

PR BX

POWERBOX Industrial Line 250
 CBN44 Series
 250W
 Single Output
 AC/DC Switch Mode Power Supply



Features

Single output industrial power supplies
High efficiency
250W output at convection cooling
Compliant with EN55022 and FCC Class B
Active PFC to meet IEC61000-3-2 Class A and D
Protection against overvoltage, overcurrent and overtemperature
RoHS Compliant

Input

Voltage range	90-264VAC.
Frequency	47-63Hz.
Current	3.3 A/ 115 VAC, 1.65 A/ 230 VAC typical.
Leakage current	0.5 mA max @ 264VAC, 63Hz.

Output

Power	See table.
Voltage/current	See table.
Ripple and noise	See table.
Over voltage protection	Set at 115-145% of its nominal output voltage.
Over current protection	Protected to short circuit conditions.
Temperature coefficient	±0.04%/°C max.
Transient response	Max excursion of 4% or better on all models, recovering to 1% of final value within 500us after a 25% step load change.

Environmental

Operating temperature	-20°C to +50°C.
Storage temperature	-20°C to +85°C.
Relative humidity	5-95% non-condensing.

General

Turn on delay time	1 second maximum at 100 VAC.
Hold-up time	10ms min at 110VAC and full load.
Line regulation	±0.5% max at full load.
Inrush current	80A @ 115VAC, or 160A @ 230VAC, at 25°C cold start.
Withstand voltage	3,000VAC from input to output. 1,500VAC from input to ground. 500VAC from output to ground.
MTBF	100,000 hours at full load at 25°C ambient, calculated per MIL-HDBK-217F.

Standards

Safety standards	UL ES 60950-1, CSA C22.2 No 60950-1 File No E208620, TUV EN60950-1.
EMC performance	EN55022 Class B conducted, Class B radiated.
FCC	Class B conducted, Class B radiated.
VCCI	Class B conducted, Class B radiated.
EN61000-3-2	Harmonic distortion Class A and D.
EN61000-3-3	Line flicker.
EN55024	
EN61000-4-2	ESD, ±8KV air and ±4KV contact.
EN61000-4-3	Radiated immunity, 3V/m.
EN61000-4-4	Fast transient/burst, ±1KV.
EN61000-4-5	Surge, ±1KV diff., ±2KV com.
EN61000-4-6	Conducted immunity, 3Vrms.
EN6100-4-8	Magnetic field immunity, 1A/m.
EN61000-4-11	Voltage dips, 30% reduction for 500ms, 60% reduction for 100ms, >95% reduction for 10ms.

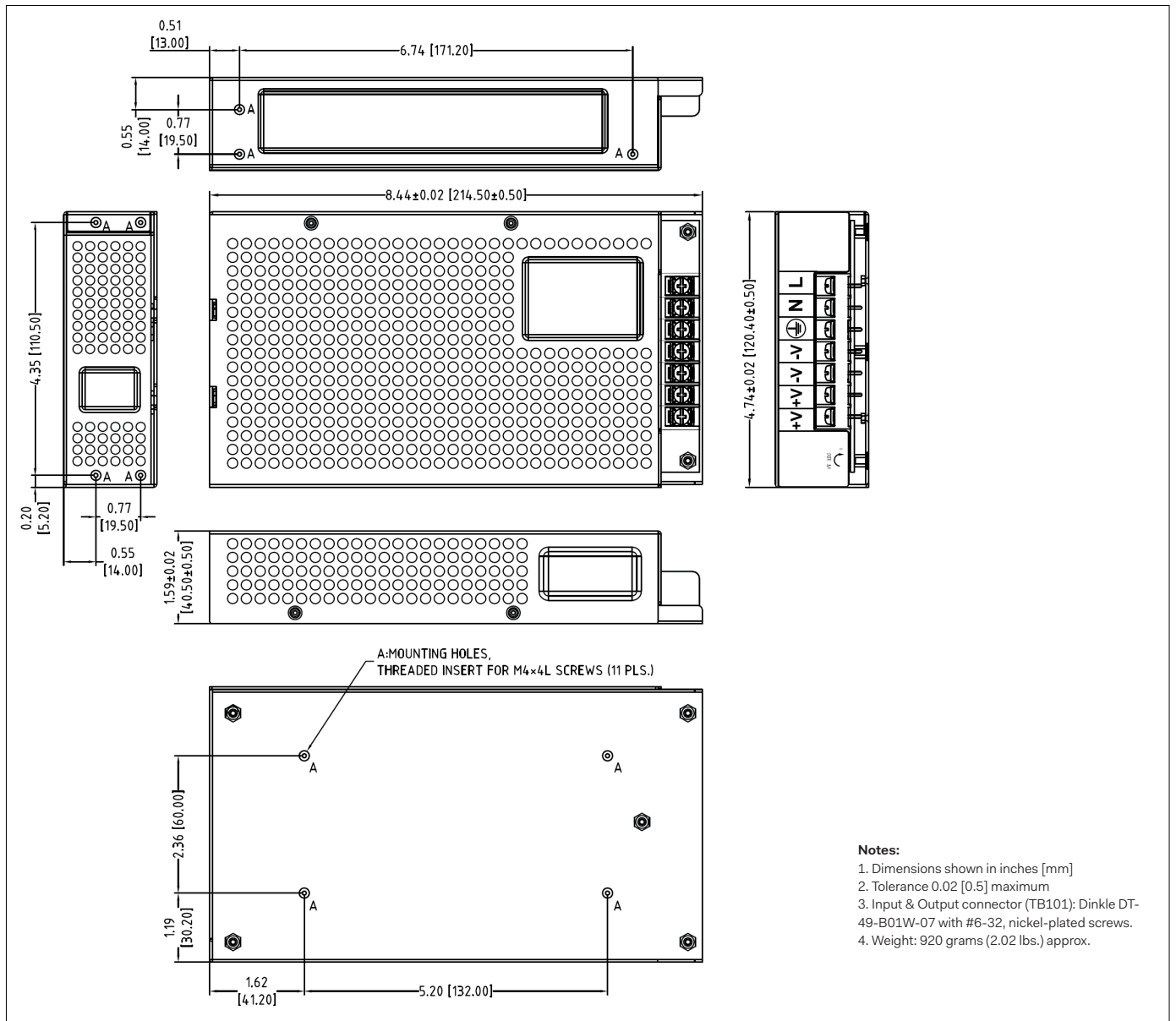
POWERBOX Industrial Line 250
 CBN44 Series
 250W
 Single Output
 AC/DC Switch Mode Power Supply

Model Number	Output V1	Min Current	Max Current	Tol	Ripple & Noise ¹	Max Power	Efficiency (typical) @115/230VAC	Mechanical Specifications (Fig)
CBN44031	12 V	0 A	20.84 A	±5%	200 mV	250 W	88 /90%	B
CBN44046	24 V	0 A	10.42 A	±5%	240 mV	250 W	91 /93%	B

Notes

1. Ripple and noise is maximum peak-to-peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 10 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

Mechanical Figure B



Pin Connection

Model	Pin	1	2	3	4	5	6	7
CBN44031		Live	Neutral	Ground	V1 Return	V1 Return	+V1	+V1
CBN44046								

Specifications are subject to change without notice.