



# PS-S20 Series Specifications



## Features:

- Universal AC input / full range
- Protections: Short Circuit / Overload / Overvoltage
- Cooling by free air convection
- DIN rail mountable
- Built in DC OK active signal
- LED indicator for power on
- No load power consumption < 0.75W
- 100% full load burn-in test
- 3 year warranty

## OUTPUT

## INPUT

## PROTECTION

## ENVIRONMENT

## SAFETY & EMC

## OTHERS

Cat. No.	PS-S2005	PS-S2012	PS-S2015	PS-S2024
DC VOLTAGE	5V	12V	15V	24V
RATED CURRENT	3A	1.67A	1.34A	1A
CURRENT RANGE	0~3A	0~1.67A	0~1.34A	0~1A
RATED POWER	15W	20W	20W	24W
RIPPLE & NOISE (max)	80mVp-p	120mVp-p	120mVp-p	150mVp-p
Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor				
VOLTAGE ADJ. RANGE	4.75 ~ 5.5V	10.8 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 26.4V
VOLTAGE TOLERANCE	±2.0%	±1.0%	±1.0%	±1.0%
Tolerance: includes set up tolerance, line regulation and load regulation.				
LINE REGULATION	±1.0%	±1.0%	±1.0%	±1.0%
LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%
SETUP, RISE TIME	500ms, 30ms/230VAC; 1000ms, 30ms/115VAC at full load			
Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.				
HOLD UP TIME (Typ.)	50ms/230VAC; 20ms/115VAC at full load			
VOLTAGE RANGE	85~264VAC 120~370VDC			
FREQUENCY RANGE	47~63Hz			
EFFICIENCY (Typ.)	76%	80%	81%	84%
AC CURRENT (max.)	0.55A/115VAC; 0.35A/230VAC			
INRUSH CURRENT (Typ.)	COLD START: 20A/115VAC; 40A/230VAC			
LEAKAGE CURRENT	≤1mA/ 240VAC			
OVERLOAD PROTECTION	105% ~ 160% rated output power Protection type: Constant current limiting, recovers automatically after fault condition is removed			
OVERVOLTAGE PROTECTION	5.75~6.75V	13.8~16.2V	17.25~20.25V	27.6~32.4V
Protection type: Shut down overvoltage, re-power on to recover				
OVER TEMPERATURE PROTECTION	Power supply shut down at 70°C constant current limiting / output voltage goes to 0; re-power on to recover			
DC OK AKTIV SIGNAL (max.)	3.75~6V (50mA)	9~13.5V (40mA)	11.5~16.5V (40mA)	18~27V (20mA)
WORKING TEMP.	-20 ~ +70°C (Refer to output load derating curve)			
WORKING HUMIDITY	20 ~ 90% RH non-condensing			
STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH			
TEMP. COEFFICIENT	±0.03% °C (0 ~ 50°C)			
VIBRATION	Component: 10 ~ 500Hz, 2G 10min. / 1cycle, 60 min. each long X,Y, Z axes			
MOUNTING	Compliance to IEC60068-2-6			
SAFETY STANDARDS	UL508 EN60950-1 compliant			
WITHSTAND VOLTAGE	I/P-O/P: 3KVAC I/P-FG: 1.5KVAC O/P-FG: 0.5KVAC			
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500VDC			
EMI CONDUCTION & RADIATION	Compliance to EN55011 EN55022 (CISPR22) EN61204-3 Class B			
HARMONIC CURRENT	Compliance to EN61000-3-2,-3			
EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; EN55024; ENV50204; EN61000-6-1;EN61204-3; light industry level; criteria A			
The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.				
MTBF	236.9K hrs min. MIL-HDBK-217K (25°C)			
DIMENSION	22.5x90x100mm (WxHxD)			
PACKING	0.19Kg; 72pcs / 14.7Kg / 0.91CUFT			
All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature				

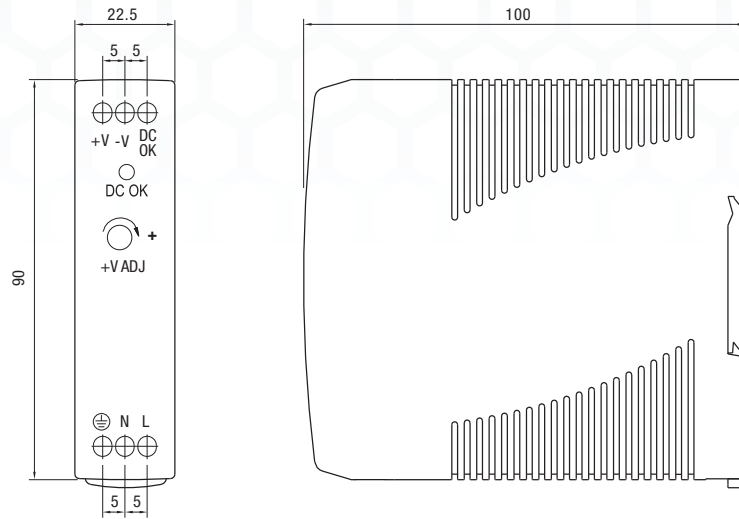
**Mechanical Specification**

Terminal Pin. No Assign. (TB1)

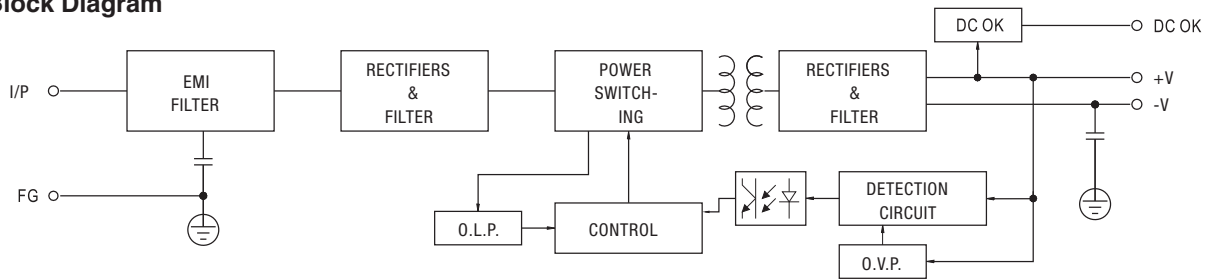
Pin No.	Assignment
1	FG ⊕
2	AC/N
3	AC/L

Terminal Pin. No Assign. (TB2)

Pin No.	Assignment
4	DC OUTPUT +V
5	DC OUTPUT -V
6	DC OK SIGNAL

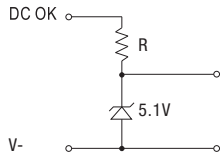


**Block Diagram**



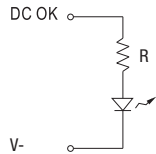
**Application of DC OK Signal**

(a) 5V signal



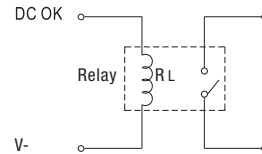
Model	R
5V	≧ 200Ω
12V	≧ 1.5KΩ
15V	≧ 2KΩ
24V	≧ 3.9KΩ

(b) LED



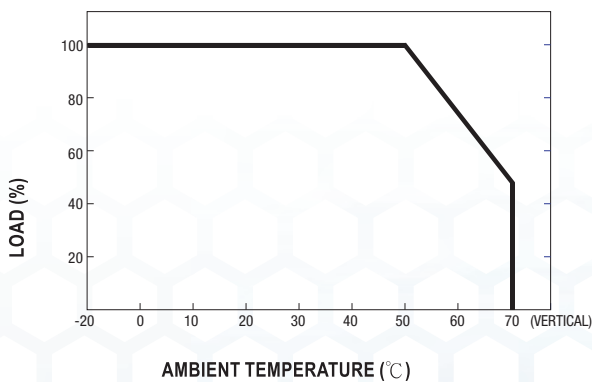
Model	R
5V	≧ 1KΩ
12V	≧ 2.4KΩ
15V	≧ 3KΩ
24V	≧ 4.7KΩ

(c) Relay

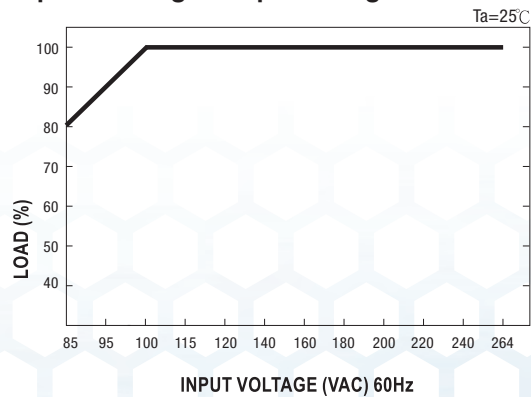


Model	RL
5V	≧ 120Ω
12V	≧ 700Ω
15V	≧ 700Ω
24V	≧ 1.2KΩ

**Derating Curve**



**Output Derating VS Input Voltage**



Note: All dimensions are in millimeters, to convert to inches multiply by 0.03937.

PSC Class 2 Series  
Compact Housing

PSA Flex Series  
1 Phase

PSB Flex Series  
2 & 3 Phase

PS-S Slim Series  
Plastic Housing

PS Low Profile Series  
Plastic Housing

PS Industrial Series  
1, 2 & 3 Phase

PS C & W Series  
1 and 2 Phase

CBI Type  
DC UPS Systems

CB Type  
Battery Chargers

Accessories

Appendix

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [DIN Rail Power Supplies](#) category:*

*Click to view products by [Altech](#) manufacturer:*

Other Similar products are found below :

[PS-S6024](#) [DVP01PU-S](#) [DVP06AD-S](#) [DVP06XA-S](#) [DVDPNET-SL](#) [DVPDT01-S](#) [DVPPS01](#) [PS-6012](#) [PS9Z-5R1G](#) [PS-C24024](#)  
[DVP08ST11N](#) [DVPACAB530](#) [DVPCOPM-SL](#) [DVPEN01-SL](#) [DVPPF01-S](#) [ADNB008-48-1PM-C](#) [ADNB017-24-1PM-C](#) [ADNB040-24-1PM-C](#) [ADNB050-12-1PM-C](#) [ADNB040-15-1PM-C](#) [ADNB034-12-1PM-C](#) [SS14011524](#) [S8TS-06024-E1](#) [PS-UPS40](#) [PSC-6024](#) [PSD-A60W12](#) [96PS-A120WDIN](#) [PSD-A60W48](#) [PSD-A40W12](#) [PSD-A40W24](#) [SMP21-L20-DC24V-5A](#) [PSD-A40W48](#) [S8T-DCBU-02](#) [PS-S4024](#)  
[NTPS-24-1.3](#) [PST-96024](#) [S82YVSC4P](#) [PS-S4005](#) [PS-10024](#) [PS-S10024](#) [PS-C12024](#) [PSP-480S24](#) [PS-C48024](#) [PSC-2024](#) [PSC-4012](#) [PSC-4015](#) [PSC-4048](#) [PSC-9615](#) [PSC-15124](#) [PSC-15148](#)