AEL
HEATING SOLUTIONS

AELTHERM DHW

Plate Heat Exchangers Producing High Volume Hot Water for Showers,Taps Etc.

WHEN A HIGH VOLUME of INSTANTANEOUS HOT WATER is REQUIRED

AELTHERM DHW - INSTANTANEOUS PLATE HEAT EXCHANGERS

The AELTHERM DHW tap water modules are designed to cope with the continuous high demand of hot water required for Hotels, Leisure Facilities, Schools, Hospitals and Factories etc.

The AELTHERM DHW packaged plate heat exchangers are one of the most efficient standalone hot water production systems available in the UK today providing DHW instantaneously when demand requires it.

The AELTHERM DHW can be used on its own for instantaneous generation of hot water if enough KW boiler power is available or fitted to a storage or accumulation tank providing a buffer of hot water should not enough KW boiler power be available to cover the extra demand.

Another feature of the AELTHERM DHW tap water module is the management of the (optional) ANTI-LEGIONELLA cycle using the easy to set up weekly calendar in the control panel. The control panel comes with the option to set daily switch-on and switch-off times and recalling the outcome of the single cycles with traceability of up to 50 cycles.

There is also an alarm facility for a sensor malfunction and/or failure to complete a cycle (Volt free contact for an external acoustic alarm and a visual display message on the panel display).

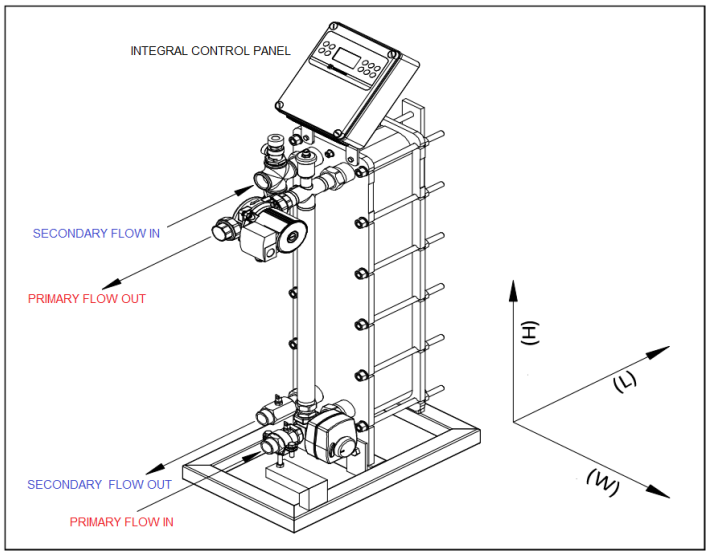
All the installer needs to do is to connect the flow and return pipework to all four ports and electrical connection to the panel to start generating hot water.

AELTHERM DHW Module – Operating Duties and Technical Information.

		Primary	82 - 50 °C AEL Pump takes care of the PD **	Secondary	10 - 60 °C				Connection size				
Model	Capacity (KW)	Flow rate (l/s)		Pressure drops (kpa)	Flow rate (l/s)	H (mm)	L (mm)	W (mm)	Primary side In/out	Secondary In/out	Recirc.	NP *	Weight (kg)
DHW020510	25.2	0.19	44	4	0.12	955	550	310	G1" - G1"	G1" - G1"	G1"	7HH	42
DHW025510	31.5	0.238	34	6	0.15	955	550	310	G1" - G1"	G1" - G1"	G1"	7HH	42
DHW035510	44.1	0.329	36	5	0.21	955	550	310	G1" - G1"	G1" - G1"	G1"	9HH	43
DHW045510	56.7	0.423	22	8	0.27	955	550	310	G1" - G1"	G1" - G1"	G1"	9HH	43
DHW055510	69.3	0.517	16	12	0.33	955	550	310	G1" - G1"	G1" - G1"	G1"	11HH	43
DHW060510	75.6	0.56	21	8	0.36	955	550	310	G1" - G1"	G1" - G1"	G1"	11HH	43
DHW065510	81.9	0.61	20	6	0.39	955	550	310	G1" - G1"	G1" - G1"	G1"	13HH	43
DHW075510	94.5	0.716	20	8	0.45	955	550	310	G1" - G1"	G1" - G1"	G1"	15HH	43
DHW085510	107	0.81	15	7	0.51	955	550	310	G1" - G1"	G1" - G1"	G1"	17HH	43
DHW100510	123.9	0.955	31	14	0.59	955	640	365	G1¼" - G1¼"	G1" - G1"	G1"	19HH	53
DHW120510	149.1	1.15	24	14	0.71	955	640	365	G1¼" - G1¼"	G1" - G1"	G1"	23HH	53
DHW150510	186.9	1.43	66	16	0.9	955	640	365	G1¼" - G1¼"	G1" - G1"	G1"	25HH	54
DHW180510	224.7	1.72	38	17	1.08	955	640	365	G1¼" - G1¼"	G1" - G1"	G1"	25HH	54
DHW210510	262.5	2.00	27	19	1.265	955	640	365	G1¼" - G1¼"	G1" - G1"	G1"	29HH	55

									Connections	Connections	Re circ		
Model	KW	Flow l/s	PD kpa	PD (kpa)	Flow l/s	H mm	L mm	Wmm	Primary	Secondary	Pump	NP*	Kg
DHW2401410	300.3	2.29	27	21	1.45	1345	900	420	G1½" - G1¼"	G1½" - G1½"	G1¼"	13HH	174
DHW2701410	338.1	2.58	19	17	1.62	1345	1100	465	G1½" - G1¼"	G1½" - G1½"	G1¼"	15HH	176
DHW3001410	375.9	2.8	34	14	1.81	1345	1100	465	DN40 - DN40	G1½" - G1½"	G1¼"	17HH	193
DHW3301410	413.7	3.08	17	18	1.97	1345	1100	465	DN40 - DN40	G1½" - G1½"	G1¼"	19HH	193
DHW3501410	438.9	3.27	17	15	2.09	1345	1100	465	DN40 - DN40	G1½" - G1½"	G1¼"	19HH	195
DHW3801410	474.60	3.55	34	17	2.28	1345	1100	465	DN40 - DN40	G1½" - G1½"	G1¼"	17HL5	195
DHW4101410	512.4	3.82	31	15	2.47	1345	1100	465	DN40 - DN40	G1½" - G1½"	G1¼"	23HH	196
DHW4401410	550.2	4.10	26	14	2.65	1345	1100	465	DN40 - DN40	G1½" - G1½"	G1¼"	23HH	198
DHW4701410	588	4.38	23	16	2.83	1345	1100	465	DN40 - DN40	G1½" - G1½"	G1¼"	25HH	198
DHW5001410	625.8	4.67	41	18	3.01	1345	1110	470	DN50 - DN50	G2" - G2"	G1½"	27HH	204
DHW5301410	663.6	4.95	36	18	3.19	1345	1110	470	DN50 - DN50	G2" - G2"	G1½"	29HH	206
DHW5601410	701.4	5.23	29	19	3.38	1345	1110	470	DN50 - DN50	G2" - G2"	G1½"	31HH	206
DHW6001410	751.8	5.61	22	18	3.62	1345	1110	470	DN50 - DN50	G2" - G2"	G1½"	33HH	207
DHW6301410	789.6	5.89	19	17	3.80	1345	1110	470	DN50 - DN50	G2" - G2"	G1½"	33HH	209
DHW6601410	827.4	6.17	17	14	3.98	1345	1110	470	DN50 - DN50	G2" - G2"	G1½"	39HH	212
DHW7001410	877.8	6.55	15	12	4.23	1345	1110	470	DN50 - DN50	G2" - G2"	G1½"	43HH	215

NP * = number of plates of the PHE with temperatures shown above.
** = Primary pressure drop taken care of with pump installed by AEL.



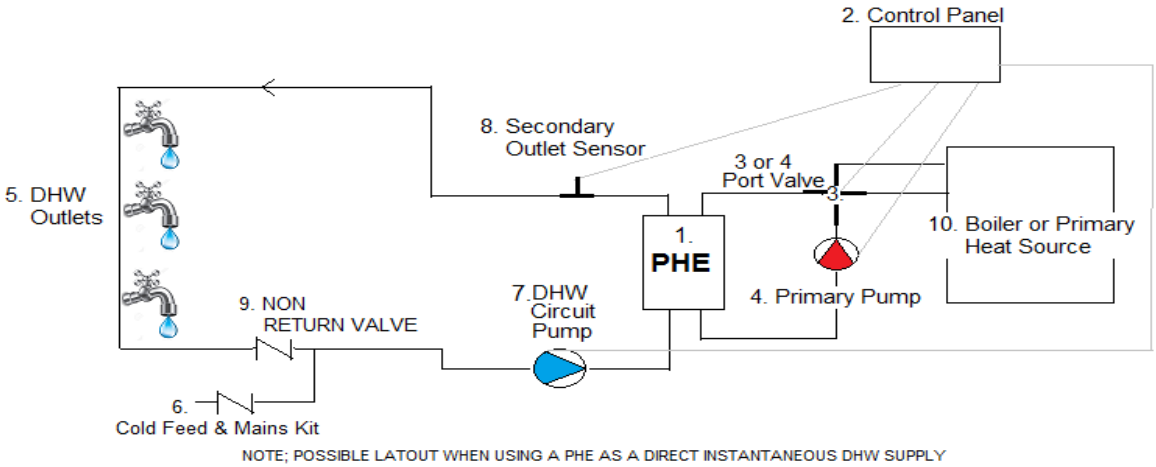
Supply voltage: **230V**
Frequency: 5**0Hz**

The **AELTHERM - DHW** module is comprised of:
Integrated control panel unit with digital regulation system (PID programmable)
Instantaneous Plate Heat Exchanger pack
3-way electric power operated modulating valve (Primary side)
Circulation pump (Primary side)
Vent valve (Primary side)
Regulating flow orifice (on the by-pass Primary side)
Safety Pressure relief valve (Secondary side)
Check valve (on the secondary return side) c/w PT1000 Thermo sensors

AELTHERM DHW - STANDARD TECHNICAL FEATURES

- Easy to set up management of the secondary side operating times with internal separate clocks and weekly programmes
- Easy to use setting of the secondary DHW set point temperature via the control panel
- Easy to use weekly calendar, for separate management of the secondary circuit (with a facility for ON/OFF setting with time ranges of 30 minutes)
- Facility for volt free BOILER FAULT alarm
- Ability to provide a signal to an external acoustic alarm and provide message on the panel display in case of sensor failure
- Management of the ANTI-LEGIONELLA cycle (if required) with the internal weekly calendar. Cycles can Be saved and eventual sensors failures or uncompleted cycles can be signalled (through acoustic alarm and message on the display)
- Option of having an Auto electric 2-way shut off valve positioned on the cold water inlet to avoid the risk of scalding during the ANTI-LEGIONELLA cycle.

The AELTHERM - DHW module can also be equipped with an optional 2-way, on/off valve on the Secondary water inlet (for safety, during Anti legionella cycles)



NOTE; POSSIBLE LATOUT WHEN USING A PHE AS A DIRECT INSTANTANEOUS DHW SUPPLY