KACO new energy.

Data sheet
blueplanet
ultraverter 250
ultragate

Universal.

The Ultraverter system: blueplanet ultraverter 250 and blueplanet ultragate.

The 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 inverters can be connected in series up to the desired system output voltage. System designers using blueplanet ultraverter 250 can now realize the savings of AC module building blocks.

The low voltage inverters blueplanet ultraverter 250 are the core of the ultraverter concept. With patented control technology allowing for series AC connections, the Ultraverter system is compatible with every voltage range worldwide using a single product stock keeping unit (SKU). Simply select the correct number of modules for your interconnection voltage. No matter the PV project requirements, the blueplanet ultraverter 250 will master every plant design challenge. Low voltage blueplanet ultraverter 250 combine in AC strings up to 240 V to ensure safe handling of the units during installation and maintenance.

Higher yields, lower total cost of ownership, and highest efficiency in its class make the blueplanet ultraverter 250 ideal for every residential or small commercial solar power plant. One universal inverter for all grids means logistics and forecasting are easier than ever, too.

The blueplanet ultragate communicates with data loggers and monitoring equipment via SunSpec Modbus RTU and TCP protocol. USB access to an onboard data logger with two weeks of local storage memory aids with troubleshooting. Rapid disconnection at the module level ensures compliance with modern safety requirements for arc fault and fire fighter safety.

Available on the US-American market in July 2015.

blueplanet ultraverter 250 ultragate

- AC system
- Compatible with all line voltages – preconfigurated with 240 V
- Easy plant design and installation
- Highest up-time
- Intelligent power balancing eliminates loss from shading or soiling
- Low voltage operation
- Self-healing system
- Compliant with NEC 690.12 rapid shutdown requirements

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Electrical data	blueplanet ultraverter 250
DC input	
Maximum input DC voltage	55 V
Peak output power voltage range	29 – 45 V
MPPT operating range	12 – 45 V
Min. / max. start voltage	22 / 55 V
Max. continuous input current	9 A
Peak input current	10 A
AC output	
Maximum continuous output power	250 W
Output voltage range	19 – 37 V
Maximum continuous output current	13.2 A
Nominal frequency / range	59.3 - 60.9 Hz
Efficiency	
CEC weighted conversion efficiency	97.0 % [1]
Static MPPT efficiency	99.7 % [1] (reference EN50530)
Mechanical data	
Ambient temperature	-40 °C ... +65 °C
Mechanical configuration	rack mounted system
Connections	DC: H4 or module integrated; AC: AWG#10 PV-WIRE/PV1-F with H4-style connectors
Dimensions (W x H x D)	187 x 152 x 27 mm (7.4 x 6.0 x 1.1“)
Weight (excluding cables)	750 g (1.6 lbs)
Cooling	natural convection; no fans
Protection class	outdoor NEMA 4 / IP65
Other features	
Topology	transformerless with solid state capacitors
Compatibility	pairs with 60 and 72 cell PV modules
Communication to flexgate	proprietary power line carrier

[1] pending

Electrical data	blueplanet ultragate
Grid interconnection	
AC nominal voltage rating	100 V ~ 240 V
Continuous AC current rating	13.2 A
Nominal frequency / range	60 / 57.0 – 60.5 Hz or 50 / 47.5 – 51.5 Hz
Safety and grid interconnect compliance	UL1741 / IEEE1547
Data logger interface	USB, Ethernet / optional: Cell Modem, WiFi
Data logger protocol	Modbus 485 SunSpec alliance
Mechanical data	
Ambient temperature	-40° C to +50° C
Dimensions (W x H x D)	340 x 545 x 242 mm (13.39 x 9.53 x 21.46“)
Weight	12 kg (27 lbs)
Cooling	fans
Enclosure environmental rating	outdoor NEMA 4 / IP65

240 VAC	Min.	Min.+1	Min.+2
# ultraverter in series	7	8	9
Power	1750 W	2000 W	2250 W
Rated current	7.3 A	8.3 A	9.4 A
240 VAC	**Min.+3**	**Min.+4**	**Max.**
# ultraverter in series	10	11	12
Power	2500 W	2750 W	3000 W
Rated current	10.4 A	11.5 A	12.5 A

EN 5000809-04-150928