PS-S20 Series
Specifications

Features:

- Universal AC input / full range
- Protections: Short Circuit / Overload / Over voltage
- Cooling by free air convection
- DIN rail mountable
- NEC class 2 / LPS compliant
- Built in DC OK active signal
- LED indicator for power on
- No load power consumption < 0.75W
- 100% full load burn-in test
- 3 years warranty

Cat. No.	PS-S2005	PS-S2012	PS-S2015	PS-S2024
OUTPUT				
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			
INPUT				
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			
PROTECTION				
OVERLOAD PROTECTION	105% ~ 160% rated output power			
	Protection type: Constant current limiting, recovers automatically after fault condition is removed			
OVER VOLTAGE PROTECTION	5.75~6.75V	13.8~16.2V	17.25~20.25V	27.6~32.4V
	Protection type: Shut down o/p voltage, 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)
ENVIRONMENT				
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 & EMC				
SAFETY STANDARDS	UL508 EN60950-1approved NEC class2 / LPS 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 installed into a final equipment. The final equipment must be re-confirmed that is still meets EMC directives.			
OTHERS				
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			

For the latest on Altech Power Supply specifications please visit www.altechcorp.com/power.

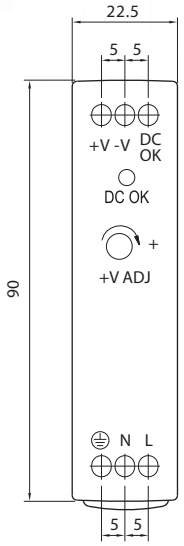
Mechanical Specification

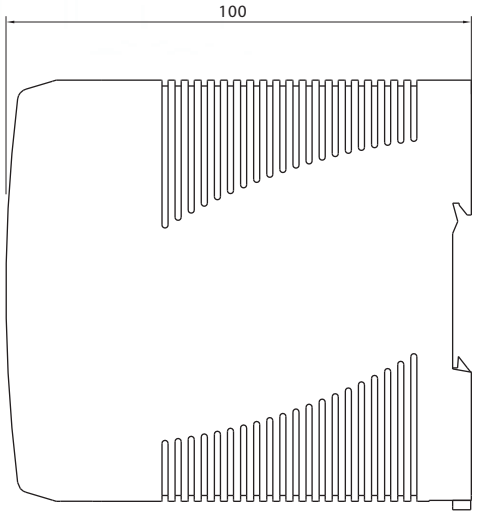
Terminal Pin. No Assign. (TB1)

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

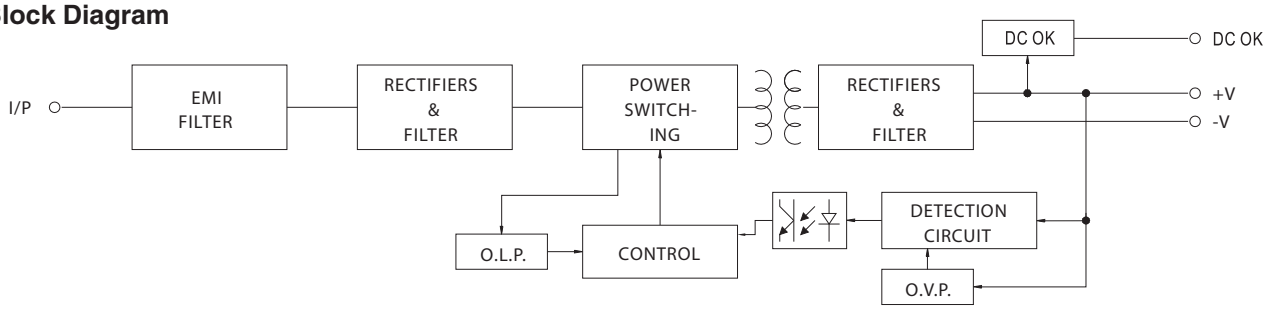
Terminal Pin. No Assign. (TB2)

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



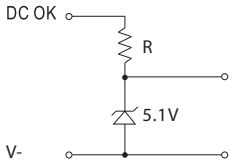


Block Diagram



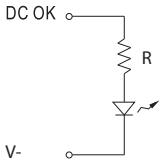
Application of DC OK Signal

(a) 5V signal



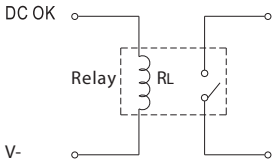
Model	R
5V	≧200Ω
12V	≧1.5KΩ
15V	≧2KΩ
24V	≧3.9KΩ

(b) LED



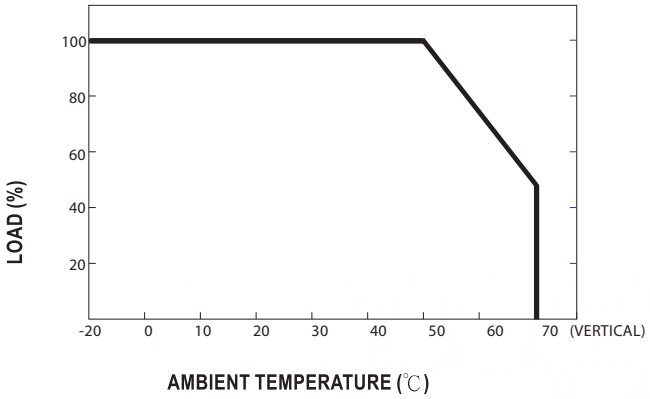
Model	R
5V	≧1KΩ
12V	≧2.4KΩ
15V	≧3KΩ
24V	≧4.7KΩ

(c) Relay

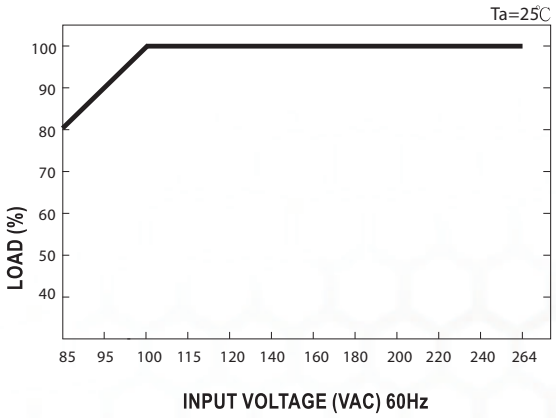


Model	RL
5V	≧120Ω
12V	≧700Ω
15V	≧700Ω
24V	≧1.2KΩ

Derating Curve



Output Derating VS Input Voltage



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