

CPS-1500 Energy Storage Inverter

The world's most advanced utility-scale energy storage inverter

Featuring a highly-efficient three-level topology, the CPS-1500 inverter is designed for four-quadrant energy storage applications and provides the perfect balance of performance, reliability, and cost effectiveness.

Available in both indoor and outdoor configurations, the CPS-1500 is a 1500kVA unit that can be paralleled to meet the needs of any grid-tied or microgrid application. Outdoor-rated CPS inverter models are enclosed in a NEMA 3R container that can be easily moved and allows for placement on gravel or concrete pylons for cost-effective installation.

The CPS-1500 inverter contains all required protective features, including an AC output breaker and DC disconnect switch. This creates a cost savings compared to other inverters that require additional add-on items needed for battery integration. In addition, our patented Dynamic Transfer™ feature monitors grid stability and will disconnect and transition to stand-alone mode if a disturbance is detected.



Key Technologies

- Islanded Operation (UF Mode)
- Frequency Compensation Mode (F-Comp)
- Volt-VAR Compensation Mode (E-Comp)
- AC Current Limiting (In-Rush Current Handling in UF Mode)
- Dynamic Transfer
- Black Start

TECHNICAL SPECIFICATIONS

Electrical

AC Input Voltage:	350V _{AC} / 480V _{AC} / 600V _{AC}
Grid Frequency:	60 Hz
Maximum Apparent Power:	875kVA (@350V _{AC}) 1200kVA (@480V _{AC}) 1500kVA (@600V _{AC})
Maximum Real Power:	875kW (@350V _{AC}) 1200kW (@480V _{AC}) 1500kW (@600V _{AC})
Maximum AC Current:	1444 A _{RMS}
DC Voltage Range:	550-1500V _{DC} (@350V _{AC}) 740-1500V _{DC} (@480V _{AC}) 900-1500V _{DC} (@600V _{AC})
Maximum DC Current:	1720A _{DC}
Power Factor:	0 – 1.00 Leading or Lagging
Current Harmonics:	IEEE 1547 Compliant, <5% TDD
Maximum Efficiency:	98.5%
CEC Efficiency:	97%

Environmental

Operating Temp:	-35 to +60°C, De-rated above +45°C
Max Elevation:	1000 Meters Full Power Up to 3000 Meters with Derating
Cooling:	Forced Air Cooled
Enclosure:	NEMA 1/IP 20 (Indoor) NEMA 3R/IP 54 (Outdoor)
Dimensions (HxWxD):	81" x 55" x 33" (Indoor) 102" x 96" x 118" (Outdoor)
Weight:	3,080 lbs (Indoor) 7,920 lbs (Outdoor)

Certifications & Standards Compliance

UL 1741 SA	CSA 22.2 #107.1
IEEE 1547	IEEE 519

Hardware Protections

AC Breaker with Shunt Trip	DC Input Fuses
AC Surge Protection	DC Pre-charge
DC Disconnect	

Software Protections

Battery Voltage and Current Curtail Limits to protect battery
AC Current Limiting Pending
DC Over/Under Voltage, Over Current faults
AC Over/Under Voltage, Over/Under Frequency, Over Current faults
Anti-islanding Protection (Open Phase at inverter terminals)
Temperature Monitoring and protective power curtailment



CPS-1500 Outdoor

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