

# Transfer switch LT III open or delayed transition, automatic



## > Specification sheet

30 - 260 Amp

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# Power Generation

### Description

The LT III automatic transfer switch combines reliability and flexibility in a small, economical package for transferring loads between a utility and a generator set. Available in 3-pole with solid neutral models.

When utility power fails or is unsatisfactory, the control starts the generator set and transfers the load from the utility to the generator set. Once utility power returns, the switch automatically transfers the load back to the utility.

All transfer switches are thoroughly inspected both mechanically and electrically under simulated operating conditions prior to shipment.



All switches are UL 1008 Listed with UL Type Rated cabinets and UL Listed CU-AL terminals.



All switches are certified to CSA 282 Emergency Electrical Power Supply for Buildings, up to 600 VAC.



All switches comply with NEMA ICS 10.



This transfer switch is designed and manufactured in facilities certified to ISO9001.

### Features

**Transfer action** - Independent break-before-make action positively prevents dangerous source-to-source connections.

**Positive interlocking** - Mechanical and electrical contactor interlocking prevents source-to-source connection through power or control wiring.

**Auxiliary contacts** - One Form A and one Form B contact (for each source) are provided for customer use. Rated at 10 A continuous and 600 VAC maximum.

**Electronic control** - Reliable digital electronic control system with surge voltage isolation, under-voltage monitoring on each power source, four standard normal/emergency source time delays, and diagnostic LEDs. Two control packages are available.

**Easy service/access** - The unit is equipped for ease of service and accessibility. These features include convenient plug connections, door mounted controls, ample access space and compatible terminal markings

**Product lines, accessories and services** - Cummins Power Generation offers a wide range of accessories and services to suit your requirements.

**Warranty and service** - Backed by a comprehensive warranty and worldwide distributor network.

## Control packages

A choice of two control packages allows flexibility for determining the most suitable level of control for a given application:

### Package A control (C021)

**Time delay start:** 3 sec (fixed)

**Transfer time delay:** 3 sec (fixed)

**Retransfer time delay:** 5 min (fixed)

**Stop delay:** 5 min (fixed)

#### Undervoltage sensing:

Single phase on normal and emergency

- Pickup 85% of nominal
- Dropout 75% of pickup

#### Remote test terminals

### Package B control (C022)

**Time delay start:** 0 to 15 sec (adjustable)

**Transfer time delay:** 2 to 120 sec (adjustable)

**Retransfer time delay:** 6 sec to 30 min (adjustable)

**Stop delay:** 2 sec to 10 min (adjustable)

#### Undervoltage sensing:

Three phase differential sensing on normal, single phase on emergency

- Pickup: 85 to 100% of nominal (adjustable)
- Dropout: 75 to 98% of pickup (adjustable)

**LED status indicators:** for source available and switch position on normal and emergency

#### Remote test terminals

#### Momentary test switch

#### Retransfer bypass switch

**7-day exerciser clock:** with or without load

#### Auto/manual retransfer

## Time-delay functions

**Engine start:** Prevents nuisance genset starts in the event of momentary power system variation or loss.

**Normal to emergency transfer:** Allows genset to stabilize before application of load. Prevents power interruption if normal source variation or loss is momentary.

**Emergency to normal retransfer:** Allows the utility to stabilize before retransfer of the load. Prevents needless power interruption if return of normal source is momentary.

**Engine stop:** Maintains availability of generator set for immediate reconnection in the event that the normal source fails shortly after retransfer. Allows gradual generator set cool down by running unloaded.

**Delayed (programmed) transition:** Controls the speed of operation of the transfer switch power contacts to allow load generated voltages from inductive devices to decay prior to connecting a live source. Adjustable 0-10 seconds, default 0 seconds.

## Control options

### Delayed (programmed) transition (O27 or J028)

Available on switches rated from 100 to 260 Amps, this option helps prevent fuse blowing and circuit breaker tripping when transferring inductive loads such as large motors and transformers. Extends transfer time of the transfer switch mechanism to allow load induced voltages to decay prior to connection to the oncoming source.

### Battery chargers (K001 or KB59 or KB60)

2A, 15A/12V, or 12A/24V battery chargers are available as factory-installed options to reduce field wiring expense.

### Three-wire start module (M002)

This option modifies the standard LT III two-wire start circuit to a three-wire start system required by some generator sets.

### Manual override switch (N014)

This key selector switch provides a manual transfer capability. The manual override switch uses the power from the source to which the switch will transfer, in order to bypass the control and transfer load.

\* Note: Some options may not be available on all models - consult factory for availability.

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## UL withstand and closing ratings

The LT III transfer switch must be protected by an overcurrent device, of the type and size specified, which will protect the switch when used on a circuit capable of delivering not more than the symmetrical RMS amperes listed in the table.

### Fuse protection

Transfer switch ampere	WCR @ volts max. with current limiting fuses	Drawing reference
30 A	100,000 A (600 VAC)	60 A, Class J or T
60 A	100,000 A (600 VAC)	100 A, Class J or T
100 A	100,000 A (600 VAC)	225 A, Class J or T
150 A	100,000 A (600 VAC)	250 A, Class J or T
200 A	100,000 A (600 VAC)	400 A, Class J or T
260 A	100,000 A (600 VAC)	450 A, Class J or T

## Enclosures

The transfer switch and control are mounted in a key-locking enclosure. Wire bend space complies with 2008 NEC.

### Dimensions - transfer switch in UL type 1 enclosure

Amp rating	Height		Width		Depth				Weight		Outline drawing
	in	mm	in	mm	Door closed		Door open		lb	kg	
					in	mm	in	mm			
30	29.0	735	18.0	455	11.3	285	28.1	715	120	55	310-0924
60	29.0	735	18.0	455	11.3	285	28.1	715	120	55	310-0924
100	29.0	735	18.0	455	11.3	285	28.1	715	120	55	310-0924
150	29.0	735	18.0	455	11.3	285	28.1	715	120	55	310-0924
200	34.0	865	21.5	545	11.3	285	31.6	805	155	70	310-0925
260	34.0	865	21.5	545	11.3	285	31.6	805	155	70	310-0925

Note: Add 1.75 in (44.45 mm) to 'Door closed' dimension for handle clearance.

### Dimensions - transfer switch in UL type 3R enclosure

Amp rating	Height		Width		Depth				Weight		Outline drawing
	in	mm	in	mm	Door closed		Door open		lb	kg	
					in	mm	in	mm			
30	33.8	859	26.25	667	13.75	350	36.25	921	125	57	0310-0453
60	33.8	859	26.25	667	13.75	350	36.25	921	125	57	0310-0453
100	33.8	859	26.25	667	13.75	350	36.25	921	125	57	0310-0453
150	33.8	859	26.25	667	13.75	350	36.25	921	125	57	0310-0453
200	33.8	859	26.25	667	13.75	350	36.25	921	125	57	0310-0453
260	33.8	859	26.25	667	13.75	350	36.25	921	125	57	0310-0453

## Transfer switch lug capacities

Amp rating	Size
30	10 to 3 AWG CU
60	10 to 2 AWG CU
100	14 AWG to 2/0 CU/AL
150	6 AWG to 3/0 CU/AL
200	6 AWG to 300 MCM CU/AL
260	6 AWG to 400 MCM CU/AL

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## Submittal detail - options

### Amperage ratings

- 30
- 60
- 100
- 150
- 200
- 260

### Voltage ratings

- R020 120\*
- R021 208
- R022 220
- R023 240
- R024 380
- R025 416
- R035 440
- R026 480
- R027 600

\* L-N voltage

### Pole configuration

- A028 Poles - 3 (solid neutral)

### Frequency

- A044 60 Hertz
- A045 50 Hertz

### System options

- A041 Single phase, 2-wire or 3-wire
- A042 Three phase, 3-wire or 4-wire

### Enclosure

- B001 Type 1: general purpose indoor (similar to IEC type IP30)
- B002 Type 3R: intended for outdoor use (dustproof and rainproof) (similar to IEC type IP34)
- B004 Open construction: no enclosure - includes automatic transfer switch and controls.

### Control package

- C021 Control package A
- C022 Control package B

### Delayed (programmed) transition

- J027 Programmed transition 0.1-3 sec
- J028 Programmed transition 0.1-30 sec

### Standards

- A046 UL 1008 Listing/CSA
- A080 Seismic certification

### Battery chargers

- K001 Battery charger - 2 amps, 12/24 Volts
- KB59 Battery charger - 15 amps, 12 Volts
- KB60 Battery charger - 12 amps, 24 Volts

### Miscellaneous options

- A080 Seismic certification
- M002 3 wire start module
- N014 Manual override switch

### Warranty

- G002 One year basic
- G004 Two year comprehensive
- G006 Five year basic
- G007 Five year comprehensive

### Shipping

- A051 Export box

## Cummins Power Generation

### Americas

1400 73<sup>rd</sup> Avenue N.E.  
Minneapolis, MN 55432 USA  
Phone: 763 574 5000  
Fax: 763 574 5298

### Europe, CIS, Middle East and Africa

Manston Park Columbus Ave.  
Manston Ramsgate  
Kent CT 12 5BF United Kingdom  
Phone 44 1843 255000  
Fax 44 1843 255902

### Asia Pacific

10 Toh Guan Road #07-01  
TT International Tradepark  
Singapore 608838  
Phone 65 6417 2388  
Fax 65 6417 2399

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