SINGLE PHASE WIRING FOR ASCO® 300 SERIES MANUALLY OPERATED TRANSFER SWITCH TYPE H3MTS RATED 600-1200 AMPERES

FEATURES, OPERATION, ACCESSORIES, & NOTES

STANDARD FEATURE

FEATURE 14A & 14B – TRANSFER SWITCH AUXILIARY POSITION INDICATING CONTACTS. ONE (1) FORM A CONTACT TO INDICATE CONNECTION OF THE TRANSFER SWITCH TO SOURCE 1 (14A) AND ONE (1) FORM A CONTACT TO INDICATE CONNECTION OF THE TRANSFER SWITCH TO SOURCE 2 (14B) AND ONE (1) FROM A CONTACT TO INDICATE TRANSFER SWITCH IN DISCONNECTED POSITION. CONTACTS CONNECTED TO THE FIELD CONNECTIONS TERMINAL BLOCK (TB). CONTACTS RATED 10 AMPS, 32VDC, 250 VAC.

OPTIONAL ACCESSORIES

ACC. 170B* ONE FORM C CONTACT WIRED TO THE CUSTOMER TERMINAL BLOCK THAT OPERATES WHEN SOURCE 1 AND SOURCE 2 VOLTAGE IS PRESENT AT THE TRANSFER SWITCH TERMINALS. S1A CONTACTS OPERATE WHEN SOURCE 1 AVAILABLE AND S2A CONTACTS OPERATE WHEN SOURCE 2 AVAILABLE. TRANSFER SWITCH AUXILIARY CONTACTS WIRED TO THE TERMINAL BLOCK (TB) TO INDICATE TS POSITIONS (CLOSE ON SOURCE 1, CLOSE SOURCE 2 AND TS DISCONNECTED).
THE FOLLOWING INDICATORS ARE PROVIDED:
PL1: LOAD CONNECTED TO SOURCE 1 (GREEN)
PL2: LOAD CONNECTED TO SOURCE 2 (RED)
PL3: SOURCE 1 AVAILABLE (GREEN)
PL4: SOURCE 2 AVAILABLE (RED)
PL5: TS DISCONNECTED (YELLOW)
* REFER TO NOTE A

ACC. 170E* ONE FORM C CONTACT WIRED TO THE CUSTOMER TERMINAL BLOCK THAT OPERATES WHEN SOURCE 1 AND SOURCE 2 VOLTAGE IS PRESENT AT THE TRANSFER SWITCH TERMINALS. S1A CONTACTS OPERATE WHEN SOURCE 1 AVAILABLE AND S2A CONTACTS OPERATE WHEN SOURCE 2 AVAILABLE. TRANSFER SWITCH AUXILIARY CONTACTS WIRED TO THE TERMINAL BLOCK (TB) TO INDICATE TS POSITIONS (CLOSE ON SOURCE 1, CLOSE SOURCE 2 AND TS DISCONNECTED). PROVISION FOR CUSTOMER EXTERNAL COMMON ALARM INPUT (FORM A CONTACT) TO THE TERMINAL BLOCK THAT DRIVES A LED AND AN ALARM RELAY TO INDICATE WHEN THE INPUT IS ACTIVE. ONE FORM A CONTACT OF THE ALARM RELAY AND A MANUAL ENGINE START SWITCH ARE WIRED TO THE TERMINAL BLOCK.
THE FOLLOWING INDICATORS AND CONTROLS ARE PROVIDED:
PL1: LOAD CONNECTED TO SOURCE 1 (GREEN)
PL2: LOAD CONNECTED TO SOURCE 2 (RED)
PL3: SOURCE 1 AVAILABLE (GREEN)
PL4: SOURCE 2 AVAILABLE (RED)
PL5: TS DISCONNECTED (YELLOW)
PL6: EXTERNAL COMMON ALARM ACTIVE (YELLOW)
SS1: MANUAL ENGINE START
* REFER TO NOTE A

ACC. 170K* ONE FORM C CONTACT WIRED TO THE CUSTOMER TERMINAL BLOCK THAT OPERATES WHEN SOURCE 1 AND SOURCE 2 VOLTAGE IS PRESENT AT THE TRANSFER SWITCH TERMINALS. S1A CONTACTS OPERATE WHEN SOURCE 1 AVAILABLE AND S2A CONTACTS OPERATE WHEN SOURCE 2 AVAILABLE. TRANSFER SWITCH AUXILIARY CONTACTS WIRED TO THE TERMINAL BLOCK (TB) TO INDICATE TS POSITIONS (CLOSE ON SOURCE 1, CLOSE SOURCE 2 AND TS DISCONNECTED). PROVISION FOR CUSTOMER EXTERNAL COMMON ALARM INPUT (FORM A CONTACT) TO THE TERMINAL BLOCK THAT DRIVES A LED AND AN ALARM RELAY TO INDICATE WHEN THE INPUT IS ACTIVE. ONE FORM A CONTACT OF THE ALARM RELAY AND A KEYED MANUAL ENGINE START SWITCH ARE WIRED TO THE TERMINAL BLOCK.
THE FOLLOWING INDICATORS AND CONTROLS ARE PROVIDED:
PL1: LOAD CONNECTED TO SOURCE 1 (GREEN)
PL2: LOAD CONNECTED TO SOURCE 2 (RED)
PL3: SOURCE 1 AVAILABLE (GREEN)
PL4: SOURCE 2 AVAILABLE (RED)
PL5: TS DISCONNECTED (YELLOW)
PL6: EXTERNAL COMMON ALARM ACTIVE (YELLOW)
SS1: MANUAL ENGINE START (KEYED)
* REFER TO NOTE A

NOTE A:
*=BLANK, WITHOUT MOXA E1212.
*=1 MOXA E1212 ETHERNET REMOTE I/O SHALL BE POWERED WITH 24VDC THAT IS DERIVED FROM THE BYPASS POWER SUPPLY AND/OR OPTIONAL EXTERNAL 24VDC SOURCE FROM CUSTOMER. PROVISION PROVIDED ON TERMINAL BLOCK (TB) FOR CUSTOMER DC SOURCE. THE MOXA E1212 IS INTER WIRED TO THE DISCRETE INPUTS. CONNECTED TO SOURCE 1, CONNECTED TO SOURCE 2, SOURCE 1 AVAILABLE, SOURCE 2 AVAILABLE, AND TS DISCONNECTED. WIRE THE FOLLOW INPUTS IF PRESENT, COMMON ALARM AND ENGINE START SIGNAL.

TABLE A. DISCRETE INPUT

NUMBER	LABEL (FACTORY SETTING)	FEATURE	ACCESSORY DESCRIPTION
DI0	TS ON S1	N/A	TS CONNECTED TO SOURCE 1
DI1	TS ON S2	N/A	TS CONNECTED TO SOURCE 2
DI2	TS DISCONNECTED	N/A	TS DISCONNECTED (CENTER OFF POSITION)
DI3	S1 AVAILABLE	N/A	SOURCE 1 AVAILABILITY
DI4	S2 AVAILABLE	N/A	SOURCE 2 AVAILABILITY
DI5	ENGINE START	N/A	WIRED TO ENGINE START SIGNAL TO INDICATE WHEN A MANUAL ENGINE START HAS BEEN INITIATED (IF PRESENT)
DI6	COMMON ALARM	N/A	COMMON ALARN ACTIVE (IF PRESENT)

OPTIONAL ACCESSORIES CONTINUED

ACC. 73AA* SECONDARY SURGE SUPPRESSOR (SS1) FURNISHED ON SOURCE 1 AND (SS2) FURNISHED ON SOURCE 2 (ASCO SERIES 510)
73AA(*) – SINGLE PHASE (2) POLES WITH OR WITHOUT NEUTRAL.
* – (BLANK) = MODEL 06.
* – (8) = MODEL 08.

ACC. 73AA* SECONDARY SURGE SUPPRESSOR (SS) FURNISHED ON LOAD. (ASCO SERIES 510)
73AA(*) – SINGLE PHASE (2) POLES WITH OR WITHOUT NEUTRAL
* – 3 = MODEL 06.
* – 6 = MODEL 08.

CONFIGURATION OF SHIPPED EQUIPMENT

TRANSFER SYSTEM IS SHIPPED CONNECTED IN THE "DISCONNECTED" POSITION, INDICATOR SHOWS "YELLOW". IN "DISCONNECTED" POSITION BOTH "SOURCE 1" AND "SOURCE 2" SWITCH CONTACTS ARE OPEN.

OPERATION

OBSERVE THE INDICATOR WINDOW. IF WINDOW SHOWS "YELLOW" UNDER "SOURCE 1" THE TRANSFER SWITCH IS CONNECTED TO SOURCE 1. "YELLOW" UNDER "SOURCE 2" INDICATES THE TRANSFER SWITCH IS CONNECTED TO THE SOURCE 2. "YELLOW" UNDER "DISCONNECTED' INDICATES THE TRANSFER SWITCH IS IN THE DISCONNECTED POSITION.

TRANSFER TO "SOURCE 1" FROM "DISCONNECTED' POSITION.
–GRASP MANUAL HANDLE FIRMLY WITH BOTH HANDS, PULL OUT TO MECHANICAL STOP AND ROTATE HANDLE CLOCKWISE.
–OBSERVE THE INDICATOR WINDOW TO CONFIRM TRANSFER.

TRANSFER TO "SOURCE 2" FROM "DISCONNECTED" POSITION.
–GRASP MANUAL HANDLE FIRMLY WITH BOTH HANDS, PUSH IN TO MECHANICAL STOP AND ROTATE HANDLE COUNTERCLOCKWISE.
–OBSERVE THE INDICATOR WINDOW TO CONFIRM TRANSFER.

GENERAL NOTES

1. SWITCH SHOWN DE–ENERGIZED AND CONNECTED TO THE SOURCE 1.
2. DEVICE SYMBOLS AND DESIGNATIONS ARE IN ACCORDANCE WITH NEMA PUBLICATION ICS 1–1983, PART 1–101A.
3. ALL WIRING IS #16 AWG, TINNED, STRANDED COPPER UNLESS OTHERWISE INDICATED.
4. O ON TERMINAL BLOCKS INDICATES AVAILABLE FIELD CONNECTION POINT.
5. ● ON TERMINAL BLOCKS INDICATES FACTORY CONNECTION POINT.
6. CONTROL AND ACCESSORY WIRING IS ROUTED IN ACCORDANCE WITH ASCO ASSEMBLY PROCEDURE GS451261.
7. AN OPERATOR'S MANUAL IS FURNISHED WITH EACH TRANSFER SWITCH. REFER TO THIS PUBLICATION PRIOR TO INSTALLATION AND OPERATION OF THE UNIT.

TECHNICAL DATA

AUXILIARY CONTACTS

AUXILIARY CONTACT	STATUS (*)	SWITCH POSITION (AUX) SOURCE 1	OFF	SOURCE 2
81–82	●			
83–84	●			
85–86	●			
87–88	●			
89–90	●			
91–92				
93–94	●			
101–102	●			
103–104	●			
105–106	●			
107–108	●			
109–110	●			
111–112	●			
113–114	●			
115–116				
117–118	●			
125–126	●			
127–128	●			

BASE CATALOG NUMBER					CATALOG NUMBER SUFFIXES			
TS FRAME	CATALOG TYPE	NEUTRAL TYPE	PHASE POLES	AMPS	VOLT CODE	CONTROLLER	OPTIONAL ACCESSORY	ENCLOSURE CODE
H	3MTS	A B	2	600 800 1000 1200	C D E F G H J K L M N P Q R	BLANK FOR 3MTS	0=NONE X=YES Z=SPECIAL	C M N S V
		BLANK FOR NONE						

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
BLANK	NONE			C	1	GENERAL PURPOSE, INDOOR
A	SOLID					
B	SWITCHING					(SECURE ENCLOSURES)
		C	208	M	3R	OUTDOOR, RAINPROOF, SLEET & ICE RESISTANT
		D	220	N	4	INDOOR/OUTDOOR, WATERTIGHT & DUSTTIGHT
		E	230	S	3RX	TYPE 3R PLUS CORROSION RESISTANCE (STAINLESS STEEL)
		F	240	V	4X	TYPE 4 PLUS CORROSION RESISTANCE (STAINLESS STEEL)
		G	277			
		H	380			
		J	400			
		K	415			
		L	440			
		M	460			
		N	480			
		P	550			
		Q	575			
		R	600			

CATALOG NUMBER _____
ASCO® CERTIFIED TO S.O. _____
BY _____
DATE _____
FORM REV –

REV.	ECN NO.	BY	APP.	DATE
A	271997 SEE ECN	NS	JPB	04/13/18
—	268581 ISSUE	NS	JPB	05/15/17

PROJECT NAME:
WIRING DIAGRAM
300 SERIES (H3MTS) 1PH 600–1200 AMPS
"H" FRAME, MANUALLY OPERATED TS

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	NS	05/15/17
CHECKED	JPB	05/15/17
PROJECT APPROVAL		
FINAL APPROVAL		

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP–1–003. FOR PLASTIC PARTS SEE MP–1–055
ASSEM. REF. NO.

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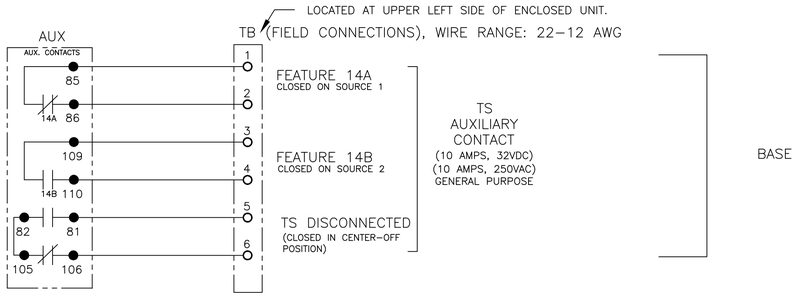
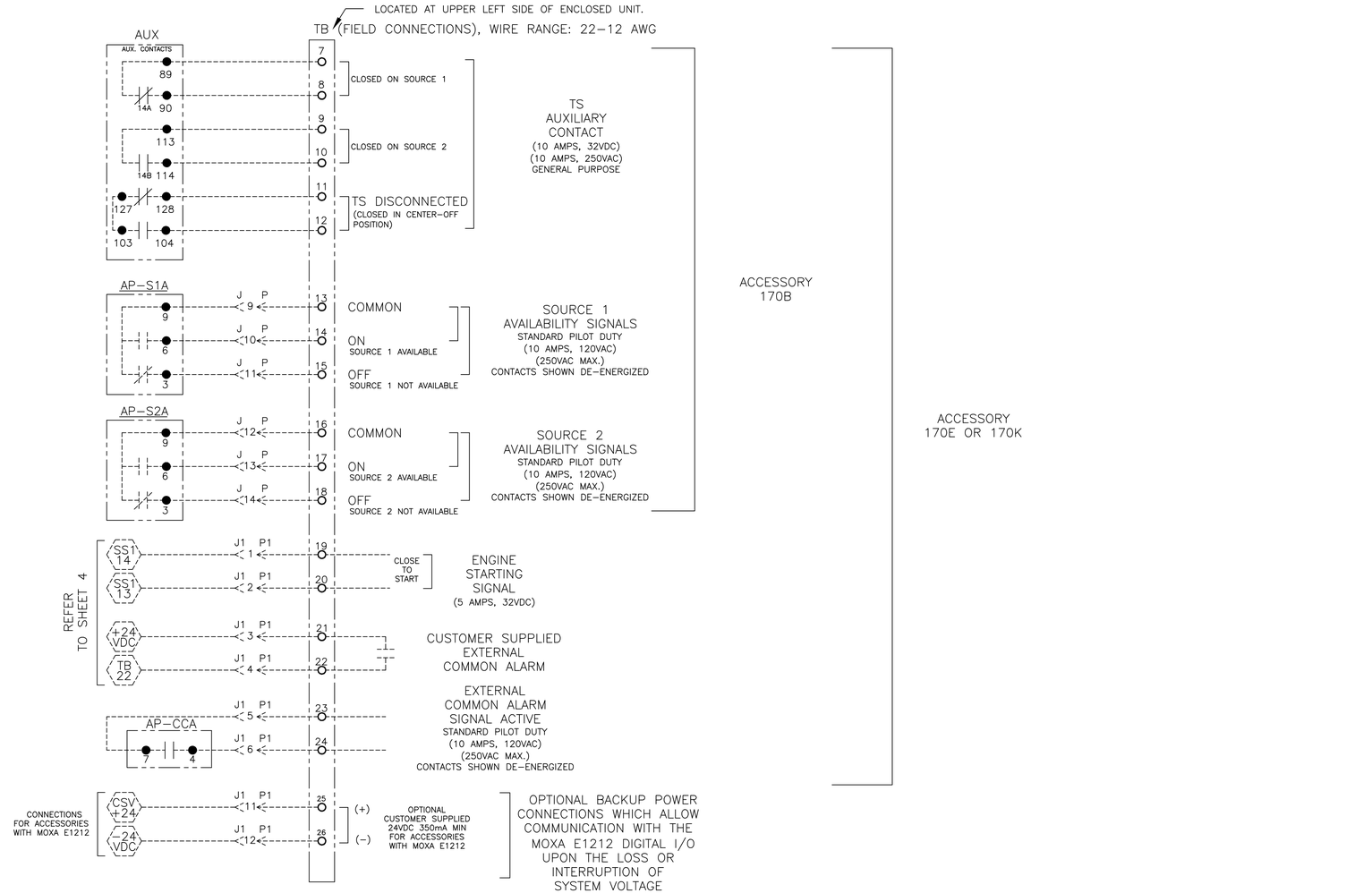
COMPUTER GENERATED DRAWING
SCALE 1:1 SIZE DS
DWG. NO. 1190033
DRAWING REV. A ECN NO. 271997 SHEET 1 OF 6

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

FIELD CONNECTIONS BASE



FIELD CONNECTIONS FOR OPTIONAL ACCESSORIES



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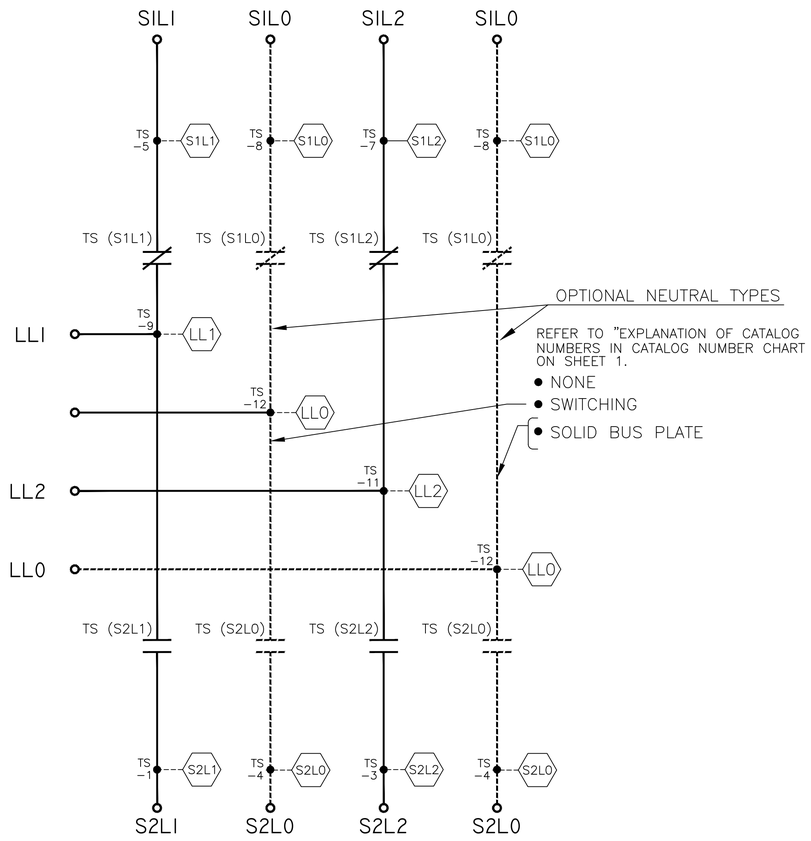
MAIN POWER POLES

SOURCE 1

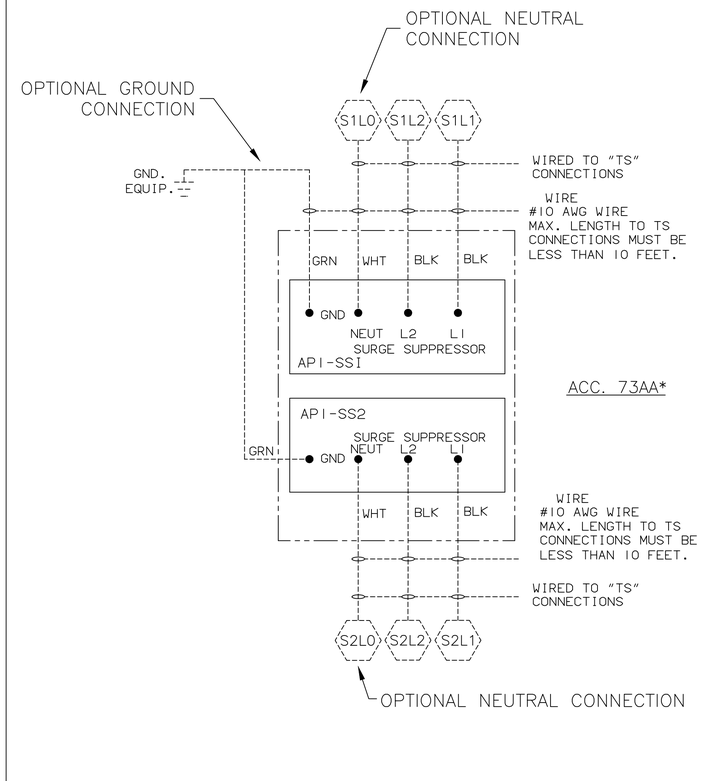


SOURCE 2

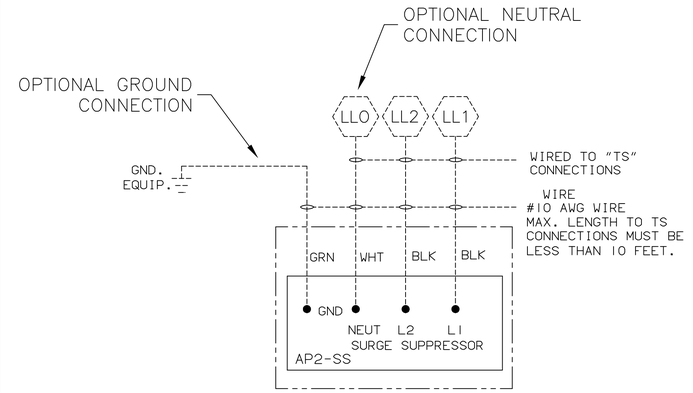
NOTE:
TS SHOWN CLOSED ON SOURCE 1.

OPTIONAL ACCESSORIES

73AA* SOURCE 1(SS1) & SOURCE 2(SS2)



73AA* LOAD (SS)



ACC. 73AA*

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FINAL APPROVAL		

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SCALE 1:1 SIZE DS

DWG. NO. 1190033

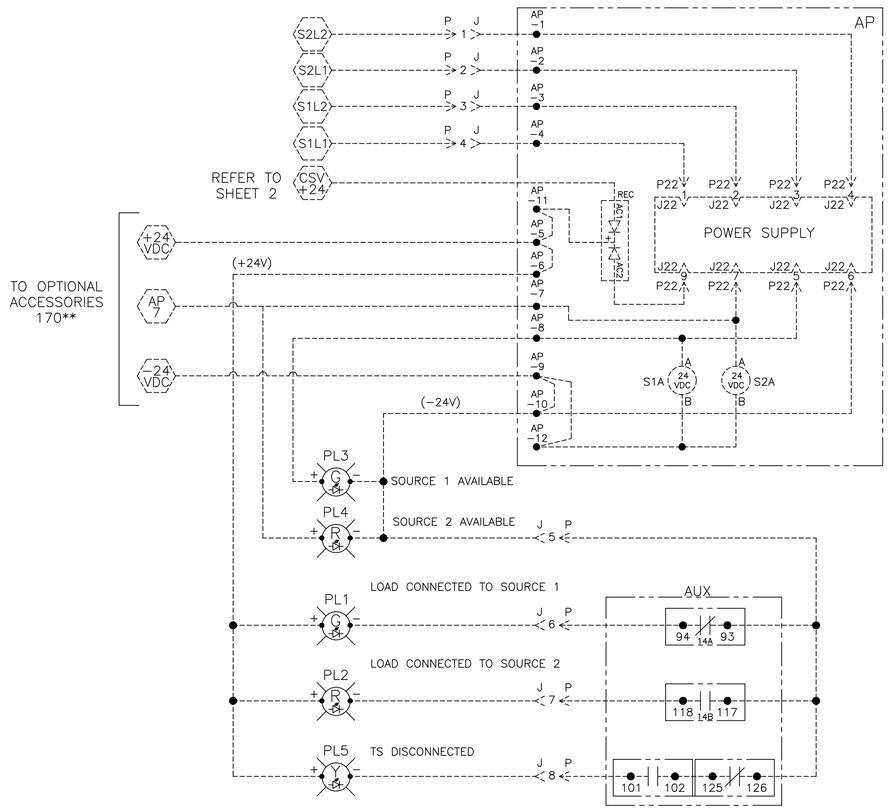
DRAWING REV. A ECN NO. 271997 SHEET 3 OF 6

OPTIONAL ACCESSORIES CONTINUED

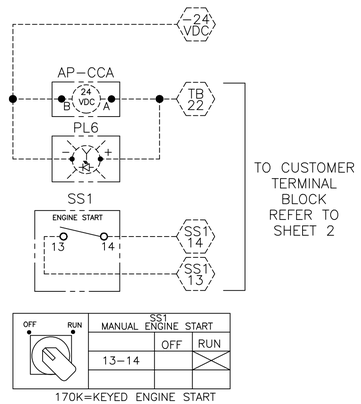
ACCESSORIES CIRCUIT MATRIX

ACCESSORY	CIRCUITS
170B(*)	170B
170E(*)	170B + 170E
170K(*)	170B + 170K
(*) = 1	+ 170*1

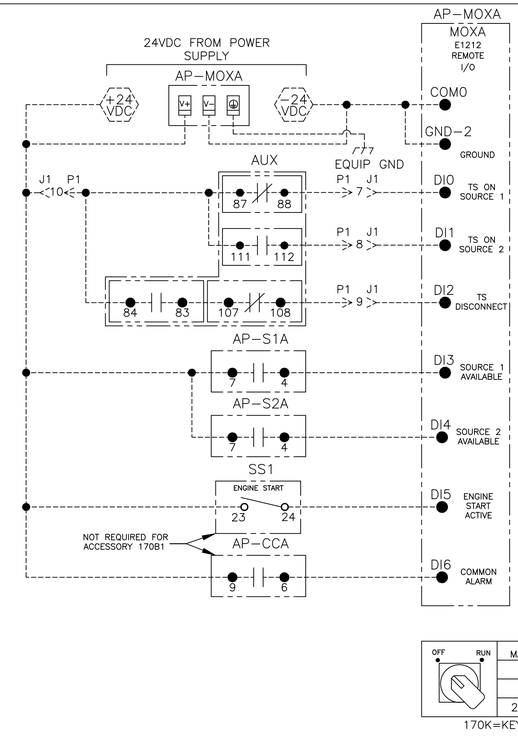
170B CIRCUIT



170E OR 170K CIRCUIT



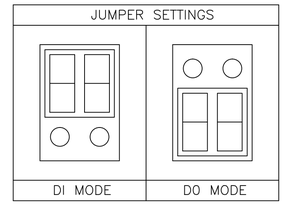
170*1 CIRCUIT

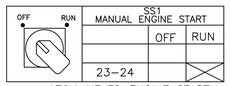


MOXA ioLogik E1212 WIRING NOTES:

DIO'S REQUIRE CONFIGURING THE JUMPERS INSIDE THE ENCLOSURE. REMOVE SCREW LOCATED ON THE BACK PANEL AND OPEN THE COVER TO CONFIGURE THE JUMPERS.

DEFAULT IS DO MODE





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		SEE ECN			
—		268581	NS	JPB	05/15/17
		ISSUE			

PROJECT NAME:

WIRING DIAGRAM

300 SERIES (H3MTS) 1PH 600-1200 AMPS
"H" FRAME, MANUALLY OPERATED TS

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	NS	05/15/17
CHECKED	JPB	05/15/17
PROJECT APPROVAL		
FINAL APPROVAL		

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-055

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SCALE 1:1 SIZE DS

DWG. NO. 1190033

DRAWING REV. A ECN NO. 271997 SHEET 4 OF 6

PHYSICAL DIAGRAM

ENCLOSURE

TB

FIELD SIDE

FACTORY SIDE

MOUNT BRACKET 779026 ON CORNER POST FOR FIELD TB

TS (TRANSFER SWITCH)
VIEW FROM INSIDE FRONT

LL1 LL0 LL2 LL0

STANDARD:
SOURCE 1 & LOAD OUT OF THE TOP AND SOURCE 2 OUT THE BOTTOM.

(AUX)

81 83 101 103 –
82 84 102 104 –
– – – – –

86 88 90 92 94
85 87 89 91 93

109 111 113 115 117
110 112 114 116 118

– – – – –
106 108 126 128 –
105 107 125 127 –

S1L1 [5] S1L0 [8] S1L2 [7] S1L0 [8]

LL1 [9] LL0 [12] LL2 [11] LL0 [12]

S2L1 [1] S2L0 [4] S2L2 [3] S2L0 [4]

OPTIONAL:
SOURCE 1 OUT OF THE TOP AND SOURCE 2 & LOAD OUT THE BOTTOM.

LL1 LL0 LL2 LL0

P J
P1 J1

1 2 3 4

DOOR HINGE

BONDING STRAP
PN 098323-019

DOOR, INSIDE

OPERATOR CONTROLS

PL5 PL2 PL1
SS1
PL6 PL4 PL3
5

OPTIONAL CONTROLS FOR ACC.. 170**

OPERATOR CONTROLS

ID	DESCRIPTION
SS1	MANUAL ENGINE START
PL1	LOAD CONNECTED TO SOURCE 1 (GREEN)
PL2	LOAD CONNECTED TO SOURCE 2 (RED)
PL3	SOURCE 1 AVAILABLE (GREEN)
PL4	SOURCE 2 AVAILABLE (RED)
PL5	TS DISCONNECTED (YELLOW)
PL6	EXTERNAL COMMON ALARM ACTIVE (YELLOW)

AP

PS

OPTIONAL ACCESSORY
ADD-ON PANEL
FOR INTERNAL WIRING
REFER TO DWG. 621600-387

REC

S1A 24VDC

S2A 24VDC

MOTOR

CCA 24VDC

AP1

OPTIONAL ACCESSORY
73A** (SS1 & SS2)
ADD-ON PANEL
MOUNTING
REFER TO DWG. 387200-931

ØC ØB ØA

SURGE SUPPRESSOR
SS1

GND. NEUT.

ØC ØB ØA

SURGE SUPPRESSOR
SS2

GND. NEUT.

AP2

OPTIONAL ACCESSORY
73A** (SS)
ADD-ON PANEL
MOUNTING
REFER TO DWG. 621600-018

ØC ØB ØA

SURGE SUPPRESSOR
SS

GND. NEUT.

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300 SERIES (H3MTS) 1PH 600-1200 AMPS
"H" FRAME, MANUALLY OPERATED TS

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	NS	05/15/17
CHECKED	BK	4/01
PROJECT APPROVAL	WK	4/01
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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SCALE 1:1 SIZE DS

DWG. NO. 1190033

DRAWING REV. A ECN NO. 271997 SHEET 5 OF 6

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WIRE RUN LISTING

BASE

◇1 ◄— HARNESS LOCATOR

WIRE No.	WIRING (TB, AUX)	CLR	AWG
1	TB-1,AUX-85		16
2	TB-2,AUX-86		
3	TB-3,AUX-109		
4	TB-4,AUX-110		
5	TB-5,AUX-81		
6	TB-6,AUX-106		
7	AUX-82,AUX-105		

170B

◇4 ◄— HARNESS LOCATOR

WIRE No.	JACK J	CLR	AWG
15	J-1,AP-1		16
16	J-2,AP-2		
17	J-3,AP-3		
18	J-4,AP-4		
19	J-5,AP-10		
20	J-6,PL1-(-)	BLK	22
21	J-7,PL2-(-)		
22	J-8,PL5-(-)		
23	J-9,AP-S1A-9		16
24	J-10,AP-S1A-6		
25	J-11,AP-S1A-3		
26	J-12,AP-S2A-9		
27	J-13,AP-S2A-6		
28	J-14,AP-S2A-3		

◇3 ◄— HARNESS LOCATOR

WIRE No.	PLUG P	CLR	AWG
15	P-1,TS-3		16
16	P-2,TS-1		
17	P-3,TS-7		
18	P-4,TS-5		
19	P-5,AUX-117		
20	P-6,AUX-94		
21	P-7,AUX-118		
22	P-8,AUX-101		
23	P-9,TB-13		
24	P-10,TB-14		
25	P-11,TB-15		
26	P-12,TB-16		
27	P-13,TB-17		
28	P-14,TB-18		

◇5 ◄— HARNESS LOCATOR

WIRE No.	WIRING (AP)	CLR	AWG
35	AP-6,PL1-(+)	RED	22
35	PL1-(+),PL2-(+)		
35	PL2-(+),PL5-(+)		
36	AP-7,PL4-(+)		
37	AP-8,PL3-(+)		
19	AP-10,PL3-(-)	BLK	
19	PL3-(-),PL4-(-)		

◇1 ◄— HARNESS LOCATOR

WIRE No.	WIRING (TB, AUX)	CLR	AWG
19	AUX-117,AUX-93		16
19	AUX-93,AUX-126		
47	AUX-102,AUX-125		
8	TB-7,AUX-89		
9	TB-8,AUX-90		
10	TB-9,AUX-113		
11	TB-10,AUX-114		
12	TB-11,AUX-128		
13	TB-12,AUX-104		
14	AUX-127,AUX-103		

170B1

◇4 ◄— HARNESS LOCATOR

WIRE No.	JACK J,J1	CLR	AWG
15	J-1,AP-1		16
16	J-2,AP-2		
17	J-3,AP-3		
18	J-4,AP-4		
19	J-5,AP-10		
20	J-6,PL1-(-)	BLK	22
21	J-7,PL2-(-)		
22	J-8,PL5-(-)		
23	J-9,AP-S1A-9		16
24	J-10,AP-S1A-6		
25	J-11,AP-S1A-3		
26	J-12,AP-S2A-9		
27	J-13,AP-S2A-6		
28	J-14,AP-S2A-3		
44	J1-7,AP-MOXA-DI0		
45	J1-8,AP-MOXA-DI1		
46	J1-9,AP-MOXA-DI2		
35	J1-10,AP-S1A-7		
500	J1-11,AP-REC-AC1		
19	J1-12,AP-12		

◇3 ◄— HARNESS LOCATOR

WIRE No.	PLUG P,P1	CLR	AWG
15	P-1,TS-3		16
16	P-2,TS-1		
17	P-3,TS-7		
18	P-4,TS-5		
19	P-5,AUX-117		
20	P-6,AUX-94		
21	P-7,AUX-118		
22	P-8,AUX-101		
23	P-9,TB-13		
24	P-10,TB-14		
25	P-11,TB-15		
26	P-12,TB-16		
27	P-13,TB-17		
28	P-14,TB-18		
44	P1-7,AUX-88		
45	P1-8,AUX-112		
46	P1-9,AUX-108		
35	P1-10,AUX-111		
500	P1-11,TB-25		
19	P1-12,TB-26		

◇1 ◄— HARNESS LOCATOR

WIRE No.	WIRING (TB, AUX)	CLR	AWG
19	AUX-117,AUX-93		16
19	AUX-93,AUX-126		
47	AUX-102,AUX-125		
35	AUX-111,AUX-87		
35	AUX-87,AUX-84		
64	AUX-83,AUX-107		
8	TB-7,AUX-89		
9	TB-8,AUX-90		
10	TB-9,AUX-113		
11	TB-10,AUX-114		
12	TB-11,AUX-128		
13	TB-12,AUX-104		
14	AUX-127,AUX-103		

◇5 ◄— HARNESS LOCATOR

WIRE No.	WIRING (AP)	CLR	AWG
35	AP-S1A-7,AP-S2A-7		16
35	AP-S2A-7,AP-MOXA-(V+)		
35	AP-MOXA-(V+),AP-5		
48	AP-S1A-4,AP-MOXA-DI3		
49	AP-S2A-4,AP-MOXA-DI4		
100	AP-MOXA-GND,EQUIP. GND		
19	AP-MOXA-(V-),AP-9		
19	AP-MOXA-(V-),AP-MOXA-COM0	BLK	22
19	AP-MOXA-COM0,AP-MOXA-GND-2		
35	AP-6,PL1-(+)	RED	
35	PL1-(+),PL2-(+)		
35	PL2-(+),PL5-(+)		
36	AP-7,PL4-(+)		
37	AP-8,PL3-(+)		
19	AP-10,PL3-(-)	BLK	
19	PL3-(-),PL4-(-)		

170E OR 170K

◇4 ◄— HARNESS LOCATOR

WIRE No.	JACK J,J1	CLR	AWG
15	J-1,AP-1		16
16	J-2,AP-2		
17	J-3,AP-3		
18	J-4,AP-4		
19	J-5,AP-10		
20	J-6,PL1-(-)	BLK	22
21	J-7,PL2-(-)		
22	J-8,PL5-(-)		
23	J-9,AP-S1A-9		16
24	J-10,AP-S1A-6		
25	J-11,AP-S1A-3		
26	J-12,AP-S2A-9		
27	J-13,AP-S2A-6		
28	J-14,AP-S2A-3		
38	J1-1,SS1-14	BLK	22
39	J1-2,SS1-13		
35	J1-3,AP-5		16
41	J1-4,AP-CCA-A		
42	J1-5,AP-CCA-7		
43	J1-6,AP-CCA-4		

◇3 ◄— HARNESS LOCATOR

WIRE No.	PLUG P,P1	CLR	AWG
15	P-1,TS-3		16
16	P-2,TS-1		
17	P-3,TS-7		
18	P-4,TS-5		
19	P-5,AUX-117		
20	P-6,AUX-94		
21	P-7,AUX-118		
22	P-8,AUX-101		
23	P-9,TB-13		
24	P-10,TB-14		
25	P-11,TB-15		
26	P-12,TB-16		
27	P-13,TB-17		
28	P-14,TB-18		
38	P1-1,TB-19		
39	P1-2,TB-20		
35	P1-3,TB-21		
41	P1-4,TB-22		
42	P1-5,TB-23		
43	P1-6,TB-24		

◇1 ◄— HARNESS LOCATOR

WIRE No.	WIRING (TB, AUX)	CLR	AWG
19	AUX-117,AUX-93		16
19	AUX-93,AUX-126		
47	AUX-102,AUX-125		
8	TB-7,AUX-89		
9	TB-8,AUX-90		
10	TB-9,AUX-113		
11	TB-10,AUX-114		
12	TB-11,AUX-128		
13	TB-12,AUX-104		
14	AUX-127,AUX-103		

◇5 ◄— HARNESS LOCATOR

WIRE No.	WIRING (AP)	CLR	AWG
35	AP-6,PL1-(+)	RED	22
35	PL1-(+),PL2-(+)		
35	PL2-(+),PL5-(+)		
36	AP-7,PL4-(+)		
37	AP-8,PL3-(+)		
19	AP-10,PL3-(-)	BLK	
19	PL3-(-),PL4-(-)		
41	AP-CCA-A,PL6-(+)	RED	
19	AP-CCA-B,PL6-(-)	BLK	
19	AP-CCA-B,AP-9		16

170E1 OR 170K1

◇4 ◄— HARNESS LOCATOR

WIRE No.	JACK J,J1	CLR	AWG
15	J-1,AP-1		16
16	J-2,AP-2		
17	J-3,AP-3		
18	J-4,AP-4		
19	J-5,AP-10		
20	J-6,PL1-(-)	BLK	22
21	J-7,PL2-(-)		
22	J-8,PL5-(-)		
23	J-9,AP-S1A-9		16
24	J-10,AP-S1A-6		
25	J-11,AP-S1A-3		
26	J-12,AP-S2A-9		
27	J-13,AP-S2A-6		
28	J-14,AP-S2A-3		
38	J1-1,SS1-14	BLK	22
39	J1-2,SS1-13		
35	J1-3,AP-5		16
41	J1-4,AP-CCA-A		
42	J1-5,AP-CCA-7		
43	J1-6,AP-CCA-4		
44	J1-7,AP-MOXA-DI0		
45	J1-8,AP-MOXA-DI1		
46	J1-9,AP-MOXA-DI2		
35	J1-10,AP-S1A-7		
500	J1-11,AP-REC-AC1		
19	J1-12,AP-12		

◇3 ◄— HARNESS LOCATOR

WIRE No.	PLUG P,P1	CLR	AWG
15	P-1,TS-3		16
16	P-2,TS-1		
17	P-3,TS-7		
18	P-4,TS-5		
19	P-5,AUX-117		
20	P-6,AUX-94		
21	P-7,AUX-118		
22	P-8,AUX-101		
23	P-9,TB-13		
24	P-10,TB-14		
25	P-11,TB-15		
26	P-12,TB-16		
27	P-13,TB-17		
28	P-14,TB-18		
38	P1-1,TB-19		
39	P1-2,TB-20		
35	P1-3,TB-21		
41	P1-4,TB-22		
42	P1-5,TB-23		
43	P1-6,TB-24		
44	P1-7,AUX-88		
45	P1-8,AUX-112		
46	P1-9,AUX-108		
35	P1-10,AUX-111		
500	P1-11,TB-25		
19	P1-12,TB-26		

◇5 ◄— HARNESS LOCATOR

WIRE No.	WIRING (AP)	CLR	AWG
35	AP-S1A-7,AP-S2A-7		16
35	AP-S2A-7,AP-MOXA-(V+)		
35	AP-MOXA-(V+),AP-5		
48	AP-S1A-4,AP-MOXA-DI3		
49	AP-S2A-4,AP-MOXA-DI4		
100	AP-MOXA-GND,EQUIP. GND		
19	AP-MOXA-(V-),AP-9		
19	AP-MOXA-(V-),AP-MOXA-COM0	BLK	22
19	AP-MOXA-COM0,AP-MOXA-GND-2		
35	AP-6,PL1-(+)	RED	
35	PL1-(+),PL2-(+)		
35	PL2-(+),PL5-(+)		
36	AP-7,PL4-(+)		
37	AP-8,PL3-(+)		
19	AP-10,PL3-(-)	BLK	
19	PL3-(-),PL4-(-)		
41	AP-CCA-A,PL6-(+)	RED	
19	AP-CCA-B,PL6-(-)	BLK	
35	SS1-23,AP-CCA-9		
19	AP-CCA-B,AP-9		16
35	AP-CCA-9,AP-11		
50	AP-CCA-6,AP-MOXA-DI6		

◇1 ◄— HARNESS LOCATOR

WIRE No.	WIRING (TB, AUX)	CLR	AWG
19	AUX-117,AUX-93		16
19	AUX-93,AUX-126		
47	AUX-102,AUX-125		
35	AUX-111,AUX-87		
35	AUX-87,AUX-84		
64	AUX-83,AUX-107		
8	TB-7,AUX-89		
9	TB-8,AUX-90		
10	TB-9,AUX-113		
11	TB-10,AUX-114		
12	TB-11,AUX-128		
13	TB-12,AUX-104		
14	AUX-127,AUX-103		

73AA* (SS)-LOAD

◇2 ◄— HARNESS LOCATOR

WIRE No.	WIRING SS	CLR	AWG
200	AP2-SS-L1,TS-9	BLK	10
201	AP2-SS-L2,TS-11	BLK	
	OPTIONAL GROUND CONNECTION		
400	AP2-SS-GND,EQUIP. GND	GRN	
	OPTIONAL NEUTRAL CONNECTION		
204	AP2-SS-NEUT,TS-12	WHT	

73AA* (SS1) & (SS2)

◇2 ◄— HARNESS LOCATOR

WIRE No.	WIRING SS1	CLR	AWG
300	AP1-SS1-L1,TS-5	BLK	10
301	AP1-SS1-L2,TS-7	BLK	
	OPTIONAL GROUND CONNECTION		
400	AP1-SS1-GND,EQUIP. GND	GRN	
	OPTIONAL NEUTRAL CONNECTION		
304	AP1-SS1-NEUT,TS-8	WHT	

◇2 ◄— HARNESS LOCATOR

WIRE No.	WIRING SS2	CLR	AWG
16	AP1-SS2-L1,TS-1	BLK	10
61	AP1-SS2-L2,TS-3	BLK	
	OPTIONAL GROUND CONNECTION		
400	AP1-SS2-GND,EQUIP. GND	GRN	
	OPTIONAL NEUTRAL CONNECTION		
205	AP1-SS2-NEUT,TS-4	WHT	

REV.	REV. TO SHEET	ECN NO.	BY	APP.	DATE
A		271997	NS	JPB	04/13/18
		SEE ECN			
—		268581	NS	JPB	05/15/17
		ISSUE			

PROJECT NAME:

WIRING DIAGRAM

300 SERIES (H3MTS) 1PH 600-1200 AMPS
"H" FRAME, MANUALLY OPERATED TS

THIRD ANGLE PROJECTION

	BY	DATE
DRAWN BY	NS	05/15/17
CHECKED	JPB	05/15/17
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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COMPUTER GENERATED DRAWING

SCALE 1:1 SIZE DS

DWG. NO. 1190033

DRAWING REV. A ECN NO. 271997 SHEET 6 OF 6

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