

Datasheet

YSD20L SERIES 20W

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INTEGRATED

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YSD20L SERIES 20W



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 Part number	DC VOLTAGE	RATED CURRENT	RATED POWER
YSD20L-0503000	5V	3A	15W
YSD20L-1201670	12V	1.67A	20W
YSD20L-1501340	15V	1.34A	20W
YSD20L-2401000	24V	1A	24W

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	76%	YSD20L-0503000
	80%	YSD20L-1201670
	81%	YSD20L-1501340
	84%	YSD20L-2401000

Output

RIPPLE & NOISE	80mVp-p	YSD20L-0503000
	120mVp-p	YSD20L-1201670
	120mVp-p	YSD20L-1501340
	150mVp-p	YSD20L-2401000
VOLTAGE ADJ. RANGE	4.75~5.5V	YSD20L-0503000
	10.8 ~ 13.2V	YSD20L-1201670
	13.5 ~ 16.5V	YSD20L-1501340
	21.6 ~ 26.4V	YSD20L-2401000

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 UP TIME (TYP.)	50ms/230VAC at full load 20ms/115VAC at full load

protection

OVER LOAD	105%-150% 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

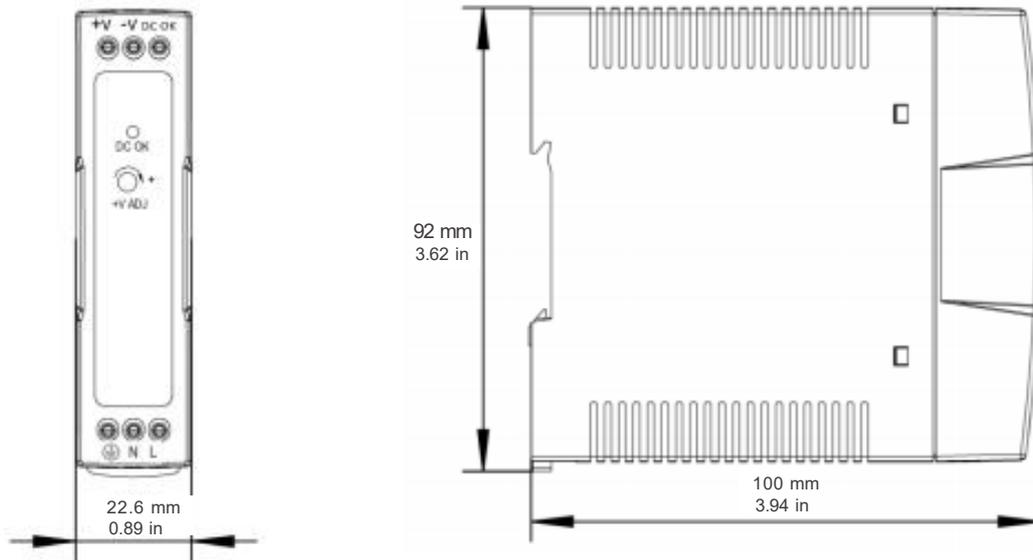
Dimensions & weight

Length:	100mm / 3.94in
width:	22.6mm / 0.89in
Height:	92mm / 3.62in
weight:	150g

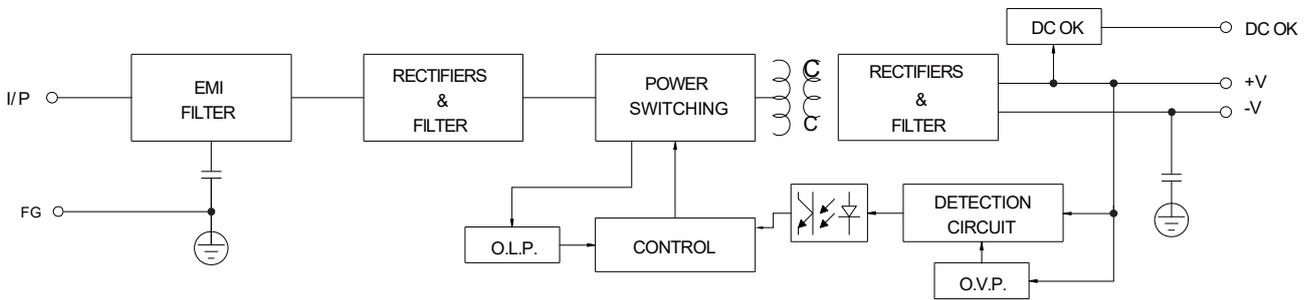
packing

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

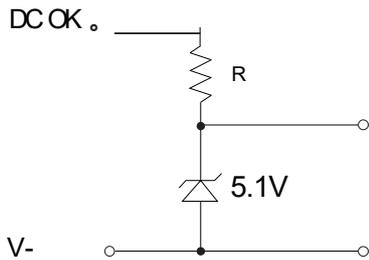


Functional Diagram



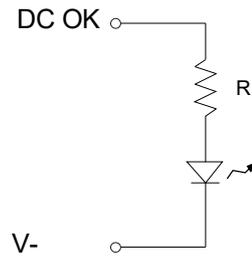
APPLication Of DC OK Active signal

(a) 5V signal



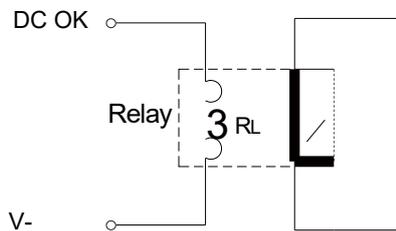
Model	R
5V	$\geq 200\Omega$
12V	$\geq 1.5K\Omega$
15V	$\geq 2K\Omega$
24V	$\geq 3.9K\Omega$

(b) LED



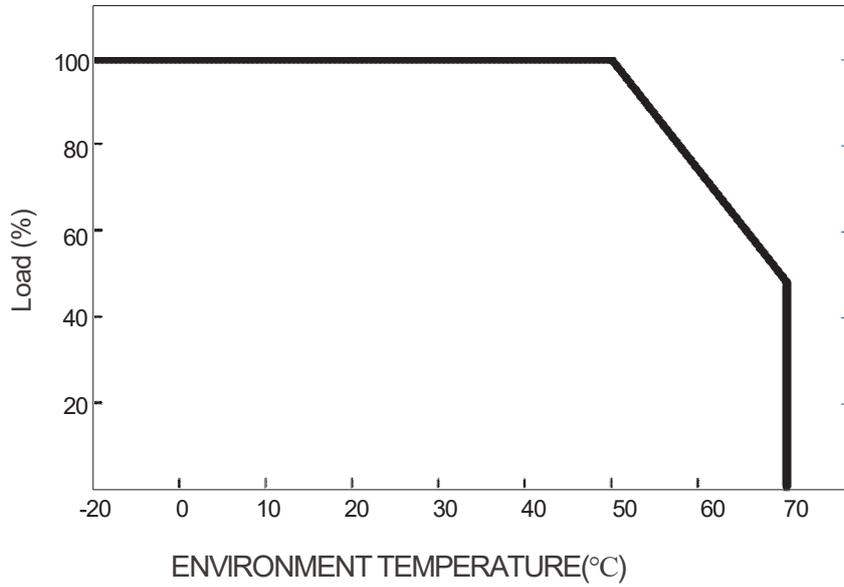
Model	R
5V	$\geq 1K\Omega$
12V	$\geq 2.4K\Omega$
15V	$\geq 3K\Omega$
24V	$\geq 4.7K\Omega$

(c) Relay

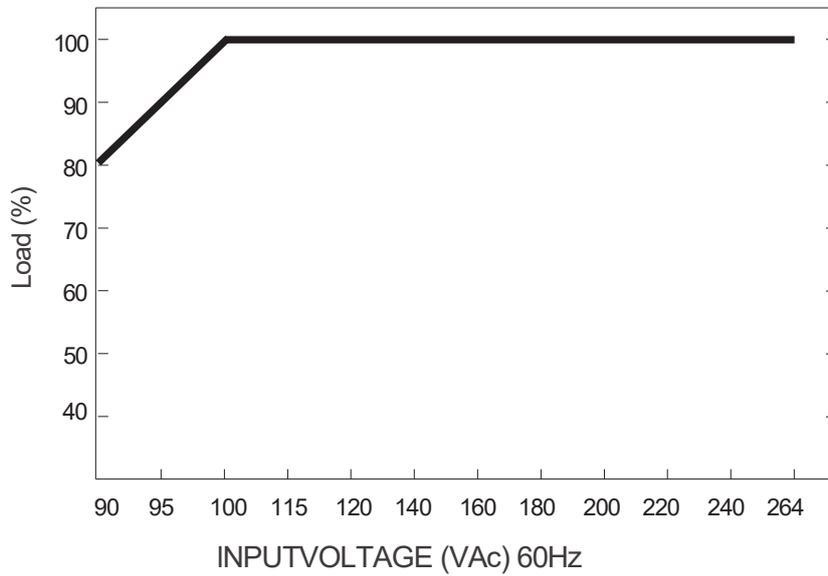


Model	R _L
5V	$\geq 120\Omega$
12V	$\geq 700\Omega$
15V	$\geq 700\Omega$
24V	$\geq 1.2K\Omega$

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 | www.fortecag.de

FORTEC

INTEGRATED

FORTEC Integrated GmbH | Augsburgener Straße 2b | 82110 Germering
+49 89 894363-0
info@fortec-integrated.de | www.fortec-integrated.de

FORTEC

POWER

FORTEC Power GmbH | Lise-Meitner-Straße 3 | 64560 Riedstadt
+49 6158 8285-0
weborder@fortec-power.de | 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 | www.fortec-integrated.de

Autronic Steuer- und Regeltechnik GmbH | Siemensstraße 17
74343 Sachsenheim
+49 7147 24-0
vertrieb@autronic.de | www.autronic.de

FORTEC

CZECH REPUBLIC

FORTEC Czech Republic s.r.o. | Přátelství 275 | 330 02 Dýšina
+49 89 894363-0
info@fortec.cz | www.fortec.cz

FORTEC

UNITED STATES

FORTEC United States, Corp. | 87 Raynor Avenue Unit 1 | Ronkonkoma
NY | 11779 | +1 631 5804360
info@fortec.us | www.fortec.us

FORTEC

SWITZERLAND

FORTEC Switzerland AG | Bahnhofstraße 3 | 5436 Würenlos
+41 44 7446111
info@fortec.ch | 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 | www.fortec.uk