TECHNICAL DATASHEET

# 40W~48W 12v Series Adapter

## FSP040~48 RHAN3 Series

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### FEATURES

- Certified IEC 62368-1 & CB 60950-1
- Peak current function
- Meet Energy Efficiency DOE Level VI
- Meet Code of Conduct Version 5 Tier 2
- High Reliability
- Low Profile
- Over Current Protection
- Over Temperature Protection
- Over Voltage Protection
- With PFC Circuit

### SAFETY STANDARD APPROVAL

c UL us LISTED I.T.E. POWER SUPPLY E190414

Tested to Comply With FCC Standards FOR HOME OR OFFICE USE

### DESCRIPTION

This product is a 40~48 watts AC to DC adapter intended for use in IPC systems, embedded systems, printers, monitors, Charging system and POS systems, that have a high wattage demands. This adapter operates at 90 to 264 VAC input voltage. The unit meets CISPR32 EN55032 CLASS B, EN55024 and FCC PART 15B Class B emission limits, and is designed for ITE application.

### INPUT SPECIFICATIONS

| | |
|---|---|
| Input voltage: | 90-264 VAC |
| Input frequency: | 47-63 Hz |
| Input current: | 100Vac, 240Vac / full load ≦ 1.5A |
| No load power consumption | 115Vac, 230Vac ≦ 0.075W |
| Touch current: | 264Vac / 50Hz ≦ 0.25mA |

### OUTPUT SPECIFICATIONS

| | |
|---|---|
| Output voltage/current: | See rating chart |
| Total output power: | See rating chart |
| Protection: | |
| Over voltage: | The adapter will enter into shut down that means no output while over voltage happened at output terminal that caused by internal fault, the output trip voltage shall not exceed 18 vlots.That will be return to normal state by AC reset |
| Short circuit & Over current: | When an internal fault occurs, or an external fault is applied to the output, the power suppy shall shut down and latch. |
| Over temperature: | The power supply will enter into shut down while the abnormal thermal rise occurs. That will be return to normal state by AC reset. |
| Brown-out | Shutdown and no damage |
| Environment | |
| Working TEMP. | 0~70℃ (> 40℃ de-rating ) |
| Storage TEMP. | -20~+80℃ |
| Working Humidity | 20~80% RH non-condensing |
| Storage Humidity | 10~90% RH non-condensing |

### INPUT SPECIFICATIONS

| | |
|---|---|
| Power factor: | N/A |
| Efficiency: | See rating chart |
| Power turn-on time | At 100Vac / full load, output voltage shall remain regulation ≦ 3Sec |
| Hold-up time: | At 100Vac or 240Vac / full load, output voltage shall remain regulation ≧5ms |
| Inrush current: | 100Vac, 240Vac / full load , Shall be less than the rating of adapter critical component (including rectifiers, fuse surge and current limiting device) |
| Operating altitude: | 5000 meters above sea level |
| Withstand voltage: | Between AC input and secondary applied DC 4242V, test time 1 minute, cut off current shall be less than 10mA |
| MTBF: | 100Vac, 240Vac / full load, 300,000 hours at 25℃, standard SR332 |
| 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 | N/A (<75W) |
| EN61000-3-3 | Meet regulation |
| EN61000-4-2 | Air discharge: ±15KV,contact discharge: ±8KV, meet criterion A<br>80 ~1000 MHz,3V/m,80% AM(1kHz),meet criterion A |
| EN61000-4-3 | Impulse: ± 1kV applied to L,N,meet criterion A |
| EN61000-4-4 | ±1kV applied differential mode,meet criterion A, ±2kV applied common mode,meet criterion A |
| EN61000-4-5 | |
| EN61000-4-6 | 0.15 ~ 80 MHz,3Vrms,80% AM(1kHz),meet criterion A |
| EN61000-4-8 | 50 Hz or 60Hz,1A/m,meet criterion A |
| EN61000-4-11 | Voltage Dips：<br>>95% reduction for 0.5 period,meet criterion B<br>30% reduction for 25 period,meet criterion C<br>Voltage Interruptions：<br>>95% reduction for 250 period,meet criterion C |
| Power de-rating: | |
| FSP040-RHAN3 | 100Vac or 240Vac, 0℃ to 40℃,100% load,50℃,100% load,60℃,80% load,70℃,70% load(Shall be less than the rating of adapter critical component, follow FSP specification (adapter)) |
| FSP042-RHAN3 | 100Vac or 240Vac, 0℃ to 40℃,100% load,50℃,100% load,60℃,100% load,70℃,80% load (Shall be less than the rating of adapter critical component, follow FSP specification (adapter)) |
| FSP048-RHAN3 | 100Vac or 240Vac,0℃ to 40℃,100% load,50℃,100% load,60℃,90% load,70℃,75% load (Shall be less than the rating of adapter critical component, follow FSP specification (adapter)) |


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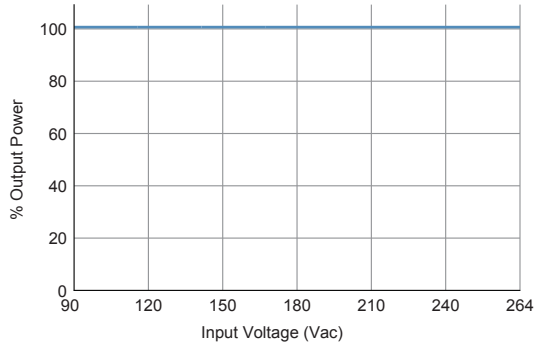
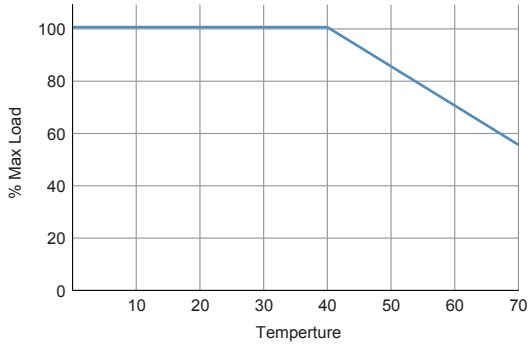
### INPUT VOLTAGE DERATING CURVE




### OUTPUT POWER DERATING CURVE




### OUTPUT VOLTAGE/CURRENT RATING CHART

| Model | Output Voltage | Output Current | AC Inlet | Efficiency | |
|---|---|---|---|---|---|
| | | | | DOE(Level VI) | CoC V5 (Tier 2) |
| FSP040-RHAN3 | 12V | 3.33A | C14 | 87.59% | 88.59% |
| FSP042-RHAN3 | 12V | 3.5A | C14 | 87.66% | 88.71% |
| FSP048-RHAN3 | 12V | 4A | C14 | 87.77% | 88.97% |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# 40W~48W 12v Series Adapter

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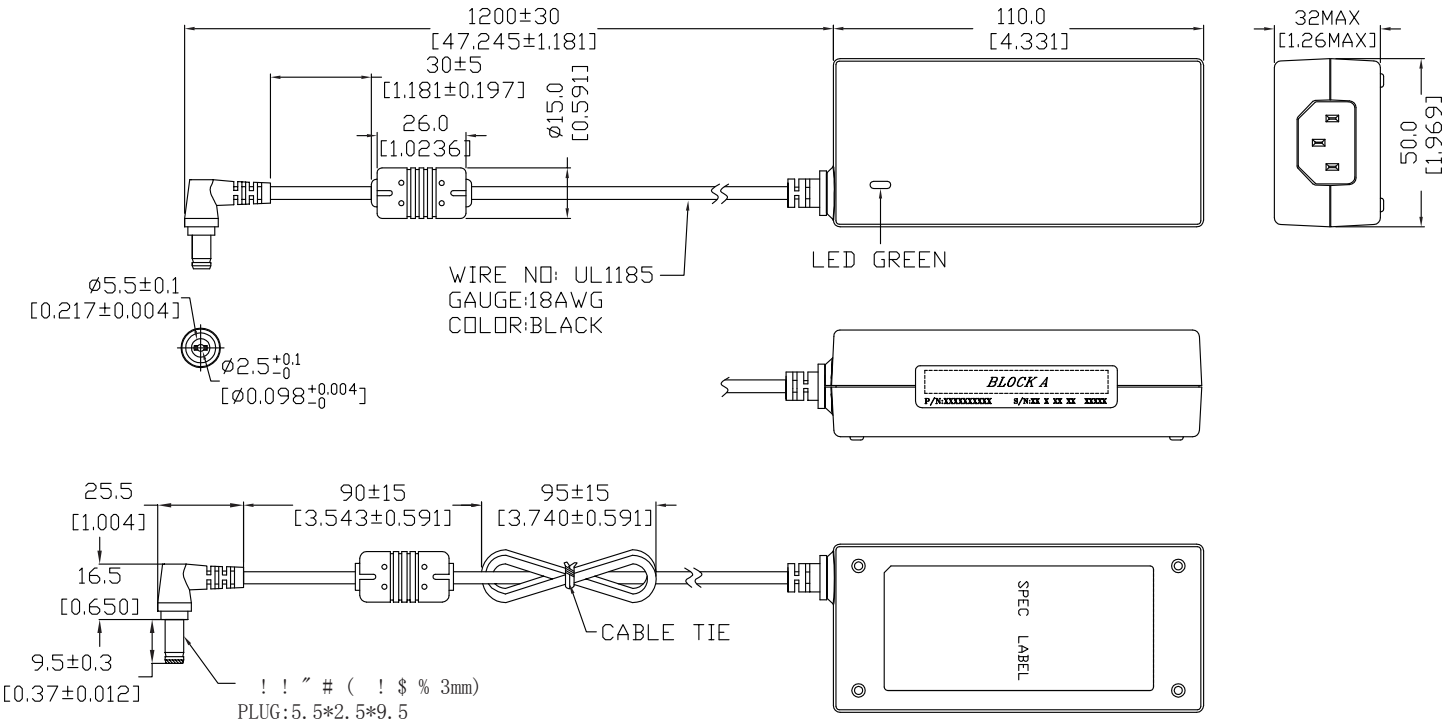
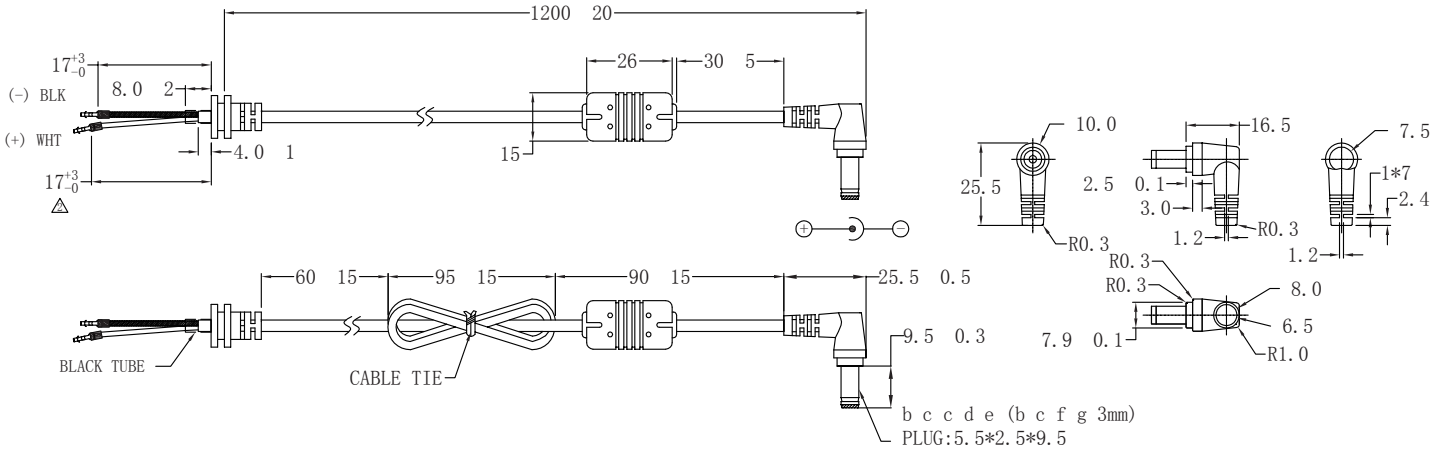
### MECHANICAL SPECIFICATIONS




### CONNECTOR SPECIFICATIONS





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