Inverters

SunWize TECHNOLOGIES

Sunny Boy 2500

Sunny Boy Control Unit

Sunny Boy

The Sunny Boy line of inverters are applicable for 700 W to 1 MW of PV grid tie power with a conversion efficiency > 93%. The basic principle of the Sunny Boy inverters is that one inverter is used per string of modules; where typical configurations use several strings of modules in parallel to achieve rated power, the Sunny Boy uses modules wired in series at a high DC voltage. String inverters are also easily paralleled to increase energy efficiency. The result is increased efficiency and great savings in wire costs, eliminating the losses due to mismatching and the need for a combiner box, blocking diodes, and high current DC breakers or fuses. UL listed and CE certified.

If you need monitoring, nothing could give you more options than the Sunny Boy inverter and control unit. The inverter can be purchased with a two line LCD display with backlight that will give you all the relevant PV data (model SBD). The inverter also automatically reads real time data, at a 132.45kHz frequency, over the 60Hz sinewave. This is called power line transmission, and it means no additional cabling needed. To input this data into a PC, buy the SWR-COM socket modem that plugs into any outlet and broadcasts the power line transmission to a PC com port. Supply voltage, 0-260V, 50-60Hz.

Data logging requires purchasing one of the three control units, the Sunny Boy Control Light, the Sunny Boy Control, or the Sunny Boy Control Plus. The control units can either receive data via the power line transmission, RS232 or RS485 connection. The control units will allow you to store data from 1 to 50 inverters, monitor the data and, via an external customer supplied modem, send data or fault alarms to an email, a FAX, or a pager. LCD display. Ambient temperature 0˚C to 40˚C.

Software to monitor either the inverter power line transmission output or the control unit's output is provided free of charge. The software provides an excellent GUI for monitoring small, 5-module systems to large-scale power stations.

Specifications

Output:	240 VAC, 60HZ
Ambient Conditions:	-25˚C to 60˚C @ 100% humidity
Power Consumption:	0.4 W operation, 0.1 W standby
Inverter Enclosure:	IP65 rated outdoor enclosure
Control Enclosure:	IP40

Model	PV Voltage	Maximum Input Current	Maximum PV Power	Maximum AC Power	Efficiency	Dimensions	Weight (lbs)	SW Part Number
INVERTERS								
SWR 1100EUL	150-400 VDC	8.5 A	1500 Wp	1100 W	93%	12.68" x 12.60" x 7.09"	44	176001
SWR 2500UL	275-550 VDC	10.5 A	3450 Wp	2500 W	94%	17.09" x 11.61" x 8.43"	75	176002
SWR 2500ULSBD	275-550 VDC	10.5 A	3450 Wp	2500 W	94%	17.09" x 11.61" x 8.43"	75	176003

	Power Consumption Operation	Power Consumption Standby	Daily Energy Value Storage	Dimensions	Weight (lbs)	SW Part Number
CONTROLS						
SBC Light	4-6 W	3 W	200 days	9" x 5" x 1.8"	2.76	176004
SBC	4-6 W	3 W	365 days	9" x 5" x 1.8"	2.81	176005
SBC Plus	9-11 W	8 W	365 days	9" x 5" x 3"	3.53	176006

OPTIONS	Description	Dimensions	Weight (lbs)	SW Part Number
Sunny Display	LCD display integrated into the lid with energy saving background illumination			176007
SWR-Com	Socket modem, power consumption is 5 W	5" x 3" x 2.1"	1.2	176008
SB-NLM-N	Power line carrier module, allows remote connection between multiple inverters and control units			176009
SB RS232N	Allows remote communication to personal computer			176010