

500 W DC-ATX Power Supply — 12–48 V DC input, fanless

A DC-ATX power supply replaces the mains unit in a desktop PC. This model converts a 12–48 V DC source into the ATX rails a motherboard needs, at over 94% DC-DC efficiency and without an inverter. It is fanless, with heatsinks bonded to both the board and the switching devices.

DC INPUT

Parameter	Value
Input voltage	12 – 48 V DC
Input connector	7.4 × 5.0 mm with centre pin (ground), screw-lock female jack; 8-pin Molex input
Input cable supplied	7.4 × 5.0 mm DC input to 8-pin Molex, 45 cm, with M12 mounting ring
Input pinout (DC IN, 8-pin)	Three +12–48 V DC pins, three ground pins
Recommended mains adapter	330 W Dell LA330PM160 (manufacturer's recommendation at full output)

DC OUTPUT RAILS

Rail	Maximum DC current	Full-load DC current	Voltage tolerance	Ripple and noise (mVp-p, max)
+3.3 V	10 A	8 A	1%	10 mV
+5 V	10 A	8 A	1%	10 mV
+12 V	55 A	45 A	1%	10 mV
+5 VSB	2 A	1.5 A	3%	10 mV

GENERAL

Parameter	Value
Continuous output power	500 W
Peak output power	600 W
DC-DC efficiency	Greater than 94% (maximum)
Dimensions, without cables	160 mm (L) × 52 mm (W) × 31 mm (H)
Mounting holes	Spacing 122.3 mm × 43.3 mm, Ø3.2 mm for M3 screws to pass through
Cooling	Fanless; dual heatsink for the board and the switching devices
Output style	Modular ATX output
Operating temperature	–10 °C to 70 °C
Protection	Over-voltage, overload, over-current, short circuit and under-voltage (UVP) protection
Certification	CE, FCC, RoHS; EN 61000-3-2:2006+A1:2009+A2:2009, EN 61000-3-3:2008

CONNECTORS

Connector	Quantity	Note
ATX main power, 24-pin	1	Standard ATX pinout
CPU EPS, 8-pin (4+4 cable)	1	Standard EPS pinout
PCI Express, 8-pin (dual 6+2 cable)	2 outputs	Red headers on the board
SATA power, 4-pin	1 output	Four SATA connectors on the supplied cable
DC input, 8-pin	1	Both connectors are Mini-Fit Jr, 4.20 mm pitch
PS-ON header	1	Short PS-ON to ground to switch the supply on
PWR-OK header	1	Outputs a +5 V signal once the supply is running

Every figure is the manufacturer's published specification for this exact model, reproduced without conversion or estimate. No derating curve, part-load efficiency curve or peak duration is published, so none is shown. The modular output is stated to be compatible with third-party cable sets for the Silverstone ST series. PVShop · PVS-DCATX-500H · issued 2026-09-17.