ASCO Power Technologies®

400A ATS

SWITCH SUBMITTAL

Reference Quote: T5-24-638787-1-1
Sales Order: N/A

TRANSFER SWITCH DETAILS

ATS NAME	QTY	AMPS / POLES (VOLTS)	BYPASS	TRANSITION TYPE	CATALOG NUMBER	ACCESSORIES	OUTLINE DRAWING	WIRING DIAGRAM	BOM NUMBER
	1	0400 / 2 (240V)	N/A		E00185A20400F40M		861733-001	861735	839367

Transfer Switch Withstand and Closing Ratings

		300, 4000 & 7000 Series																			
ATS NAME	FRAME SIZE	SWITCH RATING AMPS		CURRENT LIMITING FUSES				SPECIFIC BREAKER			TIME BASED				Short Time Ratings[3] (sec)							
															480V Max.				600V Max.			
		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	.3	.5	.1	.13	.3	.5
-	E	260, 400	-	200kA	-	600	J	65kA	42kA	22kA	0.05	35kA	35kA	22kA	-				-			

NOTES:
1) All WCR values indicated are tested in accordance with the requirements of UL 1008, 7th Edition.
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

Transfer Switch Details

#1	ATS	AMPS: 0400	QTY: 1

Product	:	Series 185 Transfer Switches	Catalog Number	:	E00185A20400F40M
Service Voltage / Hz	:	240V/60Hz	Optional Accessories	:	
Bypass Isolation	:	Not Applicable	Product Description	:	Series 185 Automatic Switches
No. of Switched Poles: 2	:	2	Neutral Configuration	:	Solid [A]
Withstand Rating: Other Ratings May Apply. Contact ASCO For Details.	:	A @ 240V	No. of Cables & Lug Size	:	(1) #4 AWG to 600 or (2) #1/0 AWG to 250 MCM
Enclosure	:	3R(M)-UL Type 3R secure double door enclosure (See Disclaimer 3)	Service	:	Single Phase, 3-wire
Extended Warranty	:	Not Included	Markings	:	

Peace-of-Mind for Residences and Small Businesses

ASCO Power Technologies™

ASCO SERIES 185
Generator Transfer Switches

ascopower.com

Life Is On Schneider Electric

ASCO SERIES 185 Generator Transfer Switches

ASCO SERIES 185 Generator Transfer Switches reliably connect power from a backup generator to your home or business whenever outages occur.

Product Details

Transfer Switch Overview

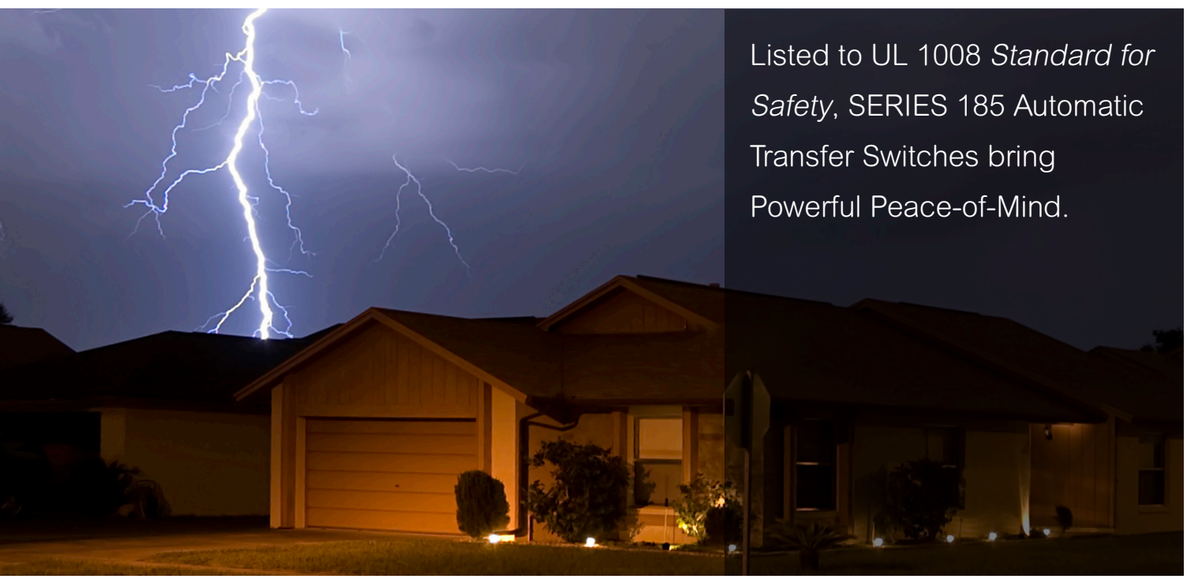
Computers, communication and information systems, security systems, cash registers, heating systems, water heaters, refrigerators and freezers, air conditioners, sump pumps, well pumps ... nearly every system in your home or business depends on electric power. Generators can restore power to vital equipment. But they can only operate when someone connects them and turns them on!

Automatic Transfer Switches start and connect generators automatically, even when no one is home or employees have left for the weekend. Whenever power outages occur, an ASCO transfer switch starts the generator, then switches your home or business from the public power supply to its backup generator. When utility power is restored, the device switches back to utility power, then turns the generator off.

An ASCO automatic transfer switch offers great convenience when your building is occupied … and an essential service when no one is there. By automatically switching your home or business to backup power, it can:

- avoid lost business and personal data on computers
- avoid loss of heating that leads to burst pipes and water damage
- avoid loss of a sump pump that leads to flooding
- avoid loss of air conditioning from outages during hot weather
- avoid loss of perishables from lack of refrigeration

An ASCO automatic transfer switch also increases safety by preventing simultaneous connection of utility and generator power to your home or business.



SERIES 185 Generator Transfer Switches

Power Knowledge

Three Reasons to Choose UL 1008 Transfer Switches

Why Choose an ASCO Transfer Switch?

Reliability

ASCO SERIES 185 Transfer Switches are designed to withstand demanding electrical and environmental conditions to provide many years of reliable service. Every model meets or exceeds the rigorous endurance requirements of UL 1008, the leading standard for transfer switch design and testing.

Safety

Every ASCO SERIES 185 Transfer Switch is tested to UL 1008's rigorous electrical safety requirements. If you don't see the UL "Automatic Transfer Switch" label ... you're not getting the best protection money can buy.

Trust

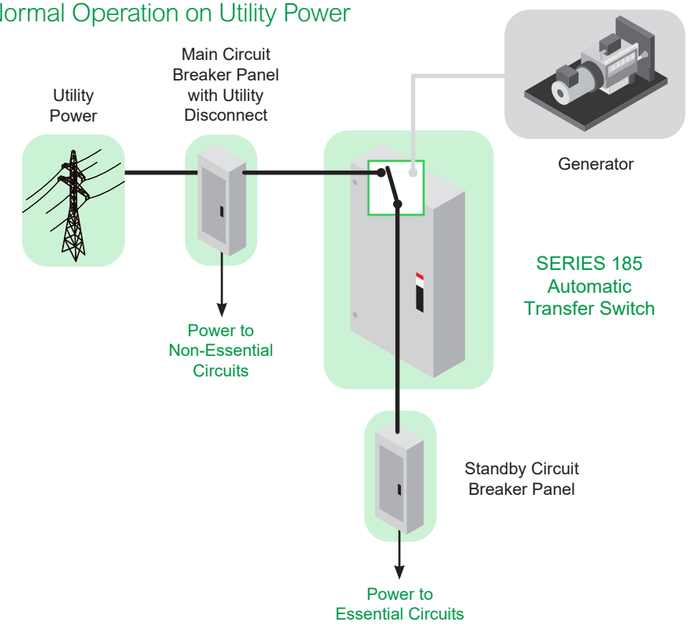
ASCO is the name behind most of the advances in transfer switch design, and our products serve life safety systems in the largest hospitals, vital information systems in financial data centers, and mission critical systems on offshore oil platforms, critical government agencies, and military installations. The SERIES 185 brings 100+ years of ASCO experience to your home or business.

SERIES 185
Transfer Switch

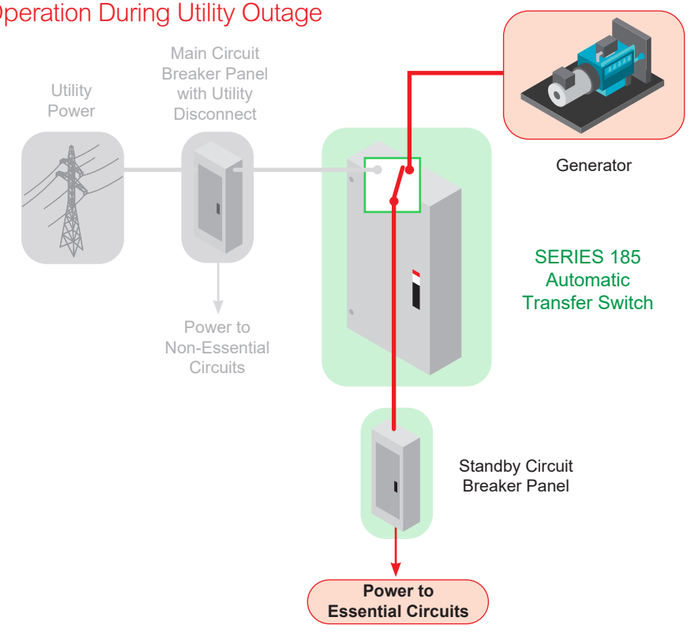
SERIES 185 Automatic Transfer Switches

In many applications, generators are sized to supply backup power to the most important circuits in your home or buisness. An ASCO SERIES 185 Automatic Transfer Switch transfers essential circuits to generator power automatically whenever utility outages occur. This brings backup power to essential devices such as heating, refrigeration, sump pumps, air conditioning, and security equipment.

Normal Operation on Utility Power



Operation During Utility Outage



Product Features

- User-friendly control interface informs users of transfer switch and power source status
- Listed to UL 1008 for optional standby systems
- Nominal service voltage 240V 50/60Hz, single phase, AC systems
- 100 to 400 Amp models
- 100, 200, and 400 Amp Service Entrance designs feature disconnect circuit breaker on the normal source
- True double-throw contacts with inherent mechanical interlocking prevents simultaneous connection of generator and utility sources
- Terminals for convenient connection of neutral and ground conductors
- Available in NEMA Type 1 Indoor (steel) and Type 3R Outdoor (aluminum) enclosures, with hinged doors
- Suitable for controlling standby generators with 2-wire automatic starting circuits

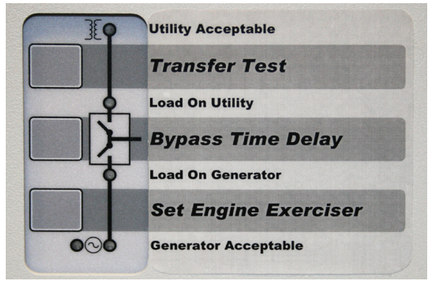
Power Knowledge

Basic Automatic Transfer Switch Functions

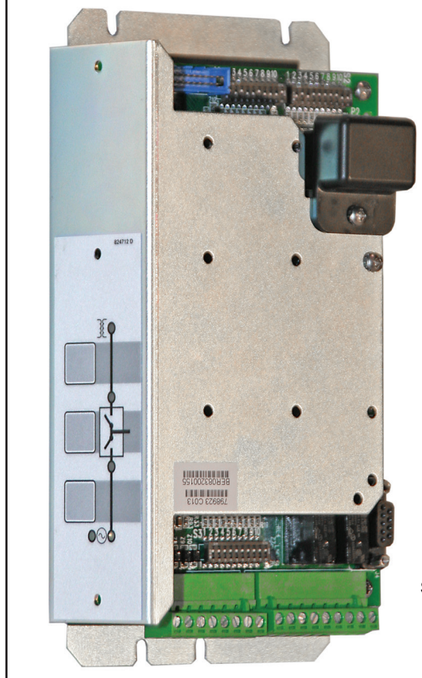
Group 4 Controller

ASCO Group 4 Controller supervises the voltage, frequency, control, timing, and connectivity functions required for most residential and small business applications.

- Engine Exerciser for Automatic Periodic Testing of Transfer Switch and Generator
- Configurable Time Delays
- Configurable Voltage Pickup Settings
- Control Buttons:
  - Transfer Test
  - Bypass Time Delay
  - Set Engine Exerciser
- User-Selectable In-Phase Monitor Feature
- Input for External Transfer Activation Control



Buttons operate transfer switch.
LED indicators show switch status.



SERIES 185 Transfer Switches use the ASCO Group 4 Controller

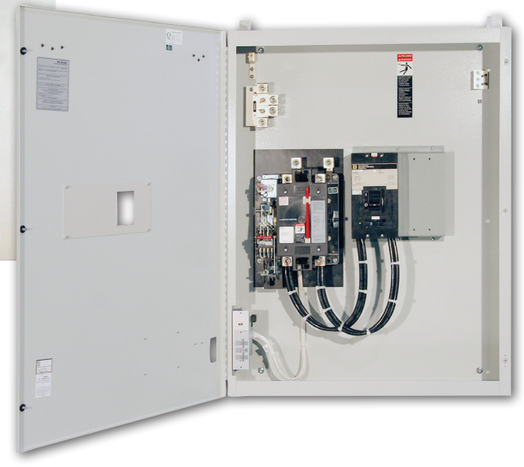
SERIES 185 Ordering Information

AUTOMATIC TRANSFER SWITCHES									
CATALOG NUMBER	ENCLOSURE	CONSTRUCTION	AMPS	VOLTAGE	POLES	WIDTH IN(MM)	HEIGHT IN (MM)	DEPTH IN(MM)	WEIGHT LB(KG)
D00185A20100F40C	Type 1 Indoor	Steel	100	240	2	14.25(362)	24(610)	8.25(210)	44(20)
D00185A20200F40C	Type 1 Indoor	Steel	200	240	2	14.25(362)	24(610)	8.25(210)	44(20)
E00185A20400F40C	Type 1 Indoor	Steel	400	240	2	22(559)	45(1143)	7.5(191)	79(28)
D00185A20100F40M	Type 3R Outdoor	Aluminum	100	240	2	16(406)	24(610)	10(254)	49(22)
D00185A20200F40M	Type 3R Outdoor	Aluminum	200	240	2	16(406)	24(610)	10(254)	49(22)
E00185A20400F40M	Type 3R Outdoor	Aluminum	400	240	2	24(610)	48(1219)	10(254)	118(53)

SERVICE ENTRANCE AUTOMATIC TRANSFER SWITCHES									
CATALOG NUMBER	ENCLOSURE	CONSTRUCTION	AMPS	VOLTAGE	POLES	WIDTH IN(MM)	HEIGHT IN (MM)	DEPTH IN(MM)	WEIGHT LB(KG)
D01AUSA20100F40C	Type 1 Indoor	Steel	100	240	2	16(406)	36(913)	6(152)	61(28)
D01AUSA20200F40C	Type 1 Indoor	Steel	200	240	2	16(406)	36(913)	6(152)	61(28)
E01AUSA20400F40C	Type 1 Indoor	Steel	400	240	2	36(913)	47(1193)	8(203)	177(82)
D01AUSA20100F40M	Type 3R Outdoor	Aluminum	100	240	2	16(406)	36(913)	8(203)	45(21)
D01AUSA20200F40M	Type 3R Outdoor	Aluminum	200	240	2	16(406)	36(913)	8(203)	45(21)
E01AUSA20400F40M	Type 3R Outdoor	Aluminum	400	240	2	36(913)	47(1193)	8(203)	144(67)

Notes:
Type 3R enclosures provide a degree of protection against falling dirt, rain, sleet, and snow.
Additional protection may be required in locations subject to wind blown conditions.

ASCO 200-Amp, SERIES 185 Service Entrance Power Transfer Switch in Type 1 Steel Enclosure for indoor applications.



SERIES 185 Technical Information

Withstand and Closing Ratings		
SWITCH RATING (AMPS)	SHORT CIRCUIT CURRENT RATING	
	WITH FUSES	WITH CIRCUIT BREAKERS
100	200KA	10KA
200	200KA	10KA
400	200KA	35KA

Notes:
All units are RMS Symmetrical Amperes

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

Application requirements may permit higher WCR for certain switch sizes.

External Power Connections	
SWITCH RATING (AMPS)	WIRING SIZE RANGE
100	(1) #14 to 4/0 AWG
200	(1) #14 to 4/0 AWG
400	(2) #1/0 AWG to 250 MCM or (1) #4 AWG to 600 MCM

Notes:
UL listed for 200 amps with copper conductors only. For individual dwelling units as defined in NFPA 70 (NEC), in cases where the transfer switch is between the service main disconnect and the lighting and appliance branch circuit panelboard(s), NFPA 70 allows for a reductions in size of the feeder conductors. All other NFPA 70 requirements regarding conductor ampacities must also be observed. Always install electrical equipment to the requirements defined by the authority having jurisdiction.

Power Knowledge

Applying Transfer Switch Withstand and Closing Ratings

ASCO 200-Amp, SERIES 185 Service Entrance Power Transfer Switch in Type 3R Secure Aluminum Enclosure for outdoor applications.

ASCO 185 SERIES AUTMATIC POWER TRANSFER SWITCH RATED 260 & 400 AMPS, 240V SINGLE PHASE, 3 WIRE

NOTES:

1) Automatic Power Transfer Switch:
ASCO E185, 2 pole, 260 & 400 amperes, 240 vac. Listed to UL 1008, Standard for Transfer Switching Equipment. For use on Optional Standby Systems as defined by NFPA 70 (National Electrical Code (NEC), Article 702).

Transfer Controller - ASCO Group 4 Automatic Transfer Switch Controller including:
(Refer to 185 Series Operator's Manual, PN 381333-319, supplied with the transfer switch for detailed information)

User Controls & Status Indication
Load on Preferred Source (Utility) LED indicator - green
Load on Alternate Source (Generator) LED indicator - red
Preferred Source (Utility) Acceptable LED indicator - green
Alternate Source (Generator) Acceptable LED indicator - red
Automatic Engine-Generator Exerciser (Setting & Engine Running) LED ndicator
Transfer Test membrane pushbutton
Bypass Time Delay (active time delay or engine-generator exercise period) membrane pushbutton
Set Engine Exerciser membrane pushbutton

Time Delays
Override Momentary Preferred Source (Utility) Outages - Factory set at 3 seconds
Transfer to Alternate Source (Generator) - Factory set at 10 seconds
Override Momentary Alternate Source (Generator) Outages - Factory set at 4 seconds
Retransfer to Preferred Source (Utility) - 5 minutes/fixed
Engine-Generator Unloaded Running (Cooldown) Period - Factory set at 5 minutes

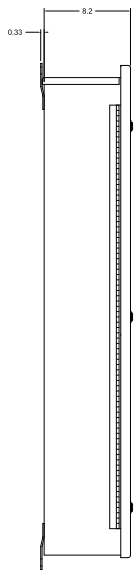
Control Signals
Engine-Generator Automatic Starting Controls - (1) form C contact
Load Disconnect Feature - (1) form C contact. Refer to Operator's Manual for detailed explanation of operation.

Remote Controls (Using Customer Supplied Contacts)
Remote Test Feature
Remote Test with Automatic Retransfer to Preferred Source (Utility) Feature
Bypass Time Delay on Retransfer to Preferred Source (Utility) Feature

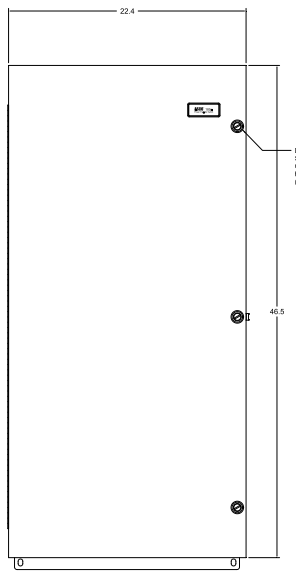
2) Enclosure: Listed to UL 50 Standard for Enclosures for Electrical Equipment. Type 3R Outdoor.
Constructed of 0.102 thick Aluminum Alloy (5052-H32).
Finish - RAL 7035 Light Gray Polyester Powder Coating.

3) Neutral & Equipment Ground Terminations - Provide for Preferred (Utility) & Alternate (Generator) Sources and Load.

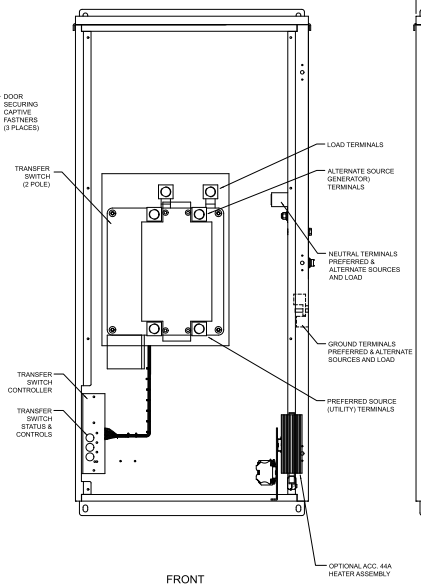
4) Conductor Sizes - 260 to 400 amps:(1) 400 MCM - 600 MCM
(2) 1/0 AWG - 250 MCM



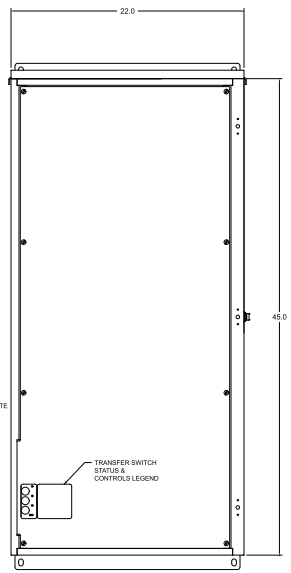
LEFT SIDE
AUTOMATIC
TRANSFER SWITCH
WITH DOOR



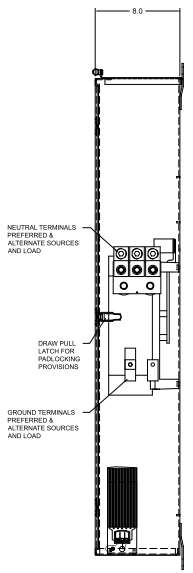
FRONT
AUTOMATIC
TRANSFER SWITCH
WITH DOOR



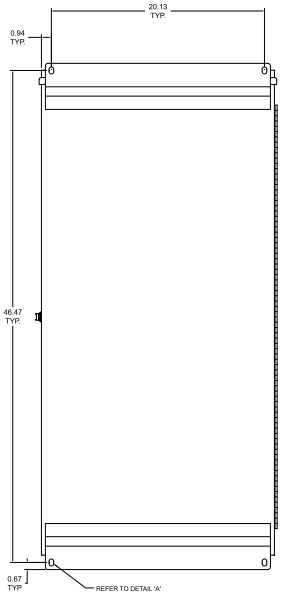
FRONT
AUTOMATIC
TRANSFER SWITCH
WITHOUT DOOR
& DEADFRONT



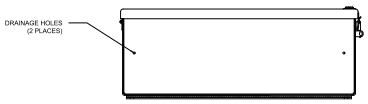
FRONT
AUTOMATIC
TRANSFER SWITCH
WITHOUT DOOR



RIGHT SIDE
AUTOMATIC
TRANSFER SWITCH
WITHOUT DOOR
& DEADFRONT
INSTALLED

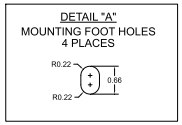


REAR
AUTOMATIC
TRANSFER SWITCH



BOTTOM
WITH DOOR

DETAIL "A"
MOUNTING FOOT HOLES
4 PLACES



REV. TO SHEET	ECN NO.	BY	APP.	DATE
D	263771	BWM	SDH	10/18/16
	REMOVE EMERSON BADGING			
C	238080	DL	JPB	07/19/12
	SEE ECN			
B	234326	JPB	JPB	10/25/11
	SEE ECN			
A	224172	DAJ	JPB	8/25/09
	SEE ECN			
-	221440	JPB	JPB	01/16/09
	ISSUE			

PROJECT NAME:

OUTLINE & MOUNTING | 185 SERIES
SERIES 185 (260-400 AMPERES)
AUTOMATIC OPERATED TRANSFER SWITCH

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	JPB	01/10/08
CHECKED		
PROJECT APPROVAL		
FINAL APPROVAL	JPB	01/16/09

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1.003. FOR PLASTIC PARTS SEE MP-4.003.

ASSEM. REF. NO.

COMPUTER GENERATED DRAWING

SCALE 3/10" = 1" | SIZE DS

DWG. NO.
861733-001

ASCO® ASCO POWER TECHNOLOGIES, L.P.
FLORHAM PARK, NEW JERSEY 07932 U.S.A.

DRAWING REV. D | BOM NO. 263771 | SHEET 1 OF 1

WIRING FOR ASCO® 185 SERIES AUTOMATIC TRANSFER SWITCHES RATED 260 & 400 AMPERES, 240 VOLTS, 50-60 Hz, SINGLE PHASE/3 WIRE, GROUP 4 CONTROLS

CONTROL FEATURES

A. VOLTAGE SENSING - PREFERRED SOURCE
DROPOUT SETTING ADJUSTABLE AT 198V, 187V, 176V, OR 154V, FACTORY SET AT 187V
PICKUP VOLTAGE ADJUSTABLE AT 209V OR 198V. FACTORY SET AT 198V
(IF DROPOUT IS SET AT 198V, PICKUP MUST BE SET AT 209V).
(REFER TO THE SERIES 185 OPERATOR'S MANUAL, PN 381333-319)

B. VOLTAGE SENSING - ALTERNATE SOURCE
NON-ADJUSTABLE DROPOUT SETTING: 165V
NON-ADJUSTABLE PICKUP SETTING: 198V

C. FREQUENCY SENSING - ALTERNATE SOURCE
NON-ADJUSTABLE DROPOUT SETTING:
51Hz (FREQUENCY SET AT 60Hz NOMINAL), 43Hz (FREQUENCY SET AT 50Hz NOMINAL)

NON-ADJUSTABLE PICKUP SETTING:
57Hz (FREQUENCY SET AT 60Hz NOMINAL), 48Hz (FREQUENCY SET AT 50Hz NOMINAL)

TIME DELAYS

(FOR ADDITIONAL INFORMATION REFER TO THE SERIES 185 OPERATOR'S MANUAL, PN 381333-319)

A. OVERRIDE MOMENTARY PREFERRED SOURCE OUTAGE DELAY - ACTIVATED WHEN THE PREFERRED SOURCE FAILS. DEACTIVATED WHEN THE PREFERRED SOURCE IS ACCEPTABLE. PROVIDES A SELECTABLE (1 OR 3 SECOND) DELAY ON ENGINE STARTING AND TRANSFER. FACTORY SET AT 3 SECONDS.

B. TRANSFER TO ALTERNATE SOURCE DELAY - PROVIDES A DELAY TO ALLOW STABILIZATION OF THE ALTERNATE SOURCE. ACTIVATED AFTER THE ALTERNATE SOURCE IS ACCEPTABLE, WHEN THE PREFERRED SOURCE FAILS OR WHEN A TEST IS INITIATED. NON-ADJUSTABLE DELAY SETTING: 10 SECONDS (APPROXIMATE)

C. OVERRIDE MOMENTARY ALTERNATE SOURCE OUTAGE DELAY - ACTIVATED WHEN THE TRANSFER SWITCH IS IN THE ALTERNATE POSITION AND THE ALTERNATE SOURCE FAILS. DEACTIVATED WHEN THE ALTERNATE SOURCE IS ACCEPTABLE. RETRANSFER TO THE PREFERRED SOURCE WILL OCCUR WHEN THE DELAY EXPIRES IF THE PREFERRED SOURCE IS AVAILABLE. PROVIDES A SELECTABLE (0 OR 4 SECONDS) DELAY. FACTORY SET AT 4 SECONDS.

D. RETRANSFER TO PREFERRED SOURCE DELAY - ACTIVATED WHEN THE PREFERRED SOURCE IS ACCEPTABLE. DEACTIVATED WHEN THE PREFERRED SOURCE FAILS WITH NO RETRANSFER TO THE PREFERRED SOURCE. ALSO DEACTIVATED WHEN THE ALTERNATE SOURCE FAILS WHILE THE PREFERRED SOURCE IS ACCEPTABLE, RESULTING IN RETRANSFER TO THE PREFERRED SOURCE.
NON-ADJUSTABLE DELAY SETTING: 5 MINUTES (APPROXIMATE)

E. UNLOADED RUNNING (GENERATOR COOL DOWN) DELAY - ACTIVATED AFTER RETRANSFER TO THE PREFERRED SOURCE. PROVIDES A SELECTABLE (2 OR 5 MINUTES) DELAY BEFORE ENGINE SHUTDOWN. FACTORY SET AT 2 MINUTES.

ENGINE CONTROL CONTACTS

ONE FORM C CONTACT THAT CHANGES POSITION ON EXPIRATION OF THE MOMENTARY PREFERRED SOURCE OUTAGE DELAY AND RESET ON EXPIRATION OF THE UNLOADED RUNNING (GENERATOR COOL DOWN) DELAY. OUTPUT CONTACTS (NR RELAY) ARE RATED 5 AMPS RESISTIVE AT 30 VDC, 2 AMPS RESISTIVE AT 250 VAC.

OPERATOR INTERFACE INDICATORS & CONTROLS

A. TRANSFER SWITCH TEST - MOMENTARY PUSHBUTTON TO SIMULATE PREFERRED SOURCE FAILURE SEQUENCE OF OPERATION. PRESS AND HOLD FOR AT LEAST 1S SECONDS TO ALLOW TIME FOR THE GENERATOR SET TO START.

B. BYPASS TIME DELAY - MOMENTARY PUSHBUTTON TO BYPASS THE ENGINE EXERCISER OPERATION OR THE RETRANSFER TO NORMAL DELAY, DEPENDING ON WHICH FUNCTION IS ACTIVE.

C. SET ENGINE EXERCISER - MOMENTARY PUSHBUTTON TO ACTIVATE A SEVEN (7) DAY TIMER FOR AUTOMATIC, WEEKLY TESTING OF THE GENERATOR. SETTINGS ALLOW TESTING WITH OR WITHOUT LOAD TRANSFER. FACTORY SET TO OCCUR WITHOUT LOAD TRANSFER.
THE TIMER IS POWERED BY A 9 VOLT BATTERY WHEN THE PREFERRED AND ALTERNATE SOURCES ARE NOT AVAILABLE.
DEPRESSING THE MOMENTARY PUSHBUTTON FOR 5 SECONDS CAUSES THE EXERCISE TO OCCUR IMMEDIATELY AND AT THE SAME TIME OF WEEK THEREAFTER.
THE FEATURE IS ACTIVATED AS A SETTING ON THE CONTROLLER.
(REFER TO THE SERIES 185 OPERATOR'S MANUAL, PN 381333-319)

D. LOAD CONNECTED INDICATORS:
GREEN LED TO INDICATE WHEN THE LOAD IS CONNECTED TO THE PREFERRED SOURCE.
RED LED TO INDICATE WHEN THE LOAD IS CONNECTED TO THE ALTERNATE SOURCE.

E. SOURCE ACCEPATABILITY INDICATORS
GREEN LED TO INDICATE WHEN THE PREFERRED SOURCE IS ACCEPTABLE.
RED LED INDICATOR TO INDICATE WHEN THE ALTERNATE SOURCE IS ACCEPATABLE.

LOAD DISCONNECT FEATURE

ONE SET OF FORM C CONTACTS (1 NO & 1 NC) THAT CHANGE POSITION ON ACTIVATION OF A SELECTABLE TIME DELAY BEFORE TRANSFER (LD TDBT) AND RESET EITHER IMMEDIATELY FOLLOWING TRANSFER OR FOR THE SAME DELAY AS SET FOR PRE-SIGNAL BEFORE TRANSFER. SELECTABLE AS 0, 3, 10 OR 20 SECONDS. FACTORY SET AT 0. (REFER TO THE OPERATOR'S MANUAL FURNISHED WITH EACH TRANSFER SWITCHING DEVICE REGARDING CONTROL PANEL SETTINGS). OUTPUT CONTACTS (OP) ARE RATED 5 AMPS RESISITIVE AT 28 VDC OR 120 VAC MAXIMUM.

REMOTE CONTROL FEATURES

THE FOLLOWING CONTROL PANEL INPUTS PROVIDE REMOTE CONTROL FUNCTIONS FOR THE AUTOMATIC TRANSFER SWITCH. EACH CONTROL FUNCTION CAN BE IMPLEMENTED BY THE CUSTOMER PROVIDING THE FORM OF CONTROL CONTACT DESCRIBED.
EACH CONTROL CONTACT MUST BE SUITABLE FOR A 5 VDC LOW ENERGY CIRCUIT.
EACH CONTROL FEATURE IS ACTIVATED BY SETTING A DIP TYPE SELECTOR SWITCH ON THE CONTROL PANEL.
(REFER TO THE SERIES 185 OPERATOR'S MANUAL, PN 381333-319)

A. REMOTE TEST FEATURE - REQUIRES A CUSTOMER SUPPLIED, NORMALLY CLOSED CONTACT. OPENING OF THE CONTACT SIMULATES A FAILURE OF THE PREFERRED SOURCE. THE TRANSFER SWITCH WILL REMAIN CONNECTED TO THE ALTERNATE SOURCE UNDER ALL CONDITIONS OF THE GENERATOR WHILE THE CONTACT IS OPEN.

B. REMOTE TRANSFER TO ALTERNATE SOURCE FEATURE - REQUIRES A CUSTOMER SUPPLIED, NORMALLY CLOSED CONTACT. OPENING OF THE CONTACT CAUSES ENGINE STARTING AND TRANSFER TO THE ALTERNATE SOURCE. RECLOSURE OF THE CONTACT ACTIVATES THE RETRANSFER TO PREFERRED SOURCE DELAY FOLLOWED BY RETRANSFER TO THE PREFERRED SOURCE. IF THE ALTERNATE SOURCE FAILS WHILE THE TRANSFER SWITCH IS CONNECTED TO IT AND THE REMOTE CONTACT IS OPEN, THE TRANSFER SWITCH WILL RETRANSFER TO THE PREFERRED SOURCE.

C. BYPASS TRANSFER TIME DELAY FEATURE - REQUIRES A CUSTOMER SUPPLIED, REMOTE, NORMALLY CLOSED CONTACT. OPENING OF THE CONTACT BYPASSES THE RETRANSFER TO PREFERRED SOURCE DELAY IF ACTIVE.

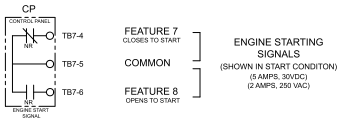
GENERAL NOTES

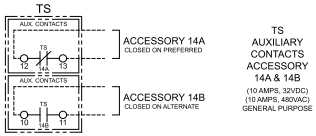
1. SWITCH SHOWN DE-ENERGIZED AND CONNECTED TO PREFERRED SOURCE.
DEVICE SYMBOLS AND DESIGNATIONS ARE IN ACCORDANCE WITH NEMA PUB. ICS 1-1983, PART 1-101A.
2. ALL WIRING IS #16 AWG, TINNED, STRANDED COPPER UNLESS OTHERWISE INDICATED.
3. ○ INDICATES CUSTOMER CONNECTION POINTS.
4. ■ INDICATES FACTORY CONNECTION POINTS.
5. CONNECTION POINTS THAT HAVE BOTH CUSTOMER CONNECTIONS AND FACTORY CONNECTIONS ARE SHOWN OPEN AS CUSTOMER CONNECTION POINTS.
6. A SERIES 185 OPERATOR'S MANUAL (PN 381333-319) IS PROVIDED WITH THE TRANSFER SWITCH. REFER TO THIS PUBLICATION PRIOR TO INSTALLATION AND OPERATION.

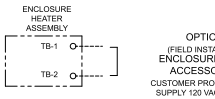
OPTIONAL ACCESSORIES

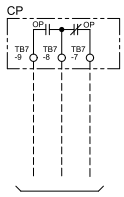
ACC. 44A ENCLOSURE HEATER 120 VAC. FIELD INSTALLED KIT WHEN PROVIDED.

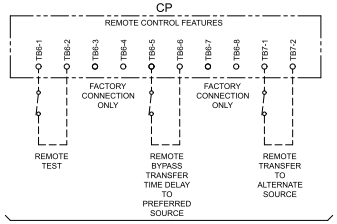
FIELD CONNECTIONS











CUSTOMER SUPPLIED CONTACTS FOR FEATURES AS DESCRIBED IN STANDARD CONTROL FEATURES NOTES. CONTACT MUST BE SUITABLE FOR 5V DC LOW ENERGY CIRCUIT. ACTIVATED BY SETTING OF DIP SELECTOR SWITCHES ON CONTROL PANEL. (REFER TO OPERATOR'S MANUAL FOR REQUIRED SETTINGS.)

BASE CATALOG NUMBER					CATALOG NUMBER SUFFIXES			
TS FRAME	CATALOG TYPE	NEUTRAL TYPE	PHASE POLES	AMPS	VOLT CODE	CONTROLLER	OPTIONAL ACCESSORY	ENCLOSURE CODE
E	185	A	2	260 400	F	4	X BLANK FOR NONE	C M

EXPLANATION OF CATALOG NUMBER CODES						
NEUTRAL TYPE		VOLTAGE CODES (1 PHASE (2 OR 3 WIRE) 50 OR 60 Hz)		ENCLOSURE CODES		
CODE	DESCRIPTION	CODE	NOMINAL VOLTAGE	CODE	TYPE	DESCRIPTION
BLANK A	NONE SOLID	F	240	C M	1 3R	GENERAL PURPOSE, INDOOR OUTDOOR, RAINPROOF, SLEET & ICE RESISTANT SECURE TYPE: FULL EXTERIOR DOOR WITH INTERNAL DEAD FRONT PANEL.

REV	ECN	BY	APP	DATE	DESCRIPTION
E	237958	JPB	JPB	07/16/12	SEE ECN
D	224209	DAJ	JPB	8/27/09	SEE ECN
C	223979	DAJ	JPB	8/07/09	SEE ECN
B	221553	SDH	SDH	1/26/09	SEE ECN
A	221452	JPB	JPB	01/19/09	ISSUE
-	221396	JPB	JPB	7/08	ISSUE

PROJECT NAME:
WIRING DIAGRAM
SERIES 185 ATS, SINGLE PHASE, 3 WIRE
E FRAME TRANSFER SWITCH (260, 400 AMPS) GROUP 4 CONTROLS

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	JPB	01/13/09
CHECKED		
PROJECT APPROVAL		
FINAL APPROVAL	JPB	01/13/09

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-005

ASSEM. REF. NO.

COMPUTER GENERATED DRAWING

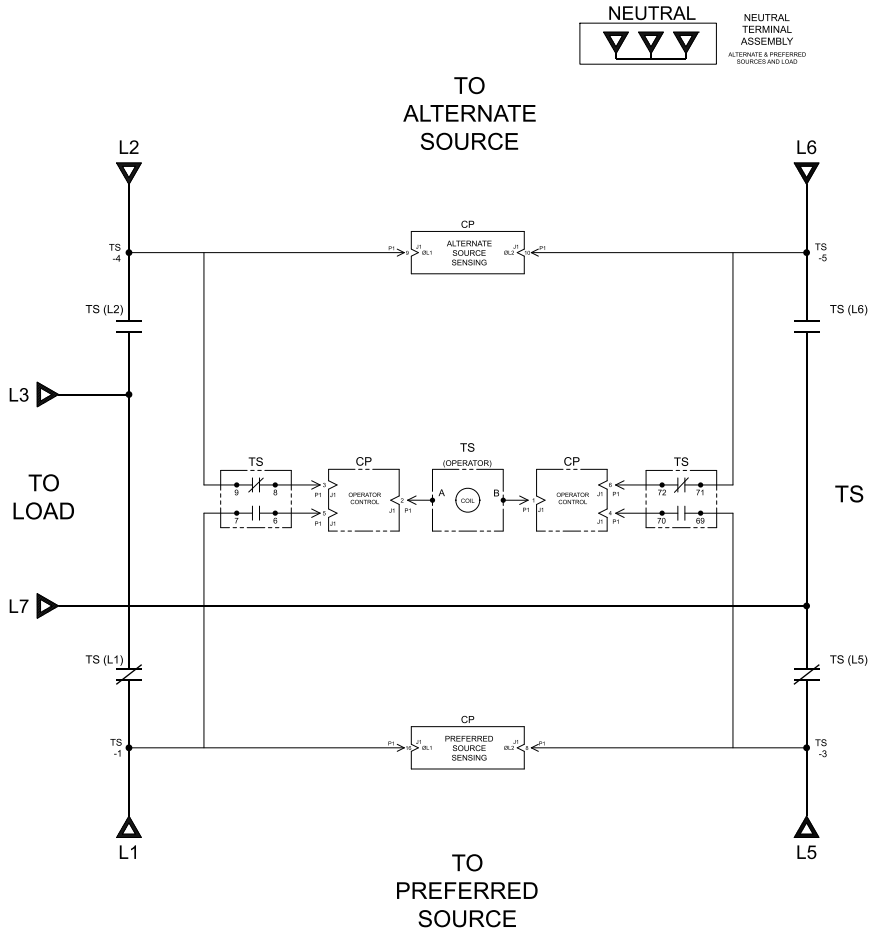
SCALE 1:1 SIZE DS

DWG. NO. 861735

REVISION E BCN NO. 237958 SHEET 1 OF 2

ASCO® ASCO POWER TECHNOLOGIES, L.P.
FLORHAM PARK, NEW JERSEY 07932 U.S.A.

TRANSFER SWITCH POWER POLES, OPERATOR, AND SENSING

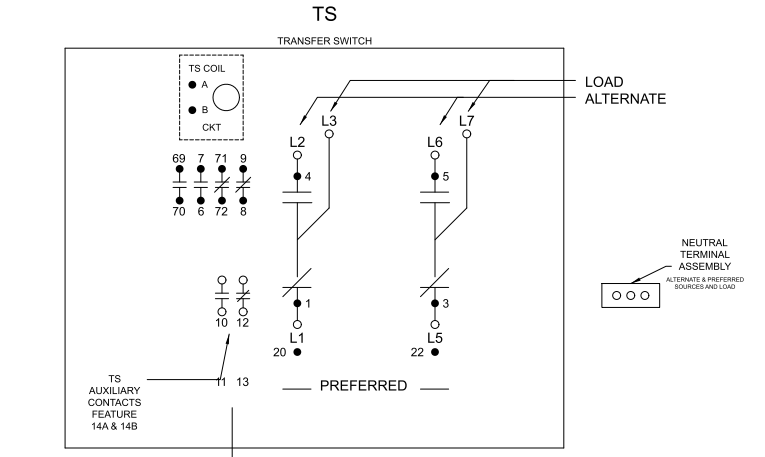


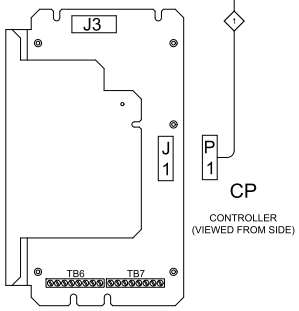
TS CONTROL CONTACTS					
TS	SOLENOID POSITION				
	CLOSED BEFORE PREF.	BEFORE TDC>	<	BEFORE STDC	CLOSED AFTER
6-7					
69-70					
8-9					
71-72					

TDC (TOP DEAD CENTER)

ATS SHOWN CLOSED ON PREFRRED SOURCE

PHYSICAL DIAGRAM AND WIRING





WIRE RUN LISTING

HARNESS LOCATOR

WIRE No.	702645-003 (P1,P2) MAIN TS	CLR	AWG
1	TS:8,P1-3		16
2	TS:COIL(BLK),P1-1		
3	TS:6,P1-5		
4	TS:3,P1-8		
5	TS:COIL(BLK),P1-2		
6	TS:5,P1-10		
7	TS:4,P1-9		
8	TS:1,P1-16		
9	TS:70,P1-4		
10	TS:72,P1-6		
11	TS:7,TS-1		
12	TS:69,TS-3		
13	TS:9,TS-4		
14	TS:71,TS-5		

REV	REV TO SHEET	ECN NO.	BY	APP.	DATE
E		237958	JPB	JPB	07/16/12
		SEE ECN			
D		224209	DAJ	JPB	8/27/09
		SEE ECN			
C		223979	DAJ	JPB	8/07/09
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		ISSUE			

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E FRAME TRANSFER SWITCH (260, 400 AMPS) GROUP 4 CONTROLS

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SCALE 1:1 | SIZE DS

DWG. NO. 861735

DRAWING REV. E | ECN NO. 237958 | SHEET 2 OF 2

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