

# 15W series AC to DC waterproof power adaptor



## ◆Feature

- Universal AC /Full range
- Fully encapsulated with IP44 & IP67 level
- No load power consumption <0.3W
- Meet energy star level IV(CEC) for 3.0V~36V
- Protection: short circuit/ over current
- Full output 3.0V~36V safety approval
- Fully enclosed plastic case
- Suitable for LED lighting and moving sign applications
- Cooling by free air convection
- Approved by CSA,CE,GS

## Electrical Specifications

|              |                           |                                                                                                                                  |
|--------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Input        | Voltage range             | 90~264Vac, 135~370Vdc                                                                                                            |
|              | Frequency range           | 40~63Hz                                                                                                                          |
|              | AC current                | 0.3A/100Vac                                                                                                                      |
|              | Inrush current (max.)     | 30A/230Vac                                                                                                                       |
|              | Leakage current(max.)     | 0.25mA/240Vac                                                                                                                    |
| Protection   | Over current              | >105% rate output voltage power for 3~36V<br>Protection type:hiccup mode,recovers automatically after fault condition is removed |
|              | Short circuit             | Power shutdown<br>Auto recovery after fault condition is removed                                                                 |
| Environment  | Working Temp.             | -20℃~40℃                                                                                                                         |
|              | Working Humidity          | 20%~90% RH non-condensing                                                                                                        |
|              | Storage Temp. Humidity    | -20℃~85℃, 10%~95% RH                                                                                                             |
|              | Temp. Coefficient         | ±0.03%/℃ (0~50℃)                                                                                                                 |
|              | Vibration                 | 10~500Hz, 2G 10min/ cycle,period for 60 min,each along X,Y,Z axes                                                                |
| Safety & EMC | Safety Standard           | IEC60065, EN60065                                                                                                                |
|              | Withstand voltage         | I/P-O/P:3KVac, 1 minute                                                                                                          |
|              | Isolation resistance      | I/P-O/P: 100M ohms/500Vdc/25℃/70%RH                                                                                              |
|              | EMI condition & radiation | Compliance to EN55022 class B, FCC part15 class B                                                                                |

|           |                                                                                                                                                                         |                                                        |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
|           | Harmonic current                                                                                                                                                        | Compliance to EN6100-3-2,3                             |
| Others    | MTBF                                                                                                                                                                    | 100Khrs min, MIL-HDBK-217F(25°C)                       |
|           | Dimension                                                                                                                                                               | 107mm*42mm*32mm(L*W*H)                                 |
|           | Packing                                                                                                                                                                 |                                                        |
| Connector | Plug                                                                                                                                                                    | According to client's requirement                      |
|           | Cable                                                                                                                                                                   | 22# or 24#, other type available by client's requested |
| Note      | 1.All parameters are specified at 230Vac input, rated load,25°C 70% RH ambient;                                                                                         |                                                        |
|           | 2.DC voltage: the output voltage set at point measure by plug terminal & 100% load;                                                                                     |                                                        |
|           | 3.Ripple & Niose are measured at 20Mhz with a 0.1uf & 47uf capacitor                                                                                                    |                                                        |
|           | 4.Tolerance: includes set up tolerance, line regulation, load regulation,                                                                                               |                                                        |
|           | 5.Line regulation is measured from low line to high line at rated load,                                                                                                 |                                                        |
|           | 6.Load regulation is measured from 0%~100% at rated load                                                                                                                |                                                        |
|           | 7.Effency is measured at 100Vac,                                                                                                                                        |                                                        |
|           | 8.The power supply is considered a component which will be installed into a final equipment.The final equipment must be re-confirmed that is still meets EMC derectives |                                                        |

## Output

| Model No.        | DC Voltage | Current range | Ripple & Noise | Line regulation | Load regulation | Voltage tolerance | Eff. |
|------------------|------------|---------------|----------------|-----------------|-----------------|-------------------|------|
| SPA0302500-SP-US | 3.0V       | 0~2.5A        | 50mV           | ±1%             | ±5%             | ±5%               | 65%  |
| SPA0352500-SP-US | 3.5V       | 0~2.5A        | 50mV           | ±1%             | ±5%             | ±5%               | 65%  |
| SPA0402500-SP-US | 4.0V       | 0~2.5A        | 50mV           | ±1%             | ±5%             | ±5%               | 65%  |
| SPA0452500-SP-US | 4.5V       | 0~2.5A        | 50mV           | ±1%             | ±5%             | ±5%               | 65%  |
| SPA0502500-SP-US | 5.0V       | 0~2.5A        | 50mV           | ±1%             | ±5%             | ±5%               | 70%  |
| SPA0552200-SP-US | 5.5V       | 0~2.2A        | 60mV           | ±1%             | ±5%             | ±5%               | 70%  |
| SPA0602200-SP-US | 6.0V       | 0~2.2A        | 60mV           | ±1%             | ±5%             | ±5%               | 70%  |
| SPA0652200-SP-US | 6.5V       | 0~2.2A        | 60mV           | ±1%             | ±5%             | ±5%               | 70%  |
| SPA0702000-SP-US | 7.0V       | 0~2.0A        | 70mV           | ±1%             | ±5%             | ±5%               | 70%  |
| SPA0751900-SP-US | 7.5V       | 0~1.9A        | 75mV           | ±1%             | ±5%             | ±5%               | 70%  |
| SPA0801800-SP-US | 8.0V       | 0~1.8A        | 80mV           | ±1%             | ±5%             | ±5%               | 70%  |
| SPA0851700-SP-US | 8.5V       | 0~1.7A        | 85mV           | ±1%             | ±5%             | ±5%               | 70%  |
| SPA0901500-SP-US | 9.0V       | 0~1.5A        | 90mV           | ±1%             | ±5%             | ±5%               | 70%  |
| SPA0901600-SP-US | 9.0V       | 0~1.6A        | 90mV           | ±1%             | ±5%             | ±5%               | 70%  |
| SPA0951500-SP-US | 9.5V       | 0~1.5A        | 95mv           | ±1%             | ±5%             | ±5%               | 70%  |
| SPA1001400-SP-US | 10.0V      | 0~1.4A        | 100mV          | ±1%             | ±5%             | ±5%               | 75%  |
| SPA1051400-SP-US | 10.5V      | 0~1.4A        | 105mV          | ±1%             | ±5%             | ±5%               | 75%  |

|                  |       |         |       |     |     |     |     |
|------------------|-------|---------|-------|-----|-----|-----|-----|
| SPA1101300-SP-US | 11.0V | 0~1.3A  | 110mV | ±1% | ±5% | ±5% | 75% |
| SPA1151250-SP-US | 11.5V | 0~1.25A | 115mV | ±1% | ±5% | ±5% | 75% |
| SPA1201250-SP-US | 12.0V | 0~1.25A | 120mV | ±1% | ±5% | ±5% | 75% |
| SPA1251150-SP-US | 12.5V | 0~1.15A | 125mV | ±1% | ±5% | ±5% | 75% |
| SPA1301150-SP-US | 13.0V | 0~1.15A | 130mV | ±1% | ±5% | ±5% | 75% |
| SPA1351100-SP-US | 13.5V | 0~1.10A | 135mV | ±1% | ±5% | ±5% | 75% |
| SPA1401050-SP-US | 14.0V | 0~1.05A | 140mV | ±1% | ±5% | ±5% | 75% |
| SPA1451000-SP-US | 14.5V | 0~1.0A  | 145mV | ±1% | ±5% | ±5% | 75% |
| SPA1501000-SP-US | 15.0V | 0~1.0A  | 150mV | ±1% | ±5% | ±5% | 75% |
| SPA1550950-SP-US | 15.5V | 0~0.95A | 155mV | ±1% | ±5% | ±5% | 75% |
| SPA1600900-SP-US | 16.0V | 0~0.90A | 160mV | ±1% | ±5% | ±5% | 75% |
| SPA1650900-SP-US | 16.5V | 0~0.90A | 165mV | ±1% | ±5% | ±5% | 75% |
| SPA1700850-SP-US | 17.0V | 0~0.85A | 170mV | ±1% | ±5% | ±5% | 75% |
| SPA1750850-SP-US | 17.5V | 0~0.85A | 175mV | ±1% | ±5% | ±5% | 75% |
| SPA1800800-SP-US | 18.0V | 0~0.80A | 180mV | ±1% | ±5% | ±5% | 75% |
| SPA1850800-SP-US | 18.5V | 0~0.80A | 185mV | ±1% | ±5% | ±5% | 75% |
| SPA1900750-SP-US | 19.0V | 0~0.75A | 190mV | ±1% | ±5% | ±5% | 75% |
| SPA1950750-SP-US | 19.5V | 0~0.75A | 195mV | ±1% | ±5% | ±5% | 75% |
| SPA2000750-SP-US | 20.0V | 0~0.75A | 200mV | ±1% | ±5% | ±5% | 75% |
| SPA2050700-SP-US | 20.5V | 0~0.70A | 205mV | ±1% | ±5% | ±5% | 75% |
| SPA2100700-SP-US | 21.0V | 0~0.70A | 210mV | ±1% | ±5% | ±5% | 75% |
| SPA2150650-SP-US | 21.5V | 0~0.65A | 215mV | ±1% | ±5% | ±5% | 75% |
| SPA2200650-SP-US | 22.0V | 0~0.65A | 220mV | ±1% | ±5% | ±5% | 75% |
| SPA2250650-SP-US | 22.5V | 0~0.65A | 225mV | ±1% | ±5% | ±5% | 75% |
| SPA2300650-SP-US | 23.0V | 0~0.65A | 230mV | ±1% | ±5% | ±5% | 75% |
| SPA2350600-SP-US | 23.5V | 0~0.60A | 235mV | ±1% | ±5% | ±5% | 75% |
| SPA2400600-SP-US | 24.0V | 0~0.60A | 240mV | ±1% | ±5% | ±5% | 75% |
| SPA2500600-SP-US | 25.0V | 0~0.60A | 250mV | ±1% | ±5% | ±5% | 75% |
| SPA2600550-SP-US | 26.0V | 0~0.55A | 260mV | ±1% | ±5% | ±5% | 75% |
| SPA2700550-SP-US | 27.0V | 0~0.55A | 270mV | ±1% | ±5% | ±5% | 75% |
| SPA2800500-SP-US | 28.0V | 0~0.50A | 280mV | ±1% | ±5% | ±5% | 75% |
| SPA2900500-SP-US | 29.0V | 0~0.50A | 290mV | ±1% | ±5% | ±5% | 75% |
| SPA3000500-SP-US | 30.0V | 0~0.50A | 300mV | ±1% | ±5% | ±5% | 75% |
| SPA3100450-SP-US | 31.0V | 0~0.45A | 310mV | ±1% | ±5% | ±5% | 75% |
| SPA3200450-SP-US | 32.0V | 0~0.45A | 320mV | ±1% | ±5% | ±5% | 75% |

|                  |       |         |       |     |     |     |     |
|------------------|-------|---------|-------|-----|-----|-----|-----|
| SPA3300450-SP-US | 33.0V | 0~0.45A | 330mV | ±1% | ±5% | ±5% | 75% |
| SPA3400400-SP-US | 34.0V | 0~0.40A | 340mV | ±1% | ±5% | ±5% | 75% |
| SPA3500400-SP-US | 35.0V | 0~0.40A | 350mV | ±1% | ±5% | ±5% | 75% |
| SPA3600400-SP-US | 36.0V | 0~0.40A | 360mV | ±1% | ±5% | ±5% | 75% |

## Mechanical Specification

