01 / Identity and job scope

HONEYWELL

8C-PCNT02 51454363-275

Process Controller

Product role

Honeywell 8C-PCNT02 51454363-275 is offered as a coated Series 8 C300 process controller for Experion control strategies and Series 8 I/O.

Control Builder
Configured control strategy

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C300 controller
CEE execution

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Series 8 I/O
Process inputs and outputs

Applicability

Controller specifications apply to the 8C-PCNT02 design in S803-150-110. Retain the offered assembly marking 51454363-275 and verify its revision; PCNT03 and PCNT05 hardware ratings are not assigned to this assembly.

Hardware and configuration

The 8C-PCNT02 design uses the Control Execution Environment to schedule configured control strategies. Control Builder provides standard function blocks and user-defined Custom Algorithm Blocks. The R110 controller specification gives a PowerPC 8270 processor, 5500 execution units, 4095 tagged objects and adjustable strategy execution periods of 50–2000 ms.

Planning basis

This Apter Power guide supports identification and engineering planning. Apply the complete manufacturer and machine-builder procedures for the actual installation.

02 / Configuration and interface readiness

Item	Configuration relationship
Controller family	Series 8 C300
Coating	Conformally coated 8C design
Processor	PowerPC 8270
Power requirement	24 V DC from Series 8 power system
Module current rating	320 mA
I/O links	2
I/O capacity per link	Maximum 40 I/O units

Technical context

The controller mounts on a C300 I/O Termination Assembly. The Series 8 power system provides 24 V DC through the cabinet cabling, and the controller module current rating is 320 mA. Two I/O links support a maximum of 40 I/O units each and 80 per controller, counting redundant or non-redundant IOM arrangements under the specified configuration rules.

What execution periods apply to 8C-PCNT02 51454363-275?

The R110 C300 specification gives strategy execution periods adjustable from 50 to 2000 ms.

What power arrangement does 8C-PCNT02 51454363-275 use?

Series 8 cabinet cables supply 24 V DC. The PCNT02 controller module rating is 320 mA.

03 / Installation and connection decisions

Preserve full identity

Check 8C-PCNT02 and 51454363-275 together with the actual revision marking.

Match system release

Validate controller firmware and project compatibility before replacing an installed node.

Review IOTA wiring

Record network, I/O-link, redundancy and power connections before removing hardware.

Respect capacity limits

Count I/O units and control execution load against the selected controller configuration.

Installation context

Fault Tolerant Ethernet provides the supervisory network connection, and native peer communication links Series 8 C300 controllers. Redundant operation requires two controllers, two IOTAs and the 51305980-836 redundancy cable. Optional RAM retention is a separate battery-backed arrangement; it is not established by the controller order string or included automatically in the supply.

How is redundancy implemented for 8C-PCNT02 51454363-275?

Use two appropriate controllers with two IOTAs and the 51305980-836 redundancy cable in the engineered redundant configuration.

Does 8C-PCNT02 51454363-275 include RAM backup as standard?

RAM retention uses an optional rechargeable battery-backed arrangement. Confirm the actual backup hardware separately.

04 / Functional acceptance planning

Application	Controlled review
Distributed process control	Execute configured control strategies within an Experion Series 8 C300 node.
Series 8 I/O coordination	Connect two I/O links while observing the per-link and per-controller capacity limits.
Redundant controller nodes	Use paired controllers, paired IOTAs and the specified redundancy cable for the engineered arrangement.
Control-strategy engineering	Combine standard function blocks and suitable Custom Algorithm Blocks in Control Builder.

What is the supervisory network for 8C-PCNT02 51454363-275?

The C300 design uses Fault Tolerant Ethernet and also supports native peer-to-peer communication with other Series 8 C300 controllers.

Can 8C-PCNT02 51454363-275 use custom control algorithms?

The C300 environment supports Custom Algorithm Blocks with user-defined algorithms and data structures, subject to the installed software and project configuration.

Release boundary

Check controller state, strategy execution and I/O communications before returning the process to normal.

Record
Keep the original configuration

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Test
Observe controlled response

>

Release
Authorize normal operation

05 / Technical handover and support

Retained information

Keep the complete 8C-PCNT02 51454363-275 marking, host identity, connection photographs, configuration backup and controlled-test results in the service record.

Support planning

Confirm current support and replacement guidance with Honeywell for the installed identity and configuration. Apter Power availability and dispatch are separate quotation matters.

Reference basis

Honeywell Series 8 Controller and I/O Specification, S803-150-110 V1.2; S803-150-530 V1.0.

Apter Power technical summary; not a manufacturer-issued manual. Apply the original instructions for the actual installation.

Related industrial automation products

Navigation only; no substitution or compatibility claim.

Honeywell 2104B2111 RX SHORT

Honeywell 51195153-902

Honeywell 51195153-005

Discuss your installed configuration

Send the full unit marking and connection details.

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