

PLW

PV Solar Hot Water Controller

Introduction

The PLW is an MPPT controller for off grid PV solar hot water and grid boosted systems. PV hot water solves many difficult installation problems and can perform better than thermal solar hot water under many conditions. The PLW comes as a complete kit which includes a solar isolator, a low voltage heating element, two temperature sensors and a pre wired mechanical safety thermostat.

The PLW takes information from two temperature sensors and displays it to the user. This information is also used to control the maximum tank temperature (thermostat function). The resulting system does not need boosting from other energy sources if an adequately sized PV Array is installed

The controller works with 60 cell and 72 cell panels.

Features

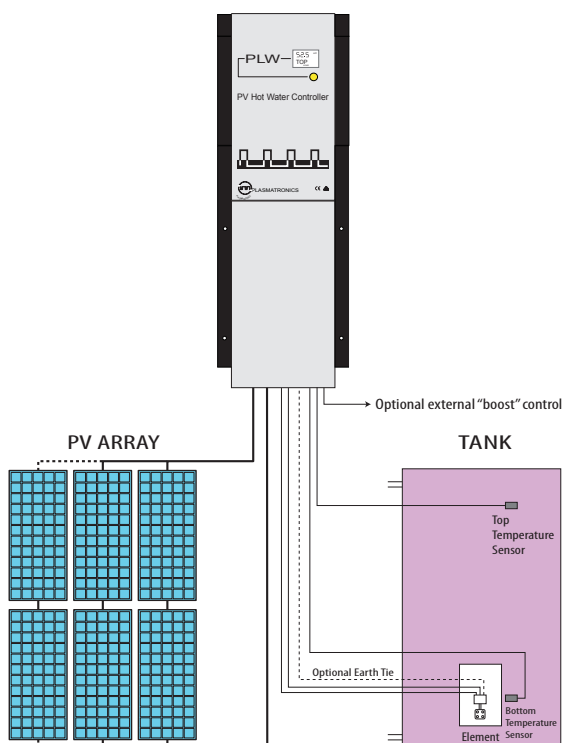
No frost protection devices or pumps to fail.

No roof reinforcement needed.

No battery required.

Flexible: place tank near point of use and panels where convenient.

Approved to the IEC62109 safety standard



Technical Data

Nominal Array Voltage	48	V
Maximum solar array Voc	100	V
Maximum average load (element) current	30	A
Maximum average solar current	30	A
Maximum voltage between the "Boost" relay terminals	85	V
Boost relay terminals maximum wire size	2.5	mm ²
Maximum "Boost" relay contact current	300	mA
Temperature sensor operating range	0 to 100	°C
Maximum ambient temperature without derating	50	°C
Maximum storage temperature	70	°C
Meter accuracy	< +/-2% FSD + 2 dig	
Maximum wire size for Solar connection	35	mm ²
Minimum wire size for Solar connection	6	mm ²
Maximum wire size for Load connection	16	mm ²
Minimum wire size for Load connection	6	mm ²
Earth terminal maximum wire size	6	mm ²
IP Rating	IP20	
PLW size	520H x 175W x 90D	mm
Kit size and weight	535x190x185 mm	5.8kg



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