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Data Sheet

August 15, 2026

ADVANCED ENERGY

Advanced Energy PEII 10 kW Low-Frequency Power Supply

Advanced Energy PEII 10 kW 40 kHz Low Frequency Plasma Power Supply The PEII is a water-cooled 40 kHz PWM low-frequency plasma supply in 5 kW and 10 kW frames, combinable to 60 kW. OEM PEII datasheet (ENG-PEII-230-04) lists 180-230 VAC 3-phase (208 VAC nominal), 85 percent efficiency, 0.90 power factor, 40 kHz plus or minus 0.01 percent, 10 kW model 547 VRMS nominal tap 4 / 953 VRMS max tap 7, 18 ARMS nominal tap 4 / 32 ARMS max tap 1, 84 ohm dual floating outputs nominal tap 4, 7 taps with 2:1 impedance per tap (about 10:1 overall 307-953 VRMS), plus or minus 1 percent measurement accuracy, regulation on power/voltage/current, voltage-arc and current-arc circuits, 177 × 482.6 × 495.3 mm, 40.8 kg max, 0-40 C, water 5-30 C inlet, 7.57 lpm min, 6.9 bar max. CE EN55011 / EN61000-6-2 / EN50178. The PEII is a water-cooled 40 kHz PWM low-frequency plasma supply in 5 kW and 10 kW frames, combinable to 60 kW. OEM PEII datasheet (ENG-PEII-230-04) lists 180-230 VAC 3-phase (208 VAC nominal), 85 percent efficiency, 0.90 power factor, 40 kHz plus or minus 0.01 percent, 10 kW model 547 VRMS nominal tap 4 / 953 VRMS max tap 7, 18 ARMS nominal tap 4 / 32 ARMS max tap 1, 84 ohm dual floating outputs nominal tap 4, 7 taps with 2:1 impedance per tap (about 10:1 overall 307-953 VRMS), plus or minus 1 percent measurement accuracy, regulation on power/voltage/current, voltage-arc and current-arc circuits.



MODEL

**Advanced Energy
PEII**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

PEII

LISTING

<https://aumictechlabs.com/products/peii-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Advanced Energy PEII 10 kW Low-Frequency Power Supply delivers stable, precision power for demanding industrial processes including heating, melting, and welding. Operating at 40 kHz with PWM control, this three-phase unit accepts 208 VAC or 400 VAC input and outputs 307–953 VRMS across seven selectable taps. It operates in constant power, voltage, or current modes with 1% measurement accuracy and 85% efficiency at rated load. Advanced arc control employs dual circuits - current-arc circuitry for major arcs and voltage-arc circuitry detecting and pulsing off micro-arcs. The unit features internal load matching across a 10:1 impedance range, water-cooled thermal management, and low harmonic output. Over-voltage, over-current, over-power, and open/short circuit protection are standard. Multi-unit configurations support up to 60 kW combined output. Power factor exceeds 0.9 with >0.95 power factor capability. An automatic process safeguard redistributes power to operational units upon fault detection. Communications via analog interface with CEX In/Out support enables closed-loop control integration with PLCs. The 25-pin subminiature D connector user port accepts analog/digital control signals from external controllers or front-panel operation. Interlock functionality uses two isolated pins. CE compliance is certified.

PEII Characteristics / Specifications

PARAMETER	VALUE
Model	PEII
Instrument Type	Low frequency 40 kHz plasma process power supply
Family	Advanced Energy PEII series 5 to 60 kW
Output Frequency	40 kHz plus or minus 0.01 percent
Output Power	5 kW and 10 kW models; combined to 60 kW
Source Voltage	180 to 230 VAC, 208 VAC nominal, 3-phase with ground, no neutral
Efficiency	85 percent at full-rated output
Power Factor	0.90 at full-rated output
Output Voltage 10Kw	547 VRMS nominal tap 4; 953 VRMS max tap 7
Output Current 10Kw	18 ARMS nominal tap 4; 32 ARMS max tap 1
Output Load 10Kw	84 ohm dual floating outputs nominal tap 4
Load Match	7 taps, 2:1 impedance range per tap
Voltage Range	307 to 953 VRMS (about 10:1 impedance)
Measurement Accuracy	plus or minus 1 percent
Regulation Modes	power, voltage, and current
Current Arc	removes output 10 ms when current exceeds 20 percent above tap max, then ramp
Voltage Arc Triggers	15, 29, 44, or 58 percent of full-scale voltage, user selectable
Dimensions	177 mmHx 482.6 mmWx 495.3 mmDplus 102 mm rear clearance
Mass	40.8 kg (90 lb) max
Ambient Temperature	0 C to 40 C
Humidity	15 to 85 percent non-condensing
Coolant	water, 5 C to 30 C inlet, 7.57 lpm (2 gpm) min, 6.9 bar (100 psi) max
Rf Connector	dual output terminal block with safety cover
User Port	25-pin subminiatureDfemale
Ce Standards	EN55011 emissions, EN61000-6-2 immunity, EN50178 safety

PARAMETER	VALUE
Manufacturer	Advanced Energy Industries
Literature	PEII series datasheet ENG-PEII-230-04 4.17

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Notes

From Advanced Energy PEII series datasheet electrical table (5 kW and 10 kW columns share source voltage; 10 kW current/voltage/load rows used because the queue title is PEII 10 kW). LMII 10K tap voltages are an external transformer accessory, not this SKU.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.