

TECHNICAL DATASHEET **200W ITE POWER SUPPLIES** FSP200-P35 Series



FSP200-P35 Series

FEATURES

- · Class-I design
- Design to meet IEC 60950-1, IEC 60065-1, IEC 62368-1 & IEC 61558-1 (optional *note1) safety standard
- Low profile 3 x 5 x 1.284 inches
- No load power consumption less than 0.21W
- · EN 55032 Class B radiated emission
- · High altitude 5000 meters operation
- · OTP, Brown out protection
- Fan driver 12V

SAFETY STANDARD APPROVAL



DESCRIPTION

This AC-DC switching power supplies in a package of 3 x 5 inches is a Class-I PSU and no load power consumption less than 0.21W. This PSU is capable of delivering 200 watts continuous power at 7 CFM forced air cooling or 150 watts continuous power at convection cooling and 50°C operation temperature. Product is suitable for audio & video, display, house hold (Europe), information, and networking application

INPUT SPECIFICATIONS

90-264 VAC Input voltage: Input frequency: 47-63 Hz Input current: 1.7 A (rms) for 115 VAC 0.8 A (rms) for 230 VAC No load power consumption $\leq 0.21W$ Earth leakage current: Touch current:

OUTPUT SPECIFICATIONS

Output voltage/current: Fan driver: Total output power: Protection: Over voltage: Short circuit: Over current: Over temperature: Brown out: Temperature coefficient: Transient response:

0.75 mA max. @ 264 VAC, 63 Hz 0.25 mA max. @ 264 VAC, 63 Hz

See rating chart. Non-regulated 12V @ 500 mA max.

200W Latch off Auto recovery Auto recoverv Latch off Set at 75VAC All outputs ±0.04% /°C maximum Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change

ENVIRONMENTAL SPECIFICATIONS

Operating temperature Storage temperature Relative humidity: Derating:

-20°C~+70°C -40°C~+85°C 5% to 95% non-condensing Derate from 100% at +50°C linearly to 50% at +70°C, applicable to both convection and forced-air cooling conditions

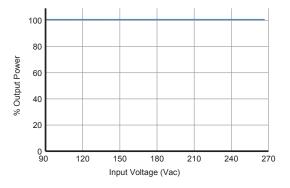
GENERAL SPECIFICATIONS

| Power factor: | 0.98 minimum @ 115VAC & 100% load 0.93 minimum @ 230VAC & 100% load |
|---------------------|--|
| Efficiency: | See rating chart. |
| Power turn-on time: | 1.5 Sec maxi. |
| Hold-up time: | 20 mS minimum at 115 VAC @ 150W |
| | 8 mS minimum at 115VAC @ 200W |
| Line regulation: | ±0.5% maximum at full load |
| Inrush current: | 40 A @ 115 VAC, at 25°C cold start, 150W |
| | 80 A @ 230 VAC, at 25°C cold start, 150W |
| Operating altitude: | 5000 meters above sea level |
| Withstand voltage: | 3000 VAC from input to output, |
| | 1500 VAC from input to ground, |
| | 1500 VAC from output to ground |
| | Input to output 100M ohm @ 500Vdc, 25℃ |
| MTBF: | 400,000 hours mini. at full load at 25°C ambient, calculaed |
| | per BELL CORE SR-332 |
| EMC Performance | |
| EN55032 | Class B conducted, class B radiated |
| FCC: | Class B conducted, class B radiated |
| VCCI: | Class B conducted, class B radiated |
| EN61000-3-2: | Harmonic distortion, class A and D |
| EN61000-3-3: | Line flicker |
| EN61000-4-2: | ESD, ±8 KV air and ±4 KV contact |
| EN61000-4-3: | Radiated immunity, 3 V/m |
| EN61000-4-4: | Fast transient/burst, ±1 KV |
| EN61000-4-5: | Surge, ±1 KV diff., ±2 KV com |
| EN61000-4-6: | Conducted immunity, 3 Vrms |
| EN61000-4-8: | Magnetic field immunity, 1 A/m |
| EN61000-4-11: | Voltage dip immunity, |
| | 30% reduction for 500 ms, criteria A |
| | > OF0/ reduction for 40 rec. criteric A |
| | >95% reduction for 10 ms, criteria A >95% reduction for 5000 mS, criteria B |

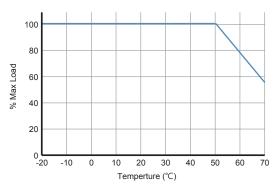


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INPUT VOLTAGE DERATING CURVE



OUTPUT POWER DERATING CURVE



OUTPUT VOLTAGE/CURRENT RATING CHART

| | Output | | | | | Efficiency | | |
|----------------|---------|--------------|-------------------------|-----------------------|-----------|-------------------|---------------|--------------------------|
| Model | Voltage | Min. Load | Max. Current convection | Max. Current 7 CFM | Tolerance | Ripple & Noise | Max. Power | 115/230 Vac (typical) |
| FSP200-P35-A12 | 12 V | 0 A | 12.5 A | 16.67 A | ±3% | 120 mV | 150 W / 200 W | 89 / 90% |
| FSP200-P35-A18 | 18 V | 0 A | 8.33 A | 11.1 A | ±3% | 180 mV | 150 W / 200 W | 90 / 91% |
| FSP200-P35-A24 | 24 V | 0 A | 6.25 A | 8.34 A | ±3% | 240 mV | 150 W / 200 W | 90 / 91% |
| FSP200-P35-A54 | 54 V | 0 A | 2.78 A | 3.70 A | ±3% | 500 mV | 150 W / 200 W | 90 / 91% |

NOTES:

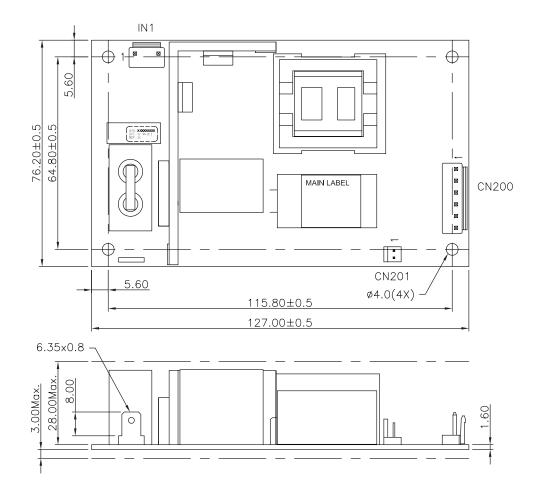
1. Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 47 µF electrical capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

2. The first value of maximum current is at convection cooling. The second value is with 7 CFM forced air provided by user.



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MECHANICAL SPECIFICATIONS



Pin assignment: Input connector (IN1):

| Pin No. | Function | Wafer |
|---------|----------|---------------|
| 1 | Ν | JST B2P3-VH |
| 2 | | or equivalent |
| 3 | L | |

Output connector (CN200):

| Pin No. | Function | Wafer | | |
|---------|----------|---------------|--|--|
| 1, 2, 3 | +12V | JST B6P-VH | | |
| 4, 5, 6 | GND | or equivalent | | |

Pin assignment of CN201:

| Pin No. | Function | Wafer |
|---------|----------|---------------------|
| 1 | +12V | MOLEX 22-27-2021 |
| 2 | GND | or equivalent |

NOTES:

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Dimensions shown in inches [mm]
Ground pad: 8 x 6.35 x 0.8 mm
Weight: 240 grams (0.529 lbs.) approx.
Please contact with sales office for P/N which PSU comply with EN 61558-1.