

# **BELGRAVIA CLASSIC**

**Fan convectors**

*Heat where you need it  
when you need it*



**Fast, versatile and cost-effective heating  
for large areas  
Proven strength and reliability**

**SPC**

## S & P Coil Products Limited

- **SPC is a specialist manufacturer of fan convectors, coil heat exchangers, and HVAC equipment to the public and private sector.**

SPC leads the way in HVAC technology and in responsiveness to customer needs. We thrive on innovation, on new technologies and new challenges. We stand for irresistible quality, exceptional customer care, and whole-life value for money.

For more than 20 years, we've applied our ingenuity to the heating, cooling, and dehumidifying of indoor environments, and to the delivery of HVAC equipment that withstands the grind of daily use. The result is a range of products that are aesthetic, robust, and economical to run.

But new ideas aren't developed in isolation. They come from a service culture that takes pride in putting customers first. We listen and, if asked, we advise; we offer free site surveys, and we always return your calls.

Our mission is simple – to become your first-choice HVAC supplier and to be the one company that provides a solution that exactly matches your needs.

- **Key facts about SPC:**

- **Our mission is to be your first choice for HVAC equipment**
- Major supplier to local government and commercial sectors
- Unrivalled regional sales and technical support team
- Free site check/survey
- Guarantee on despatch of fan convectors
- ISO 9001 and Investor in People

# BELGRAVIA - fan convectors

## ■ Why use a fan convector?

A fan convector puts heat where you need it, when you need it. For churches, schools, libraries, sports halls, hotels, hospitals, leisure centres, and a wide range of shops, offices and industrial buildings, a fan convector is the quickest and most cost-effective way of bringing a cold room up to temperature.

- **Fast and effective**  
Nothing brings a room up to temperature as quickly as a fan convector. Depending on the size of room and number of heaters, a room can be made comfortable in a matter of minutes.
- **Distributes heat**  
A fan convector has an exceptional ability to distribute heat. It can direct heat out from the walls (or down from the ceiling) towards the middle of a room.
- **Unobtrusive**  
A fan convector takes up just a fifth of the wall-space of a radiator with an equivalent output.
- **Easily installed and easily maintained**  
A fan convector can be installed in a single visit. Maintenance is minimal, and access to the unit is straightforward.
- **Durable**  
The simple design of a fan convector gives years of trouble-free use.
- **Efficient**  
Fan convectors are the most efficient form of heating for rooms that are used intermittently.

## ■ The Belgravia family: a convector for every situation

Wherever you are, and whatever you do, there's a Belgravia product to suit your application and your budget.

<b>Belgravia Classic</b>	A proven success in all applications – clean lines and tremendous versatility.
<b>Belgravia Elite</b>	Smart, contemporary styling for locations where form is as important as function.
<b>Belgravia Plus</b>	Maximum power with minimum noise – the top quality, heavy duty heater.
<b>Belgravia Clasp</b>	A chassis-style unit designed to replace the interiors of cabinet heaters.
<b>Belgravia Natural</b>	Low surface temperature natural draught convector, no noise, no maintenance.

This brochure covers the Belgravia Classic and Belgravia Natural. Please call us for information on the rest of the Belgravia range – or to request a free on-site survey.

# BELGRAVIA NATURAL

The Belgravia Natural distributes heat by natural draught convection. It's quiet, has a low surface temperature, and is virtually maintenance-free. The Natural is ideal for environments where safety and low noise are all-important.

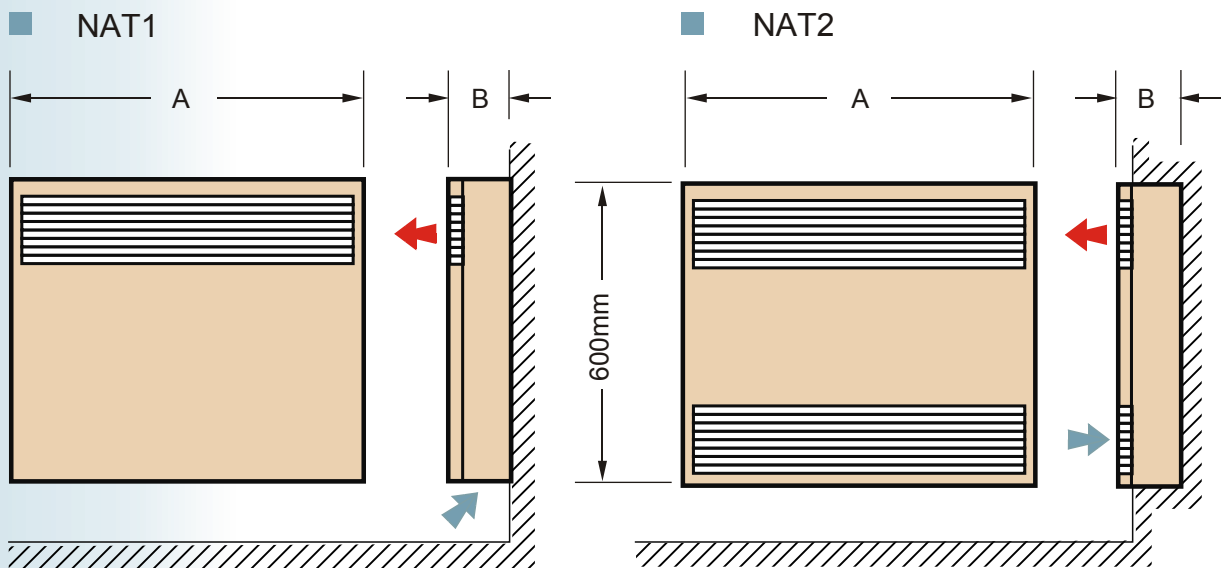
With a low weight and water content, the Natural's heat exchanger is quick to reach full emission, yet retains very little heat when the system is switched off. The styling of the case matches that of the Belgravia Classic, although the Natural and the Classic should not be used on the same pipe circuit.

There are two output models (the 3-row **Slimline** and the 5-row **Standard**) and two case styles (**NAT1** for surface mounting and **NAT2** for recessed mounting).

Table 1 **Belgravia Natural: LPHW performance data**

Model	Nominal length A (mm)	Nominal depth B (mm)	Heat emission* (kW)	Hydraulic resistance (kPa)
Slimline 3-row	700	125	0.9	0.1
	900	125	1.2	0.3
	1,200	125	1.7	0.6
	1,500	125	2.1	0.8
Standard 5-row	700	205	1.5	0.4
	900	205	2.0	0.9
	1,200	205	2.7	1.9
	1,500	205	3.4	3.3

\* Emissions are given for LPHW with 80°C flow, 70°C return, and 15°C entering air temperature.



# BELGRAVIA CLASSIC

Short lead times and a long pedigree make the Classic the specifier's first-choice fan convector.

## Features and benefits

- **Fully-tested in demanding locations**  
With more than 20 years' use and experience, the Classic has proved its strength and reliability, time after time.
- **Wide range of heat outputs**  
The Classic comes in seven output models: from 3kW to 15kW on the medium speed setting.
- **Unrivalled choice of case styles**  
The versatile Classic comes with a choice of more than 30 case styles and installation options (wall, ceiling, or concealed).
- **Factory-fitted options customise each fan convector**  
The Classic comes with a range of more than 70 factory-fitted options that convert each heater into a customised heating solution.
- **Quiet and unobtrusive**  
The clean lines and quiet running of the Classic are ideal for sensitive locations. The standard case colours are grey (with black grilles) or beige (with brown grilles), but cases can be matched to any decor.
- **Easy to install**  
You can install the Belgravia Classic in a single visit. Each unit is fully-tested before despatch and, within the case, there's ample room for pipework connections.
- **Energy-efficient, money-saving controls**  
The Classic's low water temperature cut-out (fitted as standard) saves you energy and money. A further range of thermostatic controls are available as optional extras.
- **Guaranteed despatch date or your money back**  
We know that installation schedules are tight, and that equipment has to be there on time. So, when we agree a despatch date with you, we guarantee it!

Basic technical details for the Belgravia Classic can be found from page 4 onwards. For a full specification, please refer to the engineering guides on our website.

# Classic performance

Table 2 **Belgravia Classic: LPHW performance data**

Model	Nominal length (mm)	Fan speed	Air volume airflow (l/s)	Heat emission* (kW)
BEL 30	700	low	99	2.9
		medium	124	3.5
		boost	155	3.9
BEL 40	700	low	89	4.2
		medium	112	5.0
		boost	140	5.8
BEL 60	900	low	105	5.2
		medium	172	7.3
		boost	236	9.3
BEL 75	1,200	low	110	5.9
		medium	189	8.5
		boost	280	11.6
BEL 90	1,200	low	120	6.8
		medium	231	10.3
		boost	317	13.0
BEL 115	1,500	low	128	8.1
		medium	188	10.8
		boost	248	13.5
BEL 150	1,500	low	180	10.7
		medium	289	14.6
		boost	329	15.9

\* Emissions are given for LPHW with 80°C flow, 70°C return, and 15°C entering air temperature.

- Both electric and steam options are available. Please contact SPC for full performance data.

Table 3 **Belgravia Classic: coil hydraulic resistance and weight**

Model	Hydraulic resistance at normal speed		Weight (kg)
	Standard coils (kPa)	Low-resistance coils (kPa)	
BEL 30*	n/a**	0.3**	30
BEL 40	0.8	0.3	32
BEL 60	1.2	0.3	36
BEL 75	2.4	0.3	45
BEL 90	3.9	0.5	45
BEL 115	7.2	1.0	57
BEL 150	7.5	1.1	57

\* BEL 30 comes with ½" BSP female pipe connections; all other output models have ¾" BSP female connections.

\*\* BEL 30 comes with a low hydraulic resistance coil as standard.

### Low hydraulic resistance coils

Please note that low hydraulic resistance coils reduce the heat output. The heat emissions on Table 2 should be reduced by 5%, except for BEL 30.

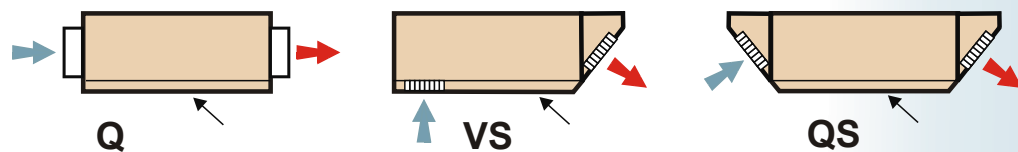
## Classic styles

The Belgravia Classic is the most versatile fan convector on the market. With more than 30 case styles to choose from, you can place a Classic almost anywhere on a wall, or ceiling – visibly or concealed.

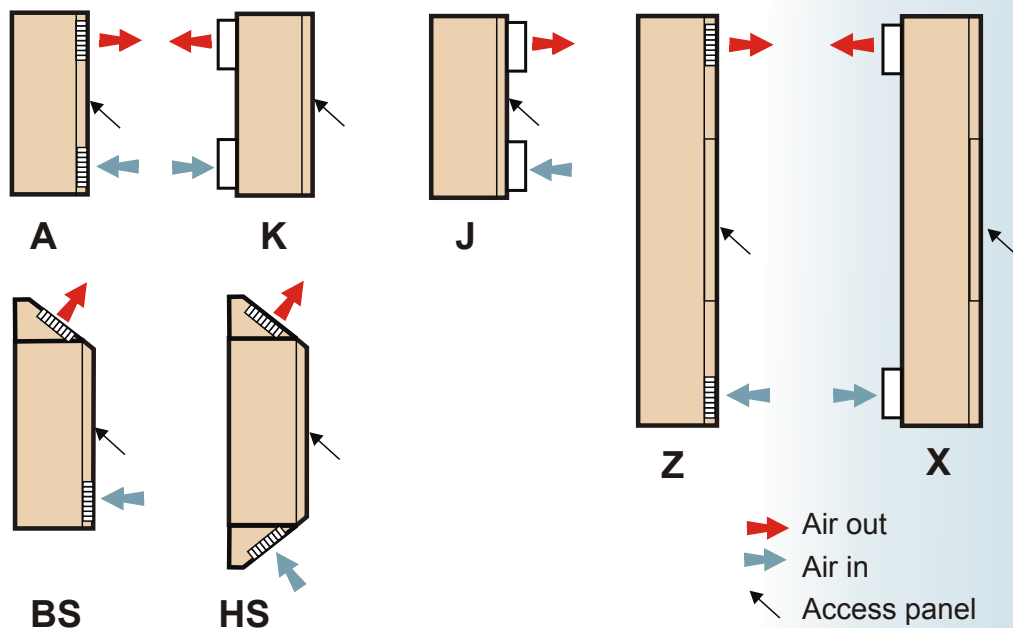
30-plus case styles could get a little confusing. Luckily, a few key styles fit most situations.

The following ten styles represent 95% of our installations. Just four of those styles (A, BS, Z, and K) account for more than 80%.

### ■ Popular ceiling-mounted case styles



### ■ Popular high and low wall-mounted case styles



There are many more styles and configurations to choose from, such as:

- reversed airflow
- different spigot positions
- inverted case
- left or right-hand pipework connections

By choosing an appropriate combination of hot air discharge and cold air intake, you can place heat exactly where you want it, while drawing fresh air from inside or outside the room. With a damper unit, you can draw air from either source at will.

For full details of all the options, please refer to the engineering guides on our website.

## Classic choice

With more than 70 control and add-on features, the Belgravia Classic is a heating solution that's tailored to your needs.

The most popular choices are listed below.

Table 4 **Belgravia Classic: factory-fitted options**

An air filter and a low water temperature cut-out come as standard fittings.		
Energy-saving thermostatic controls	<b>T1</b>	On-off internally-fitted thermostat
	<b>T2</b>	Speed change internally-fitted thermostat
	<b>RT1</b>	On-off remote thermostat
	<b>RT2</b>	Speed change remote thermostat
Switches	<b>RS123</b>	Rocker switches (on-off/fan only/speed control)
Case options	<b>REP</b>	Rounded end panels
	<b>P</b>	100mm high plinth
	<b>LGA</b>	Loose grilles for concealed units
Security features	<b>LAP</b>	Lockable access panel
Electrical connections	<b>FSB</b>	Fused spur box
	<b>CCB</b>	Customer connection box

If the feature you want is not listed, please ask or refer to the engineering guides on our website.

Table 5 **Belgravia Classic: fan assembly electrical data (240V / 50Hz supply)**

Model <i>Capacitance Nominal power</i>	Fan speed	Full-load current (A)	Absorbed power (W)	Power factor %
BEL 30/40 <i>2<math>\mu</math>F 37W</i>	low	0.17	18	93
	medium	0.19	43	94
	boost	0.37	81	91
BEL 60 <i>3<math>\mu</math>F 75W</i>	low	0.41	79	80
	medium	0.42	90	89
	boost	0.43	118	95
BEL 75/90 <i>4<math>\mu</math>F 75W</i>	low	0.40	79	82
	medium	0.45	98	91
	boost	0.62	149	99
BEL 115 <i>4<math>\mu</math>F 75W</i>	low	0.40	82	91
	medium	0.45	98	98
	boost	0.61	145	99
BEL 150 <i>4<math>\mu</math>F 75W</i>	low	0.45	98	91
	medium	0.52	123	98
	boost	0.61	145	99

Current and power are measured at maximum airflow (i.e. free inlet and discharge). Maximum starting current is 2.5 x maximum full-load current.

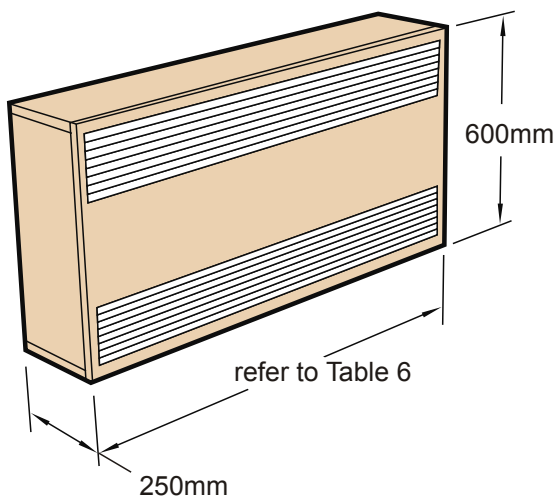


## Classic dimensions

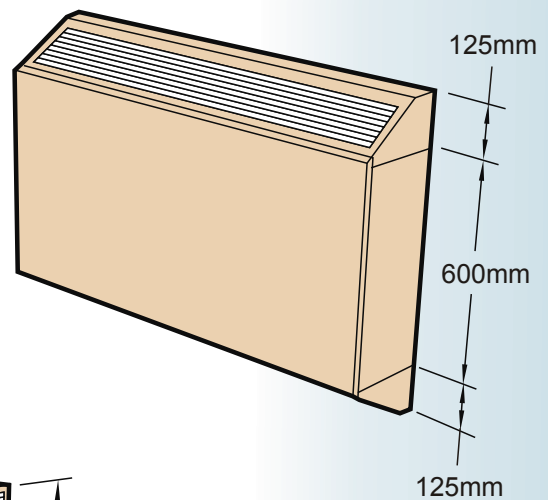
Table 6 **Belgravia Classic: case dimensions**

Model	Case length (mm)	Case depth (mm)	Case height (mm)	Tall case height (mm)
BEL 30/40	694	250	600	2,000
BEL 60	894	250	600	2,000
BEL 75/90	1,194	250	600	2,000
BEL 115/150	1,494	250	600	2,000

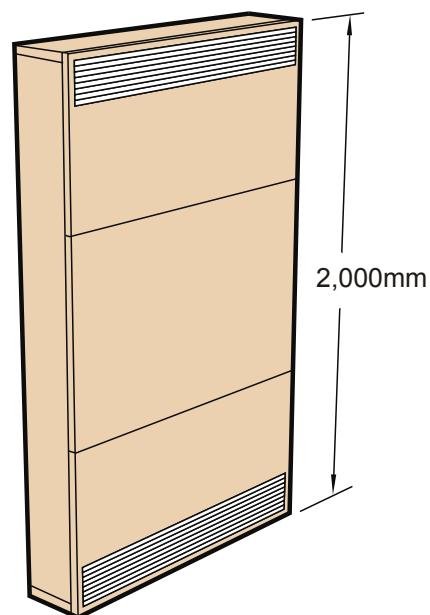
■ Standard case (Style A)



■ Sloping-edge case  
(Styles BS, HS, VS and QS)



■ Tall case (Style Z)



These dimensions are for general guidance only. For specific details, please ask for a set of engineering drawings or refer to the engineering guides on our website.

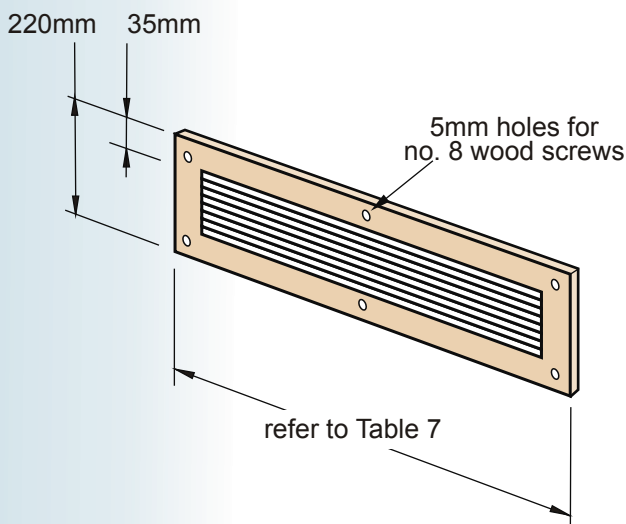
# Spigot and grille dimensions for concealed units

Table 7 **Belgravia Classic: spigot and grille dimensions**

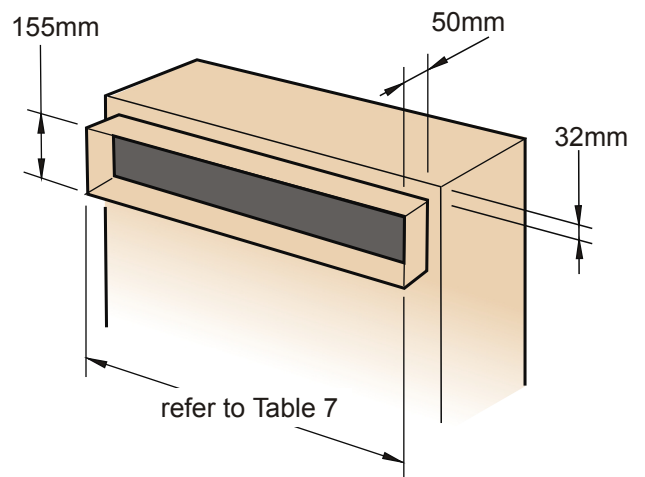
Model	Spigot			Grille		
	length (mm)	depth (mm)	height (mm)	length (mm)	height (mm)	flange (mm)
BEL 30/40	640	50	155	686	220	35
BEL 60	840	50	155	886	220	35
BEL 75/90	1,140	50	1,186	220	35	
BEL 115/150	1,440	50	155	1,486	220	35

These dimensions are for general guidance only. For specific details, please ask for a set of engineering drawings or refer to the engineering guides on our website.

## ■ Grille details

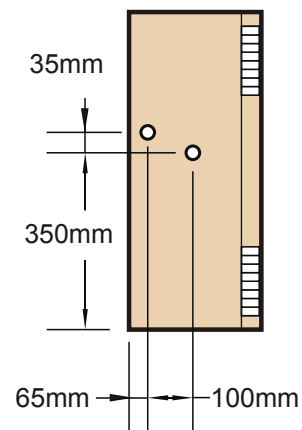


## ■ Spigot details



## ■ Pipe connections for a wall mounted left-hand unit

Connection points are reversed for right hand unit.  
Distances from base of unit are the same for standard and tall units.



# BELGRAVIA CLASSIC engineering specification

The Belgravia Classic fan convectors shall be manufactured by S & P Coil Products Ltd, SPC House, Evington Valley Road, Leicester. The heaters shall be suitable for the applications as described in the literature, dependent on the model selected. The quantities and model references shall be as indicated in the schedule, with the constructional features complying to the under-mentioned specification.

## Case

The case shall be manufactured from medium gauge mild steel throughout, and designed to eliminate distortion and drumming by the use of fully-trayed panels, welded together to form a rigid structure, avoiding any raw edges. The detachable access panel shall be fully-trayed and supported, and be retained by two concealed fasteners. Adequate room is to be provided to house manually operated flow and return valves.

## Finish

The metal case shall be degreased and treated with an approved rust-inhibiting and priming process, followed by final coats of colour-specified stove enamel or powder coat finish. Motors to be finished in air-drying paint.

## Grilles

Integral or loose grilles to be of linear pattern complying with BSEN 60335, manufactured from extruded aluminium with treated finish. Loose grilles shall have a flange surround, painted as required.

## Attachable plinth

Plinth, where called for, shall be manufactured from heavy gauge mild steel, treated and paint-finished to suit.

## Filters

Filters shall be a washable-type Bondina P15/150 non-woven polyamide, or equivalent, bonded with synthetic resin, and rated at EU2 arrestance complying with BSEN 779. Filters should be removable for cleaning.

## Heat exchangers

The heat exchanger shall be of block fin construction, comprising aluminium fins mechanically bonded to copper primary tubes brazed, in turn, into steel headers having BSP horizontal female flow and return connections at the same end, and rated in accordance with BS 5141.

1/8" BSP air bleed and drain connections to be provided as standard, except on heat exchangers for use with steam.

## Test pressure

The heat exchanger shall be tested to 22 bar (2,200kPa) air under water.

## Working pressure

All heat exchangers to be suitable for a maximum working pressure of 10 bar (1,000 kPa).

## Motor plate/fan and motor assembly

The motor plate assembly shall be readily withdrawable for ease of maintenance, being resiliently mounted on guide rails. Ceiling mounted units should have motor plates fixed by nylock retaining nuts.

## Fans

The fans shall be of the double inlet, double width centrifugal type, with forward curved blades. They shall be dynamically balanced and directly mounted onto the motor shaft. Single or double fans shall be used according to unit size.

## Motors

The motors shall be either single or multi-tap permanent capacitor induction type to BS 5000 Pt II, having sealed-for-life sleeve bearings for quiet running. Motors shall have an in-built self-resetting thermal overload cut-out. They shall be resiliently mounted and controlled either by means of:

- (a) Tapping selection of multi-tap motors to give low, normal or boost speeds.
- (b) Proportional control of single-tap motors to give variable speed with temperature.
- (c) Use of transformer tapplings on a single-speed motor.

## Wiring and controls

Provision shall be made for internal wiring with selected control options, and an internally mounted customer connection box shall be provided for interfacing remote options to the unit. All internal wiring shall be rated heat-resistant cable. Mains connection shall be provided by means of a 2-metres long flying lead, to which a suitable plug can be attached. Unit motors to be suitable for operation with a standard single phase 240V/50Hz supply.

## Packaging

Each fan convector shall be despatched in a purpose-made carton which will be clearly marked with the unit model reference and instructions called for in the schedule.

## C E Marking

The fan convector shall comply with all relevant EU directives currently in force.

*S & P Coil Products Ltd reserve the right to amend specification whilst pursuing a policy of continual improvements in performance and design.*



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