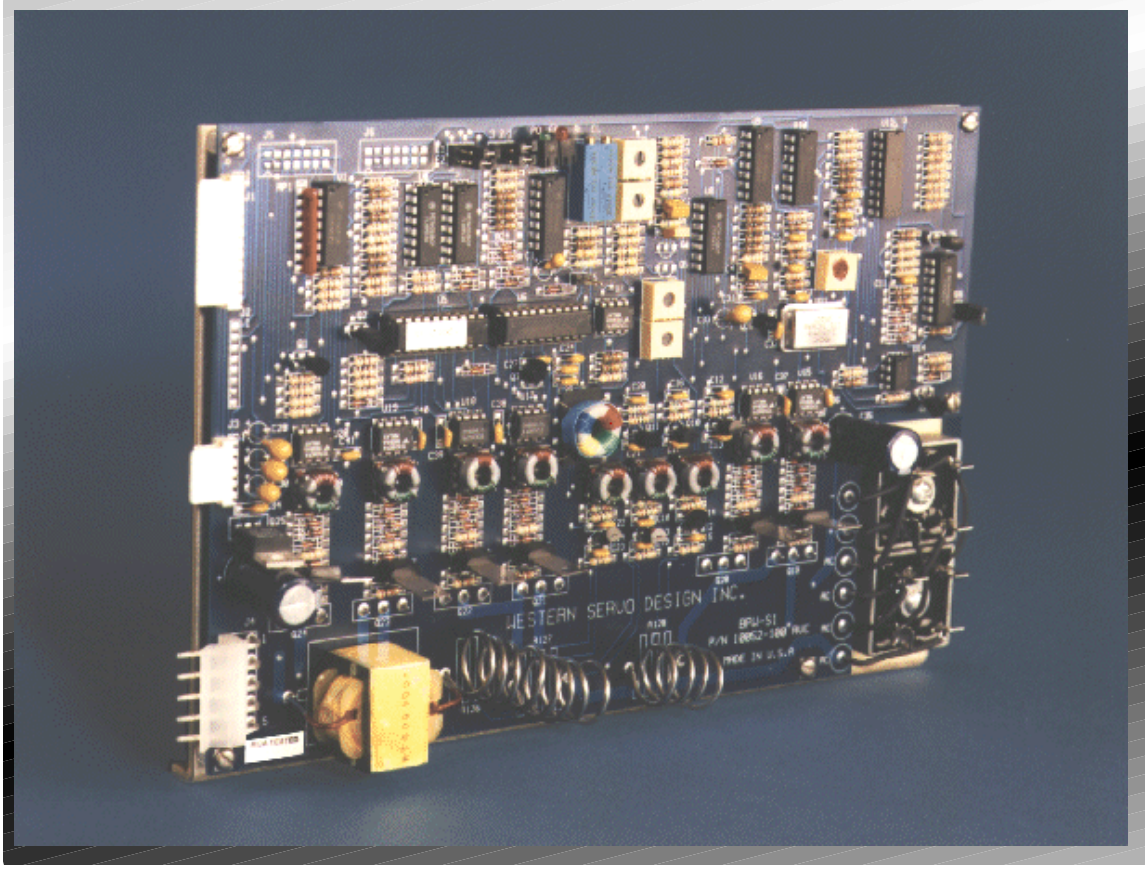
Output Type:	Voltage:	Amperage:	Mounting:	Modes:	Commutation:
PWM	Up to4800 VDC	Up to 50 A Peak	8E Edge Mount	Torque	Ext Sine or Digital Hall

BPW-S1

High-Power Brushless PWM Servo Amplifier



The BPW-S1 is a high power brushless PWM servo amplifier in an 8E size Edge Mount format. It is ideally suited to torque control applications or for velocity control using a digital position controller. This amplifier can be configured for External Sinusoidal commutation or for self commutation using Digital Hall effect sensors.

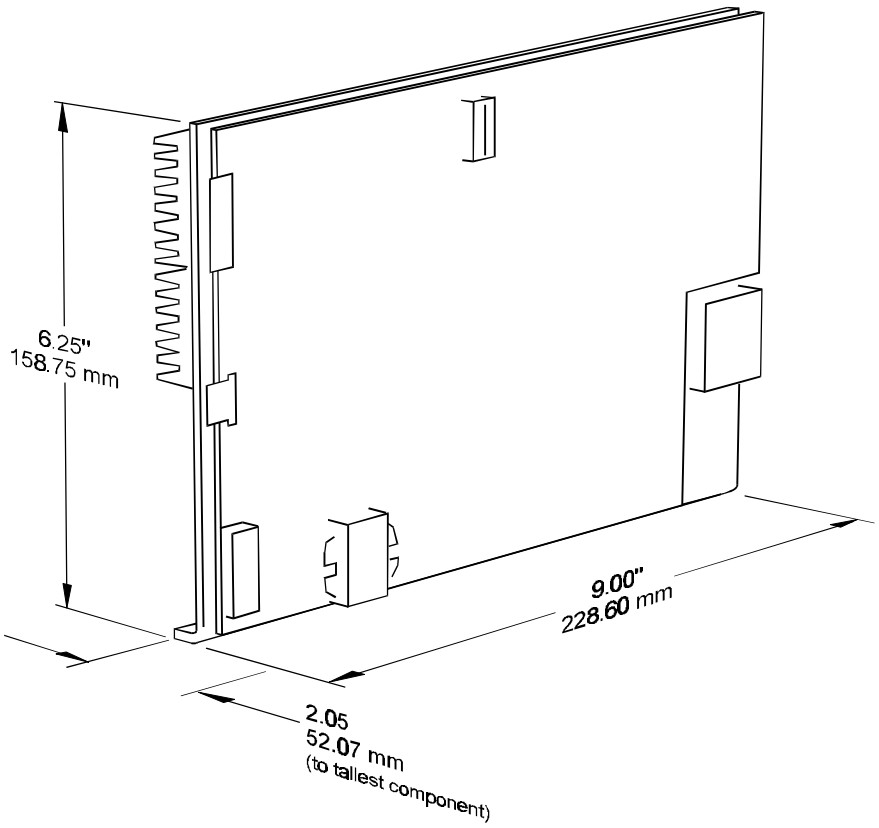
When using external sinusoidal commutation, the amplifier receives two 120° out of phase sinusoidal command inputs. The optimal third phase is derived by the amplifier. This eliminates "cogging" and greatly enhances low speed operation. An optional backplane is available to allow quick and easy access tomotor, power, control and other I/O signals.

- 8E size Edge Mount Format
- Accepts Digital Hall Effect Sensors
- Two Commutation Modes: Hall Effect and External Sinusoidal Input
- Travel Limit and Amp Enable Inputs
- Under Bus Voltage Shutdown
- Over Current Bus Protection
- PWM Frequency: 20 kHz or 80 kHz
- Bus Voltage: 30 - 480 VDC
- Continuous Current: 5, 8, 12, 22 Amperes
- Full Isolation between Input and Output Circuits
- Designed for Three-Phase Wye or Delta Wound Motors
- Advanced Design, Superior Quality and High Reliability
- One Year Parts and Labor Warranty

SPECIFICATIONS

Standard Models:	10/10	32/15	32/30	32/50	48/30
Bus Voltage	30 to 100 VDC	30 to 320 VDC	30 to 320 VDC	30 to 320 VDC	30 to 480 VDC
Peak Output Current*	10 A for 0.5 sec	15 A for 0.5 sec	30 A for 0.5 sec	50 A for 0.5 sec	30 A for 0.5 sec
Continuous Output Current*	5 A	8 A	12 A	22 A	12 A
Command Input Voltage: Hall Commutation Sinusoidal Commutation	 0 to ±10 V 0 to ±5 V	 0 to ±10 V 0 to ±5 V	 0 to ±10 V 0 to ±5 V	 0 to ±10 V 0 to ±5 V	 0 to ±10 V 0 to ±5 V
Command Input Impedance	10 kOhm	10 kOhm	10 kOhm	10 kOhm	10 kOhm
Minimum Load Inductance	0.2 mH	2 mH	2 mH	2 mH	2 mH
Switching Frequency	80 kHz	20 kHz	20 kHz	20 kHz	20 kHz
Torque Gain: Hall Mode Sinusoidal Mode	 1.0 A/V 2.0 A/V	 1.5 A/V 3.0 A/V	 3.0 A/V 6.0 A/V	 5.0 A/V 10.0 A/V	 3.0 A/V 6.0 A/V
Bandwidth	13 kHz	4 kHz	2 kHz	2 kHz	2 kHz
Weight	1.50 Lb (680.38 grams)				
Recommended Chassis	PDP, EDP				

*All ratings with forced air cooling to maintain 40°C heat sink temperature. Failure to keep constant air flow to the heat sink will reduce the output current capacity and may result in damage to the unit.



PINOUTS

J1: SIGNALS & BIAS POWER

Pin	Function (Hall Mode || Sine Mode)
1	-Command || Command Ph 1
2	+Command || Command Ph 2
3	No Conn. || Command Return
4	Amp Global Fault Out
5	Amp Enable Input
6	+ Limit || No Connection
7	Ground
8	- Limit || No Connection
9	Ground
10	+ Bias in (+12 to +15VDC)
11	Ground
12	- Bias in (-12 to -15VDC)

J3: HALL EFFECT SENSORS

Pin	Function
1	Hall +5V Out
2	Hall A
3	Hall B
4	Hall C
5	Hall Ground
6	Hall Shield

J4: MOTOR & BUS POWER

Pin	Function
1	Bus Ground
2	Bus +V (20 to 320 Volts)
3	Motor Phase A
4	Motor Phase B
5	Motor Phase C

Consult User's Manual for jumper settings.

Ordering Information:

Product	Order Number
BPW-S1-10/10 Amp *100VDC/10A Peak*	WS-004-0002
BPW-S1-32/15 Amp *320VDC/15A Peak*	WS-004-0001
BPW-S1-32/30 Amp *320VDC/30A Peak*	WS-004-0003
BPW-S1-32/50 Amp *320VDC/50A Peak*	WS-004-0004
BPW-S1-48/30 Amp 480VDC/30A Peak	WS-004-0008

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