Dimplex renewables®
A world of expertise

Unvented Heat Pump Cylinder
EC-Eau **ECS300HP-580**
Dimplex ECO

Features
Duplex stainless steel cylinder with large heat pump coil
60mm PU foam insulation for low standing heat losses
Over 60% in volume from recycled material
Surface mounted sensor devices for compatibility and ease of maintenance
Compatible with extensive Dimplex heat pump range
PU-insulation with GWP < 1 and ODP = 0
KIWA approved (water and building regulations)

Scope of delivery	
Cylinder with one immersion	300 l
T+P valve	1/2", 7bar/90°C
Inlet group	PRV 3bar, ERV 6bar
2 port valve	-
Expansion vessel with fixing kit and connection hose	24 l
Tundish	15mm/22mm
Installation & User manual	✓
Terms and conditions	✓

Technical data: VOLUME	
Nominal volume	291.5 l
Primary hot water capacity[1] Aux hot water capacity [1]	267 l -
Indirect coil volume	-
Indirect coil heatable volume	-
Heat pump coil volume	10.5 l
Heat pump coil heatable volume	300 l
Solar coil volume	-
Dedicated solar storage vol. (KIWA) [2] nominal	- -
Heating buffer volume	-
Expansion vessel volume	24 l
Minimum mains flow rate	15 l/min

Technical data: CONNECTION SIZES	
Indirect coil	- mm
Heat pump coil	28 mm
Solar coil	- mm
Inlet/outlet pipe	22 mm
Secondary return	1/2" F BSP
T+P Valve	1/2" F BSP
Immersion heater	1 3/4" F BSP
Heating buffer	- mm

Technical data: RE-HEAT TIMES	
Primary re-heat time[1] Aux. re-heat time[1]	20 mins -

Technical data: HEAT LOSS	
Maximum standing heat loss[y]	1.9 kW/24h

(1) Determined in accordance with EN12897-2006

(2) Determined in accordance with KIWA document for unvented hot water storage cylinders to the requirements of the UK building regulations, Annex D

(3) All the dimensions are taken from the base of the cylinder to the centreline on the component

[y] Heat loss figure calculated based on measured surface temperatures. Indicative only.

[+] Calculated value

(**) Calculated - based on measurements

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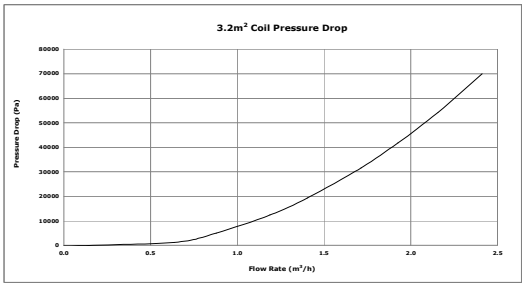
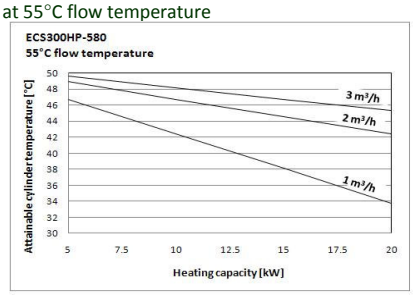
Cross-sectional drawing

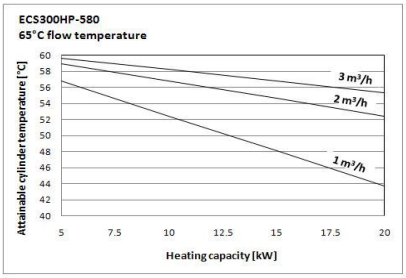
Pressure drop diagram of cylinder and coils



Attainable cylinder temperature as a function of heat pump output, flow rate at 55°C flow temperature



Attainable cylinder temperature as a function of heat pump output, flow rate at 65°C flow temperature



Technical data: D I M E N S I O N S			
Height [3]		2080 mm	
Diameter		580 mm	
Tilt height		2160 mm	
Weight (empty)		53 kg	
CW Inlet [3]		190 mm	
Secondary return [3]		1255 mm	
HW Outlet [3]		1850 mm	
T&P valve [3]		1850 mm	
HP Buffer Immersion [3]		- mm	
Btm. Immersion [3]	Top Immersion [3]	208 mm	- mm
HP return [3]	HP flow [3]	190 mm	930 mm
HP buffer return [3]	HP buffer flow [3]	- mm	- mm
Btm. Thermostat [3]	Top Thermostat [3]	1020 mm	- mm
ST return [3]	ST flow [3]	- mm	- mm
Indirect return [3]	Indirect flow [3]	- mm	- mm

Technical data: C O I L S and Immersions	
Indirect coil surface area	-m²
Indirect coil rating [1]	-kW
Indirect coil flow rate [1]	-l/min
Heat pump coil surface area	3.2 m²
Heat pump coil rating [1]	43 kW
Heat pump coil flow rate [1]	0.42 l/s
Solar coil surface area	-m²
Solar coil rating [1]	-kW
Solar coil flow rate [1]	-l/min
Immersion rating	2.7/3.0 kW at 230/240 VAC

Technical data: P R E S S U R E	
Max. sply. Pres. at red. valve	12 bar
Pressure reducing valve setting	3 bar
Press. relief valve opening pres.	6 bar
T&P valve opening pres.	7 bar
Pre-charge expansion vessel	min 2 bar
Min. mains dynamic pres.	1.5 bar
Max. operating pres. cylinder	3 bar
Max. design pres. cylinder	12 bar
Max. op. pres. indirect coil	- bar
Max. op. pres.heat pump coil	3 bar
Max. op. pres.solar coil	- bar
Max. op. pres.buffer	- bar