

The following information is provided to help in planning the most efficient heating for each installation. However, since requirements can be affected significantly by factors such as activity levels, ambient conditions, building structure and efficiency and weather-proofing, the information should be regarded as a general guide. Consort Claudgen have many years experience supplying complete heating packages for all types of industrial, commercial, retail and amenity applications, and are always happy to provide technical information to help in planning individual heating schemes. If you require additional information please contact our sales office on Tel: 01304 215 575 or Consort Claudgen direct on Telephone: 01646 692 172

## Which heater?

This will depend on the nature, use and design of the interior; and one type or a mixture of products may be used. In general, fan-forced heaters and convectors are employed as space heaters, and radiants where more localised heat or immediate all-over warmth is required.

## Radiant Heating

Twinzone, Sunzone, Ceramiczone and Quartzzone heaters are specified where there is a need for localised heat or immediate, all over warmth. Applications include commercial and industrial premises that are lightly constructed, naturally cold and perhaps infrequently used. They are also ideal for premises where staff occupy only small parts of a large area, such as warehouses, stores and workshops. To estimate the approximate total heating load needed in kilowatts (kW), use the following formula;

$$\text{Installed Load (kW)} = \frac{A \times F}{1000}$$

where: A = floor area in square metres and F = appropriate heating factor from the table;

Type of Building	Heating Factor F (Watts/sq.m)
Sports Hall	110-130
Shops and Supermarkets	130-160
Offices and Canteens	140-170
Workshops and Garages	150-180
Halls with some activity	160-200
Warehouses	170-210
Halls with little activity	180-220
School Halls	200-260
Churches	220-280

The lower figures relate to a well insulated building with few draughts, the higher figures being more appropriate for older buildings with insulation below modern standards. This table takes account of the different heating requirements of these premises for example, a church is assumed to need rapid heating from cold, for sedentary and perhaps elderly occupants, and as such has a higher recommendation than a sports hall.

## Siting

For optimum absorption of radiant heat by occupants, heaters should be positioned so that heat reaches them at an angle of 45 degrees and schemes should be planned if possible so that the area to be heated is effectively covered by heaters which are all mounted at or close to this angle.

## Noise levels

Throughout the Consort Claudgen catalogue you will find reference to the dBA level of various fan heaters. This dBA level was recorded in an acoustic chamber one metre from the product. To aid you in determining how quiet the products are, we list below some comparative noise levels.

30dBA Soft Whisper  
50dBA Rainfall  
60dBA Normal conversation

## Control

Controllability is a very important factor in electric heating for both comfort and economy. The Consort Claudgen range of Panel, Convector and Fan Heaters are available with built-in highly responsive thermostats and variable heat control.

All Consort Claudgen heaters can be controlled using conventional Air Thermostats, Black Bulb Sensors and Time Switches, linked if necessary to suitable contactors. Area control by presence detection can be achieved using the PIR1 controller. This also gives thermostatic control for comfort and set back temperatures, which can be adjusted to suit individual requirements. Trouble free control of up to 6kW of Quartz heaters can be achieved by using the Softstart control. This removes the surge current normally associated with Quartz heaters and negates the need for higher rated cable and switchgear, and can be used in conjunction with the PIR1 controller for presence detection control.

## Cabling requirements to remote switch

Model No	Output	No of wires	Wire Size (mm <sup>2</sup> )	Mains Supply Single phase	Three phase
<b>Heat Zone</b>					
HE7010	3.0kW	3+earth	1.5	⊕	
HE7020	4.5kW	3+earth	2.5	⊕	
<b>Ceiling Heater</b>					
HE7230/37	3.0kW	3+earth	1.5	⊕	
HE7245/47	4.5kW	3+earth	2.5	⊕	
HE7260/67	6.0kW	3+earth	4.0	⊕	
<b>Screen Zone</b>					
HE7402	3.0kW	4+earth	1.5	⊕	
HE7420	4.5kW	4+earth	2.5	⊕	
HE7426	6.0kW	4+earth	4.0	⊕	
HE7433	9.0kW	6+earth	0.5	⊕	⊕
HE8320	4.5kW	4+earth	2.5	⊕	
HE8326	6.0kW	6+earth	4.0	⊕	
HE8333	9.0kW	5+earth	0.5	⊕	⊕
HE8350	12.0kW	5+earth	0.5	⊕	⊕
HE8360	18.0kW	6+earth	1.0	⊕	⊕
HE8370	18.0kW	6+earth	1.0	⊕	⊕
HE8380	20.0kW	6+earth	1.0	⊕	⊕
HE8409	9.0kW	6+earth	1.0	⊕	⊕
HE8412	12.0kW	6+earth	1.0	⊕	⊕
HE8418	18.0kW	6+earth	1.0	⊕	⊕
RAC3000	3.0kW	4+earth	1.5	⊕	
RA C4500	4.5kW	4+earth	2.5	⊕	
RAC6000	6.0kW	4+earth	4.0	⊕	

The above wire sizes are for guidance only and may vary with the length of cable run.

Use this at-a-glance chart to match the appropriate Consort Claudgen products to your installation needs. For more information on product selection and installation planning please contact our sales office or Consort Claudgen direct on Telephone: 01646 692 172

	Wireless & Stand-alone Panel Heater	Low Surface Temperature CN & PLST	CN Fan Heater	CN Convector	Heatstream Plinth Heater	Tower Dry Towel Rail	Ladder Towel Rail	Heatflow Downflow Heater	Frost Fighter Splashproof Heater	Screenzone Air Curtain	Ceiling Heater	Heatzone High Level Fan Heater	Wall Mounted Fan Heater	Recessed Wall Heater	Quartzzone Radiant Heater	Waterproof Quartz	Ceramiczone Radiant Heater	Twinzone Radiant Heater	Sunzone Radiant Heater	Ecozone Air Cleaner	Ecfresh Washroom Deodoriser	Sanfire Incinerator	
Arcades																							
Auction Rooms																							
Barracks																							
Canteens																							
Changing Rooms																							
Churches																							
Classrooms																							
Clinics																							
Clubs																							
Computer Rooms																							
Conseratories																							
Corridors																							
Disabled Toilets																							
Drying Rooms																							
Entrance Halls																							
Exhibition Areas																							
Factories																							
Garages																							
Gate House																							
Hairdressers																							
Hangers																							
Hotels																							
Kitchens																							
Laboratories																							
Lavatories																							
Loading Bays																							
Lofts																							
Meeting Halls																							
Museums																							
Night Clubs																							
Nurseries																							
Offices																							
Patios																							
Porches																							
Portable Building																							
Pubs																							
Reception Areas																							
Recreation Rooms																							
Residential Premises																							
Rest Room																							
Restaurant																							
Shops																							
Smoking Area																							
Sports Hall																							
Store Rooms																							
Studios																							
Supermakets																							
Swimming Baths																							
Warehouses																							
Washrooms																							
Workshops																							