



300 W Factory Road
Addison, IL 60101

StepperPower™

The Power Supply for Stepping Motors
Series: BVU6000 & PV5000



RoHS

- Fully compatible with Pacific Scientific (and other) stepping motor drivers series 5200, 5300, 5400, 6400.
- Space saving compact modules provide mounting studs for motor drivers.
- Integral motor and logic-power (where applicable).
- Models to drive one or two motors.
- 120VAC or 240VAC models; input taps to match actual line voltages.
- Custom units available.
- Safety Agency Approvals BVU Series:
 - UL 1950, third edition, File #E181899.
 - CSA, C22.2 No.950, File #E181899.
 - CE Marked.



StepperPower™

The StepperPower™, Series PV5000 and BVU6000, is an integral power supply module especially designed to operate stepper motors. Motor and logic power supplies are both incorporated in one package (when applicable). Models are available to drive one or two motors. The single driver modules are assembled on L-shaped chassis with threaded (# 6-32) PEM nuts to mount motor driver. The dual driver module feature a U-shaped chassis with threaded (#6-32) PEM nuts on both side to mount two motor drivers. This makes it an integral space saving unit eliminating the need for installing and wiring different pieces.

Integral motor and logic power supplies

The motor and logic power supplies required to operate the stepping motors and associated control logic are both incorporated in one unit. This eliminates the need to install and wire two different power supplies to separately mounted driver modules. The motor power is unregulated DC voltage; while the logic power is a fully regulated DC output that is maintained within tight regulation ($\pm 0.25V$) over a large range of input AC voltage.

Models to drive one or two motors

The single motor drives are commonly used. However, in a multi axis-control application, the dual driver models are a very cost effective and space saving alternative. In the single as well as dual driver modules, the voltage and current ratings are provided to allow maximum motor torque without exceeding the safe operating voltage and current limits. When operating two drivers from one power supply, the effect of regenerative energy must be considered to assure safe operation of the drives.

Space saving compact power module provides mounting studs for motor drivers

The StepperPower™ modules, series PV5000 and BVU6000, feature a transformer with high efficiency and excellent regulation that assures a compact physical size. They are assembled on space saving L- or U-shaped chassis. PEM nuts for mounting the driver modules are provided on one side of the L-bracket and on the both side of the U-chassis. Once the drivers are mounted on the power module, they become fully self-contained units without any need of external components. The outputs are lead wires that can be wired directly to the screw terminal connector available on the driver modules. This simplifies the installation and saves wiring time.

Input taps to match actual line voltages

As the motor power is unregulated, it tends to vary with the input line voltage. For example, if a high line is applied at the 120VAC tap, the motor output voltage may exceed the safe operating limit of the driver and cause damage. The taps are provided so that in high line locations, the output voltage can be kept within the safe operating limit by using the corresponding tap. The logic power is regulated and is not affected by the input line voltage over a wide range (95VAC to 135VAC when connected to 120VAC tap).

Custom designs to match other applications

PowerVolt will design any other custom units to match your application. Please call or e-mail us for quotes.

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Specification :

Input Power: 120V AC, 50/60Hz nominal; taps at 126V AC and 132V AC (optional 240V AC input with taps at 252V AC and 264V AC)

Output Power: See table at the right

Output Ripple: 3% r.m.s. maximum at nominal line full rated load

Operating Temperature: 0°C to 50°C full rated load (derate 2% per °C to 70°C max.)

Storage Temperature: -25°C to 85°C

Humidity: 95% Non-condensing

Logic Power: ± 0.25V Regulation

Model	Motor Power		Logic Power
	Approximate	Approximate	Regulated
	No Load (VDC)	Under Load (VDC)	(VDC)
BVU75FU6401-1	70V	62V@5A	None
BVU75FU6402-1	70V	2 x 62V@ 5A	None
BVU48FU6401-1	57V	48V @ 5A	None
BVU48FU6402-1	57V	2 x 48V @ 5A	None
BVU24FU6401-1	29V	24V @ 5A	None
BVU24FU6402-1	29V	2 x 24V @ 5A	None
BVU80C5	88V	80V @ 5A	None
BVU80D8	88V	80V @ 8A	None
BVU130D5	133V	122V @ 5A	None
PV5201-1	42V	36V @ 2.5A	5V @ 250mA
PV5202-1	42V	36V @ 5A	5V @ 250mA
PV5301-1	71V	60V @ 2.5A	12V @ 250mA
PV5302-1	71V	60V @ 5A	12V @ 400mA
PV5401-1	72V	65V @ 5A	12V @ 250mA
PV5402-1	72V	60V @ 10A	12V @ 400mA
PV5000-M	71V	60V @ 1.75A	12V @ 250mA

Suffix "-1" specifies 120VAC Input
Suffix "-2" specifies 240 VAC Input

