

PSA-12024 (1 Phase)



Specifications

Features:

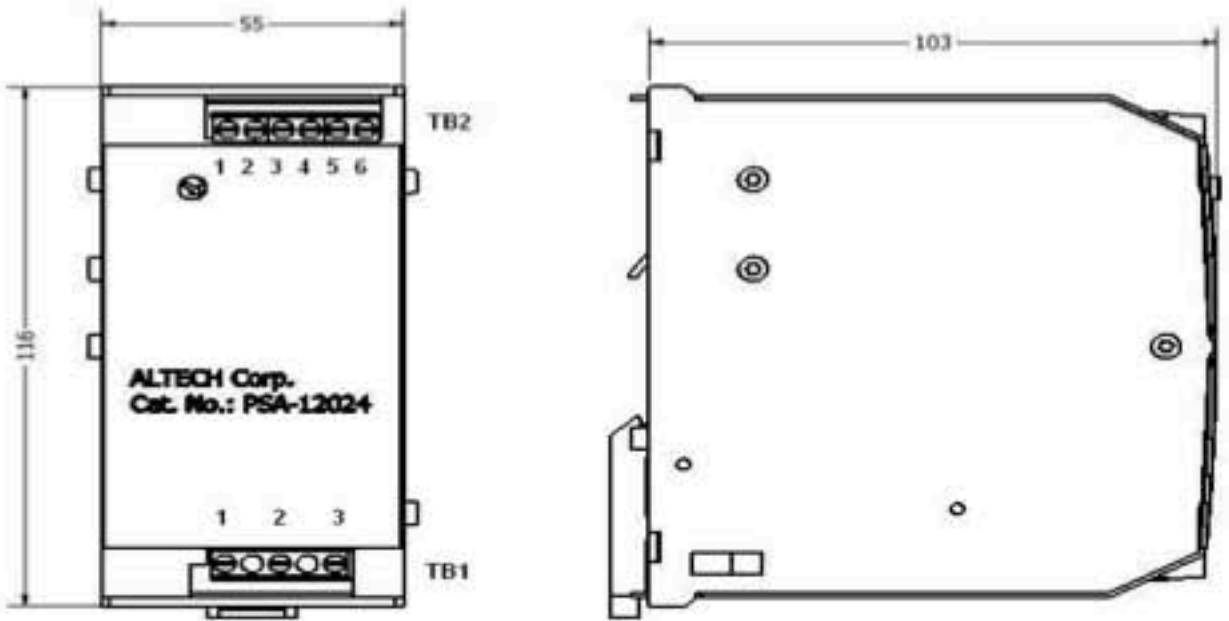
- Multiple overload/ short circuit protection modes
- Efficiency above 91%
- Small size
- DIN rail mountable
- Cooling by free air convection
- UL508 (industrial control equipment) approved
- EN60950-1
- Built-in DC OK relay contact
- 3 year warranty



MODEL		PSA-12024	
OUTPUT	DC VOLTAGE	24 V	
	RATED CURRENT	5A	
	CURRENT RANGE	Refer to Output derating curve	
	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	-0.03 Tolerance: includes set up tolerance, line regulation and load regulation.	
	START UP WITH STRONG LOAD	≤ 50,000 µF	
	CURRENT SHORT CIRCUIT I _{cc}		12A
		Max 2 sec.: Hiccup mode Permanent: Continuous mode	
	DISSIPATION POWER LOAD mas	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.)	Typ. 20 msec		
INPUT	VOLTAGE RANGE	90 – 135V AC / 180 – 264V AC by switch	
	FREQUENCY RANGE	47 – 63 Hz +6%	
	EFFICIENCY (Typ.)	>91 %	
	AC CURRENT (115 – 230 Vac.)	1.8 – 0.9 A	
	INRUSH CURRENT (Typ.)	< 11 A < 5 msec	
	INTERNAL FUSE	T 4 A	
	EXTERNAL FUSE (recommended)	10 A (MCB curve B)	
	LEAKAGE CURRENT	< 1.5 mA @ 230 Vac	
PROTECTION FUNCTION	OVERLOAD	In (60°C) x 1.5 * 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
DC OK AKTIV SIGNAL (max.)	20 – 30 Vdc		
ENVIRONMENT	WORKING TEMP.	-25 up to +70 °C (>60° derating 2.5% °C)	
	HUMIDITY	95 % at 25°C, no condensation	
	STORAGE TEMP	-40 up to +85 °C	
	TEMP. COEFFICIENT	± 0.03% / C° (0 – 60 °C)	
	VIBRATION	In according to IEC60068-2-6	
	SAFETY & EMC	SAFETY STANDARDS	UL508 approved, 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 (EN/IEC 60529)		IP 20	
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 is still meets EMC directives.	
OTHERS	MTBF IEC 61709	> 500.000 h	
	POLLUTION DEGREE	2	
	CONNECTION TERMINAL BLOCK	2.5 mm Screw (24 – 14 AWG)	
	DIMENSION	55x110x105 mm (2.16x4.33x4.13 in)	
	PACKING	0.50 kg (1.1 lbs) per 1 pcs	
	NOTE	All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature.	

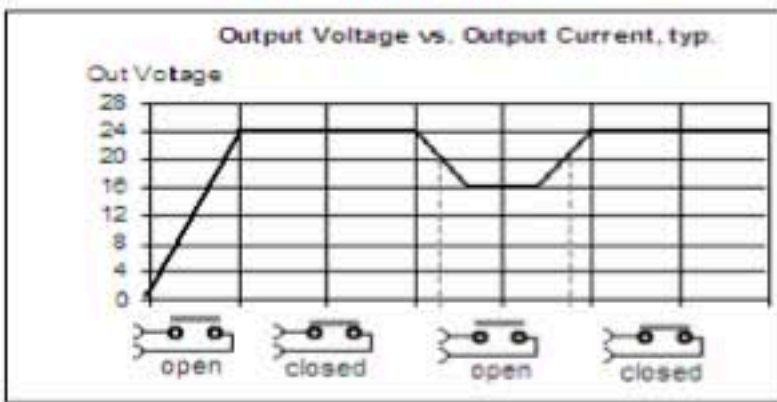
Terminal Pin. No Assign. (TB1)		
Pin No.	Assignment PSA-12024 (1 phase)	Assignment PSB-12024 (2 phase)
1	N	N/L
2	L	L/L
3	FG 	FG 

Terminal Pin. No Assign. (TB2)	
Pin No.	Assignment
1,2	DC output -V
3,4	DC output +V
5,6	DC OK relay contacts

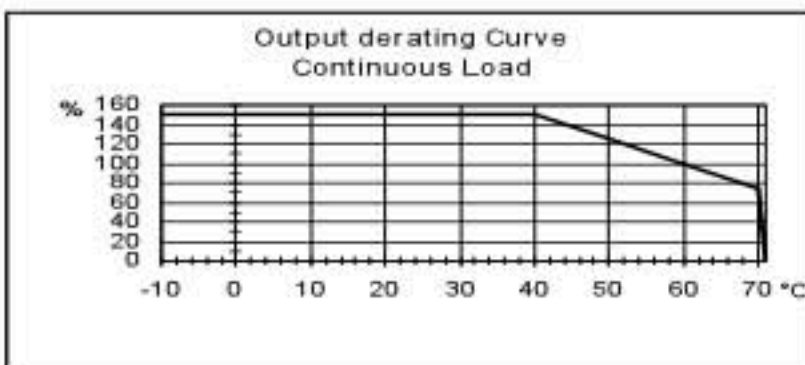


DC OK Relay Contact

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 ($\pm 20mV$) while applying a 1-2 A load to all devices before connecting them in parallel.

