

KACO



XP83U-H6
XP90U-H6
XP100U-H6

KACO blueplanet XPU-H6

grid-tied inverters

Performance

- High efficiency: Top efficiency - generate fast return on investment
- Variable speed fans: No unnecessary cooling - decrease internal power consumption & increase uptime
- Floating Point DSP: Reduce total harmonic distortion and provide more accurate AC power control
- Variable structure PWM: Reduce IGBT switching losses by up to 20% when compared to other PV inverters
- Complex MPPT algorithm: Dynamic MPPT accuracy during severe weather fluctuations
- Full digital control: Total transparency of inverter functions - faster reaction time and increased uptime

Ease of installation

- Easy handling: Use a fork lift or crane the XP83 fits through most standard double doors
- Integrated DC recombiner: Configure with multiple fused DC input options
- Pre-set parameters: Save time and labor cost - one step configuration with TFT color touch screen
- Internal 24V power supply: Avoid extra cost of external power supplies for monitoring & accessories
- Polycarbonate safety shields: Protect installation crews from high current / high voltage bus bars & connectors
- Reverse polarity protection: Avoid potential damage to inverter caused by mis-wiring during installation

Reliability

- History: KACO has been manufacturing power electronics for more than 60 years
- Experience: More than 3 GW of inverters worth about \$1.1 billion installed world wide
- Redundant power supplies: Increase reliability and uptime - no single point of failure for fans and control boards
- Power capacitors: Film capacitors are designed for the 20 years life of the inverter
- Split architecture design: Power electronics are protected in a separate chamber
- NEMA 3R enclosure: Includes stainless steel option for coastal installations
- Surge protection (SPD): Remotely monitored SPDs on all AC & DC inputs for better preventative maintenance
- Modular IGBT stack: Power devices, gate drives, and other critical components are integrated into easy to swap building block for fast maintenance and increased reliability

History:

KACO has been manufacturing power electronics for more than 60 years. More than 3 GW (nearly \$1.1 billion) of KACO brand inverters have been installed worldwide.

Monitoring

easyLink data interface:

S0, RS232, RS485, Ethernet and analog & digital inputs & outputs are included

8GB SD card: Inverter stores up to 10 years of data on an easy to access standard SD card provided with every unit

Graphical User Interface (GUI):

User friendly color touch screen streamlines inverter commissioning and provides access to inverter data with clear graphical images

Free real-time monitoring:

Built-in webserver in each individual XP83U-H6 provides easy access to performance statistics and PV system data

Maintenance Tool:

Remote control of software updates, inverter disconnects, parameter settings, fan speeds

Integrated trace function:

Remote, historical system diagnostics

Warranty

Warranties are only as valuable as the strength and longevity of the manufacturer. KACO is one of the few established inverter companies older than the warranties they offer.

Extended warranty options:

10, 15 and 20 years

Operation and maintenance:

O&M contracts available for up to 20 years

Model number	blueplanet XP83-H6	blueplanet XP90-H6	blueplanet XP100-H6
Input data (DC)			
DC operating range (MPP)	300 – 600 V _{dc}	300 – 600 V _{dc}	300 – 600 V _{dc}
Max. DC input voltage	600 V _{dc}	600 V _{dc}	600 V _{dc}
Nominal DC input current	292 A _{dc}	317 A _{dc}	350 A _{dc}
Max. DC input Isc current	380 A _{dc}	380 A _{dc}	476 A _{dc}
Output data (AC)			
Max. continuous output power	83 kW	90 kW	100 kW
Max. over-current protection	125 A	125 A	125 A
Max. continuous current	80 A _{ac}	87 A _{ac}	96 A _{ac}
Max. output fault current	80 A _{ac}	87 A _{ac}	96 A _{ac}
AC operating voltage	600 V _{ac} 3-Phase Wye		
Frequency	60 Hz (59.3 – 60.5 Hz)		
Peak efficiency	96.5 %	96.5 %	96.5 %
Additional data			
AC/DC disconnect	Yes		
Cooling	Variable speed cooling fans		
DC reverse polarity protection	Yes		
Ground fault protection	Integrated ground fault detector/interrupter (GFDI)		
Grounding	Negative Ground (Optional Positive Ground configuration ordered from factory)		
Visual displays	TFT - Graphical LCD with touch screen interface		
Included accessory interfaces	easyLink 1-S0 input and output / 1-CAN / 2-RS485 / 1-Ethernet		
Ambient temp @ max AC power	-5°F – +122°F (-20°C – + 50°C)		
Thermal protection	Yes		
Noise emissions	< 65 dB		
Relative humidity range	0-95% (non condensing internal de-humidifier)		
Max. altitude	6600' (2000 m)		
Power Consumption	< 100 W (during standby and at night) < 1% of rated power in operation		
User programmable inputs	1 digital input & output / 1 S0 input & output / 4 analog inputs		
Data communication	2 RS485 / 1 CAN / 1 Ethernet		
On board data storage	SD-Card up to 8 GB		
Warranty	Standard 5 years (10, 15, 20 years extensions available)		
Certifications			
Safety compliance	UL1741 Rev 2005, IEEE1547, IEEE1547.1 CAN/CSA C22.2 No. 107.1		
Communications compliance	FCC Part 15 Class A		
Specifications			
Enclosure type	NEMA 3R		
Dimensions (H, W, D)	73 x 68 x 36 in. (1840 x 1724 x 930 mm)		
Weight	1,100 kg (2,425 lbs)		

