

# YSD20L SERIES 10W



yingjiao's slimline power family are designed with slim plastic housing and for full range AC input from 90VAC to 264VAC.

The series are single phase Psu, providing DC Ok relay contact and adjustable DC output voltage. They have high efficiency and operate in wide temperature range.

The series can widely used for industrial automation & control systems, varied equipments etc.

## Features



universal Ac Input/ Full Range



Installation on DIN RailTs-35/7.5 & 15



Dc ok signal output



Dc outputvoltage Adjustable



protection:short circuit/overload/over voltage



Three years warranty



Isolation Class I



Class 2 power unit

## Model Information

| yingjiao<br>Part number | DC<br>VOLTAGE | RATED<br>CURRENT | RATED<br>POWER |
|-------------------------|---------------|------------------|----------------|
| YSD20L-0502000          | 5V            | 2A               | 10W            |
| YSD20L-1200840          | 12V           | 0.84A            | 10W            |
| YSD20L-1500670          | 15V           | 0.67A            | 10W            |
| YSD20L-2400420          | 24V           | 0.42A            | 10W            |

## Input

|                 |                      |                |
|-----------------|----------------------|----------------|
| VOLTAGE RANGE   | 90-264VAC/127-370VDC |                |
| FREQUENCY RANGE | 47~ 63Hz             |                |
| INRUSH CURRENT  | 35A/115VAC           | Cold start     |
|                 | 70A/230VAC           | Cold start     |
| AC CURRENT      | 0.33A/115VAC         |                |
|                 | 0.21A/230VAC         |                |
| LEAKAGE CURRENT | <1mA/240VAC          |                |
| EFFICIENCY      | 77%                  | YSD20L-0502000 |
|                 | 81%                  | YSD20L-1200840 |
|                 | 81%                  | YSD20L-1500670 |
|                 | 84%                  | YSD20L-2400420 |

## Output

|                    |              |                |
|--------------------|--------------|----------------|
| RIPPLE & NOISE     | 80mVp-p      | YSD20L-0502000 |
|                    | 120mVp-p     | YSD20L-1200840 |
|                    | 120mVp-p     | YSD20L-1500670 |
|                    | 150mVp-p     | YSD20L-2400420 |
| VOLTAGE ADJ. RANGE | 4.75~5.5V    | YSD20L-0502000 |
|                    | 10.8 ~ 13.2V | YSD20L-1200840 |
|                    | 13.5 ~ 16.5V | YSD20L-1500670 |
|                    | 21.6 ~ 26.4V | YSD20L-2400420 |

## output

|                    |                                                                     |
|--------------------|---------------------------------------------------------------------|
| VOLTAGE TOLERANCE  | ±2.0%                                                               |
| LINE REGULATION    | ±1.0%                                                               |
| LOAD REGULATION    | ±5.0%                                                               |
| SETUP, RISE TIME   | 500ms, 30ms/230VAC at full load<br>1000ms, 30ms/115VAC at full load |
| HOLD UPTIME (TYP.) | 120ms/230VAC at full load<br>25ms/115VAC at full load               |

## protection

|             |                                                                                                                                                         |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| OVER LOAD   | Above 105% Rated Output Power<br><br>Protection type: Hiccup Mode- recovers automatically after fault condition is removed                              |
| OVERVOLTAGE | 5V: 5.75 ~ 6.75V<br>12V: 13.8 ~ 16.2V<br>15V: 17.25 ~ 20.25V<br>24V: 27.6 ~ 32.4V<br><br>Protection type : Shutdown o/p voltage, re-power on to recover |

## Environment

|                       |                                             |
|-----------------------|---------------------------------------------|
| OPERATING TEMPERATURE | -20 °C to 70 °C (Refer to "Derating Curve") |
| STORAGE TEMP          | -40 °C to 85 °C                             |
| STORAGE HUMIDITY      | 10 ~ 95% RH                                 |
| WORKING HUMIDITY      | 20% ~ 90% RH Non-Condensing                 |

## SAFETY & EMC

|                      |                                                             |
|----------------------|-------------------------------------------------------------|
| SAFETY REGULATIONS   | UL508, BS/EN62368-1 approved                                |
| WITHSTAND VOLTAGE    | I/P-O/P: 3KVAC I/P-FG: 2KVAC O/P-FG: 0.5KVAC                |
| ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG: 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/EN 61000-4-2,3,4,5,6,8,11                             |

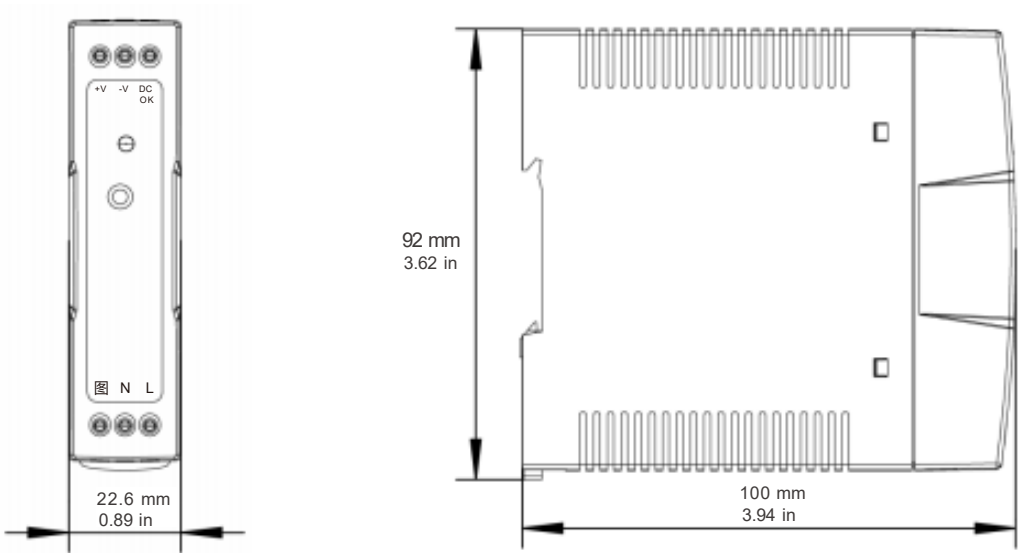
# Dimensions &weight

|         |                 |
|---------|-----------------|
| Length: | 100mm / 3.94in  |
| width:  | 22.6mm / 0.89in |
| Height: | 92mm / 3.62in   |
| weight: | 140g            |

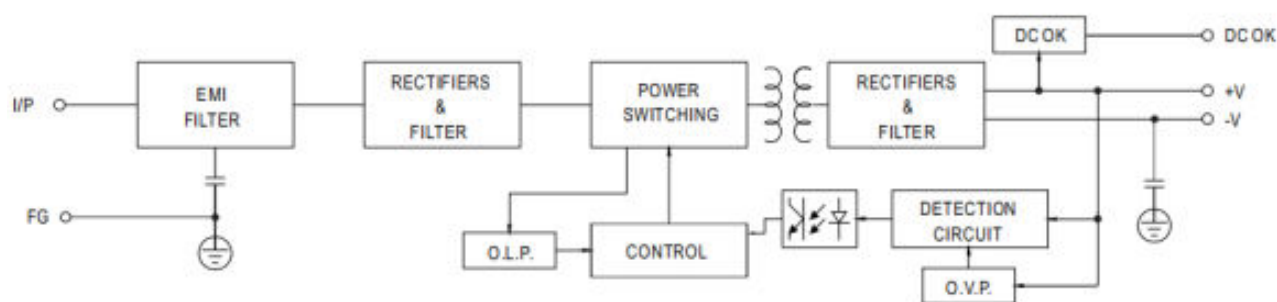
# packing

|                           |                         |
|---------------------------|-------------------------|
| carton size:              | 54 X 30 X 24 CM         |
|                           | 21.26 X 11.81 X 9.45 in |
| Master carton Quantities: | 100pcs / Carton         |

# Dimensions and Installation

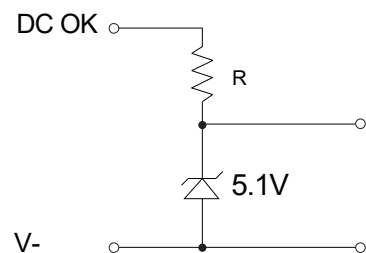


# Functional Diagram



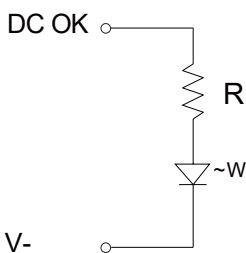
## APPLication Of DC OK Active signal

(a) 5V signal



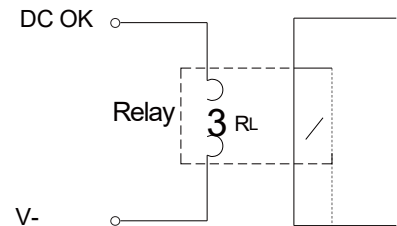
| Model | R                 |
|-------|-------------------|
| 5V    | $\geq 200\Omega$  |
| 12V   | $\geq 1.5K\Omega$ |
| 15V   | $\geq 2K\Omega$   |
| 24V   | $\geq 3.9K\Omega$ |

(b) LED



| Model | R                 |
|-------|-------------------|
| 5V    | $\geq 1K\Omega$   |
| 12V   | $\geq 2.4K\Omega$ |
| 15V   | $\geq 3K\Omega$   |
| 24V   | $\geq 4.7K\Omega$ |

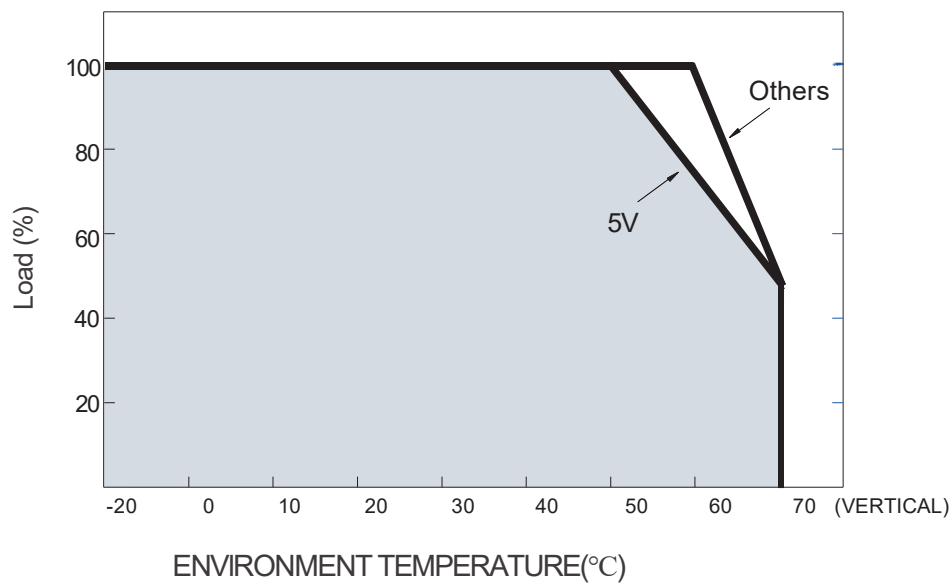
(c) Relay



| Model | RL                |
|-------|-------------------|
| 5V    | $\geq 120\Omega$  |
| 12V   | $\geq 700\Omega$  |
| 15V   | $\geq 700\Omega$  |
| 24V   | $\geq 1.2K\Omega$ |

## Deduction curve and Temperature

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## Minus Output and Input Voltage curves

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