

CENTRAL INVERTERS







Technical Data

- 97 % CEC weighted efficiency
- Integrated isolation transformer
- Graphical LCD interface
- Sunny WebBox compatible
- Install indoors or out
- Optional combiner boxes
- UL 1741 / IEEE 1547 compliant

Inverter Technology

AC Power Output (nominal)
 AC Voltage (nominal)
 AC Frequency (nominal)
 Current THD
 Power Factor (nominal)
 AC Output Current Limit
 DC Input Voltage Range
 MPP Tracking
 PV Start Voltage (configurable from 300 V - 600 V)
 Maximum DC Current
 Peak Efficiency
 CEC Weighted Efficiency
 Power Consumption
 Ambient Operating Temperature

Enclosure

Dimensions (W x H x D) in Inches
 Weight

Sunny Central 250U

True sinewave, high frequency
 PWM with galvanic insulation
 250kW
 480 V_{AC} WYE
 60 Hz
 < 5%
 > 0.99
 300 A_{AC} @ 480 V_{AC}
 300-600 V_{DC}
 300-600 V_{DC}
 400 V_{DC}
 800 A
 97.5%
 97%
 69W standby, <1000W with fans
 -13 to 113 °F full power
 output, up to 122 °F at
 reduced power
 NEMA 3R
 magnetics compartment
 NEMA 4
 electronics compartment
 110 x 80 x 33
 4200 lbs

Sunny Central 500U PRELIMINARY

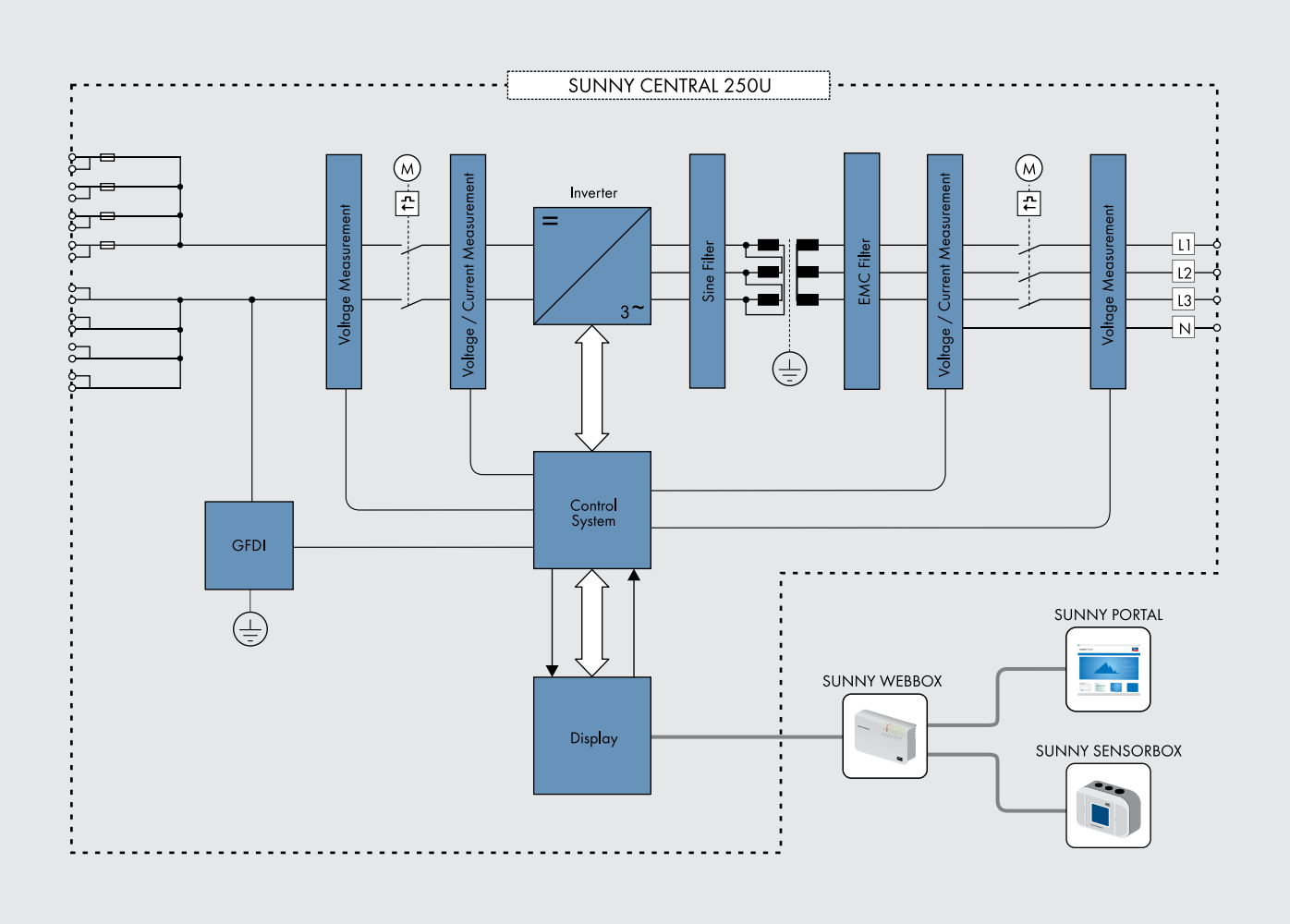
True sinewave, high frequency
 PWM with galvanic insulation
 500kW
 480 V_{AC} WYE
 60 Hz
 < 5%
 0.99
 600 A_{AC} @ 480 V_{AC}
 300-600 V_{DC}
 300-600 V_{DC}
 400 V_{DC}
 1600 A
 97.5% (estimated)
 97% (estimated)
 69W standby, <1500W with fans
 -13 to 113 °F full power
 output, up to 122 °F at
 reduced power
 NEMA 3R
 magnetics compartment
 NEMA 4
 electronics compartment
 134 x 80 x 33
 6725 lbs

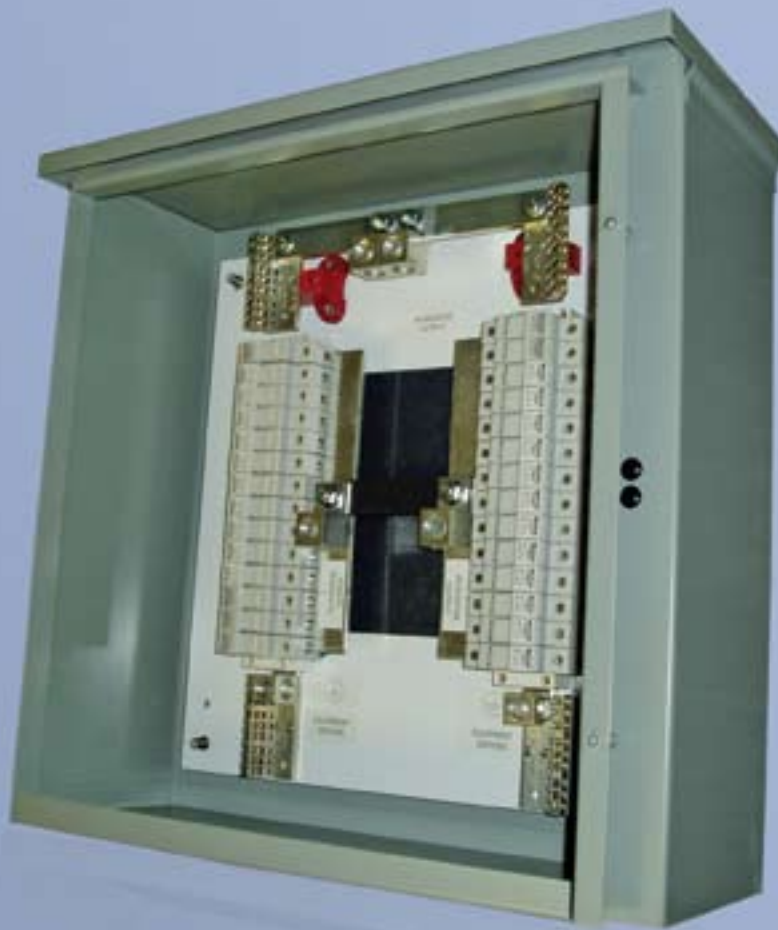
SUNNY CENTRAL 250U / 500U

With the growth of the commercial solar market, SMA has expanded its central inverter line for 2008. The new Sunny Central 250U and 500U have integrated isolation transformers and deliver the highest efficiencies available for large PV power plant inverters. The user interface has been completely updated and now features a large LCD that provides a graphical view of the daily plant production as well as the status of the PV array, inverter, and utility grid. The new 250U and 500U now offer optional PV string monitoring that makes the process of troubleshooting

the PV array more efficient. The new Sunny Central 250U is now compatible with industry standard building management and energy service software protocols and integrates easily into energy aware infrastructures. RS485 and Ethernet communication are available via the optional Sunny WebBox. The Sunny WebBox automatically uploads performance data to the free Sunny Portal website allowing system owners to view and track their energy production. Performance data can be further enhanced by adding the Sunny SensorBox to collect weather data. The new Sunny

Centrals from SMA represent years of innovative design experience by the world's largest manufacturer of PV inverters. Designed for easy installation, operation, and performance monitoring, the new Sunny Centrals are the ideal choice for your large scale PV project.





Technical Data

	SBCB-6 (Sunny Boy)	SCCB-12 (Sunny Central)	SCCB-28 (Sunny Central)	SCCB-52 (Sunny Central)
Input Data (DC)				
Number of Inputs (Pos & Neg)	6	12	28	52
Positive Input Wire Size	10 to 6 AWG	10 to 6 AWG	10 to 6 AWG	10 to 6 AWG
Positive Input Terminal Torque	14 in-lb.	14 in-lb.	14 in-lb.	14 in-lb.
Negative Input Wire Size	10 to 6 AWG	10 to 6 AWG	10 to 6 AWG	10 to 6 AWG
Negative Input Terminal Torque	35 in-lb.	35 in-lb.	35 in-lb.	35 in-lb.
Max. Input Fuse Rating (Midget)	15 A, 600 VDC	20 A, 600 VDC	15 A, 600 VDC	8 A, 600 VDC
Output Data (AC)				
Output Wire Size	6 to 350 AWG	6 to 350 AWG	6 to 350 AWG	6 to 350 AWG
Output Terminal Torque	350 in-lb.	350 in-lb.	350 in-lb.	350 in-lb.
Max. Output Current	90 ADC	240 ADC	420 ADC	416 ADC
Max. Continuous Output Current	72 ADC	192 ADC	336 ADC	333 ADC
Max. Number of Output Wires	1 Pos, 1 Neg	2 Pos, 2 Neg	2 Pos, 2 Neg	2 Pos, 2 Neg
Mechanical Data				
PV Array Configuration	Negative Grounded*	Negative Grounded*	Negative Grounded*	Negative Grounded*
Enclosure Type	NEMA3R, Steel	NEMA3R/4, Steel	NEMA3R/4, Steel	NEMA3R/4, Steel
Weight (Approximate)	11 lbs	48 lbs	56 lbs	70 lbs
Dimensions H x W x D (Inches)	10 x 8 x 6	16 x 16 x 6	20 x 20 x 8	42 x 30 x 8

Other sizes and designs available upon request.
*Fusing available on positive or negative input, specify when ordering

COMBINER BOXES

- For residential and commercial systems
- Greatly simplifies input and output wiring
- Available in 6 to 52 circuit configurations
- Compact, rugged low cost design
- Reliable bus-work for efficient high current conductor combining
- PV positive wires all land directly on Touch Safe™ fuse holders
- Sturdy NEMA 3R/4 wall mount steel enclosure
- ETL Listed to UL 1741

SMA America’s SBCB and SCCB Combiner Boxes are available in sizes ranging from 6 to 52 PV inputs to provide greater flexibility and expandability in system design. Over-sized bus-work adds high efficiency and dependability where it’s needed most. The large NEMA 3R/4 enclosure provides ample room for conductors which reduces installation time. Designed with installers in mind, we know you’ll find the new SCCB Combiner Boxes a welcome addition to our great line of inverter products.

