



# PSA-120 Series (1 Phase) Specifications



## Features:

- Multiple overload/ short circuit protection modes
- Efficiency above 91%
- Small size
- DIN rail mountable
- Cooling by free air convection
- UL 508 (industrial control equipment) approved
- EN60950-1
- Built-in DC OK relay circuit
- 3 year warranty

## OUTPUT

### Cat. No. PSA-12024

DC VOLTAGE	24 V
RATED CURRENT	5A
CURRENT RANGE	0-5A
RATED POWER	120 W
RIPPLE & NOISE (max)	100 mVp-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	22 V ~ 27 V
VOLTAGE TOLERANCE	-0.3% Tolerance: includes set up tolerance, line regulation and load regulation.
START UP WITH STRONG LOAD	≤ 50,000 µF
SHORT CIRCUIT CURRENT I <sub>cc</sub>	12A Max 2 sec.: Hiccup mode Permanent: Continuous mode
DISSIPATION POWER LOAD max	11 W
LINE REGULATION	± 0.5%
LOAD REGULATION	± 1%
SETUP, RISE TIME	1 sec. (max) 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.)	20 msec

## INPUT

VOLTAGE RANGE	90 ~ 135V AC / 180 ~ 264V AC switch select
FREQUENCY RANGE	47 ~ 63 Hz
EFFICIENCY (Typ.)	>91 %
AC CURRENT (115 - 230V)	1.8 - 0.9V AC
INRUSH CURRENT (Typ.)	< 11 A ≤ 5 msec
INTERNAL FUSE	4A (T)
EXTERNAL FUSE (recommended)	10 A (MCB curve B)
LEAKAGE CURRENT	< 1.5 mA @ 230 V AC

## PROTECTION

OVERLOAD	In (60°C) x 1.5 <sup>3</sup> ≥ 3 min. Current max. Overload @ 4VDC (permanent) I <sub>max</sub> =In (60°C) x (1.8 - 2.2)
OVER VOLTAGE	30 ~ 35 VDC
OVER TEMPERATURE	Shuts down output and automatically restarts when the temperature inside goes down
SHORT CIRCUIT PROTECTION	1 Hiccup Mode / 2 Fold Back / 3 Restart After Main - Selectable

## ENVIRONMENT

WORKING TEMP.	-25 up to +70 °C
HUMIDITY	95 % at 25°C, no condensation
STORAGE TEMP	-40 up to +85 °C
TEMP. COEFFICIENT	± 0.03% / °C (0 ~ 60 °C)
MOUNTING	In according to IEC60068-2-6

## SAFETY & EMC

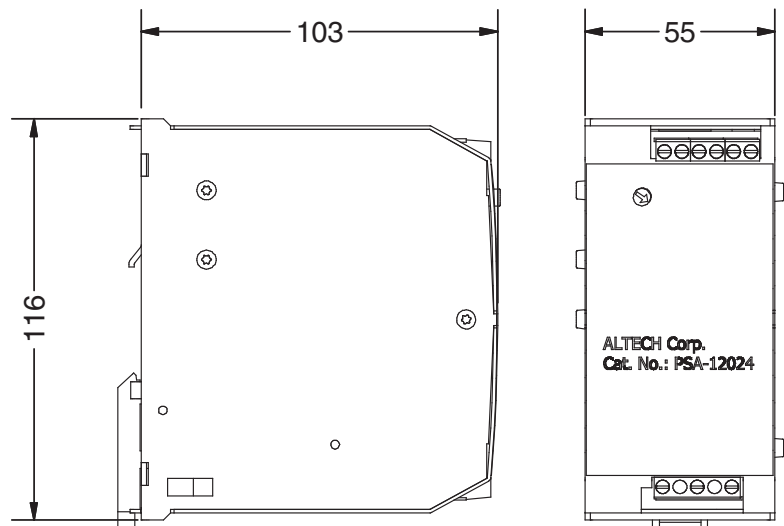
SAFETY STANDARDS	UL508 Listed, IEC/EN 60950, EN 50178, IEC/EN 60950, EN60950-1, PELV EN 60204-1
WITHSTAND VOLTAGE	I/P-O/P: 3k VAC I/P-FG: 1.6k VAC O/P-FG: 500 VAC
PROTECTION CLASS	IP 20 (EN/IEC 60529)
ISOLATION RESISTANCE	100 MΩ (min) @ 500 VDC
EMI CONDUCTION & RADIATION	EN61000-6-4
HARMONIC CURRENT	EN61000-3-2
EMS IMMUNITY	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN61000-6-2, 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.

## OTHERS

MTBF IEC 61709	> 500,000 h
DC OK AKTIV SIGNAL (max.)	20 ~ 30 VDC
POLLUTION DEGREE	2
CONNECTION TERMINAL BLOCK	2.5 mm Screw terminal (24 ~ 14 AWG)
DIMENSION	55x110x105 mm ( 2.16x4.33x4.13 in )
PACKING	0.50 kg ( 1.1 lbs) each

All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature.

Mechanical Specification



TB1 Terminal Pin. No Assignment

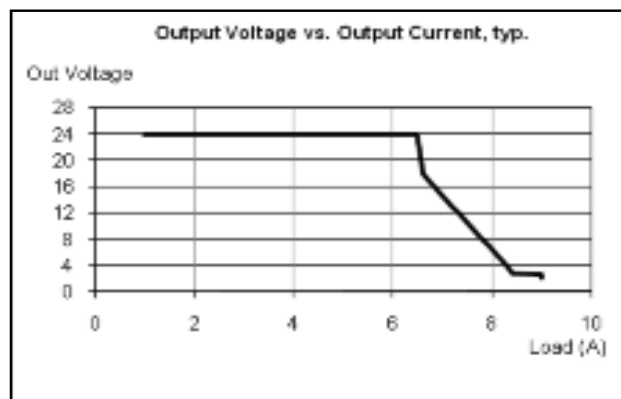
Pin No.	Assignment (1 phase)
1	N / AC
2	L / AC
2	FG Ⓢ

TB2 Terminal Pin. No Assignment

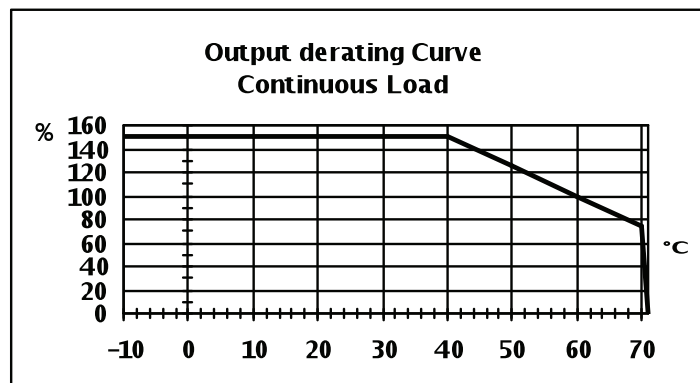
Pin No.	Assignment
1,2	DC output -V
3,4	DC output +V
5,6	DC OK relay contacts

DC OK Relay Contact

Outputs are used for preventive function monitoring of the power supply. An electrically isolated signal contact is available. The signal contact closes when the output power is OK and opens when the output voltage falls below 20Vdc  $\pm 5\%$ .



Output Derating Curve



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