

SIPAC3 POWER SUPPLIES

FEATURES

- Built-in fuse and ON/OFF power switch
- Designed to integrate tightly with SIPAC3 Programmable Industrial Processor and chassis
- Wide input voltage ranges
- UL Hazardous Locations approved and ATEX compliant

DESCRIPTION

SIPAC3 power supplies, converters, and adapters provide AC or DC options to power your SIPAC3 system. Packaged in a modern and sturdy housing, SIPAC3 power supplies include a built-in fuse and an ON/OFF power switch for ease of use.

The SIPAC3-PSAC power supply and the SIPAC3-PSDC voltage converter are designed to provide power for a SIPAC3 chassis with a SIPAC3-PR1 processor, and SIPAC3 I/O modules mounted on the chassis. The combination of a chassis, processor, and modules is called an I/O unit.

The SIPAC3-PSPT pass-through power adapter is designed to allow you to connect a user-supplied, external 12 V power supply to the I/O unit.

All SIPAC3 power supplies, voltage converters, and adapters are UL/cUL listed and compliant with the ATEX, Low Voltage, and EMC CE directives.


SIPAC3 PSAC

SIPAC3 PSDC

PART NUMBERS

Part	Description
SIPAC3-PSAC	Power supply, 110-240 VAC
SIPAC3-PSDC	Power converter, 24-48 VDC
SIPAC3-PSPT	Pass-through power adapter, 10-15 VDC

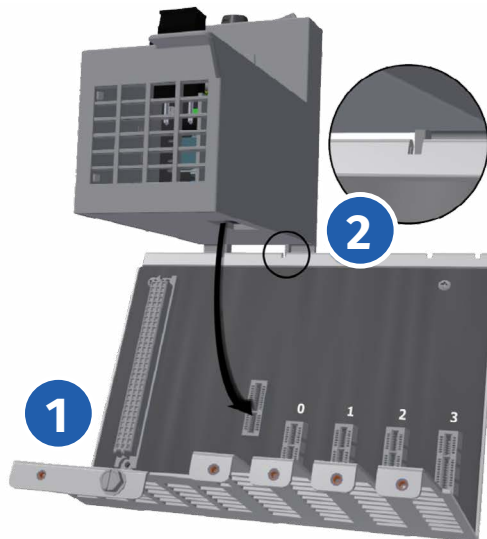
SPECIFICATIONS

Specification	SIPAC3-PSAC	SIPAC3-PSDC	SIPAC3-PSPT
Max Output Power	60 W (-20 °C ≤ Ta ≤ 50 °C) 50 W (50 °C < Ta ≤ 70 °C)	50 W (-20 °C ≤ Ta ≤ 70 °C)	108 W from external 12 VDC supply (-20 °C ≤ Ta ≤ 70 °C)
Input Voltage Range	110 to 240 VAC nominal 100 to 264 VAC max.	24 to 48 VDC nominal 22 to 50 VDC max.	10 to 15 VDC
Typical Input Current (max load)	0.6 A at 115 VAC	3.5 A at 22 VDC	9 A at 12 VDC
Inrush Current	30 A at 115 VAC	2.5 I2t (A2s)	2.5 I2t (A2s)
Input Frequency Range	50 Hz to 60 Hz	n/a	n/a
Power Factor	>0.98 at 115 VAC, full load	n/a	n/a
Wire Size	28-12 AWG	28-12 AWG	28-12 AWG
Torque (connector screw)	4.4 in-lb	4.4 in-lb	4.4 in-lb
Fuse	2 A 250 V Slow	4 A 250 V Slow	10 A 125 V Fast
Operating Ambient Temperature	-20 °C to 70 °C	-20 °C to 70 °C	-20 °C to 70 °C
Altitude Temperature Derating	5 °C per 1000 m over 2000 m	5 °C per 1000 m over 2000 m	n/a
MTTF (minimum, 25 °C)	650 khrs	4.5 Mhrs	4.5 Mhrs
Agency Approvals	UL/cUL(Class 1 Div. 2), CE, ATEX(Category 3, Zone 2), RoHS, DFARS	UL/cUL(Class 1 Div. 2), CE, ATEX(Category 3, Zone 2), RoHS, DFARS	UL/cUL(Class 1 Div. 2), CE, ATEX(Category 3, Zone 2), RoHS, DFARS
Warranty	30 months	30 months	30 months

MOUNTING

In the following instructions, the groov EPIC power supply, adapter, or converter is referred to as “power supply”.

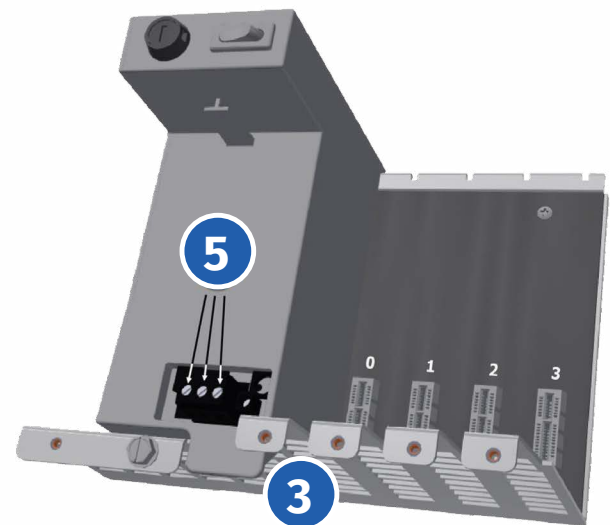
1. Orient the groov EPIC chassis so that the module connector numbers are right-side up, with zero on the left, as shown in the diagram below.
2. Hold the power supply at a 45° angle, with the tabs at the back of the supply aligned with the notches on the chassis.
3. Lower the front-end of the supply onto the chassis until you feel the plug snap into the slot.



4. Following the wiring guidelines in “Power Supply Guidelines and Wiring” on page 4 to connect the power source to the power wiring connector of the groov EPIC power supply.

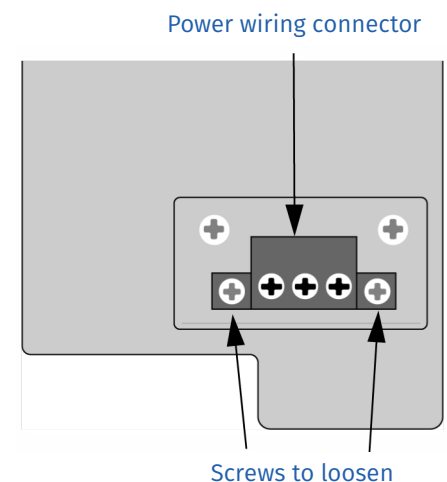
Note: To make it easier to connect the power supply wires, you can remove the power wiring connector from the power supply by loosening the screws on either side of the connector. See diagram at the bottom of the page.

5. Secure the connections by tightening the screws on the power wiring connector.



REMOVING THE POWER SUPPLY, CONVERTER, OR ADAPTER

1. Turn off the power switch.
2. Remove the processor according to the instructions in the groov EPIC Processor Data Sheet (form 2245). Do not attempt to remove the processor and the power supply as a single unit.
3. Loosen the screws of the power wiring connector (as shown in the diagram on the right) and remove the connector from the power supply.
4. Hold the top of the power supply with one hand, then using the thumb of your other hand, lift the front of the power supply by the lip.
5. Pivot the lip up to disconnect the power supply from the chassis.
6. Remove the power supply from the chassis by lifting it up and off the top of the chassis.



POWER SUPPLY GUIDELINES AND WIRING

Always use a separate field supply

Use a separate power supply for the field side of the I/O. Using the chassis supply for field actuation and monitoring defeats the isolation the I/O modules offer and therefore increases the chance of a ground loop within the control system. Additionally, fluctuations on the field side can cause undesirable voltage fluctuations that may interfere with the processor's operation.

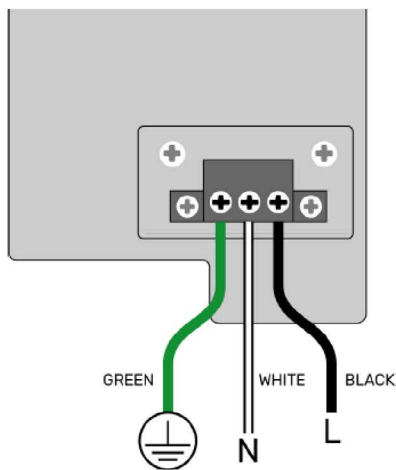
Some modules (for example, the SIPAC3-OVMALC-8) provide their own isolated, regulated, field-side power supply.

Power wiring guidelines

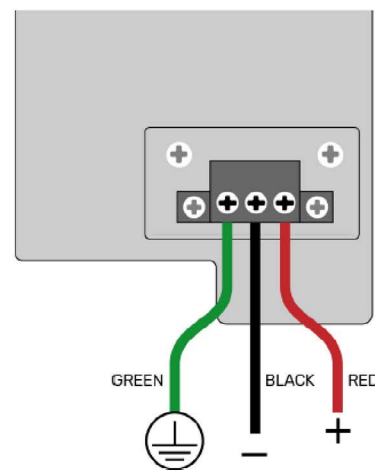
Systems Integrated recommends you follow these wiring guidelines:

- Use a mains-isolated 24 to 48 VDC power source or supply to feed the SIPAC3-PSDC.
- Use the appropriate gage wire:
- For SIPAC3-PSDC or SIPAC3-PSPT with DC input, use 16 to 12 AWG. Keep the wires as short as possible.
- For SIPAC3-PSAC, use 18 to 12 AWG . Keep the wires as short as possible.

Before wiring the SIPAC3-PSAC, SIPAC3-PSDC or SIPAC3-PSPT, verify that your wiring cables conform to the requirements described above.



SIPAC3 PSAC



SIPAC3 PSDC, SIPAC3 PSPT

DIMENSIONS

SIPAC3-PSAC, SIPAC3-PSDC, AND SIPAC3-PSPT

