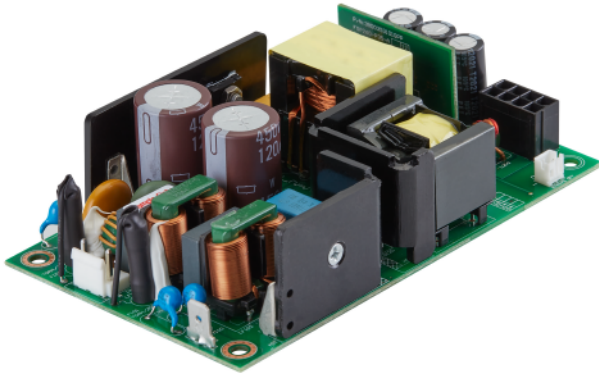


# FSP260-P35 A Series

### FEATURES

- Class-I design
- IEC 62368-1 safety standard
- Form factor 3" x 5" x 1.34"
- Input power less than 0.5W at 0.2W load
- EN 55032 Class B emissions
- PSU remote OFF control
- Long hold up time



### SAFETY STANDARD APPROVAL



### DESCRIPTION

This AC-DC switching power supplies in a package of 3 x 5 inches is a Class-I (with Protection Earth) safety construction and feature with 0.5W low input power consumption at 0.2W load which is comply with Energy Star requirement. Less audible noise is suitable for quiet design requirement. This PSU is capable of delivering 260 watts continuous power at 18.4 CFM forced air cooling or 150 watts continuous power at convection cooling and 50°C operation temperature. Product is suitable for information, audio & video and networking applications.

### INPUT SPECIFICATIONS

|                        |   |
|------------------------|---|
| Input voltage:         | 90 to 264 VAC   |
| Input frequency:       | 47-63 Hz  |
| Input current:         | 3 A (rms) for 115 VAC<br>1.5 A (rms) for 230 VAC                    |
| Earth leakage current: | 1.5 mA maxi. @ 264VAC, 63Hz   |
| Touch current:         | 250 uA maxi. @ 264VAC, 63Hz   |
| PS_OFF (CN201):        | PSU build in a pull low resistor. A TTL high level to turn PSU off. |

### OUTPUT SPECIFICATIONS

|                          |   |
|--------------------------|---|
| Output voltage/current:  | See rating chart.   |
| Total output power:      | 260 watts maximum   |
| Ripple and noise:        | 1% peak to peak maximum   |
| Protection:              |   |
| OVP                      | Latch off   |
| OCP & Shorted            | Auto recovery   |
| OTP                      | Latch off   |
| Temperature coefficient: | All outputs $\pm 0.04\%$ /°C maximum  |
| Transient response:      | Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change |

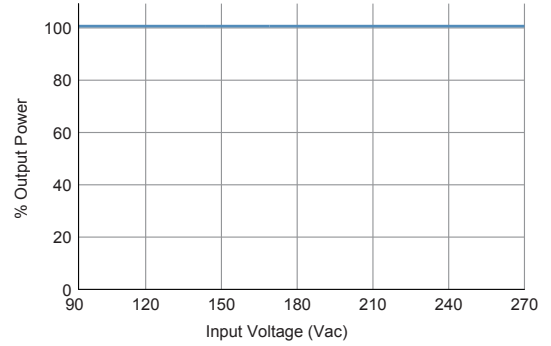
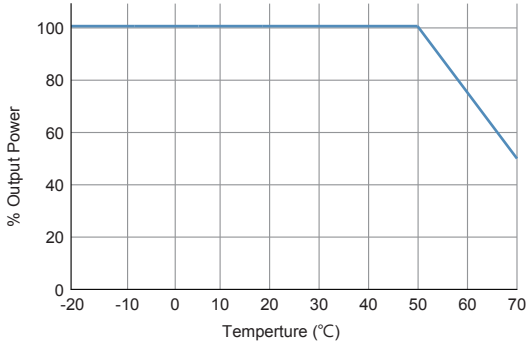
### ENVIRONMENTAL SPECIFICATIONS

|                        |   |
|------------------------|---|
| Operating temperature: | -20°C to +70°C  |
| Storage temperature:   | -40°C to +85°C  |
| Relative humidity:     | 5% to 95% non-condensing  |
| Derating:              | Derate from 100% at +50°C linearly to 50% at +70°C, applicable to convection and forced-air cooling conditions. |

### GENERAL SPECIFICATIONS

|                       |  |
|-----------------------|--|
| Power factor:         | 0.99 mini. @ 115VAC & 100% load<br>0.94 mini. @ 230VAC & 100% load   |
| Efficiency:           | Refer to rating table  |
| Turn-On Delay Time:   | $\leq 1$ sec at 115 VAC  |
| Hold-up time:         | 25 mS mini. @ 115VAC & 260W load<br>50 mS mini. @ 115VAC & 150W load   |
| Line regulation:      | $\pm 0.2\%$ maximum at full load   |
| Inrush current:       | 60A @ 115VAC, 25°C & cold start<br>120A @ 230VAC, 25°C & cold start  |
| Withstand voltage:    | 3000 VAC from input to output<br>1500 VAC from input to ground,<br>1500 VAC from output to ground                                  |
| Isolation resistance: | Input to output 100M ohm @ 500Vdc  |
| MTBF:                 | 800,000 hours mini. at full load at 25°C ambient temperature, calculated per Telcordia SR-332                                      |
| EMC Performance       |  |
| EN 55032:             | 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, $\pm 8$ KV air and $\pm 4$ KV contact   |
| EN61000-4-3:          | Radiated immunity, 3 V/m   |
| EN61000-4-4:          | Fast transient/burst, $\pm 1$ KV   |
| EN61000-4-5:          | Surge, $\pm 2$ KV diff., $\pm 4$ KV com.   |
| EN61000-4-6:          | Conducted immunity, 3 V/m  |
| EN61000-4-8:          | Magnetic field immunity, 1 A/m   |
| EN61000-4-11:         | Voltage dip immunity & voltage interruptions<br>30% reduction for 500 ms<br>>95% reduction for 10 mS<br>100% reduction for 5000 ms |

### OUTPUT POWER DERATING CURVE



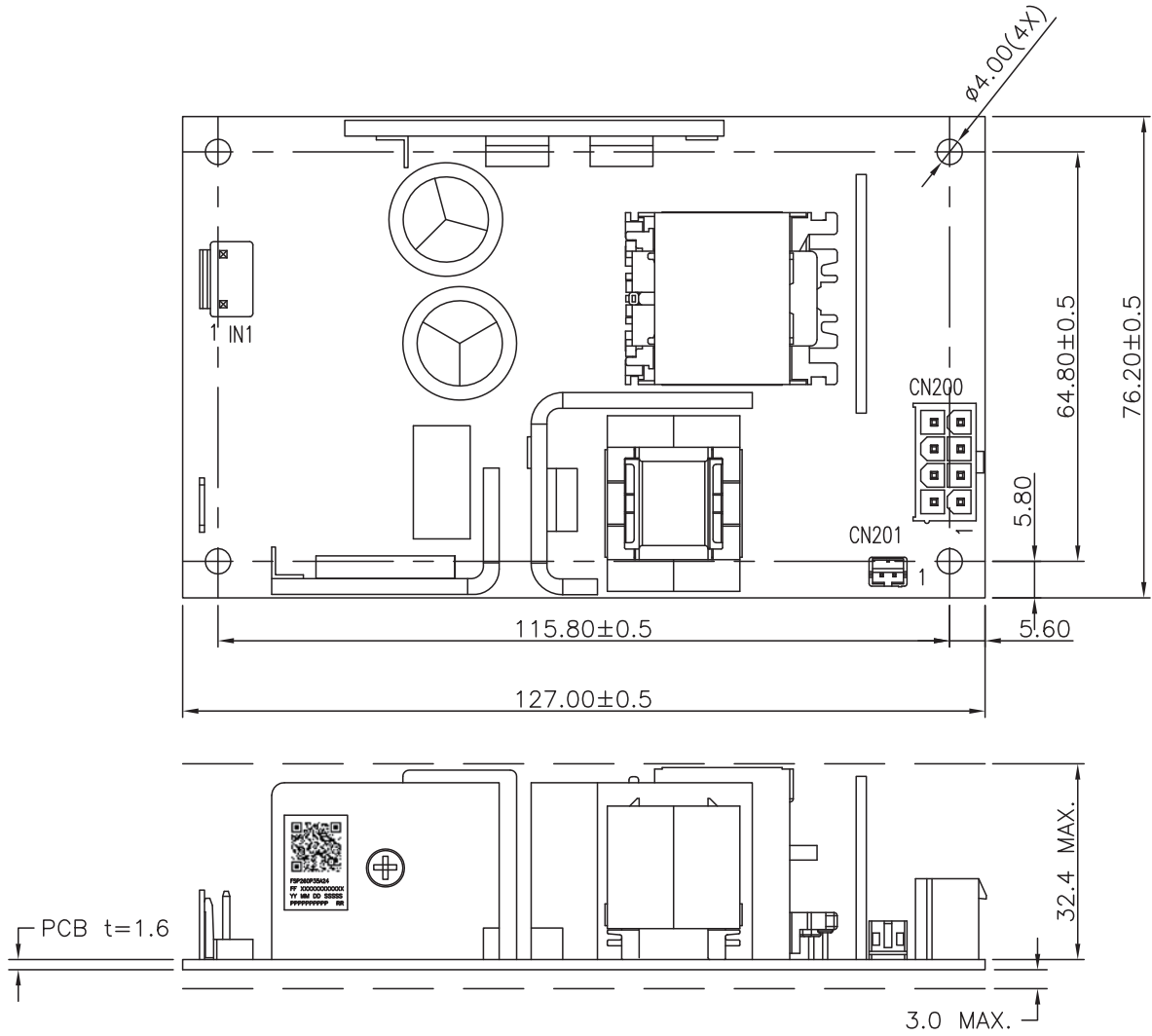
### OUTPUT VOLTAGE/CURRENT RATING CHART

| Model                         | Output |              |                             |            |      |                               |                           |            | Efficiency (typical) @ 115 / 230 VAC |
|-------------------------------|--------|--------------|-----------------------------|------------|------|-------------------------------|---------------------------|------------|--------------------------------------|
|                               | V1     | Min. Current | Max. Current <sup>(1)</sup> |            | Tol. | Ripple & Noise <sup>(2)</sup> | Max. Power <sup>(1)</sup> |            |                                      |
|                               |        |              | Convection                  | Forced air |      |                               | Convection                | Forced air |                                      |
| FSP260-P35-A12                | 12 V   | 0 A          | 12.50A                      | 21.60A     | ±3 % | 120 mV                        | 150W                      | 260W       | 90 / 92%                             |
| FSP260-P35-A18 <sup>(3)</sup> | 18 V   | 0 A          | 8.33A                       | 14.45A     | ±3 % | 180 mV                        | 150W                      | 260W       | 91 / 92%                             |
| FSP260-P35-A24                | 24 V   | 0 A          | 6.25A                       | 10.80A     | ±3 % | 240 mV                        | 150W                      | 260W       | 91 / 92%                             |
| FSP260-P35-A54                | 54 V   | 0 A          | 2.78A                       | 4.82A      | ±3 % | 540 mV                        | 150W                      | 260W       | 92 / 94%                             |

NOTES:

1. Forced air 18.4 CFM to be provide by user.
2. 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 10 μF tantalum (or electrolytic) capacitor in parallel with a 0.1 μF ceramic capacitor across the output.
3. FSP260-P35-A18 safety certificate is not available yet. Please contact with sales office before design in.

### MECHANICAL SPECIFICATIONS



#### CONNECTOR PIN CHART

| CONNECTOR | IN1  |      |         | CN200 |   |   |   |        |   |   |   | CN201    |          |
|-----------|------|------|---------|-------|---|---|---|--------|---|---|---|----------|----------|
| PIN NO.   | 1    | 2    | 3       | 1     | 2 | 3 | 4 | 5      | 6 | 7 | 8 | 1        | 2        |
| OUTPUT    | Line | N.C. | Neutral | +Vout |   |   |   | Return |   |   |   | PS_OFF + | PS_OFF - |

#### NOTES:

- Dimensions shown in mm
- Connector IN1: JST B2P3-VH or equivalent.
- Connector CN200: Molex 460271208 or equivalent.
- Connector CN201: JST B2B-PH
- Ground tab : 8 x 6.35 x 0.8 mm
- To ensure compliance with level B emissions, connect the two PCB mounting holes with metallic standoffs to the chassis.

Weight: 280 grams (0.617 lbs.) approx.