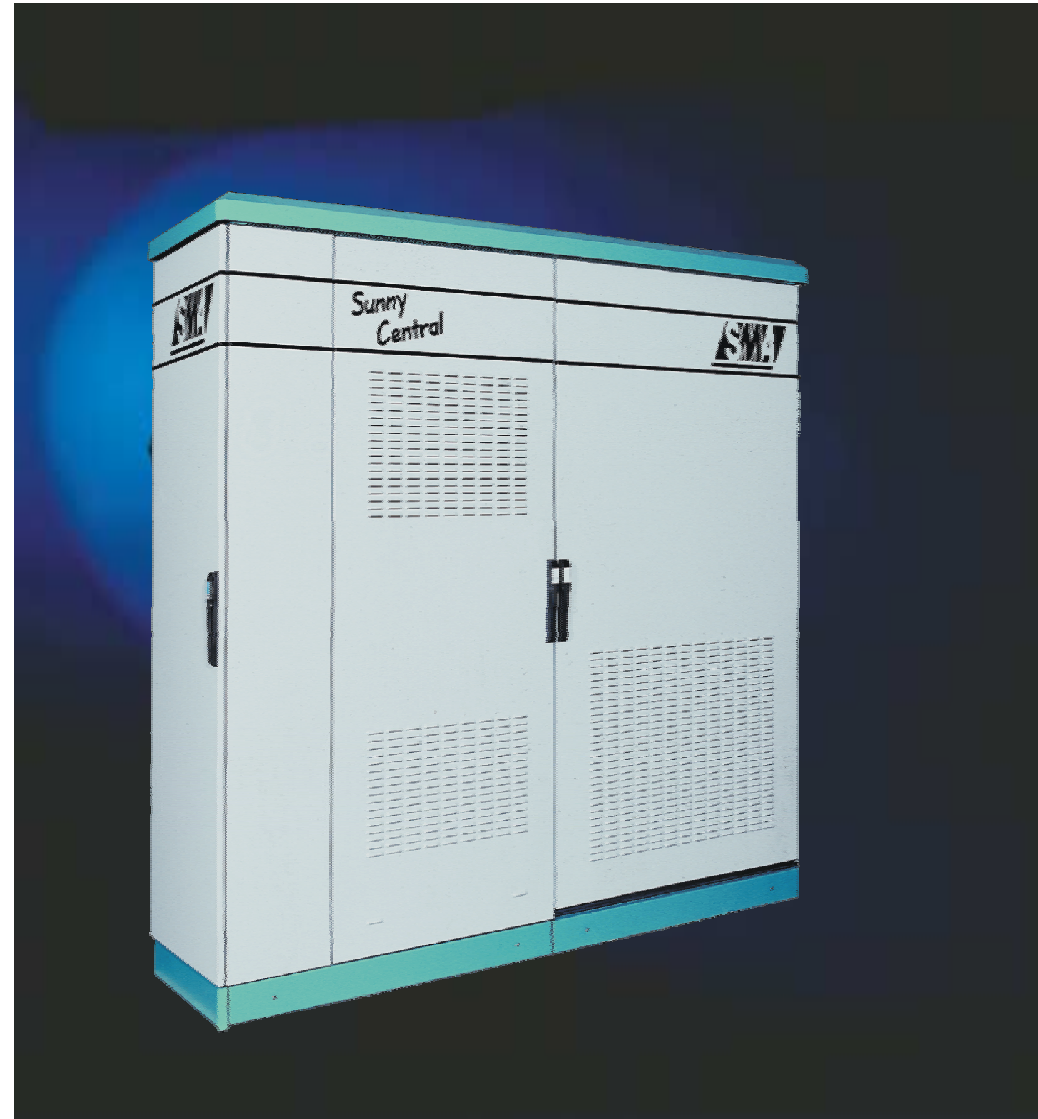


**Sunny Central 125kW  
Commercial Grid Tied Inverter**

**Kent Sheldon  
SMA America**

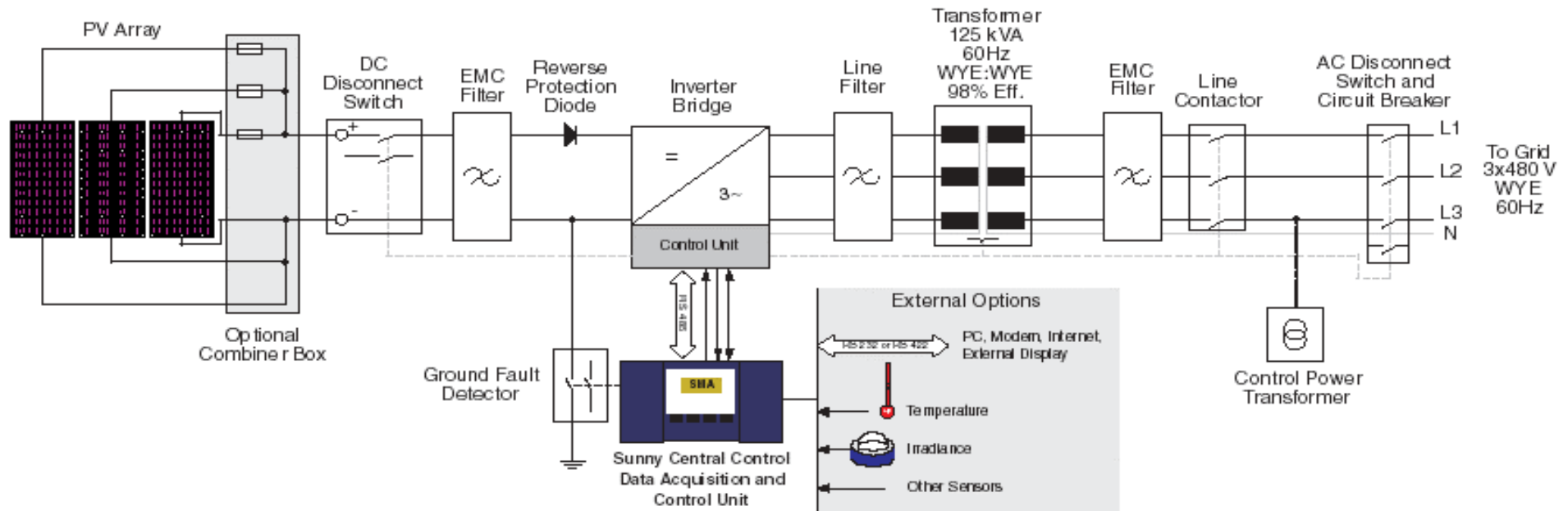
## System Overview

- 125kW at 45°C
- PV or fuel cell input
- Outdoor enclosure
- AC switch and breaker included
- DC switch included
- SBC-Plus advanced DAS system
- UL1741 listed
- FCC part 15A compliant
- Isolation transformer included
- Sealed electronics enclosure
- 5 year inclusive warranty



# Critical Specifications

AC Input Voltage	480Vac nominal
DC Input Voltage	275-600Vdc
Peak Power Tracking Voltage	275-550Vdc
Operating Temperature	-25°C to +50°C
Regulatory Compliance	UL1741, FCC part 15B, IEEEE519, IEEEE929, Canadian UL
Efficiency	95.7% (with transformer)
CEC Efficiency	97% (without transformer)



- **Integrated DAS system**
  - Based on Sunny Boy Control
  - Allows integration of external sensors (weather station, power meters, etc)
  - External communication (Ethernet, analog modem, wireless, etc.)
- **SMA Net communication protocol**
  - Same protocol as all SMA products
  - Extensive user interface software package included
- **FCC Compliance**
  - Declaration of Conformity performed by 3<sup>rd</sup> party testing lab
  - Federal requirement for inverter products
  - SMA products are compliant prior to industry requirements
- **Protected electronics areas**
  - Air-to-air heat exchanger to keep electronics clean and cool
- **Quality construction**
  - Rugged German construction
  - Mil-spec wiring techniques
  - Stainless steel, powder coated enclosure

- **New SMA service department for Sunny Centrals**
- **5 year comprehensive on-site warranty**
  - Parts labor and travel to site included
  - Included in sales price
- **On-site SMA commissioning included for 2004 orders**
- **Integrated isolation transformer**
  - Only energized when inverter is producing power
  - No costly nighttime tare losses from transformer
- **Highest CEC efficiency for large inverters (97%)**
  - Results in 1-3% greater rebate basis calculation than other large inverters

### ■ Increased Energy Production

- Internal isolation transformer increases energy production
  - CEC does not require transformer losses for SELFGEN program
  - Transformer operating losses equate to 2-3% lower power production
  - Nighttime losses equate to additional 3% impact on total system efficiency
- An inverter shown at 96% on the CEC list (excluding the transformer) is closer to 90% actual efficiency.
- Equivalent cost to install PV to offset these losses is between \$20,000 and \$40,000 depending on analysis
- This should be looked at as a system savings

