2500 Series® Compact System

2500C-PS-120V-35 120VAC/125 VDC 35 Watt Power Supply

Input Specifications◊	
Field Wiring Connector	3 Pin Removable Connector
Input Voltage Operating Range	90-240 VAC, 47-63Hz, single phase 90-125VDC
Total Wattage Rating	35 watts maximum output @ 0 to 60ºC
Steady State Input Current at full Load	0.78 Amps max @ 90VAC 0.63 Amps max @ 120VAC 0.36 Amps max @ 240VAC 0.525 Amps max @ 90VDC 0.349 Amps @ 125VDC
Peak Inrush Current	5.1 Amps max @ 120VAC 9.1 Amps max @ 220VAC
Fusing ⚠	1.0 Amp 250VAC, 3 x 20mm front panel accessible **Littelfuse P/N is 0219001.MXAP** **or Bel Fuse P/N 5ET 1-R**
Hold Up Time	86 mSec @ 35 Watt Full Load

Module Size	Triple wide module
Isolation	1500VAC: 110/220 VAC-to-Backplane 500VDC: Chassis-to-Backplane 1500VAC: 110/220 VAC-to-Chassis IEC 60950-1
Operating Temp Range	0ºC to 60ºC (32ºF to 140ºF)
Storage Temperature	-40ºC to 85ºC (-40ºF to 185ºF)
Relative Humidity	5% to 95% (non-condensing)
Shipping Weight	2.0 lb. (0.91 Kg)
Agency Approvals Pending	UL, ULC, FM(Class 1, Div 2), CE
◊ Note: All measurements are made from a power supply at 25ºC .	

DESCRIPTION

The 2500C-PS-120V-35 is a triple wide module that provides power for the CPU and all IO modules plugged in the Compact Chassis.

FEATURES

- Triple wide module
- 110/240 VAC 50/60Hz
- Maximum 35 watts backplane power
- 86mSec holdup time

⚠ Note: Ideally the power should be turned off to the power supply before doing any maintenance. It must be noted that when the fuse is either blown or removed the CPU will go into a normal shutdown. Replacing the fuse with the power off guaranties the system will come up in an orderly fashion. Replacing the fuse while power is still on could create unpredictable restart issues.

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CE

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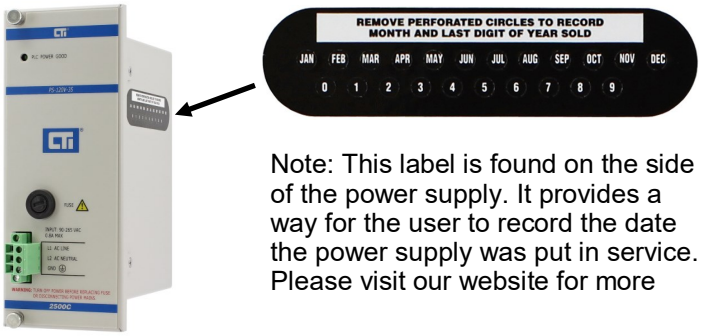
2500C-PS-120V-35 120VAC 35 Watt Power Supply

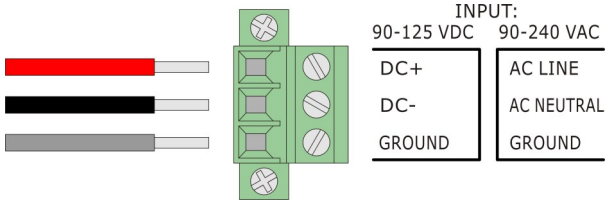
2500C Compact Power Supplies are always located in the left most

Warning:
Disable all power to the base before installing or removing the power supply. Failure to do so could cause damage to the equipment or injury to personnel.

Caution:
Do not attempt to operate the 2500C-PS-120V-35 out of the Voltage Operating Ranges specified. Damage to the Power Supply could occur if out of range power input is applied.



Note: This label is found on the side of the power supply. It provides a way for the user to record the date the power supply was put in service. Please visit our website for more



User Supplied Power Input Wiring Diagram
Note: Use Copper Conductors Only.

Installing Power Wiring

Use the following steps for installing and removing the 2500C-PS-120V-35 Power Supply from the 2500C Chassis.

1. Position the power supply so that the bezel is facing you.
2. Grasp the top and bottom of the power supply
3. Carefully slide the power supply into the left most slot in the base until it engages into the backplane connector.
4. Strip power wiring back, insert the wire into the wiring connector as shown above, then tighten screws
5. Check to make sure the power input wires are securely inserted and the fastened in the wiring connector.
6. Insert and tighten down the 3 pin removable wiring connector.
7. Be sure to tighten the top and bottom bezel screws completely.
8. Once all the chassis modules including controllers and IO are inserted then you may apply power to the power supply inputs.

To remove the power supply, remove power from the power input by removing the power wiring connector or turning off the power source, loosen the bezel screws, and pull the power supply forward out of the chassis until it clears the chassis.

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CAUTION – Non-Hazardous Areas/Hazardous Areas

WARNING – EXPLOSION HAZARD. DO NOT REMOVE OR REPLACE WHILE CIRCUIT IS LIVE UNLESS THE AREA IS FREE OF IGNITIBLE CONCENTRATIONS.	AVERTISSEMENT – RISQUE D'EXPLOSION. NE PAS RETIRER NI REMPLACER PENDANT QUE LE CIRCUIT EST SOUS TENSION À MOINS QUE L'EMPLACEMENT NE SOIT EXEMPT DE CONCENTRATIONS INFLAMMABLES.
WARNING – EXPLOSION HAZARD. DO NOT REMOVE OR REPLACE FUSE WHEN ENER-GIZED.	AVERTISSEMENT – RISQUE D'EXPLOSION. NE PAS RETIRER NI REMPLACER UN FUSIBLE SI L'APPAREILLAGE EST SOUS TENSION.

Turn off power to the system before replacing fuses either in power supplies or IO modules. Refer to Product Bulletin or Installation and Operation Guide for specific information on the correct fuse for replacement. If there are any questions please contact CTI support. Fuses should only be replaced by qualified technicians.

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2500C Compact Modules Backplane Power Requirements		
Model #	Description	Backplane Power Budget
2500C-C100	CPU, 128K	7 watts
2500C-C200	CPU, 256K	7 watts
2500C-C300	CPU, 512K	7 watts
2500C-C400	CPU, 3072K	7 watts
2500C-2572-B	Fast Ethernet TCP/IP Adapter (100 Mbit) for Compact	2.5 watts
2500C-RBC-PRF	Profibus Remote Base Controller	1.5 watts
2500C-RBC-RS485	RS485 Remote Base Controller	1.5 watts
2500C-16-DI-24V	16 Non-isolated 24 VAC/VDC Digital Inputs	1.2 watts (with all Inputs ON)
2500C-16-DI-120V	16 Non-isolated 120 VAC/VDC Digital Inputs	1.2 watts (with all Inputs ON)
2500C-16-IDI-120V	16 Isolated 120 VAC/VDC Digital Inputs	1.2 watts (with all Inputs ON)
2500C-16-IDI-24V	16 Isolated 24 VAC/VDC Digital Inputs	1.2 watts (with all Inputs ON)
2500C-8-IDO-120V	8 Isolated 120/240VAC Digital Outputs	1.09 watts (with all Outputs ON)
2500C-8-IDO-24V	8 Isolated 24VDC Digital Outputs	1.09 watts (with all Outputs ON)
2500C-16-DO-120V	16 120VAC Non-isolated Digital Outputs (Note Range is 79-132VAC)	1.25 watts (with all Outputs ON)
2500C-16-DO-24V	16 24VDC Non-isolated Digital Outputs	1.25 watts (with all Outputs ON)
2500C-8-RL-FC	8 Form C Relay Outputs	1.22 watts
2500C-8-AI	8 Analog Inputs	.706 watts
2500C-8-AO	8 Analog Outputs	.312 watts
2500C-8-TC	8 Thermocouple Inputs	1.25 watts
2500C-8-RTD	8 RTD Inputs	1.125 watts
2500C-4-HSC	4 Channel High Speed Counter (Note: Release Date Target 2016)	TBD

How to calculate the power requirements for the system.
Using the Table above find your module and the Backplane Power Budget Value. Add all the modules Power Budget Requirement that will be installed in the base to arrive at the expected power requirement for your system.

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