

NEW • AUTO-RANGING INPUT

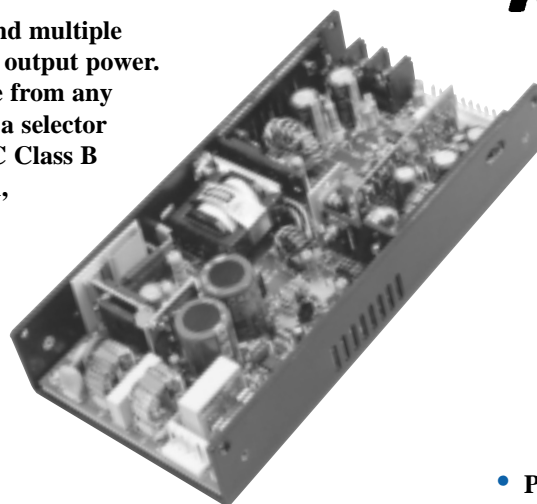
150 WATT

**SWITCHING
POWER SUPPLY**



DESCRIPTION

The PU150 Series is comprised of single and multiple output models for 150 watts of continuous output power. Auto ranging input allows them to operate from any line voltage throughout the world without a selector strap. All models meet CISPR 22 and FCC Class B emission limits, and comply with UL, CSA, IEC safety and have the CE Mark to satisfy international requirements.



FEATURES

- Auto-ranging universal input
- Built-in EMI filter
- Overvoltage protection
- Short-circuit protection with auto-recovery
- Power fail detection
- 100% burn-in at full rated load

OUTPUT VOLTAGE/CURRENT RATINGS CHART

| Models | Output #1 | | | | | Output #2 | | | | | Output #3 | | | | Output #4 | | | | |
|------------|-----------|------|-------|-------|------|-----------|------|------|-------|------|-----------|------|------|------|-----------|------|------|-------|------|
| | Vnom | Imin | Imax | Ipeak | Tol. | Vnom | Imin | Imax | Ipeak | Tol. | Vnom | Imin | Imax | Tol. | Vnom | Imin | Imax | Ipeak | Tol. |
| PU150-10 | 5V | 0A | 30A | 35A | 2% | | | N/A | | | | | N/A | | | | | | N/A |
| PU150-12 | 12V | 0A | 12.5A | 14.5A | 2% | | | N/A | | | | | N/A | | | | | | N/A |
| PU150-13 | 15V | 0A | 10A | 11.6A | 2% | | | N/A | | | | | N/A | | | | | | N/A |
| PU150-13-1 | 18V | 0A | 8.3A | 9.7A | 2% | | | N/A | | | | | N/A | | | | | | N/A |
| PU150-14 | 24V | 0A | 6.3A | 7.3A | 2% | | | N/A | | | | | N/A | | | | | | N/A |
| PU150-16 | 30V | 0A | 5.0A | 6.0A | 2% | | | N/A | | | | | N/A | | | | | | N/A |
| PU150-17 | 36V | 0A | 4.2A | 4.8A | 2% | | | N/A | | | | | N/A | | | | | | N/A |
| PU150-18 | 48V | 0A | 3.1A | 3.6A | 2% | | | N/A | | | | | N/A | | | | | | N/A |
| PU150-23 | +5V | 2.0A | 22A | 30A | 2% | +12V | 0A | 8A | 10A | 3% | | | N/A | | | | | | N/A |
| PU150-24 | +5V | 2.0A | 22A | 30A | 2% | +15V | 0A | 6.4A | 8A | 3% | | | N/A | | | | | | N/A |
| PU150-25 | +5V | 2.0A | 22A | 30A | 2% | +24V | 0A | 4.5A | 5A | 3% | | | N/A | | | | | | N/A |
| PU150-30 | +5V | 2.0A | 22A | 30A | 2% | +12V | 0A | 8A | 10A | 3% | -5V | 0A | 2.5A | 3% | | | | | N/A |
| PU150-31 | +5V | 2.0A | 22A | 30A | 2% | +12V | 0A | 8A | 10A | 3% | -12V | 0A | 2.5A | 3% | | | | | N/A |
| PU150-32 | +5V | 2.0A | 22A | 30A | 2% | +15V | 0A | 6.4A | 8A | 3% | -15V | 0A | 2A | 3% | | | | | N/A |
| PU150-33 | +5V | 2.0A | 22A | 30A | 2% | +15V | 0A | 6.4A | 8A | 3% | -12V | 0A | 2.5A | 3% | | | | | N/A |
| PU150-40 | +5V | 2.0A | 22A | 30A | 2% | +12V | 0A | 8A | 10A | 3% | -12V | 0A | 2.5A | 3% | F 5V | 0A | 5.0A | 5A | 3% |
| PU150-41 | +5V | 2.0A | 22A | 30A | 2% | +15V | 0A | 6.4A | 8A | 3% | -15V | 0A | 2A | 3% | F24V | 0A | 4.5A | 5A | 3% |
| PU150-42 | +5V | 2.0A | 22A | 30A | 2% | +12V | 0A | 8A | 10A | 3% | -12V | 0A | 2.5A | 3% | F12V | 0A | 4.5A | 5A | 3% |
| PU150-44 | +5V | 2.0A | 22A | 30A | 2% | +12V | 0A | 8A | 10A | 3% | -15V | 0A | 2A | 3% | F15V | 0A | 4.5A | 5A | 3% |
| PU150-45 | +5V | 2.0A | 22A | 30A | 2% | +12V | 0A | 8A | 10A | 3% | -12V | 0A | 2.5A | 3% | F24V | 0A | 4.5A | 5A | 3% |

- NOTE:**
- (1) Add suffix "B" for U-bracket.
 - (2) Output #4 is floating. It can be connected externally for positive or negative output.
 - (3) All models, maximum power is derated to 110W with no forced air provided by user.
 - (4) All multi-output models, maximum current per output is derated to 75% with no forced air provided by user.
 - (5) Total output power: 110W convection, 150W with 30 cfm forced air. For covered version, 75W convection, 130W with 30cfm of forced air.

GENERAL SPECIFICATIONS

All specifications are typical at nominal line, full load, and 25°C.

| | |
|------------------------|---|
| Efficiency: | 70% typical on all models |
| Hold-up time: | 15 msec minimum at 115VAC |
| Line regulation: | ±0.5% maximum at full load |
| Inrush current: | 20 amps @115VAC or 40 amps @230VAC at 25°C cold start |
| Withstand voltage: | 3000 VAC from input to output 1500 VAC from input to ground 500 VAC from output to ground |
| Operating temperature: | 0 to +70°C* |
| Storage temperature: | -40 to +85°C |
| Relative humidity: | 5% to 95% non-condensing |
| MTBF: | 100,000 hours at full load at 25°C ambient |
| EMI requirements: | Meets conduction limits of CISPR 22 Class B and FCC Class B |
| Safety requirements: | Approved to: a) UL1950 b) CSA C22.2 No. 234 c) IEC 950 (EN60950) |
| Switching frequency: | 100 kHz - 130 kHz |

INPUT SPECIFICATIONS

| | |
|------------------|--|
| Input voltage: | 85 to 132 VAC, 170 to 264 VAC |
| Input frequency: | 47 to 63 Hz |
| Input current: | 3.4A (rms) for 115 VAC 2.0A (rms) for 230 VAC |
| Leakage current: | 0.4mA max at 110VAC 60 hz 0.8mA max at 240VAC 50 hz |

OUTPUT SPECIFICATIONS

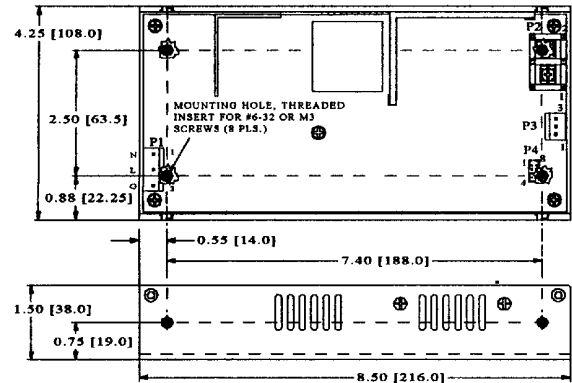
| | |
|--------------------------|--|
| Output voltage: | See Rating Chart |
| Output current: | See Rating Chart |
| Ripple and noise: | 1% peak to peak maximum |
| Overvoltage protection: | Set at 112-132% of maximum output voltage (on output #1 only) |
| Overcurrent protection: | All outputs protected to short circuit conditions |
| Temperature coefficient: | ±0.04%/°C maximum |
| Transient response: | Maximum excursion of 4% or better on all models, recovering to 1% of final value 500us after a 25% step load change. |

* Derate linearly from 100% load at 50°C to 50% load at 70°C

MECHANICAL SPECIFICATIONS

NOTES:

- Dimensions shown in inches (mm).
- Tolerance 0.02 (0.5) maximum.
- Input connector P1 mates with Molex housing 09-50-3051 and Moles 2878 series crimp terminal.
- Output connector P3 mates with Molex housing 09-50-3031 or 09-50-3091 for multiple outputs and Molex 2878 series crimp terminal.
- Connector P4 mates with Molex housing 51110-0851 and pins 50394-8100
- Weight: 0.84 Kgs (1.86 Lbs) approx. for "B" version



PIN CHART

| Model | PIN | P1 | | | P2 | | P3 | | | P4 | | | | | | | |
|--|----------------------------------|------------|---------|-----------|--------|-----------|--------|------|------|-------------|-------------|------|------|--------|--------|--------|---------------|
| | | 1 | 2 | 3 | 1 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PU150-10 | | AC Neutral | AC Line | AC Ground | Return | Output +V | Return | N.C. | PFD | Inhibit -Ve | Inhibit +Ve | N.C. | N.C. | Return | -Sense | +Sense | Current Share |
| PU150-12 PU150-13-1 PU150-16 PU150-18 | PU150-13 PU150-14 PU150-17 | AC Neutral | AC Line | AC Ground | Return | Output +V | Return | N.C. | N.C. | Inhibit -Ve | Inhibit +Ve | N.C. | N.C. | Return | -Sense | +Sense | Current Share |

| Model | PIN | P1 | | | P2 | | P3 | | | | | | P4 | | | | | | | |
|----------------------------------|----------------------|------------|---------|-----------|-------------|-----------|-----------|-------------|-----------|-----|-----------|---------------|-------------|-------------|------|------|----------|--------|--------|---------------|
| | | 1 | 2 | 3 | 1 | 2 | 1,2 | 3,4,5 | 6 | 7 | 8 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PU150-23 PU150-25 | PU150-24 | AC Neutral | AC Line | AC Ground | Comm Return | Output #1 | Output #2 | Comm Return | N.C. | PFD | N.C. | N.C. | Inhibit -Ve | Inhibit +Ve | Fan* | N.C. | Comm Rtn | -Sense | +Sense | Current Share |
| PU150-30 PU150-32 | PU150-31 PU150-33 | AC Neutral | AC Line | AC Ground | Comm Return | Output #1 | Output #2 | Comm Return | Output #3 | PFD | N.C. | N.C. | Inhibit -Ve | Inhibit +Ve | Fan* | N.C. | Comm Rtn | -Sense | +Sense | Current Share |
| PU150-40 PU150-42 PU150-45 | PU150-41 PU150-44 | AC Neutral | AC Line | AC Ground | Comm Return | Output #1 | Output #2 | Comm Return | Output #3 | PFD | Output #4 | Output #4 Rtn | Inhibit -Ve | Inhibit +Ve | Fan* | N.C. | Comm Rtn | -Sense | +Sense | Current Share |

* Fan Voltage is equal to output #2 voltage (ex. PU150-23 has +12V fan)

