



# PSA-180 Series (1 Phase)

## Specifications



### Features:

- Multiple overload/ short circuit protection modes
- Efficiency above 91%
- Small size
- DIN rail mountable
- Cooling by free air convection
- UL508 (industrial control equipment) approved
- EN60950-1
- Built-in DC OK relay contact
- 3 year warranty

### OUTPUT

#### Cat. No. PSA-18024

DC VOLTAGE	24 V
RATED CURRENT	7.5 A
CURRENT RANGE	0-7.5A
RATED POWER	180 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 (DC)	10 V ~ 14 V
VOLTAGE TOLERANCE	-0.03
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>	16 A
Max 2 sec.: Hiccup mode	
Permanent: Continuous mode	
DISSIPATION POWER LOAD mas	17 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.)	Typ. 20 msec

### INPUT

VOLTAGE RANGE	90 ~ 135V AC / 180 ~ 264V AC switch select
FREQUENCY RANGE	47 ~ 63 Hz +-6%
EFFICIENCY (Typ.)	>91 %
AC CURRENT (115 – 230 Vac.)	2.8 ~ 1.3 A
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 Vac

### PROTECTION

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

### ENVIRONMENT

DC OK AKTIV SIGNAL (max.)	20 ~ 30 Vdc
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

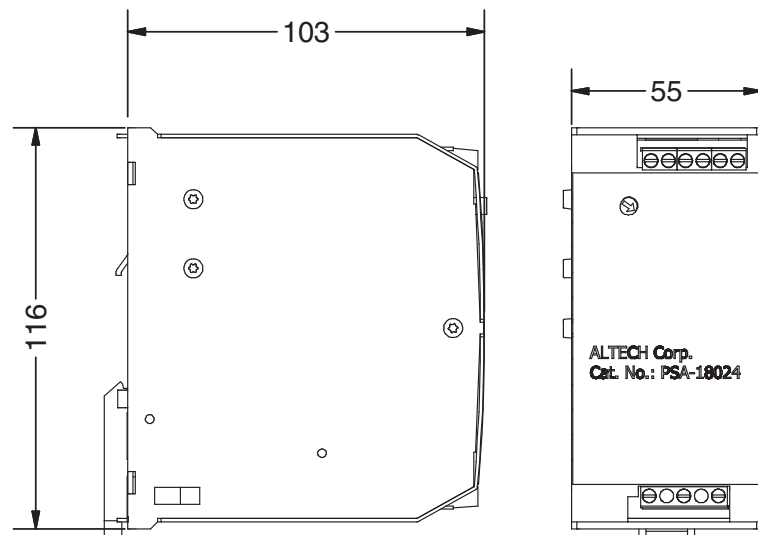
### SAFETY & EMC

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, EN61000-6-4,
	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
POLLUTION DEGREE	2
CONNECTION TERMINAL BLOCK	2.5 mm Screw terminal (24 ~ 14 AWG)
DIMENSION	55x110x105 mm ( 2.16x4.33x4.13 in )
PACKING	0.60 kg ( 1.3 lbs) each
NOTE	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

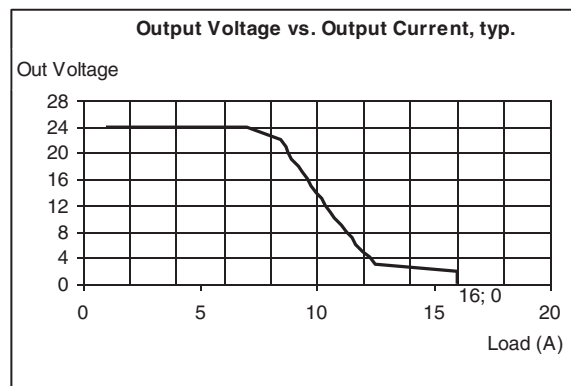
Pin No.	Assignment (1 phase)
1	N / AC
2	L / AC
3	FG 

TB1 Terminal Pin. No Assignment

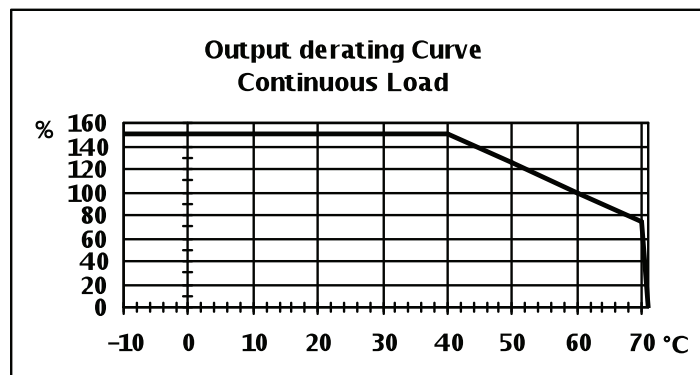
Pin No.	Assignment
1,2	DC output -V
3,4	DC output +V
5,6	DC OK relay contacts

**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.*