



All Hallows' Church Bristol

connect[®]
Infrared

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Heating System Proposal for All Hallows Church Bristol

Project: Infrared heating



Introduction

At All Hallows, Bristol, providing an efficient and comfortable heating solution is essential to support both worship and wider community use of the church. The current electric heaters are outdated and inefficient, offering limited warmth and detracting from the experience within this historic setting.

By replacing them with modern Mediumwave Spectrum Heat technology, we can deliver a discreet, energy-efficient system that provides consistent comfort from above. This approach preserves the beauty of the building while creating a welcoming environment for all. Localised Pew heating will also offer further heat source in the Chancel

Benefits of Mediumwave Spectrum Heat Technology:

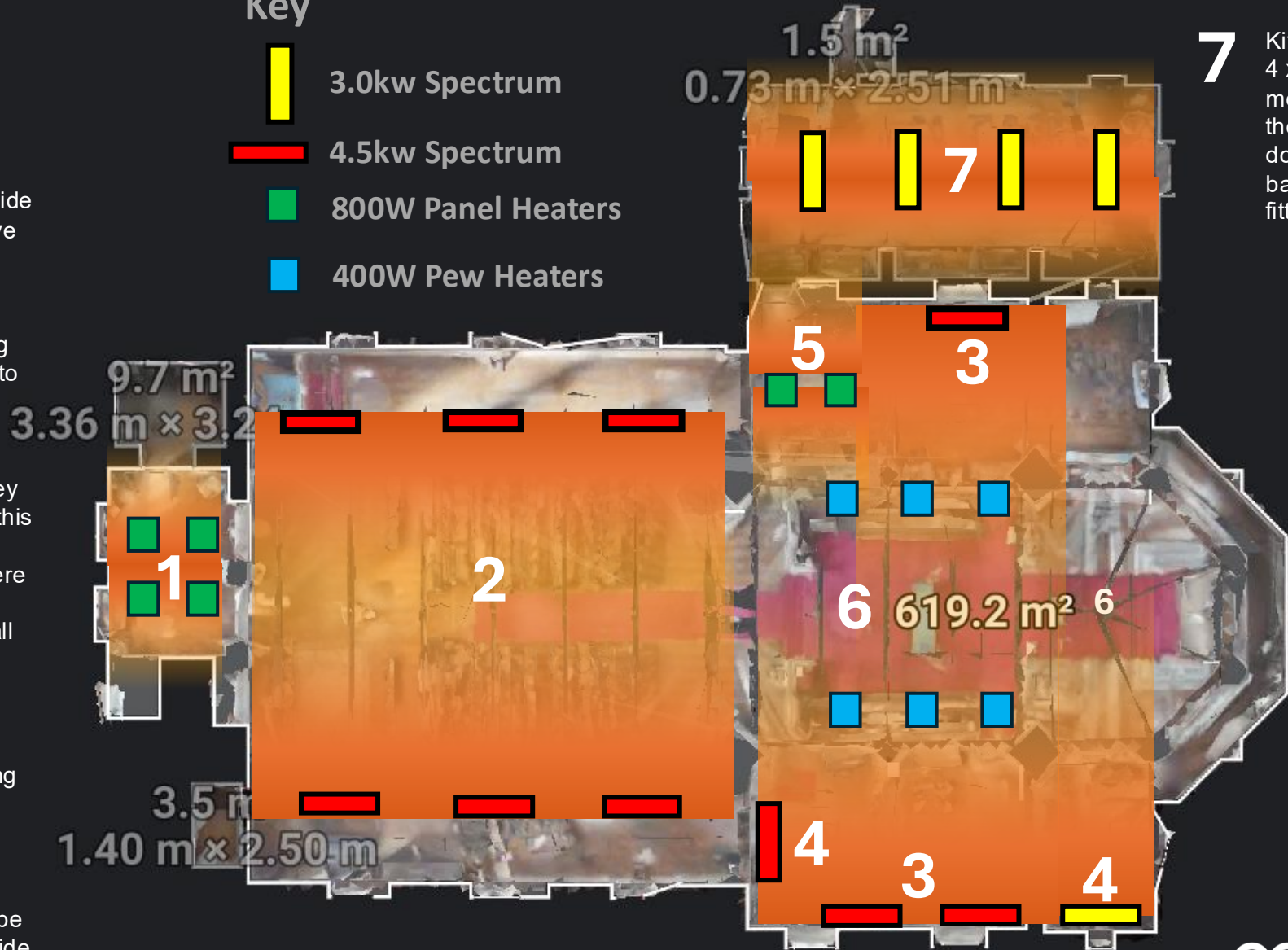
- Comfortable warmth – delivers consistent, all-encompassing heat for people and spaces.
- Zero light and glare – completely discreet with no intrusive glow or distraction.
- Unobtrusive design – suspended neatly within the beam bays, blending into the church interior.
- Energy efficient – targets heat where it is needed, reducing wasted energy.
- Quiet and reliable – operates silently without moving parts or draughts.
- Protects the heritage setting – a modern solution that preserves the atmosphere and character of the building.

Connect Heating Solution

- 1** Entrance Room - 4 x 800w Panels ceiling mounted.
- 2** Nave - 6 x 4.5kW (3 x either side mounted on the underneath of the side aisle ridge beam facing into the Nave seated area
- 3** Chancel /Lady Chapel 3 x 4.5kW Spectrums where existing heaters are situated fraction higher to avoid cable showing.
- 4** Lady Chapel Extra 2 x heaters to be zoned so they can be switched on and only warm this area
1 x 4.5kW above Arch walkway where exiting cabling runs
1 x 3.0kW Spectrum in alcove at wall plate height to heat this area
- 5** Organ overhang - 2 x 800W panels mounted directly onto the wooden ceiling overhang cables hidden along beams
- 6** Chancel Pews Low wattage 400W pew heaters to be mounted under one pew on either side offering localised heat to the pew seated areas

Key

- 3.0kw Spectrum
- 4.5kw Spectrum
- 800W Panel Heaters
- 400W Pew Heaters

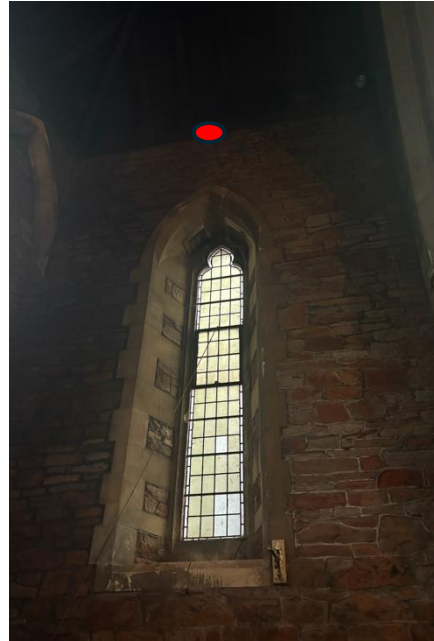


7 Kitchen/Seated area
4 x Spectrum heaters mounted directly onto the beams facing directly down. Installed in each bay between the light fittings



Pew Heaters

Mount centrally under the pew seat, not tight to timber panels—leave an air gap so convection can circulate.



- Discrete cable routing:** Hiding the cable runs and using black cable will help them blend into shadows and structural lines—good for a clean finish.

- Colour-matched heaters:** Colour coding heaters to the timber beams is a strong aesthetic choice and will significantly reduce visual impact, especially in architectural or heritage-style spaces.

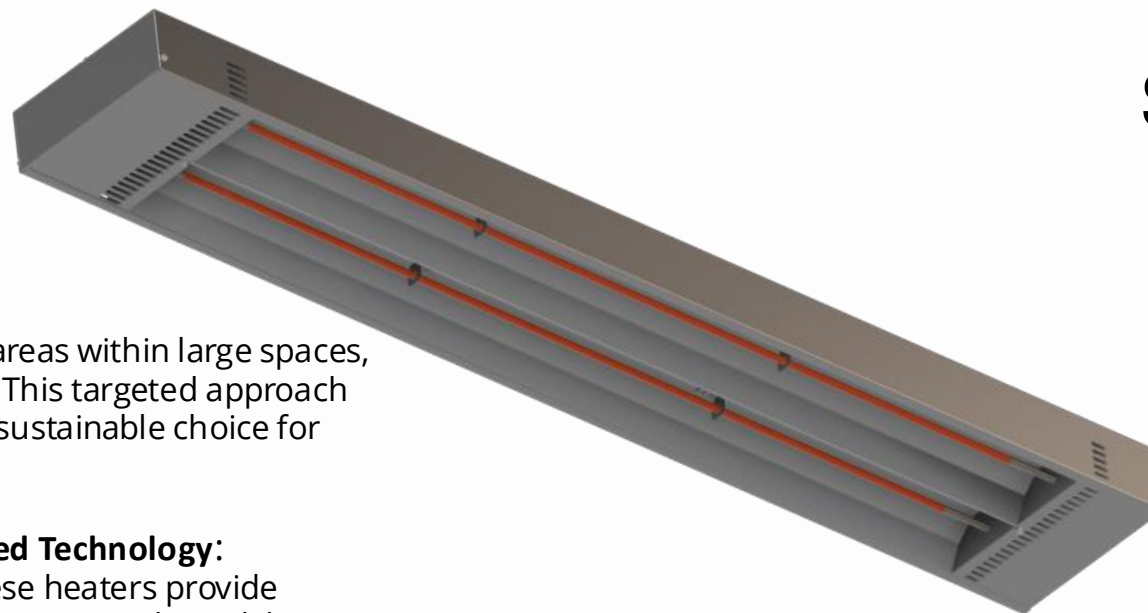
Sustainability and Efficiency

Targeted Heating Zone

Zonal heating systems create specific heating areas within large spaces, ensuring that only occupied zones are heated. This targeted approach drastically reduces wasted energy, making it a sustainable choice for industrial applications.

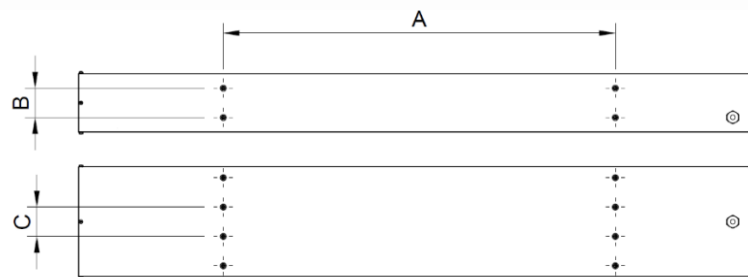
Instant Heat with RAPID mediumwave Infrared Technology:

Utilising mediumwave infrared technology, these heaters provide immediate warmth, similar to the sun's rays. This instant heat delivery means no energy is wasted waiting for the system to warm up, further enhancing efficiency.

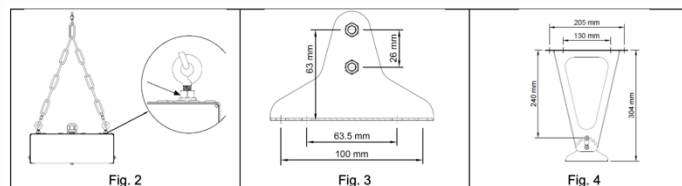


Technical Information

Light Emission:	Zero Glare
Voltage:	230V
Power:	3000W
Coverage (indoor):	Up to 120sqm
Energy:	Electricity
Colour:	Stainless Steel
Assembly:	Ceiling Mounting
Sizes:	1480 x 240 x 85 mm
Weight:	8.4 kg
IR Wavelength	Mediumwave



A = 852 mm (15R, 30R, 45R)
 B = 1x 63,5 mm (15R)
 C = 3x 63,5 mm (30R)
 D = 3x 100 mm (45R)



Spectrum 3.0kw Zero Glare

Instant Heat with RAPID mediumwave Infrared Technology

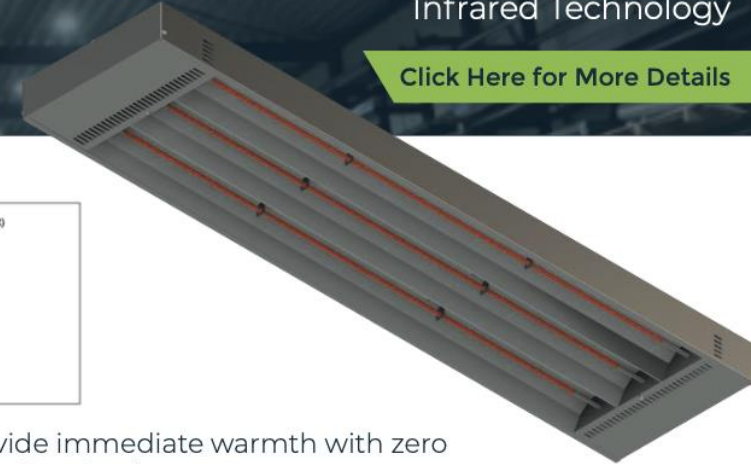
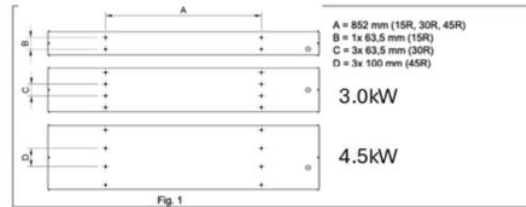
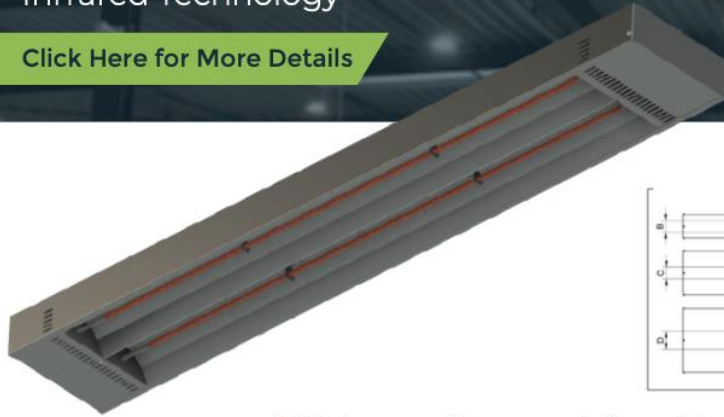
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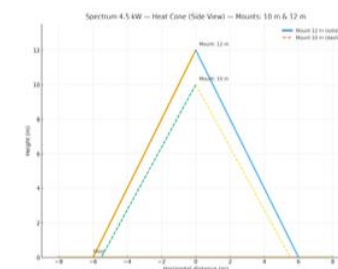
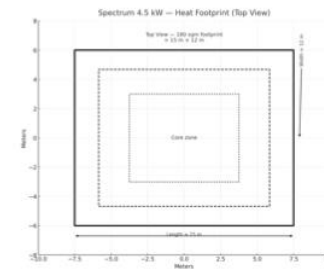
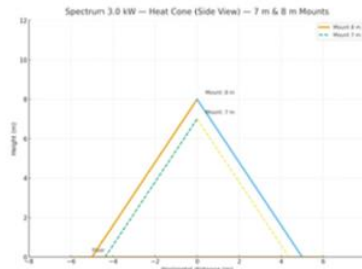
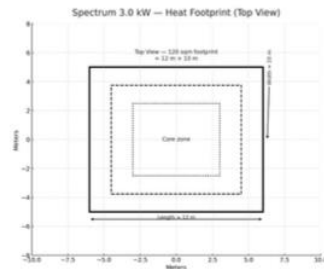
Spectrum 4.5kw Zero Glare 3 Phase

Instant Heat with RAPID mediumwave Infrared Technology

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Light Emission:
Voltage:
Power:
Coverage (indoor):
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Sizes:
Weight:IR Wavelength

Zero Glare
 230V
 3000W
 Up to 120sqm
 Electricity
 Stainless Steel Ceiling Mounting
 1480 x 240 x 85 mm
 8.4 kg
 Mediumwave

Light Emission:
Voltage:
Power:
Coverage (indoor):
Energy:
Colour:
Assembly:
Sizes:
Weight:IR Wavelength

Zero Glare
 400V
 4500W
 Up to 180sqm
 Electricity
 Stainless Steel Ceiling Mounting
 1480 x 350 x 85 mm
 11.30 kg
 Mediumwave

Mediumwave Infrared Heating

(~900°C): Best choice for balancing efficiency and discreet heating..

- High-intensity heating
- Effective for heating both surfaces and near-surface materials
- Deeper penetration compared to longwave
- Zero Glare (no colour rendering outputs)

Applications:

- Commercial hard-to-heat buildings
- Higher mounting heights
- Rapid warm-up times

**SURFACE
TEMPERATURE
~900°C**

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Zero Light Infrared Heating Performance

Overview

Infrared heating technology warms people and objects directly, without significantly heating the surrounding air. This ensures efficient energy use, particularly in large spaces like churches, while maintaining comfort. The **high-end long/medium wave infrared heaters** proposed for St. Peter's Church provide warmth without emitting visible light, preserving the aesthetic and liturgical atmosphere of the space.

Proof of Performance

A demonstration conducted by the **Net Zero Officer of the Coventry Diocese** confirmed the effectiveness of zero-light infrared heaters using infrared imaging technology.

•Infrared Camera Observation:

An infrared camera captured the temperature distribution of a space heated with zero-light infrared technology. Surfaces and occupants recorded temperatures exceeding **20°C**, demonstrating the direct and effective warmth provided by the heaters.

•Zero-Light Emission:

Unlike shortwave infrared systems, which produce a bright glow, the heaters emit medium-wave infrared energy, invisible to the human eye, ensuring no visual disruption.

Benefits Confirmed:

- Effective heating performance in large, open spaces.
- Energy efficiency by directly warming surfaces and occupants.
- Zero light emission maintains the ambience of ecclesiastical settings.

This proven performance highlights the suitability of medium-wave infrared heaters, ensuring efficient, comfortable, and discreet heating.