



Type(s)
Project
Date
Notes

GENERAL INFORMATION

ETC's Emergency Lighting Transfer System (ELTS2) is designed to switch one or more lighting loads from one power source to another when there is a power failure or other emergency situation present.

APPLICATIONS

- Emergency lighting applications in cULus markets
- School auditoriums
- Theaters and concert halls
- Themed retail or casino spaces
- Houses of worship

GENERAL

- Self-contained and separate from normal power or control wiring
- Continuous monitoring of normal and emergency power
- NEMA 1 rated cabinet (optional NEMA 4 cabinet)
- Seismic certified

ELECTRICAL

- Connect up to 24 – 20 A circuits
- Single or three phase power:
 - 120/208 V
 - 120/240 V
- Three phase power:
 - 230/400 V
 - 240/415 V
 - 277/480 V
- Optional discrete circuit feeds or main feed with branch circuit distribution
- Contractor connections are convenient and clearly marked

ACCESSORIES

- Remote Control Keyswitch Station
- Mounting Kit – horizontal tab option

ORDERING INFORMATION

ELTS2

	ENCLOSURE	EMERGENCY FEED INPUTS	VOLTAGE OPTIONS	CIRCUITS
ELTS2	1 = NEMA 1	D = Discrete Inputs	120 = 120 VAC circuits @ 20 A	2–12 in small enclosure
			277 = 277 VAC circuits @ 20 A	
			3P = 120/208 VAC (3Ø 4-wire)	
ELTS2	4 = NEMA 4	M = Main Feed	1P = 120/240 VAC (1Ø 3-wire)	14–24 in large enclosure
			3P240 = 230/400 VAC (3Ø 4-wire)	
			277 = 277/480 VAC (3Ø 4-wire)	

BASIC MODEL NUMBERING: ELTS2-1-M-3P-6

This is the basic form of the model number. It reads: ELTS2- 1 - Type of Enclosure; M - Type of Emergency Feed Inputs; 3P - Voltage Option; 6 - Quantity of circuits (even numbers only, max. 24)

The units are available with even number circuits only. The number of circuits determines the size of the unit:

- Small Unit: 2, 4, 6, 8, 10, 12
- Large Unit: 14, 16, 18, 20, 22, 24

Note: Mixed voltages are not allowed in the same unit and require two separate units.



SPECIFICATIONS

REGULATORY AND COMPLIANCE

- UL and cUL Listing
 - ANSI/UL 1008 Automatic Transfer Switch for use in emergency systems (category code WPWR)
 - UL File # E157852
- 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
- Self-contained system for up to 24 circuits
- Short Circuit Current Rating (SCCR): 65,000 A RMS symmetrical at 277 VAC
- Standard enclosure is NEMA 1; optional enclosure is NEMA 4
- Seismic certification: Independent lab certification and third-party testing complies with the US seismic requirements of the International Building Code (IBC) for equipment in the emergency life-safety chain
 - IBC 2000 – referencing ASCE 7-98 and ICC AC-156
 - IBC 2003 – referencing ASCE 7-02 and ICC AC-156
 - IBC 2006 – referencing ASCE 7-05 and ICC AC-156
 - IBC 2009 – referencing ASCE 7-05 and ICC AC-156

MECHANICAL

- Wall mount unit with vertical mounting tab kit, alternative (horizontal) mounting tab kit available
- 14 gauge welded steel cabinet, rated NEMA 1 or optional NEMA 4 cabinet
- One-point (small unit) or three-point (large unit) door latch with key lock
- Fine-textured scratch resistant epoxy paint
- Hinged front access to wiring space for easy contractor connections – clearly marked termination strips and phase voltage lugs
- Conduit entry via top, bottom, or from any side (see manual)
- Control wiring separated from the higher voltage wires to avoid contact during installation

OPERATION

- Monitors normal power, and upon the detection of power failure with presence of an emergency source, the ELTS2 disconnects normal source and connects emergency source
- When normal power is restored, the emergency source is disconnected from the loads and normal source is connected to the loads
- Monitors voltage on all normal phases
- Field-adjustable delay after a loss of normal power before switching to the emergency source – adjustable from 0 to 10 seconds
- Field-adjustable delay after the restoration of normal power before switching to normal source – adjustable from 0 to 60 seconds
- Emergency state control priority:
 - 1 – Power fail
 - 2 – Fire alarm activation
 - 3 – Local and/or remote activation

SPECIFICATIONS

ELECTRICAL

NORMAL SENSE FEED INPUT

- AC circuits with neutral to provide power to the normal side of the electronics and for sensing a power fail
 - 120 V Discrete Feed – Three phase, 4 wire
 - 277 V Discrete Feed – Three phase, 4 wire
 - 120/208 V Main Feed – Three phase, 4 wire
 - 120/240 V Main Feed – Single phase, 3 wire
 - 230/400 V Main Feed – Three phase, 4 wire
 - 277/480 V Main Feed – Three phase, 4 wire
- Terminals sized for up to 8 AWG wire
- Separate units required for mixed voltages

EMERGENCY SOURCE FEED

- **Type D:** Each circuit discretely fed from a remote breaker panel (supplied by others)
- Available in the following configurations:
 - 20 A 120 V circuits
 - 20 A 230 and 240 V circuits
 - 20 A 277 V circuits
- **Type M:** Single feed main lugs provided to distribute emergency power to all circuits
- Available in the following configurations:
 - 120/208 V – Three phase, 4 wire, 80 A for 12 circuits / 160 A for 24 circuits
 - 120/240 V – Single phase, 3 wire, 120 A for 12 circuits / 240 A for 24 circuits
 - 230/400 V – Three phase, 4 wire, 80 A for 12 circuits / 160 A for 24 circuits
 - 277/480 V – Three phase, 4 wire, 80 A for 12 circuits / 160 A for 24 circuits
- For both types: input lug wire range of 14 AWG – 2/0 for 12 circuits (small) or 6 AWG – 350 kcmil for 24 circuits (large)
- For both types: fuse protection to allow listed use with any circuit breaker brand
 - Class G SCCR protection
 - Located on load side of contactor and protects both normal and emergency source feeds

MAXIMUM CONTINUOUS LOAD CONTACTORS

- 20 A circuits are rated for a continuous load of 1920 W per circuit at 120 V, 3680 W at 230 V, and 4432 W per circuit at 277 V
- A single contactor set controls no more than 2 circuits
- Switches both hot and neutral conductors
- Mechanically interlocked to ensure a break before make
- Rated for mixed loads: resistive, tungsten and discharge lamps
- Mechanically maintained (held)

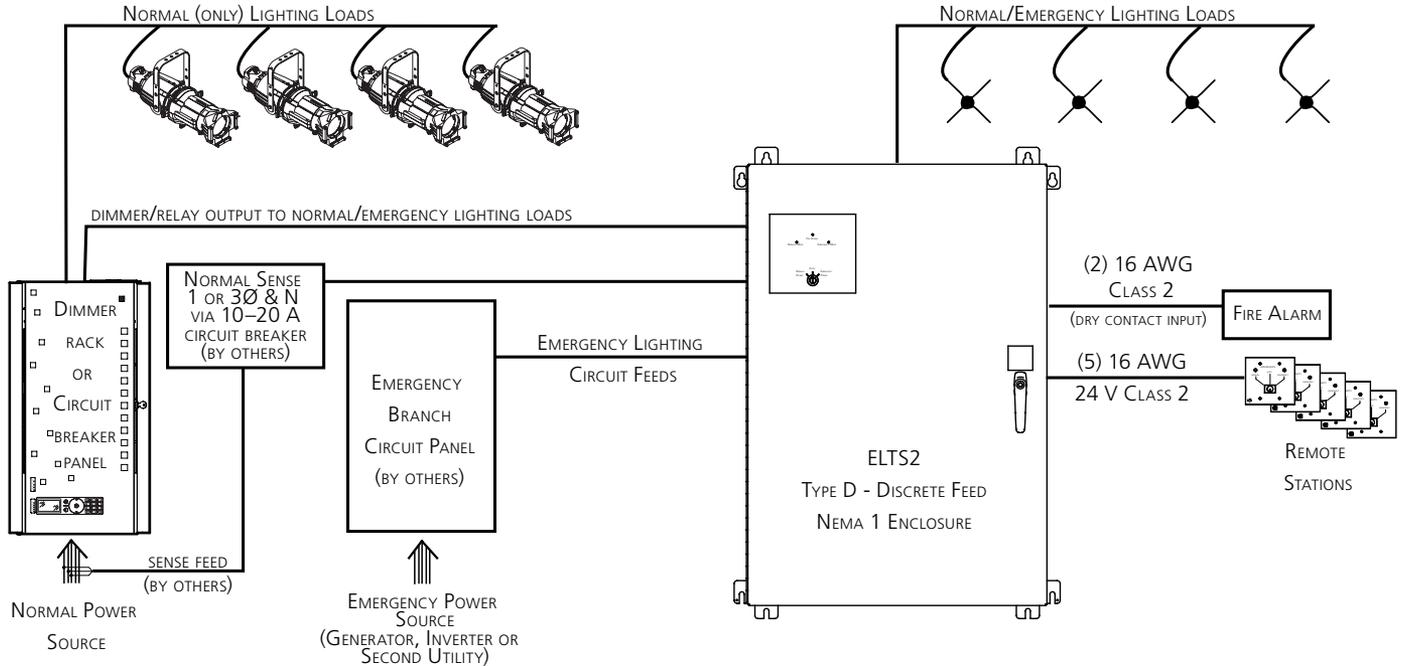
FIRE ALARM INPUT

- Normally closed dry contact closure
- Input terminals accept 10–22 AWG class 2, two-wire from alarm panel

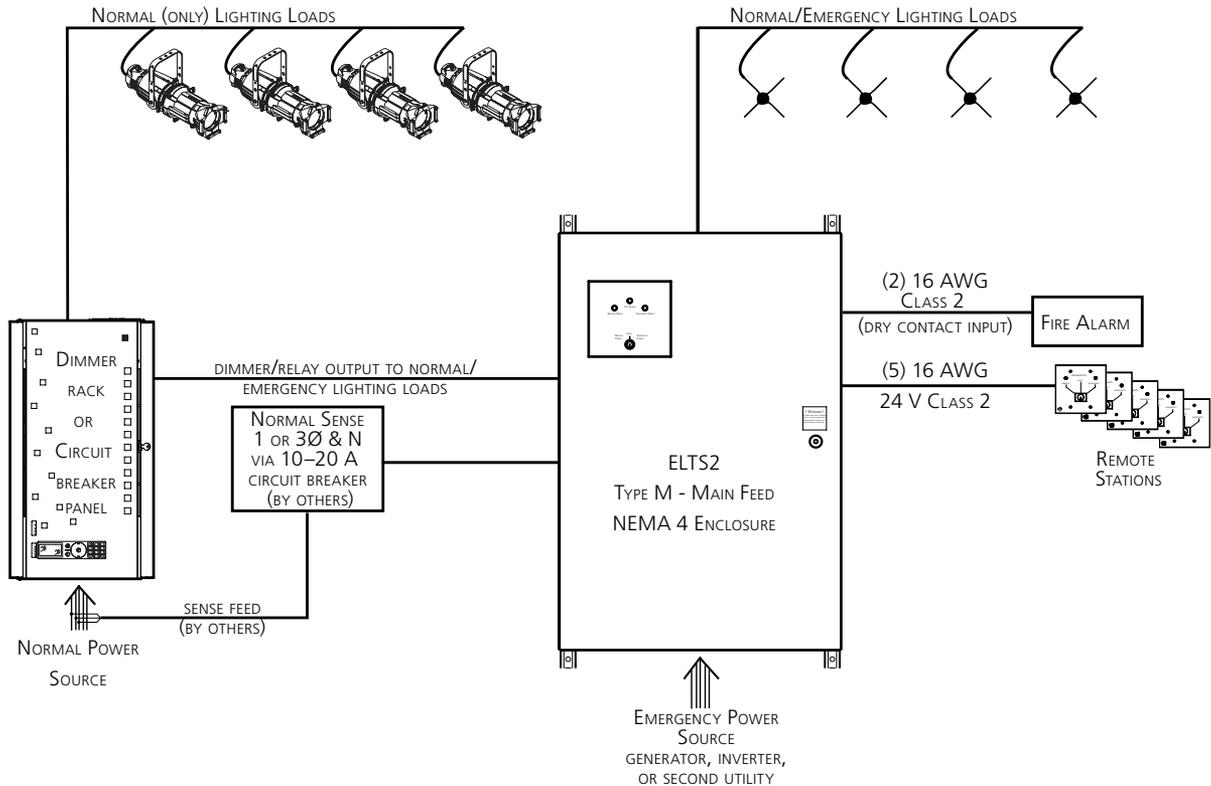
USER CONTROLS

- Front panel local control includes a test key switch and 3 indicators
- Test key switch – three-position momentary key switch
 - Normal Mode with indicator
 - Emergency Mode with indicator
 - Fire Alarm with indicator
- Allows connection of up to five remote control stations (5-wire, 24 V Class 2, tested 16 AWG up to 1,000 ft)

ELTS2 TYPE D TYPICAL RISER



ELTS2 TYPE M TYPICAL RISER



PHYSICAL

ELTS2 Overall Dimensions

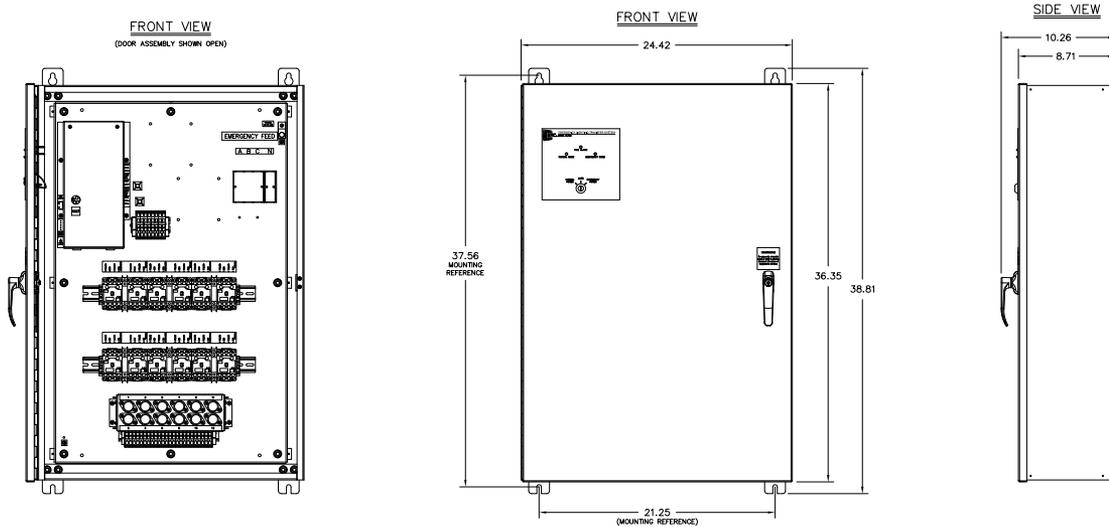
MODEL	HEIGHT		WIDTH		DEPTH	
	in	mm	in	mm	in	mm
Large unit	50.8	1290	30.4	795	10.3	262
Small unit	38.8	986	24.4	643	10.3	262

ELTS2 Weights

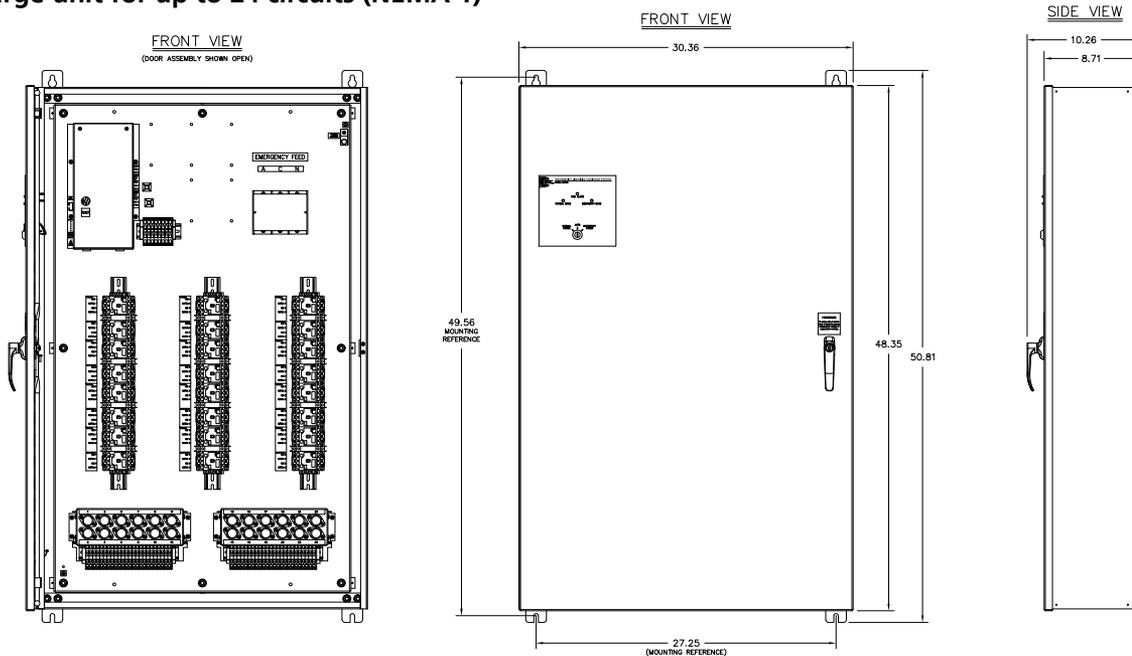
MODEL	WEIGHT		SHIPPING WEIGHT*	
	lb	kg	lb	kg
Large unit	119	54	169	77
Small unit	99	45	149	67

*Shipped on pallet

ELTS2 Small unit for up to 12 circuits (NEMA 1)



ELTS2 Large unit for up to 24 circuits (NEMA 1)



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