

# Datasheet

YSD20L SERIES 10W

**FORTEC**  
UNITED STATES

**FORTEC**  
INTEGRATED

**FORTEC**  
UNITED KINGDOM

---

The information contained in this document has been carefully researched and is, to the best of our knowledge, accurate. However, we assume no liability for any product failures or damages, immediate or consequential, resulting from the use of the information provided herein. Our products are not intended for use in systems in which failures of product could result in personal injury. All trademarks mentioned herein are property of their respective owners. All specifications are subject to change without notice.

---

# 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 Rail Ts-35/7.5 & 15
-  Dc ok signal output
-  Dc output voltage Adjustable
-  protection: short circuit/overload/over voltage
-  Three years warranty

## Model Information

yingjiao Part number	DC VOLTAGE	RATED CURRENT	RATED 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 1000ms, 30ms/115VAC at full load
HOLD UPTIME (TYP.)	120ms/230VAC at full load 25ms/115VAC at full load

## protection

OVER LOAD	Above 105% Rated Output Power Protection type: Hiccup Mode- recovers automatically after fault condition is removed
OVERVOLTAGE	5V:5.75~ 6.75V 12V:13.8 ~ 16.2V 15V:17.25 ~ 20.25V 24V:27.6 ~ 32.4V 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:	23mm / 0.91in
width:	100mm / 3.94in
Height:	92mm / 3.62in
weight:	140g

---

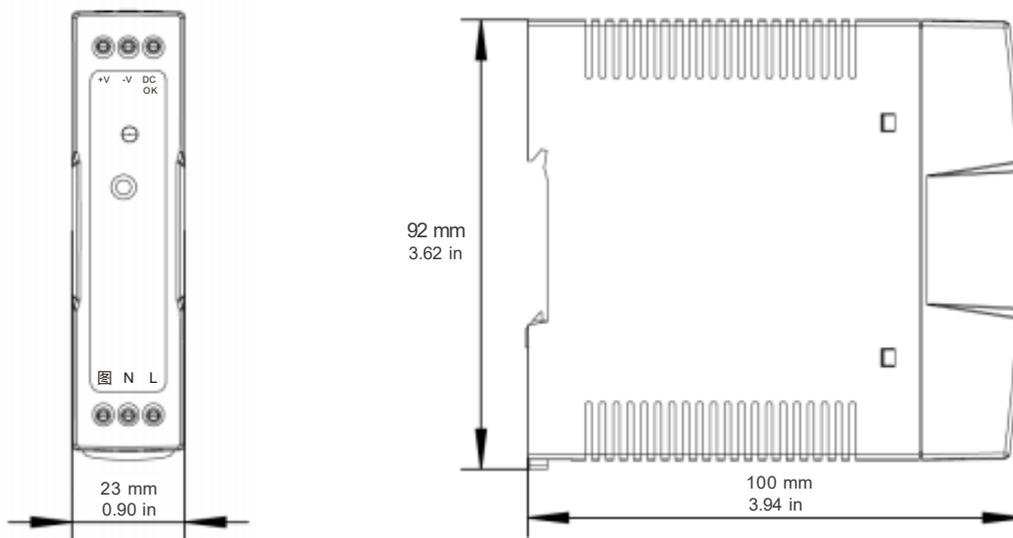
## packing

---

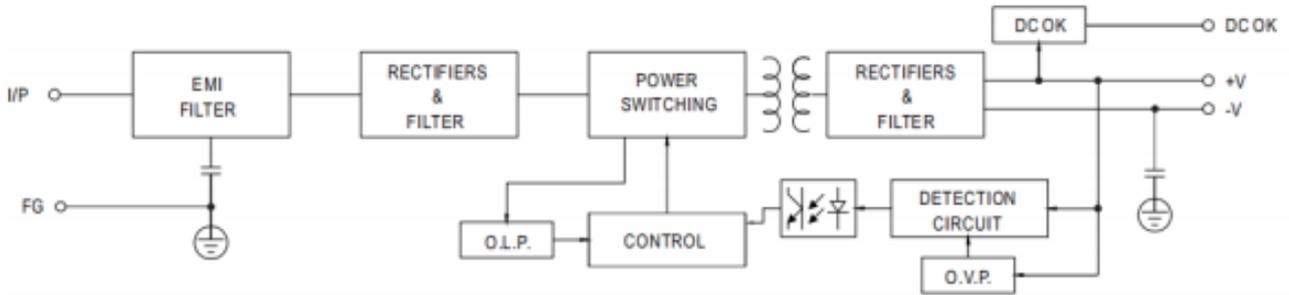
carton size:	54 X 30 X 24 CM 21.26 X 11.81 X 9.45 in
Master carton Quantities:	100pcs / Carton

---

## Dimensions and Installation

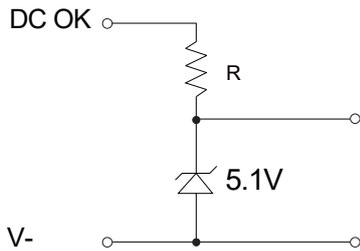


# Functional Diagram



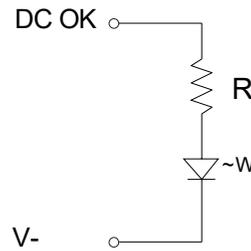
## APPLICATION OF DC OK ACTIVE SIGNAL

(a) 5V signal



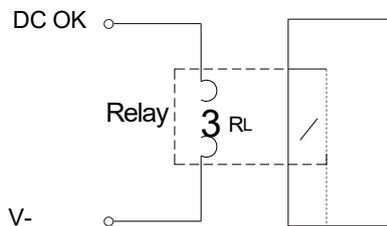
Model	R
5V	$\geq 200\Omega$
12V	$\geq 1.5K\Omega$
15V	$\geq 2K\Omega$
24V	$\geq 3.9K\Omega$

(b) LED



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

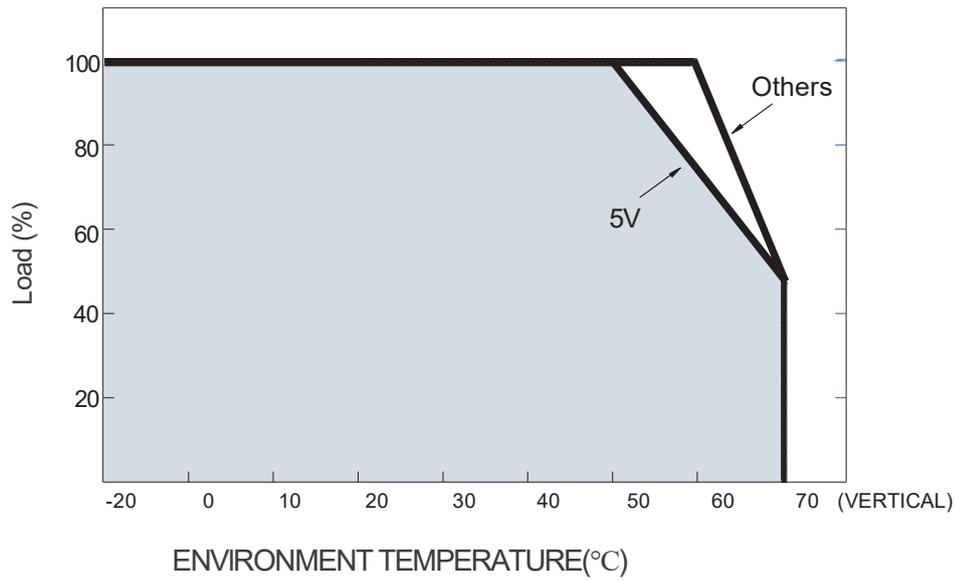
(c) Relay



Model	R <sub>L</sub>
5V	$\geq 120\Omega$
12V	$\geq 700\Omega$
15V	$\geq 700\Omega$
24V	$\geq 1.2K\Omega$

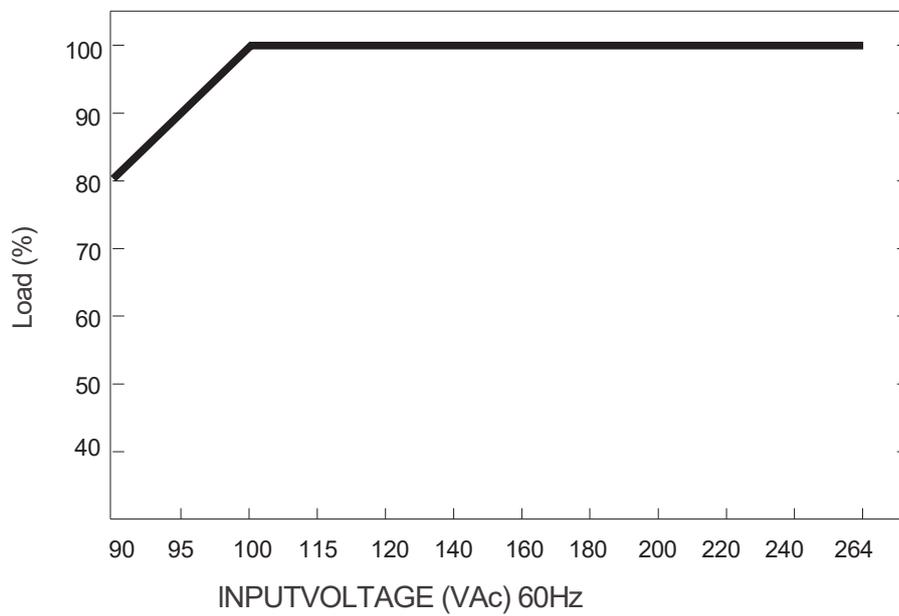
## Deduction curve and Temperature

---



## Minus Output and Input Voltage curves

---



# FORTEC

GROUP

---

Our company network supports you worldwide with offices in Germany, Austria, Switzerland, the UK and the USA. For more information please contact:

## FORTEC

GROUP

FORTEC Elektronik AG | Augsburgener Straße 2b | 82110 Germering  
+49 89 894450-0  
[info@fortecag.de](mailto:info@fortecag.de) | [www.fortecag.de](http://www.fortecag.de)

---

## FORTEC

INTEGRATED

FORTEC Integrated GmbH | Augsburgener Straße 2b | 82110 Germering  
+49 89 894363-0  
[info@fortec-integrated.de](mailto:info@fortec-integrated.de) | [www.fortec-integrated.de](http://www.fortec-integrated.de)

## FORTEC

POWER

FORTEC Power GmbH | Lise-Meitner-Straße 3 | 64560 Riedstadt  
+49 6158 8285-0  
[weborder@fortec-power.de](mailto:weborder@fortec-power.de) | [www.fortec-power.de](http://www.fortec-power.de)

## FORTEC

EGYPT

FORTEC Electronic Design and Solution Egypt SMLC | Linx Business Park  
Unit B318 | Smart Village | Giza Governorate  
[info@fortec-integrated.de](mailto:info@fortec-integrated.de) | [www.fortec-integrated.de](http://www.fortec-integrated.de)

Autronic Steuer- und Regeltechnik GmbH | Siemensstraße 17  
74343 Sachsenheim  
+49 7147 24-0  
[vertrieb@autronic.de](mailto:vertrieb@autronic.de) | [www.autronic.de](http://www.autronic.de)

## FORTEC

CZECH REPUBLIC

FORTEC Czech Republic s.r.o. | Přátelství 275 | 330 02 Dýšina  
+49 89 894363-0  
[info@fortec.cz](mailto:info@fortec.cz) | [www.fortec.cz](http://www.fortec.cz)

## FORTEC

UNITED STATES

FORTEC United States, Corp. | 87 Raynor Avenue Unit 1 | Ronkonkoma  
NY | 11779 | +1 631 5804360  
[info@fortec.us](mailto:info@fortec.us) | [www.fortec.us](http://www.fortec.us)

## FORTEC

SWITZERLAND

FORTEC Switzerland AG | Bahnhofstraße 3 | 5436 Würenlos  
+41 44 7446111  
[info@fortec.ch](mailto:info@fortec.ch) | [www.fortec.ch](http://www.fortec.ch)

## FORTEC

UNITED KINGDOM

FORTEC Technology UK Ltd. | Osprey House | 1 Osprey Court  
Hinchingsbrooke Business Park | Huntingdon | Cambridgeshire | PE29 6FN  
+44 1480 411600  
[info@fortec.uk](mailto:info@fortec.uk) | [www.fortec.uk](http://www.fortec.uk)