



BY HEATRAESADIA



DATA SHEET

# Megaflo Eco Solar PV Ready Indirect

## UNVENTED CYLINDER

The Megaflo Eco Solar PV Ready takes the energy harvested by PV panels on the roof and transfers it directly to the cylinder delivering free hot water.

Operating on any PV array, with the panels wired straight into the cylinder, it requires no roof work or additional training to install<sup>†</sup> and the pre-wired controller makes installation quick and simple.

<sup>†</sup>No training in addition to Hot Water Unvented Storage Systems (G3) is required.

<b>72</b> l/min at 3 bar	<b>2x</b> <b>3kW</b>	<b>170-300</b> Litres	<b>60</b> mm
MAX FLOW	IMMERSION HEATERS	NOMINAL CAPACITY	INSULATION



### FEATURES

- Fully wired Solar iBoost control
- Wireless communication
- High grade duplex stainless steel
- High performance insulation
- Internal floating baffle
- Megaflo combination valve delivering up to 72l/min at 3 bar

### BENEFITS

- No special wiring required, easy to install
- For ease of siting
- High corrosion resistance and a high strength to weight ratio
- Reduces heat loss for better energy efficiency
- Faster installation
- Outstanding performance

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### SPECIFICATIONS

Model	170i	210i	250i	300i
<b>Product code</b>	<b>95050350</b>	<b>95050351</b>	<b>95050352</b>	<b>95050353</b>
Nominal capacity (litres)	170	210	250	300
Internal expansion with floating baffle	√	√	√	√
Insulation thickness (mm)	60	60	60	60
Immersion heater rating (kW)	2 x 3	2 x 3	2 x 3	2 x 3
Weight empty (kg)	42	48	54	62
Weight full (kg)	220	243	287	345
Coil surface area (m <sup>2</sup> )	0.79	0.79	0.79	0.79
Coil heat transfer – primary flow 15 l/min (kW)*	19.4	19.4	19.5	20.5
Standing heat loss (kWh/24h)	1.2	1.42	1.61	1.69
Standing heat loss (kWh/year)	438	518.3	587.65	616.85
The water heating energy efficiency class of the model	B	B	C	C
Max flow at 3 bar (l/min)**	70	70	70	70
Max flow at 1 bar (l/min)**	40	40	40	40
1st hour performance at 45K (l/hr)†	633	673	706	767
Continuous performance at 45K (l/hr)†	463	463	456	467
Heat up time direct at 45K primary flow 15l/min (mins)†	31.5	32.1	40.1	42

\*At primary flow temperature 80°C. \*\*MCWS static pressure. †Calculated using nominal capacities.

### ERP TECHNICAL DATA

Storage volume V in litres @ 3 bar	178	195	233	283
Standing loss in W	50	59	67	70
The water heating energy efficiency class of the model	B	B	C	C
The thermostat temperature settings of the water heater, as placed on the market by the supplier	60°C			

### TECHNICAL SPECIFICATION

Maximum supply pressure to incoming mains cold water combination valve (supplied)	1.6 MPa (16 bar)
Minimum recommended supply pressure and flow rate	0.15 MPa (1.5 bar) – 20 litres per minute
Operating pressure	0.3 MPa (3 bar)
Inner water container	High grade Duplex stainless steel pressure tested to 16 bar
Thermal insulation nominal thickness 60mm)	CFC/HCFC free, fire retardant expanded polyurethane foam with zero ozone depletion Global warming potential (GWP) = 3.1
Pressure relief valve	0.8 MPa (8 bar)
Immersion heater rating (AC supply only)	3kW @ 240V 2.8kW @ 230V
Primary coil hydraulic resistance @ 15 l/min	0.005KPa (0.0005bar)
Connections	22mm compression Secondary return ½" BSP female connection
Domestic Hot Water Expansion	Megaflo Eco Solar PV Ready has an internal air gap with floating baffle, which accommodates hot water expansion. Meaning that there is no need to fit an external expansion vessel

### COMPONENTS

The following components are supplied as standard with Megaflo Eco Solar PV Ready Indirect

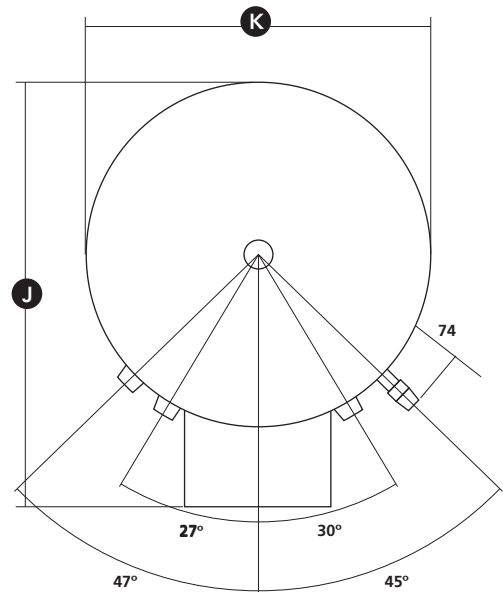
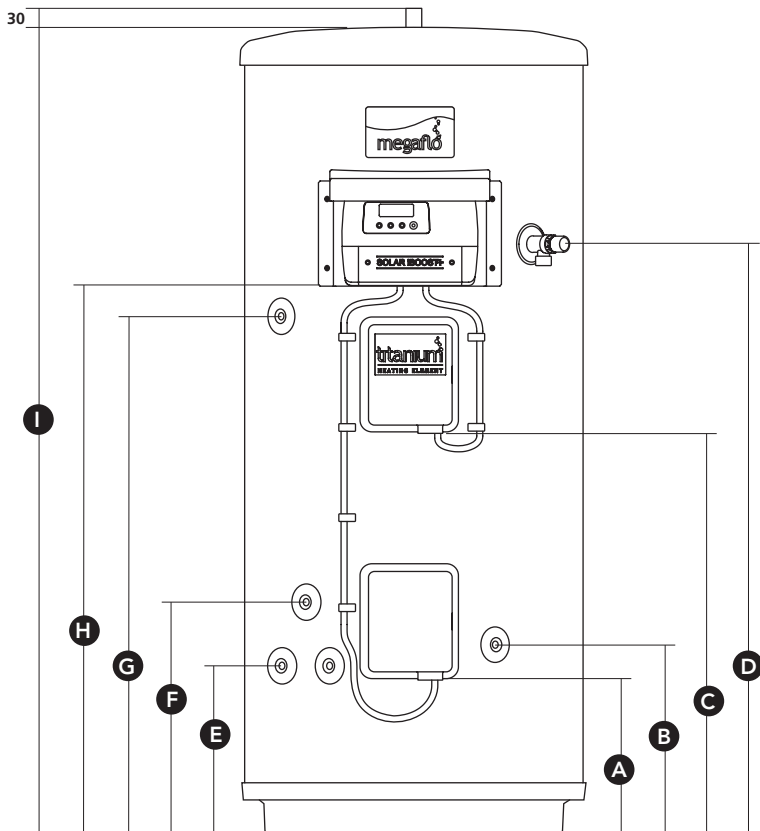
<b>Immersion(s)</b>	Factory fitted immersion heater(s) and thermal controls.
<b>Cold water</b>	Cold water inlet control kit comprising of 0.3MPa (3 bar) pressure reducing valve 0.8MPa (8 bar) pressure relief valve (BS EB 1567, BS EN 1491, EN 13959) 1/4 turn isolating valve, line strainer, non-return valve, drain valve
<b>Safety</b>	Factory fitted temperature and pressure relief valve set at 90°C / 1 Mpa (10 bar) (BS EN 1490) inc. T&P valve insulation kit.15/22mm Tundish. Additional thermostat and thermal cut out
<b>Electrical</b>	Wiring centre, 22mm 2 port motorised valve
<b>Controls</b>	Solar iBoost Control (pre-wired), Clamp, Sender, Buddy remote display and control

## DIMENSIONS

Model	170i	210i	250i	300i
A Cable entry lower (mm)	290	290	290	290
B DHW inlet (mm)	355	355	355	355
C Heater 1 control (mm)	703	796	1008	1312
D T&P relief valve (mm)	1020	1096	1323	1574
E Primary coil connections (mm)	316	316	316	316
F Boiler thermostat pocket (mm)	424	424	424	424
G Secondary return (mm)	935	1011	1238	1526
H Solar PV control (mm)	950	1052	744	744
I Height (mm)	1383	1485	1736	2051
J Depth (mm)	714	714	714	714
K Width (mm)	579	579	579	579

FRONT VIEW

PLAN VIEW





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## CODES OF PRACTICE/LEGISLATION

### EU Directives:

- Pressure Equipment Directive 97/23/EC.
- Low Voltage Directive (LVD) 2014/30/EU.
- RoHS Directive 2011/65/EU.
- Electromagnetic Compatibility (EMC) Directive 2014/35/EU.

### Legislation:

- Building Regulations Part G and Part L (England and Wales).
- Scottish Building Standards Section 4 and Section 6.
- Building Regulations (Northern Ireland) Parts F1 and F2 and Part P.
- Water Supply (Water Fittings) Regulations (England and Wales).
- The Water Byelaws 2004 (Scotland).
- Water Supply (Water Fittings) Regulations (Northern Ireland).

### Standards:

- Relevant clauses of the following standards are complied with:
- EN 12897 – Specification for indirectly heated unvented cylinders.
- EN 60335-2-21 – Safety-Particular requirements for storage water heaters.
- The stainless steel materials used comply with the relevant clauses of:
- EN 10088 – Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes.
- EN 50440:2106 – Efficiency of Domestic Electric Storage Water Heaters and Training Methods.

### Components supplied comply with the following standards:

- BS EN 1490 Building Valves – Combined Temperature and Pressure Relief Valves.
- BS EN 1491 Building Valves – Expansion Valves.
- BS 6144 Specification for Expansion Vessels Using An Internal Diaphragm For Unvented Water Supply Systems.
- BS EN 1567 Building Valves – Water Pressure Reducing Valves and Combination Reducing Valves.
- BS EN 60730-1 Automatic Electrical Controls – For households and similar use. Part 1: General Requirements.
- BS EN 60730-2-8 Automatic Electrical Controls – Particular Requirements for Electrically Operated Water Valves.
- BS EN 13959 Anti-pollution Check Valves.

### The use of these water heaters will aid in compliance with:

- Health and Safety Executive Approved Code of Practice L8: The control of legionella bacteria in water systems.
- BS EN 806 Parts 1 to 5: Specification for installations inside buildings conveying water for human consumption.
- BS 8558 Guide to the design, installation, testing and maintenance of services supplying water for domestic use within buildings.
- Chartered Institute of Building Services Engineers Guide B and Guide F.

### Manufactured in a factory approved to:

- BS EN ISO 9001
- OHSAS 18001
- ISO 50001
- ISO 14001

### Megaflo Eco approvals:

- Kiwa Certification Number: 1608707.
- Nemko Certification Number: P16221050.



For more information  
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Please recycle this product once you have finished with it

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MEGAFLO may introduce modifications to their products from time to time. Consequentially the details given in this data sheet are subject to alteration without notice.