GE

Intelligent Platforms

Programmable Control Products

PACSystems* RX3i Energy Pack IC695ACC402 Quick Start Guide

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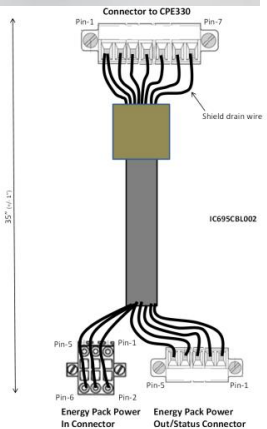
1. Overview



The ACC402 Energy Pack is used exclusively with the CPE330 RX3i CPU. It preserves user memory in the Controller during power fluctuations or outages.

If system power is lost, the Energy Pack maintains power long enough for the connected CPE330 to write its user memory contents to non-volatile memory. When system power is restored, the user memory is restored if the CPE330 is configured to power up from RAM.

The ACC402 Energy Pack is connected to the IC695CPE330 CPU via a dedicated cable IC695CBL002 (shown above). This arrangement allows the Energy Pack to source power from the RX3i backplane in order to charge its circuitry. The cable also allows the CPU to monitor the status of the Energy Pack. Upon loss of backplane power, the CPU automatically switches over to the Energy Pack power source, ensuring an orderly power-down sequence.

Ordering Information

IC695ACC402	CPE330-compatible Energy Pack. Includes Base, Cap Pack module, CPU connecting cable & ground strap.
IC695ACC412	Replacement Cap Pack module.
IC695CBL002	Replacement 1m (36") CPU connecting cable.

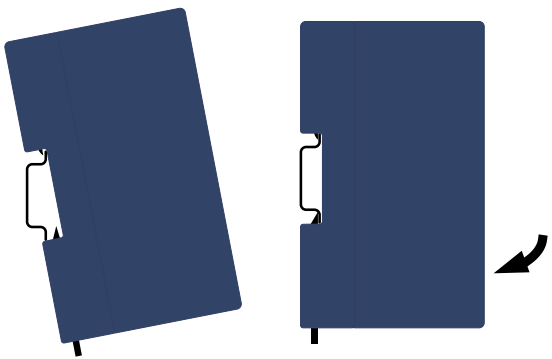
2. Hardware Installation

The ACC402 Energy Pack may be mounted on a standard EN50022 DIN rail or directly on an equipment panel. It is designed to be mounted adjacent to the CPE330 Controller and connected to the Controller using the 1m cable provided (IC695CBL002).

Heat dissipation: A minimum clearance of 25mm (1 inch) needs to be provided on all four sides of the unit (right, left, top and bottom).

Mounting the Energy Pack on a DIN Rail

The Energy Pack snaps easily onto the DIN rail. No tools are required.



Mounting the Energy Pack Directly on a Panel

Recommended fasteners:

The baseplate accommodates four M4-0.7 machine screws (8-36 UNF). Minimum length of 25mm (or 1") is recommended. Secure with matching nuts.

CAUTION

Over tightening the mounting screws could crack the plastic housing.

Installation Location

This product is intended for use with the RX3i system. Its components are considered open equipment (having live electrical parts that may be accessible to users) and must be installed in an ultimate enclosure that is manufactured to provide safety. At a minimum, the enclosure shall provide a degree of protection against solid objects as small as 12mm (e.g. fingers). This equates to a NEMA/UL Type 1 enclosure or an IEC60529 IP20 rating providing at least a pollution degree 2 environment. For details about installing RX3i rack systems, refer to *PACSystems* RX3i System Manual,* GFK-2314.

If you need technical help, contact Technical Support. For phone numbers and email addresses, see the back cover of this Guide.

Installation in Hazardous Areas

The following information is for products bearing the UL marking for Hazardous Areas or ATEX marking for explosive atmospheres:

CLASS 1 DIVISION 2 GROUPS ABCD

- This equipment is an open-type device and is meant to be installed in an enclosure suitable for the environment that is only accessible with the use of a tool.
- Suitable for use in Class I, Division 2, Groups A, B, C and D Hazardous Locations, or nonhazardous locations only.

Warning – EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.

Warning – WHEN IN HAZARDOUS LOCATIONS, TURN OFF POWER BEFORE REPLACING OR WIRING MODULES; AND

ATEX Zone 2

This module must be mounted in an enclosure certified in accordance with EN60079-15 for use in Zone 2, Group IIC and rated IP54. The enclosure shall only be able to be opened with the use of a tool.

3. Cable Connections

Connecting to the Energy Pack

The two connectors on the ACC402 Energy Pack mate with the corresponding two pre-wired pig-tailed connectors of the IC695CBL002 cable assembly. Insert each keyed connector as shown above and secure using the captive screws provided.

Connecting the Energy Pack to the Controller

With power to the CPE330 Controller turned off, connect the 7-pin keyed connector of the IC695CBL002 cable assembly to the mating connector on the underside of the IC695CPE330 and secure using the captive screws provided.

4. Grounding

Proper grounding of this device is essential. The included ground strap wire must be pressed onto the spade lug connector on the left side of the ACC402. Cable assembly IC695CBL002 ties all internal cable shield drains to this ground.

The frame ground wiring used by both the CPE330 and ACC402 must be connected to a central ground point. The green and yellow ground strap wire (see figure above), which attaches to the spade lug on the side of the ACC402 base plate, must be connected to the central ground point.

All ground wires from the host rack or panel must be as short as possible and terminated at the same grounding point.

5. Power-Up

When power is applied to the Energy Pack, the power-up process goes through the following steps:

1. The IN LED turns on green.
2. The Energy Pack performs a self-diagnostic test. If this test passes, output power to the Controller is turned on and the OUT LED turns on (green).

3. Charging of the Cap Pack begins and the STAT LED blinks green.
4. When charging of the Cap Pack is complete, the STAT LED turns on solid green and the Energy Pack signals to the controller that it can start run-time operation. The Controller will not start running its application until the Energy Pack signals that it is fully charged.
5. If the Energy Pack is faulty or is not communicating, the Controller will commence operations after a timeout period (90 sec).