

*Changing the
face of heating
with energy-efficient
solutions*



ENERSAVE™

Effective solutions for energy efficiency

In this technological age and in our modern world, there is an ever-increasing awareness to use energy wisely, and there's also pressure to use only the most cost-efficient systems available. ENERSAVE is a company who specialise in those cost-efficient systems and can provide very effective solutions in the fields of heating, lighting control and water heating.

ENERSAVE have a wide range of products which have been stringently tested and proven, both locally and in the harsher climatic conditions which prevail elsewhere in the world. These energy efficient products are backed up by a team of professionals, trained to provide total customer support. We also offer on-site technical assistance and a comprehensive in-house design and quotation service.

ENERSAVE guarantee to provide the best product for your application which will ensure low running and maintenance costs. They will also strive to improve the overall comfort of those living and working in that particular environment.



EnergoStrip heaters installed in St Michael's Anglican Church, Christchurch. The satin-black finish is an optional extra.





ENERGOSTRIP

LONG WAVE RADIANT HEAT

ENERGOSTRIP radiant heaters operate on the same principle as the sun's rays, which warm the atmosphere by heating solid surfaces – lean against a brick wall on a frosty morning when the sun's up and feel the warmth, even if the temperature is still below zero. This is called radiant heat and has the ability to heat the walls and floor of a room, unlike conventional heating methods, which only heat the air.

benefits

- Energy saving from 25-50%
- Ceiling-mounted for heights from 2-30 metres
- No draughts or moving parts
- Noiseless and completely safe
- Long wave radiant heat 5-6 μ m
- Even heat – no hot/cold spots
- Efficient and maintenance-free
- Simple/inexpensive to install
- Spray-safe design for wet and dry areas (IP44)
- Environmentally friendly
- Allows clear walls and floor
- Fully-insulated rear of heater to minimise upward heat loss
- Element construction minimises electro-magnetic fields
- Galvanised painted sheet metal, aluminium heat plates and stainless steel heating elements
- Market-proven over 20 years
- 5 year warranty



Hard-to-heat areas

ENERGOSTRIP is an ideal heating solution for areas which are otherwise hard to heat. Typical examples include schools, churches, halls, sports stadiums, showrooms, factories, warehouses, offices, and retail outlets.

ENERGOSTRIP's long wave radiant heat means that high ceilings are not a problem, because walls, floors and objects absorb heat rather than only the air being heated.



Energostrip radiant heaters are available with either a 1, 2 or 3-element configuration in a wide selection of sizes. Heat output ranges from 400 watts to 4,200 watts.

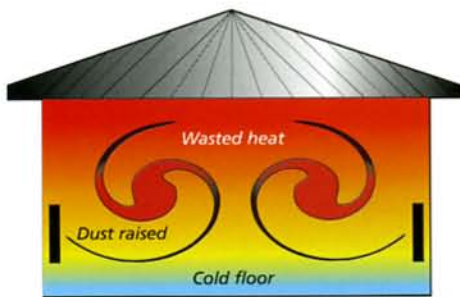
Energostrip 3-element heaters make the ideal choice for heating this school assembly hall, with its high ceiling and large floor area.

ENERSAVE

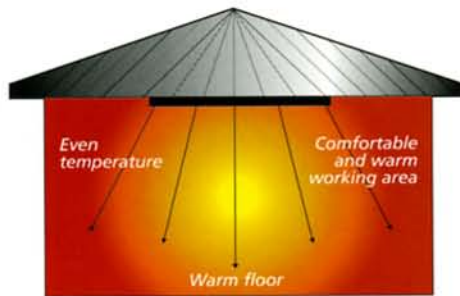
Heat loss

Compensation for heat loss is the key to a good heating system. ENERGOSTRIP offers the ideal solution by warming the objects in a room, along with the walls and windows. This unique effect prevents the body losing heat to a colder surface, thereby raising comfort levels.

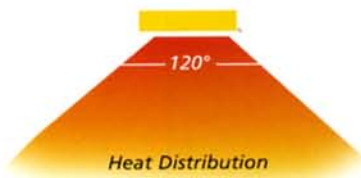
Conventional heating causes hot air to rise, leaving low temperatures at floor level. This results in low heating comfort, draughts, high running costs and causes poor working conditions and decreased productivity. ENERGOSTRIP provides a gentle, even warmth where you need it without stuffiness, and gives high heating comfort and efficiency as well as major energy savings. It is ideal for schools, daycare centres, rest homes and hospitals.



Conventional Air Heating



ENERGOSTRIP Radiant Heating



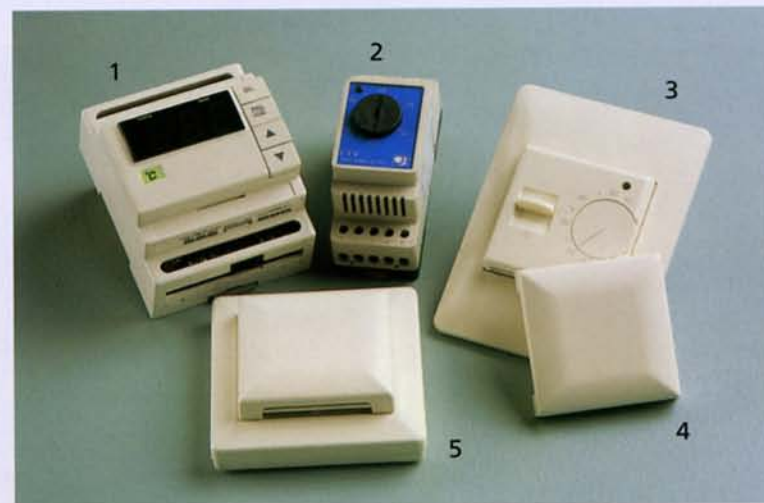
ENERGOSTRIP is normally mounted on a ceiling, from where it radiates heat downwards at an angle of 120° from the centre of the heater throughout its length. The heat is 90% radiant and 10% convection, which provides natural comfortable warmth without hot or cold spots. It also ensures that the room environment stays fresh and airy.



EnergoStrip provides a comfortable temperature in this school hall for childrens' activities.

Controls for energy efficiency Whilst ENERGOSTRIP can be controlled by a simple time clock, maximum efficiency and comfort is obtained by utilising Enersave's range of OJ Elektronik controllers, which are accurate to within 0.4°C. They are available flush-fitting and wall-mounted, with or without a built-in time clock. Alternatively, they can be switchboard-mounted with remote room sensing. OJ thermostats are range-lockable, with built-in isolator and LED indicator as standard. Tamperproof covers are available as an extra.

ENERGOSTRIP heating elements are unique – they are single-wired, allowing 1,2 or 3-stage control for the 2 and 3 element models. This feature offers greater control for maintaining a uniform spread of heat, rather than switching off individual heaters. The energy savings generated will help recoup the capital cost of the system (refer to stage control diagrams at right).



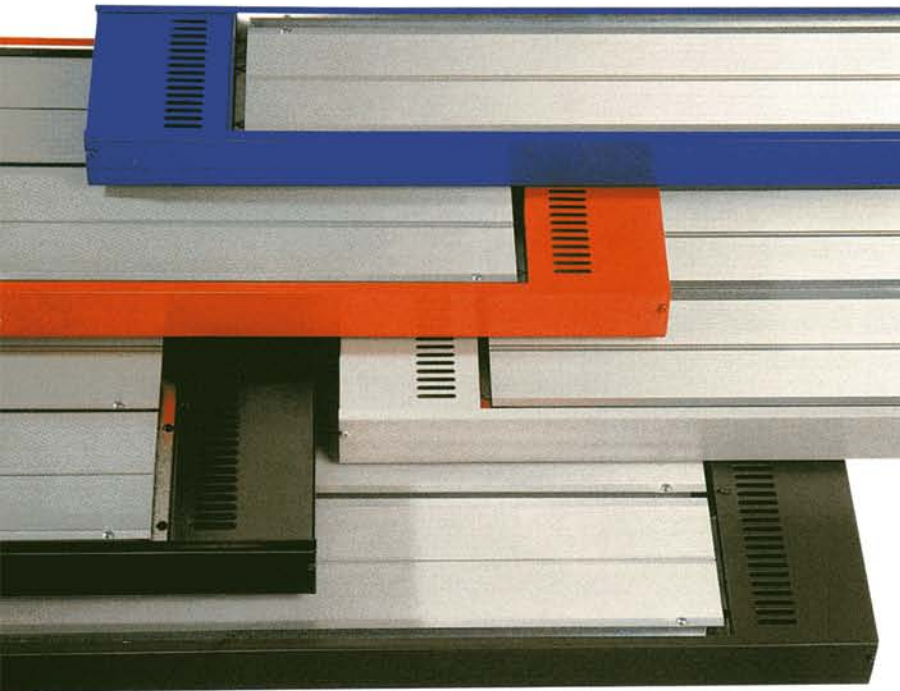
1 2-stage controller. 2 OJ 16A din-rail thermostat. 3 OJ wall-mounted thermostat. 4 Tamperproof cover. 5 OJ remote sensor.

Flush Fitting

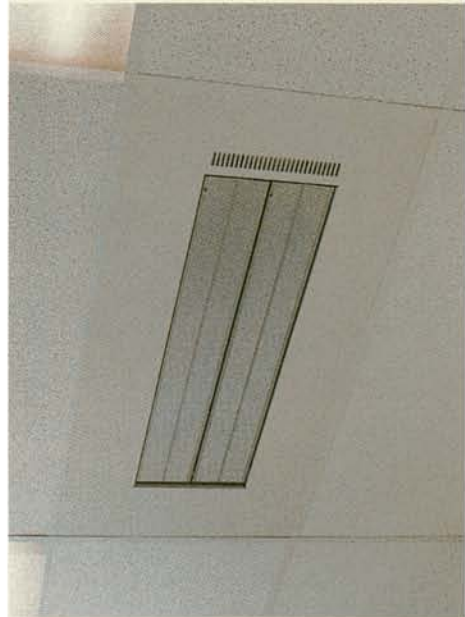
Grid Ceilings: An additional metal ceiling tile allows ENERGOSTRIP heaters to be flush-fitted into a suspended grid ceiling. Models EE4, EE6, EE8 and EE12 fit into a standard 1200 x 600mm tile aperture. Larger models EE10, EE16, EE20 and EE24 will require some modification of the ceiling grid.

Solid Ceilings: An additional aluminium frame, supplied as an extra, allows flush-fitting of the heaters into a gibbed or timber ceiling.

Suspended Fitting The heaters can be suspended on wire or chain, but Enersave recommend that larger models EE24, EE30 and EE42 be fitted inside an aluminium suspension frame, available as an extra.



An additional ceiling tile allows EnergoStrip to be flush-fitted into a suspended grid ceiling

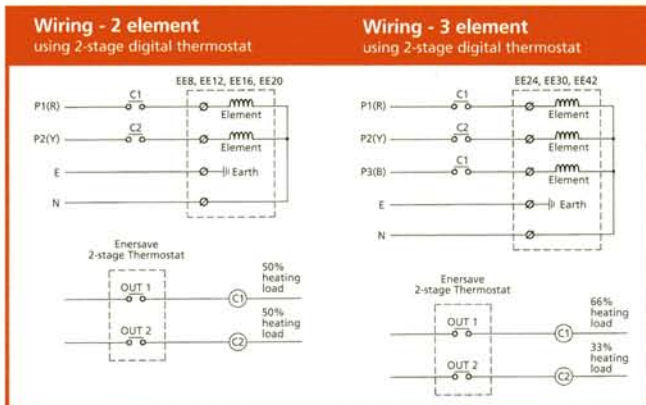


An additional aluminium frame encases EnergoStrip, allowing flush-fixing into a solid or gibbed ceiling.

Colour All ENERGOSTRIP heaters (except model EE42 which is galvanised) are finished in a powder-coated warm white colour RAL9010.

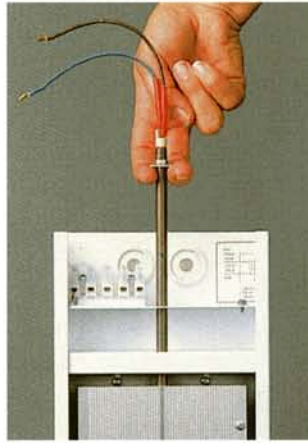
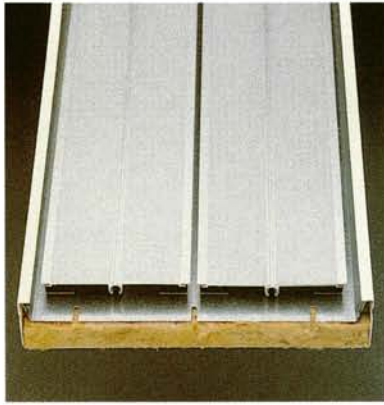
Colour Options ENERGOSTRIP heaters provide a fresh approach to a heating problem. They can be powder-coated to almost any colour to blend with surroundings or to make a statement. This combination of colour options and the ability to recess ENERGOSTRIPS gives many opportunities for a discreet heating solution.

Stage Control Diagrams



Two EnergoStrip heaters provide an effective "radiant curtain" over the main entrance to this Queenstown retail outlet.





Construction

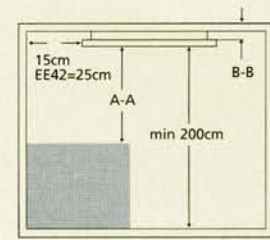
ENERGOSTRIP heaters have a unique construction. The main heater body is galvanised and powder-coated, with Rockwool insulation and an aluminium heat plate.

The stainless steel elements are single-ended to eliminate electro-magnetic fields and can be replaced without dismantling the heater. Simply unscrew the lid, disconnect the wiring, then remove and replace the heating element if required.

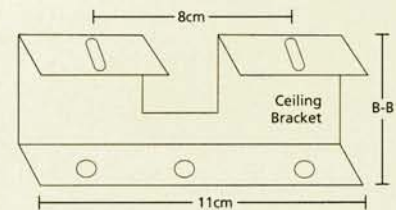
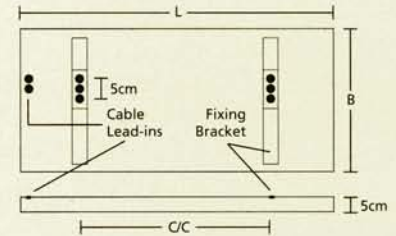
Installation

ENERGOSTRIP is easily installed directly onto the ceiling with the supplied brackets and is mounted level and parallel with the ceiling. If the ceiling is pitched, the heaters should be mounted at right angles to the pitch throughout the heater length, to give an even heat spread.

ENERGOSTRIP heaters come in a range of sizes to allow installation on ceilings ranging in height from 2 to 30 metres.




Measurements to fixed objects



Mounting Heights

Model	Ceiling Height (metres)
EE4, EE6, EE8, EE10, EE12	2.4
EE12, EE16	2.7-3.5
EE20, EE24, EE30	3.5-5.0
EE30, EE42	Above 5.0

Configuration (elements)	Type	230-240V (W)	L	B	H	C/C (cm)	A-A	B-B	Kg
1 	EE4	400-435	65	16	5	37	30	4	3.5
	EE6	600-655	96	16	5	60	30	4	5.0
	EE10	1000-1090	168	16	5	103	30	4	8.0
2 	EE8	800-870	65	29	5	37	30	7	6.0
	EE12	1200-1310	96	29	5	60	30	7	8.5
	EE16	1600-1740	136	29	5	82	30	7	11.5
	EE20	2000-2180	168	29	5	103	30	7	14.0
3 	EE24	2400-2610	136	43	5	82	30	12	16.5
	EE30	3000-3270	168	43	5	103	80	12	20.0
	EE42	4200-4572	168	43	5	103	80	12	21.0

L=length; B=breadth; H=height. "A-A" is height from nearest object

Fixing Accessories

Model	EE42	EE30	EE24	EE20	EE16	EE12	EE10	EE8	EE6	EE4
Ceiling Tile (Grid)	CT42	CT30	CT24	CT20	CT16	CT12	CT10	CT8	n/a	n/a
Nominal Dimensions	1790 x 595	1790 x 595	1500 x 595	1790 x 595	1500 x 595	1195 x 595	1790 x 595	1195 x 595		
Ceiling Flashing (Solid)	CF42	CF30	CF24	CF20	CF16	CF12	CF10	CF8	n/a	n/a
Nominal Dimensions	1712 x 458	1712 x 458	1392 x 458	1712 x 323	1392 x 458	992 x 323	1712 x 195	682 x 323		
Suspension Frame	SF42	SF30	SF24	SF20	SF16	SF12	SF10	SF8	n/a	n/a
Nominal Dimensions	1712 x 458	1712 x 458	1392 x 458	1712 x 323	1392 x 458	992 x 323	1712 x 195	682 x 323		
Chain Bracket	n/a	n/a	n/a	CB20	CB16	CB12	CB10	CB8	CB6	CB4

ENERGOSTRIP radiant heaters comply with AS/NZS3103:1993; AS/NZS3350-2-30:1997A1; NZS2772.1:1999 Radio Frequency Field Part 1. IP44 Splash proof design for wet and dry areas. All ENERGOSTRIP radiant heaters are covered by a 5 year manufacturer's warranty.

Company
 Contact
 Telephone
 Fax
 Site Address

Construction Materials

Floor Concrete Timber Other

Ceiling Plasterboard Timber Other

Walls Brick Concrete Block Polyblock
 Timber Other

Glazing

Area (m²)

Glazed Single Double

Insulation (R value)

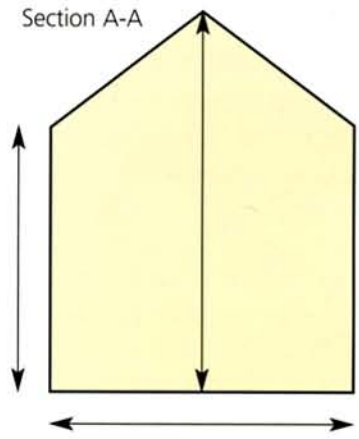
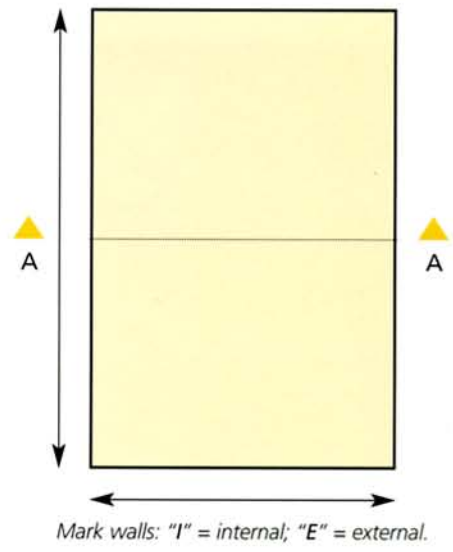
Floor (R)	No insulation	.5	1	1.2		
Ceiling (R)	No insulation	1.2	1.8	2.2	2.6	3.4
Walls (R)	No insulation	1.2	1.8	2.2	2.6	

Please circle "R" value

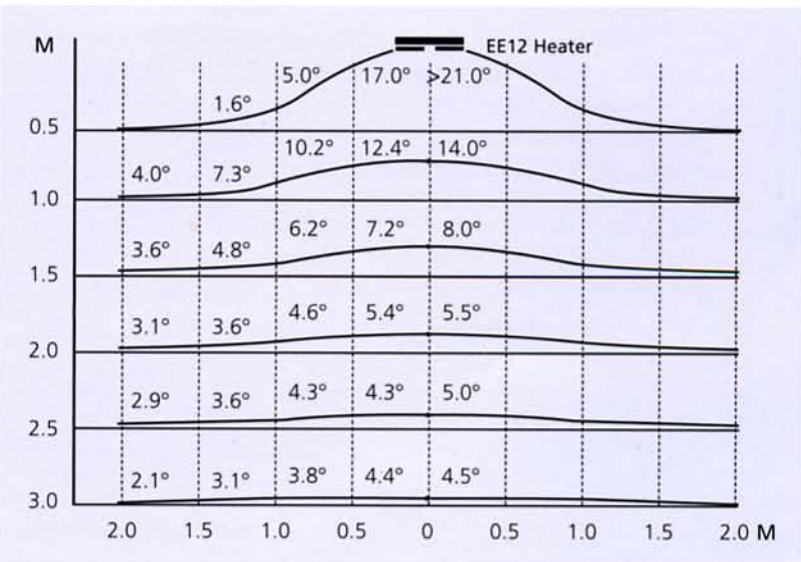
Required Temperature

Degrees (°C) 15 18 20 22 Other

Site Location
(i.e. Hamilton) Please circle required temperature



Please provide as much information as possible. Photocopy and fax to your nearest EnergoStrip stockist.



Typical Heating Graph for ENERGOSTRIP Model EE12

The heating graph shows data on approximate over-temperature (surface temperature in °C) in a room with a ceiling height of 3 metres. When several ENERGOSTRIP heaters are overlapping each other, the surface temperature becomes higher than with one heater.



ENERGOCASSETTE

ENERGY-EFFICIENT CEILING HEATING



ENERGOCASSETTE radiant ceiling heaters operate on a similar principle to ENERGOSTRIP heaters, by radiating low temperature heat to the floor, walls and objects in a room. This allows the air temperature in the room to be lowered without affecting comfort levels, and also provides energy savings of between 15% and 30%. Radiant heat provides warmth where you need it, unlike conventional heating which causes hot air to rise and leaves low temperatures at floor level.



EnergoCassette gently radiants low temperature heat to floors, walls and objects in this typical classroom situation.



EnergoCassette flush-fits directly into a "T-bar" ceiling, freeing up valuable wall and floor space.

ENERGOCASSETTE's low surface temperature makes the heater especially suitable for fitting to low ceilings, from 2–3.5 metres in height. This makes it an ideal heating solution for offices, classrooms, houses, showrooms and retail outlets, where ceiling height is often a consideration.

ENERGOCASSETTE has been approved as a spray-safe design for wet and dry areas (IP55) and can be safely used in shower areas and industrial environments such as agriculture and pulp and paper. It is covered by a 2 year manufacturer's warranty.

Heat loss

Compensation for heat loss is the key to a good heating system. ENERGOCASSETTE offers the ideal solution by warming the objects in a room, along with the walls and windows. This unique effect prevents the body losing heat to a colder surface, thereby raising comfort levels. ENERGOCASSETTE provides a gentle even warmth without stuffiness.

Installation

ENERGOCASSETTE is available in two models, both of which are designed to flush-fit into a T-bar suspended ceiling. They can also be fitted directly onto a ceiling by using the supplied fixing brackets. These brackets are recessed into the back of the heater (see diagram) and are hidden when fixed, presenting a clean and uncluttered view.

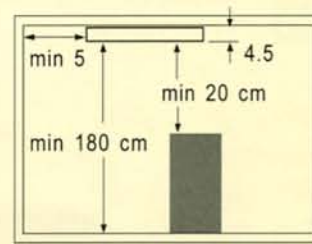
Solid Ceilings: ENERGOCASSETTE can be flush-fitted into a gibbed or timber ceiling by utilising the optional recess frame, supplied as an extra. Because ENERGOCASSETTE is ceiling-mounted, walls and floors are free of obstruction and the heater is also safe from unwanted contact and damage.

ENERGOCASSETTE is approved for permanent installation and inter-connection between heaters is achievable.

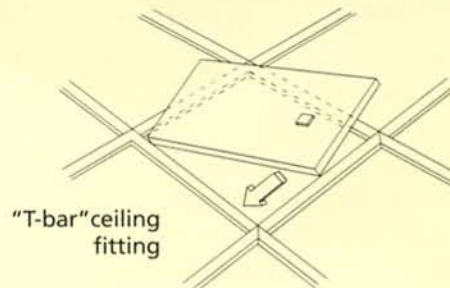
Cable connections are to a 4mm² terminal in the junction box at the rear of the heater, hidden from view.



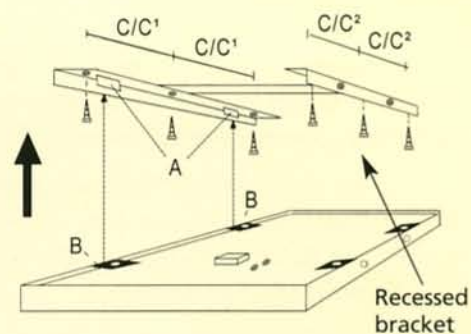
A view of the back of an EnergoCassette heater, showing the recessed fixing bracket in position, ready for installation onto a gibbed or timber ceiling



Measurements to fixed objects (cm)



"T-bar" ceiling fitting



Recessed bracket

Control

Whilst ENERGOCASSETTE can be controlled by a simple time clock, maximum efficiency and comfort is obtained by utilising Enersave's range of OJ Elektronik controllers, which are accurate to within 0.4°C. They are available flush-fitting and wall-mounted, with or without a built-in time clock. Alternatively, they can be switchboard-mounted with remote room sensing.

OJ thermostats are range-lockable, with built-in isolator and LED indicator as standard. Tamperproof covers are available as an extra.

Colour ENERGOCASSETTE's elegant appearance is enhanced by the powder-coated warm white finish in colour RAL9010.

Colour Options Enersave can supply heaters, at additional cost, in a wide range of colours to suit individual specifications.



Comfort levels in this corporate boardroom are enhanced by the use of ceiling-mounted EnergoCassette radiant heaters

Type	230-240V (W)	L	B	H (cm)	C/C ¹	C/C ²	Kg
ENC300	300-327	59.3	59.3	4.5	27.5	17.5	5.5
ENC600	600-655	119.3	59.3	4.5	37	27	10.0

L=length; B=breadth; H=height

ENERGOCASSETTE radiant heaters comply with AS/NZS3350-2-30:1997
IP55 Splashproof design for wet and dry areas.



ENERGOLINE

UNOBTRUSIVE GENTLE HEAT

ENERGOLINE radiates a gentle, low-temperature heat from a slimline heating panel that has been especially developed as an underbench or wall-mounted heater.

As an underbench heater, it can be fitted under church pews, in waiting rooms, sports/leisure halls, offices and workshops, in fact in any environment where heat is directed to a specific area (spot heating) without heating large air volumes. ENERGOLINE has a rapid heat-up time and provides cost-effective heat with low energy consumption.

As a ceiling heater, ENERGOLINE is very suited to smaller spaces with ceiling heights of up to 3 metres. It effectively replaces heat loss and down draughts, with energy savings of between 15% and 25% over conventional heating systems.

The slimline, elegant design (35mm including brackets) blends well with any room environment and, when ceiling-mounted, allows walls and floors to be free of obstruction. It is also safe from unwanted contact or damage.

ENERGOLINE is approved as a spray-safe design for wet and dry areas (IP44), and is covered by a 2 year manufacturer's warranty.

Control

ENERGOLINE can be controlled by a simple time clock, however maximum efficiency and comfort is obtained by utilising Enersave's range of OJ Elektronik controllers, which

are accurate to within 0.4°C. They are available flush-fitting and wall-mounted, with or without a built-in time clock. Alternatively, they can be switchboard-mounted with remote room sensing.

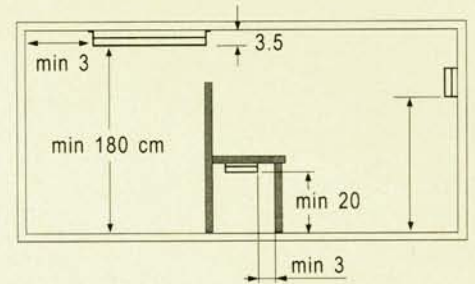
OJ thermostats are range-lockable, with built-in isolator and LED indicator as standard. Tamperproof covers are available as an extra.



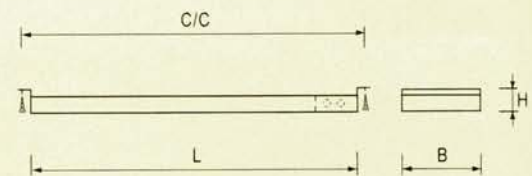
Energoline can be used as a bench heater to warm church pews.



Energoline provides the perfect solution for spot heating this technical workbench area and achieving low energy consumption.



Measurements to fixed objects (cm)



Installation

ENERGOLINE is available in two models, which are fitted directly onto a ceiling, wall or underbench with the integral mounting brackets.

ENERGOLINE is approved for permanent installation and inter-connection between heaters is achievable. Cable connections are to a 4mm² terminal in the junction box at the top of the heater.

Colour

ENERGOLINE is finished in a powder-coated warm white colour RAL9010. A wide range of other colours are also available, at additional cost, to suit individual specifications.

Type	230-240V (W)	L	B (cm)	H	C/C	Kg
EL200	150-160	100	21	3.5	99	3.0
EL300	220-240	148	21	3.5	147	4.5

L=length; B=breadth; H=height

ENERSAVE

ENERGOLINE radiant heaters comply with AS/NZS3350-2-30:1997 IP44 Splash proof design for wet and dry areas.



Your ENERSAVE Stockist:

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ENERSAVE™

Due to a policy of continuous improvement, EnergoStrip, EnergoCassette and EnergoLine product specifications may change without notice.

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