

HIGH VOLTAGE CONVERTERS

DC/DC

# BPS

## SMALL HIGH VOLTAGE PRINT MODULE FOR PCB MOUNTING UP TO 4 W

- ▶ Patented resonance converter technology
- ▶ Controlled by analog set voltage
- ▶ Monitor voltages
- ▶ Wide supply range
- ▶ Low ripple and noise, low EMI
- ▶ Internal reference voltage
- ▶ Customised versions on request



The BPS is a small DC/DC converter which can be mounted and soldered on PCBs. The output voltage is controllable with either an external potentiometer or an analog control voltage.

The patented resonance converter technology and moulded metal box shielding guarantee lowest electromagnetic interference and low ripple and noise.

### SPECIFICATIONS

	BPS 1 W	BPS 3 W	BPS 4 W
<b>Polarity</b>	factory fixed, positive or negative	factory fixed, positive or negative	factory fixed, positive or negative
<b>Ripple and noise</b> [f > 10 Hz]	typ. < 10-15 mV <sub>P-P</sub>	typ. < 15-35 mV <sub>P-P</sub>	typ. < 5 mV <sub>P-P</sub>
<b>Stability</b> - [ΔV <sub>out</sub> / ΔV <sub>in</sub> ]	< 5 • 10 <sup>-4</sup> • V <sub>nom</sub>	< 5 • 10 <sup>-4</sup> • V <sub>nom</sub>	< 2 • 10 <sup>-4</sup> • V <sub>nom</sub>
<b>Stability</b> - [ΔV <sub>out</sub> / ΔR <sub>load</sub> ]	< 2 • 10 <sup>-3</sup> • V <sub>nom</sub>	< 2 • 10 <sup>-3</sup> • V <sub>nom</sub>	< 5 • 10 <sup>-4</sup> • V <sub>nom</sub>
<b>Temperature coefficient</b>	< 50 ppm / K	< 50 ppm / K	< 50 ppm / K
<b>Supply voltage</b>	4.5 - 5.5 V	11.5 - 15.5 V	11.4 - 12.6 V
<b>Set / monitor voltage</b>	0 - 2.5 V	0 - 5 V	0 - 5 V
<b>Protection</b>	overload and short circuit protected	overload and short circuit protected	overload and short circuit protected
<b>HV connector</b>	pin	pin	pin
<b>Case metal</b>	metal box, moulded	metal box, moulded	metal box, moulded
<b>Dimensions - L/W/H</b>	40/40/18 mm	40/40/18 mm	50 - 55/40/17 mm

### CONFIGURATIONS

BPS 1 W	V <sub>nom</sub>	I <sub>nom</sub>	RIPPLE AND NOISE	BPS 3 W	V <sub>nom</sub>	I <sub>nom</sub>	RIPPLE AND NOISE	BPS 4 W	V <sub>nom</sub>	I <sub>nom</sub>	LENGTH
BPx 05 205 5	500 V	2 mA	typ. < 10 mV <sub>P-P</sub>	BPx 03 106 12	300 V	10 mA	typ. < 15 mV <sub>P-P</sub>	BPx 05 805 12	500 V	8 mA	50 mm
BPx 10 105 5	1 kV	1 mA	typ. < 10 mV <sub>P-P</sub>	BPx 05 605 12	500 V	6 mA	typ. < 15 mV <sub>P-P</sub>	BPx 10 405 12	1 kV	4 mA	50 mm
BPx 15 604 5	1.5 kV	0.6 mA	typ. < 10 mV <sub>P-P</sub>	BPx 10 305 12	1 kV	3 mA	typ. < 20 mV <sub>P-P</sub>	BPx 20 205 12	2 kV	2 mA	50 mm
BPx 20 504 5	2 kV	0.5 mA	typ. < 10 mV <sub>P-P</sub>	BPx 15 205 12	1.5 kV	2 mA	typ. < 25 mV <sub>P-P</sub>	BPx 30 135 12	3 kV	1.3 mA	50 mm
BPx 30 304 5	3 kV	0.3 mA	typ. < 15 mV <sub>P-P</sub>	BPx 20 155 12	2 kV	1.5 mA	typ. < 30 mV <sub>P-P</sub>	BPx 40 105 12	4 kV	1 mA	50 mm
				BPx 30 105 12	3 kV	1 mA	typ. < 35 mV <sub>P-P</sub>	BPx 60 504 12	6 kV	0.67 mA	55 mm

### OPTIONS & ORDER INFO

OPTION	ORDER INFO	EXAMPLE
<b>Polarity</b>	positive: x = p, negative: x = n	BPn 05 205 5