

Energy efficient radiators for use with heat pumps



The 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.

With less than 3% of the water volume of a conventional steel radiator, Smartrad's low thermal mass allows it to heat up four times more quickly and react more responsively to changes in room temperature, meaning improved control, comfort and energy saving.

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

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

Benefits of Dimplex Smartrad

- 1 Stylish design, with a choice of metal or glass fronts
- 2 Energy efficient alternative to conventional radiators
- 3 Cost effective, practical alternative to underfloor heating
- 4 Ultra-low water content allows energy saving through:
 - Four times faster room heat up time
 - 75% less energy consumption than a standard radiator with comparable output to bring a room from 15°C to 21°C
 - Responsive reaction to incidental heat gains (eg solar gain)
- 5 Designed for low water temperature operation:
 - Optimises heat pump CoP
 - Reduces heat pump system running costs
 - Reduces heat pump system CO₂ emissions
- 6 Integral electronic thermostatic control, providing automatic control over fan speed output and room temperature stability,
- 7 Optional plug-in 24-hour or 7-day programmers

Technical specification

Product Description



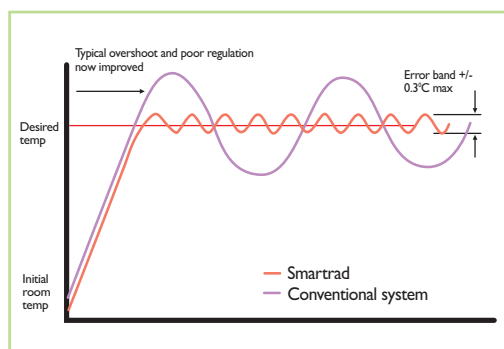
- Wall mounted fan convector radiator for heating, with integral electronic room thermostat
- The control panel is integrated into the radiator casing and provides the following functions:
 - Eco mode: fan speed is automatically controlled based on room temperature. The lowest possible fan speed to meet the heating requirement will be automatically selected
 - Manual mode: fan speed is selected manually (Low/Med/Boost) and remains fixed until further user intervention
- Optional plug-in programmers control room temperature output based on occupancy pattern (24 hour or 7 day options)
- Right or left hand plumbing connections
- Air bleed valve included in the scope of supply

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.



Operating limits	SRX080	SRX120	SRX140	SRX180
Heating water system/return °C	Max 85 / Min 15			
Performance	<i>*at medium fan speed</i>			
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	1.2	1.4	1.9
Heating capacity* mean water flow temp 50°C (kW)	1.0	1.5	1.7	2.3
Heating capacity* mean water flow temp 55°C (kW)	1.1	1.7	2.0	2.7
Heating capacity* mean water flow temp 60°C (kW)	1.3	1.8	2.2	3.0
Sound pressure level at 1m dB (A)				
Low	26			
Medium	29			
Boost	36			
Air Flow Rate				
Low (m³/hr)	60	100	120	160
Medium (m³/hr)	125	190	225	300
Boost (m³/hr)	228	345	410	540
Dimensions (mm) HxWxD	500x500x140	500x670x140	500x740x140	500x910x140
Minimum water flow rate (m³/hr@kPa)	450 / 11.0	450 / 12.8	450 / 13.4	450 / 15.5
Weight (kg)	12	15	17.5	22
Nominal voltage / fuse rating (V/A)	~230 / 3			
Power input (W)				
Low	17	22	26	24
Medium	20	32	40	35
Boost	27	47	60	53
Hydraulic connections	15mm compression			