

Model: BPN-170-14A

Total Power	170 Watts
Input Voltages	90-132 VAC
Outputs	Single 12V or 24V



SPECIAL FEATURES

- Switch selectable for either 12V or 24V output.
- AC On, DC On, and Low Battery LEDs
- AC Fail Output with 5 min. delay – Form C contacts
- Battery Charger Circuit
- Low Battery Output - Form C contacts
- Low Battery Cut-Off
- UL and cUL to EN60950 and UL 294
- CE compliant

ENVIRONMENTAL SPECIFICATIONS

Humidity: Up to 95% non-condensing

Storage Temperature: -20° to +85°C

Temperature coefficient: ±0.01% / °C

Ambient Operating Temperature: 0 to +50°C continuous duty, full rating. Derate linearly to 50% of full rating at +71°C.

Cooling: Convection cooled

SAFETY APPROVALS

UL & cUL 60950
 UL 294

VOLTAGE/CURRENT RATING CHART

Voltage	Minimum	Maximum	Peak
+12V	0A	12A	12A

OR

Voltage	Minimum	Maximum	Peak
+24V	0A	6A	6A

ELECTRICAL SPECIFICATIONS

Input Specifications

Input Range.....90-132 VAC
 Frequency.....60 Hz
 EMI filter..... EN55022 Class B, FCC Part 15
 Inrush Current..... ≤16A @ 115 VAC
 Input Current..... 3.3A
 Isolation.....4242 VDC (Input to Output)
 Efficiency..... 80%
 Switching Frequency.....70-75KHz.

Output Specifications

Typical AC ON Output Voltage.....13.8V/27.6V

DC Output Full Voltage Range...10.9-13.8V/23.2-27.6V

DC Output.....Maximum continuous output power 170 Watts convection cooled.

Line Regulation.....±0.5%

Load Regulation.....±1%

300-1 Route 17 South Suite B2
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ELECTRICAL SPECIFICATIONS (CONT')

Output Specifications

Ripple and Noise.....1% Pk to Pk

Transient Response.....2% Maximum deviation;
returns to initial condition in 1 msec max.

Long Term Stability.....0.01% after 20 minute
warm-up.

Hold-Up Time.....20msec minimum

OVP.....Set at 115% to 135%

Short-circuit Protection.....The units will withstand
a continuous short without damage. It will automatically
return to regulation upon removal of the short.

Overload Protection.....The overload protection
feature will reduce all output voltages to a safe
dissipation level when the output power rating exceeds
125% of maximum rated power. The unit will
automatically return to regulation upon removal of the
overload.

Battery Charging CircuitThis circuit is designed
to trickle charge 12V or 24V lead acid batteries through
a 5.1 ohm resistor. Two 12V batteries are connected in
series for 24V. A low battery cutoff relay and reverse
polarity protection are provided

AC LED (Bicolor).....Indicates that AC is
present.

AC Fail Terminal.....When AC is present the
AC Fail contacts are normally closed. When AC is
removed and the battery is connected to the power
supply, the AC Fail contacts will change state to
normally open 5 minutes after AC is removed.

Low Battery LED (Green).....When the battery
voltage drops below 10.5V $\pm 2\%$ for a 12V battery or 21V
 $\pm 2\%$ for a 24V battery the LED shuts off.

Low Battery Trouble Relay.....The trouble relay
contacts are normally closed when the battery voltage is
above 10.5V $\pm 2\%$ for a 12V battery or 21V $\pm 2\%$ for a
24V battery. The trouble relay contacts change state to
normally open when the battery voltage drops below
10.5V $\pm 2\%$ for a 12V battery or 21V $\pm 2\%$ for a 24V
battery.

Low Battery Cut-Off.....The battery will
disconnect from the load when the battery voltage drops
below 9.5V $\pm 2\%$ on a 12V battery or 19V $\pm 2\%$ on a 24V
battery.

Power LED (Red).....Indicates that the
power supply output is present and above 9.5V $\pm 2\%$
when set for a 12V output. or 19V $\pm 2\%$ when set for a
24V output.

OVERALL MECHANICAL DIMENSIONS

7.75"L x 4"W x 2.5"H (Open Frame with heat plate)
(197mm x 102mm x 63.5mm)

CONNECTORS

AC Input and DC Output - 0.375" spaced barrier terminal
blocks

AC Fail and Low Battery terminal blocks - 5mm spaced
Euro style

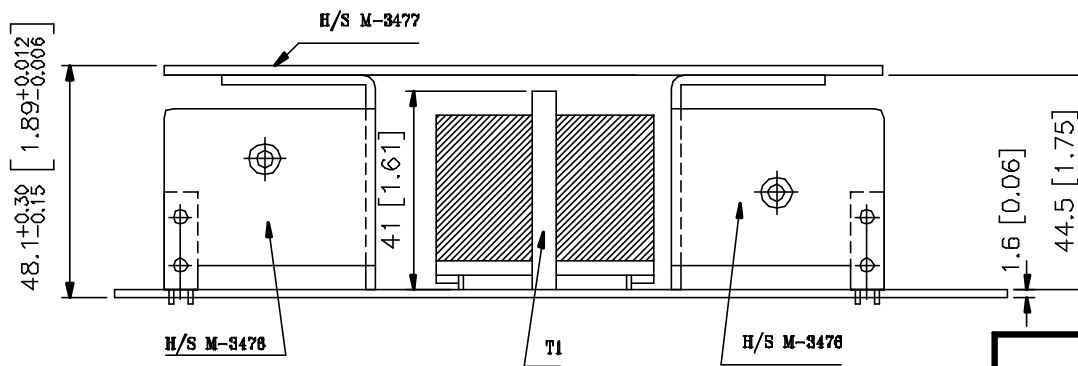
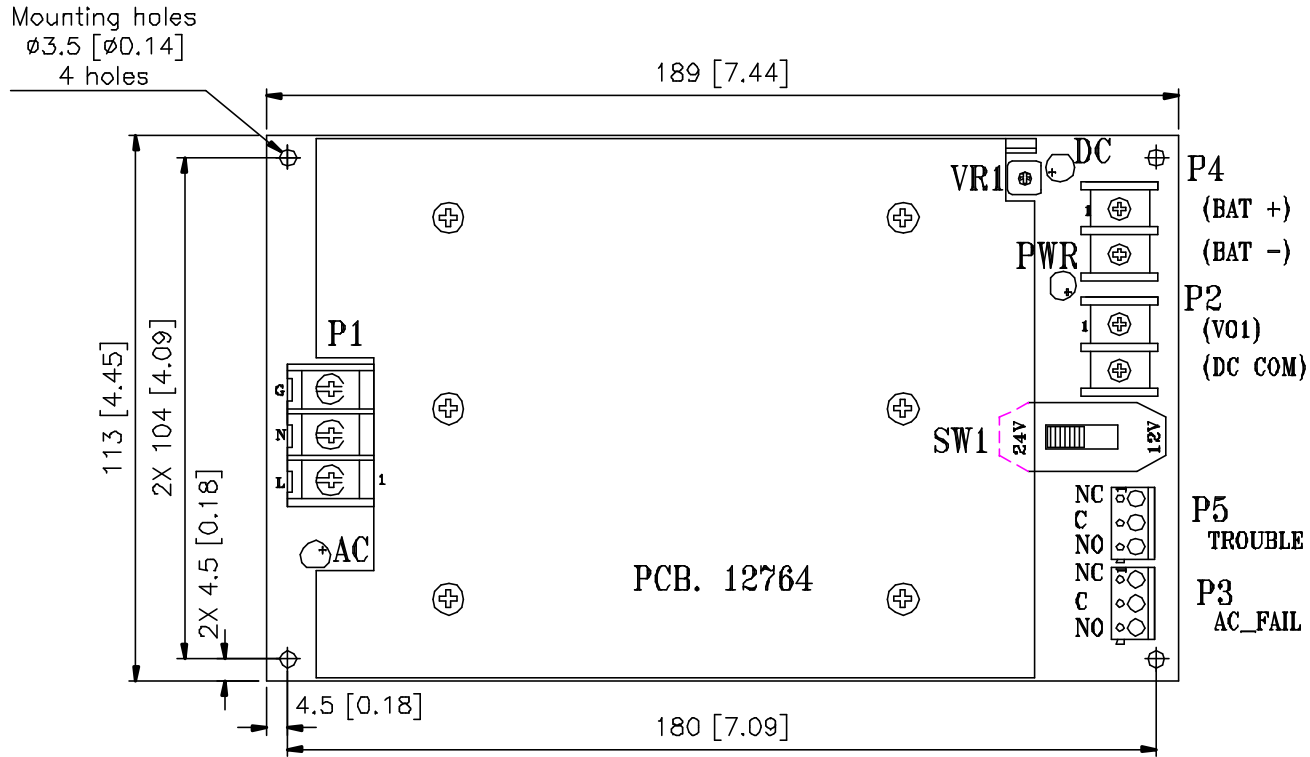
PIN ASSIGNMENTS

See attached drawing

NOTES

- Battery used with this power supply must have a
capacity for emergency standby of at least 1 hour
- Specifications subject to change without notice.
- All dimensions in inches/mm
- Warranty: 1 year
- Weight: 1.75 lbs.

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<i>BluTek Power</i>			
TITLE		OUTLINE DRAWING	
DRAWN	H. L. LIN	DRG. NO.	BLU-090
CHECKED		MODEL NO.	BPN-170-14A

UNIT	mm[inches]	REV. NO.	E	SCALE	0.7 : 1	MAT'L	t=
THIRD	ϕ	∇		TOL.	± 0.2	DATE	05. 05. 2005



IN/OUTPUT RATING & PIN ASSIGNMENT

SIZE : A4	FM-4000-34/REV.A-080502'
UNIT : mm[inches]	FILENAME: PPSC0387
REV. NO.: G	DATE : 12. 01. 2005
DRAWN: dXö C. M. WU	CHECKED:

MODEL NO. : BPN-170-14A

INPUTS :

ASSIGNMENT	A.C. VOLTAGE	CURRENT	PIN NBR
L:	100-120 V~	3.3A	P1-1
N:			P1-2
G:		60Hz	P1-3

OUTPUTS :

ASSIGNMENT	D.C. VOLTAGE	CURRENT	PIN NBR
BAT (+):	10.9-13.8V ---	12A	P4-1
BAT (-):			P4-2
VO1:	23.2-27.6V ---	6A	P2-1
DC COM:			P2-2
TROUBLE:	NC		P5-1
TROUBLE:	C		P5-2
TROUBLE:	NO		P5-3
AC_FAIL:	NC		P3-1
AC_FAIL:	C		P3-2
AC_FAIL:	NO		P3-3

MAXIMUM OUTPUT POWER: 170W

Battery capacity for emergency standby at least 1 hour.

