

Power Modules

PW-3090 Series

Isolated power module



Functional Description

The PW-3090 series is an efficient (83%) DC-to-DC power module with 1000 Vdc isolated protection. It can have non-regular DC input (18~36V) but still can provide a stable DC output (5V, 12V, 24V, $\pm 5V$, $\pm 15V$). It can provide your devices with a stable power source against harmful effects in the operating environment.

Applications

- Isolated power supply for signal conditioning modules

Specifications

- Input Voltage Range: 18~36VDC
- Temperature Coefficient: $\pm 0.03\%/^{\circ}\text{C}$
- Ripple & Noise: 100mVp-p max
- Line Regulation: $\pm 0.2\%$ max
- Load Regulation: $\pm 0.2\%$ max
- Short Circuit Protection
- Isolation Resistance: 10^9 ohms min
- Switch Frequency: 200KHz

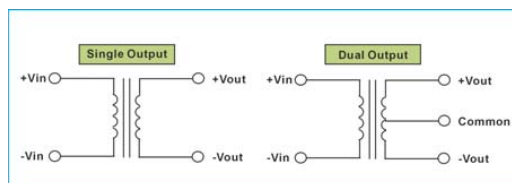
General Specifications

- Isolation Voltage: 1000Vdc
- Operating temperature: $-25 \sim 70^{\circ}\text{C}$
- Storage temperature: $-30 \sim 85^{\circ}\text{C}$
- Operation bandwidth: 3KHz
- Weight: 110 grams
- Dimensions: 113 mm x 70.5 mm x 24.5 mm

Features

- 1000Vdc isolation (three-way)
- Wide input range(18~36V)
- Stable DC output
- Easy to configure output voltage
- Flexible DIN-rail mounting

Simplified Schematic Diagram



Pin Assignment

Pin	Name	
1	-Vout	OUT
2	-Vout	
3	Common	
4	+Vout	
5	+Vout	IN
6	Common	
7	+18~36VDC	
8	+18~36VDC	
9	+18~36VDC	IN
10	GND	
11	Frame GND	
12	GND	

Ordering Information

Standard

- PW-3090-24S:** Output power voltage
+24V @ 400mA (max.) Accuracy: $\pm 2\%$
- PW-3090-12S:** Output power voltage
+12V @ 800mA (max) Accuracy: $\pm 2\%$
- PW-3090-5S:** Output power voltage
+5V @ 2000mA (max) Accuracy: $\pm 2\%$
- PW-3090-15D:** Output power voltage
 $\pm 15V$ @ 300mA (max) Accuracy: $\pm 2\%$
- PW-3090-5D:** Output power voltage
 $\pm 5V$ @ 1000mA (max) Accuracy: $\pm 2\%$