

Rinnai



Rinnai Solar PV Water Heating Solutions

These solutions are suitable for grid-connected solar photo-voltaic applications. A connection to the power grid is required to ensure legionella disinfection is maintained in accordance with the New Zealand Building Code. For off-grid applications please consult your solar specialist.

Rinnai Electric Storage Solar PV Solutions

“Shifting load with a hot water diverter generally increases the returns from solar, especially for annual consumption of 12000 kWh and above”¹

Solar power diverters send electricity to the water heater in preference to grid export

While any Rinnai electric storage cylinder is compatible with a solar power diverter, Rinnai dual element cylinders are a particularly flexible solution.



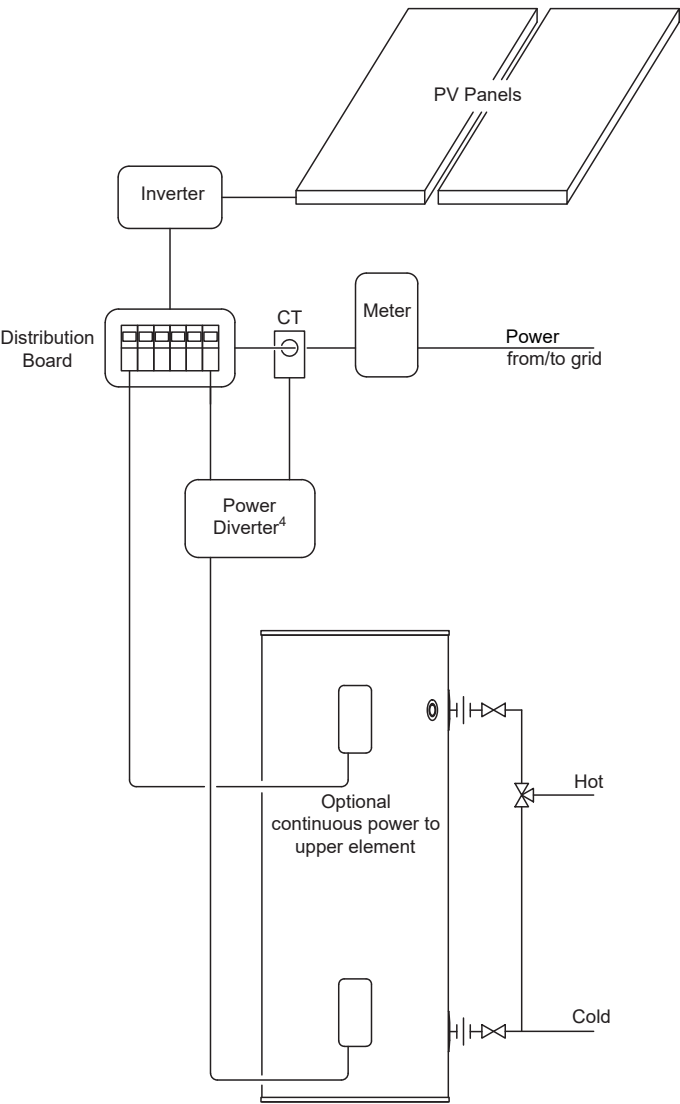
CODE	Capacity (Litres)	Location	Diameter (mm)	Height (mm)	# People	Elements	Power (A)
ME250590DE30	250	Indoor or Outdoor	590	1575	4-6	2 x 3 kW ²	13.1 ²
ME280590DE30	280	Indoor or Outdoor	590	1740	5-7	2 x 3 kW ²	13.1 ²
MS250550D20	250	Indoor	550	1730	4-6	2 x 2 kW	17.4 ³
MS250550D30	250	Indoor	550	1730	4-6	2 x 3 kW	26.1 ³
MS300550D20	300	Indoor	550	2045	5-7	2 x 2 kW	17.4 ³
MS300550D30	300	Indoor	550	2045	5-7	2 x 3 kW	26.1 ³

¹ EECA publication *Understanding the value of residential PV and storage in New Zealand*
Available from: [EECA.govt.nz/insights](https://eeeca.govt.nz/insights)

² Field upgradeable to 5kW with 22 A power consumption
non-simultaneous wiring

³ Simultaneous wiring

Technical



A high-quality power diverter will sense as little as 100W exported to the grid and divert this to the water heater element. As solar power and household electrical load vary, the power diverter adjusts the supply to the water heater accordingly.

The diverter is programmed to completely heat the cylinder at night, taking advantage of lower electricity prices. So, a tank should be large enough for a full day of hot water use.

The top element can be connected to continuous power supply ensuring enough water for a single shower and sink of dishes.

⁴ Such as: Eddi Power Diverter: myenergi.com/nz/eddi-power-diverter/ available from J A Russell

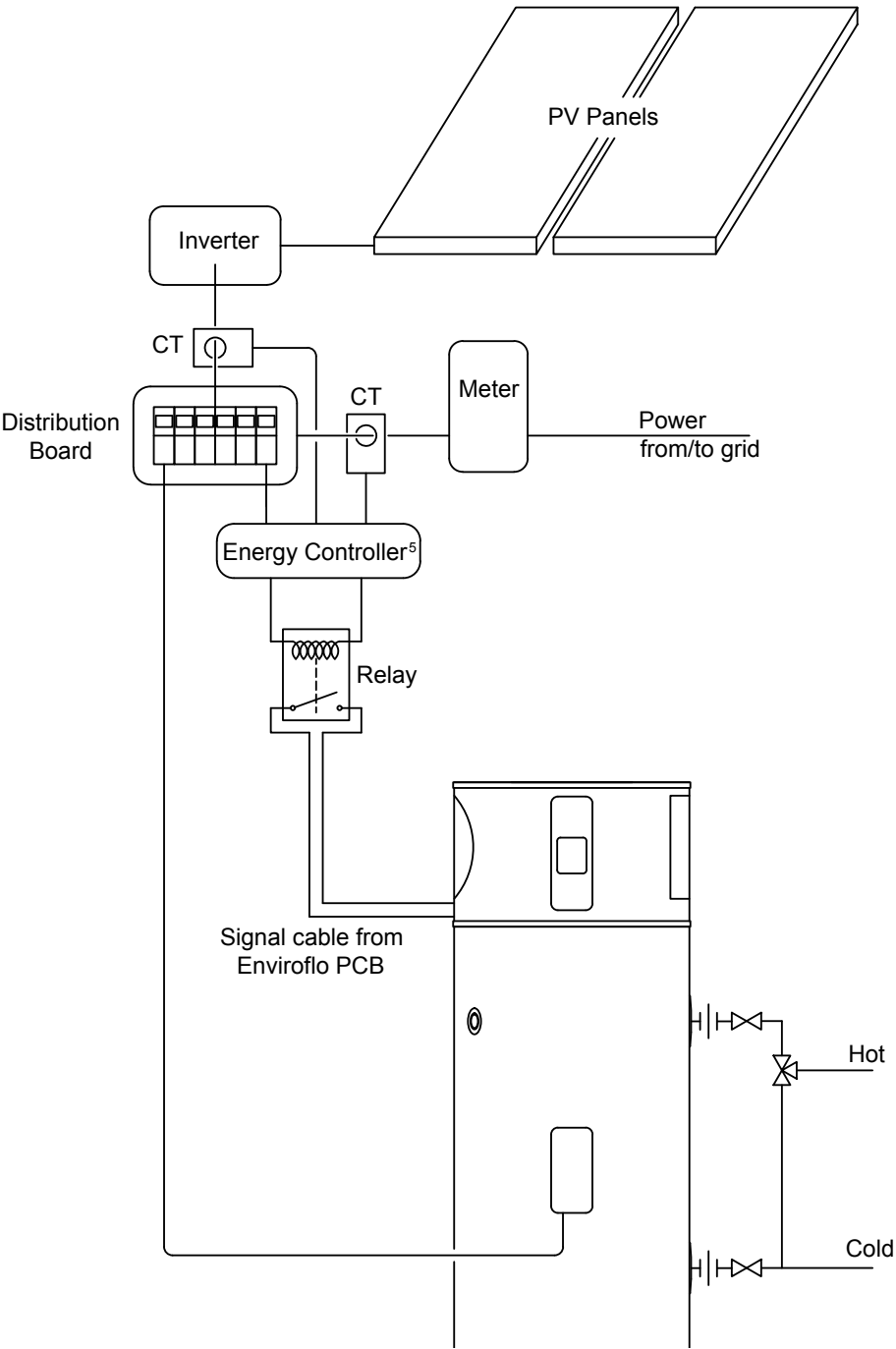
Rinnai Enviroflo GR Heat Pump

A Rinnai Enviroflo GR heat pump can receive a signal from a solar PV system to indicate when power is being exported to the grid. The heat pump can initiate heating cycles more often to take advantage of the available power.



CODE	Capacity (Litres)	Location	Diameter (mm)	Height (mm)	# People	Power (A)
EHPG215VM	215	Outdoor	640	1875	2 – 4	14.4
EHPG265VM	265	Outdoor	640	1933	3 – 5	14.4
EHPG300VM	300	Outdoor	640	2055	4 - 6	14.4

Technical



⁵ Such as Catchpower CATCH Control: catchpower.com.au/catch-solar-relay available from Ideal Electrical

Not sure what to do?

The current energy market can be confusing when choosing a long-term water heating solution.

If unsure of the best solution for your situation, Rinnai recommend installing a Rinnai indoor-outdoor twin element cylinder to maintain maximum flexibility for the future.

When you are ready, you have the option of connecting the cylinder to solar panels with a solar power diverter or a Rinnai HydraHeat split heat pump unit. Low interest loans may be available from your existing mortgage holder to assist with this future upgrade.

In the meantime, the elements in the cylinder operate non-simultaneously. The top element will switch on first and heat the top section of the tank quickly. Enough for a shower and a sink of dishes. Once the top of the tank is heated the bottom element turns on to finish heating the balance of the cylinder. With only one element operating at a time, the capacity of the power connection to the cylinder is minimized. When adding a power supply from solar panels or a split heat pump the twin element cylinder can be easily rewired to your preferred configuration.



Solar PV/HydraHeat Split is an either/or option and can't be both.

Notes

[illegible]

Rinnai

Rinnai.co.nz | 0800 746 624

facebook.com/rinnainz