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Data Sheet

August 13, 2026

LAMBDA / TDK

Lambda / TDK / EMI EMS55-90-2-D

Lambda / TDK DC Power Supplies. Voltage: 85–265 VAC (47–63 Hz) or 120–330 VDC, Current: 9.6 A @ 100 VAC, Current: 20 A @ 100 VAC.



MODEL

**Lambda / TDK
EMS55-90-2-D**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

EMS55-90-2-D

LISTING

<https://aumictechlabs.com/products/ems55-90-2-d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Lambda / TDK / EMI EMS55-90-2-D is a switch-mode DC power supply engineered for industrial and laboratory test applications requiring stable, regulated output with integrated protection. It delivers constant voltage/constant current operation with automatic crossover, supported by overvoltage, overcurrent, and short-circuit protection circuitry. Technical Specifications Input Power Input voltage: 85–265 VAC (47–63 Hz) or 120–330 VDC Typical input current: 9.6 A @ 100 VAC, 5.0 A @ 200 VAC Inrush current: 20 A @ 100 VAC, 40 A @ 200 VAC Power factor: 0.98 typ. @ 100 VAC, 0.95 typ. @ 200 VAC Output Regulation Voltage mode: <0.1% deviation across 100% load change Current mode: <0.1% deviation across 100% load change (full load to short) Line regulation: Maximum 0.01% of rated output voltage + 2 mV Ripple and noise: <0.1% of rated output voltage Programming & Control Fully programmable via analog interface Optional RSTL digital interface for system integration Voltage programming: 0–100% (user-selectable 0–5 V or 0–10 V inputs) Programming accuracy and linearity: ±0.5% of rated output voltage Key Features Overvoltage protection (OVP) standard on models up to 300 VDC output

Constant-current foldback protection for overcurrent events Short-circuit protection integrated
Forced-air cooling with long-life fans for extended operation High efficiency design optimized for
industrial duty cycles Operating Environment Operating temperature: 0–70°C (1% derating per
degree Celsius above 50°C) Storage temperature: -55–85°C Typical Applications Industrial power
distribution and equipment testing Laboratory burn-in and characterization workbenches Burn-in
test systems requiring precise CV/CC control OEM integration in test and measurement systems

Features & description

From manufacturer datasheet

Features

- 0 to 55 V, 0 to 90 A, 4950 W class

EMS55902D Characteristics / Specifications

PARAMETER	VALUE
Model	EMS55-90-2-D
Manufacturer	Lambda EMI / TDK-Lambda Americas
Instrument Type	Switch Mode Programmable DC Power Supply
Series	EMS
Alias	EMS55-90-2-D; EMS 55-90; EMI EMS55-90; TDK-Lambda EMS55-90
Rated Output Voltage	0 to 55 Vdc
Rated Output Current	0 to 90 A
Rated Output Power	4950 W class (55 V x 90 A)
Output Mode	constant voltage / constant current automatic crossover
Topology	high-frequency switch-mode EMS family
Voltage Adjust	true zero voltage and current adjustability (EMS family)
Transient Response	650 us class (EMS family literature)
Remote Analog	standard analog programming
Digital Option	RSTL RS-232 / IEEE-488 programmer
Catalog 10T	10-turn current control
Catalog LB	lock bushing
Catalog TC	output terminal covers
Catalog CE	CE mark path on selected AC inputs
Series Parallel	series or parallel master-slave operation
Soft Start	yes
Protection	overcurrent and overvoltage
Form	rackmount
Programming Common	analog programming common with TCR, EMHP, and ESS series
UL Note	U/L recognized on EMS family sheets
Regulation Family	0.1% class EMS literature

PARAMETER	VALUE
Suffix 2 D	EMS option/meter/input coding; D commonly denotes digital/analog meter package
Identity Rule	55 V is the faceplate voltage; do not relabel as 50 V or 60 V EMS
Related EMS30 1	EMS30-165-2-D is 30 V, 165 A, 4950 W (same wattage class, different V/I) Notes Specs from TDK/EMI EMS model decoder (55 V, 90 A, 4950 W class) and EMS family datasheet features. Confirm AC input phase, RSTL, and that the nameplate is 55 V not 50/60 V.

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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PARAMETER	VALUE
Model	EMS55-90-2-D
Manufacturer	Lambda EMI / TDK-Lambda Americas
Instrument Type	Switch Mode Programmable DC Power Supply
Specifications	
PARAMETER	VALUE
Series	EMS
Alias	EMS55-90-2-D; EMS 55-90; EMI EMS55-90; TDK-Lambda EMS55-90
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Remote Analog	standard analog programming
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Specifications

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Catalog LB	lock bushing
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Catalog CE	CE mark path on selected AC inputs

Specifications

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UL Note	U/L recognized on EMS family sheets

Specifications

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Regulation Family	0.1% class EMS literature
Suffix 2 D	EMS option/meter/input coding; D commonly denotes digital/analog meter package
Identity Rule	55 V is the faceplate voltage; do not relabel as 50 V or 60 V EMS

Related EMS30 165: EMS30-165-2-D is 30 V, 165 A, 4950 W (same wattage class, different V/I)

Notes

Specs from TDK/EMI EMS model decoder (55 V, 90 A, 4950 W class) and EMS family datasheet features. Confirm AC input phase, RSTL, and that the nameplate is 55 V not 50/60 V.

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.