

# ASCO SERIES 165 Residential / Light Commercial Automatic Transfer Switches.

## Time Delays

- 3-second time delay to override momentary utility source.
- 15-second transfer to emergency time delay to allow engine generator to stabilize after starting.
- 15-second time delay after transfer to the standby source to ignore momentary voltage dips on the generator during initial loading.
- 5-minute time delay on retransfer to allow utility source to stabilize prior to transferring the load back to utility.
- 1-minute unloading running time delay for engine generator cool-down before shutdown.

## External Power Connections

Switch Rating (amps)	Wire Size Range
100	(1) #14 to 4/0 AWG
200*	(1) #14 to 4/0 AWG
230*	(1) #14 to 4/0 AWG

\* UL listed for 200 or 230 amps with copper conductors only.

## Withstand and Close-On Ratings

Switch Rating (amps)	When Used With Current Limiting Fuses	When Used With Circuit Breakers
100	200,000	10,000
200	200,000	10,000
230	200,000	10,000

## Product Features

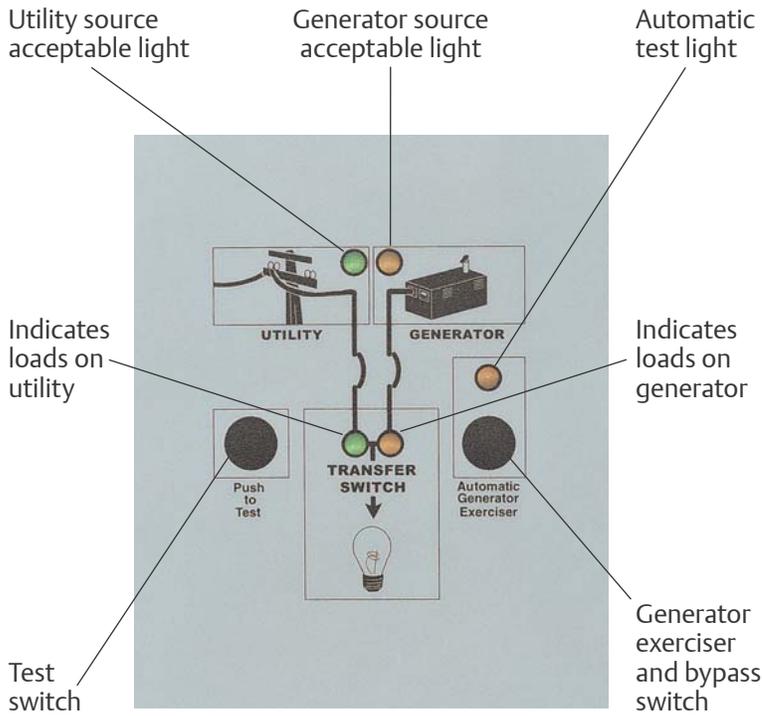
- Nominal voltage 120/240 V 60 Hz, single phase.
- Listed to UL 1008 for total system loads (motors and all other electrical loads).
- Meets National Electrical Code (NEC) and National Fire Protection Association (NFPA) requirements.
- True double-throw contacts (no intentional off position), with inherent mechanical interlocking to prevent connection of generator and utility source.
- Convenient terminals to connect neutral and ground conductors from service and load feeders.
- Available in Type 1 (indoor) and Type 3R (outdoor) enclosures.
- Manually-operated SERIES 165 Transfer Switches are also available.
- Available from stock.

## Diagnostic Indicators

The 165 Automatic Transfer Switch has a unique built-in automatic digital diagnostic monitoring system, which provides status on potential system problems such as: generator failed to start; generator over frequency; transfer switch did not transfer; and more. It's one more way you can count on ASCO to provide continuous power protection...anytime.



**SERIES 165 Automatic  
Transfer Switch In  
Type 3R Outdoor  
Enclosure**



### Control Panel

User-friendly control panel with easy to understand symbols and all the necessary visual indicators to inform the operator of transfer switch and power source status.

## SERIES 165 Automatic Transfer Switch



## Ordering Information

### Automatic Transfer Switch

Catalog Number	Enclosure	Ampere
165A2100F3C	Type 1 Indoor	100
165A2200F3C	Type 1 Indoor	200
165A2230F3C	Type 1 Indoor	230
165A2100F3F	Type 3R Outdoor	100
165A2200F3F	Type 3R Outdoor	200
165A2230F3F	Type 3R Outdoor	230

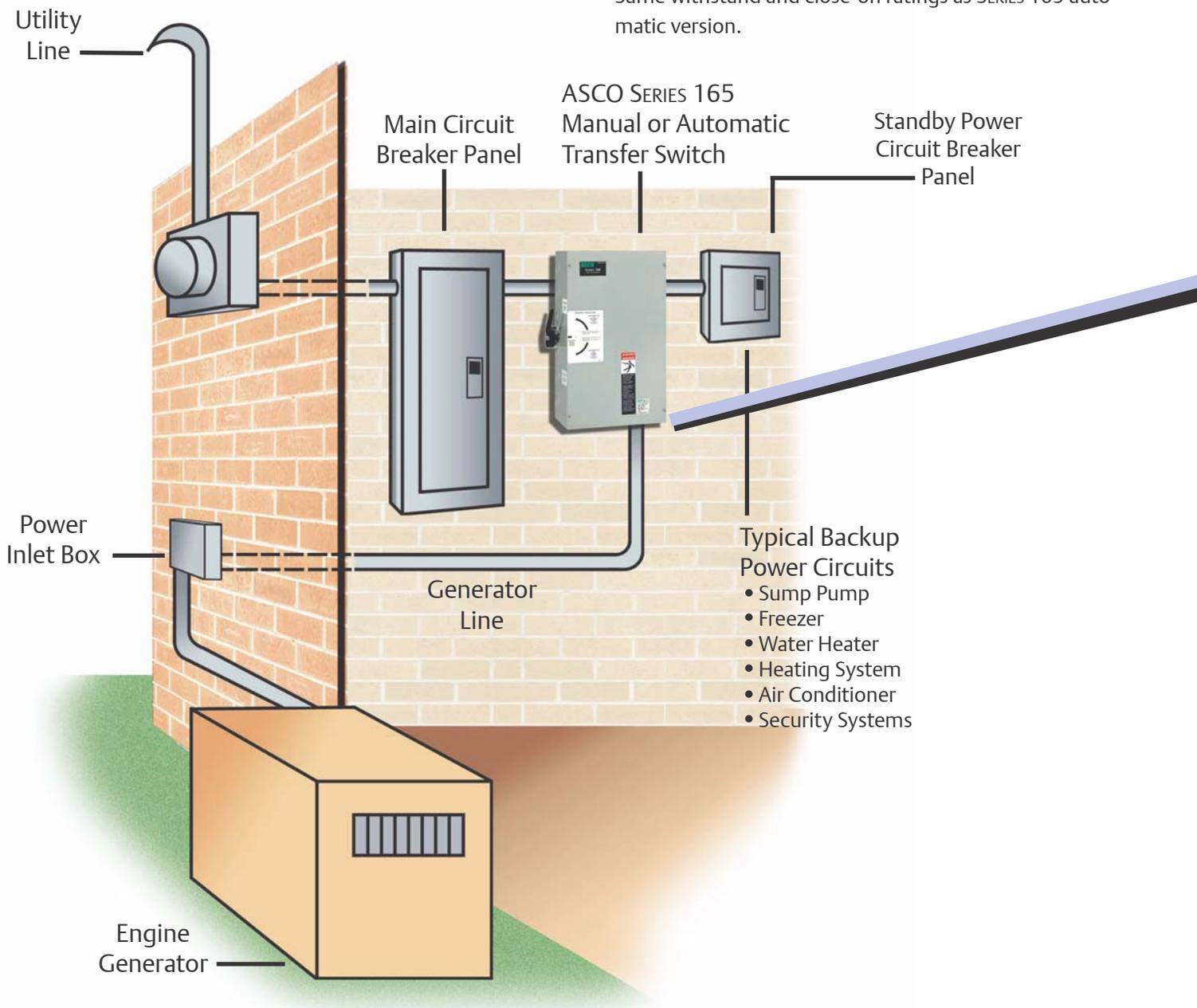
### Automatic Transfer Switch Dimensions and Weights

Switch Rating	Enclosure	Poles	Width	Height	Depth	Weight
			inches (mm)	inches (mm)	inches (mm)	lb (kg)
100	Type 1 Indoor	2	14.25 (362)	24 (610)	8 (203)	43 (20)
200	Type 1 Indoor	2	14.25 (362)	24 (610)	8 (203)	43 (20)
230	Type 1 Indoor	2	14.25 (362)	24 (610)	8 (203)	43 (20)
100	Type 3R Outdoor	2	14.75 (375)	25 (635)	8.5 (216)	47 (22)
200	Type 3R Outdoor	2	14.75 (375)	25 (635)	8.5 (216)	47 (22)
230	Type 3R Outdoor	2	14.75 (375)	25 (635)	8.5 (216)	47 (22)

# ASCO SERIES 165 Residential / Light Commercial Manual Transfer Switches.

## Product Features

- Identical to the electrically operated type 165 except operation is manually initiated.
- Operation is achieved through direct manual quick-make/quick-break handle from the outside of the enclosure.
- True double-throw, inherently interlocked construction to absolutely prohibit connecting both sources together.
- UL 1008 listed for total system loads.
- Ideal for those applications that have manual start generators without provisions for automatic engine start.
- Pad locking provisions on operating handle to prevent unauthorized operation.
- Same withstand and close-on ratings as SERIES 165 automatic version.



## 165 Manual Transfer Switch 100 Amps



## 165 Manual Transfer Switch 100 Amps Cover Removed



## Ordering Information

### Manual Transfer Switch

Catalog Number	Enclosure	Ampere
165A2100F0C	Type 1 Indoor	100
165A2200F0C	Type 1 Indoor	200
165A2230F0C	Type 1 Indoor	230
165A2100F0F	Type 3R Outdoor	100
165A2200F0F	Type 3R Outdoor	200
165A2230F0F	Type 3R Outdoor	230

### Manual Transfer Switch Dimensions and Weights

Switch Rating	Enclosure	Poles	Width	Height	Depth	Weight
			inches (mm)	inches (mm)	inches (mm)	lb (kg)
100	Type 1 Indoor	2	14.25 (362)	24 (610)	8 (203)	43 (20)
200	Type 1 Indoor	2	14.25 (362)	24 (610)	8 (203)	43 (20)
230	Type 1 Indoor	2	14.25 (362)	24 (610)	8 (203)	43 (20)
100	Type 3R Outdoor	2	14.75 (375)	25 (635)	8.5 (216)	47 (22)
200	Type 3R Outdoor	2	14.75 (375)	25 (635)	8.5 (216)	47 (22)
230	Type 3R Outdoor	2	14.75 (375)	25 (635)	8.5 (216)	47 (22)

Note: Manual operating handle extends 2 1/2" on left side of enclosure.

# ASCO SERIES 165P

## Automatic Transfer Switch

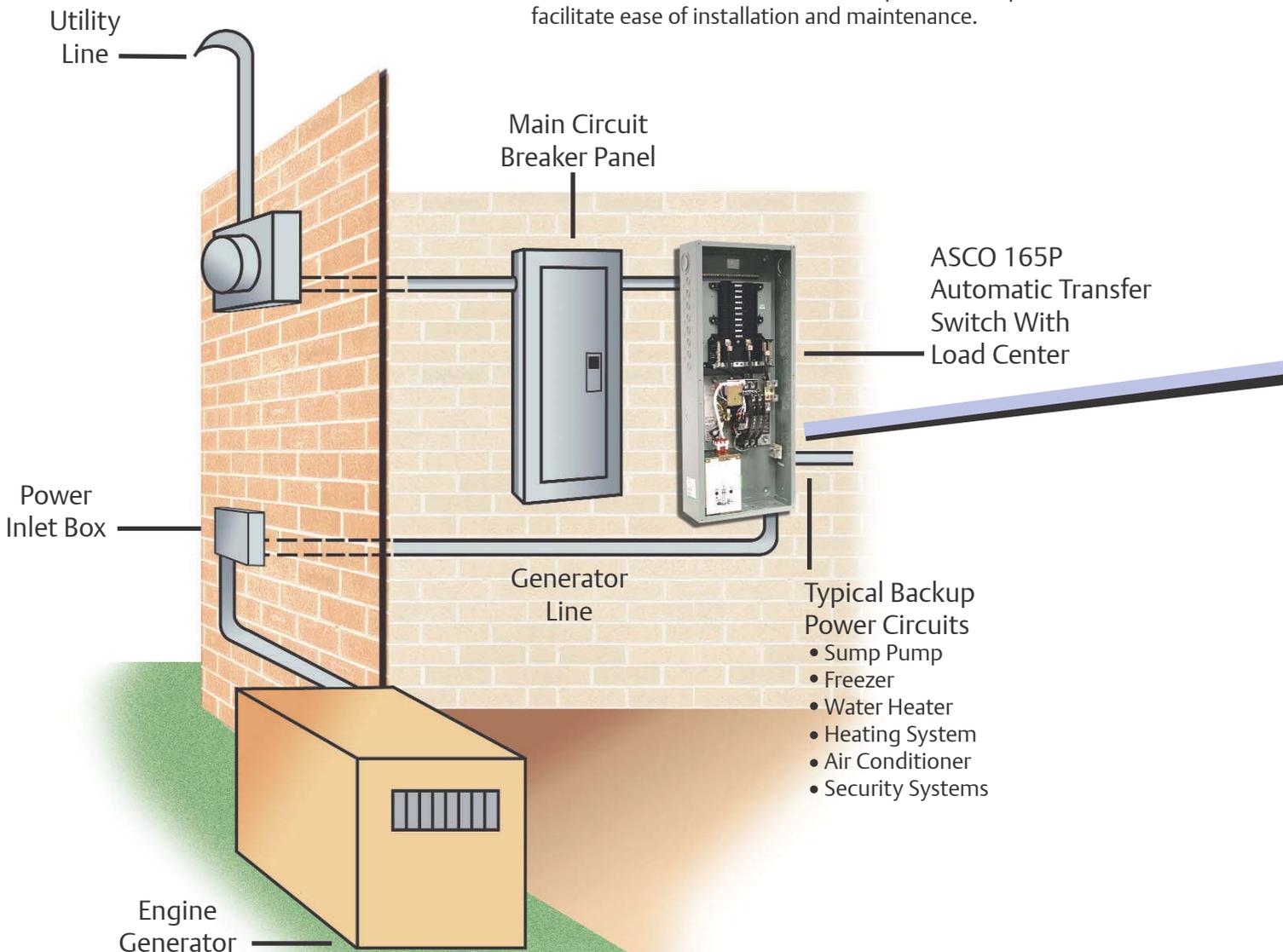
### With Load Center.

The ASCO 165P Power Transfer Load Center is a completely integrated package suitable for Residential applications. The 165P incorporates the SERIES 165 Automatic Transfer Switch with microprocessor control. A Square D QO Load Center to accept branch circuit devices. And optional transient voltage surge suppression for protection of loads.

The ASCO SERIES 165P provides all the intelligence to automatically start your generator when the utility fails and transfer critical loads to standby power.

Available with 125 amp rating, 120/240 VAC 60 Hz single phase, 3 wire.

The load center includes a 12 or 20 - position sub panel to facilitate ease of installation and maintenance.





## ASCO 165P Product Features

- Residential Load Center is listed UL 67
- Automatic Transfer Switch Rated 125 Amperes is listed to UL 1008, the standard for Transfer Switch Equipment.
- True double-throw contacts eliminate simultaneous connection to utility and generator
- Test switch with time delay bypass option
- Convenient terminals to connect neutral and ground conductors from service and load feeders.
- Generator exerciser timer
- Pre - wired and factory tested for easy installation
- Space saving modular design provides easy access and one-source service responsibility
- Available in Type 1 (indoor) or Type 3R(outdoor) enclosure
- Square D QO Load Center

## Optional Features

SQD Surge Breaker Secondary Surge Arrester<sup>1</sup>

- Plug on design requires two pole spaces
- LED indicates operational status
- Available as kit only for customer installation
- Specify kit K752139 For QO Load Center

<sup>1</sup> Surge protection devices will protect against electrical power surges caused by lightning or the electric utility for "major household appliances", but not sensitive electronic equipment. Electronic equipment may need additional protection by installing plug - in TVSS devices at the point of use.

## Ordering Information

Catalog Number	Load Center	Circuits <sup>2</sup>	Enclosure
165PQ12125F3C	QO	12	Type 1 Indoor
165PQ22125F3C	QO	20	Type 1 Indoor
165PQ12125F3F	QO	12	Type 3R Outdoor
165PQ22125F3F	QO	20	Type 3R Outdoor

<sup>2</sup> QO Branch Breakers supplied by others

## 165 P Dimensions and Weights

Enclosure	Width	Height	Depth	Weight
	inches (mm)	inches (mm)	inches (mm)	lb (kg)
Type 1 Indoor	14.3 (363)	36 (914)	6 (152)	58 (27)
Type 3R Outdoor	14.3 (363)	36 (914)	6.5 (216)	72 (33)

# Continuous Power

# Integrated Power Transfer Solutions for Ease of Installation.

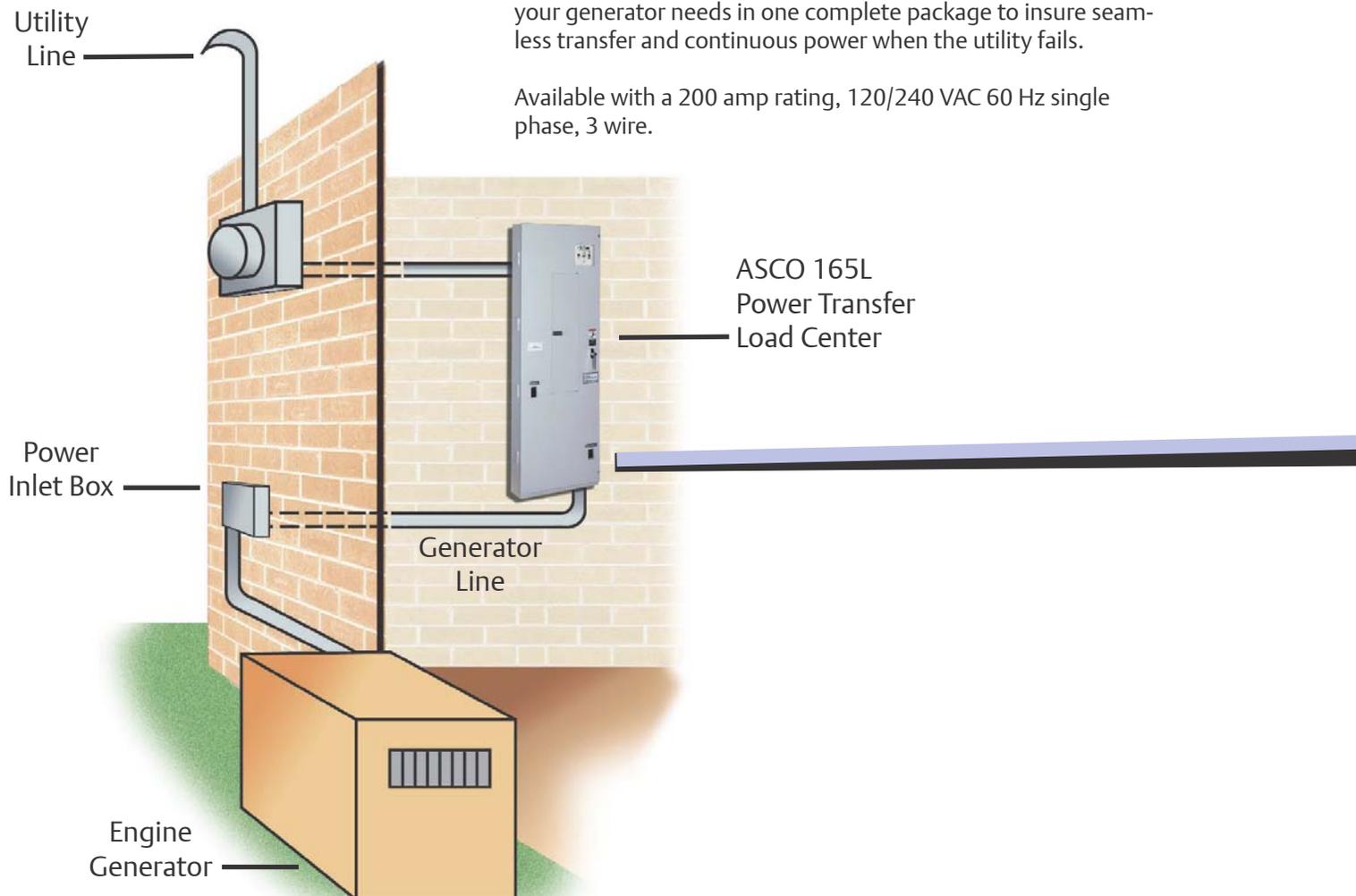
You can select from a comprehensive family of ASCO SERIES 165 power transfer switch products to satisfy the back up power requirements of virtually any residential or light commercial application. Whether you require stand-alone automatic or manual transfer switches, or total power transfer solutions integrated into single enclosures, ASCO offers exactly what you need. When you require an integrated solution, ASCO Power Transfer Load Centers are available in configurations that can include a transfer switch, load panel, circuit breakers and voltage surge suppression. The choice is yours.

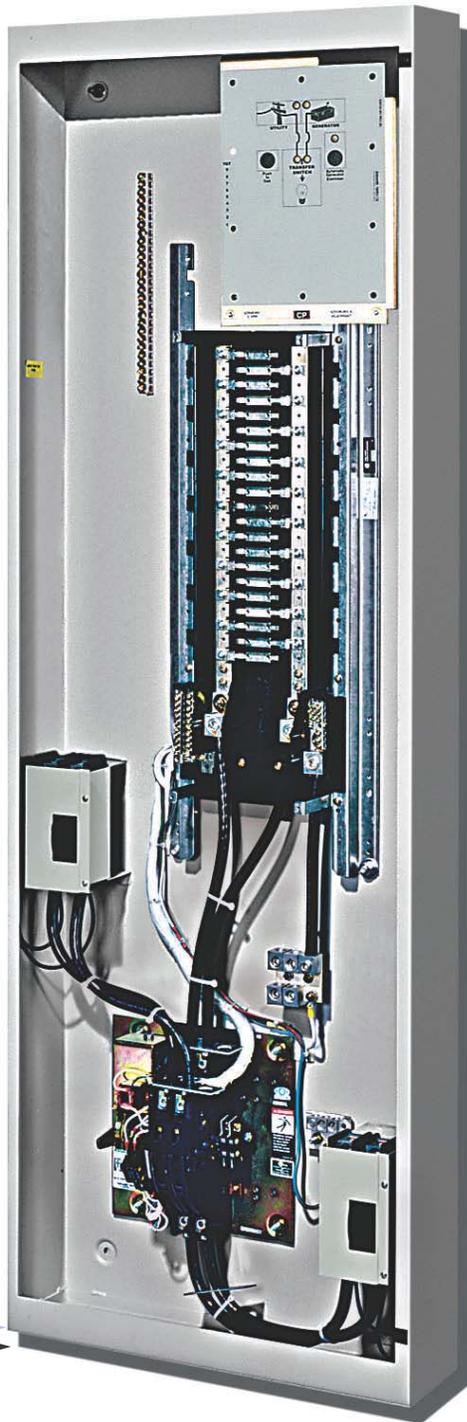
## ASCO 165L Power Transfer Load Center

A completely integrated package which incorporates the SERIES 165 Automatic Transfer Switch with microprocessor control. A Square D load distribution panelboard with utility and generator disconnect breakers. And optional transient voltage surge suppression for protection of load circuits.

The ASCO SERIES 165L provides the intelligence and protection your generator needs in one complete package to insure seamless transfer and continuous power when the utility fails.

Available with a 200 amp rating, 120/240 VAC 60 Hz single phase, 3 wire.





## ASCO 165L Product Features

- Service Entrance Rated Residential Load Center is listed UL 67
- Automatic Transfer Switch Rated 200 Amperes is listed to UL 1008, the standard for Transfer Switch Equipment.
- True double-throw contacts eliminate simultaneous connection to utility and generator
- Test switch with time delay override option
- Convenient terminals to connect neutral and ground conductors from service and load feeders.
- Generator exerciser timer
- Pre - wired and factory tested for easy installation
- Space saving modular design provides easy access and one-source service responsibility
- Available in Type 1 (indoor) or type 3R (outdoor) enclosure
- Square D QO Load Center
- Square D Utility and Generator Breakers

## Optional Features

### SQD Surge Breaker Secondary Surge Arrester<sup>1</sup>

- Plug on design requires two pole spaces
- LED indicates operational status
- Available as kit only for customer installation
- Specify kit K752139

### Strip Heater For customer mounting

- Specify kit K732212

<sup>1</sup> Surge protection devices will protect against electrical power surges caused by lightning or the electric utility for "major household appliances", but not sensitive electronic equipment. Electronic equipment may need additional protection by installing plug - in TVSS devices at the point of use.

## Ordering Information

Catalog Number	Load Center	Circuits <sup>2</sup>	Enclosure <sup>3</sup>
165L42200F3C	QO	40	Type 1 Indoor
165L42200F3F	QO	40	Type 3R Outdoor

<sup>2</sup> QO Branch Breakers supplied by others

<sup>3</sup> Contact ASCO Power Technologies for dimensions and weights

# Continuous Protection