

**Model: BPA-RT3200-120**

Max. Power	3200 Watts
Input Voltages	180-523VAC 3 Phase Delta
Outputs	Single plus 12VSB



**SPECIAL FEATURES**

- Active Power Factor Correction
- Redundant operation
- Three Phase Delta Input
- Single wire digital current sharing
- Overload and Short Circuit protection
- Over Voltage Protection (OVP)
- Over Temperature Protection
- PS\_ON/AC\_OK/DC\_OK/PS\_KILL/PS\_Present
- Fault LED's
- I<sup>2</sup>C interface PMBus Compatible
- Variable fan speed control
- UL, CUL, and DEMKO *Approval in process*
- CE compliant
- **Custom modifications available**

**ENVIRONMENTAL SPECIFICATIONS**

Humidity: Up to 95% non-condensing

Storage Temperature: -20° to +85°C

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

Cooling: Self contained fan cooling.

**SAFETY APPROVALS, to be obtained**

- UL 60950-1 Second Edition
- CUL 60950-1 Second Edition
- DEMKO EN60950-1 Second Edition

**ELECTRICAL SPECIFICATIONS**

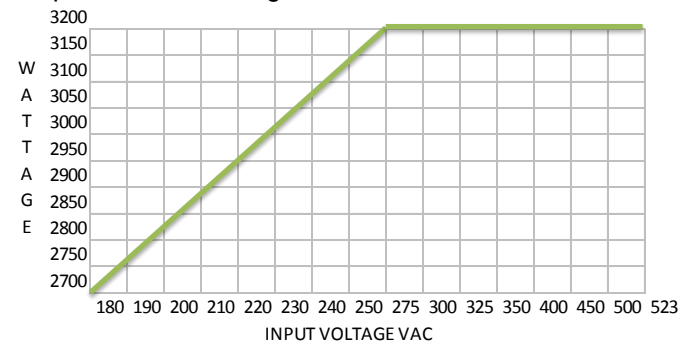
**Input Specifications**

- Input Range..... 180 - 523VAC 3 Phase
- Frequency.....47-63 Hz
- EMI filter..... EN55022 Class A, FCC Part 15
- Inrush Current.....≤32A @ 480VAC
- Input Current..... 20A @ 180VAC
- Isolation (Input to Output)..... 4242 VDC
- Efficiency..... 93%
- Active PFC..... 0.99
- Switching Frequency.....82KHz.
- Leakage Current..... ≤3.5mA

**Output Specifications**

DC Output..... Maximum continuous output power 3200 Watts with self-contained fan cooling.

**Output Power Derating Curve:**



- Line Regulation..... ±0.2%
- Load Regulation..... ±1% on both outputs
- Ripple and Noise..... 1% Pk to Pk
- Transient Response.....2% Maximum deviation; returns to initial condition in 1 msec max.

## Model: BPA-RT3200-120

### ELECTRICAL SPECIFICATIONS (CONT')

#### Output Specifications

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

Hold-Up Time..... 12msec minimum

OVP.....115% to 135% on both outputs

Short-circuit Protection.....delayed latching method on the primary output. The 12V standby utilizes the hiccup method.

Overload Protection.....Constant current with delayed latching method on the primary output. The 12V standby utilizes the hiccup method. The constant current method allows for a 130mS delay before the power supply shuts down if the output current rating exceeds 105% to 115% of maximum rated output current. The input must be recycled manually or may be digitally reset.

FET Isolation..... Internal FET isolation provided for N+1 redundant operation.

Current Sharing.....Outputs will current share within 5% when interconnected by a single wire.

PS On.....The secondary outputs are enabled only upon mating a shorter enable pin to output common on the customer's backplane.

AC OK.....A TTL low signal provides a 4ms warning prior to DC outputs dropping out of regulation.

ALERT.....A TTL low signal indicates a fault that has occurred. (see attached ALERT signals list)

### ELECTRICAL SPECIFICATIONS (CONT')

Over Temperature Protection ....The power supply will shut down if temperature is greater than 115°C (internal temperature). The power supply is self recovering once the internal temperature falls below 71°C.

Power Okay..... A TTL high logic signal is provided when the input and output voltages are within normal operating conditions.

PS Present..... A pin on the power supply is used to identify that the power supply has been installed into the customer's backplane.

PS\_KILL ..... This pin must connect to common or active low for the power supply to turn on

I<sup>2</sup>C ..... Monitors temperature, output voltage, input voltage, input current, and output current; controls Fan speed, LED's and connects to a serial NVRAM which is programmed with serial number. PMBUS software allows monitoring of overall operation of power supply.

### OVERALL MECHANICAL DIMENSIONS

16.98" L x 3.9" W x 1.58" H  
(431.3mm x 99.0mm x 40.2mm)

### PIN ASSIGNMENTS

See Attached Hook-up Drawing

### CONNECTOR

Input/Output.....Molex 46437-1258

### NOTES

- Specifications subject to change without notice.
- All dimensions in inches/mm
- Warranty: 2 years
- Weight: TBD

### MODEL No. / OUTPUT VOLTAGE / CURRENT RATINGS CHART

Model No.	O/P Voltage (Vdc)	Minimum	Maximum
BPA-RT3200-120	12V	0A	266.6A
	12VSB	0A	2.0A

## Model: BPA-RT3200-120

### PARAMETERS AND ALERTS

#### LED'S

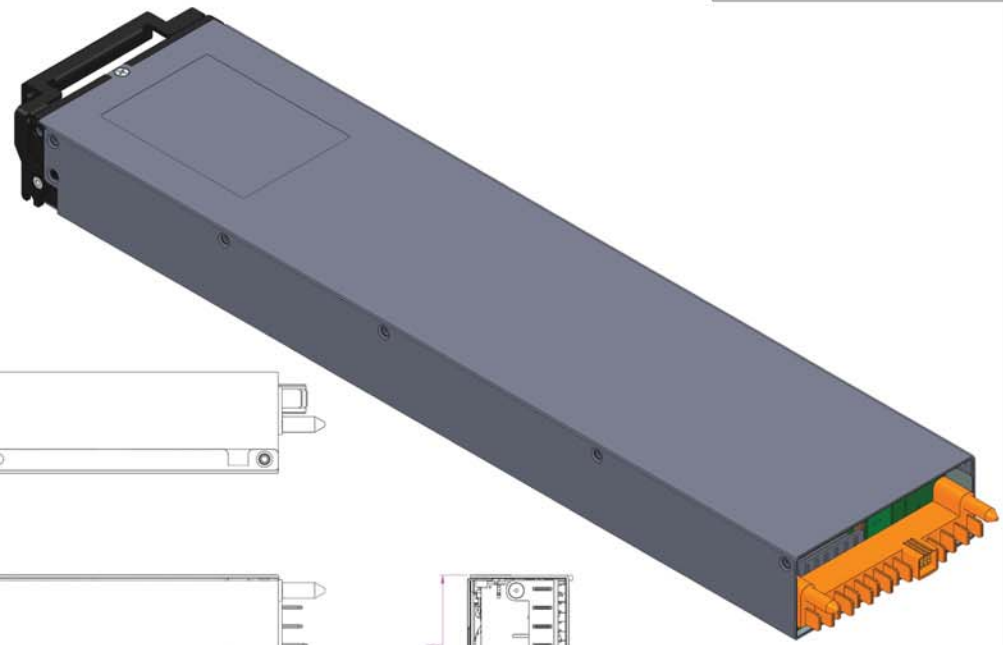
Status of power supply	Green LED	Yellow LED
Power up	OFF	OFF
Normal Operation	ON	OFF
Standby Mode	BLINK	OFF
PSU Tripped due to INPUT UNDER VOLTAGE	OFF	ON
PSU Tripped due to OUTPUT OVER VOLTAGE	OFF	ON
PSU Tripped due to FAN1 & FAN2 FAULTS	OFF	ON
PSU Tripped due to OVER TEMP FAULT	OFF	ON
PSU Tripped due to OUPUT OVER CURRENT FAULT	OFF	ON
PSU Tripped due to INPUT OVER POWER FAULT	OFF	ON
PSU has a Warning Condition due to OUT OV	ON	BLINK
PSU has a Warning Condition due to OUT UV	ON	BLINK
PSU has a Warning Condition due to OVER TEMP.	ON	BLINK
PSU has a Warning Condition due to FAN1 SPEED.	ON	BLINK
PSU has a Warning Condition due to FAN2 SPEED.	ON	BLINK
PSU has a Warning Condition due to INPUT OVER CURRENT	ON	BLINK
PSU as Warning Condition due to OUTPUT OVER POWER	ON	BLINK

#### LIMITS VALUE

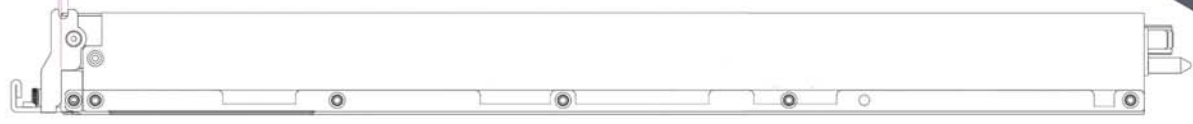
Parameters of PSU	Limit Value Default
Over-Temperature Fault Limit	120°C
Over-Temperature Warning Limit	110°C
Over-Temperature Fault Recovery Limit	75°C
Over-Temperature Warning Recovery Limit	107°C
<b>MAIN OUTPUT</b>	
Maximum Output Current Limit	268 Amps
Maximum Output Power Warning Limit	2800W at 180VAC Input 3300W at 250VAC Input
Minimum Output Under Voltage Limit	11.0 VDC
<b>SECONDARY OUTPUT</b>	
Maximum Output Current Limit	2.50 Amps
Maximum Output Over Voltage Limit	12.80 VDC
<b>FAN SPEED</b>	
Minimum Speed for Fans 1 & 2	2500 RPM

#### ALERTS

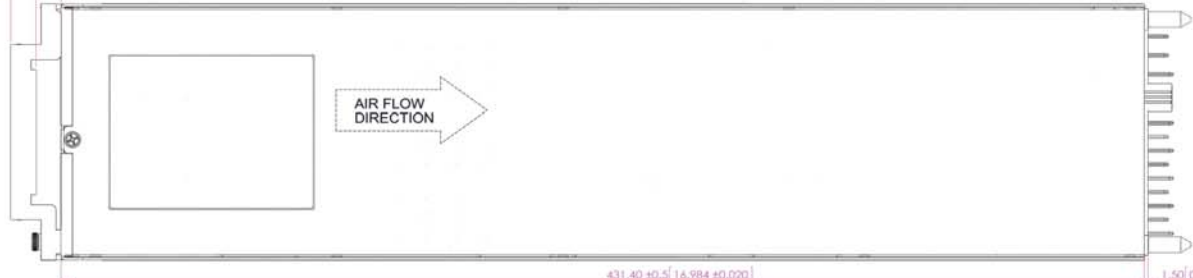
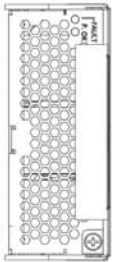
Status of power supply	SMB_ALERT State
Power up	LOW
Normal Operation	HIGH
Standby Mode	LOW
PSU Tripped due to INPUT UNDER VOLTAGE	LOW
PSU Tripped due to OUTPUT OVER VOLTAGE	LOW
PSU Tripped due to FAN1 FAULT	LOW
PSU Tripped due to FAN2 FAULT	LOW
PSU Tripped due to OVER TEMP FAULT	LOW
PSU Tripped due to OUPUT OVER CURRENT FAULT	LOW
PSU Tripped due to INPUT PIN OVER POWER FAULT	LOW
PSU has a Warning Condition due to OUT OV	LOW
PSU has a Warning Condition due to OUT UV	LOW
PSU has a Warning Condition due to OVER TEMP. See Note.1	LOW
PSU has a Warning Condition due to FAN1 SPEED	LOW
PSU has a Warning Condition due to FAN2 SPEED	LOW
PSU has a Warning Condition due to INPUT OVER CURRENT	LOW
PSU as Warning Condition due to OUTPUT OVER POWER	LOW
PSU has a Warning Condition due to UNDER TEMPERATURE.	LOW



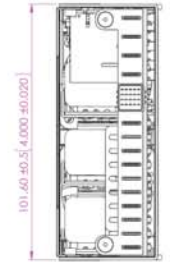
3.80 ±0.2 [0.150 ±0.008]  
 1.00 ±0.2 [0.039 ±0.008]



20.00 ±0.5 [0.787 ±0.020]  
 10.00 ±0.5 [0.394 ±0.020]



431.40 ±0.5 [16.984 ±0.020] 1.50 [0.059]



101.40 ±0.5 [4.000 ±0.020]

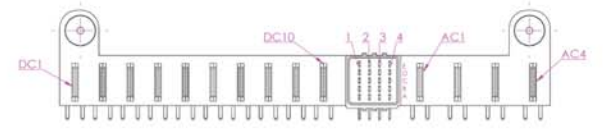


41.70 ±0.5 [1.642 ±0.020]

40.20 ±0.5 [1.583 ±0.020]

**PIN ASSIGNMENT**

IP & O/P CONNECTOR VENDOR:  
 MOLEX 46437-1258



**BluTek Power**

TITLE		OUTLINE DRAWING		
DRAWN	H. L. LIN	DRG. NO.	BLU-503	
CHECKED		MODEL NO.	BPA-R3200-120T	

UNIT	mm[inches]	REV. NO.	7	SCALE	0.34 : 1	MAT'L	CS TYPE B, G-40	t	1.0
THIRD		SIZE	A1	T O L.	± 0.2	DATE	09.13.2012		



300-1 (B2) Route 17, Loch, NJ 07644

## IN/OUTPUT RATING & PIN ASSIGNMENT

SIZE : A4	FM-4000-34/REV.A-080502'
UNIT :mm[inches]	FILENAME: PPSC0581
REV. NO.: B	DATE : 11. 06. 2012
DRAWN: 林惠蘭 H. L. LIN	CHECKED:

MODEL NO. : BPA-RT3200-120

**INPUTS :**

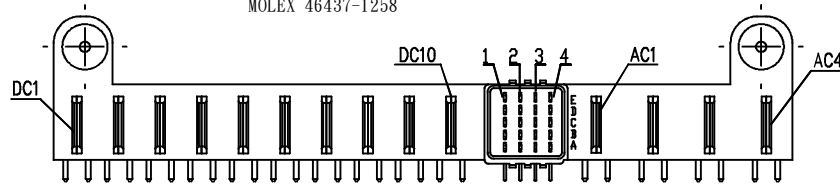
ASSIGNMENT	A.C. VOLTAGE	CURRENT	PIN NBR
L1:	3-PHASE		AC4
L2:	220V	50~440Hz	AC3
L3:	or 380V		AC2
GND:	or 480V		AC1

**OUTPUTS :**

ASSIGNMENT	D.C. VOLTAGE	CURRENT	PIN NBR
V01:	12V ---	266 A	DC1,3,5,7,9
DC COM:			DC2,4,6,8,10
12VSB:			E2
12VI:			E1
+12VS:			A2
PS_Present:			A1
COM:			E4
DC_OK:			D4
PS_KILL:			A3
PS_ON:			A4
NU:			B4
A0:			B3
A1:			B2
A2:			B1
-12VS:			E3
AC_OK:			D1
12VSB:			D2
ALERT:			D3
NU:			C4
SDA_1:			C2
SCL_1:			C3
RESET:			C1

PIN ASSIGNMENT

I/P & O/P CONNECTOR VENDOR:  
MOLEX 46437-1258



	1	2	3	4
E	12VI	12VSB	-12VS	COM
D	AC_OK	12VSB	ALERT	DC_OK
C	RESET	SDA_1	SCL_1	NU
B	A2	A1	A0	NU
A	PSPresent	+12VS	PS_KILL	PS_ON

**MAXIMUM OUTPUT POWER: 3200W**