

ASCO Power Technologies

ASCO SERIES 300 Power Transfer Switches



ASCO SERIES 300 Automatic Transfer Switches

Power outages impact small and large facilities alike. ASCO SERIES 300 Automatic Transfer Switches offer rugged design and reliable performance to small and mid-size commercial and industrial facilities in packaged solutions that are easy to select, procure, install, and operate.

Every SERIES 300 generator transfer switch is engineered with ASCO's reliability expertise in a package that makes backup power accessible for small and mid-size facilities. Leveraging knowledge derived from a century of critical power transfer experience, each SERIES 300 is backed by the same ASCO technical support and service that solves the most demanding critical power challenges facing facilities today.

Product Details

Transfer Switch
Overview



SERIES 300 Automatic Transfer Switches

Designed to Fit Anywhere

The ASCO SERIES 300 product line provides the most compact design of generator power transfer switches in the industry.

Available to mount on walls or floors, all models through 2000 amperes are designed to be completely front-accessible. This permits installation flush against walls while allowing installation of cabling and connections from the front of the switch. Cable entrance plates are standard on 1600 and 2000 amperes units; these allow use of optional side-mounted pull boxes for additional cable bending space.

- 30 through 3000 amperes in compact designs
- Up to 600 VAC, single or three phase
- Listed to UL 1008 Standard for Safety -Transfer Switch Equipment
- True double-throw operation: The single solenoid design is inherently interlocked to prevent simultaneous connections of two power sources.
- Will not transfer to a dead source single solenoid operator derives power from the destination source
- Easy-to-navigate 128x64 graphical LCD display with keypad provides LED indicators for switch position, source availability, not-inauto mode, and alert conditions.
- Integrated, multilingual, user interface for configuration and monitoring
- · Available Delayed Transition operation
- Optional Relay Expansion Module with extra relays for accessory outputs

- Soft keys for test function and time delay bypass
- · Emergency source failure alert indication
- · Optional Historical Event Log
- Displays statistical ATS monitoring information
- · Built-in diagnostic functions
- Password protection to prevent unauthorized actions
- Adjustable delay feature prevents nuisance transfer due to momentary utility power outages and generator dips
- Auxiliary contacts signal position of main contacts - two for normal and two for emergency position
- · Standard solid neutral terminals
- Restriction of Hazardous Substances (RoHS) compliant controller
- Standard 2 year warranty. Optional 1, 2, and 3 year extensions



SERIES 300 Power Transfer Switch rated 200 amps

Power Knowledge

Basic Automatic
Transfer Switch
Functions

SERIES 300 Automatic Switching Solutions

Automatic and Non-Automatic Transfer Switching

ASCO Transfer Switches are available in both automatic and non-automatic types. Both are electrically operated. For automatic transfer switches, the controller initiates transfer between power sources . For non-automatic transfer switches, a user initiates transfer using local or remote controls.

SERIES 300 non-automatic transfer switches offer the following features:

- Models range from 30 through 3000 amperes, up to 600V
- Controller prevents inadvertent operation under low voltage conditions
- Source acceptability lights inform operator when sources are available to accept load
- Standard in-phase monitor for transferring motor loads betweem live sources

Power Knowledge

Non-Automatic
and Manual
Transfer Switches
for Backup Power
Applications

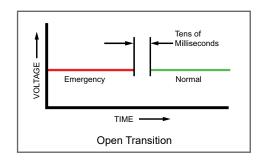


400 Amp, Type 1 Enclosure

Open Transition Transfer Switching

ASCO Transfer Switches are available with a standard, 2-position, open transition models that reliably transfer loads in less than 50 milliseconds. Open transition switches are suitable for a wide range of applications.

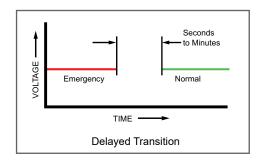
- 30 to 3000 amps
- Single-operator switching mechanism prevents simultaneous connection of both sources
- Available In-Phase Monitor can be activated for transferring motor loads



Delayed Transition Transfer Switching

ASCO Delayed Transition Transfer Switches transfer loads between power sources using a timed load disconnect position with an adjustable delay.

- 150 through 3000 amps
- Reliable, field-proven, dual-solenoid operating mechanism
- Mechanical interlocks to prevent simultaneous connection of both power sources
- Adjustable delay for load disconnect -0 to 5 minutes
- Non-automatic models available in manual operation configuration
- Automatic models available with load shed feature



Power Knowledge

- Transition Mode
 Basics
- Transferring

 Motor Loads

 between

 Power Sources
- Iransferring
 Loads with Zero
 Power Interruption

SERIES 300 Group G Controller

The SERIES 300 Group G Controller is reliable and field-proven. It provides all of the voltage, frequency, control, timing, and diagnostic functions required for most emergency and standby power applications.



- · Touch pad programming
- · Displays active timers
- On-board diagnostics
- · Password protection
- · Voltage and frequency sensing
- · Status and control functions

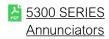
Product Details

🚵 Group G Controller

Transfer Switch Communications and Metering

Options to Customize Functionality and Increase Value

Product Details



Remote Annunciation

Monitor Power Equipment Status from Anywhere

Monitoring and control transfer switches from across the room, building, or from Internet.

5310 - LED annunciator - Single ATS

5350 - LED annunciator - up to 8 ATSs





Product Details



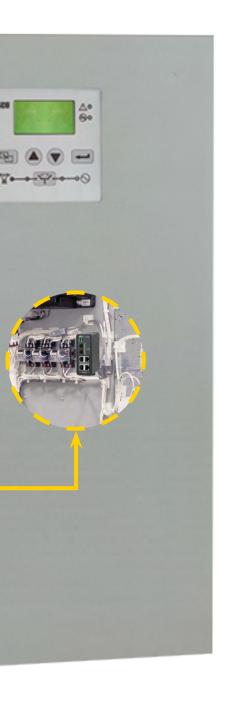
Communication

Turn Transfer Switches into Power Information Portals

5140 Connectivity Module – Makes status and power information from a single switch available to via ModBUS, SNMP, and web pages.



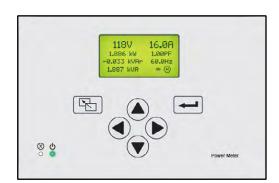




Metering

Transfer Switches are the Perfect Place to Monitor Power Flow, Power Conditions, and Power Events

5210 Power Meter – Provides deeper insight into circuit status and conditions.





SERIES 300 Optional Accessories

| Communic | ations | | | | | | | |
|---------------|---|--|--|--|--|--|--|--|
| | | | | | | | | |
| 11BE | Feature Bundle. Programmable engine exerciser with seven independenct routines run the generator with or without loads, on a daily, weekly, bi-weekly, or monthly basis. Controlled from the user interface keypad. Event log display shows the event number, time and date, type and reason (if applicable). Stores up to 300 events RS485 Communication Port enabled common alarm output contact On three-phase systems, Accessory 11BE enables line-to-line voltage imbalance sensing and three-phase sensing capabilities for the Emergency power source as well as the Phase Rotation checking for both power sources. | | | | | | | |
| 18RX | Relay Expansion Module provides accessory relays and includes one Form C contact for normal source availability (180 and one Form C contact for emergency source availability (18B) (contact rating 5 amperes @ 30 VDC or @ 125 VAC resistive) (100 ma, 4 VDC min) Additional output relay is provided the default is to indicate a common alarm. | | | | | | | |
| 72EE | Connectivity module provides remote monitoring and control capabilities and includes accessory 11BE feature bundle | | | | | | | |
| Environme | nt and Power | | | | | | | |
| 44A | Strip heater with thermostat for cold environment to prevent internal condensation and icing. External 120-volt AC power source required. | | | | | | | |
| 44G | Strip heater with thermostat, wired to load terminals on 208-240, 360-380, 460-480, 550-600 volt models. Contains w harnesses for all transfer switch sizes. | | | | | | | |
| 1UP | UPS back up power runs controller and LCD display for 30 seconds without AC power | | | | | | | |
| Extension | Harness | | | | | | | |
| 37B | Six-foot extension harness for open type units to accommodate customer mounting of controls and switch | | | | | | | |
| 37C | Nine-foot extension harness for open type units to accommodate customer mounting of controls and switch | | | | | | | |
| Indicators | | | | | | | | |
| 62W | Audible alarm with silencing feature to signal transfers to emergency. (For D-frame models, may require oversize enclosure depending on accessory combination). | | | | | | | |
| Customer | Control Circuits | | | | | | | |
| 30A | Load-shed circuit initiated by opening of a customer-supplied contact (Open Transition model only) | | | | | | | |
| 30B | Load-shed circuit initiated by removal of customer-supplied control voltage (Open Transition model only) | | | | | | | |
| 30AA | Load-shed circuit initiated by opening of a customer-supplied contact (Delayed Transition model only) | | | | | | | |
| 30BA | Load-shed circuit initiated by removal of customer-supplied control voltage (Delayed Transition model only) | | | | | | | |
| Surge Prot | ection | | | | | | | |
| 73 | Surge suppressor rated 65 kA | | | | | | | |
| Metering | | | | | | | | |
| 23GA, 23GB | Load Current Metering card measures either single or three-phase load current. Not available with Power Meter option 135L. Use 23GA for Single-Phase, 23GB for Three-Phase. | | | | | | | |
| 135L | Power Meter on load side (includes shorting block and current transformers). Not available with Load Current Metering options 23GA or 23GB. | | | | | | | |

Field Conversion Kits

| Kit No. | Description | | | | | | |
|-------------|--|--|--|--|--|--|--|
| 935147 | Advanced Function Bundle Retrofit Kit (11BE) - See above accessory 11BE description for details. | | | | | | |
| 935148 | REX Module with Source Availability Contacts (Acc. 18RX) | | | | | | |
| 935149 | UPS to allow controller to run for 30 seconds minimum without AC Power (Acc. 1UP) | | | | | | |
| 935150 | 1/3 Phase load current sensing card only (Acc. 23GA/GB) | | | | | | |
| K613127-001 | Strip Heater (125 watt) 120 volt (Acc. 44A) | | | | | | |
| K613127-002 | Strip Heater (125 watt) 208-480 volt (Acc. 44G) | | | | | | |
| 948551 | Quad-Ethernet Module (Acc. 72EE) | | | | | | |
| K609027 | Cable Pull Box (1600-2000 amperes) | | | | | | |

Withstand and Close-on Ratings

Withstand and Close-on Ratings for all 7000 SERIES Power Transfer Switches, including 0.5 second (30-cycle) designs.

| Frame | Switch Rating (Amps) | | Current Limiting Fuses | | | | Specific Breaker | | | Time Based | | | | Short Time Ratings ³ (sec) | | | | |
|----------------|-----------------------|--------------------|------------------------|-------------------|-------------------|---------------|--------------------|--------------------|--------------|---------------|--------------|-------------------|--------------|---------------------------------------|-------------|--------|--------------|--|
| | Transfer Switches | Bypass Switches | 480V Max. | 600V Max. | Max Size, A | Class | 240V Max. | 480V Max. | 600V Max. | Time (sec) | 240V Max. | 480V Max. | 600V Max. | .13 .2 | 1 1 | .1 .13 | Max. 3 .5 | |
| D | 30 | - | 100kA 200kA 35kA | - 35kA 35kA | 300 200 200 | J J RK1 | 22kA | 25kA | 10kA | 0.025 | 10kA | 10kA | 10kA | - | | - | - | |
| D | 70, 100 | - | 35kA 200kA | 35kA 35kA | 200 200 | RK1 J | 150kA | 85kA | 25kA | 0.025 | 10kA | 10kA | 10kA | - | | - | - | |
| D | 150 | - | 35kA 200kA | 35kA 35kA | 200 200 | RK1 J | 150kA | 85kA | 25kA | 0.025 | 10kA | 10kA | 10kA | - | | - | | |
| D | 200 | - | 200kA 35kA | 35kA 35kA | 200 200 | J RK1 | 200kA | 85kA | 14kA | 0.025 | 10kA | 10kA | 10kA | - | | - | - | |
| D | 230 | - | 100kA | - | 300 | J | 200kA | 85kA | 14kA | 0.025 | 10kA | 10kA | - | | | | | |
| Е | 260, 400 | - | 200kA | - | 600 | J | 65kA | 42kA | 22kA | 0.05 | 35kA | 35kA | 22kA | | | - | | |
| J | 150, 200, 230, 260 | 150, 200, 230, 260 | 200kA | 200kA | 600 800 | J L | 200kA | 200kA | 100kA | 0.05 | 65kA | 42kA ⁵ | 35kA | 7.5kA | - | - | | |
| J | 400 | 400 | 200kA | 200kA | 600 800 | J L | 200kA | 200kA | 100kA | 0.05 | 65kA | 42kA ⁵ | 35kA | 7.5kA | - | - | | |
| J | 600 | 600 | 200kA 200kA | 200kA 200kA | 800 600 | L J | 200kA | 200kA | 100kA | 0.05 | 65kA | 42kA ⁵ | 35kA | 7.5kA ⁹ | - | - | | |
| H ⁸ | 600 | 600 | 200kA | 200kA | 1600 | L | 65kA | 150kA ⁶ | 65kA | 0.05 | 50kA | 50kA | 50kA | 36kA | - | 36kA | - | |
| P ⁸ | 600 | 600 | 200kA | 200kA | 1600 | L | 65kA | 150kA ⁶ | 65kA | 0.05 | 50kA | 50kA | 50kA | 36kA | 30k | A 36kA | - | |
| P ⁸ | 800 | 800 - 1200 | 200kA | 200kA | 1600 | L | 65kA | 150kA ⁶ | 65kA | 0.05 | 50kA | 50kA | 50kA | 36kA | 30k | A 36kA | - | |
| Н | 800 - 1200 | 800 - 1200 | 200kA | 200kA | 1600 ⁴ | L | 65kA | 150kA | 65kA | 0.05 | 50kA | 50kA | 50kA | 36kA | - | 36kA | - | |
| Q ⁸ | 600-1600 | 600-1600 | 200kA | 200kA | 2000 | L | 65kA | 65kA | 65kA | 0.05 | 65kA | 65kA | 65kA | 50 | kA | 50kA | | |
| S ⁸ | 800 - 1200 | 800 - 1200 | 200kA | 200kA | 2500 | L | 100kA | 100kA | 65kA | 0.05 | 100kA | 100kA | 65kA | 65 | kA | 65kA | | |
| G ⁸ | 1000 - 1200 | 1000 - 1200 | 200kA | 200kA | 2000 | L | 85kA | 85kA | 85kA | 0.05 | 85kA | 85kA | 85kA | | | | | |
| G | 1600 - 2000 (Front | Connected TS Only) | 200kA | 200kA | 2500 | L | 85kA | 85kA | 85kA | 0.05 | 85kA | 85kA | 85kA | 42kA | 36k | A - | | |
| G ⁸ | 1600 - 2000 | 1600 - 2000 | 200kA | 200kA | 3000 | L | 200kA | 200kA | 100kA | 0.05 | 100kA | 100kA | 100kA | 42kA | 36k | 42kA | - | |
| S ⁸ | 1600 - 2000 | 1600 - 2000 | 200kA | 200kA | 2500 | L | 100kA | 100kA | 85kA | 0.05 | 100kA | 100kA | 85kA | 85kA | 65k | A 85kA | 65kA | |
| G | 2600 - 3000 | 2600 - 3000 | 200kA | 200kA | 4000 | L | 125kA ⁶ | 125kA ⁶ | 100kA | 0.05 | 100kA | 100kA | 100kA | 42kA | 36k | 42kA | - | |
| G ⁸ | 3200 | - | 200kA | - | 4000 | L | 100kA | 100kA | - | 0.05 | 100kA | 100kA | - | | | | | |
| G | 4000 | 4000 | 200kA | 200kA | 5000 | L | 100kA | 100kA | 100kA | 0.05 | 100kA | 100kA | 100kA | 85KA | 65kA | 65kA | | |
| U ⁸ | 2600 - 4000 | 2600 - 4000 | 200kA | 200kA | 5000 | Ĺ | 125kA | 125kA | 125kA | 0.05 | 125kA | 125kA | 125kA | 100 | 100kA 100kA | | kA | |

Notes:

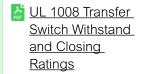
- 1. All WCR values indicated are tested in accordance with the requirements of UL 1008, 7th Edition. See ASCO Pub. 1128 for more WCR information
- 2. Application requirements may permit higher WCR for certain switch sizes.
- 3. Short Time ratings are provided for applications involving circuit breakers that utilize trip delay settings for system selective coordination
- 4. Max fuse rating is 1200A on front connected H frame switches
- 5. Switches utilizing overlapping neutral (code "C") have 35kA, 0.050 Sec time based rating at 480V Max
- 6. Rating shown is for Bypass switches only, Transfer Switch rating is 100kA for the G frame and 65kA max for the H and P frames. See ASCO Pub. 1128.
- 7. See ASCO for Service Entrance Switch ratings
- 8. These frames are only available on the 7000 Series product
- 9. Short Time Rating applies to 600A Bypass switch only, the 600A Transfer Switch does not have a Short Time Rating

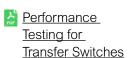
All units are RMS Symmetrical Amperes.

All Withstand and Close-on Rating (WCR) values are established by testing in accordance with UL 1008. For the latest ratings, including transfer switch ratings when used with specific circuit breakers, see <u>ASCO Publication 1128</u> for more WCR information.

Application characteristics may permit higher WCRs for certain switch sizes. Contact ASCO Power Technologies for more information.

Power Knowledge





Additional SERIES 300 Product Information

| Transfer Switches and Panels | Controls | Technical Information |
|--|--------------------|--|
| Manual Transfer Switch | Group G Controller | Withstand and Closing Ratings |
| Manual Transfer Switch with Quick Connects | | Weights and Dimensions and Ordering Info |
| Quick Connect Power Panel | | <u>Drawings</u> |
| Dual Purpose Quick Connect Power Panel | | Wiring Diagrams |

SERIES 300 Manual Transfer Switching and Quick Connection Solutions

ASCO SERIES 300 Manual Transfer Switching and Quick Connection Solutions offer reliable service and application flexibility for a wide range of facilities.

Manual Transfer Switches



- Three-position, easy-to-use center-off switch
- Compact design easy to install and maintain
- Designed to handle demands of motors and inrush currents

Power Knowledge

Differences
Between Manual,
Non-Automatic, &
Automatic Transfer
Switches

Product Details

SERIES 300

Manual Transfer

Switch

Manual Transfer Switches with Quick Connects



- The ASCO SERIES 300 Manual Transfer Switch with Integrated Quick Connects provides a total temporary power connection and transfer solution
- Enables connection and control of a temporary or portable generator
- Provides a complete UL 1008-listed solution in a single unit

Product Details

SERIES 300

Manual Transfer

Switch with Quick

Connects

Quick Connect Panels



- Listed to UL 1008 Transfer Switch Accessory standard
- Utilizes standard Cam-Lok™ receptacles for quick connections
- Standard Type 3R construction is weatherproof with or without cable
- Utilizes standard Series 16 Single Pole quick connect receptacles

Power Knowledge

MEC Requirement
for Permanent
Manual Switching
Means

Product Details

SERIES 300
Quick Connect
Power Panel

Dual-Purpose Manual Transfer Switches with Quick Connects



- Provides both supplemental backup power and load testing connectivity through a single device.
- Listed by ETL to UL 891
- Utilizes standard Series 16 Single Pole quick connect receptacles

Product Details





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