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PRODUCT

## ASCO SERIES 165 Power Transfer Switches



**ASCO** Power  
Technologies®

  
**EMERSON**  
Network Power

# An Automatic Transfer Switch helps prevent...

- Your business or home from losing power during bad weather or utility power equipment failures
- The loss of valuable information needed from your computer to keep your business going or maintain important personal data
- Frozen and ruptured water pipes, flooded basements, as well as loss of heat, well water, air conditioning, sump pump, and other vital systems
- Frozen foods from thawing, and refrigerated foods from spoiling
- Personal injury and generator damage by eliminating the possibility of connecting the utility and generator at the same time



## ASCO is there for you even when you're not.

Computers, communication and information systems, security systems, cash registers, heating systems, water heaters, refrigerators and freezers, air conditioners, sump pumps, well pumps...nearly every system in your business or home depends on electric power. It's easy to take that power for granted, but when it fails, the results can be disastrous. Generators can restore power to these vital systems...but they can only operate when someone turns them on! So what do you do when no one is around?

ASCO SERIES 165 Automatic Transfer Switch products provide all the intelligence your generator needs to make sure the power stays on when utility power fails. It automatically senses loss of utility power, and signals your generator to start and restore power to your business or home. The SERIES 165 Automatic Transfer Switch will automatically transfer your vital loads back to utility power when it has been restored.

Working hand in hand with your generator, ASCO's SERIES 165 Automatic Transfer Switch silently provides dependable 24-hour protection from a power failure, and springs into action only when needed.



# Never put up with a power failure... again!

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### Power protection.

- Power outages cause millions of dollars of damage to businesses and residences annually... not to mention jeopardizing personal safety and convenience.
- A generator is only one piece of the solution... ASCO provides the other.
- An ASCO SERIES 165 Automatic Transfer Switch is the vital electrical link that makes continuous power virtually seamless...and hassle free.
- ASCO SERIES 165 Automatic Transfer Switches are suitable for operation with portable or permanently mounted standby generators from 2 kW to 45 kW.
- Whether you're home or not, an ASCO SERIES 165 Automatic Transfer Switch and your generator will maintain power to your business or home.

**24-hour protection**  
no matter when trouble  
strikes.

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**Protect  
your home,  
business, and  
peace of mind  
with the  
ASCO SERIES 165  
Automatic  
Transfer Switch.**

**Why should you choose an ASCO  
Automatic Power Transfer Switch?**

Customer service, rock-solid dependability, and the industry's highest performance have made ASCO the first choice in emergency power for more than 110 years. Our power transfer switches are used in more emergency power backup systems worldwide than any other. ASCO is the name behind most of the technological advances in transfer switch design, and we have more patents than all other manufacturers combined. ASCO transfer switches are the first choice for installations of every kind, from homes and small businesses to the largest financial data centers and hospitals in the world.

**What you should know about UL 1008—  
and your safety.**

The SERIES 165—and every ASCO Transfer Switch—meets or exceeds the stringent requirements of UL 1008, the only UL transfer switch standard. It even says so right on the front panel. If you don't see the UL Automatic Transfer Switch label...you're not getting the best protection money can buy.

**Power Solutions**

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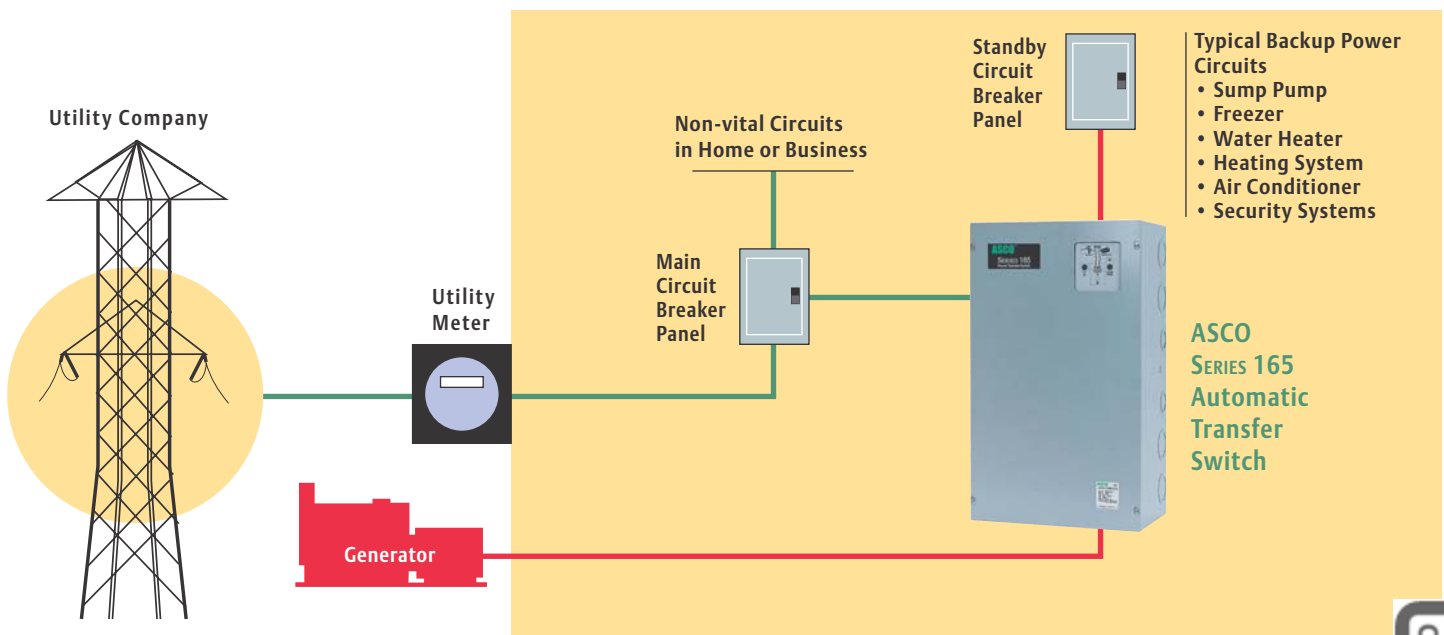


## Performance sets the SERIES 165 apart.

The SERIES 165 Automatic Transfer Switch incorporates the latest technology developed by ASCO for dependable operation in any environment.

- When utility power fails for just 3 seconds or more, the SERIES 165 Automatic Transfer Switch signals the generator to start.
- In less than 30 seconds your electrical power is restored.
- Once the SERIES 165 Automatic Transfer Switch senses utility power has reached an acceptable voltage level for a period of time, it automatically reconnects your power.
- It then smoothly shuts the generator down after a 1-minute cool-down period to extend generator life.
- The SERIES 165 Automatic Transfer Switch automatically performs a test to simulate utility power failure every 14 days.
- The user-friendly control panel also allows you to manually run a test at the push of a button.
- LED indicators let you know the availability of both power sources and transfer switch positions.

## System Diagram



# Peace of Mind

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# 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

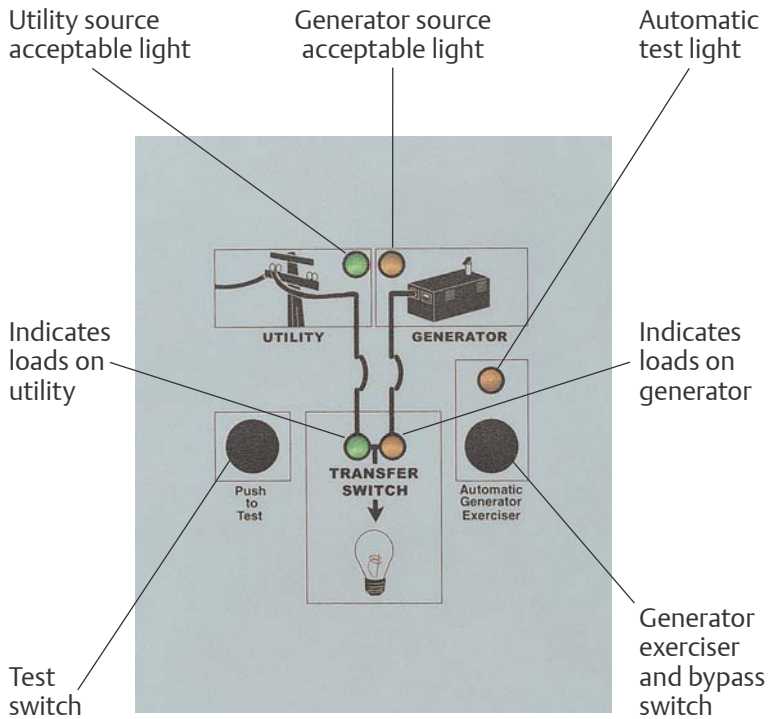
The 165 Automatic Transfer Switch has a unique built-in automatic digital diagnostic monitoring system, which provides status on potential system problems such as: generator failed to start; generator over frequency; transfer switch did not transfer; and more. It's one more way you can count on ASCO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



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

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## SERIES 165 Automatic Transfer Switch



### 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.



## 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

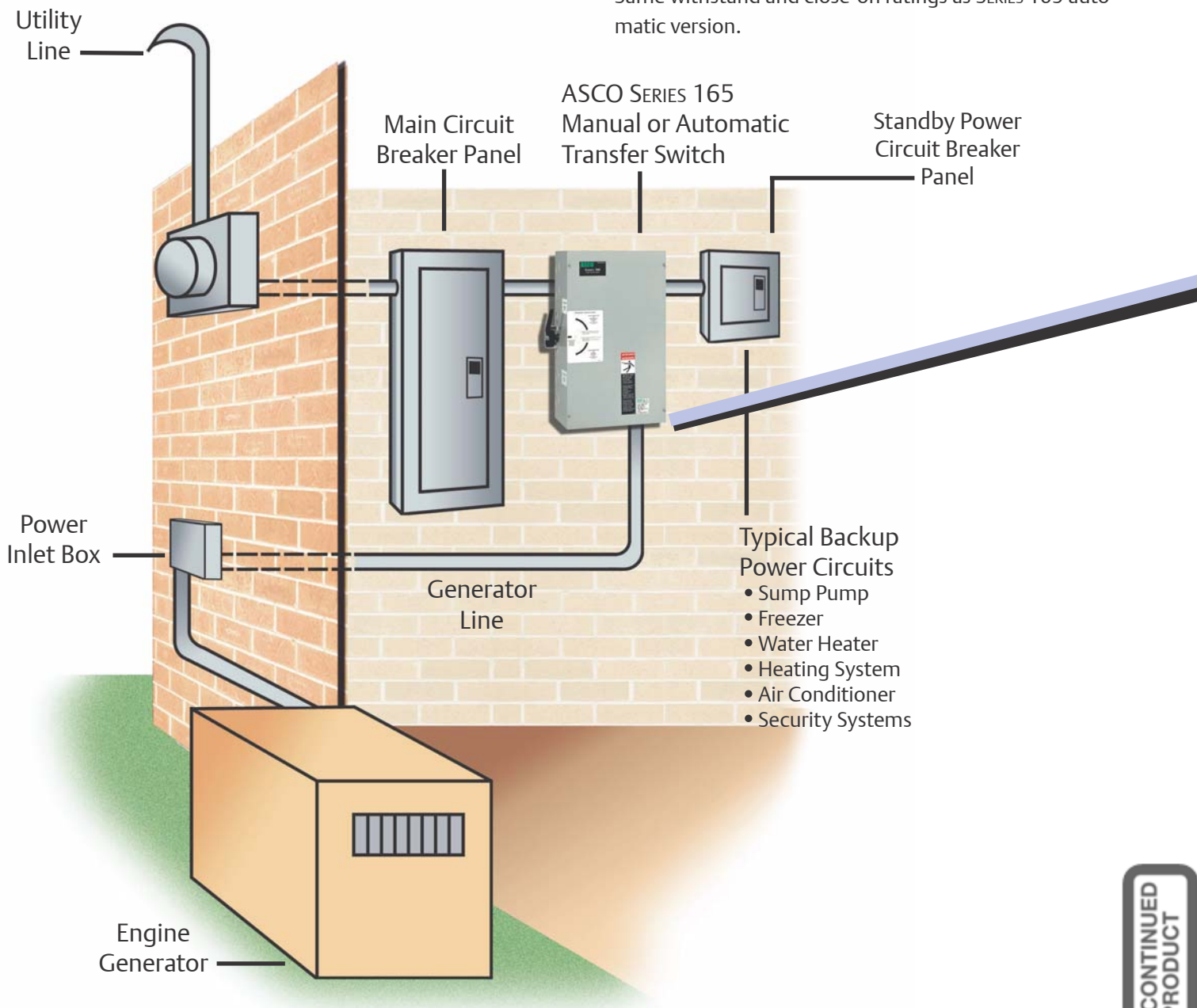
Switch Rating	Enclosure	Poles	Width	Height	Depth	Weight
			inches (mm)	inches (mm)	inches (mm)	lb (kg)
100	Type 1 Indoor	2	14.25 (362)	24 (610)	8 (203)	43 (20)
200	Type 1 Indoor	2	14.25 (362)	24 (610)	8 (203)	43 (20)
230	Type 1 Indoor	2	14.25 (362)	24 (610)	8 (203)	43 (20)
100	Type 3R Outdoor	2	14.75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

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# 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.



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## 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.

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# ASCO SERIES 165P

## Automatic Transfer Switch

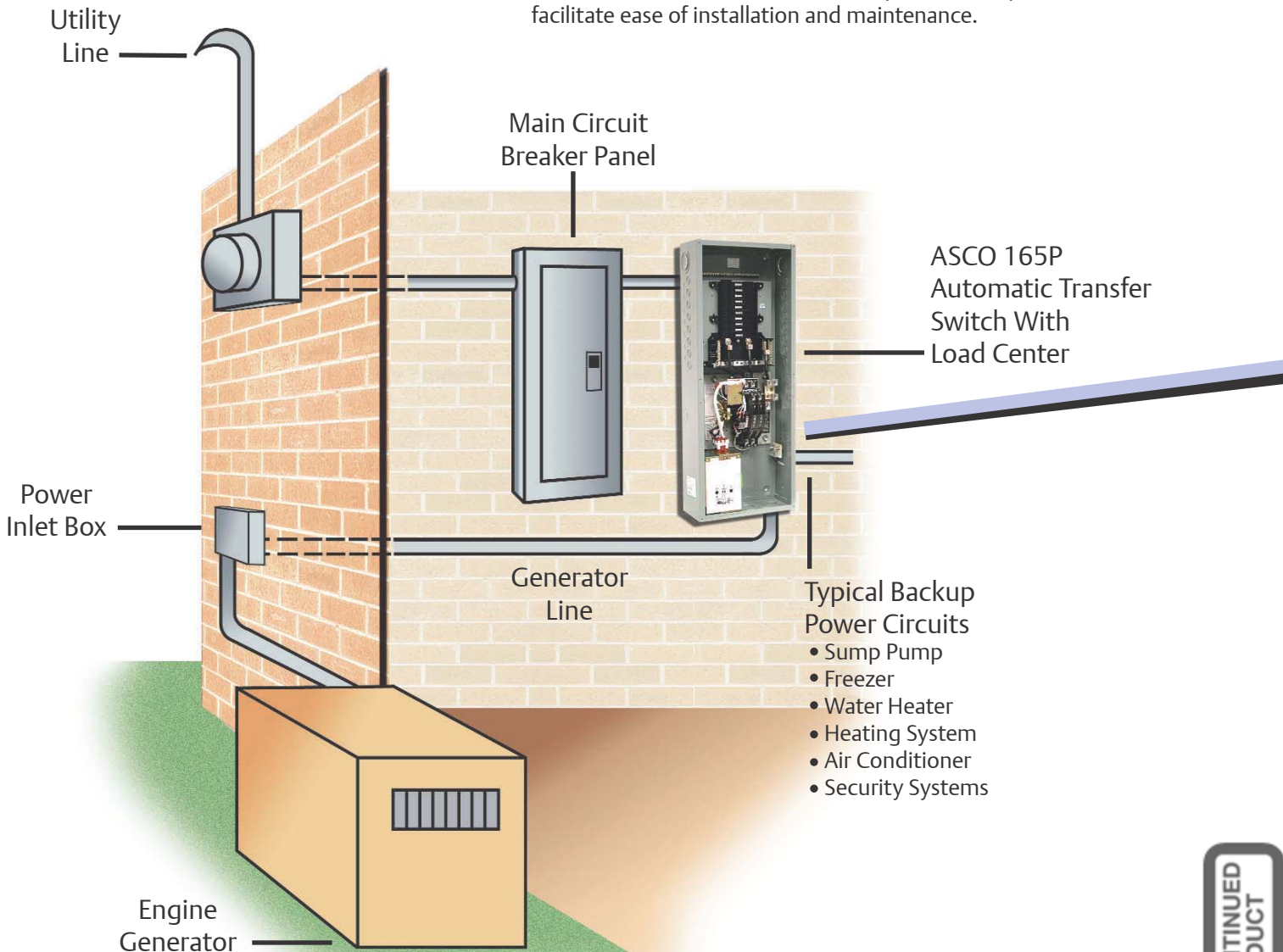
### With Load Center.

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.

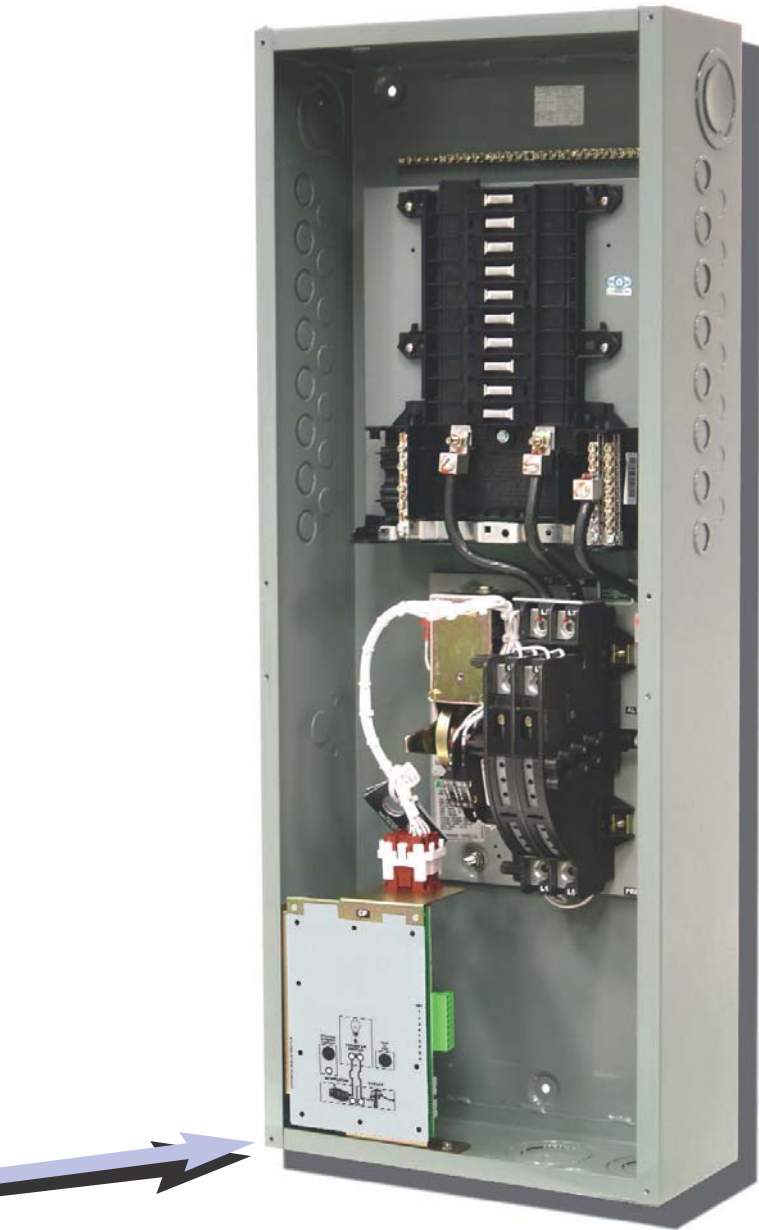
The ASCO SERIES 165P provides all the intelligence to automatically start your generator when the utility fails and transfer critical loads to standby power.

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.



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## 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

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# Integrated Power Transfer Solutions for Ease of Installation.

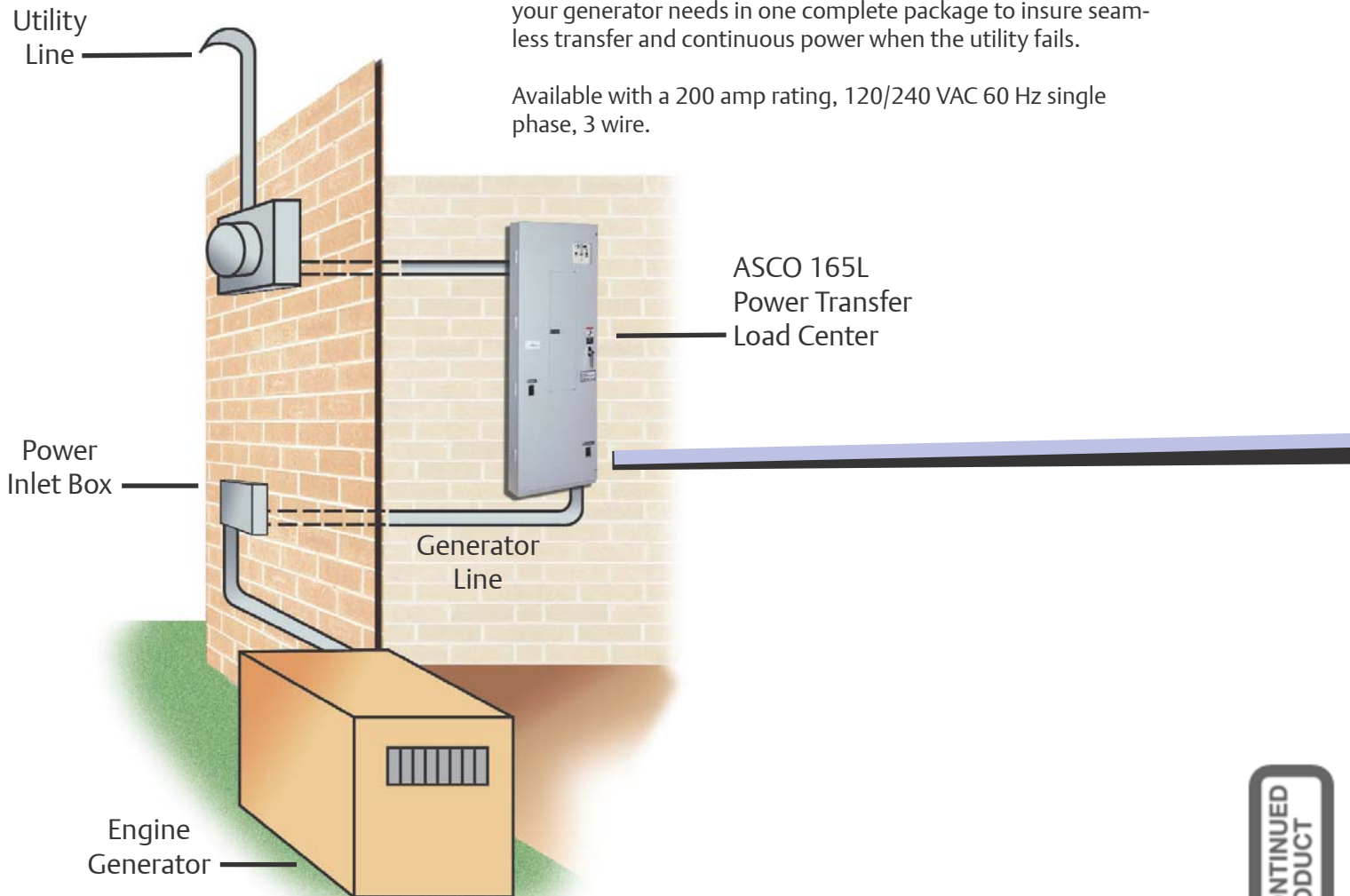
You can select from a comprehensive family of ASCO SERIES 165 power transfer switch products to satisfy the back up power requirements of virtually any residential or light commercial application. Whether you require stand-alone automatic or manual transfer switches, or total power transfer solutions 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.



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## 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

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## Emerson Network Power.

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- |                    |                                |                              |                             |
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