



Transformerless Inverter Technology

KACO blueplanet XP10U-H4 - PSD grid-tied inverter

KACO new energy is a leader in power electronics specializing in PV inverters, performance monitoring systems, and power supply systems for industrial rail applications. Continued growth will see KACO new energy enter the emerging markets of energy storage systems and rural electrification.

Safety

- Compliant with NEC 690 section III for PV system AC and DC disconnection
- Visible and lockable PV system disconnection means
- Overcurrent protection provided by 15 amp touch safe fuse

Energy Yield

- 97% CEC efficiency
- Shade tolerant multiple DC input channels ensure maximum kWh production
- 200 - 600 VDC operating range
- Broad thermal operating range -13 to 140 °F / -25 to 60 °C

Operations

- Lightweight at 88 lbs for simple installation
- Up to 50% lighter than comparably sized inverters
- Graphical user interface with data logging performance history
- Integrated web server
- Multiple DC input channels simplify PV system design

Reliability

- Now available in North America, global based high volume product with years of field experience
- AC and DC surge protection
- Sealed electronics with Nema 4 / IP 65 cast aluminum enclosure

Monitoring

easyLINK data interface:
Ethernet, USB, RS485, S0,
N/O contact

Graphical User Interface (GUI):
User friendly display and 6 button
keypad streamlines inverter
commissioning and provides
access to inverter data with clear
graphical images

Free real-time monitoring:
Built-in webserver in each
individual XP10U provides easy
access to performance statistics
and PV system data

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. Standard
warranty: 10 years / **Extended
warranty options:** 15 and 20
years

Model number	blueplanet XP10U-H4
DC electrical specifications	
DC maximum input voltage (VDC)	600
DC maximum peak power operating range (MPP) (VDC)	280 - 550
DC operating range (VDC)	200 - 600
DC minimum start voltage (VDC)	250
DC maximum operating current (ADC)	18.6
DC maximum short circuit current per channel (ADC)	37
Maximum input source backfeed current (ADC)	0
DC input overload protection	Yes / Voltage / Current
AC electrical specifications	
AC maximum continuous output power (W)	10,000
CEC weighted efficiency (%)	97.5
AC nominal voltage / operating range L to Neutral (VAC)	480 / 243 to 304 600 / 305 to 381
AC continuous output current (A) 480 / 600	12.1 / 9.7
Frequency nominal / range (Hz)	60 / 60.5 to 59.3
Power factor	> .99
Total harmonic distortion (%)	< 5
Night time power consumption (W)	< 1.5
AC input terminals and conductor	4 / 4-18 AWG Cu
Utility connection	H4 -Wye 4 wire (A,B,C,N)
PV system disconnect - PSD	
Integrated AC / DC disconnect	Yes
AC disconnection means	Rotary switch visible and accessible from outside of enclosure
AC disconnection ratings	20 A VAC Break L1-L2-L3
AC overcurrent protection devices (OCPD)	Current limiting inverter, OCPD provided by system integrator
AC LOTO provision	LOTO in OPEN
AC input terminals / conductor size	4 - 8 / 12 Awg
DC disconnection means	Rotary switch accessible from inside of enclosure with no tools required
DC disconnection ratings	20 A, 4 pole, Load Break, Pos and Neg
DC overcurrent protection devices (OCPD)	8 x Touch Safe Fuse with 15 Amp rating
DC LOTO provision	LOTO in OPEN
DC input terminals / conductor size, per channel (with optional PSD)	2 Pos and 2 Neg / 6 -14 AWG
Mechanical and environmental specifications	
Mounting	Ground mount, Roof mount
Enclosure construction	Cast Al for XP10U, Powder coated steel for PSD
Unit Weight (lb/kg) (Inv) and (Inv. with disconnect)	(88 / 40) / (100 / 45)
Unit dimensions HxWxD (In/mm) and (Inv with PSD)	(37 x 16.5 x 7.9 / 940 x 420 x 200) - PSD (27.2 x 16.5 x 7.9 / 690 x 420 x 200)
Operating temperature range (°F / °C)	(-13 to 140 / -25 to 60 ¹)
Storage temperature range (°F / °C)	(-22 to 158 / -30 to 70)
Noise emissions	< 55 db
Humidity (%)	0 to 95 non condensing
Enclosure rating (Inverter / Disconnect)	NEMA 4
Cooling	Forced convection with variable speed fan
Altitude (ft. / m)	6500 / 2000
Communications and user interface	
User interface	Graphical user interface with 3 LED status indicators
Connectivity	Ethernet, USB, RS485, S0 output
Safety features and regulatory compliance	
UL / IEEE / CSA / FCC	UL 1741 2nd Ed. 2010 / CSA C22.2 No. 107.1 / IEEE 1547 / FCC Class A
Fault signal relay	Potential free normally open contact
DC polarity safeguard	Short circuit diode
GFDI compliant with NEC 690.35 for use with ungrounded PV system arrays	IEC 62109-2 certified by Bureau Veritas for residual ground fault current isolation monitor and interrupter function.

¹Possible power output derate between 40-60° C