

VXT-EPS-100-24

1U Ultra-Thin Enclosed Switching Power Supply

24V DC | 4.5A | 108W



Product Overview

The VXT-EPS-100-24 is a 108W single output enclosed switching power supply with a 1U ultra-thin 30mm low-profile design. With universal AC input (85-264VAC), metal mesh housing for superior heat dissipation, and fanless operation, it is ideal for industrial automation, LED lighting, and embedded system applications.

Key Features

- ✓ Universal AC input: 85-264VAC (47-63Hz)
- ✓ DC input capable (120-373VDC)
- ✓ High efficiency up to 89% (typical)
- ✓ 1U ultra-thin profile: only 30mm height
- ✓ Metal mesh housing for superior heat dissipation
- ✓ Fanless operation: -30°C to +70°C
- ✓ Ultra-low no-load consumption (< 0.3W)
- ✓ Overload, overvoltage & short circuit protection
- ✓ 5G vibration resistance
- ✓ Output voltage adjustable via trim pot ($\pm 10\%$)
- ✓ Compact size: 129 x 97 x 30 mm

Applications

Industrial Automation • LED Lighting & Signage • CCTV & Security Systems • Embedded Systems • PLC & Control Panels • CNC Machines • Packaging Machinery • Building Automation • Telecom Equipment

Technical Specifications

OUTPUT	
DC Output Voltage	24V DC
Rated Output Current	4.5A
Rated Output Power	108W
Ripple & Noise (max)	< 150mV p-p
Voltage Accuracy	$\pm 1\%$
Output Voltage Adj. Range	$\pm 10\%$ (via trim pot)
Load Regulation	$\pm 0.5\%$
Line Regulation	$\pm 0.5\%$
Start Up Time	< 500ms @ 230VAC / < 500ms @ 115VAC (full load)
Hold Up Time (typical)	55ms @ 230VAC / 10ms @ 115VAC (full load)
INPUT	
Input Voltage Range	85 - 264VAC / 120 - 373VDC
Input Frequency	47 - 63 Hz

Input Current (typical)	< 1.9A @ 115VAC / < 1.2A @ 230VAC
Efficiency (typical)	> 89% @ 230VAC full load
Inrush Current	Cold start: 50A @ 230VAC
PROTECTION	
Overload Protection	110% - 130% rated output, hiccup mode, auto recovery
Overvoltage Protection	115% - 145% rated output, output shuts down, auto restart and recovery
Short Circuit Protection	Output voltage drops to undervoltage point, output closes
ENVIRONMENT	
Operating Temperature	-30°C to +70°C
Operating Humidity	20% - 90% RH (non-condensing)
Storage Temperature	-40°C to +85°C
Storage Humidity	10% - 95% RH (non-condensing)
SAFETY & EMC	
Withstand Voltage	I/P - O/P: 4kVAC / I/P - FG: 2kVAC / O/P - FG: 1.25kVAC (1 minute)
Isolation Resistance	I/P - O/P, I/P - FG, O/P - FG: 500VDC / 100MΩ @ 25°C 70% RH
Leakage Current	< 1mA @ 240VAC
Safety Standards	EN60950-1, EN60335-1, EN61558-1/-2-16, UL60950-1, GB4943
MECHANICAL	
Dimensions (L x W x H)	129 x 97 x 30 mm
Net Weight / Gross Weight	340g / 365g
Mounting	Screw mounting / Enclosed chassis
Casing Material	Metal mesh enclosed housing
Output Connections	Screw terminals (-V, +V)
Input Connections	Screw terminals (L, N, Earth)

Ordering Information

Model Number	Output	Power
VXT-EPS-100-24	24V DC / 4.5A	108W

Notes

1. All specifications are measured at 230VAC input, rated load, and 25°C ambient temperature unless otherwise noted.
2. Ripple & noise measured using 12" twisted pair with 0.1μF and 47μF capacitors in parallel at terminal, 20MHz bandwidth.
3. Starting time measured under cold start. Fast and frequent startup/shutdown may increase starting time.
4. When operating altitude is higher than 2000 meters, derate operating temperature by 5°C per 1000 meters.
5. No-load power consumption is less than 0.3W.
6. Please contact Voxintech for latest specifications.