

Flexible Power Transfer Solutions for Commercial & Industrial Applications

ASCO Power Technologies<sup>™</sup>

ASCO SERIES 300 Power Transfer Switches



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Authorized Partner

# 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.



ASCO's SERIES 300 lineup offers flexible backup power solutions for businesses of every size.

# Product Details

Transfer Switch

**Overview** 

### • 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
- · Non-automatic operation can be selected without opening enclosure door
- Standard 2 year warranty. Optional 1, 2, and 3 year extensions



# 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.

bypass

- · 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

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.

- Optional Relay Expansion Module with extra relays for accessory outputs
- · Soft keys for test function and time delay
- · Emergency source failure alert indication

## 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
- Source acceptability lights inform operator when sources are available to accept load

Power

Knowledge

Non-Automatic

and Manual

**Applications** 

Transfer Switches

for Backup Power

- Controller prevents inadvertent operation
   under low voltage conditions
- Standard in-phase monitor for transferring motor loads betweem live sources



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 100 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

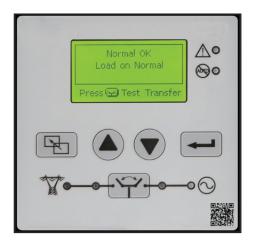
### Delayed Transition Transfer Switching

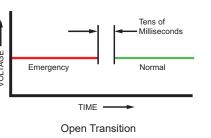
ASCO Delayed Transition Transfer Switches transfer loads between power sources using a timed load disconnect position with an adjustable delay.

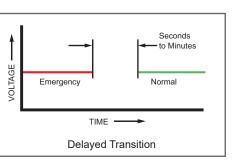
- 150 through 3000 amps
- Reliable, field-proven, dual-solenoid operating mechanism
- Mechanical interlocks to prevent simultaneous connection of both power sources
- Adjustable delay for load disconnect -0 to 5 minutes
- Non-automatic models available in manual operation configuration
- Automatic models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

# 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.







# Power Knowledge Iransition Mode Basics Iransferring Motor Loads between Power Sources Iransferring Loads with Zero Power Interruption

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



# Transfer Switch Communications and Metering

Options to Customize Functionality and Increase Value

Product	Remote Annunciation		
Details	Monitor Power Equipment Status from Anywhere		
5300 SERIES Annunciators	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		

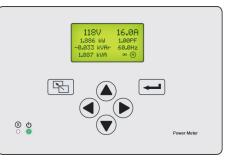




### Metering

and Power Events

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



# Product Details

5140 Connectivity <u>Module</u>

### 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.



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

# Product Details

5210 Power Meter

# SERIES 300 Optional Accessories

Communic	ations
11BE	<ul> <li>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.</li> <li>Event log display shows the event number, time and date, type and reason (if applicable).</li> <li>Stores up to 300 events</li> <li>RS485 Communication Port enabled common alarm output contact</li> <li>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.</li> </ul>
18RX	Relay Expansion Module provides accessory relays and includes one Form C contact for normal source availability (18G), 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.
72EE2	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 wiring 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.

# Withstand and Closing Ratings

	RATINGS	CURRENT LIMITING FUSES				SPE
FRAME	AMPERES	480V MAX.	600V MAX.	MAX. SIZE, AMPS	CLASS	240V MAX.
	30	100kA	-	300	J	22kA
		200kA	35kA	200	J	
		35kA	35kA	200	RK1	
	70.400	35kA	35kA	200	RK1	150kA
D	70-100	200kA	35kA	200	J	
	450	35kA	35kA	200	RK1	150kA
	150	200kA	35kA	200	J	
	200	200kA	35kA	200	J	200kA
		35kA	35kA	200	RK1	
	230	100kA	-	300	J	200kA
E	260, 400	200kA	-	600	J	65kA
	150, 200, 260	200kA	200kA	600	J	200kA
				800	L	
J	400	200kA	200kA	600	J	65kA
J				800	L	
	600	200kA	200kA	600	J	65kA
				800	L	
н	800-1200*	200kA	200kA	1200	L	65kA
	1600-2000	200kA	200kA	2500	L	85kA
G	2600-3000	200kA	200kA	4000	L	125kA
	4000	200kA	200kA	5000	L	100kA

### Notes:

\* Front connection only

All units are RMS Symmetrical Amperes

All Withstand and Closing Rating values are tested in accordance with UL 1008. See <u>ASCO Publication 1128</u> for more information.

Application requirements may permit higher WCR for certain switch sizes.

### 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)

### 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		Drawings
Dual Purpose Quick Connect Power Panel		Wiring Diagrams

480V MAX.	600V MAX.	
22kA	10kA	
85kA	25kA	
85kA	25kA	
85kA	14kA	
85kA	14kA	
42kA	22kA	
200kA	42kA	
50kA	42kA	
85kA	42kA	
150kA	65kA	
85kA	85kA	
125kA	100kA	
100kA	100kA	

# Power Knowledge

- LL 1008 Transfer Switch Withstand and Closing <u>Ratings</u>
- herformance Testing for Transfer Switches

# 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



Manual Transfer Switches with Quick Connects

10 200

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

• 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

### Power Knowledge

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

# Product Details

SERIES 300 Manual Transfer Switch

Product

Details

(III) SERIES 300

<u>Connects</u>

Manual Transfer

Switch with Quick

### **Quick Connect Panels**





 Provides both supplemental backup power and load testing connectivity through a single device.

# Dual-Purpose Manual Transfer Switches with Quick Connects



· Listed to UL 891 by ETL • Utilizes standard Series 16 Single Pole quick connect receptacles

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- · Listed to UL 1008 Transfer Switch Accessory standard
- Utilizes standard Cam-Lok<sup>™</sup> 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

(III) NEC Requirement for Permanent Manual Switching Means

# Product Details

L SERIES 300 Quick Connect Power Panel

# Product Details

SERIES 300 Dual Purpose Quick Connect Power <u>Panel</u>

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