

# Heating design guide

Dimplex provides a three tier service, to meet different property and timescale requirements.

**Level 1:** If you need to obtain an indication of the heating requirements for estimating or if you need heating for one or two rooms, please use the Selection Guide below.

**Level 2:** For single properties, please complete the form on page 10 and post or fax it with a sketch plan to our heating design dept (01489 773067). We aim to provide an accurate assessment within 7 working days.

**Level 3:** For multiple properties, please send us comprehensive scale drawings (scale 1:50 or 1:100) together with construction details and any other relevant information. We offer a 14 working day service for this type of assessment.

Levels 2 and 3 are provided on a free of charge basis. However should Dimplex products subsequently not be installed we reserve the right to charge for the scheme.

## How to use this selection guide.

The tables below provide heater sizing guidance for traditional electric heating systems, including storage heaters and panel heaters. For sizing guidance for DuoHeat radiators please refer to page 9.

For traditional electric heating the preferred options for living and dining rooms are CXL/CXLS combination storage heaters or FXL fan storage to provide a greater degree of comfort and control. Heater sizing for XLS/XL storage heaters can be easily calculated.

Knowing the floor area, the wall construction and the number of outside walls, the heater loading in kilowatts is indicated in the appropriate table.

These tables do not take into account particularly old properties or those built very recently. If your property fits into one of these classifications, please complete the form on page 10 so that we can provide a more accurate assessment.

Note a ceiling height of 2.4m is assumed and a minimum of 75mm of roof insulation. The customer service department can provide information on halls, landings and bathrooms.

Living or dining room: FXL fan storage or CXL/CXLS combination storage heaters. Heater loading in kW.										Temperature 21°C	
Floor area	Solid walls			Cavity walls			Insulated cavity walls				
	No. of outside walls			No. of outside walls			No. of outside walls				
Msq.	1	2	3	1	2	3	1	2	3		
12	2.3	2.7	3.6	2.0	2.4	3.1	1.4	1.6	2.1		
16	2.6	3.1	4.0	2.3	2.9	3.6	1.7	2.0	2.4		
20	3.3	3.9	4.9	2.9	3.4	4.3	2.1	2.4	2.9		
24	3.7	4.3	5.4	3.3	3.9	4.7	2.6	2.9	3.3		
28	4.1	4.9	6.0	3.7	4.3	5.3	2.7	3.1	3.7		
32	4.4	5.4	6.6	4.1	4.7	5.9	3.0	3.4	4.0		

For XLS/XL heaters multiply loading by 1.5.

Bedrooms: For bedrooms PLX panel heaters are recommended. Heater loading in kW.										Temperature 18°C	
Floor area	Solid walls			Cavity walls			Insulated cavity walls				
	No. of outside walls			No. of outside walls			No. of outside walls				
Msq.	1	2	3	1	2	3	1	2	3		
8	0.8	1.3	1.7	0.8	1.0	1.4	0.8	0.9	1.4		
12	0.9	1.8	2.3	0.9	1.4	2.1	0.8	1.4	1.8		
16	1.2	2.1	2.7	1.0	1.7	2.2	0.9	1.6	2.1		
20	1.4	2.2	3.1	1.2	2.0	2.6	1.0	1.8	2.4		
24	1.5	2.3	3.4	1.2	2.1	2.9	1.0	1.9	2.5		

For XLS/XL heaters multiply loading by 1.5.

Kitchen: XLS/XL storage heating. Heater loading in kW.										Temperature 18°C	
Floor area	Solid walls			Cavity walls			Insulated cavity walls				
	No. of outside walls			No. of outside walls			No. of outside walls				
Msq.	1	2	3	1	2	3	1	2	3		
10	1.6	2.1	2.9	1.4	2.0	2.4					
12	1.9	2.7	3.3	1.7	2.3	2.9					
14	2.1	3.0	3.6	2.0	2.6	3.1					
16	2.4	3.3	3.9	2.1	2.9	3.4					

For all kitchens with cavity wall insulation direct heating is fine, choose from BFH plinth heaters or FX fan heaters for all situations.

## Commercial heating

For greater control and economy of operation FXL fan storage heaters are recommended. Sizing can be easily calculated for

XLS/XL storage heaters.

Sizing is based on a single storey with a ceiling height of 3m and a minimum of 75mm of roof insulation.

Office: FXL fan storage heaters or CXL/CXLS combination storage heaters. Heater loading in kW.										Temperature 21°C	
Floor area	Solid walls			Cavity walls			Insulated cavity walls				
	No. of outside walls			No. of outside walls			No. of outside walls				
Msq.	1	2	3	1	2	3	1	2	3		
15	2.7	3.7	5.1	2.5	3.2	4.4	2.1	2.6	3.3		
20	3.3	4.4	5.6	3.0	3.9	5.0	2.6	3.2	3.9		
25	3.7	5.1	6.5	3.4	4.6	5.7	3.0	3.8	4.5		
30	4.4	5.9	7.3	4.2	5.3	6.5	3.6	4.4	5.2		
40	6.0	7.4	9.6	5.5	6.7	8.4	4.9	5.6	6.7		
50	6.6	8.5	10.5	6.2	7.8	9.3	5.6	6.6	7.6		

For XLS/XL heaters multiply loading by 1.5.

# Heater sizing table

## How to use this selection guide.

The tables below are for use with DuoHeat radiators only – for other products please refer to our selection charts on page 8. Unlike the charts on page 8, these tables cover all applications – living room, dining room, kitchen and hallway – and are designed to provide for an internal temperature of 21°C.

DuoHeat radiators are designed to provide primary heating in main living areas, including living rooms, dining rooms, kitchen/diners and hallways/landings. This should be supplemented in other rooms, such as bedrooms and bathrooms, with Dimplex electronic panel heaters.

## DuoHeat Radiator Sizing – Replacement Systems

For sizing of DuoHeat radiators to replace existing storage heater systems, replace the existing heater with a similarly sized DuoHeat radiator, as indicated below. Due to the consistency of heat output from DuoHeat radiators, this will provide a significant improvement in room comfort levels throughout the course of the day.

EXISTING HEATER	DUOHEAT RADIATOR
XL/XLS12	Duo300i
XL/XLS18	Duo400i
XL/XLS24	Duo500i

When considering the correct replacement for a combination storage heater, the frequency with which the convector component is used should be taken into consideration (i.e. if it is used often, the heater may already be undersized).

Therefore it is recommended that combination storage heaters are replaced with a larger size of DuoHeat radiator, to ensure there is sufficient capacity within the system to match the capability of the convector heater being replaced. In the case of a 24kWh combination storage heater, it is recommended that an additional appliance – either a second DuoHeat radiator, Dimplex panel heater or flame effect fire is added:

EXISTING HEATER	DUOHEAT RADIATOR
CXL/CXLS12	Duo400i
CXL/CXLS18	Duo500i
CXL/CXLS24	2 x Duo400i, or Duo500i + panel heater or Duo500i + flame effect fire

## DuoHeat Radiator Sizing – First time installations

The following chart provides guidance on radiator sizing for first time installations in key living areas for existing buildings. Simply select the floor area of your room from the left hand column, and choose the correct number of outside walls from either the cavity or insulated cavity wall columns. These tables do not take into account particularly old properties or those built very recently. If your property fits into

one of these classifications, please complete the form on page 10 so that we can provide a more accurate assessment.

Note: A ceiling height of 2.4m and a minimum of 75mm of roof insulation is assumed.

	CAVITY WALLS			INSULATED CAVITY WALLS		
	NUMBER OF OUTSIDE WALLS			NUMBER OF OUTSIDE WALLS		
	1	2	3	1	2	3
12m <sup>2</sup>	Duo500i	Duo500i	Duo400i+400i	Duo400i	Duo400i	Duo500i
16m <sup>2</sup>	Duo500i	Duo400i+400i	Duo 400i+500i	Duo400i	Duo500i	Duo400i+300i
20m <sup>2</sup>	Duo400i+400i	Duo400i+400i	Duo500i+500i	Duo500i	Duo400i+300i	Duo400i+400i
24m <sup>2</sup>	Duo400i+400i	Duo400i+500i	Duo400i+400i+400i	Duo400i+300i	Duo400i+400i	Duo400i+400i
28m <sup>2</sup>	Duo400i+500i	Duo500i+500i	Duo400i+400i+500i	Duo400i+300i	Duo400i+400i	Duo500i+400i
32m <sup>2</sup>	Duo500i+500i	Duo400i+400i+400i	Duo400i+500i+500i	Duo400i+400i	Duo400i+400i	Duo500i+500i