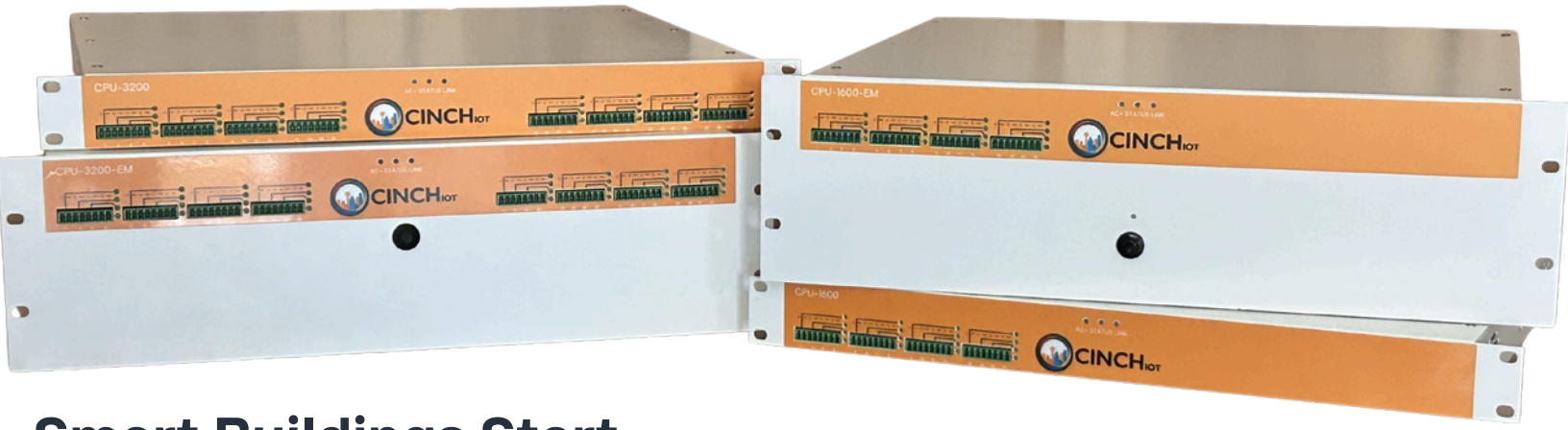
Cinch Controllers Data Sheet



Smart Buildings Start With the Cinch Controller

The Cinch Controller™ is the core power and control engine for the Cinch two-wire low-voltage system. It delivers power, communication, and intelligence to lighting, sensors, IAQ devices, wall stations, and other Cinch endpoints. Paired with CinchOne™ Cloud, it provides real-time visibility, automation, compliance management, and simplified facility operations.

Why Choose the Cinch Controller?

One system for lighting, sensors, IAQ, and emergency power. Reduced installation and maintenance costs, supports agentic AI and autonomous building optimization.

Key Benefits

- **Unified Power + Data: One 18/2 carries power and communication**
- **Faster Installation--75% less labor than AC**
- **Cloud-Managed: Schedules, alerts, updates, rules, emergency testing, dashboards.**
- **Built-In Compliance: EM models include UL924 listed egress lighting with automated testing**
- **Scalable Architecture: 16- or 32-port models support growth from single rooms to entire floors.**

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The Cinch Smart Buildng Controller

The Cinch Smart Building Controller powers and manages a suite of components, including Cinch Mighty Micro Drivers™, wall stations, sensors, and software. It provides clean, stable, and conditioned power, with an optional UL924-listed 90-minute standby uninterruptible power source. This feature keeps emergency egress lighting operational during AC mains power failures. The controller enables flexible designation of emergency lights, simplifying the design, installation, and operation of these systems. Even better, it automatically confirms safe operation by conducting monthly and annual compliance checks.

- 16 or 32 100W ports
- Wires supported: 18-14 AWG
- One 1000BASE-T RJ45 Ethernet
- 400 Watt-hour 90 minute UPS
- Automated emergency testing
- API for cloud services

Core Capabilities

Lighting Control

- Dimming, scenes, tunable white
- Time-of-day, occupancy, and daylight automation
- Supports most LED fixtures with Mighty Micro Drivers™
- Wall stations and switches

Sensor Integration

- Occupancy & daylight sensors
- IAQ/IEQ sensors: CO_2, temp, RH, VOCs, particulates, environmental & specialty sensors

Energy Monitoring

- Equipment level usage
- Trends and anomaly alerts
- Schedules and rules
- Device health monitoring
- Multi-site dashboards
- Event reporting
- Managed firmware updates

Controller	Dimensions	Weight
CPU-3200-EM	19"Wx16"Dx5.25"H	91 lbs*
CPU-1600-EM	19"Wx16"Dx5.25"H	90 lbs*
CPU-3200	19"Wx16"Dx1.75"H	22 lbs
CPU-1600	19"Wx16"Dx1.75"H	21 lbs
*includes 4 batteries at 14.33 lbs each		

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Power Supply Specs

CPU-3200 (3500W PS)	
277VAC	(1) 20 AMP single phase circuit with ground per controller
240VAC	(1) 20 AMP single phase circuit with ground per controller
208VAC	(1) 30 AMP single phase circuit with ground per controller
Peak Load	Absolute Peak Circuit Load - 3500 WATTS @ .97 Power Factor or 3608 VA
Max Continuous	Maximum Continuous Load - 3200 WATTS @ .97 Power Factor or 3300 VA

CPU-1600 (2000W PS)	
277VAC	(1) 15 AMP single phase circuit with ground per controller
240VAC	(1) 15 AMP single phase circuit with ground per controller
208VAC	(1) 15 AMP single phase circuit with ground per controller
Peak Load	Absolute Peak Circuit Load - 2000 WATTS @ .96 Power Factor or 2083 VA
Max Continuous	Maximum Continuous Load - 1600 WATTS @ .96 Power Factor or 1667 VA
NOTE:	Cinch IOT supplies a single ended line cord. It is up to a qualified installer to hard wire into an appropriate junction box.

Cable by Length	
Distance	Gauge
0-200 ft	18
200-400 ft	16
400-600 ft	14
600 ft+	Contact us

Power Supply Safety

Safety EMC Parameter		Level
ESD	EN61000-4-2	L3, 8KV air; L2, 4KV contact
Radiated	EN61000-4-3	L3
EFT/Burst	EN61000-4-4	L3
Surge	EN61000-4-5	2KV/Line-Line 4KV/Line-Earth
Conducted	EN61000-4-6	L3
Mag Field	EN61000-4-8	L4
V dips/inter	EN61000-4-11	>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods
Conducted	EN55032 (CISPR32)	class B
Radiated	EN55032 (CISPR32)	Class A
Harmonic Current	EN61000-3-2	Class A
V Flicker	EN61000-3-3	-

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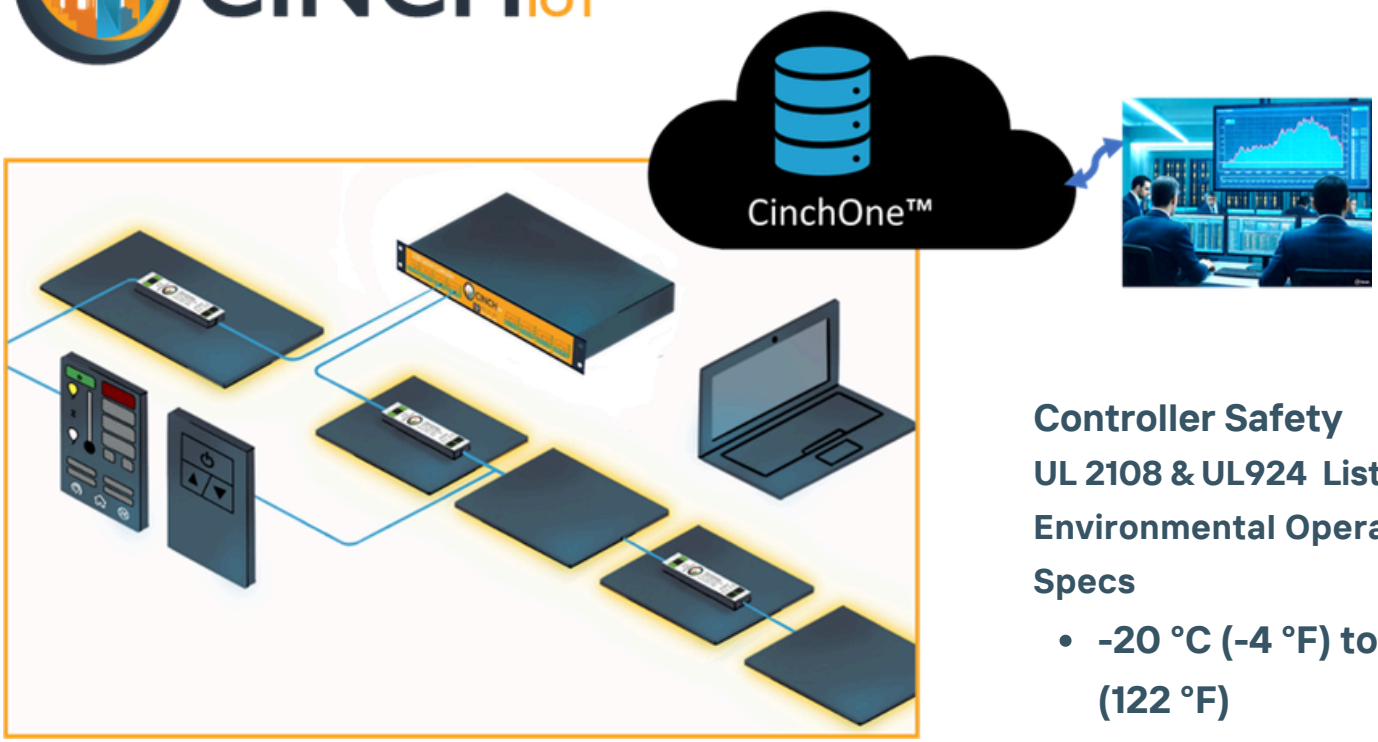

Controller Safety

UL 2108 & UL924 Listed

Environmental Operating Specs

- **-20 °C (-4 °F) to 50 °C (122 °F)**
- **18/2 or 16/2 wire**
- **Altitude: Up to 2000 m**
- **Humidity: 5-95% non-condensing**
- **Max distance: Up to 200 m**
- **10 Year Warranty with CinchOne™**

CABLE SPECIFICATIONS			
TYPE	Gauge	Pairs	DESCRIPTION
1PR#18	18	1	Non-Shielded Twisted PAIR 18 AWG STRANDED 300V (Min)
2PR#18	18	2	Non-Shielded Twisted PAIR 18 AWG STRANDED 300V (Min)
4PR#18	18	4	Non-Shielded Twisted PAIR 18 AWG STRANDED 300V (Min)
8PR#18	18	8	Non-Shielded Twisted PAIR 18 AWG STRANDED 300V (Min)
1PR#16	16	1	Non-Shielded Twisted PAIR 16 AWG STRANDED 300V (Min)
2PR#16	16	2	Non-Shielded Twisted PAIR 16 AWG STRANDED 300V (Min)
4PR#16	16	4	Non-Shielded Twisted PAIR 16 AWG STRANDED 300V (Min)
8PR#16	16	8	Non-Shielded Twisted PAIR 16 AWG STRANDED 300V (Min)
1PR#14	14	1	Non-Shielded Twisted PAIR 14 AWG STRANDED 300V (Min)
8PR#14	14	8	Non-Shielded Twisted PAIR 14 AWG STRANDED 300V (Min)

NOTES:
MUST USE TWISTED PAIR CABLES.
Non-shielded (Shielded is an acceptable alternative).
Solid wire is acceptable-but must be twisted pair.
300V rated (Higher voltage rating is an acceptable alternative.)
CMP rated where needed for use in plenum.

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