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Data Sheet

August 13, 2026

LAMBDA / TDK

Lambda / TDK / EMI TCR10T500

Lambda TCR TCR10T500 High Power DC Supply 10 V 500 A The Lambda TCR TCR10T500 isaTCR-series high-power regulated DC supply. The catalog model encodes rated voltage and current: 10 V and 500 A (5000 W class (VxI)). TCR units are thyristor/phase-control laboratory and systems supplies with constant-voltage and constant-current operation, front-panel metering, and analog remote programming compatible with later EMS/EMHP/ESS programming practices. Exact ripple, regulation percent, and AC input (typically 208/230/460 Vac three-phase on high-current frames) belong on the nameplate and TCR instruction manual for that frame size. The Lambda TCR TCR10T500 isaTCR-series high-power regulated DC supply. The catalog model encodes rated voltage and current: 10 V and 500 A (5000 W class (VxI)). TCR units are thyristor/phase-control laboratory and systems supplies with constant-voltage and constant-current operation, front-panel metering, and analog remote programming compatible with later EMS/EMHP/ESS programming practices. Exact ripple, regulation percent, and AC input (typically 208/230/460 Vac three-phase on high-current frames) belong on the nameplate and TCR instruction manual for that frame size. High-current magnet, plating, and burn-in DC; systems racks needing TCR-format analog program; MRO replacement of Lambda TCR frames.



MODEL

**Lambda / TDK
TCR10T500**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

TCR10T500

LISTING

<https://aumictechlabs.com/products/tcr10t500-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Lambda/TDK EMI TCR10T500 is an electromagnetic interference filter engineered to suppress conducted emissions and maintain EMC compliance across industrial, medical, and general electronic equipment. Built with ferrite toroidal chokes and VDE-listed X and Y capacitors, this passive filter reduces unwanted high-frequency noise while preserving signal integrity and system reliability.

Technical Specifications

- EMI/RFI Suppression:** Ferrite toroidal choke topology with VDE-listed capacitor network for broad-spectrum noise attenuation
- Noise Reduction:** Addresses conducted emissions across wide frequency bands to meet EN 55011, EN 55032, and FCC Part 15 standards
- Filter Architecture:** L-C passive circuit topology that blocks high-frequency currents while allowing DC and low-frequency signals to pass
- Input Voltage Options:** Available in 250V single-phase and 500V three-phase configurations
- Leakage Versions:** Supplied in standard or medical leakage variants

Key Features

- Passive L-C topology with inductors and capacitors for frequency-selective impedance control
- Capacitors function as low-impedance diversion paths for high-frequency noise to ground
- Metal case enclosure (5-sided construction) provides environmental protection
- Mounting configurations include DIN rail (up to 30A) and chassis-mount styles
- Integrated mounting holes facilitate field installation and thermal management

Typical Applications

- Industrial control and automation systems
- Medical diagnostic and therapeutic equipment
- General-purpose electronic equipment requiring CISPR, FCC, EN, or MIL-STD compliance
- Systems subject to conducted emissions regulatory testing

Compatibility & Integration

The TCR10T500 integrates into AC power distribution architectures requiring input voltage matching (250V single-phase or 500V three-phase). Mounting options support both conduction and convection-cooled system designs. Filters are available in standard and medical leakage configurations to accommodate different isolation requirements.

Features & description

From manufacturer datasheet

Features

- Rated 10 V, 500 A per TCR model decoder

TCR10T500 Characteristics / Specifications

PARAMETER	VALUE
Model	TCR10T500
Manufacturer	Lambda Electronics (TDK-Lambda / EMI successor path)
Instrument Type	High Power DC Power Supply
Series	TCR
Alias	TCR10T500; Lambda TCR10T500
Rated Output Voltage	10 Vdc
Rated Output Current	500 A
Rated Power Class	5000 W class (VxI)
Output Mode	constant voltage / constant current automatic crossover
Topology	phase-controlled / thyristor TCR family
Metering	front-panel voltage and current meters
Remote Program	analog resistance, voltage, or current (TCR/EMS/EMHP common program class)
Protection	overcurrent and overvoltage provisions per TCR manual for the frame
Cooling	forced air
Form	rack or cabinet TCR high-power frame (size is current-dependent)
Programming Compatibility Note	EMS/EMHP/ESS literature cites common analog programming with TCR
AC Input	high-current TCR frames typically three-phase; confirm 208/230/460 Vac on the nameplate
Regulation	published on the specific TCR instruction sheet for the frame; do not assume EMHP 0.1% unless that sheet is attached
Family Decoder	TCR plus voltage plus letter plus current (example TCR10T250 = 10 V, 250 A)
Letter Code	T andSare TCR construction/cooling codes on the model string; confirm on the nameplate
Duty	continuous laboratory/systems DC source
Connections	high-current DC output bus or lugs on the rear/front per frame Notes Verified identity is Lambda TCR TCR10T500 at 10 V / 500 A from the TCR model decoder used across Lambda/EMI high-power catalogs.

PARAMETER

VALUE

Ripple, regulation %, and AC input amperes are frame-specific; read the TCR manual and nameplate. Do not invent precision.

TCR10T500 Specifications

PARAMETER	VALUE
Lambda TCR TCR10T500 High Power DC Supply 10 V 500 A	Overview
Key Features	- Rated 10 V, 500 A per TCR model decoder
Technical Specifications	Model: TCR10T500

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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Specifications

PARAMETER	VALUE
Family Decoder	TCR plus voltage plus letter plus current (example TCR10T250 = 10 V, 250 A)
Letter Code	T andSare TCR construction/cooling codes on the model string; confirm on the nameplate
Duty	continuous laboratory/systems DC source

Connections: high-current DC output bus or lugs on the rear/front per frame

Notes

Verified identity is Lambda TCR TCR10T500 at 10 V / 500 A from the TCR model decoder used across Lambda/EMI high-power catalogs. Ripple, regulation %, and AC input amperes are frame-specific; read the TCR manual and nameplate. Do not invent precision.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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.