

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

GE PACSYSTEMS RX3i

IC694PWR330

AC/DC HIGH-CAPACITY POWER SUPPLY

Used with the applicable PACSystems RX3i power supplies configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: IC694ALG390C.pdf

4.9 Power Supply, 120/240 Vac or 125Vdc High Capacity: IC694PWR330

High Capacity Power Supply IC694PWR330 is rated for 30 W. It allows all 30 W to be consumed from the +5Vdc output. This power supply operates from an input voltage source in the range of 85 to 264Vac or 100 to 300 Vdc.

PWR330 Power supplies provide the following outputs:

- +5Vdc output
- Relay +24Vdc which provides power to circuits on Output Relay modules
- Isolated +24Vdc, which is used internally by some modules, can also be used to provide external power for 24Vdc Input modules

Power Supply IC694PWR330 must be installed in an Expansion backplane in an RX3i system. The battery backup and serial port functions are not available in Expansion Backplanes.

4.9.1.1 LEDs

The green PWR LED shows the operating state of the Power Supply. PWR is ON when the power supply has a correct source of power and is operating properly. It is OFF when a Power Supply fault occurs or power is not applied.

The green OK LED is steady ON if the PLC is operating properly. It is OFF if a problem is detected by the PLC.

The green RUN LED is ON when the PLC is in Run mode.

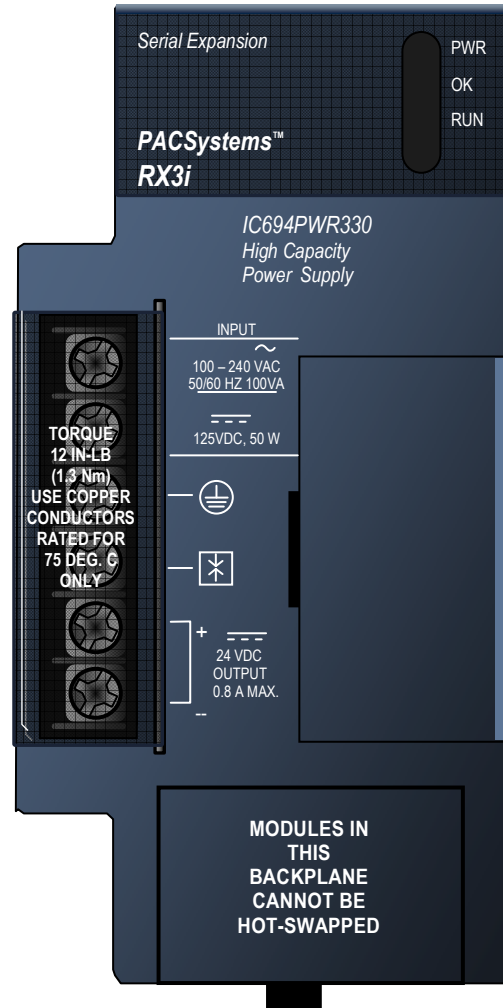


Figure 110: IC694PWR330

4.9.2 Specifications: PWR330

Nominal Rated Voltage	120/240 Vac or 125 Vdc
Input Voltage Range	
AC	85 Vac to 264 Vac
DC	100 Vdc to 300 Vdc

Input Power (Maximum with Full Load)	100 VA with Vac Input 50 W with Vdc Input
Inrush Current ¹⁵	4 A peak, 250ms maximum
Output Power	5 Vdc: 30 W maximum 24 Vdc Relay: 15 W maximum 24 Vdc Isolated: 20 W maximum <i>NOTE: 30 W maximum total (all three outputs)</i>
Output Voltage	5 Vdc: 5.0 to 5.2 Vdc (5.1 Vdc nominal) 24 Vdc Relay: 24 to 28 Vdc 24 Vdc Isolated: 21.5 to 28 Vdc
Isolation (input to backplane)	1500 Vac (for 1 minute)
Protective Limits Over-voltage: Over-current:	5 Vdc output: 6.4 to 7 Vdc 5 Vdc output: 7 A maximum
Ride-through Time	20 ms minimum is the length of time the power supply maintains valid outputs if the power source is interrupted.
Fuse	2 A, GE part number 44A724627-109. Refer to <i>Module Fuse List</i> , Section 2.6.4.11.

4.9.2.1 Over-Current Protection

The 5 Vdc output is electronically limited to 7 Amps. If an overload (including short circuits) occurs, it is sensed internally and the power supply shuts down. The power supply continually tries to restart until the overload condition is removed. An internal replaceable fuse in the input line is provided as a backup. The power supply usually shuts down before the fuse blows. The fuse also protects against internal supply faults.

WARNING

The door of the power supply module must be closed. During normal operation with an AC power source either 120 Vac or 240 Vac is present on the AC Power Supply. The door protects against accidental shock hazard that could cause severe or fatal injury to personnel.

4.9.3 Field Wiring: PWR330

¹⁵ The Inrush Current specification is given as a guide for sizing the external power source for the IC695PWR330. Peak inrush current may be higher for shorter durations.

4.9.3.1 AC Power Source Connections

The Hot, Neutral, and Ground wires from the 120 Vac power source or L1, L2, and Ground wires from the 240 Vac power source connect to the top three terminals on the Power Supply.

4.9.3.2 DC Power Source Connections

Connect the + and - wires from the 125Vdc power source to the top two terminals. These connections are not polarity-sensitive on Power Supply PWR330.

WARNING

If the same external DC power source is used to provide power to two or more power supplies in the system, connection polarity must be identical at each RX3i power supply. A resulting difference in potential can injure personnel or cause damage to equipment. Also, each backplane must be connected to a common system ground.

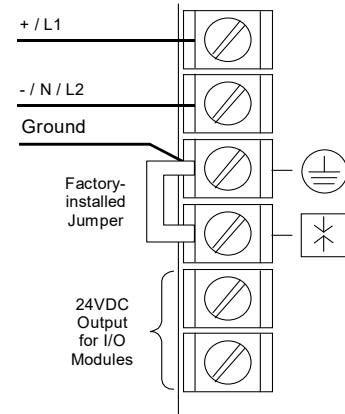


Figure 111: Field Wiring for PWR330

The bottom two terminals of the power supply terminal strip provide output connections to the Isolated +24Vdc. This output can be used to provide power for external circuits (within power limitations of the supply).

CAUTION

If the Isolated 24Vdc supply is overloaded or shorted, the PLC will stop operation

4.9.3.3 Input Over-Voltage Protection

Terminal 4 is normally connected to frame ground (terminal 3) with a factory-installed jumper strap. If over-voltage protection is not required or is supplied upstream, this feature can be disabled by removing the jumper.

To Hi-pot test this supply, over-voltage protection must be disabled during the test by removing the terminal strip jumper. Re-enable over-voltage protection after testing by reinstalling the strap.

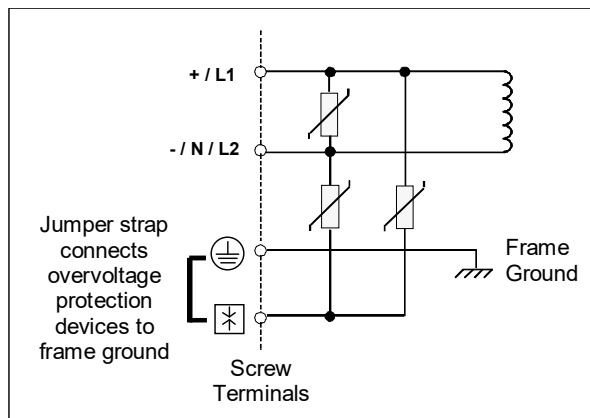


Figure 112: Over-Voltage Protection for PWR330