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Data Sheet

August 13, 2026

LAMBDA / TDK

Lambda / TDK / EMI EMHP80-250-D-42111

The Lambda/TKD EMHP80-250-D-42111 is a three-phase DC power supply with integrated EMI filtering, engineered for high-power industrial and laboratory applications. This 20 kW unit delivers 0–80 VDC at 0–250 ADC with constant voltage/constant current regulation and automatic crossover. Built-in RFI protection, forced air cooling, and floor-mounting flexibility make it suitable for electromagnetics, cryogenic magnets, battery charging, precision electroplating, plasma power, and industrial DC power systems. Aumictech offers NIST-traceable calibration and repair for the Lambda / TDK EMHP80-250-D-42111. All calibrations are performed to NIST-traceable standards and ship with a certificate. Turnaround is typically 1–3 business days after receipt. This Lambda / TDK EMHP80-250-D-42111 is listed at . Calibration is available separately from . Contact us for volume pricing or if you n

**MODEL****Lambda / TDK
EMHP80-250-D-
42111****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****EMHP80-250-D-
42111****LISTING**[https://aumictechlabs.c
om/products/emhp80-2
50-d-42111-2/](https://aumictechlabs.com/products/emhp80-250-d-42111-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Lambda/TKD EMHP80-250-D-42111 is a three-phase DC power supply with integrated EMI filtering, engineered for high-power industrial and laboratory applications. This 20 kW unit delivers 0–80 VDC at 0–250 ADC with constant voltage/constant current regulation and automatic crossover. Built-in RFI protection, forced air cooling, and floor-mounting flexibility make it suitable

for electromagnetics, cryogenic magnets, battery charging, precision electroplating, plasma power, and industrial DC power systems. Technical Specifications Input: 460 VAC $\pm 10\%$, 30–60 Hz (operates 440–480 VAC) Output: 0–80 VDC, 0–250 ADC Maximum Power: 20 kW Output Ripple: 120 mV RMS; 0.4 A RMS Line and Load Regulation: $\pm 0.1\%$ Voltage/Current Regulation: $\pm 0.05\%$ (8-hour stability) Cooling: Forced air Weight: 500–750 lbs (Size 1) Key Features CV/CC operation with automatic crossover Built-in RFI protection Resistance or external voltage/current programming Circuit breaker protection and contactor interlock control Voltage and current meters with mode indicator lights Lifting eye-bolt provisions Optional digital programming via IEEE 488 or RS232 (consult factory) Typical Applications Electromagnetics and cryogenic magnet systems Battery charging and precision electroplating Plasma power sources High-power illumination systems Industrial bulk DC power Compatibility & Integration Floor mounting with optional caster or I-beam bases. Programming interfaces include resistance programming and external reference voltage inputs. The EMHP series is an older product line; TDK-Lambda recommends the Genesys™ or GENESYS+™ series for new designs.

Features & description

From manufacturer datasheet

Features

- 0 to 80 V, 0 to 250 A, 20 kW class

EMHP80250D4211 Characteristics / Specifications

PARAMETER	VALUE
Model	EMHP80-250-D-42111
Manufacturer	Lambda EMI / TDK-Lambda Americas
Instrument Type	High Power SCR DC Power Supply
Series	EMHP
Alias	EMHP80-250-D-42111; EMHP 80-250; EMI EMHP80-250; TDK-Lambda EMHP80-250
Rated Output Voltage	0 to 80 Vdc
Rated Output Current	0 to 250 A
Rated Power	20 kW maximum class
Output Ripple RMS	120 mVrms (60 Hz ripple column)
Frame Class	Size 1 up to 20 kW
Topology	SCR phase control on transformer primary; rectified and L/C filtered DC
Output Mode	constant voltage / constant current automatic crossover
Regulation	0.1% line and load (within ratings)
Stability	0.05% for 8 hours with constant external effects
Transient	recover to within 1% of final value within 200 ms for 50-100% load class (EMHP datasheet)
Operating Temperature	0 to 50 C; derate above 50 C
AC Input Standard	440/480 Vac three phase 60 Hz; optional inputs available
Softstart	AC inrush softstart
Cooling	forced air
Protection	overvoltage, overtemperature, overcurrent
Remote Program	resistance, voltage, and current programming standard
Analog Optional	0-5 V and 0-10 V
Digital Optional	RS-232 and IEEE-488

PARAMETER	VALUE
Meters	analog or digital meter packages (D suffix commonly digital/analog meter type)
Mechanical Size	34.625 inHx 27.5 inWx 29.25 in D, 750-900 lb (30 kW class)
Interlock	contactor on/off interlock control
RFI	built-in RFI protection
Agency	not recommended for new designs; TDK points to Genesys / GENESYS+
Order String	EMHP 80-250-D-42111 (voltage-current-meter-special program)
Meter Type D	meter package per EMI ordering (D on the string)
Special Program	42111 factory special programming suffix; confirm against the installed rear interface Notes

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 50 C; derate above 50 C
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AC Input Standard	440/480 Vac three phase 60 Hz; optional inputs available
Softstart	AC inrush softstart
Cooling	forced air
Protection	overvoltage, overtemperature, overcurrent
Remote Program	resistance, voltage, and current programming standard
Analog Optional	0-5 V and 0-10 V
Digital Optional	RS-232 and IEEE-488
Meters	analog or digital meter packages (D suffix commonly digital/analog meter type)
Mechanical Size	34.625 inHx 27.5 inWx 29.25 in D, 750-900 lb (30 kW class)
Interlock	contactor on/off interlock control
RFI	built-in RFI protection
Agency	not recommended for new designs; TDK points to Genesys / GENESYS+
Order String	EMHP 80-250-D-42111 (voltage-current-meter-special program)
Meter Type D	meter package per EMI ordering (D on the string)
Special Program	42111 factory special programming suffix; confirm against the installed rear interface Notes

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	
Specifications	
PARAMETER	VALUE
Model	EMHP80-250-D-42111
Manufacturer	Lambda EMI / TDK-Lambda Americas
Instrument Type	High Power SCR DC Power Supply
Specifications	
PARAMETER	VALUE
Series	EMHP
Alias	EMHP80-250-D-42111; EMHP 80-250; EMI EMHP80-250; TDK-Lambda EMHP80-250
Rated Output Voltage	0 to 80 Vdc
Specifications	
PARAMETER	VALUE
Rated Output Current	0 to 250 A
Rated Power	20 kW maximum class
Output Ripple RMS	120 mVrms (60 Hz ripple column)
Specifications	
PARAMETER	VALUE
Frame Class	Size 1 up to 20 kW
Topology	SCR phase control on transformer primary; rectified and L/C filtered DC
Output Mode	constant voltage / constant current automatic crossover
Specifications	
PARAMETER	VALUE
Regulation	0.1% line and load (within ratings)
Stability	0.05% for 8 hours with constant external effects

PARAMETER	VALUE
Transient	recover to within 1% of final value within 200 ms for 50-100% load class (EMHP datasheet)

Specifications

PARAMETER	VALUE
Operating Temperature	0 to 50 C; derate above 50 C
AC Input Standard	440/480 Vac three phase 60 Hz; optional inputs available
Softstart	AC inrush softstart

Specifications

PARAMETER	VALUE
Cooling	forced air
Protection	overvoltage, overtemperature, overcurrent
Remote Program	resistance, voltage, and current programming standard

Specifications

PARAMETER	VALUE
Analog Optional	0-5 V and 0-10 V
Digital Optional	RS-232 and IEEE-488
Meters	analog or digital meter packages (D suffix commonly digital/analog meter type)

Specifications

PARAMETER	VALUE
Mechanical Size 1	30 inHx 22.25 inWx 27.75 in D, 500-750 lb (20 kW class)
Mechanical Size 2	34.625 inHx 27.5 inWx 29.25 in D, 750-900 lb (30 kW class)
Mechanical Size 3	44.5 inHx 27.5 inWx 33.25 in D, 1000-1500 lb (60 kW class)

Specifications

PARAMETER	VALUE
Interlock	contactor on/off interlock control
RFI	built-in RFI protection
Agency	not recommended for new designs; TDK points to Genesys / GENESYS+

Specifications

PARAMETER	VALUE
Order String	EMHP 80-250-D-42111 (voltage-current-meter-special program)
Meter Type D	meter package per EMI ordering (D on the string)
Special Program	42111 factory special programming suffix; confirm against the installed rear interface

Notes

Specs from the live TDK-Lambda EMHP table (EMHP 80-250: 20 kW, 0-80 V, 0-250 A, 120 mVrms) and EMHP datasheet. Confirm meter type D, AC input option, and special program 42111 on the nameplate.

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.