

# BPEU2452

## AC/DC Converter



The BPEU Series of AC/DC Converters is available with multiple outputs and output power from 1300 W up to 3000 W. All models incorporate active Power Factor Correction (PFC).

Other standard features include current and voltage monitoring, overvoltage, overtemperature as well as short circuit protection.

These power supplies were designed to power radio-frequency power amplifier (RFPA) applications in the Broadcasting industry.

### Key Features & Benefits

- Output Power 2000 W
- Active PFC
- High Efficiency
- Input Voltage: Single-Phase 220/240 VAC
- Main Output: 48 V/40 A
- Auxiliary Output: 12.5 V/1 A
- Current and Voltage Monitoring
- Remote Enable/Disable
- Baseplate Cooling

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#### Europe, Middle East

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## TECHNICAL PARAMETERS

### Input Specifications

PARAMETER	DESCRIPTION / CONDITION
Voltage	185 – 264 VAC Single-Phase
Current	≤ 12.5 A @ full-load @ 185 VAC Single-Phase
Frequency	47...63 Hz
Efficiency	93% typ. @ full-load @ nominal input
Power Factor	> 0,98 @ full-load @ 230 VAC
Inrush Current	≤ 30 Apk @ 230 VAC

### Output Specifications

OUTPUT	VOLTAGE (VDC)	Inom (A)	IpK (A)	TOLERANCE %	RIPPLE %	POWER (W)
V1 *	+46 to 51	40	43	≤ 1	< 1	2000
V2	+12.5	1	1.2	≤ 5	≤ 3	12

\* V1 adjustable by multi-turns trimmer set on board.

### Protection

PARAMETER	DESCRIPTION / CONDITION
Over-Load	Constant-Current
Short-Circuit	Hiccup mode (auto recovery)
Over-Voltage (V1)	Set point = 58 V ± 5%, not automatic return to operation
Over-temperature	Set point = 75°C @ baseplate, automatic return to operation with hysteresis
General:	Main AC Line fuse

### Alarms / Signals / Controls

PARAMETER	DESCRIPTION / CONDITION
Output V1 current monitor	Linear analogic signal 100 mV → 1 A; 5 mA max. supply current
Output V1 voltage monitor	Linear analogic signal 100 mV → 1 V; 5 mA max. supply current
Remote Inhibit output V1	Required an external +5 V @ 1 mA to disable the output
Power Fail - main under-voltage	N/A
Remote Enable output V2	N/A

### Thermal Characteristics

PARAMETER	DESCRIPTION / CONDITION
Operating Temperature:	-20 to +50°C (see Thermal Protection)
Storage Temperature:	-20 to +85°C

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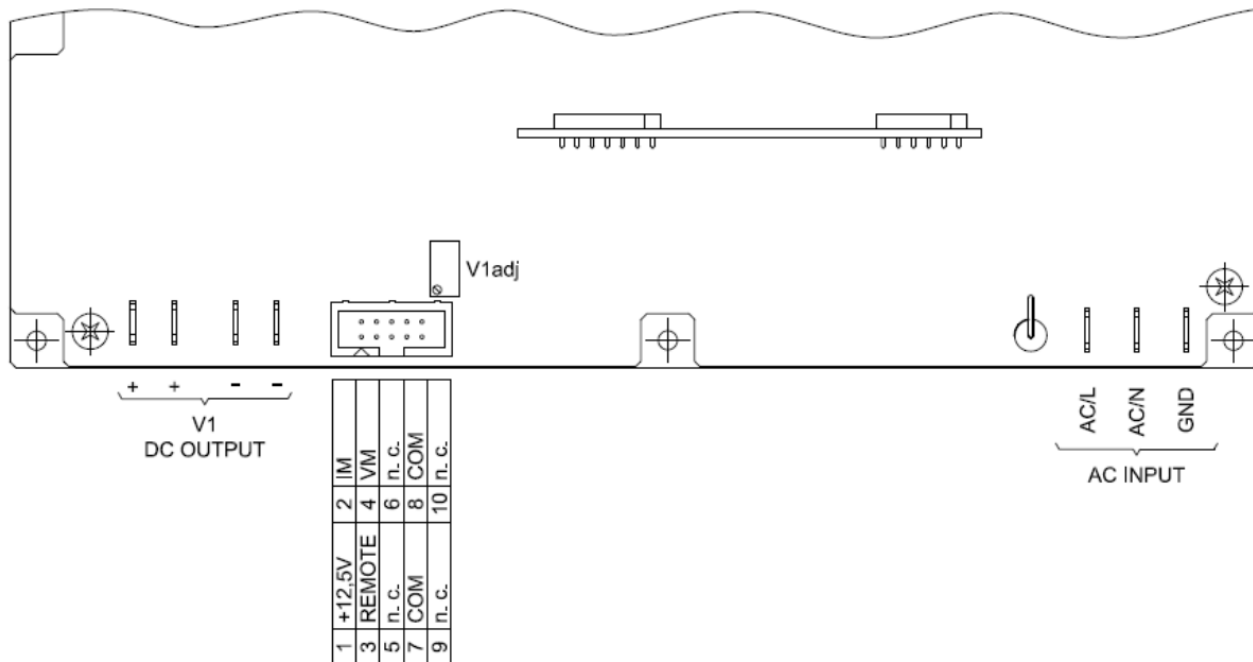
## Standards / Regulations

PARAMETER	DESCRIPTION / CONDITION	
Safety:	EN60950-1	
	EN55022	Conducted Noise ( Industrial level )
EMC / EMI	EN61000-4-4	Fast-Transients
	EN61000-4-5	Surges ( $\pm 2$ kV common $\pm 1$ kV differential)
	EN61000-4-11	Voltage-Dips
	EN61000-3-2	Harmonics Current
CE Mark		

## Connections

PARAMETER	DESCRIPTION / CONDITION
Input	N° 3 Fast-on male connectors - 6.35 x 0.8 mm (Line, Neutral, PE).
Main Output (V1)	N° 4 Fast-on male connectors - 6.35 x 0.8 mm (2 x Positive pole + 2 x Negative).
Signals/Controls/Aux.(V2)	Male FLAT type 10 pole dual in line connector

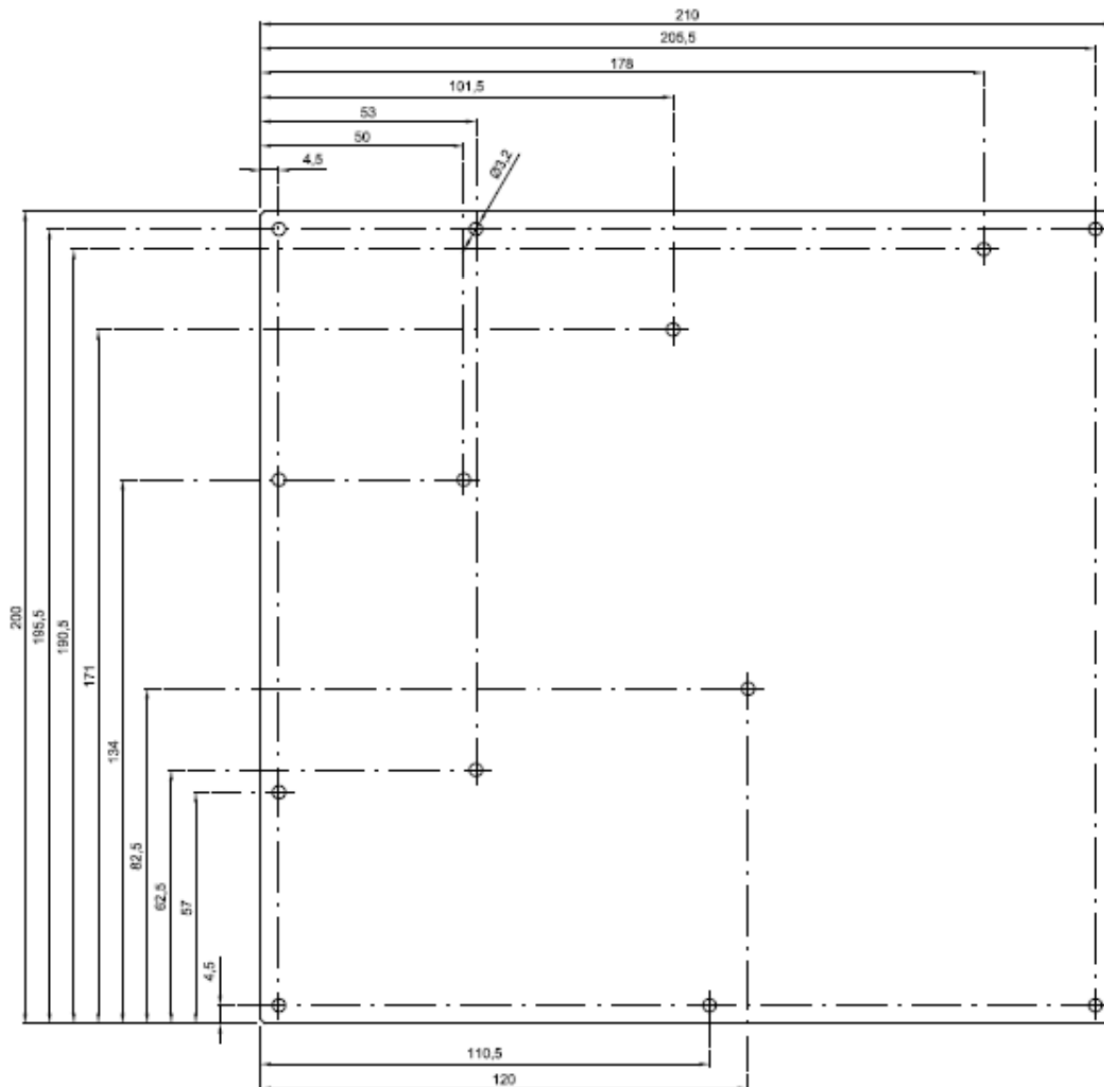
Figure 1 – Connections



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## Dimensions

Figure 2 - Mechanical Drawing



All dimensions are nominal and expressed in millimeters. Tolerance 0.5 mm max.

**For more information on these products consult: [tech.support@psbel.com](mailto:tech.support@psbel.com)**

**NUCLEAR AND MEDICAL APPLICATIONS** - Products are not designed or intended for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems.

**TECHNICAL REVISIONS** - The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.