



300 W Factory Road
Addison, IL 60101

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 2-6 | 1-5 3-7 | 1-5 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 $+10\%$

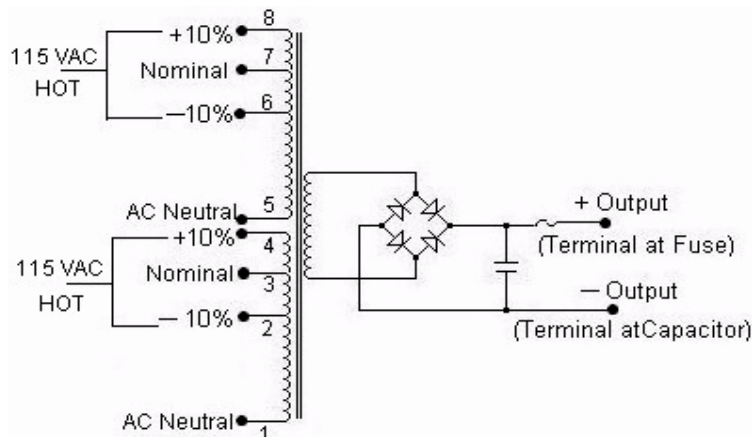
DC Output: Floating fixed output at full load ratings (see table). Transformer taps provided for approx. 10% output voltage adjustment.

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.

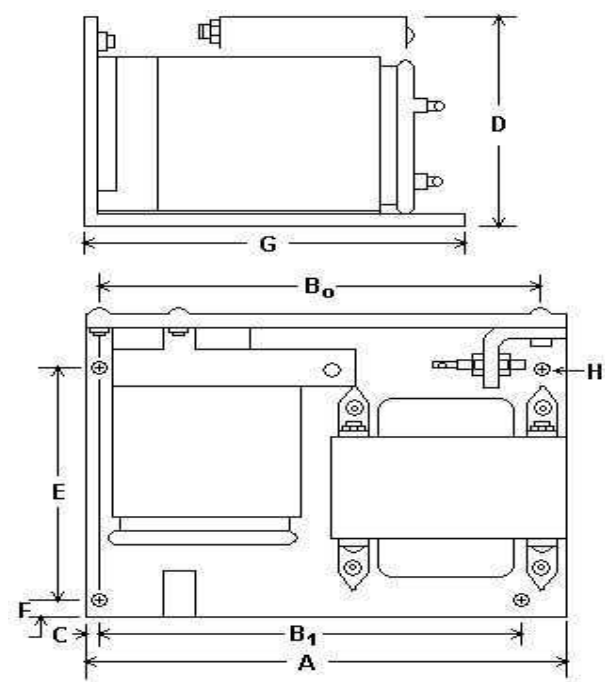
Schematic shows transformer taps provided for approx. $\pm 10\%$ output voltage adjustment. Typical full load output voltage at 115VAC input using taps 1 and 3. For 10% higher output voltage use taps 1 and 2. For 10% lower output voltage use taps 1 and 4.



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| Part No. | Typical DC Output (@ nominal input and full load) | Part No. | Typical DC Output (@ nominal input and full load) |
|---|---|---|---|
| BVU-7U1.8 BVU-12AU1.2 BVU-16AU0.9 BVU-20AU0.75 BVU-24AU0.6 BVU-48AU0.3 BVU-120AU0.12 BVU-250AU0.05 | 7.5V @ 1.8A 11V @ 1.2A 17AV @ 0.9A 19.8V @ 0.75A 25V @ 0.6A 48V @ 0.3A 113V @ 0.12A 247V @ 0.05A | BVU-7DU10 BVU-12DU7 BVU-16DU6 BVU-20DU5 BVU-24DU3.5 BVU-48DU1.8 | 8.5V @ 10A 12.5V @ 7A 17V @ 6A 19.48V @ 5A 25.5V @ 3.5A 48V @ 1.8A |
| BVU-7BU3 BVU-12BU2.4 BVU-16BU1.8 BVU-20BU1.5 BVU-24BU1.2 BVU-48BU0.6 BVU-120BU0.25 BVU-250BU0.1 | 7.5V @ 3A 12V @ 2.4A 16V @ 1.8A 19.8V @ 1.5A 26.5V @ 1.2A 48V @ 0.6A 120V @ 0.25A 248V @ 0.1A | BVU-7EU20 BVU-12EU15 BVU-16EU12.5 BVU-20EU10 BVU-24EU7.5 BVU-45EU6 BVU-48EU4 BVU-72EU3 | 9V @ 20A 12.5V @ 15A 16.5V @ 12.5A 20V @ 10A 27.5V @ 7.5A 45V @ 6.0A 47V @ 4A 72V @ 3A |
| BVU-7CU6 BVU-12CU4.8 BVU-16CU3.6 BVU-20CU3 BVU-24CU2.4 BVU-48CU1.2 | 7.5V @ 6A 12V @ 4.8A 16V @ 3.6A 19.8 @ 3A 26.5V @ 2.4A 48 @ 1.2A | BVU-24FU20 BVU-45FU12 BVU-48FU10 BVU-75FU5 | 24.6 @ 20A 45V @ 12A 48.4V @ 10A 75V @ 5A |
| | | BVU-24GU30 BVU-48GU15 BVU-65GU15 BVU-75GU10 | 24.6V @ 30A 48V @ 15A 65V @ 15A 75V @ 10A |



DIMENSIONS:

| Case Size | A | B ₀ | B ₁ | 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 |