Thermal INTEGRATION Ltd

0845 241 1441 // www.heatweb.com

The SQUARE - Heat Interface Unit



Designed with output in mind the SQUARE is very similar to our SLIM HIU, however it is capable of more than double the output, making it ideal for connecting to multiple apartments in a block, or for providing high output hot water to penthouse apartments.

The SQUARE is encased in an attractive EPP moulded casing. Heat losses are less than 20W, allowing the unit to remain hot for rapid DHW response with minimal drain on the primary supply. There is also an option for an additional steel security casing, with or without landlord securing shut-off system and heat meter.

The SQUARE makes use of the latest electronic stepper motor control valve that allows the unit to accurately adjust district flow rates to control DHW temperatures far better than any mechanical system.

The electronic controls also enable the unit to carry out various intelligent functions, such as PC connectivity for set-up and commissioning, district return temperature control, Eco / Comfort DHW modes for continuous or intelligent pre-heat, whilst maintaining minimal return temperatures.

Possibly the best feature of the SQUARE is the ability to connect to billing systems and the internet to enable a host of functions never before envisaged. These functions include the ability to provide remote fault diagnostics, reporting, and remote commissioning. *

* Connection to billing systems, and remote diagnostic functions require the optional iHIU electronics package.

The SQUARE HIU is possibly the most efficient DHW generation unit on the market and uses the latest electronic controls to provide instantaneous DHW.

A flow sensor allows the electronics to respond rapidly to changes in DHW flow rate, maintaining steady output temperatures with very little fluctuation.

As with all of our range of electronic HIUs, the SQUARE provides two modes of operation which can be selected at commissioning - a Comfort Mode, where the unit keeps itself hot at all times ready for rapid DHW response, or an Economy Mode, where the unit goes cold after one hour of inactivity.

Every 24 hours, the control will bring the domestic hot water plate heat exchanger up to 57 Deg C or more for atleast 60 minutes to prevent legionella from growing. This anti-legionella cycle will stop immediately upon a hot water draw off, and resume immediately after. This means it will gradually learn over a few days to function over night.

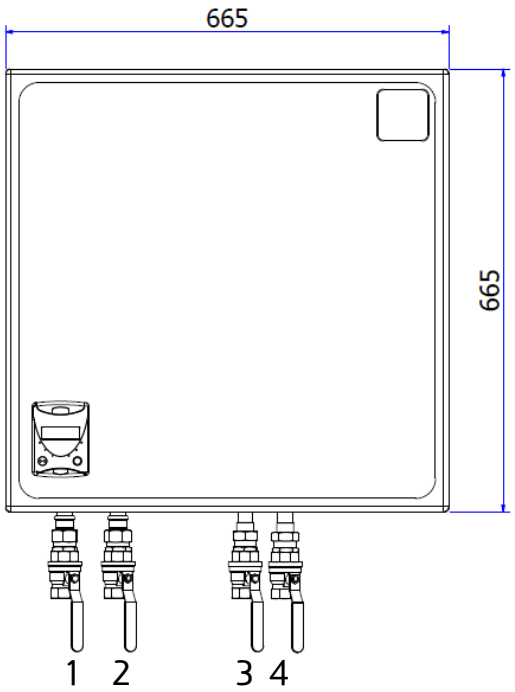
DHW temperatures and various other parameters are set-up during commissioning and can only be altered by an approved engineer.

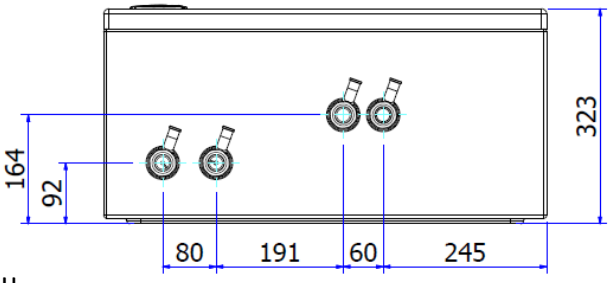
Features

- Fully electronic solution with anti-legionella cycle & PC connectivity for set-up and commissioning
- District return temperature control
- Calibrated sensors for fast DHW temperature control
- Eco / Comfort DHW modes for continuous or intelligent pre-heat
- Overall Dimensions - 665mm Square x 321mm (D)
- Insulated pipework and Double insulated casing
- Copper, Carbon Steel, Stainless steel pipework options
- iHIU Intelligent control options
- Optional primary pump kit
- Optional secondary return circulation
- Optional security case with integral heat meter, landlord security shut-off and anti-fraud sealing kit.

Example DHW Capacity at 10-60°C						
Model	Capacity (kW)	DHW flow rate (L/m)	Primary Flow °C	Primary Return °C	Required differential pressure primary (kPa)	Primary flow rate (kg/sec)
40	65	18.8	65	25.1	5.83	0.389
40	75	21.7	65	26.1	8.42	0.461
40	85	24.5	65	27	11.16	0.536
40	100	28.9	65	28.4	16.23	0.653
50	120	34.7	65	27.7	17.06	0.818
60	140	40.4	65	27.3	17.59	0.889
40	65	18.7	75	16.7	2.919	0.266
40	75	21.5	75	17.4	3.92	0.311
40	85	24.4	75	18	5.09	0.356
40	100	28.7	75	18.9	7.15	0.426
40	120	34.5	75	20	10.56	0.522
40	140	40.2	75	21.1	14.69	0.621
50	170	48.8	75	20.6	15.56	0.748
60	200	57.4	75	20.3	17.07	0.875

Dimensions and Connections





Technical parameters:

Nominal pressure: PN 16
DH supply temperature: Tmax = 85°C
Tmin = 65°C
DCW static pressure: Pmin = 0.5 bar

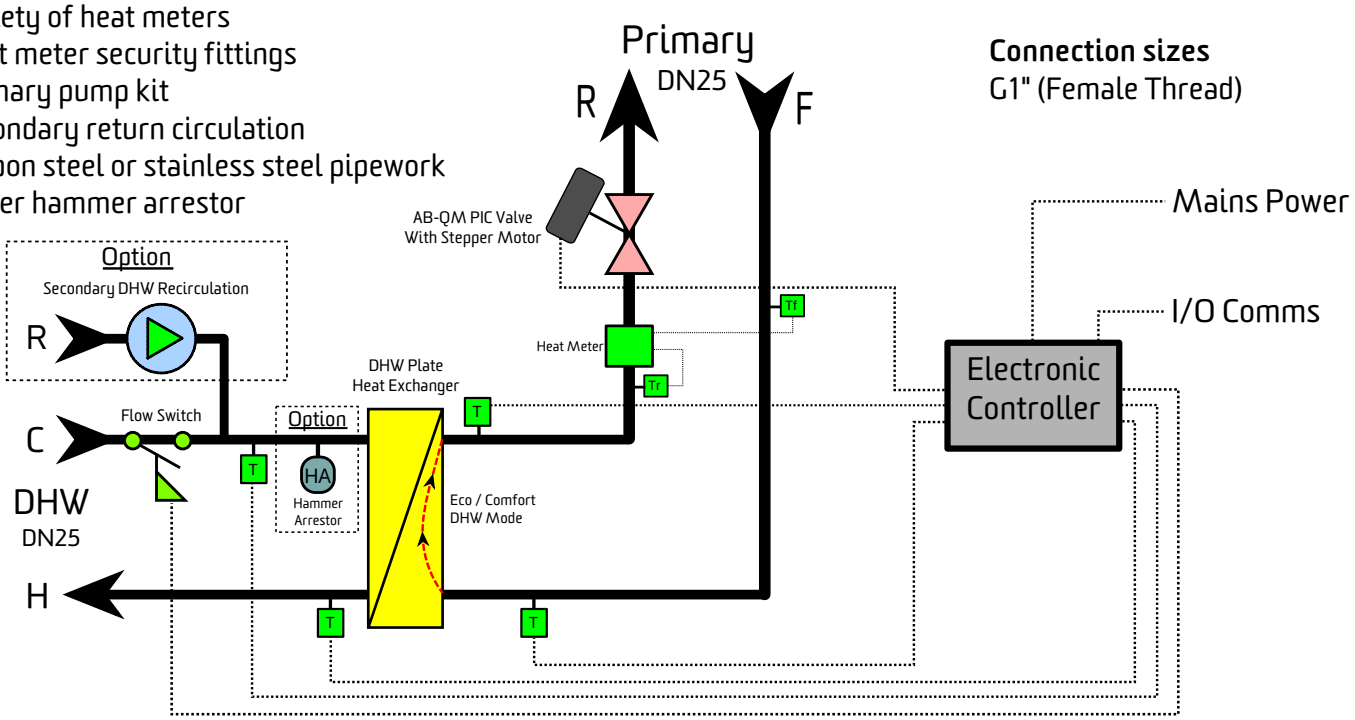
Expansion vessel size: N/A
Pipework: Copper

Heat meter: Internal, remote or mounted display
Security Shut-off: Fitted internal to casing
Electrical Supply: 230V

Connections
1 = Primary Return
2 = Primary Flow
3 = Domestic Cold Water
4 = Domestic Hot Water

Connection sizes
G1" (Female Thread)

Options
- Steel security casing, landlord security shut-off and anti-fraud sealing kit.
- Variety of heat meters
- Heat meter security fittings
- Primary pump kit
- Secondary return circulation
- Carbon steel or stainless steel pipework
- Water hammer arrestor



Thermal Integration Head Office & Factory, 8 Curzon Road, Chilton Industrial Estate, Sudbury, Suffolk, CO10 2XW
Tel: 0845 241 1441 | Fax: 0845 130 7555 | Email: enquiries@heatweb.com | Website: www.heatweb.com