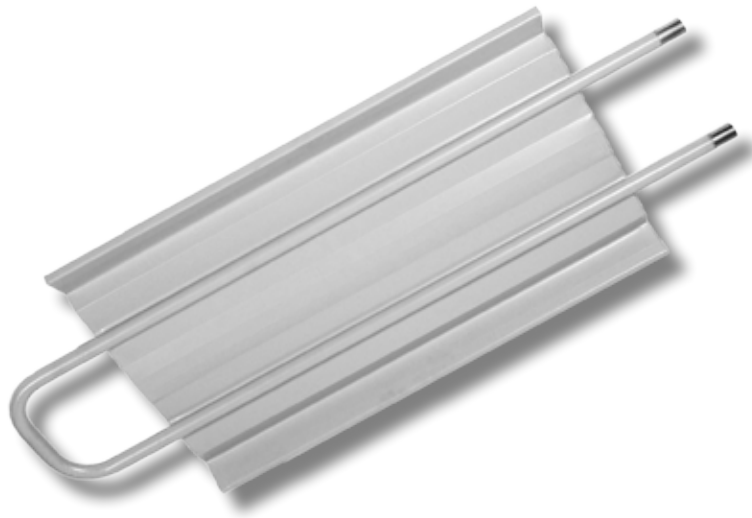


EnergAqua Industry
Water Supplied Radiant Heating



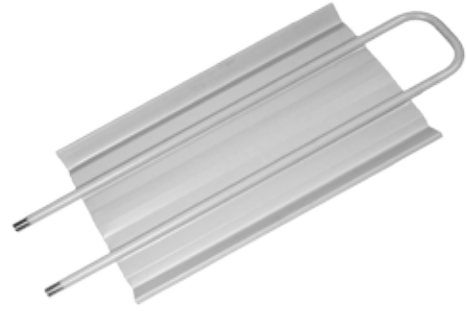
Technical Information - EAI

Product Description

Composition

EnergAqua Industry, EAI, consists of three parts, the reflective plate, water carrying pipes and insulation. CE marked and manufactured in accordance with EN 14037.

The panel comprises of a 0.9 mm aluminium plate which is cold pressed into optimal shape, the insulation consists of 25 mm thick mineral wool topped with plastic covered paper. The pipes are made from steel with diameter \varnothing 35/32 mm. Maximum working pressure 6 Bar.



Design and Function

The surface plate encapsulates the steel pipes maximising the contact surface leading to a highly efficient radiant panel.

The warm water which circulates through the pipes conducts heat to the surface plate, warming the underside of the panel. The increased temperature of the panel enables radiant heat being emitted to cooler surfaces in the room.

Facts and Specifications

Length:	EAI can be made to any length in 500 mm increments up to 6000 mm per panel.
Width:	615 mm or 900 mm.
Height:	70 mm.
Number of pipes:	EAI-2 - 2 pcs, steel, 35 x 1.5 mm. EAI-3 - 3 pcs, steel, 35 x 1.5 mm.
Connection water:	Horizontal connection.
Link water circuit:	The panels are provided with several different link types; more information on page 4.
Suspension:	Free hanging from the ceiling.
Finish, colour:	NCS3500 / RAL7035 (Grey).

Weight

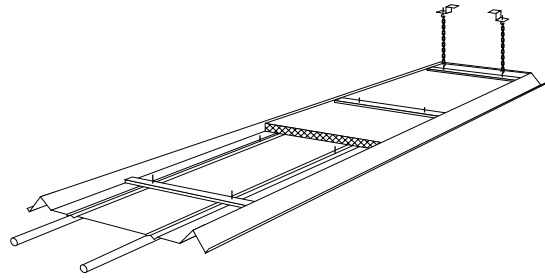
Weight per meter panel, excluding water:

EAI-2	4.5 kg
EAI-3	7.0 kg

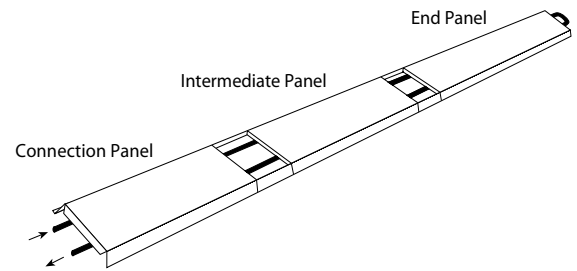
Weight per meter panel, including water:

EAI-2	6.1 kg
EAI-3	9.3 kg

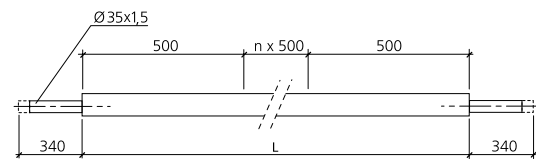
Construction



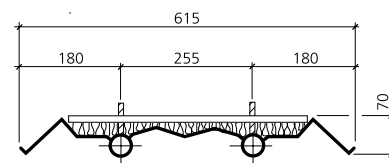
Inter-Connection



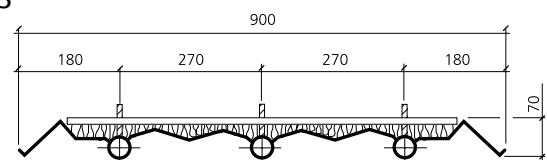
Dimensions



EAI-2



EAI-3



Technical Information

Designations

Pv:	Thermal emission	(W)
qv:	Water flow	(l/s)
Δt_{mv}:	Difference between the mean water temperature and the room temperature	(°C)
tr:	Room temperature	(°C)
Δt_v:	Temperature difference of water	(°C)

Thermal Emission

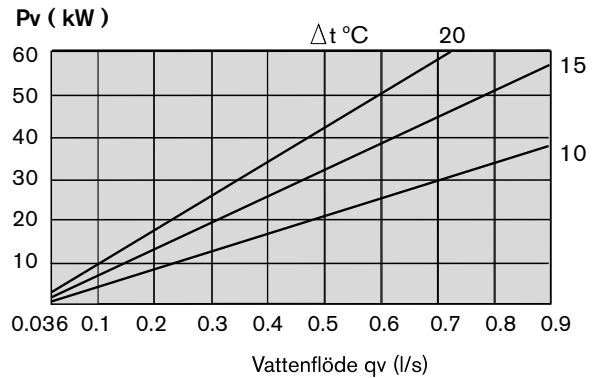
The heat output, W/m, as result of the difference between the average temperature of the fluid, Δt_{mv} , and the ambient temperature, tr.

Typ	Δt_{mv} (°C)							
	25	30	35	40	45	50	55	60
EAI-2	114	142	171	200	231	261	293	325
EAI-3	176	219	263	309	355	403	451	500

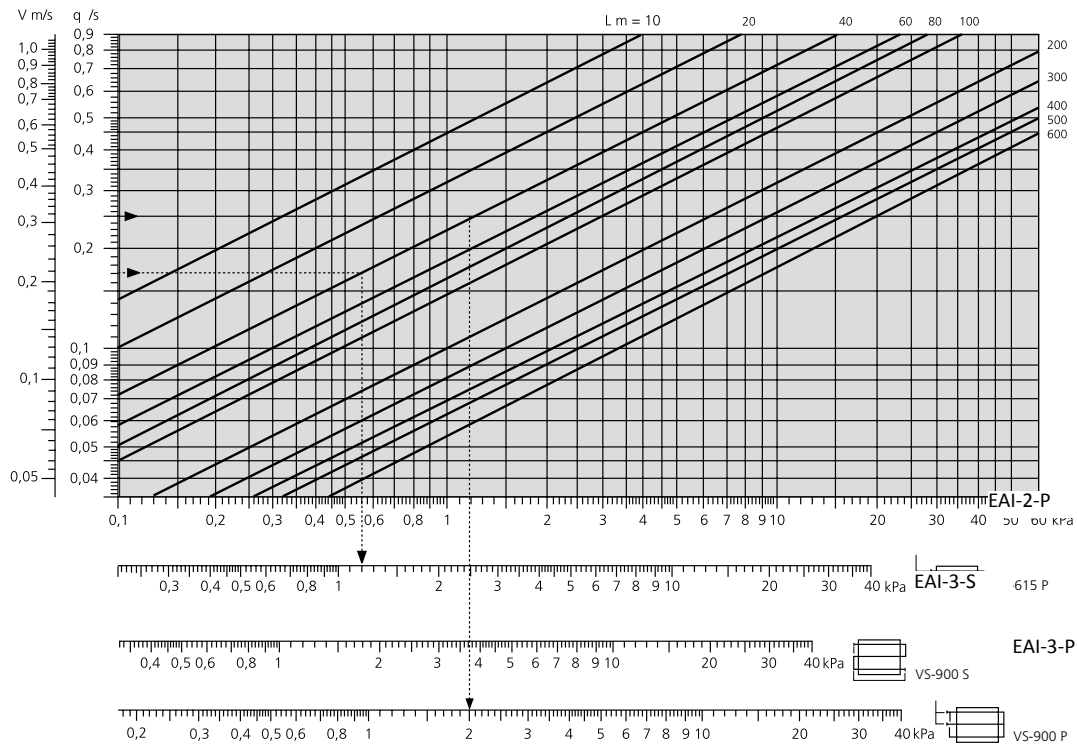
Water Flow

Water flow as result of thermal emission, Pv, and temperature difference of water, Δt_v . The water flow should not be lower than recommended to secure turbulent flow in pipes.

Recommended min. water flow: 0.036 l/s for EAI-2-P and EAI-3-S
 0.072 l/s for EAI-2-D and EAI-3-P
 0.108 l/s for EAI-3-D



Pressure Drop per Circuit



Order Catalogue

- EAI: Water supplied radiant panel for heating.
- Length: EAI can be made to any length in 500 mm increments up to 6000 mm per panel. Several panels can be inter-connected to a maximum length of 125 m.
- Width: 615 mm or 900 mm.
- Height: 70 mm.
- Colour: NCS3500 / RAL7035 (Grey).

Connection Water

No headers are used. Connection is made directly on smooth straight pipe ends. The following dimensions are applied:

EAI-2-P / D 35 mm

EAI-3-P / D / S 35 mm

Joining: Apply press fitting \varnothing 35 mm when inter-connecting the panels. We recommend using products and equipment from the leading brands on the market, for the best result.

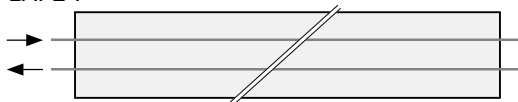
Special Modes

Colour: Optional colour can be delivered upon request.

Link types: When other link types are needed, state EAI – number of pipes – X, and specify how the panel should be linked.

Link Types

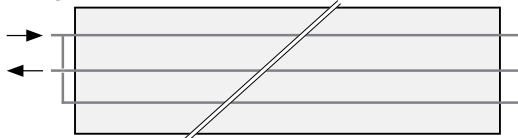
EAI-2-P



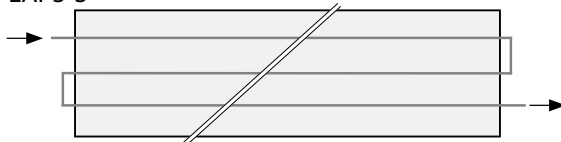
EAI-2-D



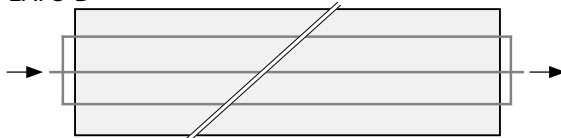
EAI-3-P



EAI-3-S



EAI-3-D



Accessories

Suspension kit: For other suspend distance than 500 mm. State M3SEAI + desired distance.

Joint cover: Used when the inter-connections needs to be covered.

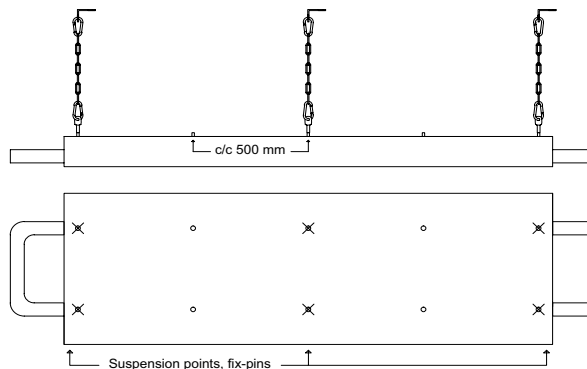
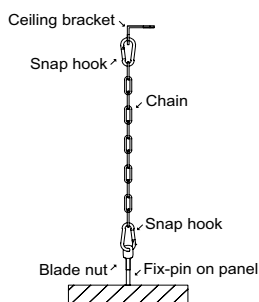
Paint: For coating the inter-connections or improvement and corrections.

Suspension

A suspension kit (containing ceiling bracket, snap hooks, chain and blade nut) is supplied with the panels by every delivery. The suspend distance ceiling/panel (chain) is 500 mm.

Panels longer than 2500 mm is supplied with a number of 6 units per panel. The c/c between suspension points is maximum 3000 mm.

Attachment point in/on ceiling must not be less than 40 kg. Attachment screw is not included.



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