

Data sheet

blueplanet
1500 TL3 M1 OD GM
USX0



The best gets better!

The central inverter blueplanet 1500 TL3

The high performance central inverter line from KACO new energy gets a new addition with the new blueplanet 1500 TL3 with Ampt Mode™. By partnering with Ampt, LLC, KACO new energy has created a solution with the lowest installed cost and smallest BOS requirements on the market.

The blueplanet 1500 TL3 inverter is deployed in combination with DC string optimizers from Ampt to decrease the cost of PV systems while increasing performance.

PV systems cost less when designed using the blueplanet 1500 TL3 along with Ampt string optimizers. Both

inverter and electrical balance-of-system (BOS) costs are reduced.

Inverter costs are reduced because Ampt string optimizers put MPP tracking as well as voltage and current output limits on each string of PV modules. This enables our blueplanet inverters to operate with a higher and narrower input voltage range. This optimized input range allows each inverter to deliver 50% more power. Increasing the rated output power lowers the inverter cost per watt.

Electrical BOS costs are lower because of the voltage and current output limits of Ampt string optimizers. This feature allows up to 2x the number of modules

per string compared to conventional systems. This reduces the number of strings and combiner boxes as well as the associated labor by 50%.

PV systems using the KACO new energy blueplanet central inverters with Ampt string optimizers produce more than conventional systems because the DC optimizers distribute MPP tracking to the string-level. This higher resolution MPPT increases energy production by reducing the effect of mismatch losses on the overall performance of the system.



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Lower total system cost

Reduces AC electrical BOS costs by 33%

Enables up to 2x the number of modules per string

Decreases DC wiring and combing costs up to 50% and reduces wire losses

Delivers more energy using the higher resolution of string-level MPP tracking

Electrical data	1500 TL3
DC electrical specifications	
DC maximum input voltage (VDC)	1100
DC MPPT range (VDC)	900 - 950
DC minimum start voltage (VDC)	900
DC maximum short circuit current (ADC)	2305
Maximum input source backfeed current (ADC)	0
DC input overload protection	Yes, voltage and current during operation
AC electrical specifications	
AC max continuous output power (kVA / kW)	1500 / 1500
CEC weighted eff (%)	98.0 (expected)
AC nominal voltage / operating range L to L (VAC)	600 / 528 to 660
AC continuous output current (A)	1440
Frequency nominal / range (Hz)	60 / 60.5 to 59.3
Power factor	1 at rated power Adjustable from 0.6 leading to 0.6 lagging (expected)
Total harmonic distortion	< 3 % at rated power (expected)
Internal loss in operation (W)	Pending
Standby losses (W)	< 150 (expected)
AC short circuit protection	None
AC maximum output fault current (A), RMS, and duration ms	Pending
Utility connection	Delta 3 wire (A, B, C)
Mechanical data	
Mechanical integration	Ground mount
Enclosure construction	Powder coated steel
Unit weight (lbs / kg)	6923 / 3140
Unit dimensions L x W x H (in / mm)	83.5 x 122.4 x 39.4 / 2120 x 3110 x 1000
Operating temperature range (F / C)	(-13 to 122 / -25 to 50) (expected)
Storage temperature range (F / C)	(-4 to 158 / -20 to 70) (expected)
Noise emissions (at 10m)	Expected
Humidity %	0 to 95 condensing
Enclosure rating Inverter / PV system disconnect	NEMA 3R
Cooling	Forced fan
Altitude (ft / m)*	6500 / 2000 (expected)
Communications and user interface	
User interface	4 LED status indicators and HMI touch screen LCD
Connectivity	Ethernet / 2xRS485 / WiFi
Certifications & Safety	
UL / IEEE / CSA / FCC	Pending
Fault signal relay	Normal open contact (requires external voltage source)
DC polarity safeguard	Short circuit diode
GFDI compliant with NEC 690.5 for use with grounded PV system arrays	UL 1741 listed ground fault detection and interruption circuit

* Operation above 2000m up to 5000m is possible at reduced power.

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