



**Features**

- . Wide input 90V to 264VAC, 50~60Hz suitable for worldwide
- . Output voltage available from 5V to 36Vdc constant voltage
- . Class B Conducted and Radiated EMI for information devices
- . Meet ErP & DoE efficiency level VI requirements
- . No load power consumption < 0.1 W
- . High Efficiency up to 86.95% and high reliable design
- . Over-Voltage/Load/Temperature & Short Circuit protections

**Safety Standards**

- . IEC62368-1/IEC61558-1 CB report for worldwide use
- . UL62368-1 + CAN/CSA 62368-1 for USA and Canada
- . EN 62368-1:2014/A11:2017 for European Union
- . AS/NZS 62368.1:2018 for Australia and New Zealand
- . J62368-1 for Japan and K60950-1 for Korea market.



**Product Description:**

It is a 30W wall style single output USA type switching power adapter solution with wide range 90-264Vac input and designed strictly according to the international safety standards. The entire series supplies different models with output voltages ranging between 5Vdc and 36Vdc that can satisfy the demands for various types of consumer electronic devices, office facilities, telecommunication devices, industrial equipments and so on.

With the efficiency up to 86.95% and no load consumption power <0.1W, this 30W wall mounted power adapter is designed according to worldwide satisfy regulations and adopts the 94V-0 flame retardant plastic housing and the temperature resistance is up to 120 degrees.

**Technical Specification**

| Typ. Model             | SAW30-050-3500U  | SAW30-090-3000U | SAW30-120-2500U | SAW30-150-2000U | SAW30-240-1250U |
|------------------------|--|-----------------|-----------------|-----------------|-----------------|
| <b>Output</b>          |  |                 |                 |                 |                 |
| Output Voltage         | 5VDC   | 9VDC            | 12VDC           | 15VDC           | 24VDC           |
| Output Current         | 3.5A Max.  | 3.0A Max.       | 2.5A Max.       | 2.0A Max.       | 1.25A Max.      |
| Output Power           | 17.5W Max.   | 27W Max.        | 30W Max.        | 30W Max.        | 30W Max.        |
| Voltage Tolerance      | ±5%  | ±5%             | ±5%             | ±5%             | ±5%             |
| Ripple & Noise         | 200mVp-p   | 200mVp-p        | 200mVp-p        | 200mVp-p        | 250mVp-p        |
| Standby Power          | ≤0.1W  | ≤0.1W           | ≤0.1W           | ≤0.1W           | ≤0.1W           |
| <b>Input</b>           |  |                 |                 |                 |                 |
| Input voltage          | 90 - 264Vac or 127- 374Vdc   |                 |                 |                 |                 |
| Input Frequency        | 50-60Hz (When the input is AC)                                       |                 |                 |                 |                 |
| Input Current          | 0.8A Max. @ 100 ~240Vac 50/60Hz input                                |                 |                 |                 |                 |
| Inrush Current         | 60A Max. @ 100 ~240Vac 50/60Hz input                                 |                 |                 |                 |                 |
| Power Factor           | >0.5 @ 120Vac 60Hz input; >0.5 @230Vac 50Hz input                    |                 |                 |                 |                 |
| Efficiency (Typ.)      | 82.32%   | 86.62%          | 86.95%          | 86.95%          | 86.95%          |
| Leakage Current        | ≤0.25mA @ full input range   |                 |                 |                 |                 |
| <b>Protections</b>     |  |                 |                 |                 |                 |
| Over current           | 120~200% rated output power. Auto-Recovery when the fault is removed |                 |                 |                 |                 |
| Short Circuit          | No damage. Auto-Recovery when the fault is removed                   |                 |                 |                 |                 |
| Over temperature       | Shut down o/p voltage, re-power on to recover                        |                 |                 |                 |                 |
| <b>Environmental</b>   |  |                 |                 |                 |                 |
| Operation Temperature  | 0°C to +40°C, 10%RH to 90%RH   |                 |                 |                 |                 |
| Operation Altitude     | ≤2000m @ full load and rated operating temperatures                  |                 |                 |                 |                 |
| MTBF                   | ≥50000Hrs @ full load and rated operating temperatures               |                 |                 |                 |                 |
| <b>Mechanical</b>      |  |                 |                 |                 |                 |
| Dimensions (L x W x H) | 71.2 x 43.2 x 27.5mm (2.81 x 1.70 x 1.08 inch)                       |                 |                 |                 |                 |
| Unit Weight            | 135g±5 grams   |                 |                 |                 |                 |
| Packing Information    | 100pcs/ Carton, carton dimensions:47*37*20cm, 13.5kgs/ Carton        |                 |                 |                 |                 |

## TEST REPORT

### OUTPUT FUNCTION TEST

| NO | TEST ITEM         | SPECIFICATION   | TEST CONDIDTION                                  | RESULT                            | VERDICT |
|----|-------------------|-----------------|--|-----------------------------------|---------|
| 1  | RIPPLE & NOISE    | 200mVp-p (Max)  | I/P:230VAC / O/P:FULL LOAD / Ta:25°C             | 62mVp-p                           | P       |
| 2  | VOLTAGE TOLERANCE | -5% ~ +5% (Max) | I/P:90VAC~264VAC<br>O/P:FULL~MIN. LOAD / Ta:25°C | -2% ~ +2% of output voltage       | P       |
| 3  | LINE REGULATION   | -1% ~ +1% (Max) | I/P:90VAC ~264VAC<br>O/P:FULL LOAD / Ta:25°C     | -0.05% ~ +0.05% of output voltage | P       |
| 4  | LOAD REGULATION   | -3% ~ +3% (Max) | I/P:230VAC<br>O/P:FULL ~MIN LOAD / Ta:25°C       | -0.98% ~ +0.99% of output voltage | P       |
| 5  | SET UP TIME       | 4000 mS (Max)   | I/P:230VAC<br>O/P:FULL LOAD / Ta:25°C            | 2300 mS                           | P       |
| 6  | RISE TIME         | 100 mS (Max)    | I/P: 230VAC<br>O/P:FULL LOAD / Ta:25°C           | 44 mS                             | P       |
| 7  | HOLD UP TIME      | 10 mS (Min)     | I/P: 115VAC<br>O/P:FULL LOAD / Ta:25°C           | 15 mS                             | P       |

### INPUT FUNCTION TEST

| NO | TEST ITEM                 | SPECIFICATION                      | TEST CONDIDTION                                      | RESULT                             | VERDICT |
|----|---------------------------|------------------------------------|--|------------------------------------|---------|
| 1  | VOLTAGE RANGE             | 90VAC~264VAC                       | I/P:TESTING<br>O/P:FULL LOAD / Ta:25°C               | 82~264V                            | P       |
| 2  | FREQUENCY RANGE           | 50HZ - 60HZ (Typ)<br>NO DAMAGE OSC | I/P: 100VAC ~ 240VAC<br>O/P:FULL~MIN LOAD / Ta:25°C  | TEST: OK                           | P       |
| 3  | EFFICIENCY                | 86.95% (Typ)                       | I/P:230VAC<br>O/P:FULL LOAD / Ta:25°C                | 87.98%                             | P       |
| 4  | AVERAGE EFFICIENCY        | >86.95% ( LEVEL VI)                | I/P:115/230VAC & O/P:25%、50%、75%、100% LOAD & Ta:25°C | 87.22% (115VAC)<br>87.54% (230VAC) | P       |
| 5  | AC CURRENT                | 0.8A (Max)                         | I/P:100VAC & O/P:FULL LOAD Ta:25°C                   | 0.67A                              | P       |
| 6  | NO LOAD POWER CONSUMPTION | <0.1W                              | I/P: 230VAC /O/P:NO LOAD<br>Ta:25°C                  | 0.062W                             | P       |
| 7  | INRUSH CURRENT            | <60A<br>COLD START                 | I/P: 230VAC / O/P:FULL LOAD<br>Ta:25°C               | 39.51A                             | P       |
| 8  | LEAKAGE CURRENT           | < 0.25mA                           | I/P:240VAC & O/P:Min LOAD<br>Ta:25°C                 | L-FG:0.18mA<br>N-FG:0.16mA         | P       |

### PROTECTION FUNCTION TEST

| NO | TEST ITEM               | SPECIFICATION                            | TEST CONDIDTION                       | RESULT                   | VERDICT |
|----|-------------------------|--|---------------------------------------|--------------------------|---------|
| 1  | OVER LOAD PROTECTION    | 120 ~ 200% (Typ)                         | I/P:230VAC & O/P:TESTING<br>Ta:25°C   | 142.2%<br>HICCUP MODE    | P       |
| 2  | OVER VOLTAGE PROTECTION | CLAMP BY ZENER DIODE<br>115 ~ 135% (Typ) | I/P:230VAC<br>O/P:MIN LOAD & Ta:25°C  | CLAMP BY ZENER DIODE     | P       |
| 3  | SHORT PROTECTION        | SHORT OUTPUT<br>1 HOUR NO DAMAGE         | I/P:264VAC<br>O/P:FULL LOAD & Ta:25°C | NO DAMAGE<br>HICCUP MODE | P       |

### SAFETY TEST & E.M.C TEST

| NO | TEST ITEM            | SPECIFICATION   | TEST CONDIDTION   | RESULT  | VERDICT |
|----|----------------------|---|---|---|---------|
| 1  | WITHSTAND VOLTAGE    | I/P-O/P: 3KVAC/min<br>I/P- FG: 2KVAC/min<br>O/P-FG:0.5KVAC/min      | I/P-O/P: 3.6 KVAC/min<br>I/P-FG: 2.4 KVAC/min<br>O/P-FG:0.6 KVAC/min<br>Ta:25°C | I/P-O/P:3.37mA<br>I/P-FG: NA<br>O/P-FG:NA<br>NO DAMAGE  | P       |
| 2  | ISOLATION RESISTANCE | I/P-O/P:500VDC>100MΩ<br>I/P-FG: 500VDC>100MΩ<br>O/P-FG:500VDC>100MΩ | I/P-O/P: 500 VDC<br>I/P-FG: 500 VDC<br>O/P-FG: 500 VDC<br>Ta:25°C               | I/P-O/P: 9999MΩ<br>I/P-FG: NA<br>O/P-FG:NA<br>NO DAMAGE | P       |
| 3  | CONDUCTION           | BS EN/EN55032(CISPR32),<br>FCC PART 15 / CISPR22<br>CAN             | I/P: 230 VAC (50HZ)<br>O/P: FULL/50% LOAD<br>Ta: 25°C                           | PASS<br>Test by certified Lab                           | P       |
| 4  | RADIATION            | BS EN/EN55032(CISPR32),<br>FCC PART 15 / CISPR22<br>CAN             | I/P: 230 VAC (50HZ)<br>O/P: FULL LOAD<br>Ta: 25°C                               | PASS<br>Test by certified Lab                           | P       |
| 5  | SURGE                | BS EN/EN61000-4-5<br>LIGHT INDUSTRY<br>L-N: 1KV                     | I/P: 230 VAC/50HZ<br>O/P: FULL LOAD<br>Ta: 25°C                                 | CRITERIA B  | P       |
| 6  | E.S.D                | BS EN/EN61000-4-2<br>LIGHT INDUSTRY<br>AIR: 8KV / Contact: 4KV      | I/P: 230 VAC/50HZ<br>O/P: FULL LOAD<br>Ta: 25°C                                 | CRITERIA B  | P       |

| TEST RESULT | TESTER       | REVIEW      | APPROVAL        |
|-------------|--------------|-------------|-----------------|
| <b>PASS</b> | <b>LINDA</b> | <b>JUDY</b> | <b>ZHANG DL</b> |