ASCO Power Technologies®

Woodstock 1600A Automatic Transfer Switch Submittal

REVISION 1

Woodstock 1600A Submittal

TRANSFER SWITCH DETAILS									
ATS NAME	QTY	AMPS / POLES (VOLTS)	BYPASS	TRANSITION TYPE	CATALOG NUMBER	ACCESSORIES	OUTLINE DRAWING	WIRING DIAGRAM	BOM NUMBER
	1	1600 / 3 (480V)	N/A	OPEN	G03AUSA31600NGXM	11BE,44G	754577-050	1001662, 758574	1024988

AIC Rating for Service Entrance Rated Units				
ATS NAME	Catalog Number	ATS Ampacity	Square D Breaker Model (Rating)	Fault Current Rating (480V)
	3AUS	1000-2000A	RJF(1000-2000A)	65kA

**For Complete Breaker Details refer to Outline Drawing*

Woodstock 1600A Submittal

Transfer Switch Details

#1	ATS	AMPS: 1600	QTY: 1

Product	:	Series 300	Catalog Number	:	G03AUSA31600NGXM
Service Voltage / Hz	:	480V/60Hz	Optional Accessories	:	11BE,44G
Bypass Isolation	:	Not Applicable	Product Description	:	300 Series, Automatic Service Entrance Transfer Switch
No. of Switched Poles: 3	:	3	Neutral Configuration	:	Solid [A]
Withstand Rating: Frame = G, Switch Rating = 1600, Series = 300	:	See WCR Table Below	No. of Cables & Lug Size	:	See Applicable Outline Drawing
Enclosure	:	3R(M)-UL Type 3R secure double door enclosure (See Disclaimer 3)	Service	:	Three Phase, 4-wire
Extended Warranty	:	Not Included	Markings	:	

#	ACCESSORY DESCRIPTIONS	
	Accessory Code	Description
1	11BE	Adds the following features to the Group G controller: (1) Serial RS-485 Modbus Communications (2) Multi-Schedule Engine Exerciser (3) a 300 Entry Event Log and (4) a common alarm output function. When applied on 3-phase systems it also enables: (1) 3-Phase Emergency Source VLL sensing (2) Phase Rotation Monitoring (3) Emergency Source VLL Unbalance Monitoring.
2	44G	Strip heater w/ thermostat, wired to load terminals: 208-600 volts

THREE PHASE WIRING FOR ASCO® 300 SERIES TRANSFER SWITCHES (G3ATS/G3NTS) 1000-3200 AMPERES WITH GROUP G CONTROLS

GENERAL INFORMATION

THIS WIRING APPLIES TO 300 SERIES TRANSFER SWITCHES THAT UTILIZE THE "G" FRAME POWER TRANSFER SWITCH RATED 1000-3200 AMPERES.

THE GROUP G CONTROLLER PROVIDES EITHER AUTOMATIC (G3ATS) OR NON-AUTOMATIC [MANUAL] (G3NTS) OPERATION BASED ON ITS FACTORY SETTING ACCORDING TO THE CUSTOMER ORDER REQUIREMENTS.

THE TYPE OF TRANSFER SWITCH PROVIDED CAN BE DETERMINED FROM THE PRODUCT IDENTIFICATION MARKINGS LOCATED ON BOTH THE POWER TRANSFER SWITCH AND THE COVER OF THE GROUP G CONTROLLER.

ALL OPERATIONAL SETTINGS AND SEQUENCES OF THE GROUP G CONTROLLER AND ITS RELATED OPTIONAL ACCESSORIES (1UP, 18RX, 23G) ARE PROVIDED IN THE USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400.

INFORMATION FOR INSTALLATION AND TESTING OF THE TRANSFER SWITCH IS PROVIDED IN THE INSTALLATION MANUAL, ASCO 3ATS & 3NTS, G-DESIGN 1000-3200 A TRANSFER SWITCHES, PART NUMBER 381333-406.

ENGINE CONTROL CONTACTS

FEATURE 7 & FEATURE 8:
ONE SET OF FORM C CONTACTS "NR" (FEAT. 7 N/C, FEAT. 8 N/O) THAT CHANGE POSITION ON EXPIRATION OF THE FEATURE 1C, OVERRIDE MOMENTARY NORMAL SOURCE OUTAGES TIME DELAY, AND RESET ON EXPIRATION OF THE FEATURE 2E ENGINE COOLDOWN TIME DELAY.
AN AUXILIARY CONTACT THAT IS CLOSED WHEN THE TRANSFER SWITCH IS CONNECTED TO THE EMERGENCY SOURCE, IS CONNECTED ACROSS THE N/C CONTACT (FEATURE 7).

AN ADDITIONAL SET OF ENGINE STARTING CONTACTS ARE AVAILABLE ON THE GROUP G CONTROLLER WHEN THE FEATURE SETTING OF THE CONTROLLER OUTPUT CONTACTS "OP1" IS SET TO OPERATE AS "NR2".

ADDITIONAL, OPTIONAL ENGINE STARTING CONTACTS "NR2" ARE AVAILABLE WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY. OUTPUT CONTACTS "OP2" AND/OR "OP3" PROVIDE THE ENGINE STARTING FUNCTION WHEN THE FEATURE SETTING OF EACH IS SET TO OPERATE AS "NR2".

CONTACTS ARE RATED 5 AMPS RESISTIVE AT 30 VDC MAXIMUM, 100 mA AT 5 VDC MINIMUM.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

LOAD DISCONNECT FEATURE

FEATURE 31: INCLUDES SUB-FEATURES 31F, 31G, 31M, 31N
A SET OF FORM C CONTACTS ARE PROVIDED ON THE GROUP G CONTROLLER AS "OP1". WHEN THE FEATURE SETTING OF "OP1" IS SET TO OPERATE THE CONTACTS AS "FEATURE 31", THE TIME DELAY SETTINGS OF THE SUB-FEATURES ARE AVAILABLE.

"OP1" CAN BE SET TO OPERATE TO PROVIDE THE FOLLOWING FUNCTIONS USING THE TIME DELAY SETTINGS ASSOCIATED WITH EACH SUB-FEATURE;

31F - NORMAL TO EMERGENCY PRE-TRANSFER SIGNAL
31G - EMERGENCY TO NORMAL PRE-TRANSFER SIGNAL
31M - NORMAL TO EMERGENCY POST-TRANSFER SIGNAL
31N - EMERGENCY TO NORMAL POST TRANSFER SIGNAL

THE "OP1" OUTPUT CONTACTS CHANGE POSITION FOLLOWING EACH OF THE ABOVE TIME DELAYS.

ADDITIONAL LOAD DISCONNECT CONTACTS, "FEATURE 31" ARE AVAILABLE WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY. OUTPUT CONTACTS "OP2 AND/OR "OP3" WILL PROVIDE LOAD DISCONNECT FUNCTIONS WHEN THE FEATURE SETTING OF EACH IS SET TO OPERATE AS "FEATURE 31".

ALL OUTPUT CONTACTS ("OP1", "OP2", "OP3") SET TO OPERATE AS "FEATURE 31", SHARE THE COMMON TIME DELAY SETTINGS OF SUB-FEATURES 31F, 31G, 31M, AND 31N.

CONTACTS ARE RATED 5 AMPS RESISTIVE AT 30 VDC MAXIMUM, 100 mA AT 5 VDC MINIMUM.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

INPHASE TRANSFER FEATURE FOR LOAD TRANSFER

INPHASE TRANSFER CONTROL INITIATES AN INPHASE TRANSFER OF LOADS BETWEEN LIVE SOURCES. THIS IS USED TO PREVENT NUISANCE TRIPPING OF DISTRIBUTION CIRCUIT BREAKERS AND POSSIBLE DAMAGE TO MECHANICAL LOADS ASSOCIATED WITH OUT OF PHASE TRANSFER.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

SOURCE AVAILABILITY SIGNALS

SIGNALS INDICATING THE AVAILABILITY OF THE NORMAL & EMERGENCY SOURCES IS PROVIDED WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY. OUTPUT CONTACTS "RL5" (EMERGENCY SOURCE AVAILABLE) AND "RL6" (NORMAL SOURCE AVAILABLE) CHANGE POSITION WHEN THE SOURCE IS ACCEPTABLE.

CONTACTS ARE RATED 5 AMPS RESISTIVE AT 30 VDC MAXIMUM, 100 mA AT 5 VDC MINIMUM.

COMMON ALARM & NOT IN AUTO SIGNALING FEATURES

A SET OF FORM C CONTACTS IS PROVIDED ON THE GROUP G CONTROLLER AS "OP1". THE FEATURE SETTING OF "OP1" CAN BE SET TO OPERATE THE CONTACTS AS A "NOT IN AUTO" SIGNAL.

WHEN "OP1" IS SET FOR "NOT IN AUTO", THE OUTPUT CONTACTS CHANGE POSITION WHEN THE TRANSFER IS BEING INHIBITED FROM TRANSFERRING TO THE EMERGENCY SOURCE (FEATURE 34B) OR THE TRANSFER SWITCH HAS BEEN SET FOR NON-AUTOMATIC (MANUAL) OPERATION.

WHEN OPTIONAL ACCESSORY 11BE "SOFTWARE BUNDLE" IS PART OF THE TRANSFER SWITCH ASSEMBLY, "OP1" MAY ALTERNATIVELY SET FOR A "COMMON ALARM" SIGNAL. THE OUTPUT CONTACTS CHANGE POSITION WHEN A "COMMON ALARM" IS NOT PRESENT AND RESET WHEN A "COMMON ALARM" CONDITION IS PRESENT. THE "COMMON ALARM" SIGNAL CONDITIONS ARE SELECTABLE.

ADDITIONAL "COMMON ALARM" AND "NOT IN AUTO" CONTACTS ARE AVAILABLE WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY. OUTPUT CONTACTS "OP2 AND/OR "OP3" WILL PROVIDE SIGNAL FUNCTIONS WHEN THE FEATURE SETTING OF EACH IS SET TO OPERATE AS "COMMON ALARM" OR "NOT IN AUTO".

CONTACTS ARE RATED 5 AMPS RESISTIVE AT 30 VDC MAXIMUM, 100 mA AT 5 VDC MINIMUM.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

EXTERNAL POWER SUPPLY COMPATIBILITY

USE OF AN EXTERNAL POWER SUPPLY IS USEFUL WHEN REQUIRED TO EXTEND THE FOLLOWING CONTROLLER TIME DELAYS BEYOND 6 SECONDS;

FEATURE 1C - OVERRIDE MOMENTARY NORMAL SOURCE OUTAGES
FEATURE 1F - OVERRIDE MOMENTARY EMERGENCY SOURCE OUTAGES

AN EXTERNAL POWER SUPPLY IS ALSO USEFUL WHEN THE TRANSFER SWITCH IS USED WITH COMMUNICATIONS FEATURES BY ENABLING THE CONTROLLER TO CONTINUE COMMUNICATING.

AN EXTERNAL POWER SOURCE MAY BE PROVIDED TO THE CONTROLLER, UNTIL THE NORMAL SOURCE OR EMERGENCY SOURCE IS AVAILABLE, BY USE OF;

- AN EXTERNAL 24 VDC POWER SUPPLY WITH ACCESSORY 18RX (RELAY EXPANSION MODULE)
  OR
- OPTIONAL ACCESSORY 1UP (UNINTERRUPTIBLE POWER SUPPLY MODULE)

EXTERNAL 24 VDC POWER SUPPLY "1G":
AN EXTERNAL 24 VDC POWER SUPPLY MAY BE USED TO POWER THE CONTROLLER WHEN ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY. OUTPUT CONTACTS "OP2" WILL PROVIDE EXTERNAL 24 VDC POWER SUPPLY FUNCTIONALITY WHEN ITS FEATURE SETTING IS SET TO OPERATE AS "1G". ADDITIONALLY, JUMPERS MUST BE RECONFIGURED ON ACCESSORY 18RX (RELAY EXPANSION MODULE) TO ENABLE THIS FUNCTION AS FOLLOWS;

REMOVE JUMPERS "J1" 1-2 & "J1" 3-4
CONNECT JUMPERS "J1" 5-7 & "J1" 6-8

THE OUTPUT CONTACTS CHANGE POSITION WHEN EITHER THE NORMAL SOURCE OR EMERGENCY SOURCE IS AVAILABLE AND RESET WHEN NEITHER SOURCE IS AVAILABLE. THE "OP2" N/C CONTACT SWITCHES CUSTOMER PROVIDED +24 VDC FROM THE EXTERNAL POWER SUPPLY TO THE CONTROLLER.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

ACCESSORY 1UP (UNINTERRUPTIBLE POWER SUPPLY):
WHEN OPTIONAL ACCESSORY 1UP IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY, THE CONTROLLER IS PROVIDED WITH LIMITED RESERVE POWER (APPROXIMATELY 3 MINUTES).

LOAD CURRENT METERING

WHEN OPTIONAL ACCESSORY 23GB IS PART OF THE TRANSFER SWITCH ASSEMBLY, THREE PHASE CURRENT MEASUREMENTS ARE AVAILABLE FOR DISPLAY ON THE GROUP G CONTROLLER.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR INFORMATION ON USE.

ADVANCED-FUNCTION SOFTWARE BUNDLE

WHEN OPTIONAL ACCESSORY 11BE IS PART OF THE TRANSFER SWITCH ASSEMBLY, AN ADVANCED-FUNCTION SOFTWARE BUNDLE IS AVAILABLE TO PERFORM THE FOLLOWING FUNCTIONS;

- SERIAL COMMUNICATIONS (RS-485)
- PROGRAMMABLE ENGINE EXERCISER
- EVENT LOG
- COMMON ALARM SIGNAL CAPABILITY ON GROUP G CONTROLLER "OP1" OUTPUT.

(3 PHASE SENSING ONLY)
- 3 PHASE EMERGENCY SOURCE SENSING.
- PHASE ROTATION SENSING.
- EMERGENCY VOLTAGE UNBALANCE SENSING.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR INFORMATION ON THESE FUNCTIONS.

NON-AUTOMATIC (MANUAL) OPERATION

TRANSFER SWITCH ASSEMBLIES FACTORY SET FOR NON-AUTOMATIC OPERATION PROVIDE USER INITIATED, ELECTRICAL OPERATION OF THE TRANSFER SWITCH TO EITHER AVAILABLE SOURCE. THE TRANSFER SWITCH ASSEMBLY IS PHYSICALLY IDENTICAL TO THAT OF THE AUTOMATIC TYPE.

WHEN THE TRANSFER SWITCH IS SET FOR NON-AUTOMATIC OPERATION, A CUSTOMER PROVIDED SELECTOR SWITCH MAY BE USED TO OPERATE IT FROM A REMOTE LOCATION.

REMOTE CONTROL FEATURES

THE FOLLOWING CONTROL PANEL INPUTS PROVIDE REMOTE CONTROL FUNCTIONS FOR THE TRANSFER SWITCH. EACH FUNCTION CAN BE IMPLEMENTED BY THE CUSTOMER PROVIDING THE FORM OF CONTROL DESCRIBED. EACH CONTROL CONTACT MUST BE SUITABLE FOR A 5 VDC LOW ENERGY CIRCUIT.

EXTERNAL FEATURE 17: REMOTE TRANSFER TO EMERGENCY FEATURE (FOR AUTOMATIC TRANSFER TYPE ONLY) - REQUIRES A CUSTOMER SUPPLIED, NORMALLY CLOSED CONTACT. OPENING OF THE CONTACT CAUSES ENGINE START AND TRANSFER TO THE EMERGENCY SOURCE. RE-CLOSURE OF THE CONTACT ACTIVATES THE FEATURE 3A "RETRANSFER TO NORMAL (IF JUST TEST) TIME DELAY PRIOR TO RETRANSFER. IN THE EVENT THAT THE EMERGENCY SOURCE FAILS WHILE THE TRANSFER SWITCH IS CONNECTED TO EMERGENCY AND THE CUSTOMER SUPPLIED CONTACT IS OPEN, THE TRANSFER SWITCH WILL AUTOMATICALLY RETRANSFER TO THE NORMAL SOURCE.

EXTERNAL FEATURE 6B: REMOTE BYPASS OF RETRANSFER TO NORMAL TIME DELAY - REQUIRES A CUSTOMER SUPPLIED, NORMALLY CLOSED CONTACT. OPENING OF THE CONTACT BYPASSES FEATURE 3A RETRANSFER TO NORMAL DELAY IF ACTIVE.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

ACCESSORIES

NOTES

1. SWITCH SHOWN DE-ENERGIZED CONNECTED TO NORMAL SOURCE.
2. DEVICE SYMBOLS AND DESIGNATIONS ARE IN ACCORDANCE WITH NEMA PUB. ICS 1, 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. THE TRANSFER UNIT IS MOUNTED ON THE BACK INSIDE SURFACE OF THE ENCLOSURE. THE CONTROL PANEL AND ANY OPTIONAL ACCESSORIES ARE MOUNTED ON THE INSIDE SURFACE OF THE DOOR.
7. AN OPERATOR'S MANUAL IS FURNISHED WITH EACH AUTOMATIC TRANSFER SWITCH. REFER TO THIS PUBLICATION PRIOR TO INSTALLATION AND OPERATION OF THE SWITCH.
8. GROUND STRAP ON CONTROL PANEL IS AFFIXED TO CHASSIS (ENCLOSURE) AT LOWER LEFT CONTROL PANEL MOUNTING STUD.

CATALOG NUMBER SUFFIXES

TS FRAME	CATALOG TYPE	NEUTRAL TYPE	PHASE POLES	AMPS	VOLT CODE	CONTROLLER	OPTIONAL ACCESSORY	ENCLOSURE CODE
G	3ATS 3NTS	A B	3	1000 1200 1600 2000 2600 3000 3200	C D E F G H J K L M N P Q R	G	X BLANK FOR NONE	C F G H L M N P Q BLANK FOR OPEN TYPE

EXPLANATION OF CATALOG NUMBER CODES

NEUTRAL TYPE		VOLTAGE CODES 3 PHASE (3 OR 4 WIRE) 50 OR 60 Hz.		ENCLOSURE CODES		
CODE	DESCRIPTION	CODE	NOMINAL VOLTAGE	CODE	TYPE	DESCRIPTION
A B	SOLID SWITCHING	C D E F G H J K L M N P Q R	208 220 230 240 277 380 400 415 440 460 480 550 575 600	BLANK C F G H L M N P Q	 1 3R 4 4X 12 3R 4 4X 12	OPEN TYPE (NO ENCLOSURE) GENERAL PURPOSE, INDOOR OUTDOOR, RAINPROOF, SLEET & ICE RESISTANT INDOOR/OUTDOOR, WATERTIGHT & DUSTTIGHT TYPE 4 PLUS CORROSION RESISTANCE (STAINLESS STEEL) INDOOR, INDUSTRIAL ENVIRONMENTS, OILTIGHT & DUSTTIGHT (SECURE ENCLOSURES) OUTDOOR, RAINPROOF, SLEET & ICE RESISTANT INDOOR/OUTDOOR, WATERTIGHT & DUSTTIGHT TYPE 4 PLUS CORROSION RESISTANCE (STAINLESS STEEL) INDOOR, INDUSTRIAL ENVIRONMENTS, OILTIGHT & DUSTTIGHT

CATALOG NUMBER
ASCO® CERTIFIED TO
S.O.
BY
DATE
FORM REV J
PROJECT NAME:

REV. TO SHEET	ECN NO.	BY	APP.	DATE
J	275211 SEE ECN	TR	BK	10/15/18
H	265313 SHT 4 SIINGLE PHASE EMGR.	TR	BK	1/31/17
G	254970 SEE ECN	TR	BK	05/26/15
F	252347 SEE ECN	MPP	AB	12/22/14
E	247772 SEE ECN	SDH	SDH	4/14/14
D	247048 SEE ECN	TR	BK	3/4/14
C	246325 SEE ECN	AE	BK	01/16/14
B	246211 SEE ECN	AE	BK	01/10/14
A	245959 SEE ECN	BK	BK	12/23/13
-	245072 ISSUE	BK	BK	10/28/13

WIRING DIAGRAM
300 SERIES (G3ATS/G3NTS) 3PH 1000-3200 AMPS
"G" FRAME, GROUP G CONTROLS

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	DJB	10/28/13
CHECKED	BK	10/28/13
PROJECT APPROVAL	BK	10/28/13
FINAL APPROVAL		

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-I-003. FOR PLASTIC PARTS SEE MP-I-055

ASSEM. REF. NO.

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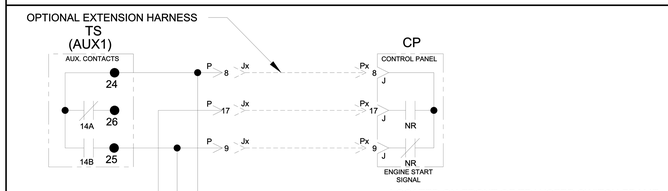
ASCO® ASCO POWER TECHNOLOGIES, L.P.
FLORHAM PARK, NEW JERSEY 07932 U.S.A.

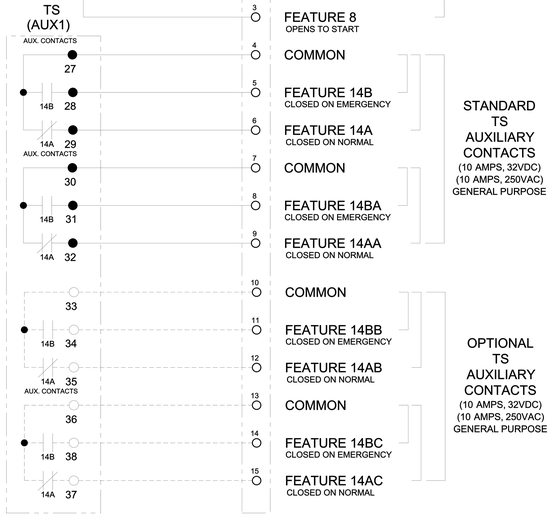
COMPUTER GENERATED DRAWING
SCALE NONE SIZE DS
DWG. NO.
1001662
DRAWING REV. J ECN NO. 275211 SHEET 1 OF 7

FIELD CONNECTIONS

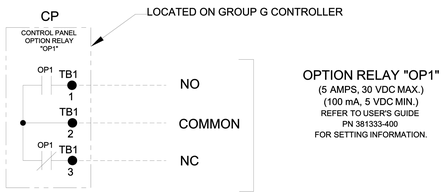


LOCATED ON FRONT OF TRANSFER SWITCH FRAME

TB (FIELD CONNECTIONS), WIRE RANGE: 22-12 AWG



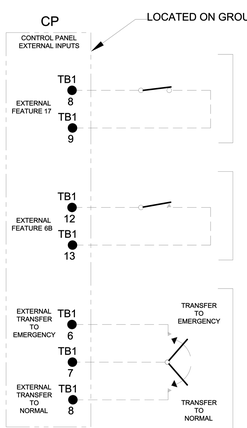
CONTROLLER OPTION RELAY "OP1" (STANDARD)



LOCATED ON GROUP G CONTROLLER

OPTION RELAY "OP1"
(5 AMPS, 30 VDC MAX.)
(100 mA, 5 VDC MIN.)
REFER TO USER'S GUIDE
PN 381333-400
FOR SETTING INFORMATION.

CONTROLLER REMOTE CONTROL FEATURES



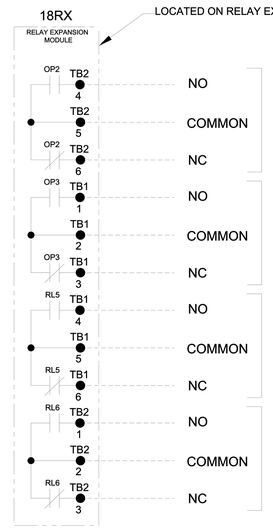
LOCATED ON GROUP G CONTROLLER

EXTERNAL FEATURE 17
REMOTE TRANSFER
TO EMERGENCY
[AUTOMATIC TRANSFER TYPE ONLY]
OPEN TO TRANSFER TO EMERGENCY
(N/C CONTACT, 5VDC LOW ENERGY RATING)
REFER TO USER'S GUIDE PN 381333-400
FOR SETTING INFORMATION.

EXTERNAL FEATURE 6B
REMOTE BYPASS OF RETRANSFER
TO NORMAL TIME DELAY
OPEN TO BYPASS TIME DELAY
(MOMENTARY N/C CONTACT,
5VDC LOW ENERGY RATING)
REFER TO USER'S GUIDE PN 381333-400
FOR SETTING INFORMATION.

EXTERNAL MANUAL TRANSFER
REMOTE TRANSFER TO
NORMAL OR EMERGENCY
[NON-AUTOMATIC TRANSFER TYPE ONLY]
(MOMENTARY SPDT, CENTER-OFF CONTACTS,
5VDC LOW ENERGY RATING)

OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE)



LOCATED ON RELAY EXPANSION MODULE

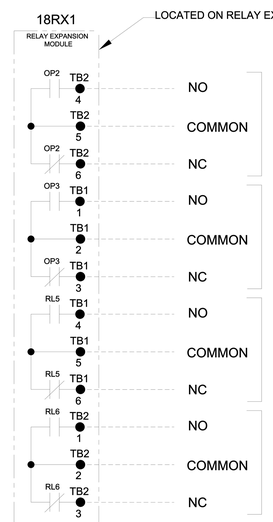
OPTION RELAY "OP2"
AS OUTPUT RELAY
SET JUMPERS
J1: 1-2 & 3-4
(5 AMPS, 30 VDC MAX.)
(100 mA, 5 VDC MIN.)
REFER TO USER'S GUIDE
PN 381333-400
FOR SETTING INFORMATION.

OPTION RELAY "OP3"
(5 AMPS, 30 VDC MAX.)
(100 mA, 5 VDC MIN.)
REFER TO USER'S GUIDE
PN 381333-400
FOR SETTING INFORMATION.

EMERGENCY SOURCE
ACCEPTABLE
SIGNAL
(5 AMPS, 30 VDC MAX.)
(100 mA, 5 VDC MIN.)

NORMAL SOURCE
ACCEPTABLE
SIGNAL
(5 AMPS, 30 VDC MAX.)
(100 mA, 5 VDC MIN.)

OPTIONAL ACCESSORY 18RX1 (SECOND RELAY EXPANSION MODULE)



LOCATED ON RELAY EXPANSION MODULE

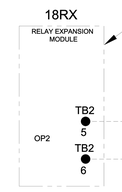
OPTION RELAY "OP2"
SET JUMPERS
J1: 1-2 & 3-4
(5 AMPS, 30 VDC MAX.)
(100 mA, 5 VDC MIN.)
REFER TO USER'S GUIDE
PN 381333-400
FOR SETTING INFORMATION.

OPTION RELAY "OP3"
(5 AMPS, 30 VDC MAX.)
(100 mA, 5 VDC MIN.)
REFER TO USER'S GUIDE
PN 381333-400
FOR SETTING INFORMATION.

EMERGENCY SOURCE
ACCEPTABLE
SIGNAL
(5 AMPS, 30 VDC MAX.)
(100 mA, 5 VDC MIN.)

NORMAL SOURCE
ACCEPTABLE
SIGNAL
(5 AMPS, 30 VDC MAX.)
(100 mA, 5 VDC MIN.)

"OP2"
OPTIONAL
USES

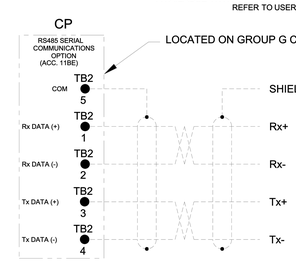


LOCATED ON RELAY EXPANSION MODULE

OPTION RELAY "OP2"
AS EXTERNAL POWER
SUPPLY INPUT
"1G"
SET JUMPERS AS FOLLOWS;
REMOVE JUMPERS "J1" 1-2 & "J1" 3-4
CONNECT JUMPERS "J1" 5-7 & "J1" 6-8

(24 VDC NOM., 15 W MAX.)
INPUT RANGE: 21.6 VDC MIN
27.6 VDC MAX.
REFER TO USER'S GUIDE PN 381333-400
FOR SETTING INFORMATION.

RS485 SERIAL COMMUNICATIONS OPTION
AVAILABLE WITH OPTIONAL ACCESSORY 11BE: ADVANCED-FUNCTION SOFTWARE BUNDLE
REFER TO USER'S GUIDE PN 381333-400 FOR SETTING INFORMATION.



LOCATED ON GROUP G CONTROLLER

TO OTHER ASCO SERIAL
COMMUNICATIONS
DEVICES

NOTES:
1. EARTH GROUND SHIELD AT HOST DEVICE ONLY.
2. FIELD WIRING: USE UL LISTED, STRANDED, TWISTED PAIRS, OVERALL FOIL SHIELD WITH STRANDED DRAIN WIRE SUITABLE FOR RS422 EQUIVALENT TO:

(STANDARD 80°C) BELDEN 9842 OR 9829
OR ALPHA 6202C OR 6222C

(PLENUM RATED) BELDEN 89729 OR 82729
OR ALPHA 58902

REV. TO SHEET	ECN NO.	BY	APP.	DATE
J	275211	TR	BK	10/15/18
	SEE ECN			
H	265313	TR	BK	1/31/17
	SHT 4 SINGLE PHASE EMGR.			
G	254970	TR	BK	05/26/15
	SEE ECN			

PROJECT NAME:

WIRING DIAGRAM

300 SERIES (G3ATS/G3NTS) 3PH 1000-3200 AMPS
"G" FRAME, GROUP G CONTROLS

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	DJB	10/28/13
CHECKED	BK	10/28/13
PROJECT APPROVAL	BK	10/28/13
FINAL APPROVAL		

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-I-003. FOR PLASTIC PARTS SEE MP-I-055

ASSEM. REF. NO.

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FLORHAM PARK, NEW JERSEY 07932 U.S.A.

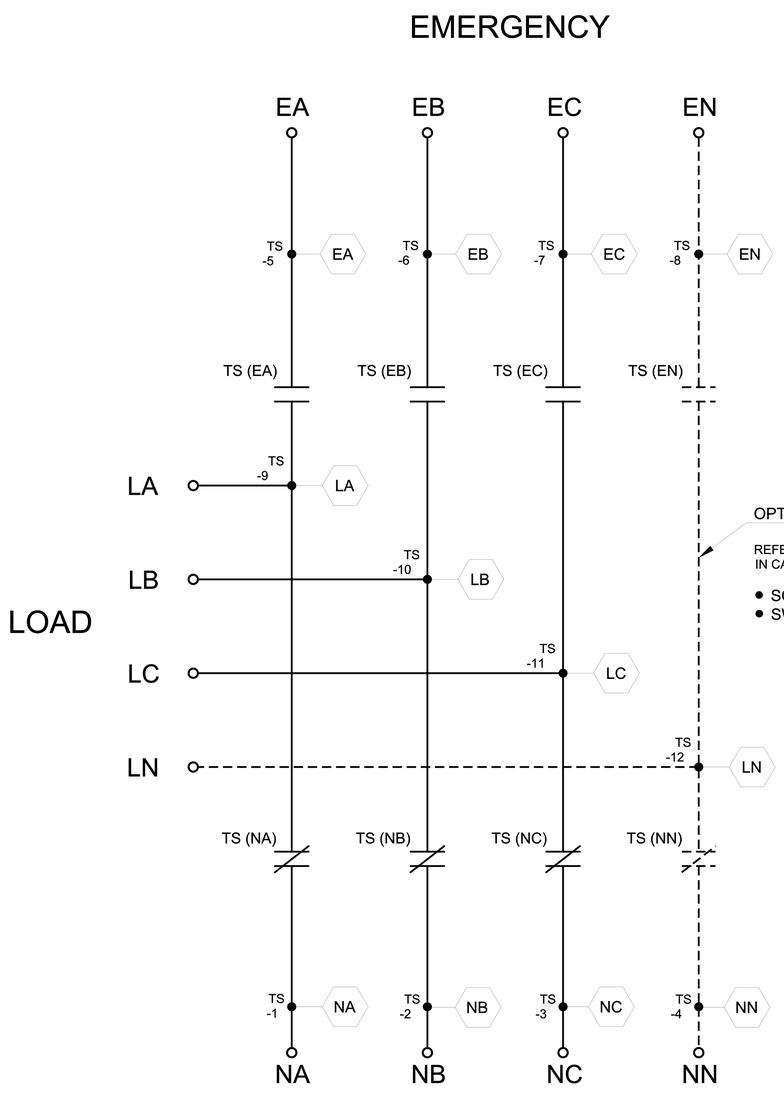
COMPUTER GENERATED DRAWING

SCALE NONE SIZE DS

DWG. NO. 1001662

DRAWING REV. J ECN NO. 275211 SHEET 2 OF 7

MAIN POWER POLES



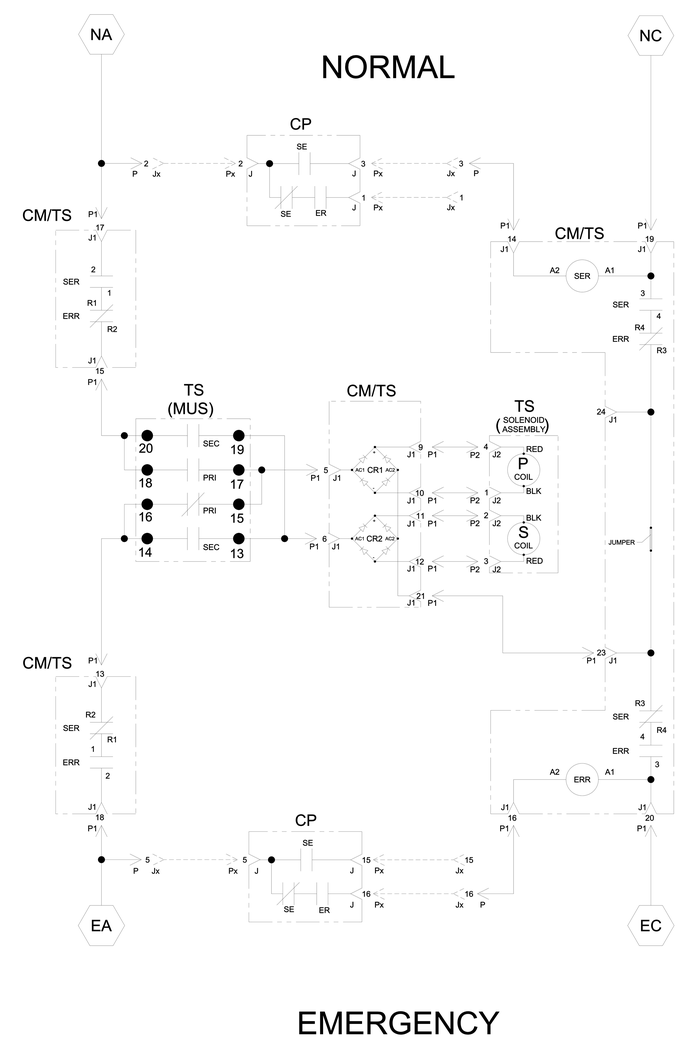
OPTIONAL NEUTRAL TYPES

REFER TO "EXPLANATION OF CATALOG NUMBER CODES" IN CATALOG NUMBER CHART ON SHEET 1.

- SOLID BUS PLATE
- SWITCHING

NOTE:
ATS/NTS SHOWN CLOSED ON NORMAL SOURCE.

TS OPERATOR CIRCUIT



TS (MUS) CONTACTS					
MUS	SOLENOID POSITION				
	NORM	>	AFTER TDC *	<	EMER
13-14					
15-16					
17-18					
19-20					

* AFTER SOLENOID PASSES THROUGH TOP DEAD CENTER POSITION.

REV. TO SHEET	ECN NO.	BY	APP.	DATE
J	275211	TR	BK	10/15/18
	SEE ECN			
H	265313	TR	BK	1/31/17
	SHT 4 SINGLE PHASE EMGR.			
G	254970	TR	BK	05/26/15
	SEE ECN			

PROJECT NAME:

WIRING DIAGRAM

300 SERIES (G3ATS/G3NTS) 3PH 1000-3200 AMPS
"G" FRAME, GROUP G CONTROLS

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	DJB	10/28/13
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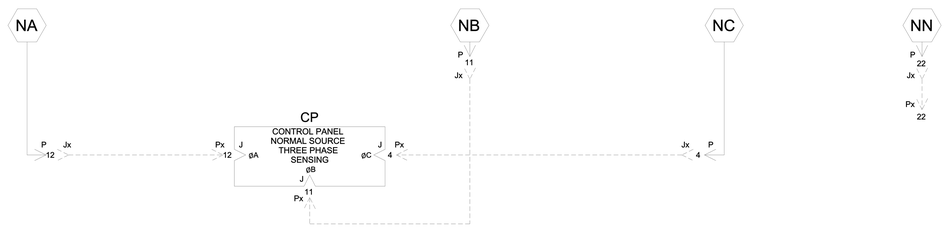
DWG. NO. 1001662

DRAWING REV. J ECN NO. 275211 SHEET 3 OF 7

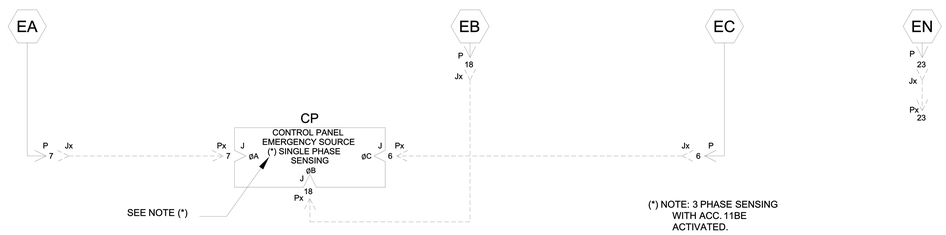
NORMAL SOURCE CIRCUITS

NORMAL



EMERGENCY SOURCE CIRCUITS

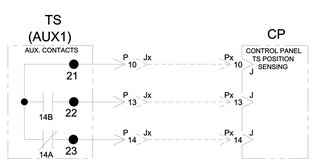
EMERGENCY



LOAD TERMINAL CIRCUITS

LOAD

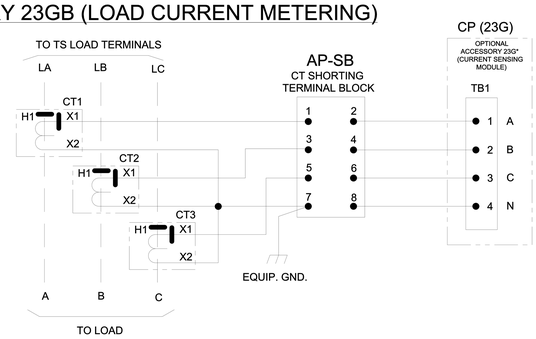
CONTROL SIGNALS & INDICATION



ADDITIONAL CIRCUITS

OPTIONAL ACCESSORY 23GB (LOAD CURRENT METERING)

CURRENT TRANSFORMER RATIO TABLE	
SWITCH RATING	CT RATIO
1000A	1200:5A
1200A	
1600A	2000:5A
2000A	
2600A	3000:5A
3000A	
3200A	4000:5A



REV. TO SHEET	ECN NO.	BY	APP.	DATE
J	275211	TR	BK	10/15/18
	SEE ECN			
H	265313	TR	BK	1/31/17
	SHT 4 SINGLE PHASE EMGR.			
G	254970	TR	BK	05/26/15
	SEE ECN			

PROJECT NAME:

WIRING DIAGRAM

300 SERIES (G3ATS/G3NTS) 3PH 1000-3200 AMPS

"G" FRAME, GROUP G CONTROLS

THIRD ANGLE PROJECTION

	BY	DATE
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PROJECT APPROVAL	BK	10/28/13
FINAL APPROVAL		

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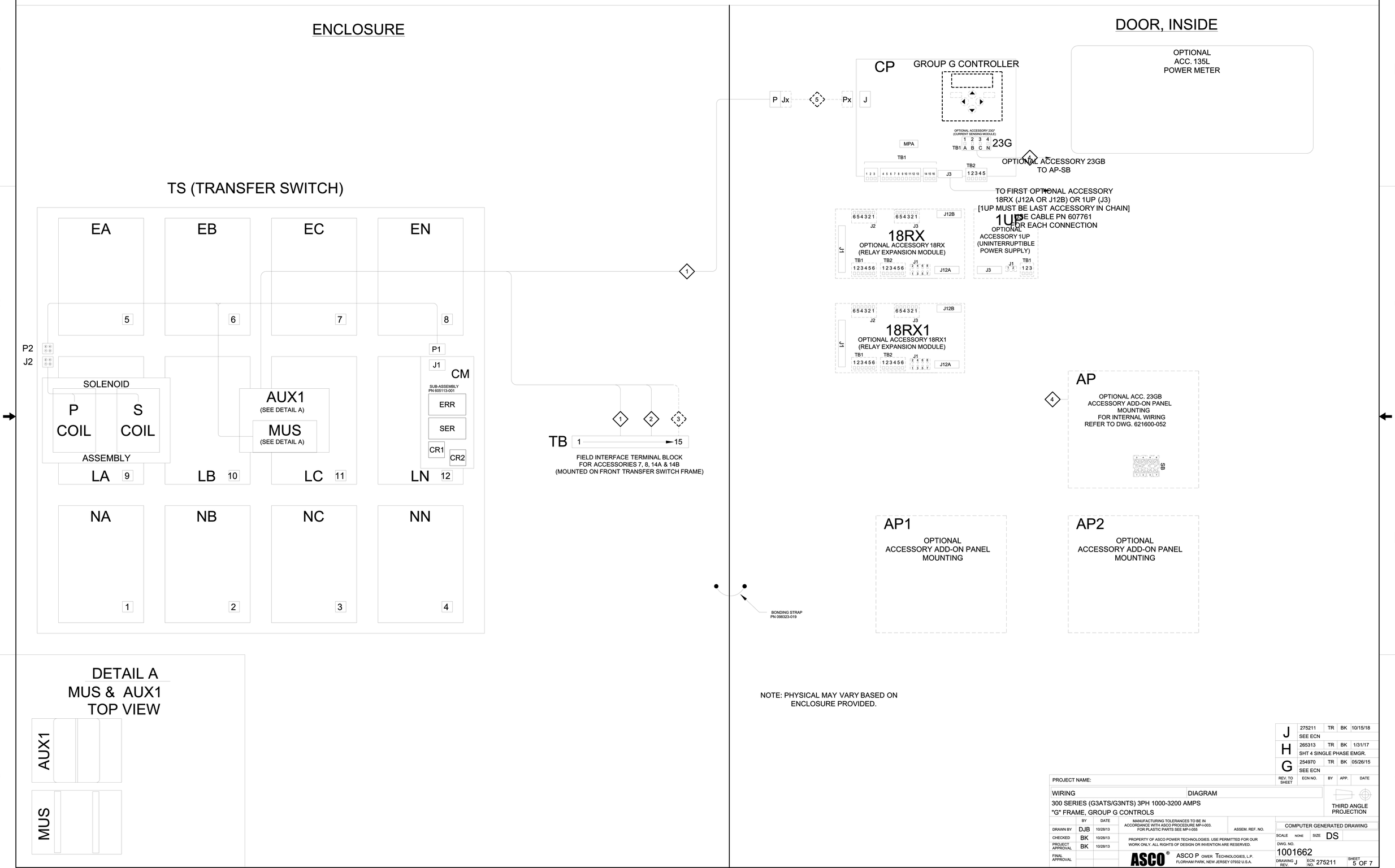
SCALE NONE SIZE DS

DWG. NO. 1001662

DRAWING REV. J ECN NO. 275211 SHEET 4 OF 7

PHYSICAL DIAGRAM



NOTE: PHYSICAL MAY VARY BASED ON ENCLOSURE PROVIDED.

REV. TO SHEET	ECN NO.	BY	APP.	DATE
J	275211 SEE ECN	TR	BK	10/15/18
H	265313 SHT 4 SINGLE PHASE EMGR.	TR	BK	1/31/17
G	254970 SEE ECN	TR	BK	05/26/15

PROJECT NAME:

WIRING DIAGRAM

300 SERIES (G3ATS/G3NTS) 3PH 1000-3200 AMPS

"G" FRAME, GROUP G CONTROLS

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	DJB	10/28/13
CHECKED	BK	10/28/13
PROJECT APPROVAL	BK	10/28/13
FINAL APPROVAL		

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-I-003. FOR PLASTIC PARTS SEE MP-I-055

ASSEM. REF. NO.

COMPUTER GENERATED DRAWING

SCALE NONE SIZE DS

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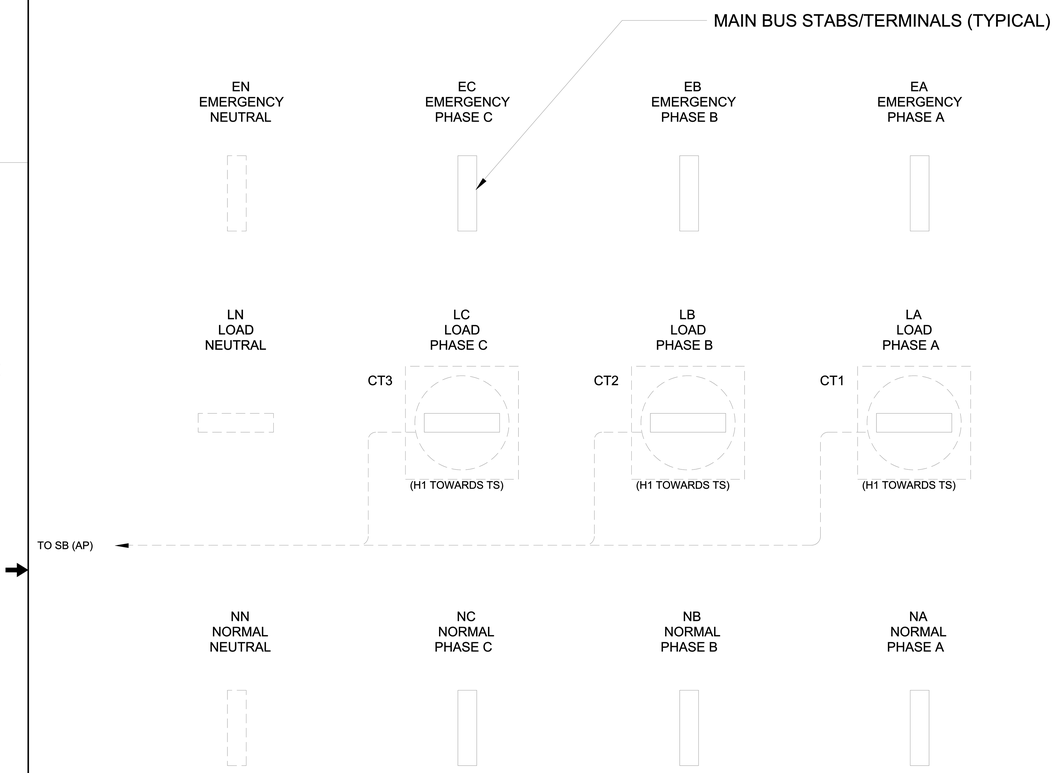
DRAWING REV. J ECN NO. 275211 SHEET 5 OF 7

PHYSICAL DIAGRAM (CONTINUED)

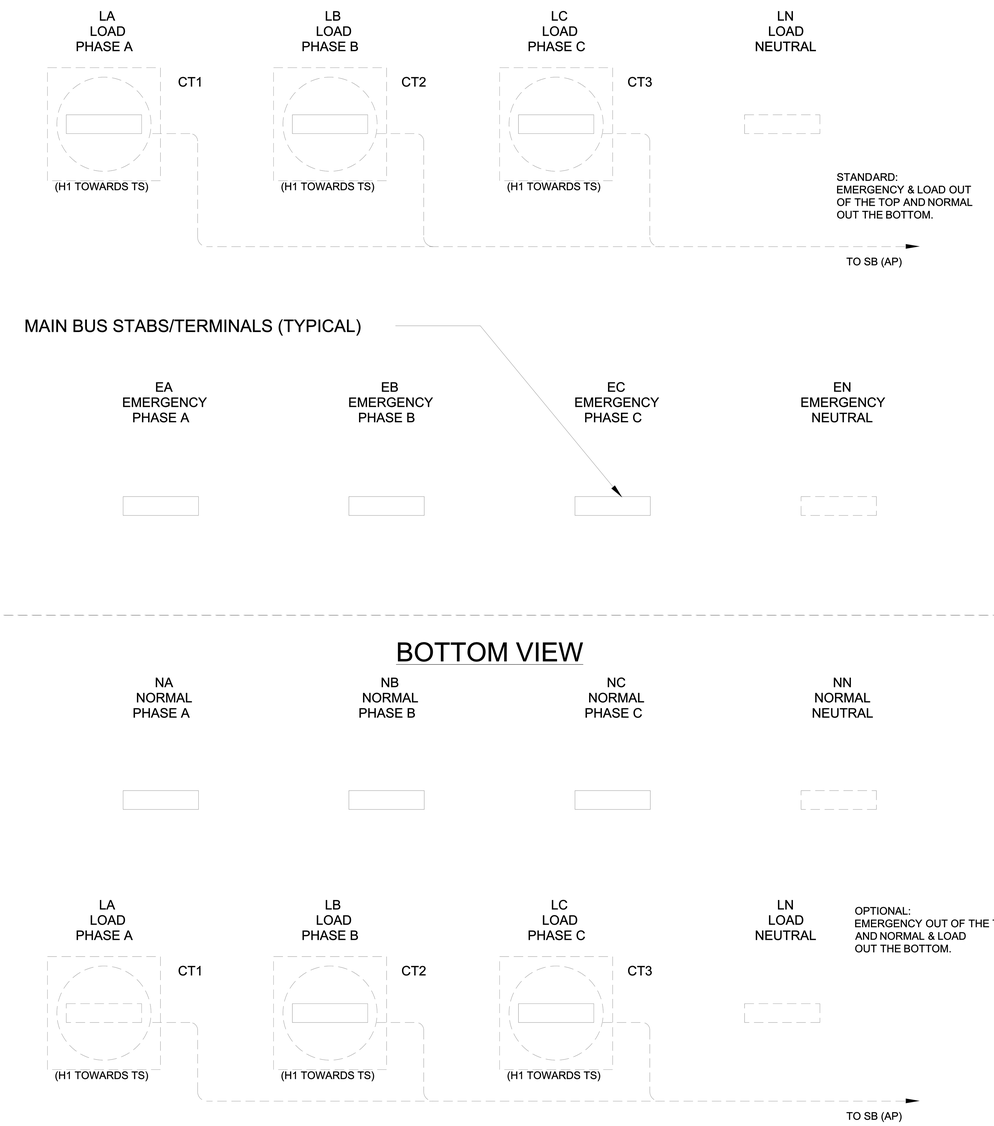
REAR CONNECTED SWITCH
1000 - 3200 AMP. TS REAR VIEW

OPTIONAL ACCESSORY 23GB
(LOAD CURRENT METERING)



FRONT CONNECTED SWITCH
1000 - 2000 AMP. TS TOP VIEW

OPTIONAL ACCESSORY 23GB
(LOAD CURRENT METERING)



REV. TO SHEET	ECN NO.	BY	APP.	DATE
J	275211	TR	BK	10/15/18
	SEE ECN			
H	265313	TR	BK	1/31/17
	SHT 4 SINGLE PHASE EMGR.			
G	254970	TR	BK	05/26/15
	SEE ECN			

PROJECT NAME:

WIRING DIAGRAM
300 SERIES (G3ATS/G3NTS) 3PH 1000-3200 AMPS
"G" FRAME, GROUP G CONTROLS

THIRD ANGLE PROJECTION

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SCALE NONE SIZE DS

DWG. NO. 1001662

DRAWING REV. J ECN NO. 275211 SHEET 6 OF 7

WIRE RUN LISTING

1 HARNESS LOCATOR

BOX CHECKED IF HARNESS IS MODIFIED ☒

WIRE No.	HARNESS 605454 (P,P1,P2,J3) MAIN TS	CLR	AWG
1	P-2,TS-1		16
2	P-3,P1-14		
3	P-4,TS-3		
4	P-5,TS-5		
5	P-6,TS-7		
4	P-7,TS-5		
6	P-8,TS(AUX1)-24		
6	TS(AUX1)-24,J3-1		
7	P-9,TS(AUX1)-25		
7	TS(AUX1)-25,J3-2		
8	P-10,TS(AUX1)-21		
9	P-11,TS-2		
10	P-12,TS-1		
11	P-13,TS(AUX1)-22		
12	P-14,TS(AUX1)-23		
13	P-16,P1-16		
14	P-17,J3-3		
15	P-18,TS-6		
16	P-19,TS-9		
17	P-20,TS-10		
18	P-21,TS-11		
19	P-22,TS-4		
20	P-23,TS-8		
21	P-24,TS-12		
22	P1-5,TS(MUS)-17		
22	TS(MUS)-17,TS(MUS)-15		
23	P1-6,TS(MUS)-19		
23	TS(MUS)-19,TS(MUS)-13		
24	P1-9,P2-4		
25	P1-10,P2-1		
26	P1-11,P2-2		
27	P1-12,P2-3		
28	P1-13,TS(MUS)-16		
28	TS(MUS)-16,TS(MUS)-14		
29	P1-15,TS(MUS)-20		
29	TS(MUS)-20,TS(MUS)-18		
1	P1-17,TS-1		
4	P1-18,TS-5		
3	P1-19,TS-3		
5	P1-20,TS-7		
30	P1-21,P1-23		
	REMOVE WIRES		
6	TS(AUX1)-24,J3-1		
7	TS(AUX1)-25,J3-2		
14	P-17,J3-3		
	ADD WIRES		
6	TS(AUX1)-24,TB-1		
7	TS(AUX1)-25,TB-2		
200	P-1		
14	P-17,TB-3		
222	P-15		

2 HARNESS LOCATOR

BOX CHECKED IF HARNESS IS MODIFIED ☒

WIRE No.	TS STD. AUX. CONTACTS	CLR	AWG
40	TB-4,TS(AUX1)-27		16
41	TB-5,TS(AUX1)-28		
42	TB-6,TS(AUX1)-29		
43	TB-7,TS(AUX1)-30		
44	TB-8,TS(AUX1)-31		
45	TB-9,TS(AUX1)-32		

3 HARNESS LOCATOR

BOX CHECKED IF HARNESS IS MODIFIED ☐

WIRE No.	OPTIONAL AUX. CONTACTS	CLR	AWG
46	TB-10,TS(AUX1)-33		16
47	TB-11,TS(AUX1)-34		
48	TB-12,TS(AUX1)-35		
49	TB-13,TS(AUX1)-36		
50	TB-14,TS(AUX1)-38		
51	TB-15,TS(AUX1)-37		

4 HARNESS LOCATOR

WIRE No.	OPTIONAL ACCESSORY 23GB (CT*,AP-SB,CP(23G)-TB1)	CLR	AWG
230	CT1-X1,AP-SB-1		16
230	AP-SB-2,CP(23G)-TB1-1		
231	CT2-X1,AP-SB-3		
231	AP-SB-4,CP(23G)-TB1-2		
232	CT3-X1,AP-SB-5		
232	AP-SB-6,CP(23G)-TB1-3		
233	CT1-X2,CT2-X2	GRN	
233	CT2-X2,CT3-X2	GRN	
233	CT3-X2,AP-SB-7	GRN	
233	AP-SB-7,EQUIP. GRD.	GRN	
233	AP-SB-8,CP(23G)-TB1-4	GRN	

5 HARNESS LOCATOR

BOX CHECKED IF HARNESS IS MODIFIED ☐

WIRE No,	HARNESS 309320-005 OPTIONAL 8 IN. EXTENSION HARNESS	CLR	AWG
200	Jx-1,Px-1		16
1	Jx-2,Px-2		
2	Jx-3,Px-3		
3	Jx-4,Px-4		
4	Jx-5,Px-5		
5	Jx-6,Px-6		
4	Jx-7,Px-7		
6	Jx-8,Px-8		
7	Jx-9,Px-9		
8	Jx-10,Px-10		
9	Jx-11,Px-11		
10	Jx-12,Px-12		
11	Jx-13,Px-13		
12	Jx-14,Px-14		
222	Jx-15,Px-15		
13	Jx-16,Px-16		
14	Jx-17,Px-17		
15	Jx-18,Px-18		
16	Jx-19,Px-19		
17	Jx-20,Px-20		
18	Jx-21,Px-21		
19	Jx-22,Px-22		
20	Jx-23,Px-23		
21	Jx-24,Px-24		

WIRE No.	ADDITIONAL WIRING	CLR	AWG
			16

REV. TO SHEET	ECN NO.	BY	APP.	DATE
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	SEE ECN			
H	265313	TR	BK	1/31/17
	SHT 4 SINGLE PHASE EMGR.			
G	254970	TR	BK	05/26/15
	SEE ECN			

PROJECT NAME:

WIRING DIAGRAM

300 SERIES (G3ATS/G3NTS) 3PH 1000-3200 AMPS

"G" FRAME, GROUP G CONTROLS

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	DJB	10/28/13
CHECKED	BK	10/28/13
PROJECT APPROVAL	BK	10/28/13
FINAL APPROVAL		

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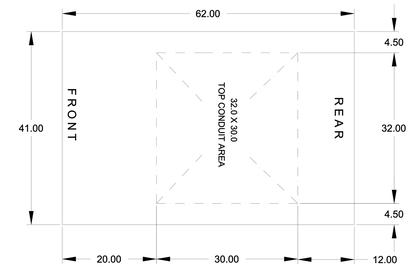
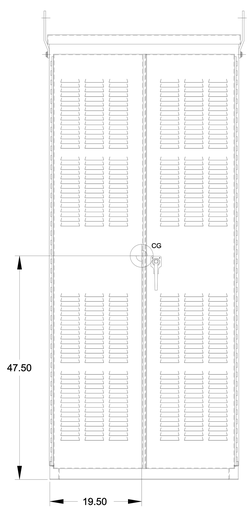
SCALE NONE SIZE DS

DWG. NO. 1001662

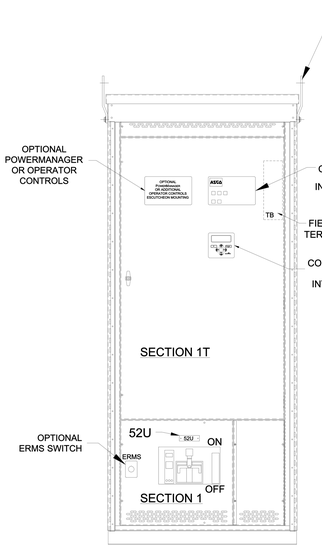
DRAWING REV. J ECN NO. 275211 SHEET 7 OF 7



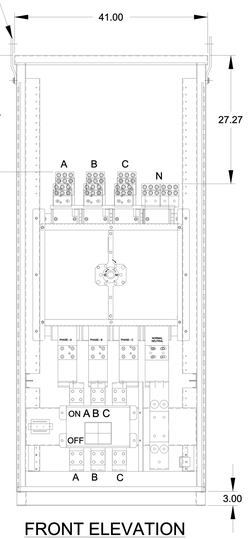
TOP VIEW



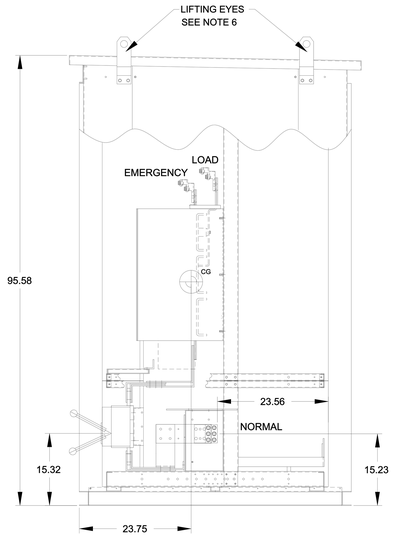
FRONT VIEW



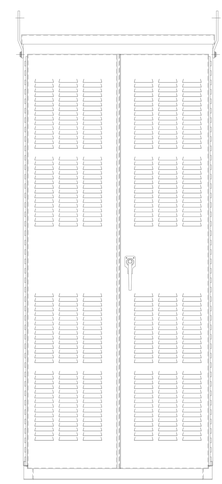
FRONT VIEW
WITHOUT EXTERIOR DOORS



FRONT ELEVATION
INTERIOR VIEW



RIGHT SIDE VIEW



REAR VIEW

GENERAL NOTES

1. FLOOR MOUNTED ENCLOSURE.
   TYPE 3R CONSTRUCTED FROM CODE GAUGE STEEL.
   FINISH: TYPE 3R, ANSI 61 GRAY POLYESTER SEMI GLOSS ELECTROSTATIC POWDER.
   TYPE 3RX EXTERIOR CONSTRUCTED FROM CODE GAUGE STAINLESS STEEL.
   (R) EXTERIOR CONSTRUCTED FROM TYPE 304 STAINLESS STEEL.
   (S) EXTERIOR CONSTRUCTED FROM TYPE 316 STAINLESS STEEL.
2. EXTERIOR DOORS HAVE PADLOCKABLE HANDLES WITH 3-POINT LATCH
3. DESIGNED FOR FRONT & REAR ACCESS.
4. RECOMMENDED CLEARANCES: FRONT: 38" REAR: 36"
5. EXTERIOR VENTS:
   1000A - 1600A: NO VENTS.
   2000A: VENTS ARE SUPPLIED WITH POLYESTER DUST FILTERS.
6. LIFTING PLATES: SECTIONS ARE SUPPLIED WITH LIFTING PLATES. INSPECT PLATES FOR DAMAGE AND TORQUE BOLTS TO 45 FT LBS BEFORE USE. REFER TO ANSI/NEMA PB 2.1 FOR PROPER HANDLING OF EQUIPMENT. AFTER INSTALLATION OF SECTION, REMOVE LIFTING PLATES. REINSTALL BOLTS INTO EXTERIOR HOLES AND TORQUE TO APPROXIMATELY 20 FT LBS.
7. CG CENTER OF GRAVITY
8. APPROXIMATE WEIGHT : 2400 lbs

SYSTEM NOTES

1. SYSTEM RATING: 1000 AMPS, 1200 AMPS, 1600 AMPS, 2000 AMPS, 3ø, 4W OR 1ø 3W.
   SHORT CIRCUIT RATING: 65,000 RMS SYM AMPERES @ 480V.
   THE EMERGENCY SOURCE INPUT MUST BE PROTECTED BY A REMOTE OVERCURRENT PROTECTION DEVICE AS LISTED ON THE MARKINGS ON THE TRANSFER SWITCH.
2. ALL BUS IS SILVER-PLATED COPPER, BASED ON 1000A PER SQ. IN. DENSITY.
3. GROUND: 20% RATED.
4. NEUTRAL: 100% RATED.
5. APPLICABLE LABEL(S): U.L. 891, SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT.

TRANSFER SWITCH

1. G FRAME AUTOMATIC TRANSFER SWITCH.
2. TRANSFER SWITCH RATING: 1000 AMPS, 1200 AMPS, 1600 AMPS AND 2000 AMPS.
   SHORT CIRCUIT RATING WHEN PROTECTED BY A CIRCUIT BREAKER
   TIME RESPONSE, MAXIMUM 0.05 SECONDS: 85,000 RMS SYM @ 480V.
3. A FULL RATED NEUTRAL CONNECTION FOR EACH SOURCE AND THE LOAD IS OPTIONAL.
   WHEN PROVIDED IT IS IN ONE OF THE FOLLOWING FORMATS.
   A. SOLID NEUTRAL
   B. SWITCHED NEUTRAL POLE
   C. OVERLAPPING NEUTRAL POLE
4. UL 1008

TERMINATIONS 1000A - 1200A

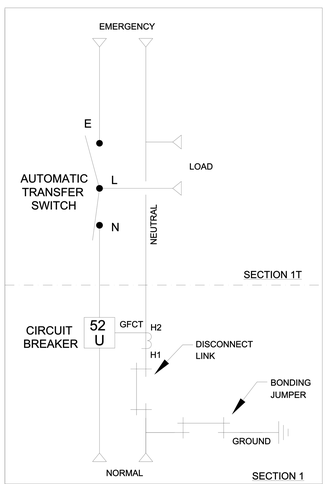
1. SUPPLIED WITH MECHANICAL (SCREW TYPE) LUGS FOR CU/AL CABLE.
   NORMAL: (4) 1/0 - 600MCM PER PHASE & NEUTRAL
   LOAD: (4) 1/0 - 600MCM PER PHASE & NEUTRAL
   EMERGENCY: (4) 1/0 - 600MCM PER PHASE & NEUTRAL
   GROUND: (12) 1/0 - 600MCM
   A. SUITABLE WIRE BENDING SPACE IS PROVIDED AS PER NEC.
2. OPTIONAL LUGS MAY BE SUPPLIED.

TERMINATIONS 1600A - 2000A

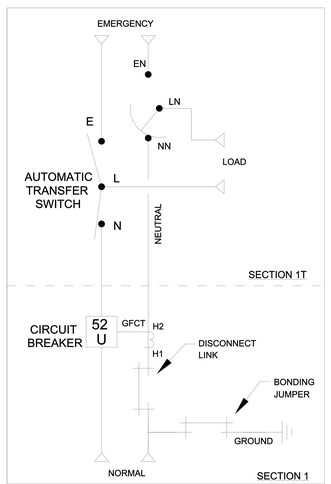
1. SUPPLIED WITH MECHANICAL (SCREW TYPE) LUGS FOR CU/AL CABLE.
   NORMAL: (6) 1/0 - 600MCM PER PHASE & NEUTRAL
   LOAD: (6) 1/0 - 600MCM PER PHASE & NEUTRAL
   EMERGENCY: (6) 1/0 - 600MCM PER PHASE & NEUTRAL
   GROUND: (18) 1/0 - 600MCM
   A. SUITABLE WIRE BENDING SPACE IS PROVIDED AS PER NEC.
2. OPTIONAL LUGS MAY BE SUPPLIED.

CIRCUIT BREAKER: ITEM 52U

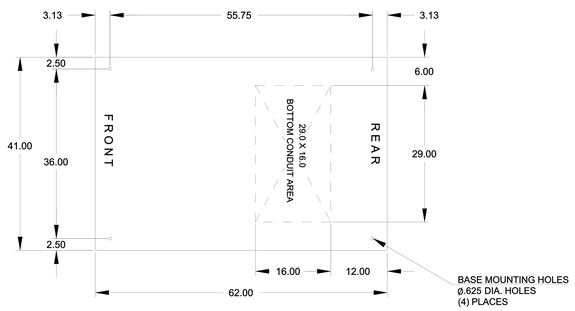
1. SQUARE "D" 80% RATED, TYPE 'RJF' 3000AF/1000AT, 3000AF/1200AT, 3000AF/1600AT (P/N RJF36160U44A) OR 3000AF/2000AT (P/N RJF36200U44A)
   STATIONARY MOUNTED, MANUALLY OPERATED BREAKER WITH LONG DELAY, SHORT DELAY, INSTANTANEOUS AND GROUND FAULT TRIP SETTINGS.
   SHORT CIRCUIT RATING: AIC 65,000 RMS SYS @ 480V.
2. OPTIONAL 100% RATED BREAKER MAY BE SUPPLIED.
3. OPTIONAL ENERGY REDUCTION MAINTENECE SETTING MAY BE SUPPLIED
4. U.L. 489



(WITH SOLID NEUTRAL)



(WITH SWITCHED/OVERLAPPING NEUTRAL)



PLAN VIEW

REV. TO SHEET	ECN NO.	BY	APP.	DATE
R	307620 SEE ECN	TAA	MCH	2-12-24
N	306943 SEE ECN	SG	MCH	01/10/24
M	304406 SEE ECN	PG	MCH	07/12/23

PROJECT NAME:

OUTLINE | MOUNTING

GAUS 1000A - 2000A, RJF SE BREAKER
TYPE 3R/3RX 95.5 X 41 X 62 SECTION 1 & 1T

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	SG	12/26/13
CHECKED	RN	
PROJECT APPROVAL		
FINAL APPROVAL		

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-I-003. FOR PLASTIC PARTS SEE MP-I-055

ASSEM. REF. NO.

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

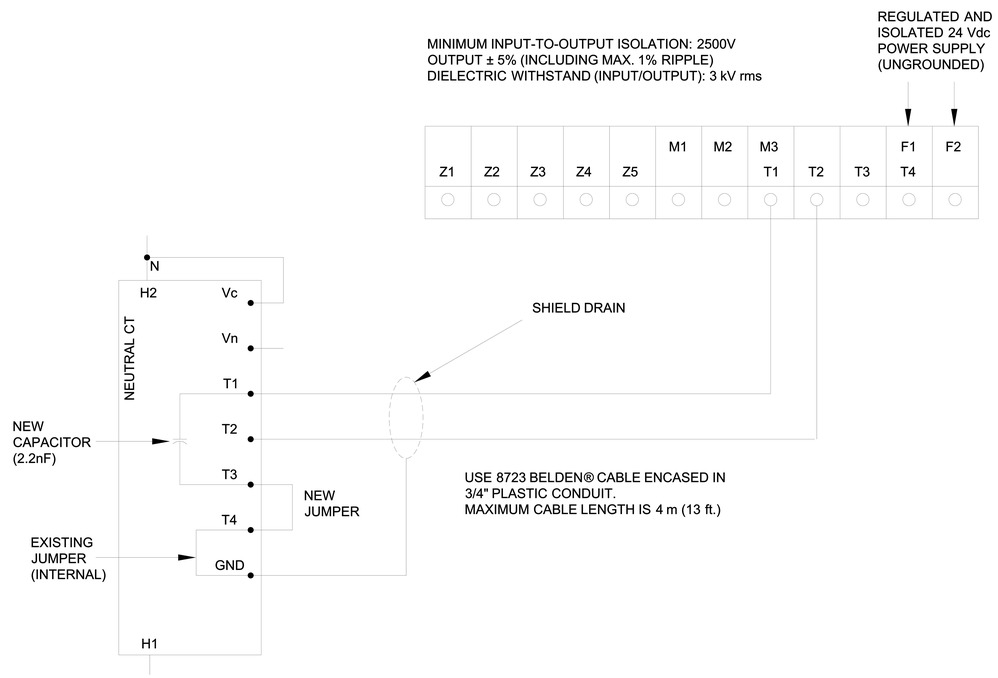
COMPUTER GENERATED DRAWING

SCALE NONE | SIZE DS

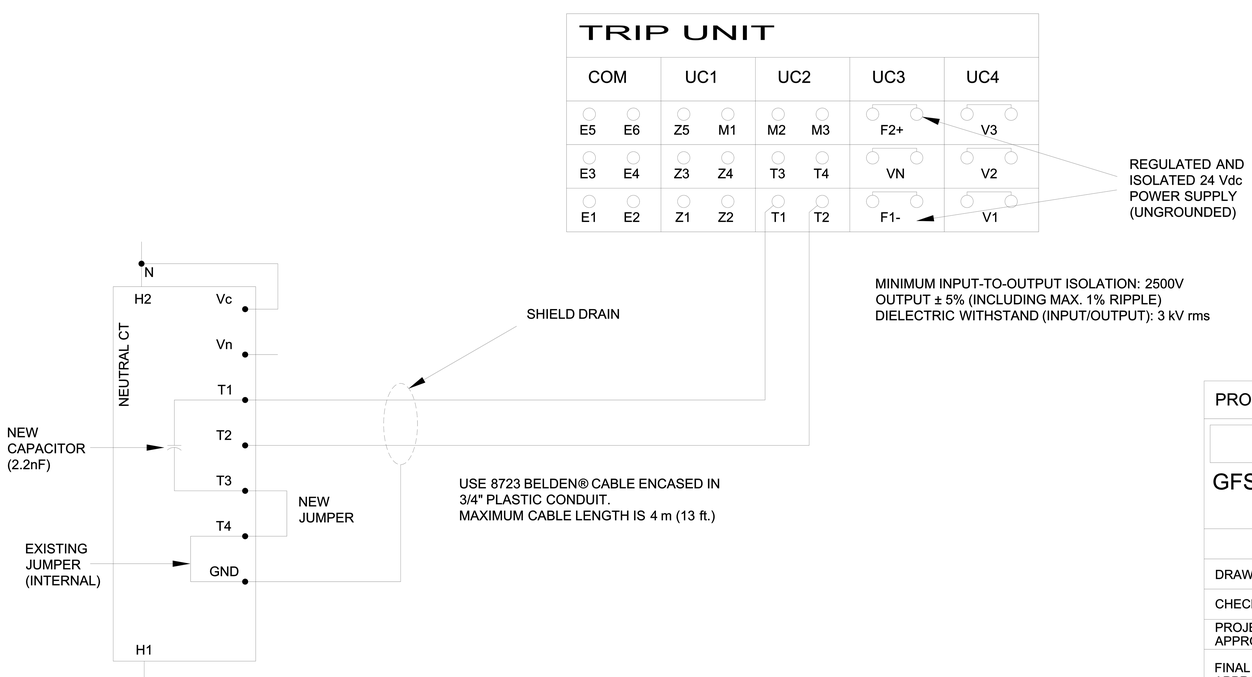
DWG. NO. 754577-050

DRAWING REV. O | ECN NO. 307620 | SHEET 1 OF 1

WIRING SCHEMATIC FOR POWERPACT P- & R-FRAME CIRCUIT BREAKERS



WIRING SCHEMATIC FOR 800-3000 A NT/NW CIRCUIT BREAKERS



REV. TO SHEET	ECN NO.	BY	APP.	DATE
F	257650	TRD	MM	10/23/15
	SEE ECN			
E	227403	TRD	WK	05/13/10
	SEE ECN			
D	226452	AE	BK	03/16/10
	SEE ECN			
C	223197	DAJ	BK	10/20/09
	SEE ECN			
B	211947	MJB	BK	2/7/07
	SEE ECN			
-	167055	CC	BK	05/13/04
	ISSUE			

PROJECT NAME:

GFS CIRCUITRY.

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	CC	05/13/04
CHECKED	BK	05/13/04
PROJECT APPROVAL	BK	05/13/04
FINAL APPROVAL		

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-I-003. FOR PLASTIC PARTS SEE MP-I-055

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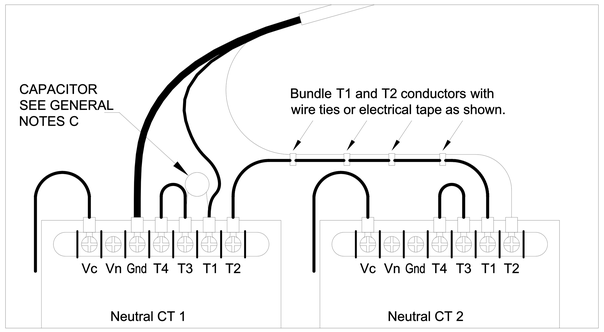
COMPUTER GENERATED DRAWING

SCALE | SIZE BS

DWG. NO. 758574

DRAWING REV. F | ECN NO. 257650 | SHEET 1 OF 2

WIRING SCHEMATIC FOR 3200-6000 A NW CIRCUIT BREAKERS



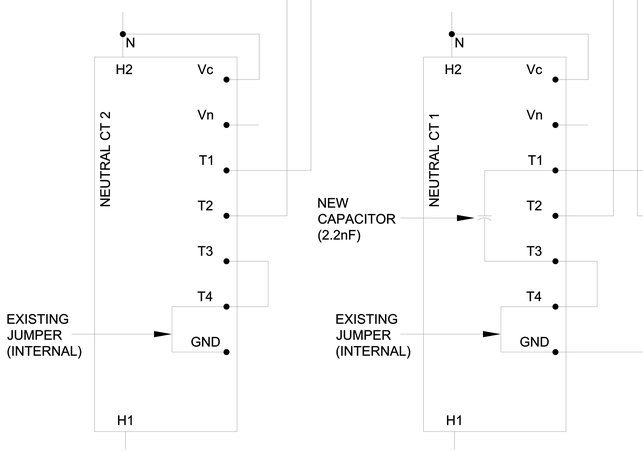
TRIP UNIT

COM		UC1		UC2		UC3	UC4
E5	E6	Z5	M1	M2	M3	F2+	V3
E3	E4	Z3	Z4	T3	T4	VN	V2
E1	E2	Z1	Z2	T1	T2	F1-	V1

REGULATED AND
ISOLATED 24 Vdc
POWER SUPPLY
(UNGROUNDED)

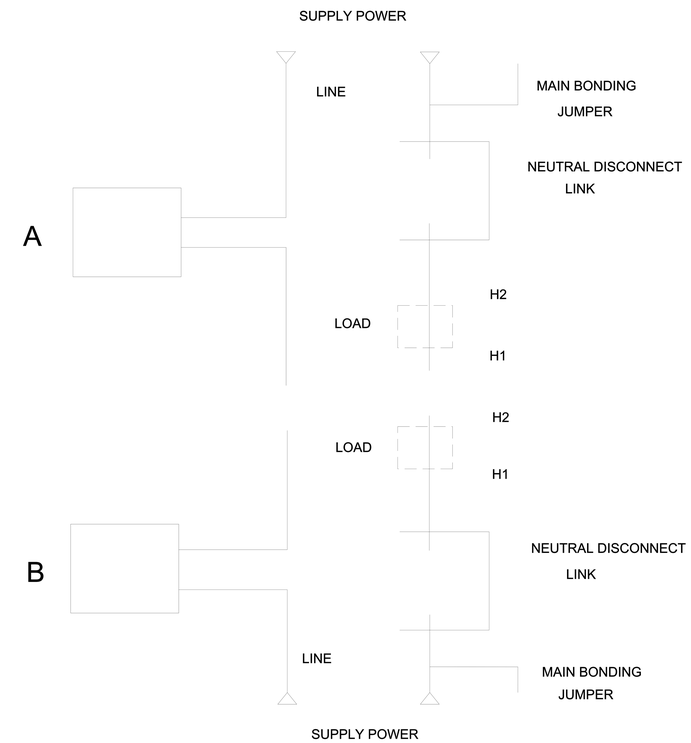
SHIELD DRAIN

MINIMUM INPUT-TO-OUTPUT ISOLATION: 2500V
OUTPUT ± 5% (INCLUDING MAX. 1% RIPPLE)
DIELECTRIC WITHSTAND (INPUT/OUTPUT): 3 kV rms



USE 8723 BELDEN® CABLE ENCASED IN
3/4" PLASTIC CONDUIT.
MAXIMUM CABLE LENGTH IS 4 m (13 ft.)

LINE DIAGRAM FOR NW BREAKER



REV. TO SHEET	ECN NO.	BY	APP.	DATE
F	257650	TRD	MM	10/23/15
	SEE ECN			
E	227403	TRD	WK	05/13/10
	SEE ECN			
D	226452	AE	BK	03/16/10
	SEE ECN			
C	223197	DAJ	BK	10/20/09
	SEE ECN			
B	211947	MJB	BK	2/7/07
	SEE ECN			
-	167055	CC	BK	05/13/04
	ISSUE			

GENERAL NOTES

A. IF LOAD IS CONNECTED TO LOWER END OF CIRCUIT BREAKER, CONNECT THE LOAD NEUTRAL TO THE H1 END OF THE NEUTRAL CURRENT TRANSFORMER.

B. IF SUPPLY POWER IS CONNECTED TO THE LOWER END OF THE CIRCUIT BREAKER ,CONNECT THE SUPPLY NEUTRAL TO THE H1 END OF THE NEUTRAL CURRENT TRANSFORMER.

C. CAPACITOR 2.2NF IS PROVIDED WITH CIRCUIT BREAKER.

PROJECT NAME:

GFS CIRCUITRY.

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	CC	05/13/04
CHECKED	BK	05/13/04
PROJECT APPROVAL	BK	05/13/04
FINAL APPROVAL		

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-I-003. FOR PLASTIC PARTS SEE MP-I-055

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FLORHAM PARK, NEW JERSEY 07932 U.S.A.

COMPUTER GENERATED DRAWING

SCALE | SIZE BS

DWG. NO. 758574

DRAWING REV. F | ECN NO. 257650 | SHEET 2 OF 2

EQUIPMENT STORAGE REQUIREMENTS

Equipment provided by Schneider-Electric and/or ASCO Power Technologies that is stored for a short-term duration (i.e., days to weeks) or long-term duration (i.e., months to years), must be kept in a cool, dry, temperature-controlled environment. Storage of equipment in open warehouses, locations without proper temperature and humidity control, and/or outdoor storage is not acceptable without the utilization of heating elements, thermostats, humidistats, and protection from weather and dirt. Failure to comply may result in moisture ingress and/or condensation to form resulting in rusting and or corrosion, component and/or equipment failure and replacement, and/or nullification of any manufacturer warranty.

For **General Instructions for Proper Handling, Installation, Operation, and Maintenance of Deadfront Distribution Switchboards Rated 600 Volts or Less**, refer to ANSI NEMA PB 2.1-2013

Copies of the following documents should be included on the submittals, depending on the units that are on the proposal:

For ASCO Power Technology's **Switchgear and Switchboards**, refer to Instruction Bulletin **381333-393**.
For Schneider-Electric/Square D's **Power Zone 4 (PZ4) Switchgear**, refer to Instruction Bulletin **80298-002-09**.
For Schneider-Electric/Square D's **Power Zone 4 (PZ4) NEMA 3R Walk-In Switchgear**, refer to Instruction Bulletin **80298-156-02**.
For Schneider-Electric/Square D's **Quality, Efficient, Delivery" (QED2) Switchboard**, refer to Instruction Bulletin **80043-055-14**.
For Schneider-Electric/Square D's **Masterclad Metal-Clad Indoor Switchgear**, refer to Instruction Bulletin **6055-30.**

ASCO Power Technologies™

SERIES 300 Service Entrance Power Transfer Switch

Data Sheet

The ASCO Service Entrance Power Transfer Switch combines automatic power switching with the disconnecting, grounding, and bonding required for use as service entrance equipment. It meets all National Electrical Code® requirements for service entrance use.

ASCO SERIES 300
SE Rated 800 amperes Type 1 enclosure

ASCO SERIES 300
SE Rated 200 amperes in Type 3R enclosure

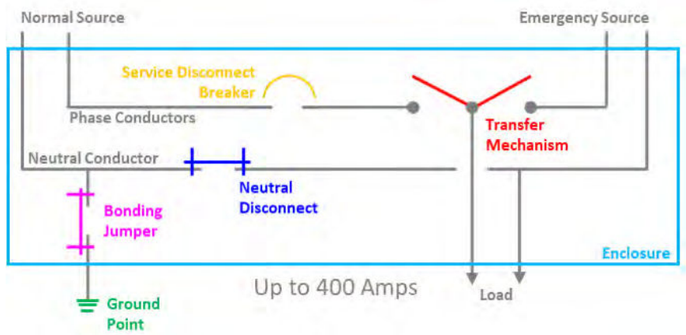
Product Features:

- Sizes available from 70 - 3000 amps, 600 VAC, 50 or 60 Hz, single or 3-phase
- 70 - 400 Ampere listed to UL 1008
- 600 - 3000 Ampere listed to UL 891
- Automatic Transfer Switch is listed to UL 1008 for total system loads
- Silver plated copper ground and neutral bus with solderless screw type terminals
- Ground fault trip protection provided on 1000 amps and above
- Available with solid or switched neutral
- Line side breaker barriers available in compliance with NEC2020

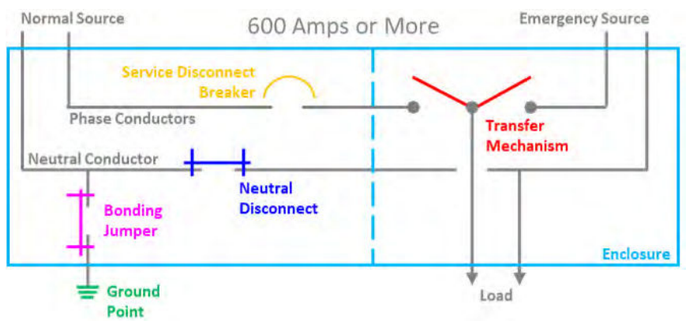
Life Is On | Schneider Electric

Construction

Products 400 amperes or less, utilize a single enclosure, including a service disconnect circuit breaker, as well as the transfer switch and grounding and bonding provisions.



Products 600 amperes and above provide a service equipment section containing the service disconnect circuit breaker as well as grounding and bonding provisions. A second section contains the power transfer switch.



For additional detail, see the interactive 3-D view in the ASCO Digital Hub.

Order Information

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

J	+	03AUS	+	B	+	3	+	0600	+	N	+	GX	+	C
Frame		Product Type		Neutral Code		Phase Poles		Amperes Continous Rating		Voltage Code		Controller Code		Enclosure
D = 70 - 225 Amp J = 150 - 600 Amp 150A - 225A: 3ADUS/3NDUS Only H = 800 - 1200 Amp G = 1600 - 3000 Amp		03AUS = Automatic 03NUS = Non-Automatic 3ADUS = Automatic Delayed Transition 3NDUS = Non-Automatic, Delayed Transition		A = Solid Neutral B = Switched Neutral		2 3		0070, 0100, 0150, 0200, 0225[3], 0250[3], 0400, 0600, 0800, 1000, 1200, 1600, 2000 2500, 3000		C = 208 D = 220 E = 230 F = 240 H = 380 J = 400 K = 415 L = 440 M = 460 N = 480 P = 550 Q = 575 R = 600		G = No Optional Accessories GX = Optional Accessories		C = Type 1 (Standard) M = Type 3R Secure Double Door N = Type 4[1] Secure Double Door Q = Type 12[1] Secure Double Door V = Type 4X[4,5] Secure Double Door 316 SS

Notes:
1. Available for 70-1600 amperes, use type 3R for 2000-3000 ampere applications.
2. A solid neutral is provided as standard.
3. 200, 225 ampere rated switches suitable for use with copper cable only. Refer to paragraph 310.15 of the NEC for additional information.
4. Type 316 stainless steel is the standard. It provides an improved reduction in corrosion of salt and some chemicals. It is the preferred choice for marine environments.
5. Available only on switches rated 70 - 1600 amperes.

Specifications

ASCO SERIES 300SE Power Transfer Switch Dimensions and Shipping Weights

UL Type 1 Enclosure[4]

Switch Rating Amps	Phase Poles	Neutral Code	Dimensions, In. (mm) Width	Height	Depth	Approx. Shipping Weight Lb. (kg)
70, 100, 150, 200, 225	2	A	36 (914)	48 (1219)	13 (330)	400 (185)
	2	B	36 (914)	48 (1219)	13 (330)	410 (189)
	3	A	36 (914)	48 (1219)	13 (330)	410 (189)
	3	B	36 (914)	48 (1219)	13 (330)	430 (198)
150, 200, 225, Series 3ADUS/3NDUS Only	2	A	36 (914)	48 (1219)	13 (330)	400 (185)
	2	B	36 (914)	48 (1219)	13 (330)	408 (188)
	3	A	36 (914)	48 (1219)	13 (330)	408 (188)
	3	B	36 (914)	48 (1219)	13 (330)	420 (193)
2501, 4001	2	A	42 (1067)	48 (1219)	15.5 (394)	420 (193)
	2	B	42 (1067)	48 (1219)	15.5 (394)	430 (198)
	3	A	42 (1067)	48 (1219)	15.5 (394)	430 (198)
	3	B	42 (1067)	48 (1219)	15.5 (394)	450 (207)
6001	2	A	38 (965)	91 (2311)	28 (711)	860 (396)
	2	B	38 (965)	91 (2311)	28 (711)	870 (401)
	3	A	38 (965)	91 (2311)	28 (711)	870 (401)
	3	B	38 (965)	91 (2311)	28 (711)	880 (405)
8001	2	A	38 (965)	91 (2311)	28 (711)	1460 (673)
	2	B	38 (965)	91 (2311)	28 (711)	1470 (677)
	3	A	38 (965)	91 (2311)	28 (711)	1470 (677)
	3	B	38 (965)	91 (2311)	28 (711)	1480 (682)
10001, 12001	2	A	38 (965)	91 (2311)	48 (1218)	1460 (673)
	2	B	38 (965)	91 (2311)	48 (1218)	1470 (677)
	3	A	38 (965)	91 (2311)	48 (1218)	1470 (677)
	3	B	38 (965)	91 (2311)	48 (1218)	1480 (682)
16001, 20001	3	A	38 (965)	91 (2311)	48 (1218)	1580 (727)
	3	B	38 (965)	91 (2311)	48 (1218)	1680 (773)
25001, 30001	3	A	38 (965)	91 (2311)	72 (1829)	4590 (2111)
	3	B	38 (965)	91 (2311)	72 (1829)	4690 (2157)

UL Type 3R Enclosure[4]

Switch Rating Amps	Phase Poles	Neutral Code	Dimensions, In. (mm) Width	Height	Depth	Approx. Shipping Weight Lb. (kg)
70, 100, 150, 200, 225	2	A	36 (914)	48 (1219)	16 (406)	500 (232)
	2	B	36 (914)	48 (1219)	16 (406)	520 (241)
	3	A	36 (914)	48 (1219)	16 (406)	520 (241)
	3	B	36 (914)	48 (1219)	16 (406)	530 (246)
150, 200, 225, Series 3ADUS/3NDUS Only	2	A	41 (1041)	95.5 (2424)	33 (838)	500 (232)
	2	B	41 (1041)	95.5 (2424)	33 (838)	520 (241)
	3	A	41 (1041)	95.5 (2424)	33 (838)	520 (241)
	3	B	41 (1041)	95.5 (2424)	33 (838)	530 (246)
2501, 4001	2	A	42 (1067)	48 (1219)	18 (487)	500 (232)
	2	B	42 (1067)	48 (1219)	18 (487)	520 (241)
	3	A	42 (1067)	48 (1219)	18 (487)	520 (241)
	3	B	42 (1067)	48 (1219)	18 (487)	530 (246)
6001	2	A	41 (1041)	95.5 (2425)	33 (838)	1200 (555)
	2	B	41 (1041)	95.5 (2425)	33 (838)	1220 (564)
	3	A	41 (1041)	95.5 (2425)	33 (838)	1220 (564)
	3	B	41 (1041)	95.5 (2425)	33 (838)	1240 (574)
8001	2	A	38 (965)	91 (2311)	28 (711)	1520 (703)
	2	B	38 (965)	91 (2311)	28 (711)	1540 (712)
	3	A	38 (965)	91 (2311)	28 (711)	1540 (712)
	3	B	38 (965)	91 (2311)	28 (711)	1580 (731)
10001, 12001	2	A	38 (965)	91 (2311)	48 (1218)	1520 (703)
	2	B	38 (965)	91 (2311)	48 (1218)	1540 (712)
	3	A	38 (965)	91 (2311)	48 (1218)	1540 (712)
	3	B	38 (965)	91 (2311)	48 (1218)	1580 (731)
16001, 20001	3	A	38 (965)	91 (2311)	48 (1218)	2200 (1018)
	3	B	38 (965)	91 (2311)	48 (1218)	2240 (1036)
25001, 30001	3	A	38 (965)	91 (2311)	72 (1829)	5280 (2479)
	3	B	38 (965)	91 (2311)	72 (1829)	5380 (2475)

Notes:
1. Unit is designed for top and bottom cable entry for all services and load.
2. Enclosures for 600 – 3000 amps are freestanding.
3. A space heater accessory 44G is required with all service entrance (Type 3R) switches to help reduce condensation and protect the circuit breaker. It is recommended when environmental enclosures (Type 4, 12) are ordered for installation outdoors. See Optional Accessories page for space heater options (acc. 44G).
4. Dimensional data is approximate and subject to change. Certified dimensions available upon request.

Series 300SE External Power Connections

Sizes UL-Listed Solderless Screw-Type Terminals

Switch Rating	Ranges of AL-CU Wire Sizes
70, 100, 150, 200[2], 225[2]	One #14 to 4/0 AWG
150[3], 200[3], 225[3], 250, 400	One #4 AWG to 600 MCM Two 1/0 to 250 MCM
600	Two 1/0 to 600 MCM
800, 1000, 1200	Four 1/0 to 600 MCM
1600, 2000	Six 1/0 to 600 MCM
2500	Twelve 3/0 to 750 MCM
3000	Twelve 3/0 to 750 MCM

Notes:
1. All SERIES 300 switches default to a solid neutral assembly unless a switched neutral is specified. If no neutral is required, order as solid neutral and left unwired.
2. 200 and 225 ampere rated switches for use with copper cable only. Refer to paragraph 310.15 of the NEC for all additional information.
3. J 150-225 ampere for Series 3ADUS/3NDUS only.
4. Use wire rated 75 degrees minimum for all power connections.
5. Refer to the outline drawing for maximum power cable connections for circuit breaker.

Extended Warranties for Series 300SE Transfer Switches (3AUS/3NUS/3ADUS/3NDUS)

Description
1 Year Extension (Total of 3 Years)
2 Year Extension (Total of 4 Years)
3 Year Extension (Total of 5 Years)

Notes:
1. Standard warranty is (24) months, 2 years from date of shipment, extended warranty is in addition to the two years, for a total of 3, 4 or 5 years, except where the warranty period for the circuit breaker shall be limited to 24 months from date of shipment from ASCO.
2. Refer to Publication 3223 for warranty terms and conditions.

Series 300SE AIC Breaker Rating[1]

Switch Rating	AIC Rating (kA)	Voltage
70, 100, 150, 200, 225	85	480
150, 200, 225 Series 3ADUS/3NDUS Only	85	480
250, 400, 600	85	480
800	65	480
1000, 1200	50	480
1600, 2000	65	480
2500, 3000	100	480

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