PACSystems™ RSTi-EP Controllers
Programmable Automation Controller

The demand for improved asset performance and productivity is increasing in manufacturing and infrastructure markets. They require even smaller applications with robust execution performance and a range of connectivity options to real-time application status information and diagnostics.

Emerson has designed a small form factor, high performance controller that enables equipment builders to improve performance and flexibility of their machines while reducing size, complexity, and cost.

Small Footprint. Big Impact.

Leverage the power and flexibility of PACSystems in smaller applications. RSTi-EP CPUs make it possible to incorporate the entire PACSystems programming suite in stand-alone applications or as auxiliary control in larger process applications that use RX3i. This simplifies training for operators and maintenance workers and streamlines application development and integration.

RSTi-EP CPUs support real-time application status, remote diagnostics and:

- Dual LAN interfaces with four Ethernet ports
- Built-in RS-232 serial port
- A range of communications protocols, including PROFINET
- Available DNP3 Outstation capability for Remote Terminal Unit (RTU) applications
- Up to 1.5 MB of non-volatile user memory all in just 1.5" (38.1mm) of DIN rail space

Speaking the Same Language

With RSTi-EP CPUs you can use the same runtime as existing RX3i controllers and leverage existing application libraries and templates while scaling footprint and performance for smaller application installations. Fast, easy-to-configure PACSystems technology and an extensive range of I/O options support scalable automation and highly distributed modular machine designs.

PROFINET Advantage

PROFINET I/O solutions from Emerson can provide productivity and performance advantages for virtually any type of control application in a range of industries. PROFINET supports a variety of I/O without compromising system performance and can operate in high-noise environments. Connect to any of Emerson's purpose-built I/O families through a PROFINET interface for advanced flexibility and performance.

Advanced Security

Without proper cybersecurity in place, industrial controls may be vulnerable to cyber threats. Emerson's PAC, PLC and industrial automation portfolio enlists defense-indepth architecture to help secure assets from these threats. RSTi-EP CPUs incorporate technologies such as Trusted Platform Modules and secure and trusted boot. Centralized configuration allows encrypted firmware updates to be executed from a secure central location. And, a suite of cybersecurity technology and tools help prevent unauthorized updates.

EMERSON.

Feature	Benefit
High performance	■ Latest CPU features integrated System-on-Module processor for reduced latency and more precise data or I/O control. ■ Full PACSystems library of programming capabilities helps enable quick and convenient application development.
Simplification	■ Store large amounts of data for better system statistics and analysis. ■ Store application files right on the control for fast access to drawings, debug or startup information, operational notes, and more. ■ Built-in multiport switch reduces network wiring cost and installation time. ■ Three-port switch allows for I/O network redundancy via Media Redundancy Protocol and a connection for local HMI without extra networking equipment.
Security	■ Secure-by-design features include Trusted Platform Module and Measured Boot technology to enable encrypted, digitally signed firmware updates and help stop attempts to introduce malware onto the CPU. These same technologies are included on the PACSystems RX3i product line. ■ Achilles certification ensures reliability and communications robustness. ■ Role-based access control assigns user privileges based on pre-defined levels of authorization, enhancing system security.
PROFINET distributed I/O connectivity	■ Open standard for high-speed I/O connectivity. ■ Support for Media Redundancy Protocol for robust operation. ■ Replace devices without the need to reconfigure them for improved uptime.
DNP3 Outstation capability	■ Support of DNP3 Outstation capability for RTU applications in water and wastewater, transportation, and oil and gas pipeline sectors*

Specifications

Form Factor
■ Standalone

Retentive Memory
■ 1MB (CPE100)
■ 1.5MB (CPE115)

I/O
■ 2k Bits Discrete I/O
■ 32k Words for Analog I/O

Communications Interface
■ 1 x RS-232
■ 1 x RS-485
■ Ethernet Port
  - 10/100
   - 3-port switch 10/100

Ethernet Communications
■ SRTP Client/Server
■ Modbus TCP/IP
■ OPC-UA Server
■ EGD
■ PROFINET RT
■ DNP3 Outstation capability over Ethernet*

Redundancy Support
■ Media Redundancy Protocol (MRP)

Environmental
■ -40°C to 70°C

Power
■ 9 VDC – 30 VDC input
■ 250mA @ 24 VDC
■ 6 W maximum dissipation

Serial Communications
■ Modbus/RTU
■ Serial I/O

Agency Approvals
■ UL
■ cUL
■ RoHS
■ FCC
■ REACH
■ WEEE
■ UL HazLoc Class 1 Division 2
■ ATEX Zone 2

Marine
■ ABS
■ BV
■ DNV GL

Only on CPE115 versions

Ordering Information

Part Number	Description
EPSCPE100	RSTi-EP CPE100 Standalone Edge Controller (1.0MB user memory)
EPSCPE115	RSTi-EP CPE115 Standalone Edge Controller (1.5MB user memory)
EPSACC001	RSTi-EP CPU Replacement Super Capacitor