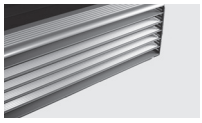
SC-UN – Universal Source Controllers

Catalog#	Prepared by
Project	Date
Comments	Type



Overview

The Universal Source Controller line of lighting control panels set a new standard in architectural lighting control. Each Source Controller contains individual control cards that are the industry's only "true universal" by controlling most load types without interface or multiple cards. In addition, each panel has onboard Ethernet, A/V interface, Contact Closure, DMX input, voltage sensing, real-time individual circuit power metering, and Phase Sense™ technology designed to ensure control even during individual phase failure.

Features

- 6, 12, and 24 circuit variants
- Forward Phase triac slow rise-time dimmer engine. Capable of withstanding repetitive inrush current of 50 times operating current without impacting lifetime of dimmer or relay.
- Positive air-gap off per circuit
- Single or three phase versions
- Continuous duty, thermal magnetic SWD rated breakers for each circuit
- Bypass per circuit for manual override and providing construction site lighting
- Voltage and frequency compensation to maintain light level during supply fluctuations
- Real-time power metering for each circuit, phase, and the total panel
- Live feed per circuit, via breaker, for emergency lighting connection

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Specifications

Mechanical	No regular maintenance requirements due to natural convection cooling, i.e. no fans or filters
	Single circuit dimmer card
	Wall mounted design
Programming	An LCD graphical user interface and keypad for ease of programming and configuration. The interface can be used for programming single area systems there is no need to use a PC. The GUI also allows programming of the astronomical timeclock.
Interfacing	All SC-UN Source Controllers have RS485 and Ethernet over UDP connections to allow for control by third party systems (Building Management System, Audio/Visual, etc.) through the use of open protocol ASCII message commands
	Two contact closure inputs for integration with auxiliary equipment and emergency lighting input
	DMX512 input for control by entertainment systems
	Power metering information is available via Ethernet over UDP through the use of open protocol ASCII message commands
Standards	

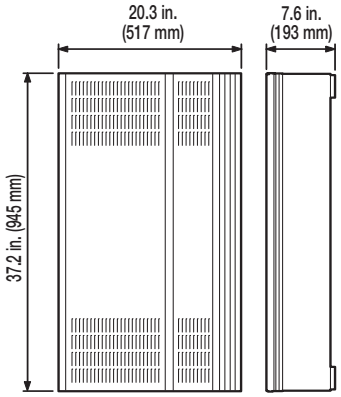
Load Types

- Incandescent
- Magnetic and Forward Phase electronic low voltage - Factory Approved Transformer only.
- Neon / cold cathode
- Non-dim (switched)
- Analog fluorescent ballast control
  - 2-wire fluorescent loads
  - 3-wire fluorescent loads (Lutron ECO-10 and Hi-Lume)
  - 4-wire fluorescent loads, 0-10 VDC Isolated (40 µA max per circuit leakage to line)
- Each 0-10V output supports up to 50 ballasts/drivers that draw the standard 2mA each

Dimensions

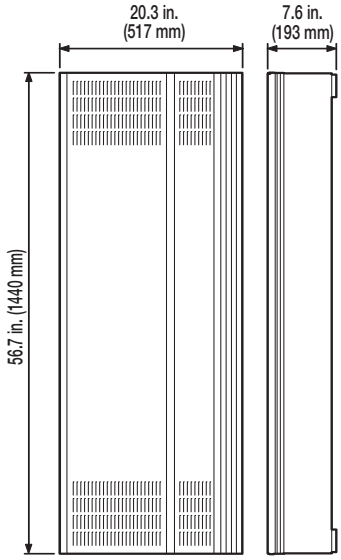
(Inches/mm)

6 Circuit

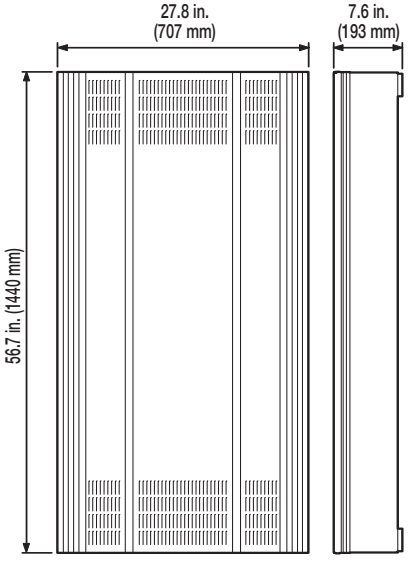


6 Channel

12 Circuit

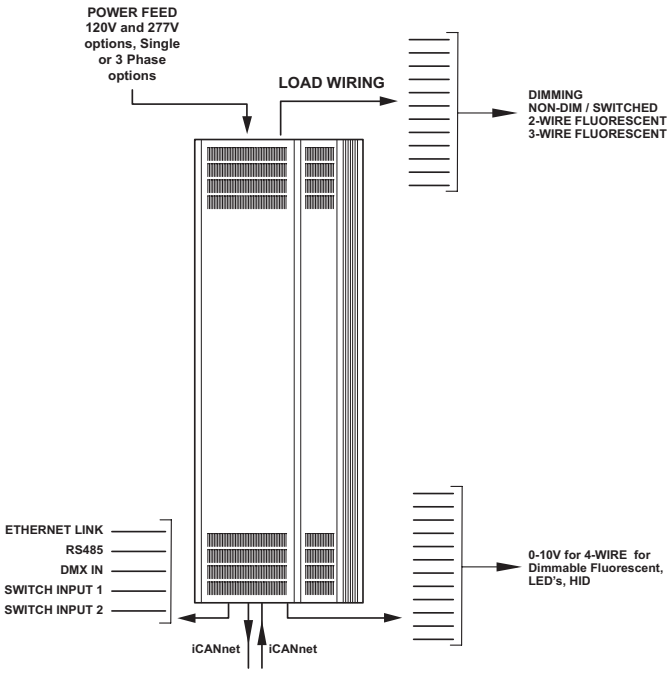


24 Circuit



18 & 24 Channel

Wiring Diagram



iCANnet cable type – Cooper LCCNP (Non Plenum) Cable or LCCP (Plenum) or Belden 1502R (Non Plenum) or 1502P (Plenum).

Each Source Controller can power up to 10 wallstations/devices. For more than 10 wallstations/devices per Source Controller add a 15 VDC External Power Supply. Wallstations/devices must be within 1,000 ft. of the Source Controller.

For wallstations/devices further from a Source Controller add a 15 VDC External Power Supply. 100 Devices per physical segment on iCANnet, maximum segment distance of 1000m/3200ft. A BN-2-NA can be added to combine more than 100 devices together (up to 65,000 total) and to extend network cable distance.

Maximum BTU Dissipation

6 Circuit Unit	1050 BTU @ 100%
12 Circuit Unit	2100 BTU @ 100%
24 Circuit Unit	4200 BTU @ 100%

Feed Wiring

Applicaiton	Wire Range (AWG)	Amp Rating per Pole
24 Channel 3-phase Panel		
Phase	4/0-6	128
Neutral	350 MCM - 6	192
Earth	2-14	N/A
12 Channel 3-phase Panel		
Phase	2/0-12	64
Neutral	2/0-12	96
Earth	2-14	N/A
12 Channel 1-phase Panel		
Phase	350 MCM - 6	192
Neutral	350 MCM - 6	288
Earth	2-14	N/A

Applicaiton	Wire Range (AWG)	Amp Rating per Pole
6 Channel 3-phase Panel		
Phase	2/0-12	32
Neutral	2/0-12	48
Earth	2-14	N/A
6 Channel 3-phase Panel		
Phase	2/0-14	69
Neutral	2/0-14	144
Earth	2-14	N/A

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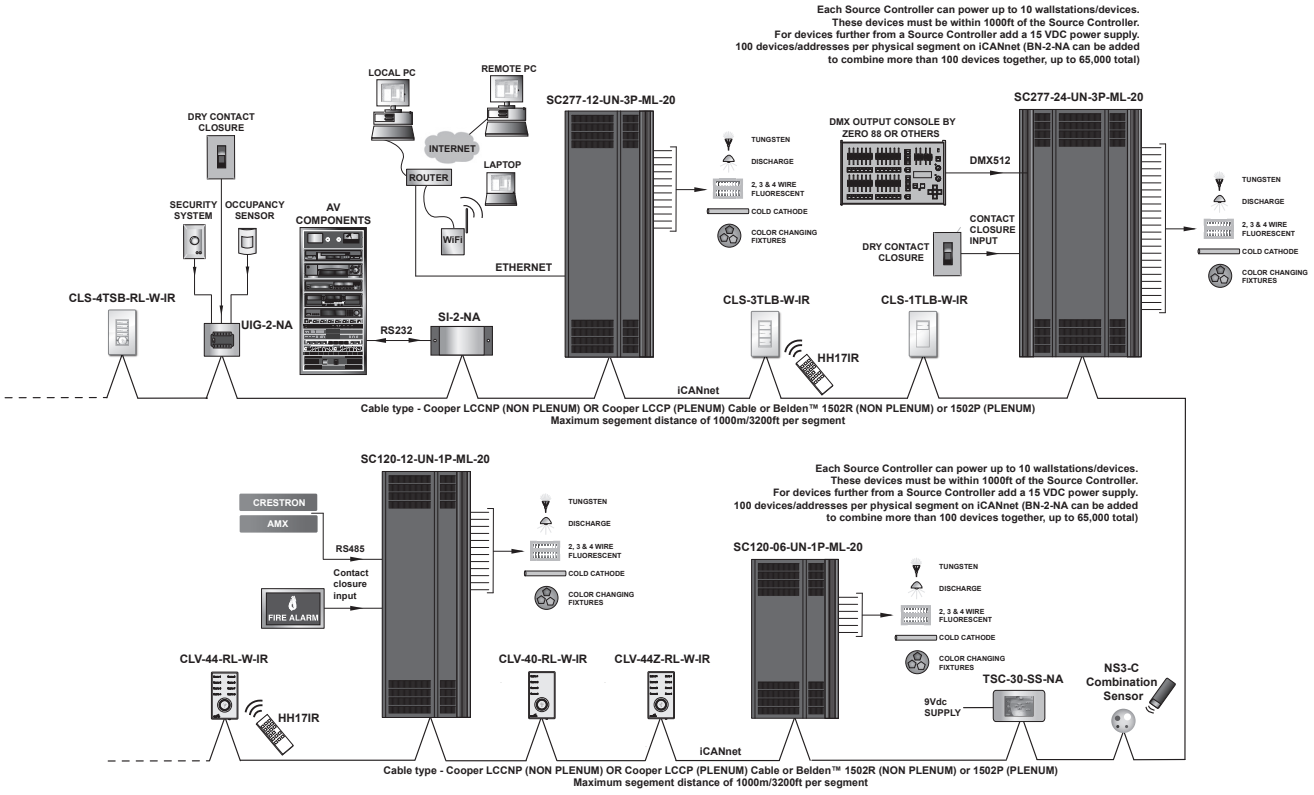
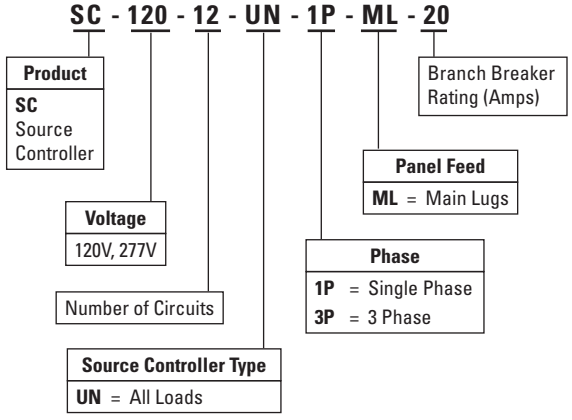
Sample System Topology



Ordering

Catalog #	Description
SC120-06-UN-1P-ML-20	Universal 120V Cabinet with 6 Circuits for Most Loads, Single Phase, Main Lugs, 16A per Circuit
SC120-12-UN-1P-ML-20	Universal 120V Cabinet with 12 Circuits for Most Loads, Single Phase, Main Lugs, 16A per Circuit
SC120-06-UN-3P-ML-20	Universal 120V Cabinet with 6 Circuits for Most Loads, 3 Phase, Main Lugs, 16A per Circuit
SC120-12-UN-3P-ML-20	Universal 120V Cabinet with 12 Circuits for Most Loads, 3 Phase, Main Lugs, 16A per Circuit
SC120-24-UN-3P-ML-20	Universal 120V Cabinet with 24 Circuits for Most Loads, 3 Phase, Main Lugs, 16A per Circuit
SC277-06-UN-1P-ML-20	Universal 277V Cabinet with 6 Circuits for Most Loads, Single Phase, Main Lugs, 16A per Circuit
SC277-06-UN-3P-ML-20	Universal 277V Cabinet with 6 Circuits for Most Loads, 3 Phase, Main Lugs, 16A per Circuit
SC277-12-UN-3P-ML-20	Universal 277V Cabinet with 12 Circuits for Most Loads, 3 Phase, Main Lugs, 16A per Circuit
SC277-24-UN-3P-ML-20	Universal 277V Cabinet with 24 Circuits for Most Loads, 3 Phase, Main Lugs, 16A per Circuit



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