

PEAW20NA Power Supply Series (20W)

Features:

- Class II Configuration
- Efficiency Level VI
- Short Circuit Protection
- Overload Protection
- Overvoltage Protection
- No Load Operation



Description:

The PEAMW20NA series of AC/DC wall mount switching power supplies provide 15-20 watts of continuous power. They are Class II devices with fixed AC blades that are optimized for standard North American outlets. All models meet FCC and EN55011 class B emission limits, and comply with UL, IEC, DOE level VI, CE, and more.

| Model Number | Voltage | Current | Total Power | Output Regulation | Ripple & Noise (P-P) | Efficiency Level |
|------------------|---------|---------|-------------|-------------------|----------------------|------------------|
| PEAW20NA-10-B1 | 5VDC | 3A | 15W | ±5% | 100mV | VI |
| PEAW20NA-10-1-B1 | 6VDC | 2.5A | 15W | ±5% | 100mV | VI |
| PEAW20NA-11-B1 | 9VDC | 2.22A | 20W | ±5% | 180mV | VI |
| PEAW20NA-12-B1 | 12VDC | 1.67A | 20W | ±5% | 180mV | VI |
| PEAW20NA-13-B1 | 15VDC | 1.33A | 20W | ±5% | 200mV | VI |
| PEAW20NA-13-1-B1 | 18VDC | 1.11A | 20W | ±5% | 200mV | VI |
| PEAW20NA-13-2-B1 | 19VDC | 1.05A | 20W | ±5% | 200mV | VI |
| PEAW20NA-14-B1 | 24VDC | 0.83A | 20W | ±5% | 250mV | VI |
| PEAW20NA-17-B1 | 36VDC | 0.55A | 20W | ±5% | 360mV | VI |
| PEAW20NA-18-B1 | 48VDC | 0.42A | 20W | ±5% | 360mV | VI |

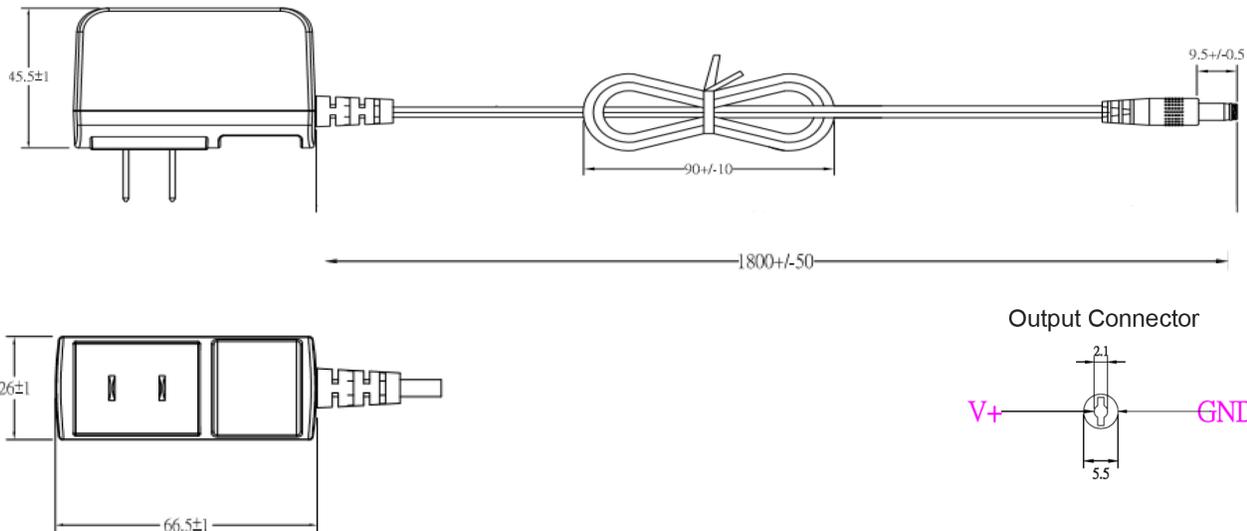
Notes:

- Ripple & Noise is measured using a 20MHz bandwidth oscilloscope with a 0.1uf ceramic capacitor and 4.7uf electrolytic capacitor in parallel across the output at full load and nominal line voltage.

| Specifications | |
|-------------------------------|--|
| Input | |
| Input Voltage | 90-264VAC |
| Input Frequency | 47-63Hz |
| Input Current | <0.8A @ 115VAC input with full load <0.4A @ 230VAC input with full load |
| Safety Isolation | 3.0kVAC Input to Output |
| Inrush Current | <30A peak @ 115VAC, cold start at 25°C <60A peak @ 230VAC, cold start at 25°C |
| No Load Power | <100mW |
| Output | |
| Total Output | 15W-20W, see table |
| Output Voltage | See table |
| Hold Up Time | >8.3m sec @ full load and 115VAC/60Hz input |
| Turn on Time | <3 seconds |
| Efficiency | Meets DOE level VI Requirements |
| Minimum Load | No Minimum Load |
| Line Regulation | <± 1% of rated output voltage at full load |
| Protection Features | |
| Overvoltage Protection | 180% Max. of rated voltage. Latching mode. Cycle AC for recovery |
| Overcurrent Protection | 180% Max. of rated current. Auto-restart when fault removed. |
| Short Circuit Protection | Hiccup Mode. Auto Recovery |
| Ingress | IP22 Compliant |
| Environmental | |
| Operating Temperature | 0°C to 60°C (Derate output power linearly from 100% at 40°C to 50% at 60°C) |
| Storage Temperature | -20°C to +85°C |
| Operating Humidity | 10% - 90% non-condensing |
| Storage Humidity | 5% - 90% non-condensing |
| Operating Altitude | 5000m |
| General Specifications | |
| Dimensions | 2.62"(66.5mm) x 1.02"(26mm) x 1.79"(45.5mm) |
| Weight | 0.27lbs |
| MTBF | >100,000 hours per MIL-HDBK-217F at full load and 25°C ambient |
| AC Input Receptacle | Fixed North American Plug |
| DC output Plug | Barrel Type: 5.5mm x 2.1mm x 9.5mm Center positive (others upon request) |

| Specifications Continued | |
|---|--|
| Safety | |
| Approved to USA/Canada | UL62368-1 cUL62368-1 |
| Approved to Europe | TUV EN62368-1 CB IEC62368-1 |
| *Consult with TT Electronics for information on additional country safety approvals | |
| EMC | |
| EMC | FCC Part 15 Radiated & Conducted CISPR32 Class B Radiated & Conducted EN55032 Class B Radiated & Conducted |
| Harmonic Currents | IEC 61000-3-2 |
| Voltage Flicker | IEC 61000-3-3 |
| Electrostatic Discharge | IEC 61000-4-2: 8kV Air, 4kV contact |
| Radiated Immunity | IEC 61000-4-3: 3V/m |
| EFT/Burst | IEC 61000-4-4: ±1kV |
| Surge Immunity | IEC 61000-4-5: 2005 ±1kV |
| Conducted Immunity | IEC 61000-4-6: 3Vrms |
| Magnetic Field | IEC 61000-4-8: 1A/m |
| Dips/Interruptions | IEC 61000-4-11: 30% reduction for 500ms, >95% reduction for 10ms. |

Diagrams



Thermal Derating Curve

