

# PVI-CENTRAL-250 PVI-CENTRAL-300

## GENERAL SPECIFICATIONS CENTRALIZED MODELS

PVI-CENTRAL-250-US  
PVI-CENTRAL-300-US  
PVI-CENTRAL-250-CAN-600  
PVI-CENTRAL-300-CAN-600



These Aurora commercial-grade inverters are designed for large solar applications such as apartment buildings and industrial facilities. These extremely scalable modular inverter systems, based on 50kW conversion modules, increase usable power and improve availability.

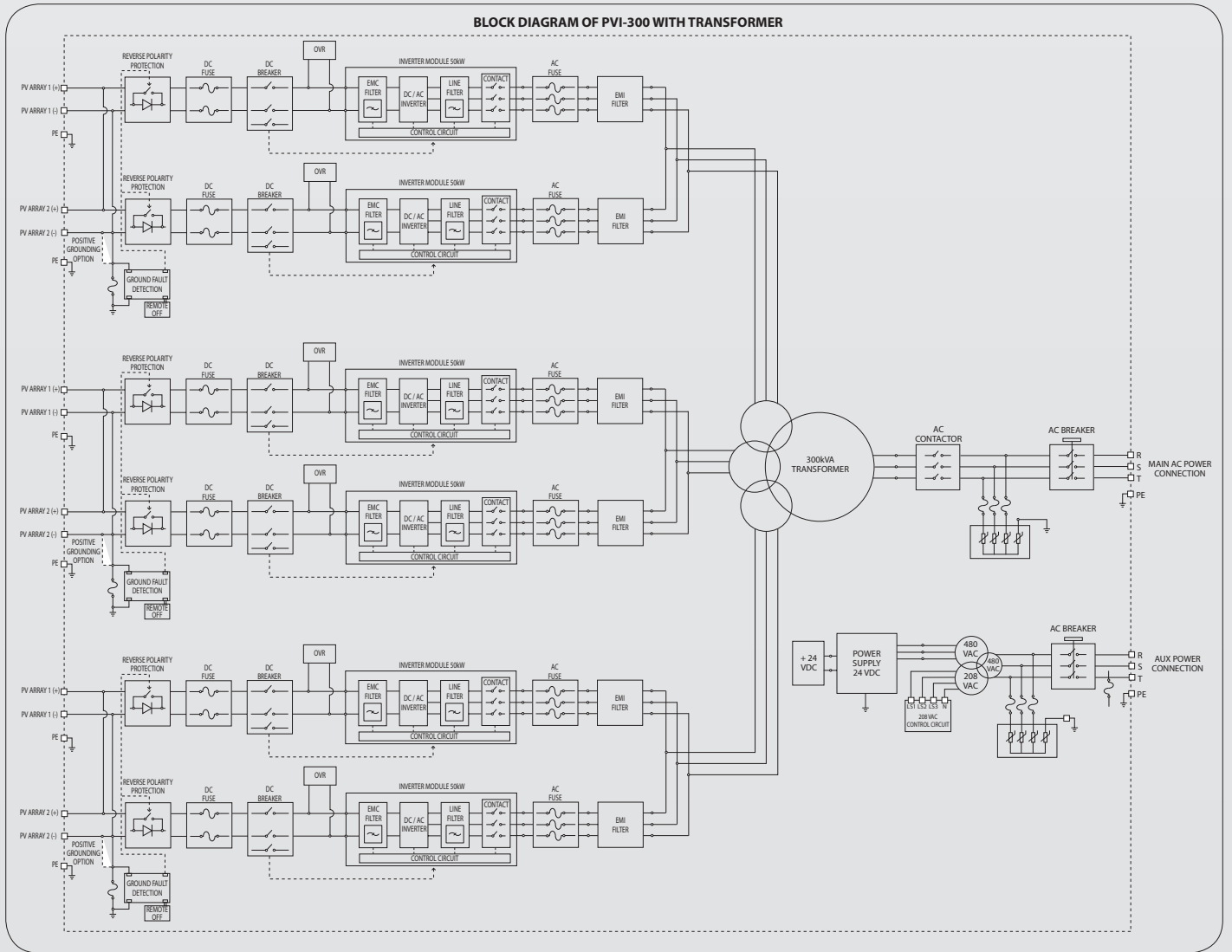
The reduction of performance in any individual inverter will not impact the energy-harvesting capabilities of other modules.

Industry-leading power conversion efficiencies of up to 97.3%, combined with high-speed Maximum Power Point Tracking (MPPT) channels, optimize energy harvesting across a wide array of operating conditions. Inverter systems are delivered pre-configured and pre-tested in rugged enclosures, significantly reducing on-site wiring and testing.

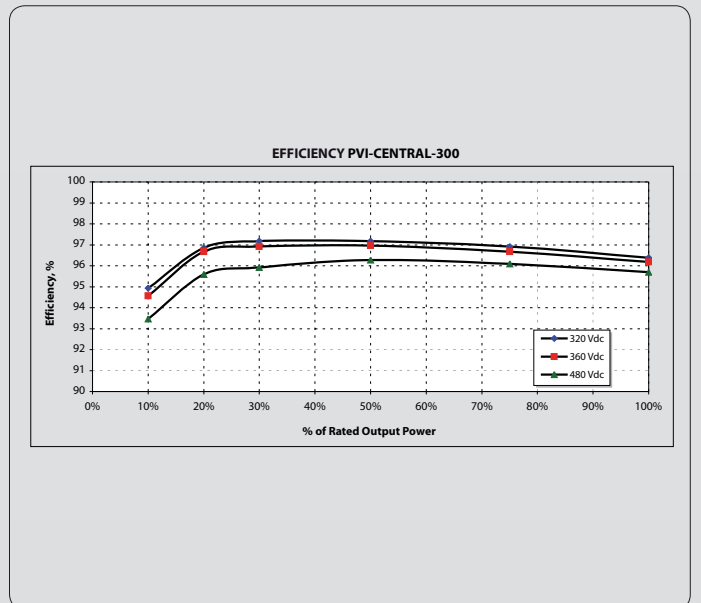
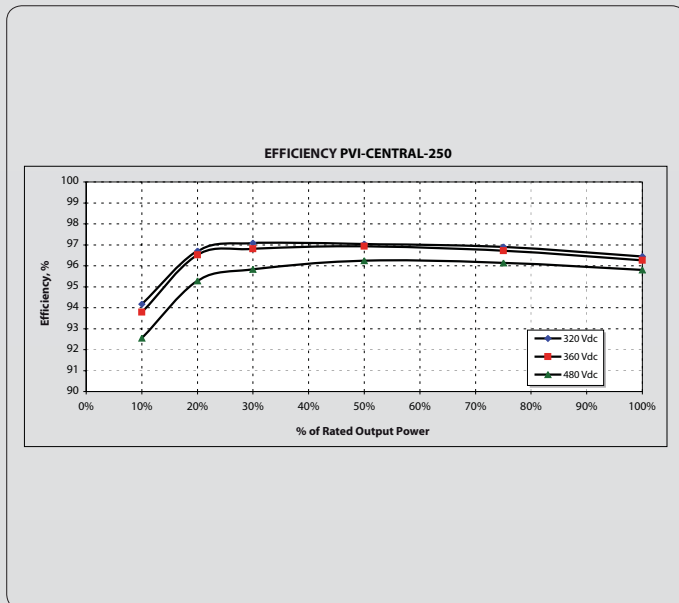
Three independent MPPT input channels offer maximum flexibility and energy harvesting.

## Features

- NEMA 3R enclosure rating
- Reduced susceptibility to a single fault. In case of a component failure, a maximum of 50kW will be lost
- Reduced acoustic noise due to the high switching frequency
- Reverse-polarity protection minimizes potential damage caused by array mis-wiring
- Maximum input voltage up to 600Vdc, high design flexibility and reduced DC distribution losses for large scale PV plants
- Integrated DC and AC distribution and protection. Fully equipped for connection, additional accessories not required
- Easy installation and maintenance procedure. Front extractible DC/AC converters and accessibility to all critical parts
- Two independent RS-485 communication interfaces - for inverter and intelligent string combiner monitoring
- Integrated DC disconnect switch for each 50 kW module AC and DC side integrated protection (fuses and OVR) easily replaceable
- High efficiency LV isolation transformer
- Anti-Islanding protection
- Integrated fuse grounding kit with ground-fault detection and interruption (GFDI) compliant with UL1741



## Block Diagram and Typical Efficiency



CHARACTERISTICS	PVI-CENTRAL-250-US		PVI-CENTRAL-300-US	
<b>INPUT PARAMETERS</b>				
Rated PV Power	260 kWp		312 kWp	
Maximum PV Power	275 kWp		330 kWp	
Total (Master/Slave Mode)	110/110/55 kWp		110/110/110 kWp	
Per channel (Multi-Master/Slave Mode)				
Absolute Maximum Input Voltage	600 V			
MPPT Input DC Voltage Range	320 - 600 V (360 V Nominal)			
Number of Independent MPPT	Not Available			
Multi-Master Configuration	3			
Multi-Master/Slave Configuration	1			
Master/Slave				
Total Maximum DC Input Current	850 A		1020 A	
Multi-master Mode (Each Module)			170 A	
Input Reflected Ripple Voltage	<3%			
Number of DC inputs	5		6	
Max. DC Input Wire Section (Each Polarity)	10 x 350 kcmil 90° / M10		12 x 350 kcmil 90° / M10	
<b>INPUT PROTECTION</b>				
Ground Fault Protection	GFDI <sup>(1)</sup> , According to UL 1741			
Integrated DC protection				
Reverse polarity and backfeed current protection (each input)	YES, with series diode			
Input fuse overcurrent protection (each input/both polarities)	Yes			
Load-breaking DC switch (each input, monitored)	200 A / 100 V			
Input overvoltage protection (Monitored)	Yes			
<b>OUTPUT PARAMETERS</b>				
	480 V	600 V	480 V	600 V
Rated AC Output Power, Pac	250 kW		300 kW	
Rated AC Output Current	315 Arms	252 Arms	378 Arms	302 Arms
Rated Output Voltage	480 V	600 V	480 V	600 V
Output Voltage Range	423 - 528 Vrms	540 - 660 Vrms	423 - 528 Vrms	540 - 660 Vrms
Rated AC Frequency	60 Hz			
Power Factor	> 0.99			
AC Current Harmonics [THD]	< 4% (@ Rated Pac)			
Inverter Switching Frequency	9 kHz			
Max AC Output (Each Phase) Wire Section / Cable Lug	3 x 350 kcmil 90° / M10			
Max AC Output (PE) Wire Section / Cable Lug	1 x 4/0 AWG 90° / M12			
<b>OUTPUT PROTECTION</b>				
Anti- Islanding Protection	According to UL 1741, IEEE 1547			
AC Contactor (Night Time Disconnect)	Yes			
AC Output Circuit Breaker (Magnetothermic Switch) / Breaking Capacity [kA]	Yes / 65 kA			
AC Side Overvoltage Protection (Power and Aux Input)	Yes			
<b>CONVERSION EFFICIENCY</b>				
	480 V	600 V	480 V	600 V
Peak Efficiency	97.3%	97.3%	97.3%	97.3%
CEC Efficiency	96.5%	-	96.5%	-
<b>ENVIRONMENTAL PARAMETERS</b>				
Environmental Protection Rating	NEMA 3R			
Operating Temperature Range	-25/+50 °C (-13/+122°F) with Derating above 60°C (140°F)			
Required Air Cooling Flow	Not Applicable			
Relative Humidity (Non-Condensing)	< 95 %			
Maximum Altitude above Sea Level without Derating <sup>(2)</sup>	3000 ft			
Audible Noise	< 62 dB			
Night Time Losses	< 75 W		< 90 W	
<b>COMMUNICATION/USER INTERFACE</b>				
Monitoring System (PC / Datalogger)	1 x RS485 (Dedicated Bus)			
Intelligent String Combiners (AURORA® PVI-STRINGCOMB-US)	1 x RS485 (Dedicated Bus)			
Remote Communication (optional)	AURORA® PVI-EAC-EVO			
User Interface	5.7" Touch Screen Color Graphic Display, QVGA			
<b>MECHANICAL CHARACTERISTICS</b>				
Dimensions (WxHxD)	76"6 x 115.7" x 49"3			
(* ) Output Air conduit not included				
Overall Weight	5500 lb		6000 lb	
50kW module Weight	154 lb			
<b>AVAILABLE PRODUCT VARIANTS</b>				
	480 V	600 V	480 V	600 V
Standard - No Options	PVI-CENTRAL-250-US	PVI-CENTRAL-250-CAN-600 <sup>(3)</sup>	PVI-CENTRAL-300-US	PVI-CENTRAL-300-CAN-600 <sup>(3)</sup>
<b>STANDARDS</b>				
	UL 1741, IEEE 1547, CSA - C22.2 N. 107.1-01			

Notes:

(1) GFDI - Ground Fault Detector and Interrupter

(2) Contact Power-One for application at higher altitudes

(3) Product not yet released, technical data maybe subjected to change