SC1008 Branch Circuit ELTS (BCELTS)

Emergency Series



Type(s)

Project

Date

Notes

GENERAL INFORMATION

ETC's SC1008 Branch Circuit Emergency Lighting Transfer Switch (BCELTS) is designed to automatically switch a single 20 A, 120 V or 277 V lighting load from a normal power source to an emergency power source when there is a power failure or other emergency situation present.

APPLICATIONS

 Any emergency lighting application that requires UL1008 emergency transfer of a branch circuit

FEATURES

- UL1008 Listed for NEC 700, 701 emergency lighting applications
- Single 120–277 V, 20 A power input
- Interlocked break-before-make relays
- Control bypass relay for 0–10 V or DALI controlled circuits
- Continuous monitoring of normal and emergency power
- Field-selectable normally open (NO) or normally closed (NC) dry contact fire alarm input
- · Convenient and clearly marked contractor terminations
- NEMA 1 rated enclosure
- Laser sensor test switch
- Push button test switch

ORDERING INFORMATION

SC1008

MODEL	DESCRIPTION
SC1008	Branch Circuit Emergency Lighting Transfer Switch (BCELTS)

Related UL1008 Emergency Products

MODEL	DESCRIPTION			
ELTS2	Emergency Lighting Transfer System			

Related UL924 Emergency Products

MODEL	DESCRIPTION
DEBC-1	DMX Emergency Bypass Controller, 1-output
DEBC-6	DMX Emergency Bypass Controller, 6-output
ALCR	Automatic Load Control Relay (DIN and Power pack)

Sense Feed Loss Detection

MODEL	DESCRIPTION
EBDK	Emergency Bypass Detection Kit



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SPECIFICATIONS

REGULATORY AND COMPLIANCE

- ANSI/UL 1008 Listed Branch Circuit Emergency Lighting Transfer Switch (BCELTS) / Automatic Transfer Switch for use in emergency systems
 - Category code WPWR
 - UL File E157852
- Complies with Standard CSA C22.2 No. 178 TRANSFER SWITCH EQUIPMENT
- Complies with ANSI/NFPA 110, Standard for Emergency and Standby Power Systems
- Satisfies requirements of the National Electric Code (NFPA 70):
 - Article 700 Emergency Systems
 - Article 701 Legally Required Standby Systems
 - Article 702 Optional Standby Systems
 - Section 518.3C Assembly Occupancies
 - Section 520.8 Theatres and Similar Locations
 - Section 540.11C Motion Picture Projection Rooms

MECHANICAL

- NEMA 1 rated steel enclosure
- Wall mount unit with adjustable mounting plate
- Finished in a fine-textured, scratch resistant epoxy paint
- Front access to wiring space for easy contractor connections clearly marked termination strips
- Conduit entry via top, bottom, or right side (see manual)

OPERATION

- When normal power is lost with the presence of an emergency source, the normal source is disconnected from the load and the emergency source is connected to the load
- When normal power is restored, the emergency source is disconnected from the load and normal source is connected to the load
- Monitors voltage on normal feed branch circuit
- Emergency state control priority:
 - 1 Power Failure
 - 2 Fire Alarm/contact activation

SPECIFICATIONS

ELECTRICAL

Normal Feed Input:

- Single phase 120–277 VAC circuit, up to 20 A
- Additional terminals provided for constant normal power sense feed when circuit is fed by a dimmer or controlled circuit
- Terminals sized for 10-18 AWG wire
- Circuit fed from a remote panel (supplied by others)

Emergency Source Feed Input:

- Single phase 120–277 VAC circuit, up to 20 A
- Circuit fed from a remote breaker panel (supplied by others)

Short Circuit Protection:

- Class G Short Circuit Current Rating (SCCR) protection rated for 10,000 A RMS symmetrical
- Rated for a continuous load
 - 2,400 W per circuit at 120 V
 - 5,440 W per circuit at 277 V
- Fuse protection to allow listed use with any circuit breaker brand
- Current protection located on load side of contactor, and protects both normal and emergency source feeds

Operation

- Switches hot (line) and neutral conductors
- Electrically interlocked to ensure normal power is fully disconnected before emergency power is applied
- Mechanically maintained (held) contactor

Fire Alarm Input

- Field configurable normally closed (NC) or normally open (NO) dry contact input
- Input terminals accept 10–20 AWG class 2 connection from alarm panel
- Up to ten SC1008 can be wired in series to a single contact relay
- Maximum total wire length between contact relay and SC1008 units is 1,000 ft (300 m)

User Controls

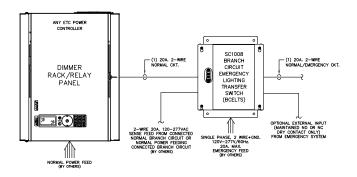
 Front panel local control includes a test button, laser test sensor, and 2 LED status indicators for presence of normal and emergency power

RELAY RATINGS

- 20 A Magnetic Ballast (HID)
- 16 A Electronic Ballast
- 20 A Tungsten
- 20 A (120 A Locked-rotor) Motor @ 120 V
- 14 A (84 A Locked-rotor) Motor @ 277 V
- Relays are mechanically held
- Lifespan:
 - 100,000 cycles at full resistive load
 - 30,000 cycles motor, inductive or tungsten

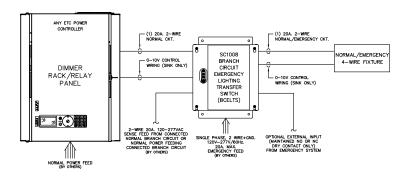
SC1008 BRANCH CIRCUIT ELTS TYPICAL SYSTEM RISERS

LINE VOLTAGE DIMMED CIRCUIT



NOTE: ETC RECOMMENDS USING A D20FB MODULE TO PROVIDE DIMMED POWER AND SENSE FEED FOR NORMAL BRANCH CIRCUITS FED FROM AN ETC SENSOR OR UNISON DRd DIMMER RACK.

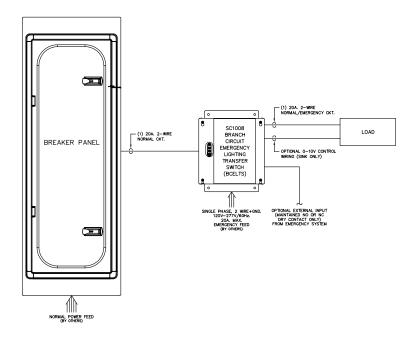
0-10V CONTROLLED CIRCUIT



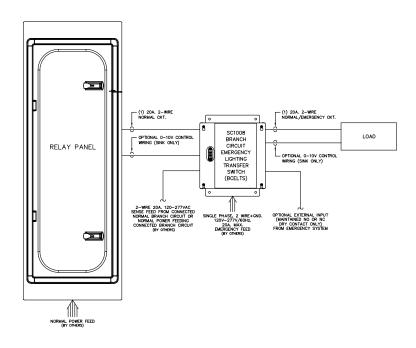
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SC1008 BRANCH CIRCUIT ELTS TYPICAL SYSTEM RISERS

BREAKER FED CIRCUIT



RELAY FED CIRCUIT



PHYSICAL

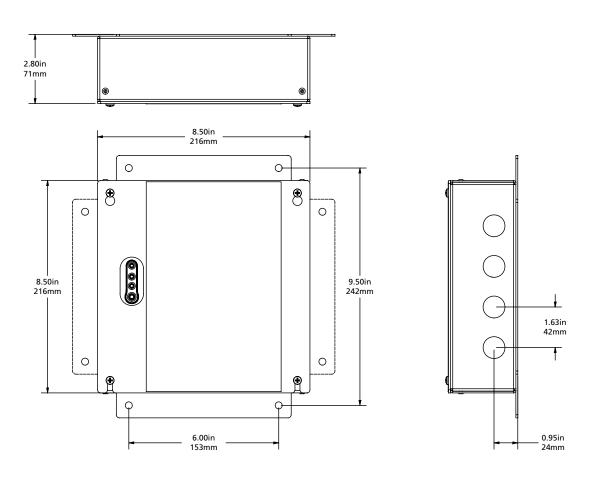
Dimensions

MODEL	HEIGHT		DDEL HEIGHT WIDTH		DEPTH	
	in	mm	in	mm	in	mm
SC1008	8.50	216	10.50	267	2.75	70

Weights

MODEL	IODEL WEIGHT SHIPPING WEIG			WEIGHT
	lb	kg	lb	kg
SC1008	6.2	2.8	7.2	3.3

SC1008





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