

# **YSD30S SERIES 30W**





Yingjiao's step shape power family are designed with ultra-slim plastic housing and for full range AC input from 90V AC to 264V AC.

The series are isolation Class II Level, achieving high efficiency and low no-load power consumption. They provide adjustable DC output voltage and operate in wide temperature range.

The good perfromance can be used for building automation, household and industrial control systems etc.

#### **Features**



Isolation Class II



Class 2/Pass LPS



Ultra Slim Step Shape



DC Output Voltage Adjustable



Protection:Short Circuit/Overload/ Over Voltage



Over voltage category III



Three Years Warranty

#### **Model Information**

| Yingjiao<br>Part number | DC<br>VOLTAGE | RATED<br>CURRENT | RATED<br>POWER |
|-------------------------|---------------|------------------|----------------|
| YSD30S-0503000          | 5V            | 3A               | 15W            |
| YSD30S-1202000          | 12V           | 2A               | 24W            |
| YSD30S-1502000          | 15V           | 2A               | 30W            |
| YSD30S-2401250          | 24V           | 1.25A            | 30W            |
| YSD30S-4800630          | 48V           | 0.63A            | 30W            |

## Input

| VOLTAGE RANGE   | 90 ~ 264VAC                      |  |
|-----------------|----------------------------------|--|
|                 | 127 ~ 370VDC                     |  |
| FREQUENCY RANGE | 47 ~ 63Hz                        |  |
| INRUSH CURRENT  | COLD START 25A/115VAC 45A/230VAC |  |
| AC CURRENT      | 0.88A/115VAC                     |  |
|                 | 0.48A/230VAC                     |  |
| EFFICIENCY      | 82% YSD30S-0503000               |  |
|                 | 88% YSD30S-1202000               |  |
|                 | 89% YSD30S-1502000               |  |
|                 | 89% YSD30S-2401250               |  |
|                 | 90% YSD30S-4800630               |  |
|                 |                                  |  |

## Output

| RIPPLE & NOISE      | 80mVp-p       | YSD30S-0503000     |
|---------------------|---------------|--------------------|
|                     | 120mVp-p      | YSD30S-1202000     |
|                     | 120mVp-p      | YSD30S-1502000     |
|                     | 150mVp-p      | YSD30S-2401250     |
|                     | 240mVp-p      | YSD30S-4800630     |
| VOLTAGE ADJ. RANGE  | 4.5 ~ 5.5V    | YSD30S-0503000     |
|                     | 10.8 ~ 13.8V  | YSD30S-1202000     |
|                     | 13.5 ~ 18V    | YSD30S-1502000     |
|                     | 21.6 ~ 29V    | YSD30S-2401250     |
|                     | 43.2 ~ 55.2V  | YSD30S-4800630     |
| VOLTAGE TOLERANCE   | ± 2.0%        | YSD30S-0503000     |
|                     | ± 2.0%        | YSD30S-1202000     |
|                     | ± 2.0%        | YSD30S-1502000     |
|                     | ± 2.0%        | YSD30S-2401250     |
|                     | ± 2.0%        | YSD30S-4800630     |
| LINE REGULATION     | ± 1.0%        |                    |
| LOAD REGULATION     | ± 1.0%        |                    |
| SETUP, RISE TIME    | 500ms, 50ms/2 | 30VAC at full load |
|                     | 500ms, 50ms/1 | 15VAC at full load |
| HOLD UP TIME (Typ.) | 30ms/230VAC   | at full load       |
|                     | 12ms/115VAC   | at full load       |
|                     |               |                    |

#### **Protection**

| OVER LOAD    | 105 ~ 160% rate   | ed output power                                  |
|--------------|-------------------|--|
|              | Hiccup mode w     | hen output voltage <50%, recovers automatically  |
|              | after fault condi | tion is removed                                  |
|              | Constant curren   | t limiting within 50%-100% rated output voltage, |
|              | recovers automa   | atically after fault condition is removed.       |
| OVER VOLTAGE | 5.75 ~ 7.5V       | YSD30S-0503000                                   |
|              | 15 ~ 18V          | YSD30S-1202000                                   |
|              | 18.8 ~ 22.5V      | YSD30S-1502000                                   |
|              | 30 ~ 36V          | YSD30S-2401250                                   |
|              | 57.6~ 67.2V       | YSD30S-4800630                                   |
|              | Protection type:  | : Shut down o/p voltage, re-power on to recover  |

#### **Environment**

| WORKING TEMP.           | -20℃ ~+70℃  |
|-------------------------|---|
| Working Humidity        | 20 ~ 90% RH Non-Condensing  |
| STORAGE TEMP., HUMIDITY | $-40^{\circ}\text{C}~\sim$ +85 $^{\circ}\text{C}$ , 10 $\sim$ 95% RH non-condensing |
| TEMP. COEFFICIENT       | $\pm$ 0.03%/ $^{\circ}$ C (0 $\sim$ 50 $^{\circ}$ C ) RH non-condensing             |
| VIBRATION               | $10 \sim 500$ Hz, 2G 10min./1cycle, period for 60min. each along X,                 |
|                         | Y, Z axes; Mounting: Compliance to IEC60068-2-6                                     |
| OPERATING ALTITUDE      | 2000 meters   |
| OVER VOLTAGE CATEGORY   | III ;According to EN61558, EN50178, EN60664-1, EN62477-1;                           |
|                         | altitude up to 2000 meters  |

#### **SAFETY & EMC**

| SAFETY REGULATIONS    | UL62368-1, BS EN/EN62368-1                       |
|-----------------------|--|
| WITHSTAND VOLTAGE     | I/P-O/P:3KVAC                                    |
| INSULATION RESISTANCE | I/P-O/P:100M Ohms / 500VDC / 25 °C / 70% RH      |
| EMC EMISSION          | BS EN/EN 55032 class B, BS EN/EN IEC 61000-3-2,3 |
| EMC IMMUNITY          | BS EN/EN61000-4-2,3,4,5,6,8,11                   |

## **Dimensions & Weight**

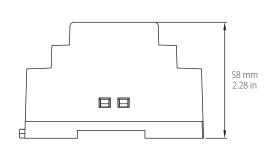
| Length: | 35mm / 1.38in |
|---------|---------------|
| Width:  | 90mm / 3.54in |
| Height: | 58mm / 2.28in |
| Weight: | 120g          |

### **Packing**

| Carton Size:              | 37 x 22 x 25 CM        |
|---------------------------|------------------------|
|                           | 14.57 x 8.66 x 9.84 in |
| Master Carton Quantities: | 50pcs / Carton         |

#### **Dimensions and Installation**





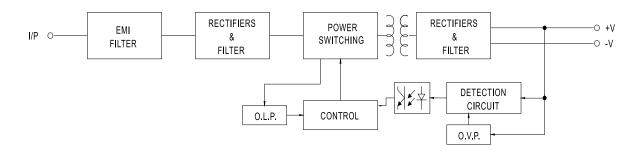
#### Input

| No. | Description |
|-----|-------------|
| 1   | +V          |
| 2   | -V          |

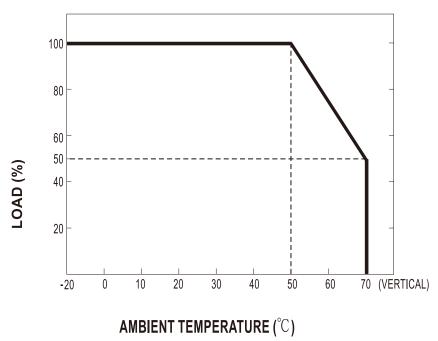
Output

| No. | Description |
|-----|-------------|
| 3   | AC/L        |
| 4   | AC/N        |

### **BLOCK Diagram**



### **Deduction Curve And Temperature**



### **Minus Output And Input Voltage Curves**

