

Data sheet
blueplanet
Ultraverter system
US



Simple. Strong. Universal.

The blueplanet Ultraverter system.

The blueplanet Ultraverter system combines the best features of DC-optimizers, string and micro-inverter technology in one advanced concept. Due to a newly designed control system, multiple low voltage AC inverters can be connected in series up for a standard 240 Volt, split phase utility connection.

Fully integrated and with no additional cost or hardware, the Ultraverter system is compliant with Rapid Shutdown (NEC 690.12) and AFCI requirements. Using industry standard cables (UL600 V/PV-Wire) and connectors (Amphenol H4), the system eliminates the trunk cable and there are no hidden costs per module, termination or logistics costs when adding or subtracting units to a string. Wi-Fi comes as standard data logger interface which makes for convenient communication at no additional costs.

The low voltage blueplanet ultraverter 250 inverters are the core of the Ultraverter concept and maximize the energy output on each PV panel. At 97.5% CEC weighted efficiency, higher yields lower total cost of ownership and make the blueplanet ultraverter 250 ideal for every residential solar power plant. System

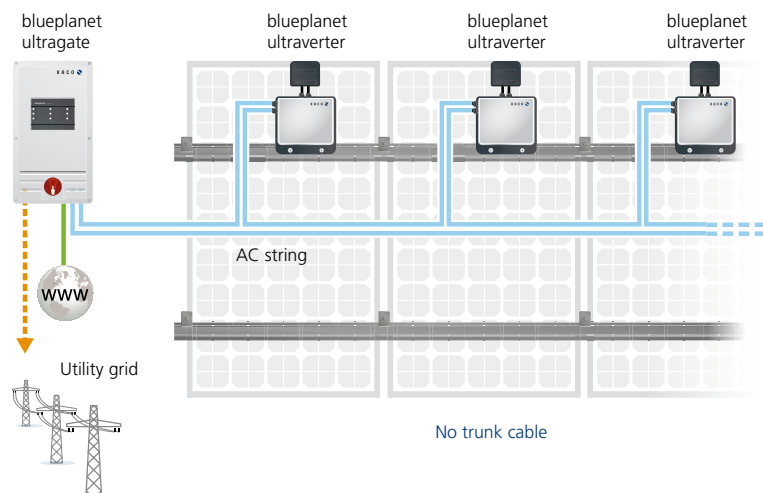
designers using blueplanet ultraverter 250 lower the cost of acquisition, by 'Power Packing' the roof top and putting the maximum peak capacity on all surfaces, despite shadows or obstructions.

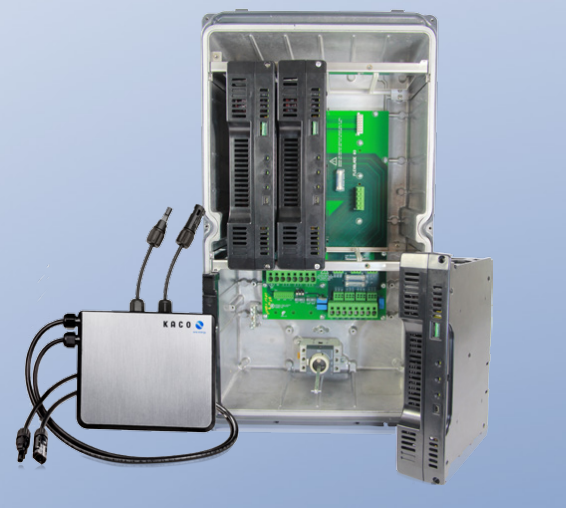
The patented Ultraverter control technology allows for series AC connections, in which the same three stock keeping units (SKU) of Ultraverter hardware enable system sizes from 2 kW AC to 9 kW AC, radically reducing distributors' inventory risk and simplifying installers' installation process. The blueplanet ultragate

delivers comprehensive monitoring and remote updating features; the blueplanet ultrablade is the key to convenient scalability of the system.

The blueplanet ultraverter 250 comes standard with a 25 year warranty from KACO new energy, a company that has commissioned over 8 GW of solar inverters and been in business for over 100 years – that is something to bank on.

The Ultraverter system is available now in the Americas.





blueplanet
ultraverter 250
ultrablade
ultragate

AC system

Easy plant design and installation

Highest up-time

Intelligent power balancing mitigates
loss from shading or soiling

Low voltage operation

Self-healing system

Compliant with NEC 690.12
rapid shutdown requirements

Electrical data		blueplanet ultraverter 250
DC input		
Maximum input DC voltage		55 V
Operating range		15 V – 55 V
MPPT operating range		15 V – 45 V
Nom. / max. starting current		9.5 A / 10 A
Max. continuous input current		9 A
Min. start voltage		25 V
AC output		
Nom. Frequency / operating range		60 Hz / 59.3 – 60.5 Hz
Maximum continuous power		250 W
Nom. / max. current per ultrablade		12.5 A / 13.2 A
Power factor cos phi		0.95 inductive ... 1.0 capacitive
Efficiency		
CEC weighted efficiency		97.5 %
Static MPPT efficiency		99.7 %
Mechanical data		
Ambient temperature range		-40 °C ... +65 °C
Enclosure environmental rating		outdoor UL rated type 4
Mechanical configuration		rack mounted system
Connections and cables		DC: Amphenol Helios 4 (H4) AC: AWG #10 PV1-F w/ H4
Dimensions (W x H x D)		7.4" x 6.0" x 1.1"
Weight (excluding cables)		1.6 lbs
Cooling		natural convection; no fans
Other features		
Topology		transformerless with solid state capacitors
Compatibility		pairs with 60 and 72 cell PV modules

Electrical data		blueplanet ultragate	
Grid interconnection			
Nominal operating rating		240 V, split phase	
Nom. AC current rating per string		12.5 A (1 ultrablade) / 25.0 A (2 ultrablades) / 37.5 A (3 ultrablades)*	
Nominal frequency / range		60 Hz / 59.3 Hz – 60.5 Hz	
Safety and grid compliance		UL1741 / IEEE1547	
Rated AC power range		2 kW – 9 kW (1 to 3 ultrablades installed)	
Data logger interface		Wi-Fi, optional: cell modem	
Data logger protocol		Modbus 485 SunSpec alliance	
Mechanical data			
Ambient temperature		-40° C to +50° C	
Dimensions (W x H x D)		13.39" x 9.53" x 21.46"	
Weight		27 lbs	
Cooling		fan	
Enclosure environmental rating		outdoor UL Type 4	
Grid: 240 VAC	ultraverter 250s per string*	Max. AC power	Rated current
Recommended (min.)	8	2000 W	8.3 A
	9	2250 W	9.4 A
	10	2500 W	10.4 A
	11	2750 W	11.5 A
Maximum	12	3000 W	12.5 A

*ultragate has capacity of 1, 2 or 3 ultrablades. 1 ultrablade = a single string termination point.