



PSA-600 Series (1 Phase)

Specifications



Features:

- Multiple overload/ short circuit protection modes
- Efficiency above 92%
- **Easy parallel connection for more power**
- 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-60024
DC VOLTAGE	24 V
RATED CURRENT	25 A
CURRENT RANGE	0-25A
RATED POWER	600 W
RIPPLE & NOISE (max)	100 mVp-p
	<small>Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor.</small>
VOLTAGE ADJ. RANGE	22 V ~ 27 V
VOLTAGE TOLERANCE	-0.03
	<small>Tolerance: includes set up tolerance, line regulation and load regulation.</small>
START UP WITH STRONG LOAD	≤ 50,000 µF
SHORT CIRCUIT CURRENT I _{cc}	60 A
	Max 2 sec.: Hiccup mode
	Permanent: Continuous mode
DISSIPATION POWER LOAD mas	54 W
LINE REGULATION	± 0.5%
LOAD REGULATION	± 1%
SETUP, RISE TIME	1 sec. (max)
	<small>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.</small>
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.)	8 ~ 4.2 A
INRUSH CURRENT (Typ.)	< 16 A < 5 msec
INTERNAL FUSE	10A (T)
EXTERNAL FUSE (recommended)	16 A (curve B)
LEAKAGE CURRENT	< 1.5 mA @ 230 Vac

PROTECTION

OVERLOAD	In (60°C) x 1.5 ³ (3 min.) Current max. Overload @ 4Vdc (permanent) I _{max} =In (60°C) x (1.8 - 2.2)
OVER VOLTAGE	30 ~ 35 Vdc
OVER TEMPERATURE	Yes. 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

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

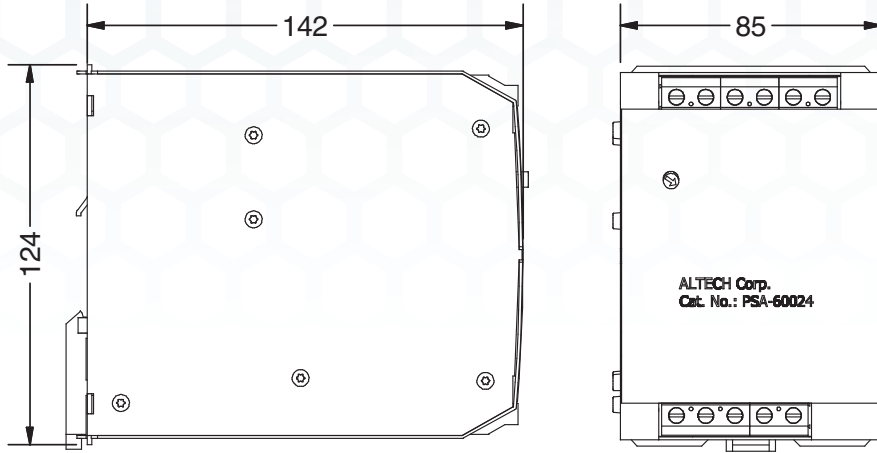
SAFETY & EMC

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	
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, <small>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.</small>

OTHERS

MTBF IEC 61709	> 500.000 h
POLLUTION DEGREE	2
CONNECTION TERMINAL BLOCK	4 mm Screw terminal (30 ~ 10 AWG)
DIMENSION	85x120x140 mm (3.34x4.72x5.51 in)
PACKING	0.75 kg (1.9 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

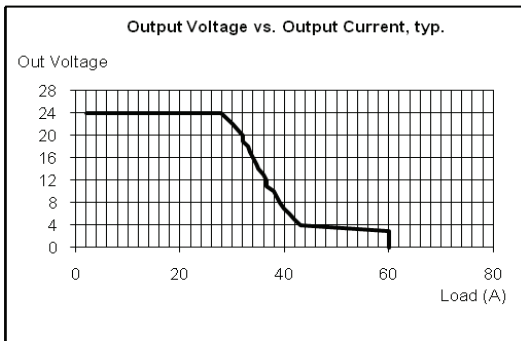
Pin No.	Assignment (1 phase)
1	N / AC
2	L / AC
3	Jumper 115V AC
4	Jumper 115V AC
5	FG

TB2 Terminal Pin. No Assignment

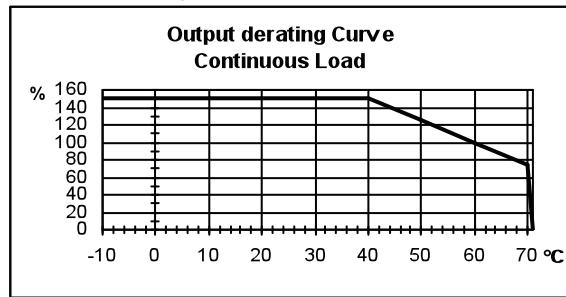
Pin No.	Assignment
1,2	DC output -V
3,4	DC output +V
5,6	DC OK relay contacts

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 $\pm 5\%$.

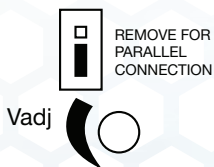
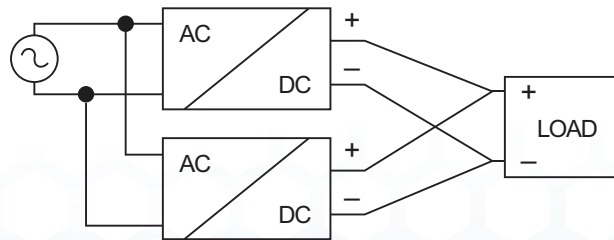


Output Derating Curve

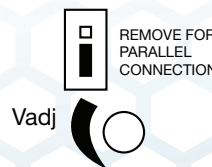


Parallel Connection

A parallel connection with the same model power supply can be set up to increase the output power. The output has to be adjusted approximately to the same value ($\pm 20\text{mV}$) while applying a 1-2 A load to all devices before connecting them in parallel. In PSA-600xx, for more power, the position of the Easy Parallel jumper needs to be changed to enable a parallel connection. In this mode up to 4 power supplies can be put together in parallel.



Easy Parallel connection
OFF (factory selection)



Easy Parallel
ON

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