

Overview: Integrated Panel Assemblies

The Solectria Renewables Integrated Panel Assemblies are options that can be added to the PVI 1800 or PVI 2500 inverters. They can be used with inverters set to a grid voltage of 240VAC or 208VAC. This panel makes installing a PV system even faster and easier. The complete panel with inverter weighs only 65 lb (29.5 kg) and ships via UPS. The standard version includes visible-blade AC and DC disconnects, an optional revenue-grade, factory sealed, reconditioned easy-read kWh meter and meter socket all mounted on an aluminum panel using only stainless steel hardware. The design compliments the sleek, low profile construction of the inverters providing a clean, compact installation whether indoors or outdoors.

Applications

- 1-3 kW single panel residential or commercial installations
- Multiple 1-3 kW residential or commercial installations that are separately metered such as town houses, condos or apartments.
- Multiple paralleled 2-3 kW systems where panel is used without kWh meter and the panels are combined to go through a kWh meter if needed. Two & three-inverter panels available for 4–9 kW Systems (3.6-7.5 kW AC)
- Special versions of the panel available by request with various parts omitted, added or substituted (for example meter, meter socket or either disconnect).

Features

- Fully integrated design includes AC & DC disconnects, optional DC combiner-fuses (3), kWh meter.
- Mounting holes every inch at top and bottom for entire 33" width so you can always catch at least two studs.
- Simple set-up and connections (connect DC from PV strings and 3-phase AC connections).
- REC-trading simple with revenue-grade kWh meter.
- Panel is robust and corrosion-resistant made with all aluminum construction with stainless steel hardware.

Connectivity

- RS232/RS485 for diagnostics and data capture.
- Optional (Free) PC software for data viewing and logging.
- Optional Fat Spaniel web-based, plug & play "inverter-direct" data logging.

Options

- Digital meter with pulse for automated REC reporting.
- Optional CSG Soltrex for automated REC reporting.
- Optional Fat Spaniel "Inverter Direct" monitoring unit.
- Fused DC disconnect for 3-string PV configurations.
- Double and Triple-Inverter Panel versions available.



Specifications

Output (single-inverter panels)	
Maximum Cont. Power	2500W with PVI 2500
Maximum Cont. Power	1800W with PVI 1800
Voltage (L-L), -12%, +10%	240/208 VAC, single-phase
Max. Cont. Current, PVI 2500	10.4/12 A (240/208AC)
Max. Cont. Current, PVI 1800	7.5 /8.7 A (240/208AC)
Frequency, ±1%	60 Hz, pure sine wave
Inverter peak Efficiency	94% (50%-100% load)
Input (single-inverter panels)	
Array Configuration: Monopole, negative grounded	
Max V_{oc} ²	400 VDC
Max. DC Current (1800/2500)	11/15 A (inverter controlled)
MPT Voltage Range	125-350 VDC
Protection ³	
AC Grid-connection (Standards Compliance: See "Safety Features")	Over/Under Voltage Over Current Over/Under Freq.
AC Disconnect (Integral)	NEMA 3R, w/fuses
DC Combiner-Fuse Enclosure (Optional ⁴)	10A/15A fuses available, 3-pole, NEMA 3R, TVSS
DC Disconnect (Integral)	Break load rated, NEMA 3R
Environmental	
Ambient Temperature	-25 to 55 deg C (full rating)
Storage Temperature	-40 to 70 deg C
Cooling	1800 Passive, 2500 Forced Air
Disconnect & Meter Enclosures	NEMA 3R
Enclosure-electronics	NEMA 4, IP -65
General	
Weight ¹	65 lb ¹ (29.5 kg)
Shipping weight ¹	73 lb ¹ (33.2 kg)
Dimensions: inches [mm]	33"[838] x 26.88"[683] x 8"[203] ⁵
Shipping box size: inches [mm]	38"[965] x 32"[813] x 11"[279]
Warranty	5 years

¹ Fully Integrated Panel: Includes AC & DC disconnects, meter and meter socket and optional combiner-fuses in DC disconnect. See back page for weights of double and triple-inverter panels.

² Max Open circuit voltage (V_{oc}) of PV array (per NEC 690-7)

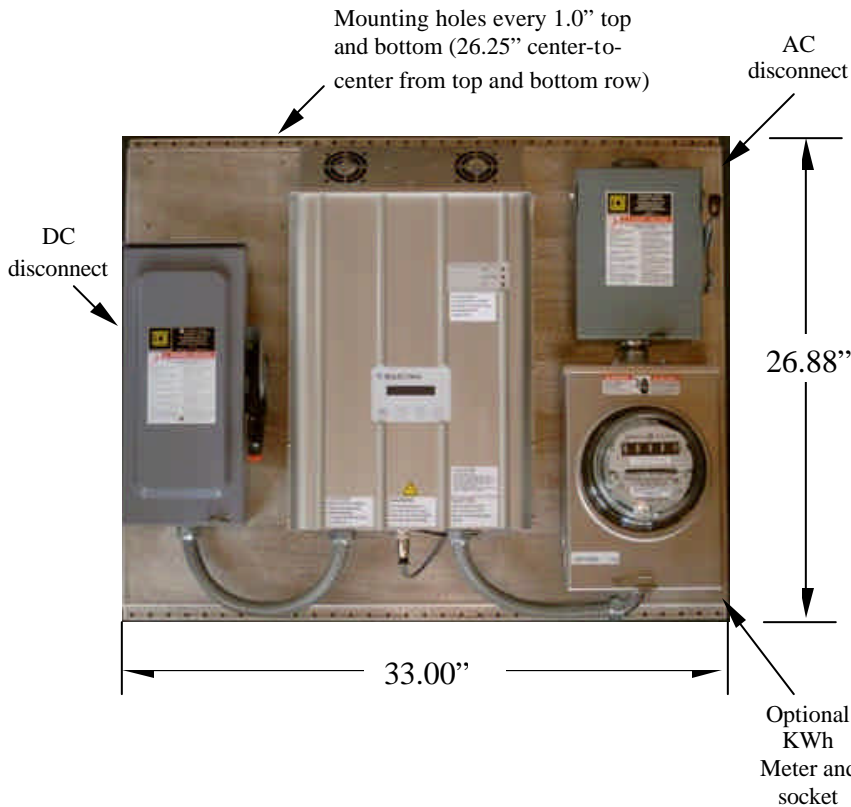
³ Complies with grid connection and safety standards ("Safety Features")

⁴ Integrated into DC disconnect if selected

⁵ depth is 6.5" (165mm) without the kWh meter.

See string sizing at www.solren.com

Dimensions



Single, Double and Triple-Inverter Panel Dimensions:

All Panels are 26.88" high, all outdoor rated except where noted.

Single-Inverter Panel (all): 33" wide

Double-inverter panel with DC disconnect but no meter/socket or AC disconnect: 37" wide (89 lb)

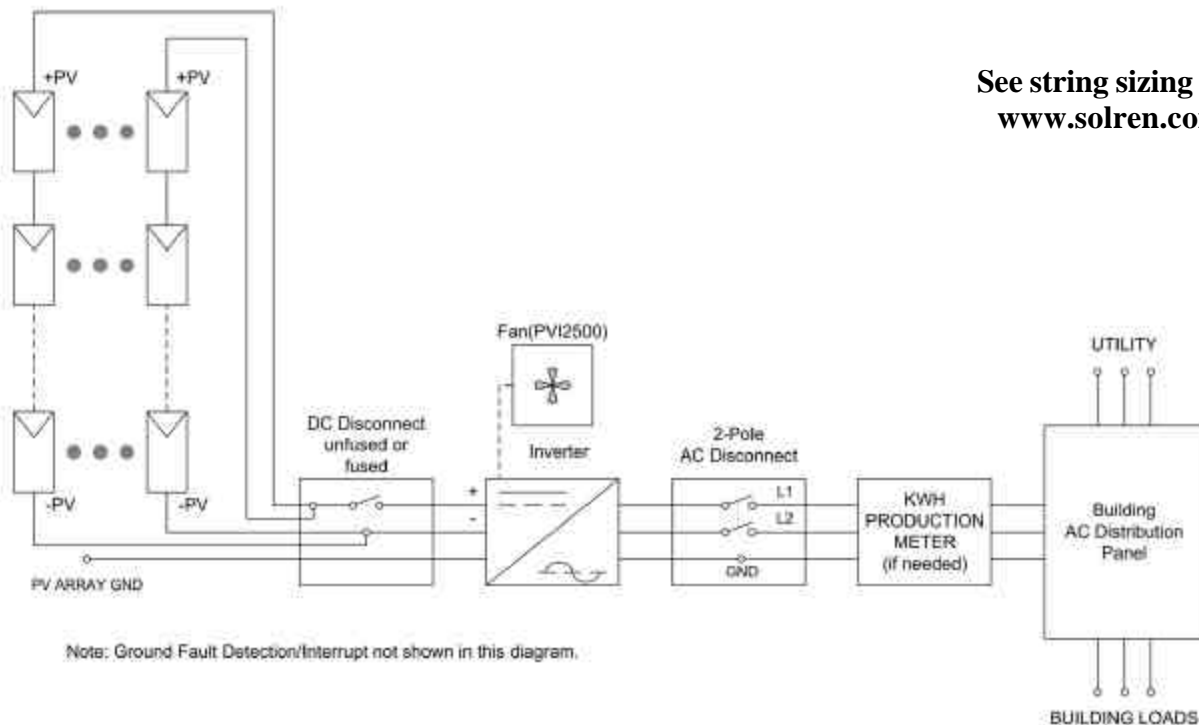
Double-inverter panel with DC disconnect, AC breaker panel (indoor or outdoor versions) and optional meter/socket 48" wide (104 lb)

Triple-inverter panel with DC disconnect but no meter/socket or AC disconnect: 51" wide (127 lb)



System Block Diagram

PVI1800 AND PVI2500 PV SYSTEM BLOCK DIAGRAM



See string sizing at: www.solren.com