	<ul style="list-style-type: none"> • DIN rail mountable (25W x 82H x 90D [mm]) • 24V AC Input • Available in 12V DC and 24V DC Output • 3 or 12 Watt Power Rating • Externally trimmable $\pm 10\%$ (12V variants) • Split positive and negative voltages (24V variants)
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The PAS series are DIN rail mountable AC-DC converters with 24V AC input and high efficiency. Short circuit and overload protection are standard. Model variants come in 12V and 24VDC output variants. R.C input allows remote On/Off control via external equipment; useful for power sensitive applications. All models are CE and FCC approved, and comply to EMC emission and EMC immunity standards.

Connections

Terminal	Description
IN +	Voltage Supply
IN –	Voltage Supply
R.C	Remote Control. Optional.
OUT +	Output Voltage Positive
OUT –	Output Voltage Negative
FUNC	Function. Optional. Usage varies by model.

Terminal Descriptions

IN + and IN –

AC voltage input. Nominal 24V

OUT + and OUT –

Regulated DC Voltage Output. Nominal 12V and 24V options available.

R.C

Remote Control. Can be used to remotely turn off the unit to conserve power. A voltage greater than 4.5V with respect to IN– (or if terminal is left unconnected) will turn the unit on. A voltage less than 0.8 V with respect to IN– (or shorted to IN–) will turn the unit off.

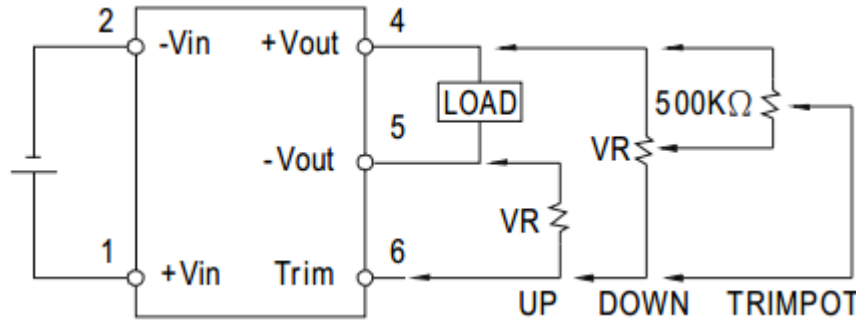
FUNC

Function. Usage changes depending on the series:

- Terminal is GND on 24V DC variant
- Terminal is TRIM on 12V variant.

GND is an optional connection that gives a voltage half way between the nominal output voltage. For example, on the PAS-002 there is 24V between OUT+ and OUT-. Using GND you can also have separate 12V supplies; one 12V between GND and OUT+, and another between OUT- and GND.

TRIM allows external output voltage trimming of $\pm 10\%$, should you need fine adjustment of the regulated voltage. Trimming is achieved using a potentiometer connected across the output terminals, with the wiper connected to TRIM.



Ordering Info

PAS-001

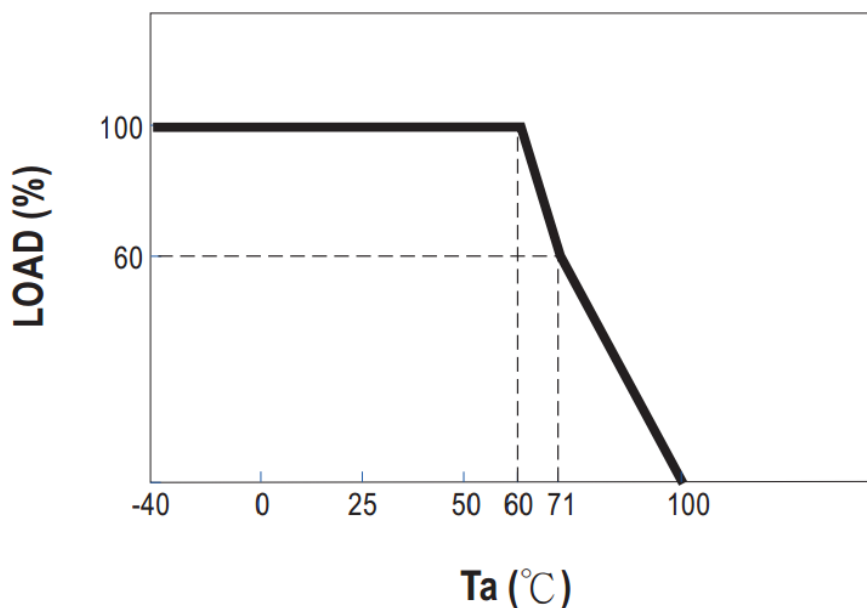
- 01: 12V DC; 3W
- 02: 24V DC; 3W
- 03: 12V DC; 12W
- 04: 24V DC; 12W

Specifications

24V DC variant

OUTPUT	DC VOLTAGE	±5V		±12V		±15V					
	CURRENT RANGE	±240 ~ ±1200mA		±100~ ±500mA		±80 ~ ±400mA					
	RATED POWER	12W									
	RIPPLE & NOISE (max.) Note.2	50mVp-p		60mVp-p		60mVp-p					
	LINE REGULATION Note.3	±0.5%									
	LOAD REGULATION Note.4	±0.5%									
	VOLTAGE ACCURACY	±2.0%									
	SWITCHING FREQUENCY	400KHz min.									
EXTERNAL CAPACITANCE LOAD (max.)	670uF		100uF		47uF						
INPUT	VOLTAGE RANGE	A: 9 ~ 18VDC B: 18 ~ 36VDC C: 36 ~ 72VDC									
	EFFICIENCY (Typ.)	80%	80%	81%	84%	84%	84%	83%	84%	83%	
	DC CURRENT	Full load A: 1245mA B: 625mA C: 320mA									
		No load A: 70mA B: 35mA C: 25mA									
	FILTER	Pi network									
PROTECTION	Fuse recommended										
PROTECTION Note.5	OVERLOAD	110 ~ 180% rated output load									
		Protection type : Hiccup mode, recovers automatically after fault condition is removed									
SHORT CIRCUIT	All output equipped with over current protection										
	Protection type : Hiccup mode, recovers automatically after fault condition is removed										
ENVIRONMENT	WORKING TEMP.	-40 ~ +71°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20% ~ 90% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 ~ +105°C, 10 ~ 95% RH									
	TEMP. COEFFICIENT	±0.05% / °C (0 ~ 50°C)									
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes									
SAFETY & EMC	WITHSTAND VOLTAGE	I/P-O/P: 1.5KVDC									
	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH									
	ISOLATION CAPACITANCE	2200pF max.									
	EMC EMISSION	Compliance to EN55022 Class A, FCC part 15 Class A									
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8, light industry level, criteria A									
OTHERS	REMOTE CONTROL	Power ON: R.C. ~ -Vin > 4VDC or open ; Power OFF: R.C. ~ -Vin < 1VDC or short									
	MTBF	600Khrs min. MIL-HDBK-217F (25°C)									

Derating Curve



12V Variant

OUTPUT	DC VOLTAGE	5V	12V	15V							
	CURRENT RANGE	480 ~ 2400mA	200 ~ 1000mA	160 ~ 800mA							
	RATED POWER	12W									
	RIPPLE & NOISE (max.) Note.2	50mVp-p	60mVp-p	60mVp-p							
	LINE REGULATION Note.3	±0.5%									
	LOAD REGULATION Note.4	±0.5%									
	VOLTAGE ACCURACY	±2.0%									
	SWITCHING FREQUENCY	400KHz min.									
	EXTERNAL CAPACITANCE LOAD (max.)	1000uF	220uF	220uF							
INPUT	VOLTAGE RANGE	A: 9 ~ 18VDC B: 18 ~ 36VDC C: 36 ~ 72VDC									
	EFFICIENCY (Typ.)	82%	83%	84%	82%	83%	83%	82%	85%	83%	
	DC CURRENT	Full load A: 1245mA B: 625mA C: 320mA No load A: 70mA B: 35mA C: 25mA									
	FILTER	Pi network									
	PROTECTION	Fuse recommended									
PROTECTION (Note. 5)	OVERLOAD	110 ~ 180% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed									
	SHORT CIRCUIT	All output equipped with short circuit Protection type : Hiccup mode, recovers automatically after fault condition is removed									
ENVIRONMENT	WORKING TEMP.	-40 ~ +71°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20% ~ 90% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 ~ +105°C, 10 ~ 95% RH									
	TEMP. COEFFICIENT	±0.05% / °C (0 ~ 50°C)									
	VIBRATION	10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes									
SAFETY	WITHSTAND VOLTAGE	I/P-O/P: 1.5KVDC									
	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH									
	ISOLATION CAPACITANCE	2200pF max.									
	EMC EMISSION	Compliance to EN55022 Class A, FCC part 15 Class A									
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8 light industry level, criteria A									
OTHERS	REMOTE CONTROL	Power ON: R.C. ~ -Vin > 4VDC or open ; Power OFF: R.C. ~ -Vin < 1VDC or short									
	MTBF	600Khrs min. MIL-HDBK-217F(25°C)									

Derating Curve

