

ASCO SERIES 300 Power Transfer Switches



GeneratorJoe

ASCO®

GeneratorJoe®

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EMERSON™
Network Power



24-hour protection no matter
when trouble strikes

ASCO SERIES 300 Power Transfer Switches for Power Outage Protection

Where would you be without a constant flow of electrical power? We often take for granted that power will always be around when we need it. In reality, power failures are very common. And when the power goes out, your business suffers. Power failures are unpredictable. They can occur at any time and for any number of reasons—a bolt of lightning, a power surge, a blackout, an accident or even equipment failure. They come without warning and often at the most inconvenient times.

It's for this reason that many businesses and other entities have invested in emergency power backup systems. Typically, the system consists of an engine

generator and an automatic transfer switch (ATS) which transfers the load from the utility to the generator.

An ATS with built-in control logic monitors your normal power supply, senses interruptions and unacceptable abnormalities. When the utility power fails, the ATS automatically starts the engine and transfers the load after the generator has reached proper voltage and frequency. This happens in a matter of seconds after the power failure occurs. When the utility power has been restored, the ATS will automatically switch the load back, and after a time delay, it will shut down the engine. With an Automatic Transfer Switch, you are protected 24 hours a day, seven days a week.





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ASCO[®] SERIES 300 Power Transfer Switches

Maximum Reliability & Excellent Value

With a SERIES 300 Transfer Switch, you get a product backed by ASCO Power Technologies, the industry leader responsible for virtually every major technological advance in the Transfer Switch industry.

The ASCO SERIES 300 was designed for one purpose—to automatically transfer critical loads in the event of a power outage. Each and every standard component was designed by ASCO engineers for this purpose.

The SERIES 300 incorporates the Group G controller with enhanced capabilities for dependable operation in any environment. A user friendly control interface with a four line, twenty character, LCD display and intuitive symbols allow for ease of operation while visual LED indicators verify transfer switch status.

The rugged construction and proven performance of the ASCO SERIES 300 assure the user of many years of complete reliability. The SERIES 300 is even designed to handle the extraordinary demands placed on the switch when switching stalled motors and high inrush loads.

ASCO's SERIES 300 modular, compact design makes it easy to install, inspect and maintain. All parts are accessible from the front so switch contacts can be easily inspected.

Features

- The SERIES 300 is listed to UL 1008 standard for total system loads and CSA standard C22.2 for automatic transfer switches.
- Meets NFPA 110 for Emergency and Standby Power Systems and the National Electrical Code (NEC) Articles 700, 701 and 702.
- Controller is RoHS compliant (Restriction of Hazardous Substances).
- 30 through 3000 amps in a compact design.

UL Listed Withstand & Close-On Ratings

Switch Ratings Amps	Available Symmetrical Amperes RMS		
	When Used With Current Limiting Fuses	Maximum Voltage	When Used With Specific Circuit Breakers
30	100,000	480v/60Hz	10,000
70 - 200	200,000	480v/60Hz	22,000
230	100,000	480v/60Hz	22,000
260, 400	200,000	480v/60Hz	42,000
150, 200, 230	200,000	600v/60hz	42,000
260, 400	200,000	480v/60Hz	50,000
Series 3ADTS only	200,000	240v/60Hz	65,000
600	200,000	600v/60Hz	42,000
600	200,000	480v/60Hz	50,000
600	200,000	240v/60Hz	65,000
800,1000,1200	200,000	600v/60Hz	65,000
1600, 2000	200,000	600v/60Hz	85,000
2600, 3000	200,000	600v/60Hz	100,000

Notes: 1. Current limiting fuse should be class J type through 400 amps: use Class L type above 300 - amp fuse rating
Current limiting fuse for 3ADTS only 150 - 400 amp should be Class L type
2. Refer to publication 1128 for specific manufacturer's breakers



Fig. 1: ASCO Power Transfer Switch rated 200 amperes

- Available to 600 VAC, single or three phase.
- True double-throw operation: The single solenoid design is inherently inter-locked and prevents contacts from being in contact with both sources at the same time.
- There's no danger of the SERIES 300 ATS transferring loads to a dead source because the unique ASCO single-solenoid operator derives power to operate from the source to which the load is being transferred.
- Easy to navigate 128x64 graphical LCD display with keypad provides LED indicators for switch position, source availability, not in auto, and alert condition.
- Integrated multilingual user interface for configuration and monitoring.
- Delayed transition operation is now available (Dual Operator Configuration).
- Relay expansion module with extra relays for accessory outputs (Optional).
- Includes soft keys for test function and time delay bypass as standard features.
- Historical event log (Optional).
- Statistical ATS system monitoring information
- Diagnostic Functions.
- Password protection to prevent unauthorized tampering of settings.
- Adjustable time-delay feature prevents switch from being activated due to momentary utility power outages and generator dips.
- Supplied with solid neutral termination.
- Optional switched neutral pole available.
- Field modification accessory kits available.
- Available for immediate delivery.

Designed to Fit Anywhere

The ASCO SERIES 300 product line represents the most compact design of automatic power transfer switches in the industry. With space in electrical closets being at a premium, the use of wall or floor-mounted ASCO Power Transfer Switches assures designers optimum utilization of space.

All transfer switches through 2000 amps are designed to be completely front accessible. This permits the enclosures to be installed flush to the wall and still allows installation of all power cabling and connections from the front of the switch. Cable entrance plates are also standard on the 1600 and 2000 amp units to install optional side-mounted pull boxes for additional cable bending space.



Fig. 2: ASCO Power Transfer Switch rated 200 amperes



Fig. 3: ASCO Power Transfer Switch rated 400 amperes



Fig. 4: ASCO Power Transfer Switch rated 600 Amperes



Fig. 5: ASCO Power Transfer Switch rated 1000 amperes



Fig. 6: ASCO Power Transfer Switch rated 2000 amperes shown in Type 3R enclosure



Fig. 7: ASCO Power Transfer Switch rated 3000 amperes



The SERIES 300's incorporate the group "G" controller with enhanced capabilities for dependable operation in any environment.

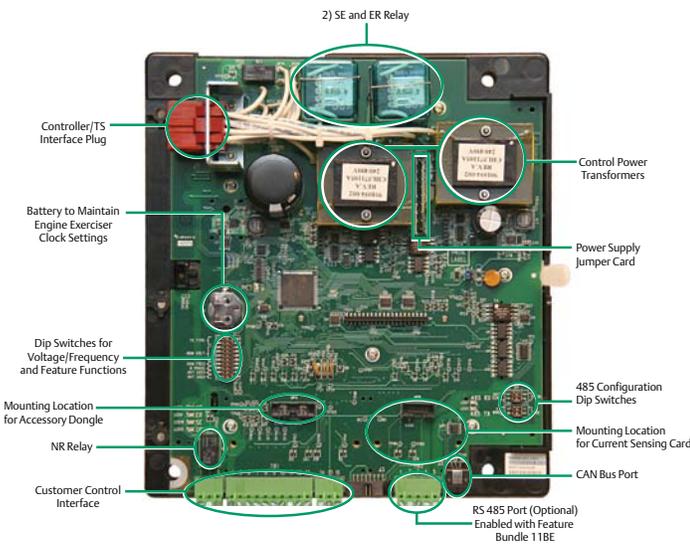


Fig. 8: ASCO SERIES 300 Microprocessor Controller

Control and Display Panel

- Easy to navigate 128x64 graphical LCD display with keypad provides LED indicators for switch position, source availability, not in auto, and alert condition. It also includes test and time delay bypass soft keys.

Voltage & Frequency Sensing

- 3 – Phase under and over voltage settings on normal and emergency sources.
- Under and over frequency settings on normal and emergency.
- True RMS Voltage Sensing with +/-1% accuracy
Frequency Sensing Accuracy is +/- 0.1Hz
- Voltage and Frequency parameters adjustable in 1% increments
- Selecting settings : single or three phase voltage sensing on normal, and single phase sensing on emergency; 50 or 60 Hz
- Load current sensing card (Optional)

Time Delays

- Engine start time delay – delays engine starting signal to override momentary normal source outages – adjustable to 0 to 6 seconds (Feature 1C)
- Transfer to emergency time delay – adjustable 0 to 60 minutes (Feature 2B)
- Emergency source stabilization time delay to ignore momentary transients during initial generator set loading – adjustable 0 to 4 seconds (Feature 1F)
- Re-transfer to normal time delay – adjustable 0 to 10 hours (Feature 3A)
- Unloaded running time delay for engine cooldown – adjustable 0 to 60 minutes (Feature 2E)
- Pre and post signal time delay for selective load disconnect with a programmable bypass on source failures – adjustable 0 to 5 minutes (specify ASCO Optional accessory 31Z)
- Optional fully programmable engine exerciser with seven independent routines to exercise the engine generator, with or without loads, on a daily, weekly, bi weekly or monthly basis (Specify ASCO optional accessory feature bundle 11BE)
- Delay transition load disconnect time delay – adjustable 0 to 5 minutes.

Standard Selectable Features

- Inphase monitor to transfer motor loads, without any intentional off time, to prevent inrush currents from exceeding normal starting levels.
- Engine exerciser to automatically test backup generator each week—with or without load 20 minutes not adjustable.
- Commit to transfer.
- Selective load disconnect control contacts (two provided) which operate with time delay prior to and/or after load transfer and re-transfer.
- 60Hz or 50Hz selectable switch.
Three – phase/single - phase selectable switch.

Remote Control Features

External Inputs for connecting:

- Remote test switch.
- Remote contact for test or for peak shaving applications. If emergency source fails, switch will automatically transfer back to normal source if acceptable.
- Inhibit transfer to emergency
- Remote time delay bypass switch emergency to normal

ASCO[®] SERIES 300 Group G Offers Sophisticated Functionality

The new Group G controller offers an intuitive, easy to navigate 128*64 graphical LCD display with soft keypad and provides (6) LED indicators

- Switch Position (green for normal, red for emergency LED)

- Source Availability (green for normal, red for emergency LED)
- “Not In Auto” (amber LED)
- Common Alarm (amber LED)

The ASCO group “G” controller is self contained with an integrated display

(no other components are required for efficient operation).

The controller allows for open or delayed transition transfer operation (both automatic, and non automatic configurations).

Integrated multilingual user interface for configuration and monitoring (this design

approach allows greater application flexibility).

Multiple source sensing capabilities of voltage, frequency, (under frequency sensing on normal and emergency sources), and optional current card, single and three phase (Does not require an external metering device).

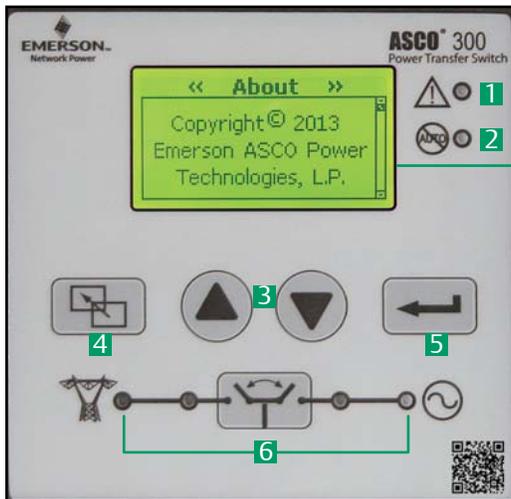
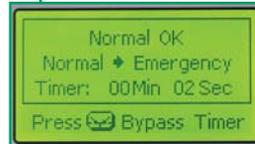
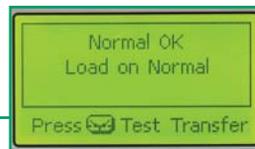


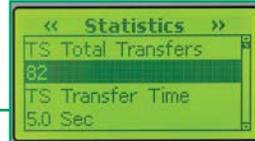
Fig. 9: Door-Mounted Control & Display Panel

- 1 Common Alarm
- 2 Not In Auto Indicator
- 3 Scroll, Up/Down Arrows
- 4 Escape Key
- 5 Enter Key
- 6 LED Indicators, Transfer/Time Delay Override

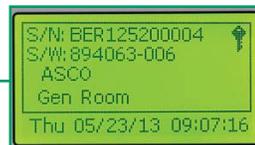
Status



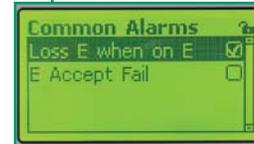
Data Logging



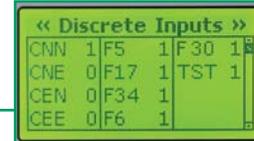
Gen Status



Alarms



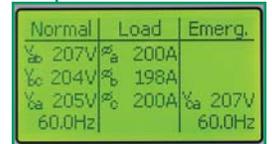
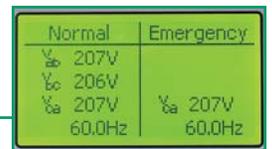
Communication



Engine Exerciser



Source



Settings



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ASCO® SERIES 300 ATS Optional Accessories

Accessory 1UP

UPS back up power to allow controller to run with LCD display for 30 seconds without AC power

Accessory 11BE Feature Bundle Consists of:

A fully programmable engine exerciser with seven independent routines to exercise the engine generator, with or without loads, on a daily, weekly, bi-weekly or monthly basis. Engine exerciser setting can be displayed and changed from the user interface keypad.

Event Log display shows the event number, time and date of event, event type, and event reason (if applicable). A maximum of 300 events can be stored.

RS 485 Communications Port Enabled
Common Alarm Output Contact

Accessory 18RX

Relay expansion module (REX) provides for some commonly used accessory relays, includes one form C contact for source availability of normal (18G), and one contact for availability of emergency (18B) (contact rating 5 amps @ 30Vdc or @125 Vac resistive). Additional output relay is provided, the default is to indicate a common alarm. (See operator's manual for configurable options).

Accessory 23GA (Single Phase), and 23GB (Three Phase)

Load current metering card, measures either single or three phase load current

Note: This feature is not available with a Power Meter Option (135L)

Accessory 14AA/14BA

Auxiliary contacts to indicate position of main contacts. Two (2) for normal and two (2) for emergency position (one set is standard).

Accessory 44A

Strip Heater with thermostat for extremely cold areas to prevent condensation and freezing of this condensation. External 120 volt power source required.

Accessory 44G

Strip Heater with thermostat, wired to load terminals: 208-240, 360-380, 460-480, 550-600 volts. Contains wiring harnesses for all transfer switch sizes.

Field Conversion Kits for SERIES 300 Transfer Switches

Kit No.	Description
935147	Feature Bundle Includes Engine Exerciser/Event Log/RS 485/ Common Alarm Output Contact (Acc. 11BE) Dongle
935148	REX Module with Source Availability Contacts (Acc. 18RX)
935149	UPS to allow controller to run for 3 minutes minimum with AC Power
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)
K60927	Cable Pull Box (1600 - 2000 amp)
968988	Rex Module with (2) Sets of Source availability Contacts

Accessory 72EE

Connectivity Module, enabling remote monitoring and control capabilities (Pages 16-18)

Accessory 31Z

Selective load disconnect circuit to provide a pre-transfer and/or post transfer signal when transferring from emergency to normal and/or normal to emergency.

Accessory 73

Surge Suppressor (TVSS) Rated 65kA

Accessory 62W

Audible alarm with silencing feature to signal each time switch transfers to emergency (City of Chicago requirement)

Accessory 37B

6' Extension harness for units shipped open type to accommodate customer mounting of controls and switch

Accessory 37C

9' Extension harness for units shipped open type to accommodate customer mounting of controls and switch

Accessory 135L¹

Power Meter on load side (Includes shorting block and CT's)

Note1: This feature is not available with Load Current Metering Option (23GA, or 23GB)

Accessory 30AA²

Load-shedding circuit initiated by opening of a customer-supplied contact

Accessory 30BA²

Load-shedding circuit initiated by removal of customer-supplied voltage (* Specify voltage)

Note2: Accessory 30AA, and 30BA are only available for 3ADTS (Automatic Delayed Transition Transfer Switch)



Fig. 10: Strip Heater Kit (Accessory 44G)



Fig. 11: Relay Expansion Module (Accessory 18RX)



Fig. 12: Load Current Card (Accessory 23GA/GB)

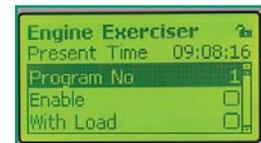


Fig. 13: Programmable Engine Exerciser



Fig. 14: Accessory 1UP UPS Backup Power

ASCO[®] SERIES 300 Power Transfer Switches

SERIES 300 Non-Automatic Transfer Switching (3NTS)

ASCO non-automatic transfer switches are generally used in applications where operating personnel are available and the load is not an emergency type requiring automatic transfer of power. They can also be arranged for remote control via ASCO's connectivity products.



Fig. 15: ASCO 3NTS 400 Amp
Type 1 Enclosure

3NTS Features:

- ASCO Non-Automatic Transfer Switches are electrically held, manually initiated via soft keys on the user interface panel.
- Sizes from 30 through 3000 amps.
- Microprocessor based controller provides for addition of optional accessories.
- Controller prevents inadvertent operation under low voltage condition.
- Source acceptability lights inform operator if sources are available to accept load.
- Source inphase monitor to transfer motor loads between live sources.
- One auxiliary contact closed when transfer switch is connected to normal and one closed on Emergency standard feature 14A/14B



Fig. 16: ASCO 3ADTS/3NDTS 400 Amp
Type 1 Enclosure

SERIES 300 Delayed Transition Transfer Switching (3ADTS/3NDTS)

ASCO Delayed Transition Transfer Switches are designed to provide transfer of loads between power sources with a timed load disconnect position for an adjustable period of time.

3ADTS/3NDTS Features:

- Sizes from 150 through 3000 amps.
- Reliable field proven dual solenoid operating mechanisms.
- Mechanical interlocks to prevent direct connection of both sources.
- Adjustable time delay for load disconnect (0 to 5 minutes).
- Available in manual operation configuration (3NDTS).
- Available with optional load shed feature for 3ADTS.



SERIES 300 Transfer Switch Ordering Information

To order an ASCO SERIES 300 Power Transfer Switch, complete the following catalog number:

3		+		A		+		TS		+		A		+		3		+		600		+		N		+		GX		+		C	
				Product		Neutral Code		Phase Poles		Amperes		Voltage Code		Controller Code		Enclosure																	
A	Automatic	TS	Conventional 2 Position	A	Solid Neutral	2 Poles 1φ	Continuous rating	A ³	115	G	Type 1 (Standard)																						
N	Non- Automatic	DTS	Delayed Transition	B ¹	Switched Neutral	3 Poles 3φ	30 ² , 70 ² , 104 ² , 150 ⁵ , 200 ^{4,5} , 230 ^{2,4,5} , 260 ^{2,5} , 400 ^{2,5} , 600 ⁵ , 800 ⁵ , 1000 ⁵ , 1200 ⁵ , 1600 ⁵ , 2000 ⁵ , 2600 ⁵ , 3000 ⁵	B ³	120	GX	Type 3R Non-Secure ²																						
								C	208	Optional Accessories	F	Type 4 ² Non-Secure																					
								D	220		G	Type 4X ² Non-Secure																					
								E	230		H	Type 12 ² Non-Secure																					
								F	240		L	Type 3R Secure																					
								H	380		M	Type 4 Secure																					
								J	400		N	Type 4X Secure Double Door 304 SS																					
								K	415		P	Type 12 Secure Double Door																					
								L	440		Q	Type 3RX ^{7,8} Secure Double Door 304 SS																					
								M	460		R																						
								N	480																								
								Q	575																								
								R	600																								

- Notes:**
- Specify neutral code "C" for 260 and 400 amperes only for 3ATS/3DTS
 - Available 30-600 ampere size switches available in non - secure type enclosures
 - 115-120 volt available 30-400 amps only. For other voltages contact ASCO.
 - 200 and 230 amp rated switches for use with copper cable only.
 - Switch sizes 800 - 3000 ampere, and 150 - 400 ampere 3ADTS/3NDTS provided in secure type outdoor enclosures when required.
 - Use 3R for 1200, 2000, 2600, and 3000
 - Type 304 stainless steel is standard. Suitable for indoor or outdoor use where there may be caustic or alkali chemicals in use. To provide an improved reduction in corrosion of salt and some chemicals, optional type 316 stainless steel is recommended. This is the preferred choice for marine environments.
 - Available on switches rated 1200, 2000, 2600, and 3000 amps.
 - When temperatures below 32°F can be experienced, special precautions should be taken, such as the inclusion of strip heaters, to prevent condensation and freezing of this condensation. This is particularly important when environmental (Type 3R,4) are ordered for installation outdoors.
 - Extra shelter protection should be considered for wind blown rain and snow, since ventilated type 3R enclosures due not protect against these conditions.

Extended Warranties for SERIES 300 Transfer Switches (3ATS/3NTS/3ADTS)

Catalog No.	Description
3EXW300	Three-Year Extended Warranty (Parts & Labor)
4EXW300	Four-Year Extended Warranty (Parts & Labor)
5EXW300	Five-Year Extended Warranty (Parts & Labor)



SERIES 300 Transfer Switch Dimensions and Shipping Weights

UL Type 1 Enclosure^{1,2,3,4,5}

Switch Rating Amps	Phase Poles	Neutral Code	Dimensions, In. (mm)			Approx. Shipping Weight Lb. (kg)
			Width	Height	Depth	
30 ⁴ , 70 ⁴ , 100 ^{4*} , 104 ⁴ 150 ⁴ , 200 ⁴ *SERIES 3NTS only	2	A	18(457)	31(787)	13(330)	69(32)
	2	B	18(457)	31(787)	13(330)	72(33)
	3	A	18(457)	31(787)	13(330)	72(33)
	3	B	18(457)	31(787)	13(330)	75(34)
230 ³ , 260, 400	2	A	18(457)	48(1219)	13(330)	117(53)
	2	B ³ or C	18(457)	48(1219)	13(330)	125(57)
	3	A	18(457)	48(1219)	13(330)	125(57)
	3	B ³ or C	18(457)	48(1219)	13(330)	133(61)
150, 200, 230, 260, 400 SERIES 3ADTS/3NTS only	2	A	24(610)	56(1422)	14(356)	196(89)
	2	B	24(610)	56(1422)	14(356)	202(92)
	3	A	24(610)	56(1422)	14(356)	202(92)
	3	B	24(610)	56(1422)	14(356)	208(94)
600	2	A	24(610)	63(1600)	17(432)	316(143)
	2	B	24(610)	63(1600)	17(432)	324(147)
	3	A	24(610)	63(1600)	17(432)	324(147)
	3	B	24(610)	63(1600)	17(432)	332(150)
800, 1000	2	A	34(864)	72(1829)	20(508)	431(196)
	2	B	34(864)	72(1829)	20(508)	460(209)
	3	A	34(864)	72(1829)	20(508)	460(209)
	3	B	34(864)	72(1829)	20(508)	489(222)
1200	2	A	38(965)	87(2210)	23(584)	581(264)
	2	B	38(965)	87(2210)	23(584)	611(277)
	3	A	38(965)	87(2210)	23(584)	611(277)
	3	B	38(965)	87(2210)	23(584)	639(290)
1600, 2000 ¹	3	A	38(965)	87(2210)	23(584)	1160(525)
	3	B	38(965)	87(2210)	23(584)	1160(525)
2600, 3000 ²	3	A	38(965)	91(2311)	60(1524)	1430(649)
	3	B	38(965)	91(2311)	60(1524)	1495(679)

Notes:

- Unit is designed for top cable entry of emergency & load and bottom entry of normal. A cable pull box is also available for all top or bottom cable access when required (optional accessory kit #K609027). Not required for type 3R, 4X & 12 enclosures where available.
- Enclosures for 2600, 3000 amps are free-standing with removable top, sides & back.
- Neutral Code "B" for 230 amperes only.
- Dimensions for 30-200 amperes when furnished with a power meter, 18"W - 41"H - 13"D
- Dimensional data is approximate and subject to change. Certified dimensions available upon request.

UL Type 3R, 4 or 12 Enclosure^{1,2,3,4,5}

Switch Rating Amps	Phase Poles	Neutral Code	Dimensions, In. (mm)			Approx. Shipping Weight Lb. (kg)
			Width	Height	Depth	
30 ³ , 70 ³ , 100 ^{3*} , 104 ³ 150 ³ , 200 ³ *SERIES 3NTS only (Non Secure Enclosure)	2	A	17 1/2 (445)	35 (886)	11 5/8 (295)	84 (38)
	2	B	17 1/2 (445)	35 (886)	11 5/8 (295)	87 (40)
	3	A	17 1/2 (445)	35 (886)	11 5/8 (295)	87 (40)
	3	B	17 1/2 (445)	35 (886)	11 5/8 (295)	90 (41)
230 ² , 260, 400 (Non Secure Enclosure)	2	A	18 (458)	50 1/2 (1284)	14 1/3 (364)	132 (60)
	2	B ³ or C	18 (458)	50 1/2 (1284)	14 1/3 (364)	140 (63)
	3	A	18 (458)	50 1/2 (1284)	14 1/3 (364)	140 (63)
	3	B ³ or C	18 (458)	50 1/2 (1284)	14 1/3 (364)	148 (67)
150, 200, 230, 260, 400 *SERIES 3ADTS/3NDTS only (Non Secure Enclosure)	2	A	24 (607)	63 (1593)	18 1/5 (468)	234 (106)
	2	B	24 (607)	63 (1593)	18 1/5 (468)	241 (109)
	3	A	24 (607)	63 (1593)	18 1/5 (468)	241 (109)
	3	B	24 (607)	63 (1593)	18 1/5 (468)	246 (112)
600 (Non Secure Enclosure)	2	A	24 (607)	63 (1593)	18 1/5 (468)	320 (145)
	2	B	24 (607)	63 (1593)	18 1/5 (468)	328 (148)
	3	A	24 (607)	63 (1593)	18 1/5 (468)	328 (148)
	3	B	24 (607)	63 (1593)	18 1/5 (468)	336 (152)
800, 1000 (Non Secure Enclosure)	2	A	34 (859)	72 (1821)	20 (506)	519 (236)
	2	B	34 (859)	72 (1821)	20 (506)	543 (246)
	3	A	34 (859)	72 (1821)	20 (506)	543 (246)
	3	B	34 (859)	72 (1821)	20 (506)	565 (257)
1200 ⁶ (Non Secure Enclosure)	2	A	41 (1037)	95 1/2 (2415)	33 1/2 (848)	1131 (513)
	2	B	41 (1037)	95 1/2 (2415)	33 1/2 (848)	1160 (526)
	3	A	41 (1037)	95 1/2 (2415)	33 1/2 (848)	1160 (526)
	3	B	41 (1037)	95 1/2 (2415)	33 1/2 (848)	1189 (539)
1600, 2000 ² (Non Secure Enclosure)	3	A	41 (1037)	95 1/2 (2415)	62 (1569)	1705 (775)
	3	B	41 (1037)	95 1/2 (2415)	62 (1569)	1830 (832)
2600, 3000 (Non Secure Enclosure)	3	A	41 (1037)	96 (2429)	74 (1872)	2150 (976)
	3	B	41 (1037)	96 (2429)	74 (1872)	2230 (1012)

Notes:

- When climate conditions at installation site present condensation risk, special precautions should be taken, such as the inclusion of space heaters, to prevent interior condensation and freezing of this condensation.
- Neutral code "B" for 230 amperes only.
- Dimensions for 30 - 200 ampere when furnished with a power meter 18"W - 48"H - 13"D
- 30-1000 ampere switches are available in secure type enclosures, contact ASCO for details
- Dimensional data is approximate and subject to change. Certified dimensions available upon request.

GeneratorJoe®

4723 Muirfield Court
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Phone: 707 542-2224

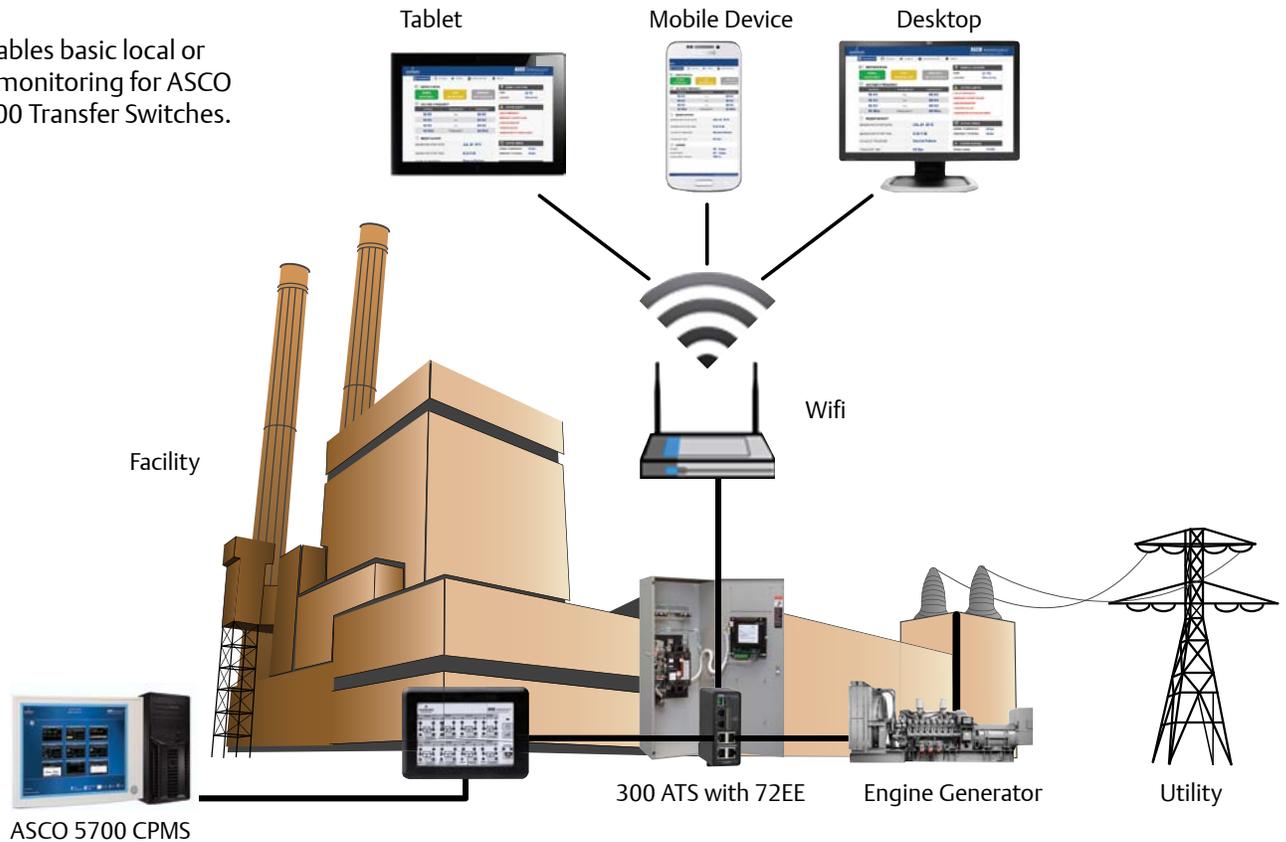
Fax: 707 542-2227

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ASCO[®] SERIES 300 PowerQuest 72EE Monitoring and Control

72EE enables basic local or remote monitoring for ASCO Series 300 Transfer Switches.



Sample drawing for demonstration purposes only. Consult ASCO for exact connection specifications.

72EE Features

Control Features

- ATS Transfer/Re-transfer
- ATS Timer Bypass
- Generator Start
- Generator Test

Monitoring Features

- ATS and Generator Stats
- Alarms
- Voltage and Frequency
- Statistics and Activity
- Email Notifications
- Event Log (300 Events)
- Optional Monitoring Features
 - Energy Consumption, Acc 135L Required
 - Power Demand, Acc 135L Required

Connectivity Features

- Modbus (over Ethernet or Serial)
- SNMP Protocol
- AES 128 Bit Encryption
- Four Port Ethernet Switch

72EE Also Enables Enhanced PowerQuest CPMS Functionality

- 5310 SERIES Single Channel Annunciator
- 5350 SERIES Eight Channel Annunciator
- 5700 Critical Power Management Systems

ASCO[®] SERIES 300 PowerQuest 5140(Acc 72EE) Monitoring Screens

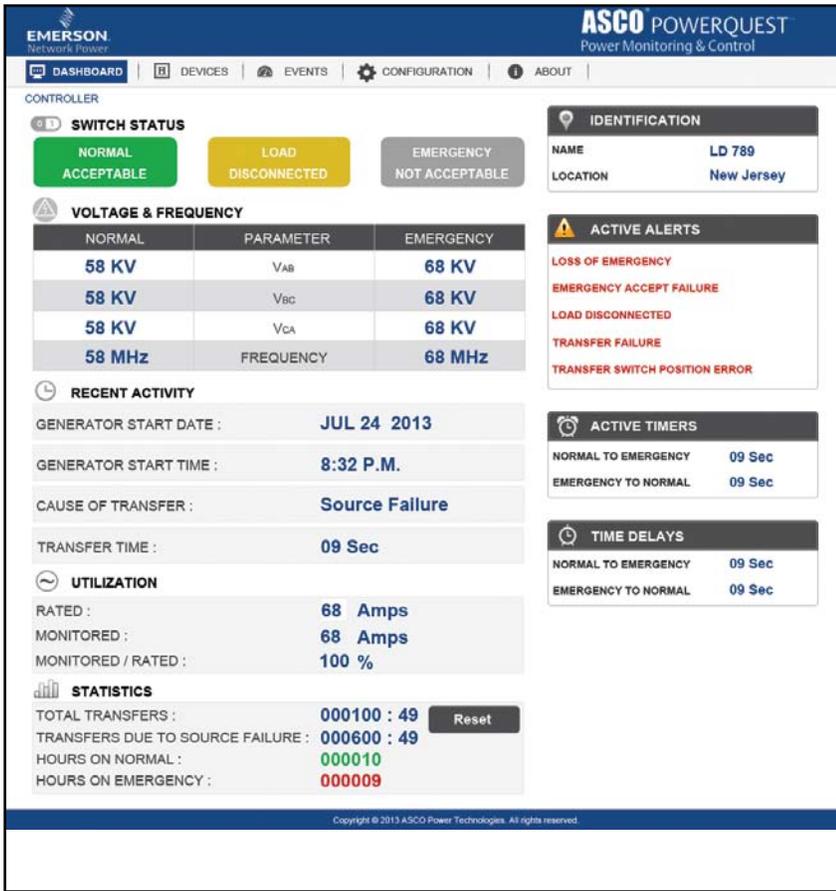


Fig. 17: 72EE Home Page Dashboard



Fig. 18: Power Metering Screen

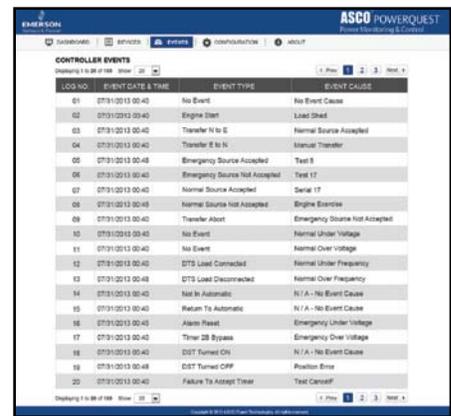


Fig. 19: Events Screen



Fig. 20: Power Metering Devices

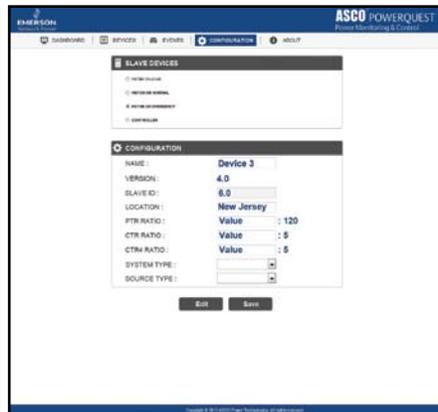


Fig. 21: Configuration



Fig. 22: About

Content rich monitoring screens enable real time information for power metering, event logs, voltages, time delays and alerts. The 72EE also allows for switch transfer remotely.

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SERIES 300 PowerQuest 5140(Acc 72EE) Connectivity Module



Fig. 23:
ASCO 5140
Connectivity
Module

The ASCO 5140 Connectivity Module offers remote monitoring for SERIES 300 ATS's and 5210 Power Meter. For the ATS, the optional accessory (72EE) provides remote ATS and Generator Control, Monitoring and Connectivity Features via integrated web page dashboards. Once connected to an Ethernet, Wifi or Cellular connection, the dashboards can easily be pulled up by any mobile or desktop device on the network by multiple users.

Control

The control capabilities allows remote transfer and retransfer of the ATS, while allowing you to view time delays and bypass functions. The generators can also be called to start and stop for emergency situations as well as for testing and maintenance. Running the generator periodically ensures that the battery is charged for power anomalies and increases reliability. Generator Pick-up and drop-out setpoints are also viewable for comprehensive understanding of control events.

Monitoring

Monitor transfer switch and generator health, system state, metering and review calculated transfer statistics and activity. Active control timer information allows the operator to anticipate an automated control action, such as, generator start or ATS transfer. The device can also interface

to an email server to keep users up-to-date on alarms and critical power events with alerts.

In addition the 72EE can interface to an optional 5210 Power Meter, (stand alone - or with the ATS Acc. 135L). for enhanced monitoring features, such as, power metering, demand and energy usage.

Connectivity

Connect and extract ATS and metering data using industry standard open protocols, such as, Modbus and SNMP. An integrated four port Ethernet Switch maximizes connectivity options and flexibility. Embedded password protection will only allow access to appropriate users, while utilizing AES 128-bit encryption for enhanced data security per National Institute of Standards and Technology (NIST).

Additional Optional PowerQuest Components

5160
Connectivity
Module



The ASCO 5160 Remote Connectivity Unit (RCU) (right) provides 10 Ethernet and Dual-Fiber Optic connections in a NEMA 3R enclosure.

5210, 5220
Power
Manager



ASCO 5210 (left) and 5220 (right) Power Meters measure, displays and provides single- or 3-phase Energy and Power information with Ethernet via the ASCO 5150 Communication Module.

ASCO 5221
Power Manager
Unit



ASCO 5221 Power Manager Unit (PMU) is used to enable power measurement, discrete inputs for status and output relays for control of generators, breakers and other power equipment via 5700 Series CPMS solutions.

5310, 5350
Annunciators



ASCO 5310(left) and 5350(right) ATS Remote Annunciators provide distributed monitoring of transfer switch position and source availability as well as transfer test and re-transfer control.

5710,
5750, 5790
Display
Terminals



ASCO 5710(center), 5750(left) and 5790(right) Critical Power Management System provides various levels of monitoring, control and management capability of power equipment. It seamlessly monitors ASCO transfer switches as well as generators, breakers, paralleling buss, panel boards and other power equipment via a 5221 PMU. It consists of servers and touch screen interfaces.



FULFILL YOUR NEED

Drill down for a closer look - Each transfer switch, generator, breaker and any other power equipment has its own dedicated screens.



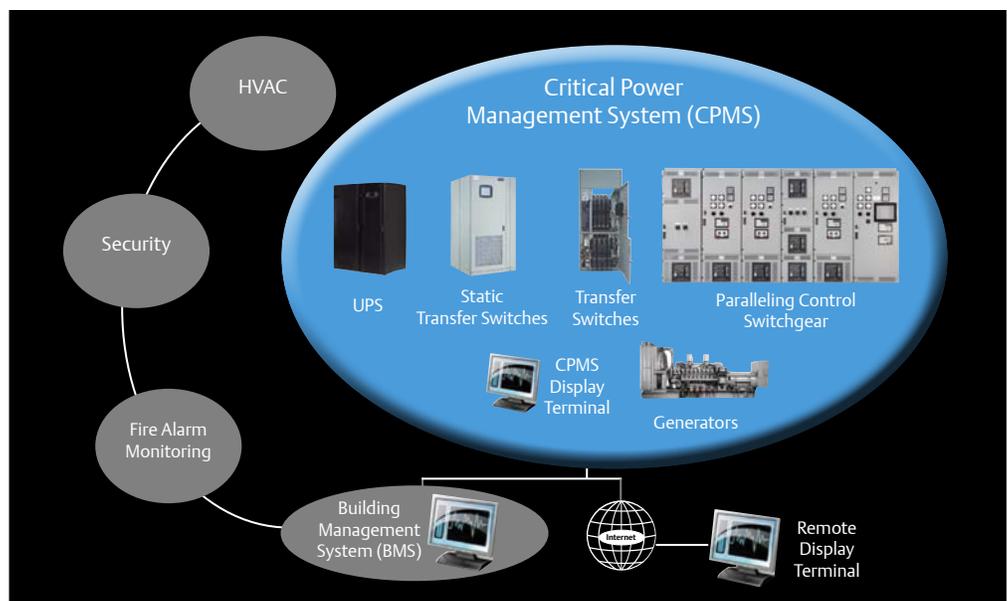
ASCO PowerQuest® Power Monitoring and Control Systems

The PowerQuest® family is the most comprehensive communication, monitoring and control solution ever offered by Emerson Network Power. It empowers you. It provides the ability to test, manage loads, optimize the bus bar, remotely monitor and otherwise be aware of the status of your facility's utility source and on-site power. It provides reports for events, tests, energy use or settings and gets data directly from generators and transfer switches.

Whether user's require standard monitoring and control, or a comprehensive Critical Power Management System, PowerQuest can satisfy your needs.

Hardware. Software. Installation and testing. Service. And upgrades and technology refreshes. A truly complete solution for all your communication, monitoring and control needs.

This web enabled management system is based on open protocols. As communications amongst equipment improve, so does the performance of critical power systems.



PowerQuest provides monitoring, alarming and control of Critical Power Management Systems, which comprise transfer switches, paralleling control switchgear, gensets, circuit breakers, UPS, loadbanks, distribution and other gear. It also integrates with building management systems.

BE EMPOWERED

PowerQuest can enable you to:

- Monitor and control power transfer switches, paralleling control switchgear, gensets, breakers, UPS, bus bars and other equipment
- Monitor normal and emergency voltages and frequency and their settings
- Know transfer switch position and source availability
- Transfer and re-transfer loads for system testing
- View and adjust transfer switch time-delay settings
- Receive automatic alerts or selected system alarms on system operation via E-mail or pager
- View transfer switch event log and know the transfer switch test schedule
- Generate reports for alarms, energy consumption, settings, historical logs and code mandated tests



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