



NEXTEK Power Systems, Inc.

NPS-904 PV Combiner Box



The NPS-904 houses up to four 1kW NPS-R1000 MPPT solar regulators, and routes power from up to sixteen solar panel strings to up to four NPS-1000 Power Gateways for a maximum of 4000 Watts of solar power.

The NPS-904 provides a simple method to connect solar panels to four NPS-1000 Power Gateways.

Four NPS-R1000 MPPT solar regulators maintain PV voltage for optimum power output under the varying conditions of solar irradiance and temperature.

Sixteen 6A, DC rated fused inputs accept 4.5 amps each for a total of 72 amps from PV arrays. The fuses provide 125% overload capacity as required by the NEC.

Output power is distributed to the NPS-1000 Power Gateways through four 25 amp circuit breakers, which are ganged together to form a single disconnect.

A single-point connection to ground is made at the backplane, which ties all positive PV inputs together.

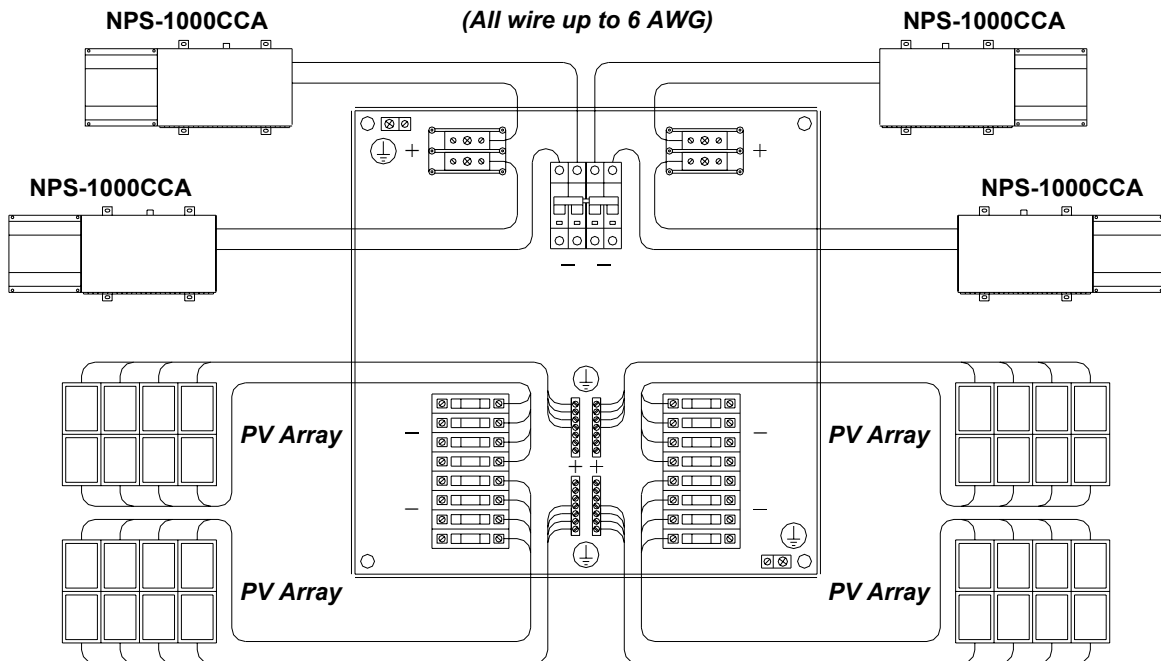
The NEMA 4, 12 enclosure may be mounted horizontally or vertically.

NPS-904 Specifications:

Power (Max.): 4000W
Output Circuits: 4 (1000W each)
PV Input Current: 72A (16 x 4.5A)
PV Input voltage (Max.): 95VDC
MPPT Tracking Range: 54 to 70VDC
PV Output Voltage (Max.): 57.5VDC
Environmental: NEMA 4, 12

Weight: 50 lbs. Shipping Weight: 55 lbs.
Size: 20 x 20 x 8" Shipping Size: 22 x 22 x 10"

Wiring to the NPS-904



(Four NPS-R1000s are pre-wired and are not shown on this drawing.)

The NPS-R1000 Maximum Power Point Tracker



The NPS-R1000 MPPT solar regulator is a 1000W electronic DC-DC converter that automatically adjusts current from the PV array in order to maintain operation at the maximum power point.