

## Unregulated Open Frame DC Power Supplies

### Series: BVU



RoHS

- Low cost unregulated DC power supplies
- Field-selectable input taps 103/115/126/207/230/253 VAC for fine-tuning output to match actual field conditions
- Improved ripple - 3% maximum
- Fuse protected output
- Computer grade capacitors
- Floating output provides versatility for wiring
- Safety Agency Approvals BVU Series:
  - UL 1950, third edition, File #E181899.
  - CSA, C22.2 No.950, File #E181899.
  - CE Marked.



### The BVU Series

The BVU Series of unregulated DC power supplies is the best low cost alternative, where moderate output variations and AC ripple are acceptable. The field-selectable input taps allow fine-tuning the output voltage to match actual field conditions. The DC output is fused for short circuit protection. For maximum versatility, the output is floating and may be referenced to another low voltage common ground or placed in series with other DC power supplies.

### Applications

- DC Motors - Stepping and Servos
- Solenoid valves
- Relays
- Lamps and Signal Systems
- Input to 3-terminal on-board regulators
- Some Floppy Disk Drives

| Tap (VAC) | Nominal (VAC) | High Line (VAC) |
|-----------|---------------|-----------------|
| 115,-10%  | 103.5         | 113.9           |
| 115,NOM   | 115           | 126.5           |
| 115,+10   | 126.5         | 139.2           |
| 230,-10   | 207           | 227.7           |
| 230,NOM   | 230           | 253.0           |
| 230,+10%  | 253           | 278.3           |

| INPUT CONNECTIONS FOR BVU SERIES |                   |            |            |     |     |     |
|----------------------------------|-------------------|------------|------------|-----|-----|-----|
| Input VAC                        | 103.5             | 115        | 126.5      | 207 | 230 | 253 |
| Jumper                           | 1-5<br>2-6        | 1-5<br>3-7 | 1-5<br>4-8 | 2-5 | 3-5 | 4-5 |
| Input Apply                      | 1-2               | 1-3        | 1-4        | 1-6 | 1-7 | 1-8 |
| Fuse AT                          | SEE UNIT ID LABEL |            |            |     |     |     |

### Specifications

**AC input:** 115/230VAC, 50/60Hz nominal.

Field selectable taps for  $\pm 10\%$ . High line tolerance on voltage is  $+10\%$

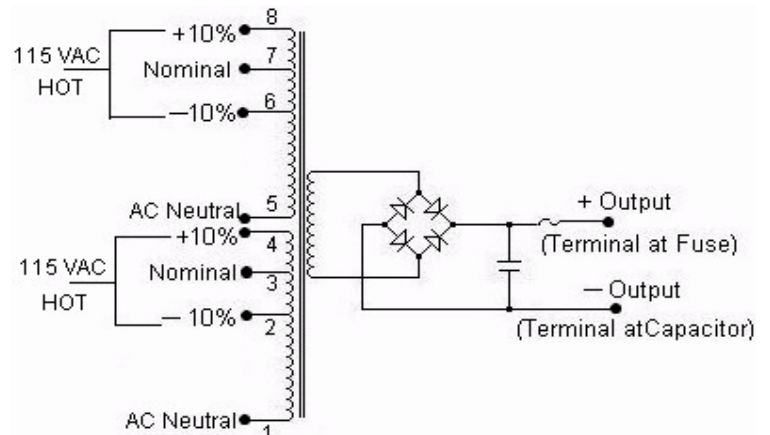
**DC Output:** Floating fixed output at full load ratings (see table). Transformer taps provided for approx. 10% output voltage adjustment.

**Ripple:** 3% rms maximum at normal line and full rated load.

**Operating Temperature:** 0-50°C (Derate 2% per °C to 70°C)

**Overload and Short Circuit Protection:** Fused output. It should be noted that the fuse is not necessarily direct in line with the output. In most models the fuse is prior to the output capacitor and in case of a short circuit, the capacitor energy will be discharged into the load even if the fuse has opened.

Schematic shows transformer taps provided for approx.  $\pm 10\%$  output voltage adjustment. Typical full load output voltage at 115VAC input using taps 1 and 3. For 10% higher output voltage use taps 1 and 2. For 10% lower output voltage use taps 1 and 4.

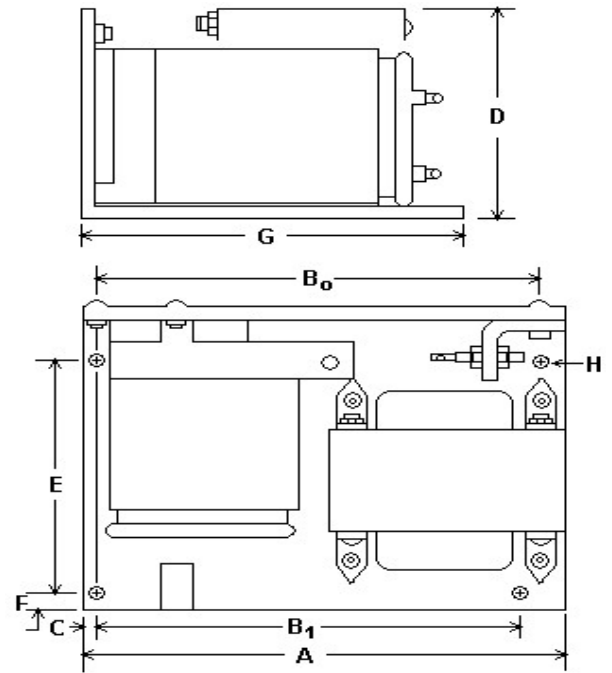


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| Part No.      | Typical Dc Output<br>(@nominal input and full load) |
|---------------|-----------------------------------------------------|
| BVU-7U1.8     | 7.5V @ 1.8A                                         |
| BVU-12AU1.2   | 11V @ 1.2A                                          |
| BVU-16AU0.9   | 17AV @ 0.9A                                         |
| BVU-20AU0.75  | 19.8V @ 0.75A                                       |
| BVU-24AU0.6   | 25V @ 0.6A                                          |
| BVU-48AU0.3   | 48V @ 0.3A                                          |
| BVU-120AU0.12 | 113V @ 0.12A                                        |
| BVU-250AU0.05 | 247V @ 0.05A                                        |
| BVU-7BU3      | 7.5V @ 3A                                           |
| BVU-12BU2.4   | 12V @ 2.4A                                          |
| BVU-16BU1.8   | 16V @ 1.8A                                          |
| BVU-20BU1.5   | 19.8V @ 1.5A                                        |
| BVU-24BU1.2   | 26.5V @ 1.2A                                        |
| BVU-48BU0.6   | 48V @ 0.6A                                          |
| BVU-120BU0.25 | 120V @ 0.25A                                        |
| BVU-250BU0.1  | 248V @ 0.1A                                         |
| BVU-7CU6      | 7.5V @ 6A                                           |
| BVU-12CU4.8   | 12V @ 4.8A                                          |
| BVU-16CU3.6   | 16V @ 3.6A                                          |
| BVU-20CU3     | 19.8 @ 3A                                           |
| BVU-24CU2.4   | 26.5V @ 2.4A                                        |
| BVU-48CU1.2   | 48 @ 1.2A                                           |

| Part No.     | Typical DC Output<br>(@ nominal input and full load ) |
|--------------|-------------------------------------------------------|
| BVU-7DU10    | 8.5V @ 10A                                            |
| BVU-12DU7    | 12.5V @ 7A                                            |
| BVU-16DU6    | 17V @ 6A                                              |
| BVU-20DU5    | 19.48V @ 5A                                           |
| BVU-24DU3.5  | 25.5V @ 3.5A                                          |
| BVU-48DU1.8  | 48V @ 1.8A                                            |
| BVU-7EU20    | 9V @ 20A                                              |
| BVU-12EU15   | 12.5V @ 15A                                           |
| BVU-16EU12.5 | 16.5V @ 12.5A                                         |
| BVU-20EU10   | 20V @ 10A                                             |
| BVU-24EU7.5  | 27.5V @ 7.5A                                          |
| BVU-45EU6    | 45V @ 6.0A                                            |
| BVU-48EU4    | 47V @ 4A                                              |
| BVU-72EU3    | 72V @ 3A                                              |
| BVU-24FU20   | 24.6 @ 20A                                            |
| BVU-45FU12   | 45V @ 12A                                             |
| BVU-48FU10   | 48.4V @ 10A                                           |
| BVU-75FU5    | 75V @ 5A                                              |
| BVU-24GU30   | 24.6V @ 30A                                           |
| BVU-48GU15   | 48V @ 15A                                             |
| BVU-65GU15   | 65V @ 15A                                             |
| BVU-75GU10   | 75V @ 10A                                             |



## DIMENSIONS:

| Case Size | A    | B0   | B1   | C   | D    | E    | F    | G    | H (dia) | Wt (lbs) |
|-----------|------|------|------|-----|------|------|------|------|---------|----------|
| AU        | 4.62 | 4.00 | NA   | .31 | 2.09 | 1.60 | .31  | 2.75 | .20     | 1.7      |
| BU        | 5.88 | 5.38 | NA   | .25 | 2.72 | 2.19 | .31  | 3.25 | .22     | 2.6      |
| CU        | 6.25 | 5.65 | 5.15 | .25 | 3.00 | 2.73 | .35  | 3.71 | .22     | 4.0      |
| DU        | 7.12 | 6.42 | 5.87 | .35 | 3.25 | 2.88 | .30  | 4.00 | .22     | 6.7      |
| EU        | 8.10 | 7.50 | 6.90 | .25 | 3.88 | 3.80 | .30  | 5.00 | .26     | 12.2     |
| FU        | 9.00 | 8.24 | NA   | .35 | 4.62 | 2.50 | 1.56 | 5.62 | .28     | 20.0     |
| GU        | 9.50 | 8.50 | NA   | .50 | 5.56 | 6.62 | .50  | 8.00 | .28     | 28.5     |

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## Other Products:

- Power Transformers
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  - Linear
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