

SC-UCNN11 51307573-176

Honeywell SC-UCNN11 is the redundant ControlEdge RTU controller assembly with two control processor modules and one IOTA. It provides networked control and acquisition through connected expansion I/O.

01

Paired control processor architecture

02

Independent Ethernet network configuration

03

Battery-free nonvolatile data retention

04

CPU watchdog with status-LED fault indication

CPM 1

Ethernet / serial

Shared IOTA

Two power inputs

CPM 2

Redundant controller

APPLICATION BOUNDARY

Verify the complete SC-UCNN11 assembly, both CPMs, IOTA and approved redundancy configuration before restoring service.

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Controller assembly	2 CPMs and 1 IOTA; redundant configuration
Onboard mixed I/O	Not included; use expansion I/O
Processor	Dual-core 32-bit ARM Cortex-A9, 667 MHz
RAM / flash	512 MB / 256 MB
Nonvolatile memory	16 Mbits; 20+ years data life, no battery
Power-input ports	2
Rated input	24 Vdc +/-25%; 18-30 Vdc
Maximum ripple	120 mVpp
Maximum input current	1.30 A at 30 Vdc; redundant controllers plus 9 IOMs
Ethernet	4 ports across 2 CPMs; 10/100BaseTx

Network segmentation	Same or different subnets
Serial interfaces	2 RS232 and 2 RS485
Execution / RTC	Cycle >=20 ms; RTC resolution 1 ms
Time synchronization	SNTP or DNP3
Expansion capacity	30 IOMs; 5 rows; maximum 9 IOMs per row
EFM meter runs	Maximum 12; SP-MRUN01 required per run
Power, minimum	5.76 W at 24 Vdc; no serial, only Ethernet 1 active
Power, no expansion	6.72 W at 24 Vdc; 4 serial ports and Ethernet 1-4 active
Power, expansion	6.96 W at 24 Vdc; 4 serial and Ethernet 1-5 active; excludes IOMs/instruments

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REDUNDANT REMOTE CONTROL

Use the two-CPM assembly for the approved ControlEdge RTU redundancy architecture.

SEGMENTED SCADA CONNECTIVITY

Assign the Ethernet interfaces to the same or different subnets according to the station network design.

MULTIROW I/O ACQUISITION

Connect mixed-I/O modules through the designated expansion end plates and ring network.

ELECTRONIC FLOW METERING

Configure licensed meter runs within the redundant-controller capacity and the approved metering application.

STATION INTEGRATION

Plan the I/O rows, separate network subnets and both power-input paths against the approved remote-station design. Preserve processor configuration and time synchronization, reserve instrument power separately, and verify the end-plate ring before testing communications and the required controller functions. Metering applications also need the appropriate per-run licenses and configured acceptance checks.

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What hardware is supplied as the SC-UCNN11 controller assembly?	The ordering table specifies two control processor modules (CPMs) and one IOTA as a complete redundant controller.
Does SC-UCNN11 contain the 28 mixed onboard I/O points?	No. The redundant-controller hardware summary shows no onboard mixed I/O. Use the documented expansion I/O arrangement for field channels.
How much nonvolatile storage is available without a battery?	The redundant controller has 16 Mbits of nonvolatile memory, with a specified data life of more than 20 years and no battery requirement.
Can its Ethernet connections be placed on different subnets?	Yes. The four ports across the two CPMs may be on the same or different subnets; each uses auto-detecting 10/100BaseTx.
How many power-supply ports are provided?	The redundant controller provides two power-supply ports. The specified input range is 18-30 Vdc with a maximum ripple of 120 mVpp.
What are the cycle and time-synchronization limits?	The execution cycle is 20 ms or longer. The real-time clock resolves 1 ms, and synchronization is supported through SNTP or DNP3.
How are additional expansion rows connected?	Dedicated left/right end plates and CAT-5 straight or crossover cables complete the expansion ring. Cable length is limited to 100 m; the controller supports up to five rows.
What is required for twelve electronic flow-meter runs?	The redundant controller supports up to twelve meter runs, with one SP-MRUN01 license required for each run per RTU.

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STEP 1

Identify both CPMs and the shared IOTA before replacement.

STEP 2

Isolate affected power and field energy under the site procedure.

STEP 3

Check both power-input paths against the redundant cabinet drawing.

STEP 4

Keep the input within 18-30 Vdc and the specified ripple limit.

STEP 5

Do not assign onboard mixed I/O to this redundant controller.

STEP 6

Document subnet assignments and configured serial connections.

STEP 7

Verify expansion end plates, CAT-5 ring cabling and row limits.

STEP 8

Confirm synchronization, diagnostics and controlled application tests before handover.

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MANUFACTURER SOURCE

Honeywell ControlEdge RTU Specification Sheet, SC03-300-174, Version 1.0, December 2022, pp. 6-17, 23-25, 29

Related Honeywell catalog pages

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