



**DONOHUE HEATING SERVICES
RADIANT DATA SHEETS**



SMART

At Merriott we're always looking for ways to work **SMART**er. Our innovative designs, rigorous quality procedures and best in class manufacturing processes, guarantee the highest quality, efficient, bespoke design radiators, coupled with premium levels of customer service.

Our heating solutions are fit for purpose and easy to use, whilst being low maintenance and easy to manage. They can be used in any commercial environment with our quality seal of approval and are made using only the finest components to ensure a durable, strong finish. We design products to make people feel comfortable.

Safe & Simple
Manageable
Adaptable & Assured
Robust
Temperate

The Merriott **SMART** range of Radiant ceiling panels provides an alternative to traditional heat emitters. Radiant heat from ceiling panels delivers heat directly to those areas where it is required, giving you a more pleasant climate to work in. With a range of panels available, Merriott can offer the perfect solution to any heating or cooling requirement.

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Product Description

The **SMART** radiant panel is central to our comprehensive range of radiant panels, each designed with a specific purpose, offering a quality solution to all building types whatever your needs; from a single panel to a full heated and cooled metal ceiling, from multi service sails to 100m long industrial applications.

The **SMART** radiant panel is manufactured from three aluminium extrusions with return profiled edges for high rigidity and easy installation, offering minimal linear appearance, incorporating a six pass one piece copper meander, insulated on the rear and fitted with substantial integral dual purpose stiffening/hanging bars. The **SMART** radiant panel offers a high quality, technical specific solution to this cost sensitive commodity area of the radiant market.

02 Application

The **SMART** radiant panel is light and robust. It offers market leading performance and comes with an impressive technical specification. It is manufactured in the UK and available with short lead times.

Primarily this model is designed for use within suspended 600mm grid ceilings and can be used within both standard and micro tee ceiling systems.

Panels are available in nominal sizes to replace 600mm ceiling tiles. Two panels can be installed in series for a single hydraulic circuit up to 6m in length using one flexible hose, also available from Merriott, and using one set of valves.



Alternative Application

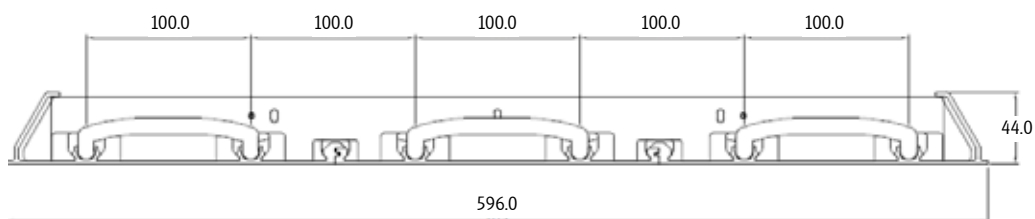
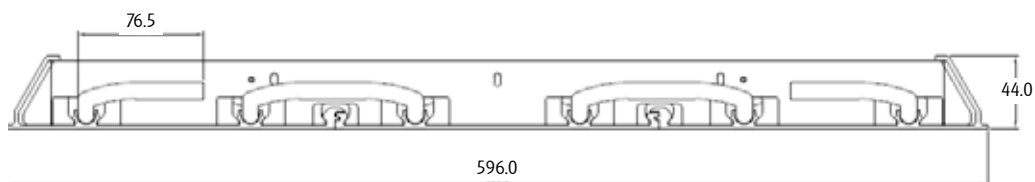
By using ancillary items it is possible to apply this product into a **free hanging, plasterboard ceiling** and **wall mounted** applications.

Information available on request.



Design Features

- Facia edge profile designed to sit on the T bar without obstruction from any adjacent frame cross member.
- Works within micro T system ceilings.
- High edge profile and interlocking suspension brace system reduces deflection.
- The copper waterways are pressed into the unique pipe carrier reshaping the copper to offer an increased thermal transfer, increased output and quicker response times.
- 10mm waterways assist in achieving turbulent flow on small panels with minimal flow rates.
- Free-hanging version uses additional end cover plates.
- Central joining piece available for module connections giving the appearance of a single panel installation.
- Wall mounted version is achieved using the free-hanging version plus additional wall brackets
- Plasterboard ceiling model achieved using T bar version complete with an additional frame.



Technical Specification

- 2mm high grade aluminium extrusion to EN775-9, offering low weight to high strength ratio, robustness and quick response times.
- RAL 9016 white powder coat finish
- 10mm OD high spec soft copper pressed into oval pipe carrier reshaping the copper to offer an increased thermal transfer.
- Six pass, one piece copper meander to EN12449 for high performance and offers security from potential leaks
- Reinforced open ended flow and return pipes suitable for compression/push fit connections.
- Outputs to EN14037 certified by the University of Stuttgart.
- Rigid Non Fibrous, foil faced insulation to EN13165 fire rating A2.
- Each panel individually packaged for protection in transit and on site.
- Max operating temperature 90C.
- Max test pressure 16 bar.
- Max operating pressure 10 bar.
- Connection hoses are available on request

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Technical Information

Δt (MEAN WATER TEMPERATURE MINUS ROOM) OUTPUT PER LINEAR METRE

Nominal Size	Merriott Code	Hangers Installed	Weight including water content	Output At ΔT								
				30	35	40	45	50	55	60	65	70
600 X 600	S600T6	4	4.07 kg	105	126	148	170	194	217	242	266	291
600 X 1200	S600T12	4	8.14 kg	210	252	296	340	388	434	484	532	582
600 X 1800	S600T18	4	12.20 kg	315	378	444	510	582	651	726	798	873
600 X 2400	S600T24	6	16.28 kg	420	504	592	680	776	868	968	1064	1164
600 X 3000	S600T30	6	20.34 kg	525	630	740	850	970	1086	1210	1330	1455

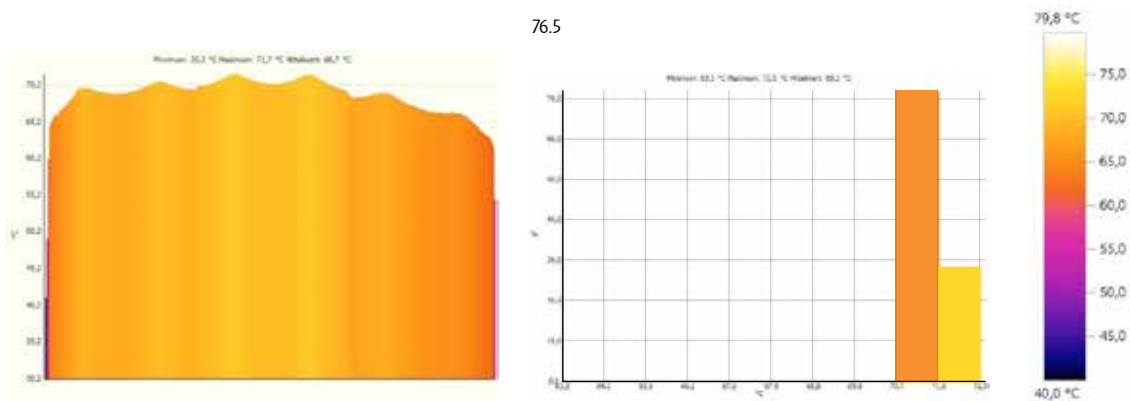
Water content .934 litres per liner metre included in the installed weight

Technical Specification



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Copper pressed and reshaped into oval pipe carrier.



Thermal images show panel surface temperature. 72% of the surface within 3°C of MWT, 27% within 6°C of the MWT.

Product Specification

The following specification page can be used for specifying Merriott **SMART** radiant panels:

Technical Specification

- 2mm Aluminium Extrusions with profiled high ridge return edges
- Minimal linear pattern facia
- Multipurpose integral anti-deflection and suspension bar
- 10mm OD six pass one piece copper meander waterways
- Reinforced open ended flow and return connections
- Powder coat paint finish RAL 9016
- Non-fibrous foil backed insulation to A2class fire rating

Performance

Heating performance independently certified to EN14037

Operating Parameters

- Max working pressure 10 bar
- Max operating temperature 90°C
- Max test pressure 16 bar
- Weight 6.78 kg/m including water content

Installation

- All panels to be installed in accordance with the manufacturers recommended methods/guidelines
- All final connections to panels to be via steel braided flexible hoses

Panel Type

T-Bar application:

Free hanging single module:

Free hanging multiple modules:

Plasterboard application, additional plasterboard frames:

Wall mounted application:

Warranty

The Merriott SMART range of Radiant Panels is guaranteed for a period of five years with regards to defective materials and workmanship. In order for the warranty to be valid, designers and installers must observe and adhere to BS EN 12828:2003, "Heating systems in buildings – design for water based heating systems" and installers must adhere to BS EN 14336:2004 "Heating system in buildings – installation and commissioning of water based heating systems. In addition Merriott recommends that designers and installers observe and adhere to the British Standard code of practice for the treatment of water in domestic hot water central heating systems and BS 7593:2006. Merriott recommends the use of corrosion inhibitor for all applications, failure to observe this may result in the invalidation of warranty.

For further technical information or application advice

Technical Support

Email: radiantsales@merriottuk.com

Tel: 07525 128 299

Merriott UK (Manufacturing Facility)

Merriott, Imperial Park, Newport, Gwent, NP10 8FS

Tel: +44 (0) 1633 657 000

Fax: +44 (0) 1633 681 864

Merriott Ireland

Derrylin, Co. Fermanagh, Northern Ireland, BT92 9AU

For contact numbers please see below.

UK Enquiries

Tel: +44 (0) 1633 657223

Fax: +44 (0) 1633 657215

Irish Enquiries

Northern Ireland

Tel: +44 (0) 800 389 9980

Fax: +44 (0) 286 774 2998

Republic of Ireland

Tel: +353 (0) 1800 882 332

Fax: +44 (0) 286 774 2998

Email: sales@merriottuk.com

Web: www.merriottuk.com / www.merriott.ie

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Academy in West Midlands, Panel type used S600T18 (1800x600mm)



Library in South Wales, Panel type used S600T30 (3000x600mm)

www.merriottuk.com

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