 Collector Kit 6m ²			
STEP 2	Component												
	Collector	1	1	1	1	2	2	2	2	3	3	3	3
	Control unit	•	•	•	•	•	•	•	•	•	•	•	•
	Pump unit	•	•	•	•	•	•	•	•	•	•	•	•
	Heat transfer medium 20 litre	•	•	•	•	•	•	•	•	•	•	•	•
	Expansion vessel 8 litre + fixing kit	•	•	•	•	-	-	-	-	-	-	-	-
STEP 3	Expansion vessel 18 litre + fixing kit	-	-	-	-	•	•	•	•	•	•	•	•
	Roof Type*	T	S	I	F	T	S	I	F	T	S	I	F
	Normal	•	•	•	•	-	-	-	-	-	-	-	-
	Normal + Extension	-	-	-	-	•	•	•	•	-	-	-	-
	Normal + 2 Extension	-	-	-	-	-	-	-	-	•	•	•	•
	Dimplex Solar Kit	SOL 200T	SOL 200S	SOL 200I	SOL 200F	SOL 400T	SOL 400S	SOL 400I	SOL 400F	SOL 600T	SOL 600S	SOL 600I	SOL 600F

* Roof Type – T = Tile S = Slate I = Integrated F = Flat

Note: Selections are based on a property located in the south of England. For more northerly locations larger collector kits may be required.

solar cylinders

The Dimplex range of duplex stainless steel solar cylinders are available in a range of 4 capacities, available in both direct electric or indirect models. Each cylinder has been specifically designed for use with a solar system and includes a large corrugated solar coil that provides optimum heat transfer from the solar system to the hot water cylinder.

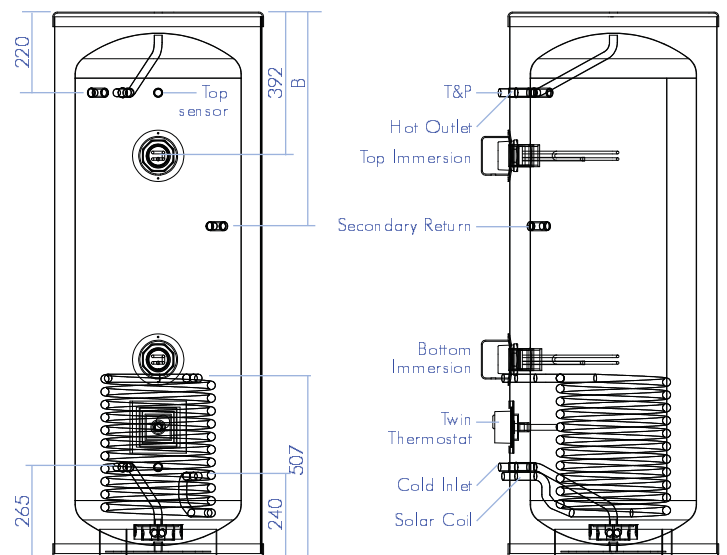
Direct electric cylinders come with two immersions and a single solar coil, while indirect versions have twin coils allowing an electric, gas or oil boiler to be connected.

High levels of insulation (60mm thick) provides low energy losses, allowing the cylinders to retain the maximum amount possible of the valuable energy captured from the sun.

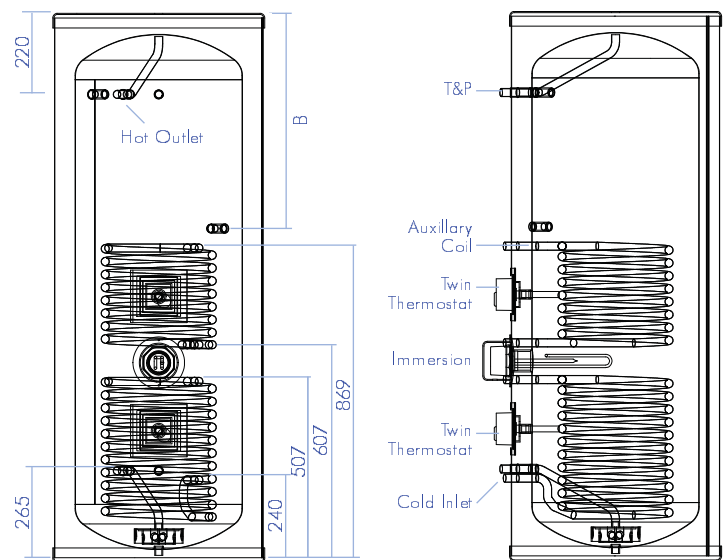
Each cylinder has two sensor pockets allowing the monitoring of top and bottom cylinder temperatures for improved solar system control.



Direct



Indirect



Performance

Product	Total Capacity (litre)	Auxiliary Volume (litre)	Cylinder Diameter (mm)	Overall Height (mm)	Dim B (mm)	T&P Valve (mm)	Immersion	Lower Immersion (mm)	Top Immersion (mm)	Solar Coil		Auxiliary Coil		Cold Inlet (mm)	Solar Coil size sqm	Aux Coil size sqm	Heat-up time (mins)	Reheat time (mins)	Heat loss in 24h (kW/24hr)
										Flow (mm)	Return (mm)	Flow Coil (mm)	Return Coil (mm)						
SCx175sd	175	100	574	1264	463	1080	2	593	908	542	380	-	-	300	1.1	-	20	14	1.78
SCx215sd	215	140	574	1506	584	1322	2	593	1150	542	380	-	-	300	1.1	-	24	17	2.19
SCx255sd	255	180	574	1773	584	1589	2	593	1417	542	380	-	-	300	1.1	-	28.5	20	2.31
SCx305sd	305	230	574	2049	584	1865	2	593	1693	542	380	-	-	300	1.1	-	34	24	2.51
SCx175si	175	90	574	1264	463	1080	1	593	-	542	275	904	642	300	1.1	0.75	18	13	1.78
SCx215si	215	130	574	1506	584	1322	1	593	-	542	275	904	642	300	1.1	0.75	21.5	16	2.19
SCx255si	255	170	574	1773	584	1589	1	593	-	542	275	904	642	300	1.1	0.75	25	19	2.31
SCx305si	305	215	574	2049	584	1865	1	593	-	542	275	904	642	300	1.1	0.75	30	22	2.51

Solar specification

Collector	
Gross Collector Area	2.181 square metres
Net Collector Area	1.987 square metres
Length	1880mm
Width	1160mm
Height	95mm
Weight	38kg
Collector Volume	1.7 litres
Glass	3.2mm low iron
Collector Absorption	94% ± 2%
Zero Loss Collector Efficiency	77.9%
Heat Loss Co-efficient	$\alpha_1 = 4.01 \text{ W/m}^2\text{K}$ $\alpha_2 = 0.0112 \text{ W/m}^2\text{K}^2$
Operating Pressure	10 bar
Stagnation Temperature	205°C
Absorber Material	Copper
Peak Power	1548W _{peak}
Gap between collectors	65mm
Emmisivity	5+/- 2%
Connections	4 x 22mm compression

Optional accessories

15m flexible hose: allows connection between the collector and the cylinder/pumps station in one fully insulated length, removing the number of joints in pipe work and the potential for leaks.

Air separator: Mounted at high level provides a means of removing air from the system during filling, when not using a flush and fill pump

Approvals

SEI Approved

Dimplex solar cylinders: KIWA approval to building regulations G3 and Water regulations UK, N.Ireland and Scotland.

Solar panel: EN 12975

Pump Station

Dimensions

Height	520mm
Width	245mm
Depth	170mm

Features

Circulation pump
2 Non-return valves
Pressure gauge
6 bar pressure relief valve
Flow meter
Air-purger
Two-port fill and flush connections

Connections

Inlets	2 x ¾" BSP female or 15mm compression
Outlets	2 x ¾" BSP female or 15mm compression

Control Unit

Dimensions

Height	137mm
Width	134mm
Depth	38mm

Features

LCD display with backlight
3 temperature probes

Service, maintenance and warranty

Dimplex solar systems are designed for long life and when serviced regularly will provide many years of high performance hot water heating. It is recommended that the solar systems be serviced bi-annually and the heat transfer fluid should be replaced once every 5 years.

The Dimplex Solar Package is supported by a national network of service engineers and a team of customer service personnel.

The Dimplex solar collector is guaranteed against manufacturing defects for 10 years. All other components supplied are guaranteed for 2 years.

Why have a solar system?

New build

It is becoming increasingly important under the new and forthcoming building regulations to provide properties with low energy loss and low running costs. This has made the design process much more complex and often requires the introduction of a renewable heating source to enable the preferred building design to pass the planning process. With the current level of insulation required in new homes the energy required to heat the domestic water is a significant part of the overall energy for the property.

The use of a solar thermal water heating system in the building design reduces energy consumption from other fuels, reducing the carbon dioxide emissions of the property and running costs. These all help with getting the building to comply with the current regulations. Introducing a solar package also reduces the need for higher specifications in other parts of the building where costs may be higher to achieve the required level of performance, solar thermal should therefore be considered as an inherent part of the building design rather than retrofit application.

If you have any questions regarding a new development, BER rating or building regulations please contact us on 01 842 4833.

Existing building

With the ever-increasing evidence of climate change, it is essential that we reduce carbon dioxide emissions for the future of the planet.

Not only will a solar thermal water heating package help the environment but it can make a positive contribution to the running costs of the home. A solar system can provide as much as 60% of the total hot water used per year.

Can I increase the number of collectors on the roof for better performance?

The greater the surface area of collector on the roof the greater the heating capacity of the solar system. However in the UK the summer months can be very hot, compared with the winter months and during these periods of hot weather, a solar system can heat the stored water very quickly, spending the rest of the day trying to dissipate heat from the system to prevent overheating. Oversizing the solar collectors will improve the spring/ autumn/ winter performance when expected performance is quite low, but can quickly stop functioning during warmer weather. The Dimplex packages are selected to provide the correct balance of performance versus cost, and reduce periods of overheating.

Further solar panels may be purchased separately with their roof extension kits if required but consideration must be given to the volume of heat transfer fluid used and accommodate this with the appropriate sized expansion vessel.

My home is electrically heated is it suitable for a solar system?

An electrically heated home is ideal for solar thermal water heating systems. Dimplex provide a range of cylinders with one heat exchanger coil and two immersions allowing the solar system to preheat the hot water cylinder which can then be topped up with the immersions when necessary using a programmer and thermostat.

Is every property suitable for a solar system?

For optimum performance the solar panels should be mounted on a south facing roof inclined at an angle of 30-50 degrees to the horizontal. However it is often impractical to achieve this and a good installer will find the most appropriate site for the solar panels through a thorough survey.

Panels can be mounted on a flat roof using a special mounting frame and also work very well on a standard pitched roof facing anywhere from South East to South West.

Is there anywhere not suitable for a solar system?

Solar panels will only perform well when not shaded from the sun by trees or other obstacles; they cannot operate from a northerly facing roof.

Listed buildings and conservation areas will require special planning applications before a solar system could be considered.

The solar system heats stored water, so where there is a combination boiler rather than a hot water cylinder, the combination boiler needs to be of a specification suitable for handling a pre-heated cold water supply. A storage cylinder will then need to be added to the property.

Is there enough sun in Ireland to make a solar system worthwhile?

In Ireland the sun provides from 900 – 1200kWh of heat energy per year for every square metre. Using a solar system, this energy can be transferred into your hot water providing as much as 60% of your total annual hot water usage.

Even on overcast days the solar system contributes to the heating of the hot water reducing the amount of energy used from an immersion heater or gas/oil boiler and therefore reducing costs and carbon emissions.

Can I use a solar system with a combination boiler?

Some manufacturers produce a combination boiler suitable for use with solar systems and can accept a pre-heated cold water supply. A solar system should not be operated with a standard combination boiler without first consulting the manufacturer to check suitability. A storage cylinder will be required in the property.

Are there any planning restrictions?

A solar system should not be installed without first checking the current planning restrictions that apply to the property. Listed buildings and conservation areas require special planning approval.

A solar panel that protrudes 100mm above the roof line at any point requires planning permission before installation.

It is necessary to check with the local authority planning department before committing to a solar system to check if any restrictions apply.

After Sales Service

After sales service if required is absolutely no problem with Dimplex – we have a network of appointed Service Agents spread throughout the Country who are qualified and trained to repair or service any of our appliances.

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. If you require further advice concerning the installation of our products, please contact our customer service department or consult your installer.

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.

Other Glen Dimplex Renewable Products

- Dimplex Heat Pumps
- Xpelair Mechanical Ventilation & Heat Recovery



Useful Numbers

Tel:	Sales: 01 842 4277 Customer Care: 01 842 8222
Fax:	Sales: 01 842 4839 Customer Care: 01 842 8091
Email:	service@dimpco.ie
Website:	www.dimpco.ie

Dimplex is a Registered Trade Mark in the United Kingdom.

All the products shown in this brochure are protected by intellectual property rights owned by Dimplex UK Ltd or members of the Glen Dimplex Group on an international basis. The Glen Dimplex Group of Companies will actively protect these rights.

© Dimpco Limited

All rights reserved. Material contained in this publication may not be reproduced in whole or in part, without prior permission in writing of Dimpco Limited.

 Dimplex®
Comfort. By design

Distributed in Ireland by
Dimpco (A Glen Dimplex Company), Airport Road, Cloghran, Co. Dublin.