

60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL (BB) 30 A, (AA) 15 A CIRCUITS

ECS-5121-<sup>30 A
CIRCUITS</sup>BB-<sup>15 A
CIRCUITS</sup>AA-<sup>XFMR
TYPE</sup>TT

MAIN CIRCUIT BREAKER SETTINGS E104DISC

ETU350 LSI
3VA6110-6HN31-....
 $I_i = 1200A$

☐ ACT
☐ AL1
☐ AL2

I_r/A		t_{ld}/s	$I_{sd} = xI_r$		t_{sd}/s
75	80	3	3.5	4	0.08
70	85	2	8	5	0.15
60	90	1	2.5	6	0.22
50	95	0.75	2	8	0.3
40	100	0.5	1.5	10	0.4

SET: $I_r/A = 60 A$ $t_{ld}/s = 8 s$ $I_{sd} = xI_r = 8$ $t_{sd}/s = 0.15 s$

APPLICATION NOTES:

1. TT IS THE TRANSFORMER TYPE
(TT = 00 NO TRANSFORMER)
(TT = 02 FOR NORTH AMERICA 480V)
(TT = 03 FOR NON-NA REGIONS 380/400/416/440V)
(TT = 04 FOR NON-NA REGIONS 380/416/440/480V)
2. AA IS THE NUMBER OF 15 A THERMOMAGNETIC TRIP BRANCH CIRCUITS.
3. BB IS THE NUMBER OF 30 A THERMOMAGNETIC TRIP BRANCH CIRCUITS.
4. THE FOLLOWING RULES FOR BRANCH CIRCUITS MUST BE OBSERVED:
(AA + BB <= 4)
5. EXAMPLE PART NUMBER: ECS-5121-04-00-02 (THIS ECS WOULD CONTAIN (4) 30 A BRANCH CIRCUIT BREAKERS AND HAVE THE NA 480 V TRANSFORMER OPTION).
6. THIS PANEL IS FOR USE WITH WITH ETHERNET IO ONLY. THERE ARE NO PROVISIONS FOR DEVICENET IN THIS PANEL.
7. THIS PANEL DOES NOT INCLUDE ANY PLC OR ETHERNET MODULES, THESE MUST BE PURCHASED SEPARATELY ON THE APPLICATION WD.

(A) (B)

LAST PART SELECTED WITH : GM_ePartsDB_202106

DRAWING PACKAGE REVISION LEVEL: B

REFERENCE USED:		ENG. MGR:	
		NONE REQUIRED	
SYSTEM/TOOL NO:	RELEASE DATE:	REVISION LETTER:	SECTION LETTER:
	2020-03-31	B	A
DRAWING NUMBER:	DATE:		
ECS-5121-BB-AA-TT	2021-09-24		
			SHEET NUMBER:
			1 OF 3



GM - STANDARD

GM ENGINEER:
HARDWARE
TEAM

DESIGN SOURCE:

DESIGN LEADER:
GREG
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL

SHEET DESCRIPTION: (BB) 30 A, (AA) 15 A CIRCUITS
TITLE AND REFERENCE SHEET

SYSTEM/TOOL NO:

RELEASE DATE:
2020-03-31

REVISION LETTER:
B

DATE:
2021-09-24

SECTION LETTER:
A

SHEET NUMBER:
1 OF 3

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STATUS: RELEASED

PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2021-09-24

EPLAN VERSION: 2.7.3

SECTION	REV	SHEET	DESCRIPTION
A	REFERENCE	B 1	TITLE AND REFERENCE SHEET
		B 2	TABLE OF CONTENTS
		B 3	REVISION SUMMARY SHEET
C	INTERCONNECT	1	INTERCONNECT
E	MAGNETICS	1	380 - 500 VAC POWER DISTRIBUTION
		2	380 - 500 VAC POWER DISTRIBUTION
		3	380 - 500 VAC POWER DISTRIBUTION
		4	120 VAC POWER ABOVE DISCONNECT
		5	120 VAC POWER BELOW DISCONNECT
		6	24 VDC POWER ABOVE DISCONNECT
		7	24 VDC POWER BELOW DISCONNECT
F	I/O	1	CHASSIS 1 I/O SLOTS 0 - 1
		2	CHASSIS 1 I/O SLOTS 2 - 3
X	ENCLOSURE	B 1	ENCLOSURE LAYOUT - FRONT
		A 2	ENCLOSURE LAYOUT - SIDE
		B 3	ENCLOSURE LAYOUT - TOP AND INSIDE BOTTOM
		B 4	TAG DETAILS
		B 5	TAG DETAILS
		6	SUBPLATE DETAIL
		B 7	SUBPLATE LAYOUT
		B 8	SUBPLATE DETAIL VIEW
		9	SUBPLATE DETAIL VIEW
		10	RECEPTACLE PIN CHART
		A 11	ENCLOSURE FOOTPRINT
YA	BILL OF MATERIAL	B 1	BOM CHANGE SHEET: ECS-5121-BB-AA-TT-BOM (BASE BOM)
		B 2	ECS-5121-BB-AA-TT-BOM (BASE BOM)
		B 3	ECS-5121-BB-AA-TT-BOM (BASE BOM)
		B 4	ECS-5121-BB-AA-TT-BOM (BASE BOM)
YB	VARIABLE BOM	1	BOM CHANGE SHEET: ECS-5121-BB-AA-TT-BOM (AA OPTION)
		2	ECS-5121-BB-AA-TT-BOM (AA OPTION)
YC	VARIABLE BOM	1	BOM CHANGE SHEET: ECS-5121-BB-AA-TT-BOM (BB OPTION)
		2	ECS-5121-BB-AA-TT-BOM (BB OPTION)
YD	VARIABLE BOM	1	BOM CHANGE SHEET: ECS-5121-BB-AA-TT-BOM (TT OPTION)
		2	ECS-5121-BB-AA-TT-BOM (TT OPTION)
YZ	DEVICE LIST	B 1	DEVICE LIST
		B 2	DEVICE LIST
		B 3	DEVICE LIST

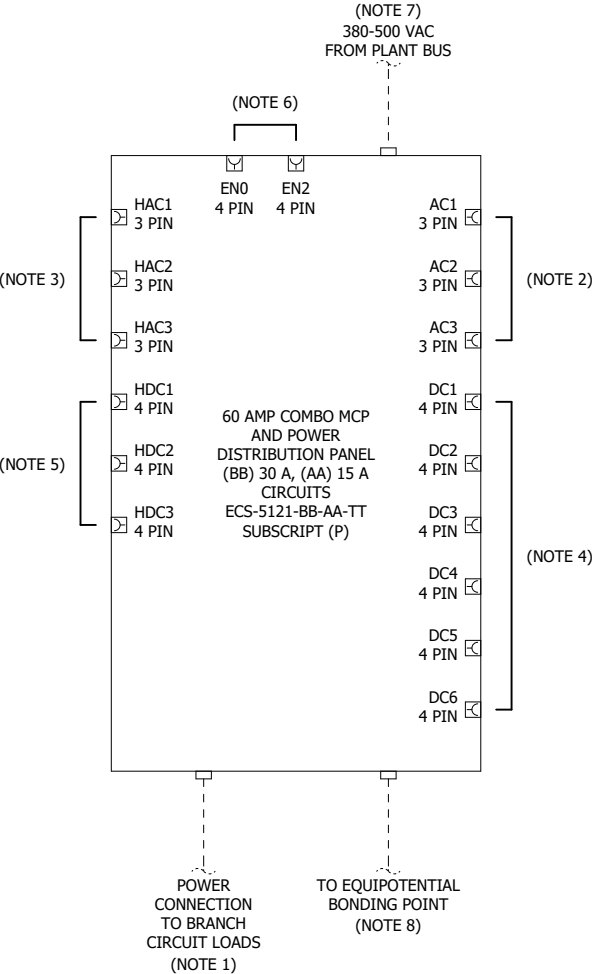
SECTION	REV	SHEET	DESCRIPTION
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REV	SHEET AFFECTED	CHANGE DESCRIPTION	DATE	CHANGE CODE	CHANGED BY
A	A1	- DRAWING PACKAGE REVISION LEVEL WAS REL. - LAST PART SELECTED WITH WAS GM_EPARTSDB_202003.	2021-01-12	C	DB
	A2	- UPDATED TABLE OF CONTENTS TO REVISION A.			
	A3	- SHEET DESCRIPTION WAS MASTER CHANGE SHEET. - UPDATED TO REVISION A.			
	X1	- AVT HOLE DIMENSION WAS 240 MM FROM TOP OF ENCLOSURE. - REPOSITIONED THE DOOR TAGS ON RIGHT CORNER OF DOOR TO MOVE AVT TAG.			
	X2	- UPDATED THE DISCONNECT HANDLE.			
	X7	- UPDATED AVT HOLE LOCATION ON ENCLOSURE.			
	X8	- UPDATED AVT HOLE LOCATION ON ENCLOSURE.			
	X11	- UPDATED AVT HOLE LOCATION ON ENCLOSURE.			
B	A1	- UPDATED DRAWING PACKAGE TO REV B - UPDATED PART DATABASE TO GM_EPARTSDB_202106	2021-09-24	C	SK
	A2	- UPDATED DRAWING PACKAGE TO REV B			
	A3	- UPDATED DRAWING PACKAGE TO REV B			
	X1	- LABEL TEXT CHANGED FROM WARNING TO DANGER - ADDED HOT SURFACE WARNING LABELS			
	X3	- LABEL TEXT CHANGED FROM WARNING TO CAUTION			
	X4	- LABEL TEXT CHANGED FROM WARNING TO DANGER			
	X5	- UPDATED TORQUE VALUES FOR PE LUG LINE SIDE TERMINAL			
	X7	- PE LUG TERMINAL DIMENSIONS HAS BEEN CHANGED. WIDTH 20.5MM TO 18.5MM AND HEIGHT 75MM TO 71MM.			
	X8	- PE LUG TERMINAL DIMENSIONS HAS BEEN CHANGED. WIDTH 20.5MM TO 18.5MM AND HEIGHT 75MM TO 71MM.			

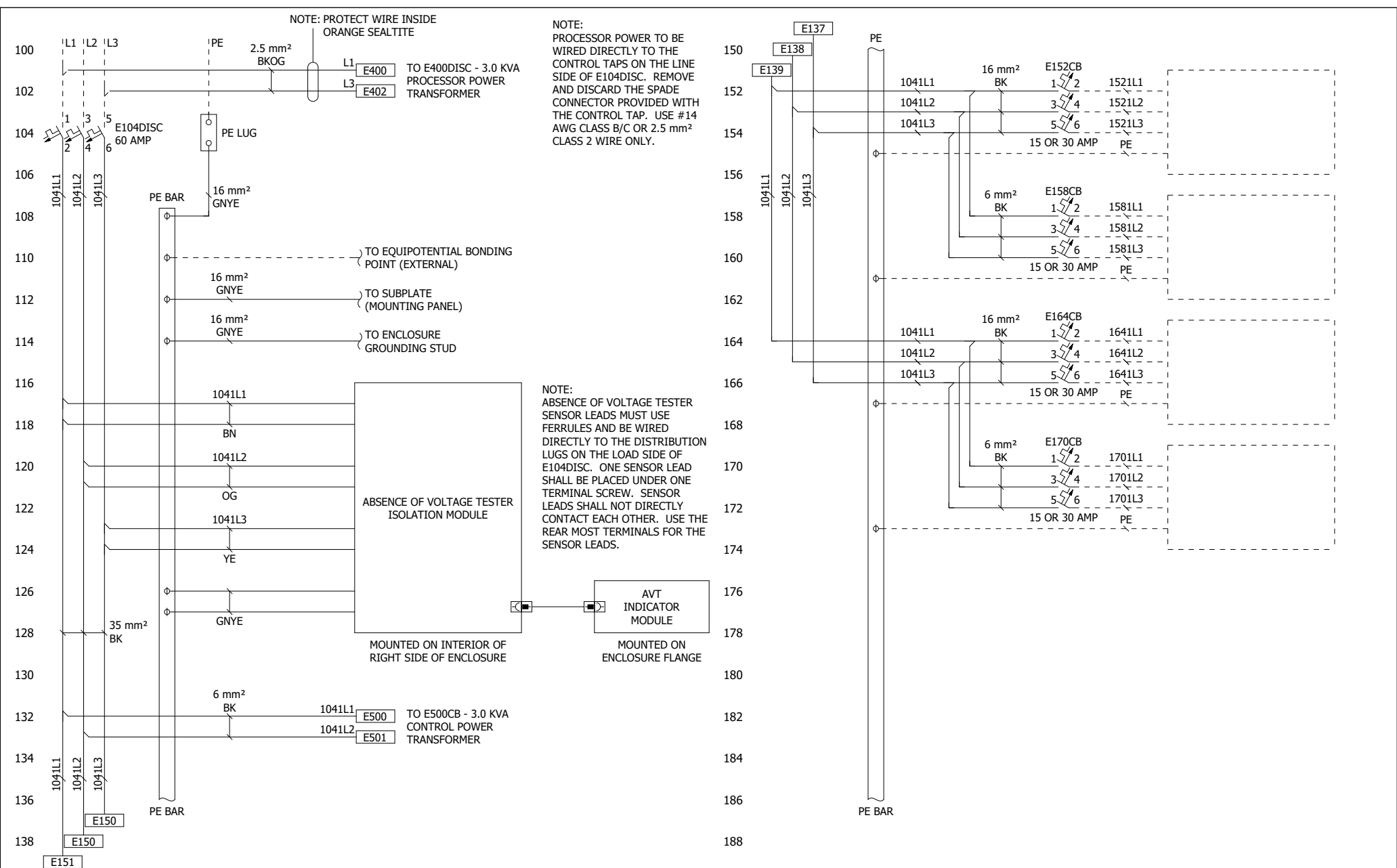
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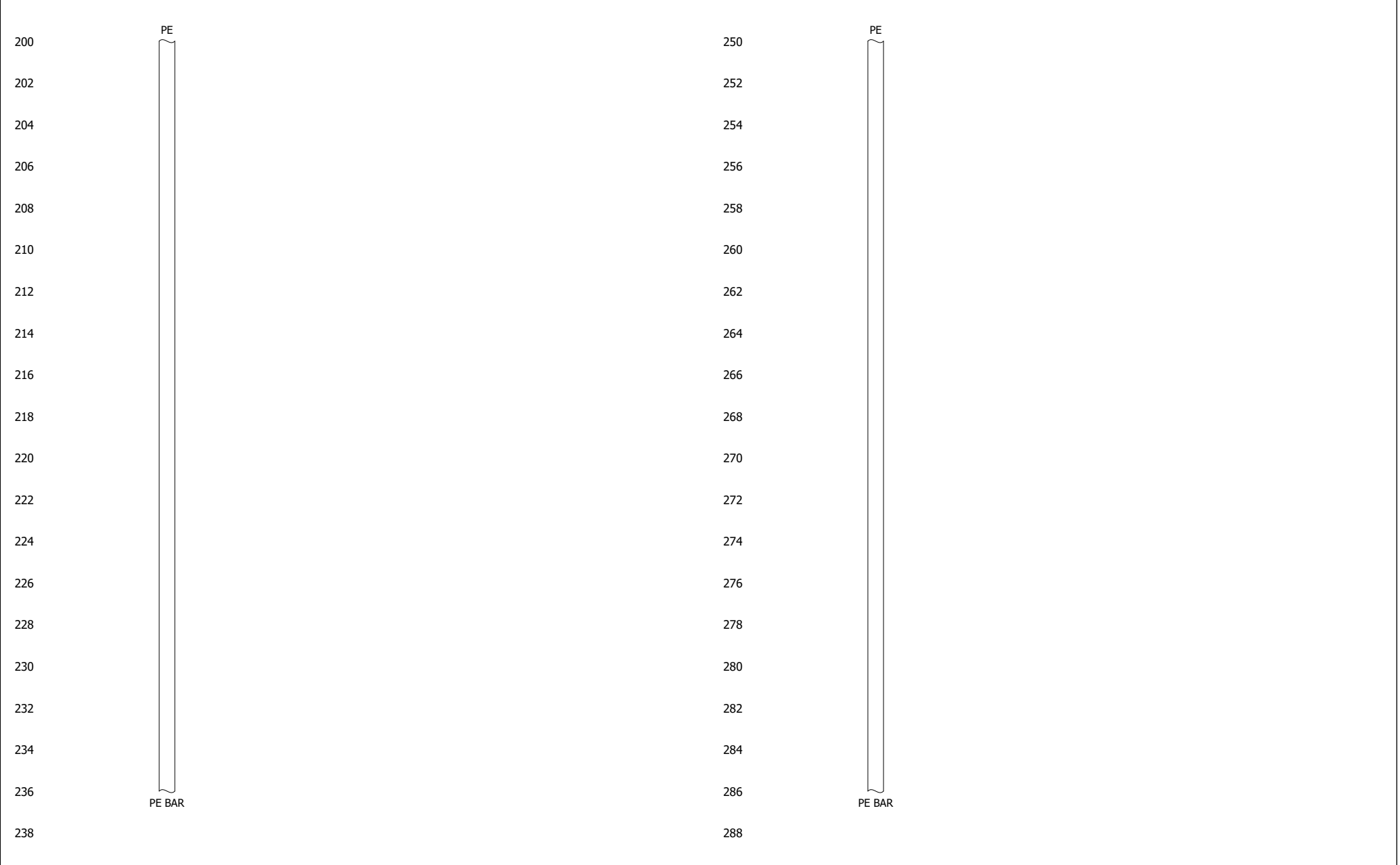
CHANGE CODE	
PR	PRODUCT CHANGE
R	PLANT REQUEST
MP	MECHANICAL PROCESS CHANGE
CP	CONTROL PROCESS CHANGE
M	MECHANICAL DESIGN CHANGE
C	CONTROL DESIGN CHANGE
F	FLOOR AND BUILD CHANGE


- NOTES:
- 1. THIS ENCLOSURE SUPPORTS UP TO (4) 15 OR 30 A BRANCH CIRCUITS.
 - 2. USE ACx RECEPTACLES TO FEED 120 VAC TO PANELS AND DEVICES REQUIRING AC POWER.
 - 3. USE HACx RECEPTACLES TO FEED 120 VAC TO PANELS AND DEVICES REQUIRING "HOT" AC POWER.
 - 4. USE DC RECEPTACLES TO FEED 24 VDC TO PANELS AND DEVICES REQUIRING DC POWER.
 - 5. USE HDCx RECEPTACLES TO FEED 24 VDC TO PANELS AND DEVICES REQUIRING "HOT" DC POWER.
 - 6. USE ENx RECEPTACLES FOR ETHERNET CONNECTIONS TO LOGIX MODULES. 'x' REFERS TO THE SLOT NUMBER IN THE LOGIX CHASSIS.
- REFER TO THE APPLICATION WD TO DETERMINE LOGIX MODULES PRESENT IN THIS ENCLOSURE.
- 7. USE ONLY WIRE SIZE AND STRAND CLASS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. REMOVE INSULATION FROM WIRE AND TORQUE TERMINALS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - 8. EQUIPOTENTIAL BONDING CONNECTION REQUIRED. REFERENCE APPLICATION WD.
 - 9. COVERS ARE REQUIRED FOR UNUSED RECEPTACLES. THESE COVERS ARE NOT INCLUDED WITH THIS ENCLOSURE.

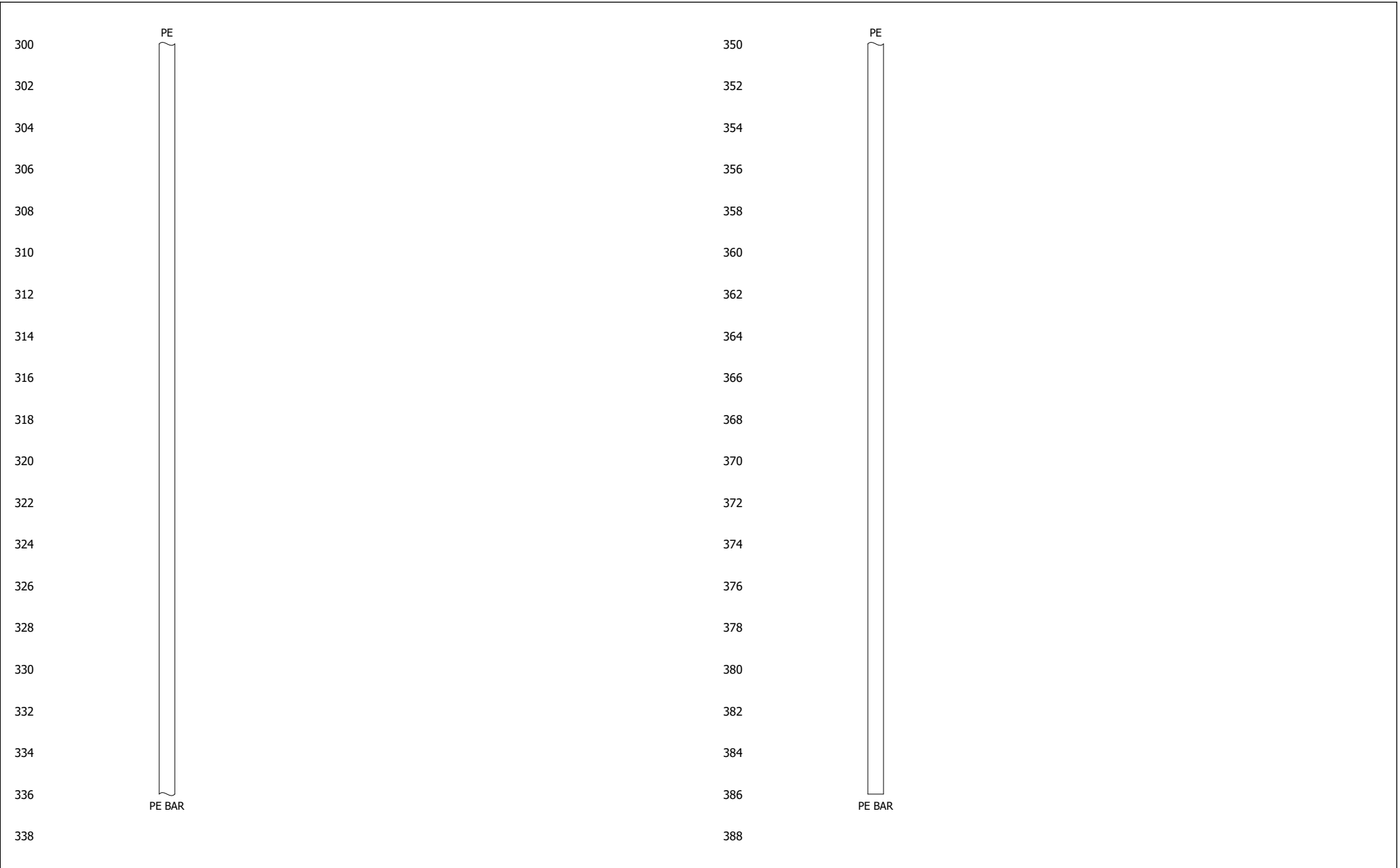



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		HARDWARE TEAM		GREG DOPPKE		SHEET DESCRIPTION:	INTERCONNECT	DRAWING NUMBER:	2020-03-31				DATE:
						THIS MATERIAL IS THE PROPERTY OF GENERAL MOTORS CORPORATION. NO RIGHTS ARE GRANTED TO USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES.							ECS-5121-BB-AA-TT
STATUS: RELEASED						PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)				SAVE DATE: 2020-03-30		EPLAN VERSION: 2.7.3	

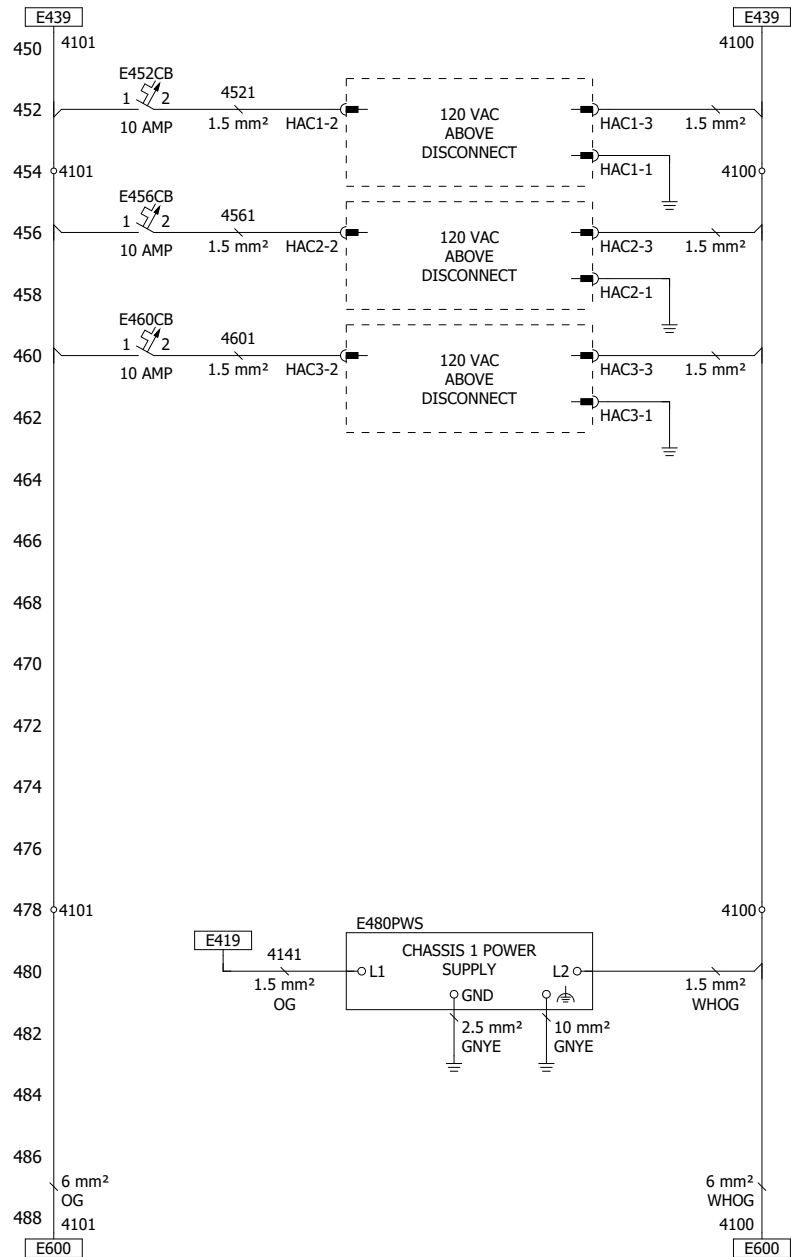
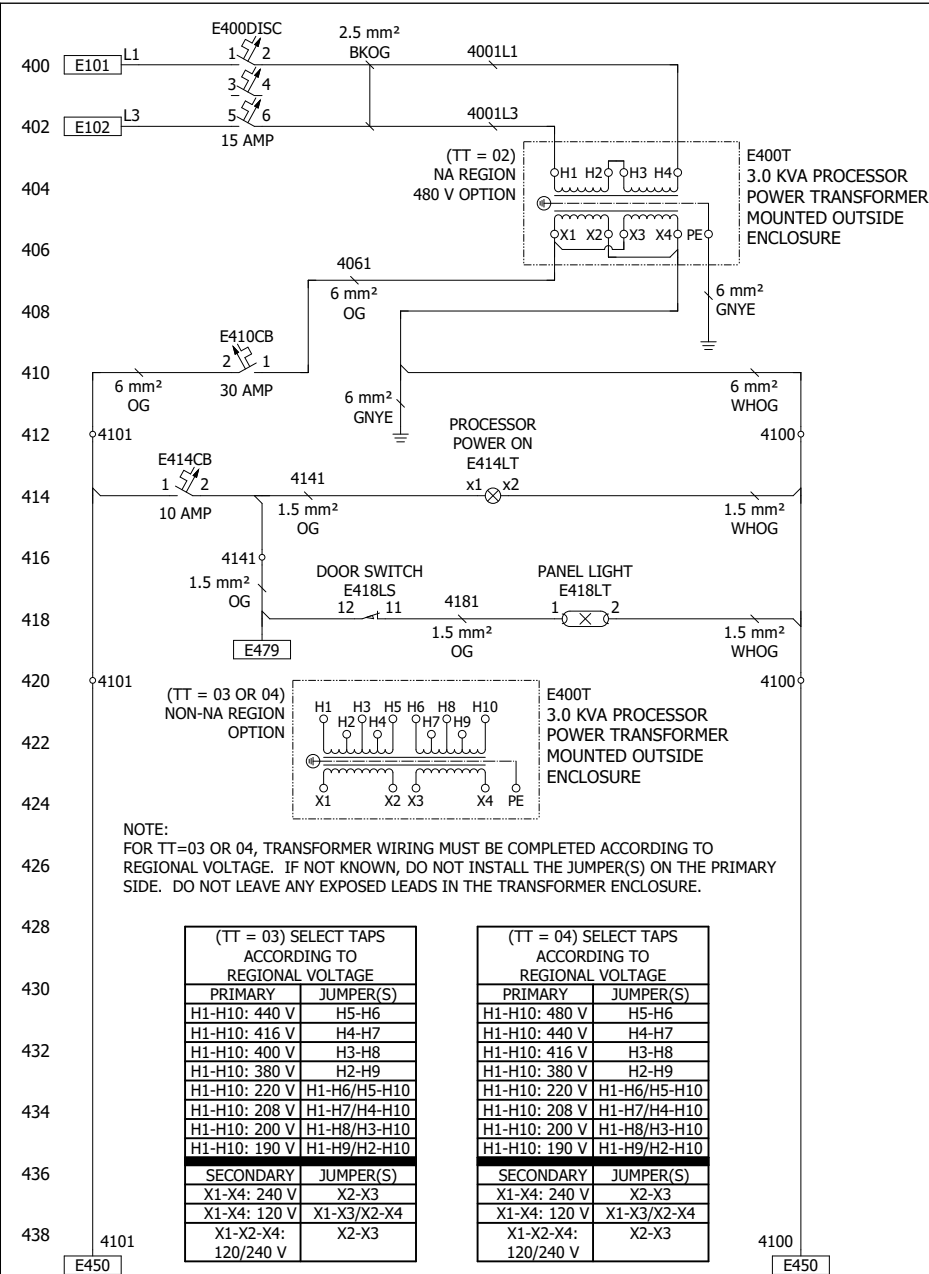


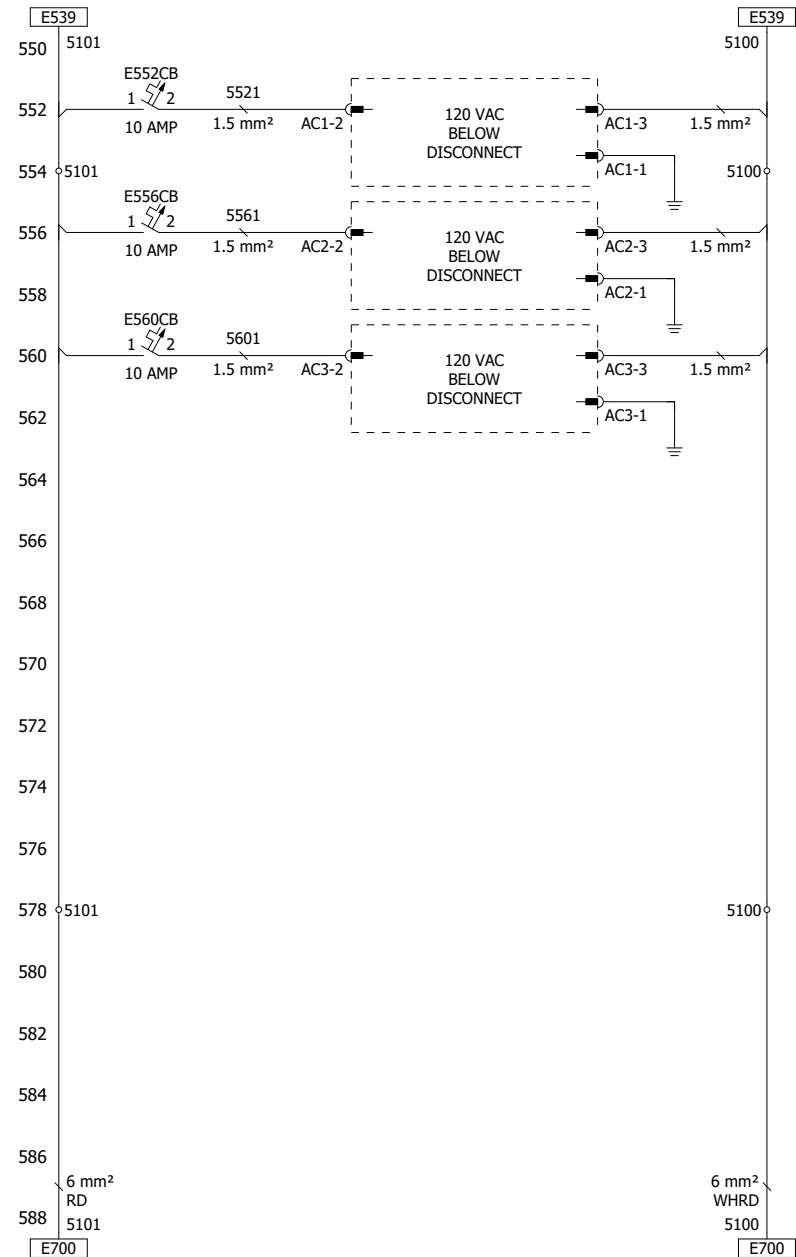
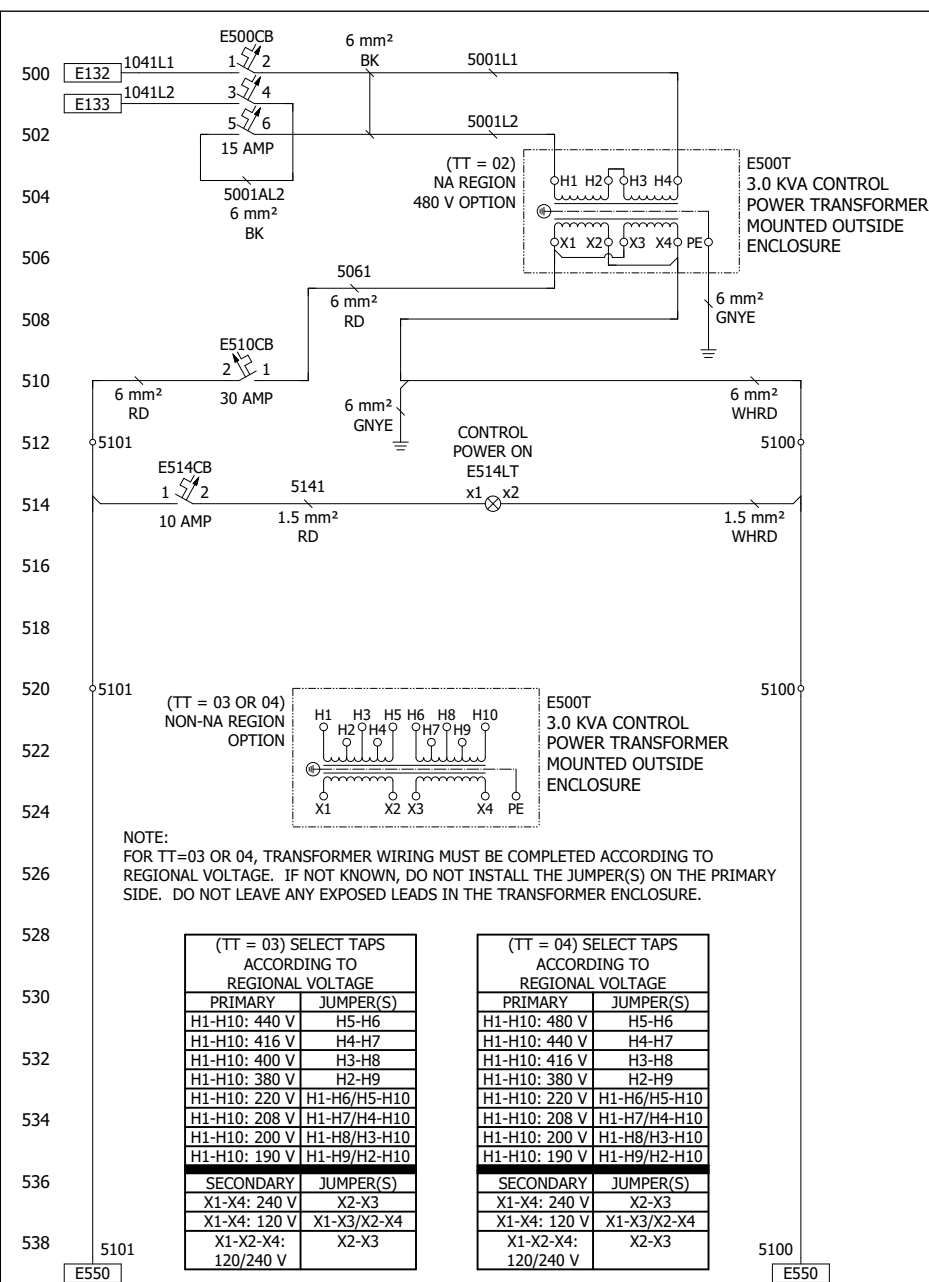


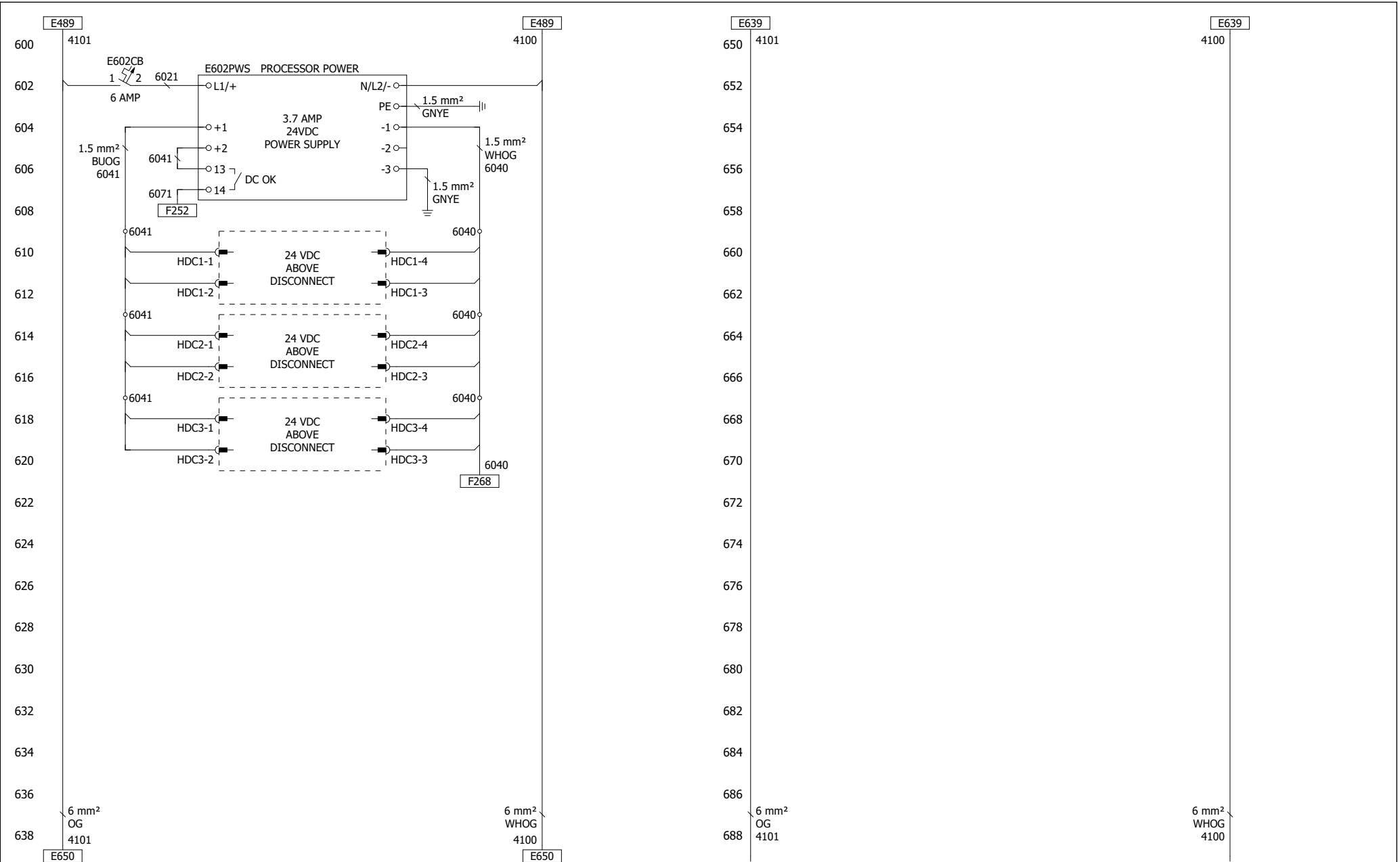
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		HARDWARE TEAM		GREG DOPPKE		SHEET DESCRIPTION:	380 - 500 VAC POWER DISTRIBUTION	DRAWING NUMBER:	ECS-5121-BB-AA-TT				DATE:
THIS MATERIAL IS THE PROPERTY OF GENERAL MOTORS CORPORATION. NO RIGHTS ARE GRANTED TO USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES.													
STATUS: RELEASED						PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)				SAVE DATE: 2020-02-25		EPLAN VERSION: 2.7.3	



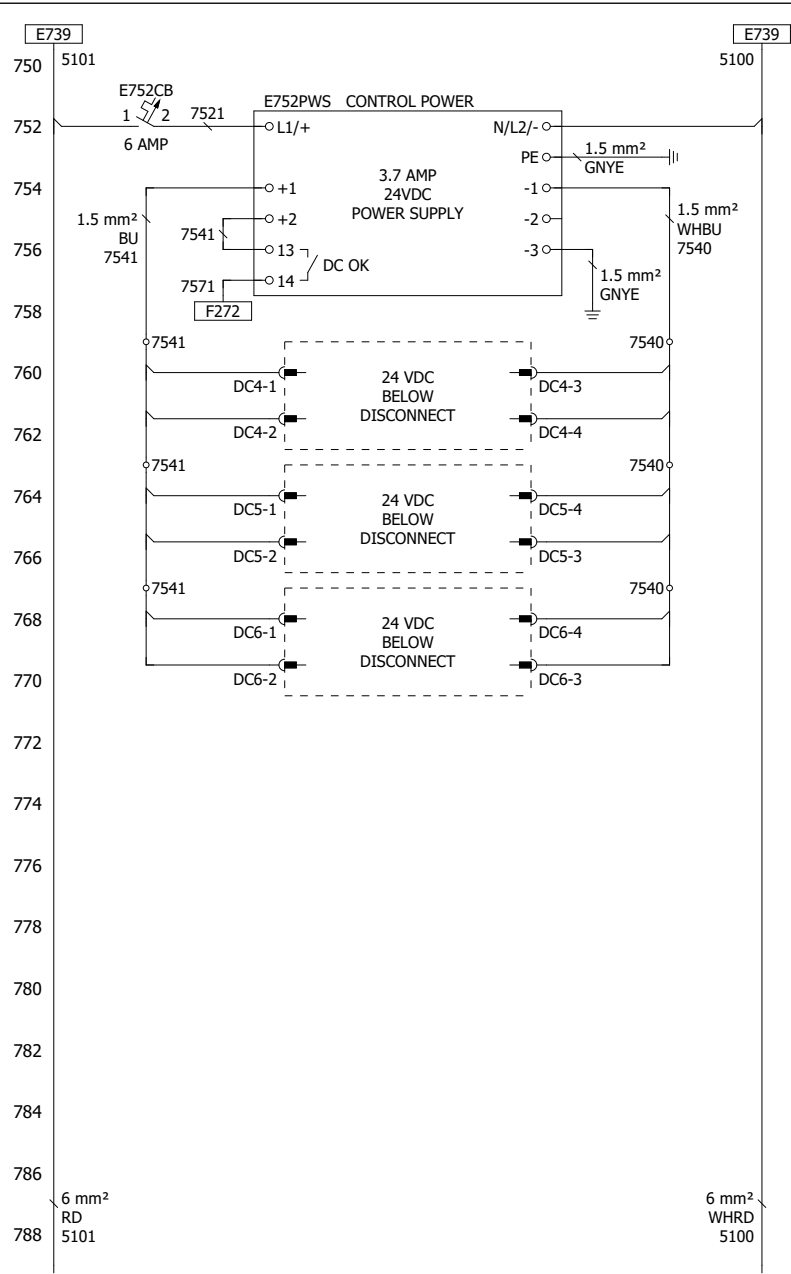
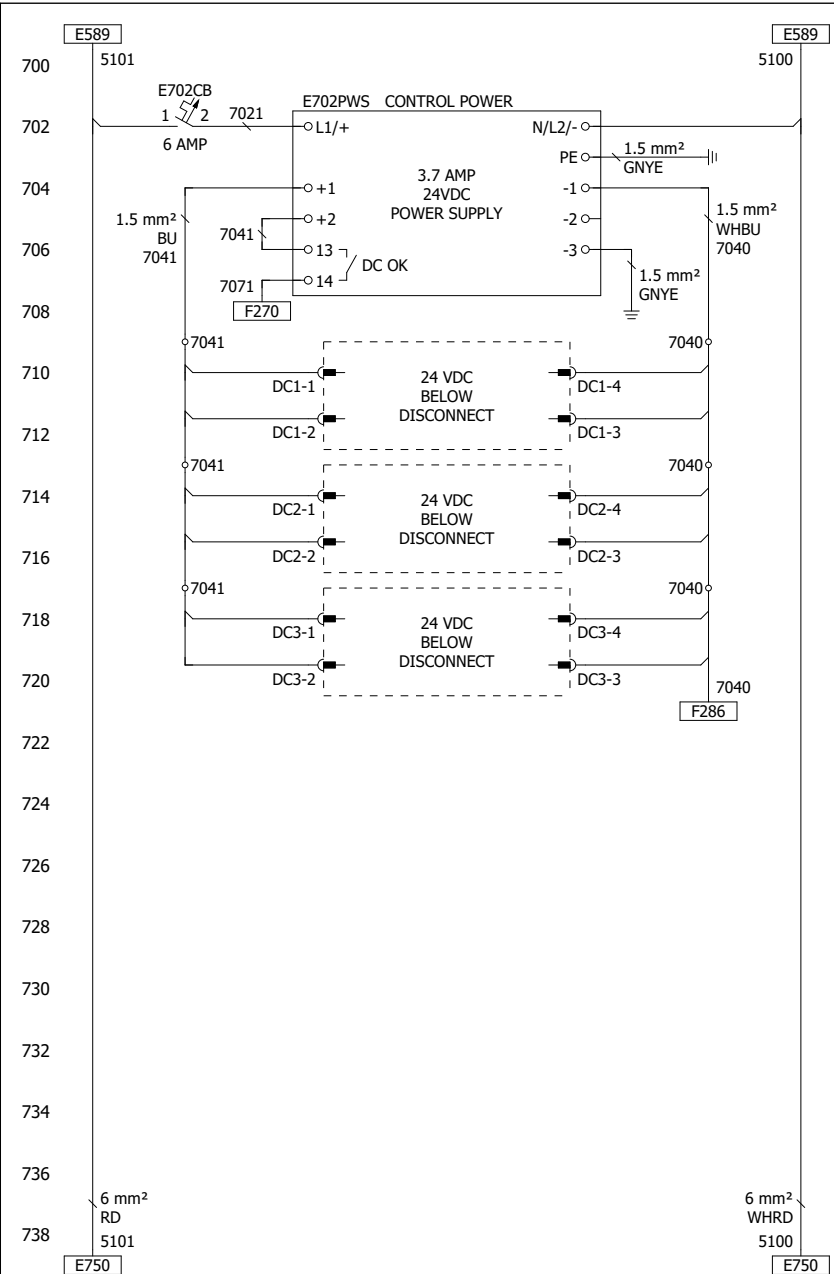
	GM - STANDARD	GM ENGINEER:	DESIGN SOURCE:	DESIGN LEADER:	PROGRAMS:	PACKAGE DESCRIPTION:	60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL	SYSTEM/TOOL NO:	RELEASE DATE:	REVISION LETTER:	SECTION LETTER:	SHEET NUMBER:							
		HARDWARE TEAM		GREG DOPPKE		SHEET DESCRIPTION:	(BB) 30 A, (AA) 15 A CIRCUITS	DRAWING NUMBER:	2020-03-31				DATE:						
		THIS MATERIAL IS THE PROPERTY OF GENERAL MOTORS CORPORATION. NO RIGHTS ARE GRANTED TO USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES.						380 - 500 VAC POWER DISTRIBUTION	ECS-5121-BB-AA-TT				E	3 OF 7					
STATUS: RELEASED													PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)			SAVE DATE: 2020-02-25		EPLAN VERSION: 2.7.3	






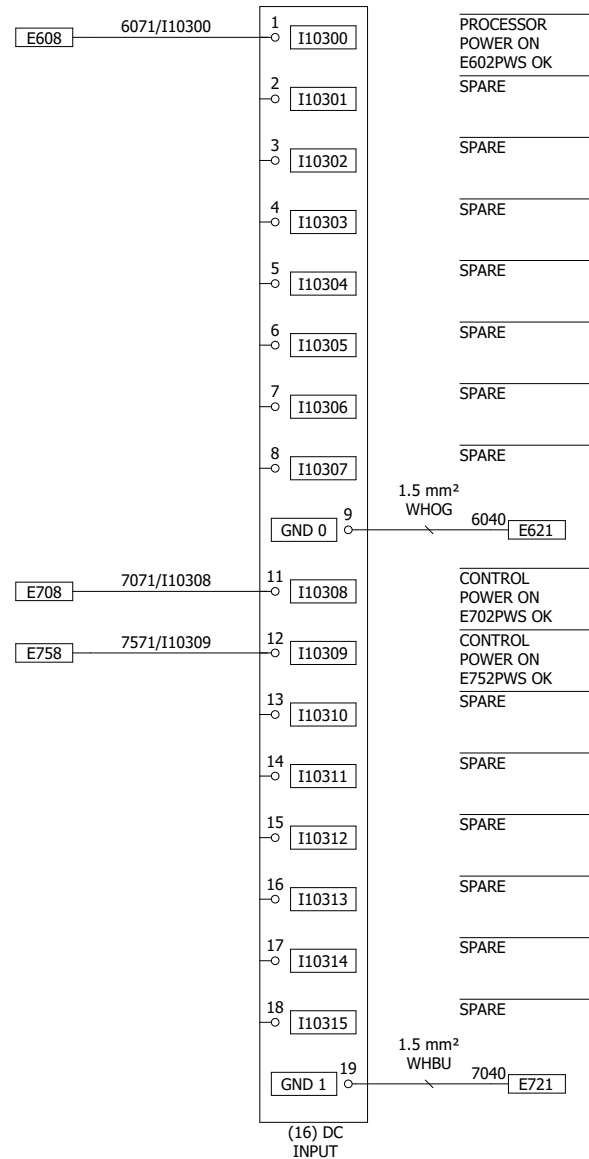


	GM - STANDARD	GM ENGINEER: HARDWARE TEAM	DESIGN SOURCE:	DESIGN LEADER: GREG DOPPKE	PROGRAMS:	PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL	SYSTEM/TOOL NO:	RELEASE DATE: 2020-03-31	REVISION LETTER: DATE:	SECTION LETTER: E	SHEET NUMBER: 6 OF 7
						SHEET DESCRIPTION: 24 VDC POWER ABOVE DISCONNECT	DRAWING NUMBER: ECS-5121-BB-AA-TT				



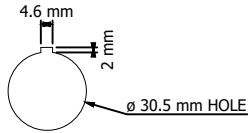
100	CHASSIS <u>1</u>	SLOT <u>0</u>	150	CHASSIS <u>1</u>	SLOT <u>1</u>
102			152		
104			154		
106			156		
108			158		
110			160		
112			162		
114			164		
116	CHASSIS SLOT 0 IS RESERVED FOR A PLC. IF THE PLC IS A ROCKWELL L8X PLC, THEN ETHERNET RECEPTACLE EN0 SHALL BE CONNECTED TO THE LOCAL ETHERNET PORT ON THE PLC. IF THE PLC IS A ROCKWELL L7X PLC, THEN ETHERNET RECEPTACLE EN0 WILL NOT BE USED.		166	CHASSIS SLOT 1 IS RESERVED FOR A SAFETY PARTNER IF REQUIRED. ADDITIONAL COMMUNICATION CARDS ARE TO BE ADDED STARTING AT SLOT 2, SLOT 1 MAY BE USED ONLY IN THE EVENT ALL OTHER SLOTS ARE USED AND A SAFETY PARTNER IS NOT REQUIRED.	
118			168		
120			170		
122			172		
124			174		
126			176		
128			178		
130			180		
132			182		
134			184		
136			186		
138			188		

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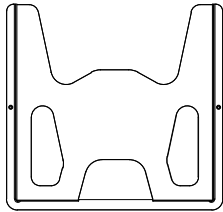
CHASSIS SLOT 2 MAY BE USED FOR AN ADDITIONAL ETHERNET MODULE. IF AN ETHERNET MODULE IS PRESENT IN SLOT 2, THEN RECEPTACLE EN2 SHALL BE CONNECTED TO THE LOCAL PORT ON THAT MODULE.





DETAIL "A"

ABSENCE OF VOLTAGE TESTER
INDICATOR MODULE MOUNTING HOLE



PRINT POCKET INSIDE DOOR
(SUPPLIED WITH ENCLOSURE)

DOOR BONDING INSTRUCTIONS

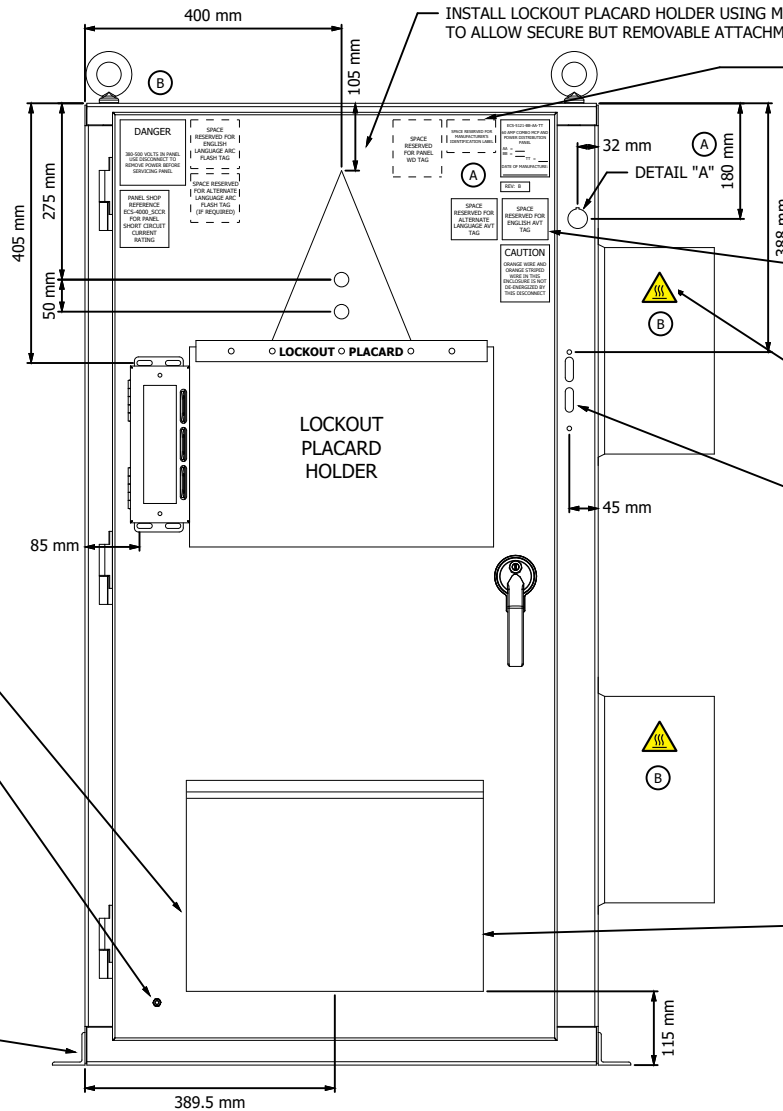
SUPPLY GROUNDING STUD ON
INTERIOR OF DOOR AND INSIDE
ENCLOSURE.

PROVIDE 16 mm² COPPER BRAID
BONDING CONDUCTOR BETWEEN
THE DOOR AND ENCLOSURE
GROUNDING STUDS. USE
NON-INSULATED CRIMP RING LUG
ON EACH BRAID END.

(SUPPLIED WITH ENCLOSURE)

50 mm x 50 mm CONTINUOUS ANGLE
IRON WITH 16 mm HOLES FOR LAGGING
ENCLOSURE TO FLOOR (2 PLACES)

(SUPPLIED WITH ENCLOSURE)



INSTALL LOCKOUT PLACARD HOLDER USING M5 SCREW. PROVIDE WASHERS AND LOCKNUT
TO ALLOW SECURE BUT REMOVABLE ATTACHMENT OF THE PLACARD HOLDER.

ITEM PROVIDED BY
PANEL MANUFACTURER
TAG SIZE:
76 mm W x 51 mm H

INSTALL ENGLISH LANGUAGE ABSENCE OF VOLTAGE TESTER
LABEL AS SHOWN. STORE THE OTHER LANGUAGE LABELS IN THE
INTERIOR PRINT POCKET.

MARK "LOAD" FOR TESTER LOCATION ON ALL LABELS USING A
PERMANENT INK MARKER.

PURCHASED ITEM (2 PLACES)
REFERENCE BOM
TAG SIZE:
50 mm W x 50 mm H

ACTUATOR REQUIREMENTS

MUST BE READILY ACCESSIBLE WITH
DOORS IN THE OPEN OR CLOSED POSITION

MUST BE LOCKABLE IN THE OFF POSITION
ONLY

MUST BE IN CONTROL OF THE DISCONNECT AT
ALL TIMES, INDEPENDENT OF THE POSITION OF
THE ASSOCIATED DOOR.

MUST BE INTERLOCKED WITH THE DOOR SO
THAT THE DOOR CAN ONLY BE OPEN WHEN THE
MAIN BREAKER IS OFF AND SO THE MAIN
BREAKER CAN ONLY BE SWITCHED ON WHEN
THE DOOR IS CLOSED.

MUST BE ABLE TO OVERRIDE DOOR
INTERLOCKING WITH A SCREWDRIVER.

PRINT POCKET MOUNTED OUTSIDE DOOR.
(NOT SUPPLIED WITH ENCLOSURE)

NOTES:

- ENCLOSURE TO BE CONSTRUCTED TO CURRENT GCCB-1
AND GCCH-1 STANDARDS.
- INCLUDE A COPY OF THIS DRAWING PACKAGE INSIDE
THE ENCLOSURE.
- PROVIDE A TAG WITH RECEPTACLE NAME ON THE
INSIDE AND OUTSIDE OF THE ENCLOSURE FOR EACH
RECEPTACLE.
- ALL TAGS TO BE WHITE WITH BLACK LETTERING
UNLESS NOTED OTHERWISE.

ENCLOSURE - 1500 mm H X 800 mm W X 400 mm D

TOP OF ENCLOSURE (SIDE MOUNTED)
OR
FRONT OF ENCLOSURE (TOP/BOTTOM MOUNTED)

KEY POSITION OF
RECEPTACLE TYPICAL
FOR ALL



GM - STANDARD

GM ENGINEER:
HARDWARE
TEAM

DESIGN SOURCE:

DESIGN LEADER:
GREG
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL

SHEET DESCRIPTION: (BB) 30 A, (AA) 15 A CIRCUITS
ENCLOSURE LAYOUT - FRONT

SYSTEM/TOOL NO:

RELEASE DATE:

REVISION
LETTER: B

DATE:
2021-09-24

SECTION
LETTER: X

SHEET
NUMBER:

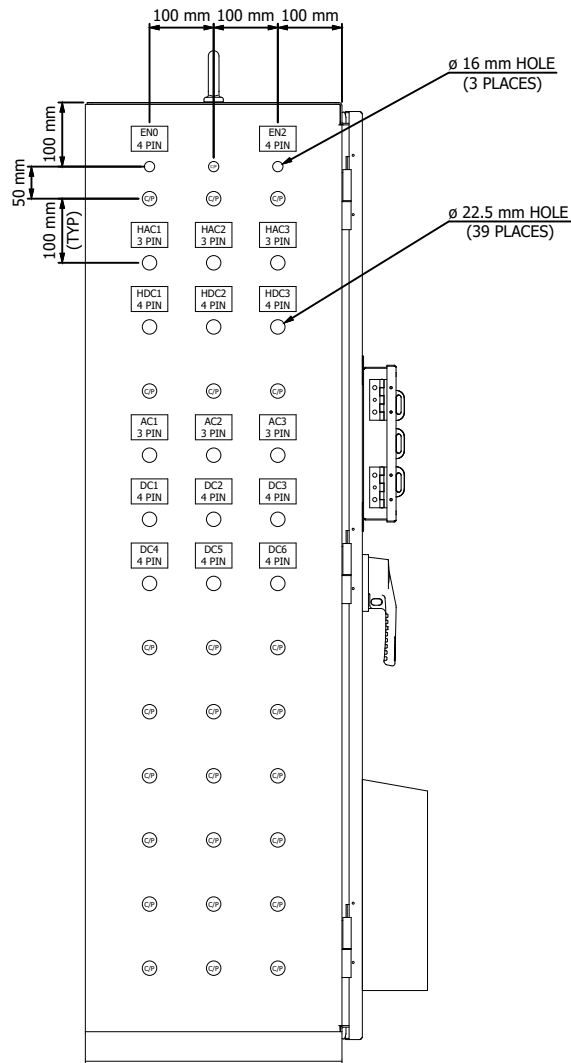
1 OF 11

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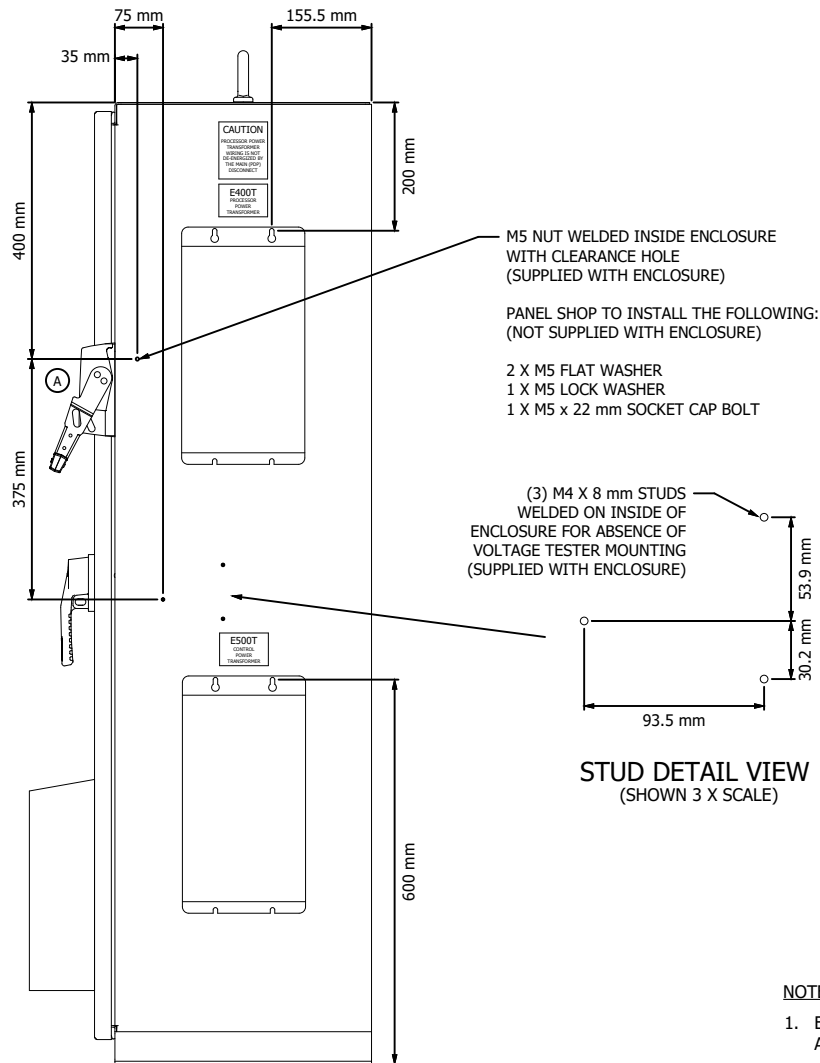
PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2021-09-24

EPLAN VERSION: 2.7.3



LEFT SIDE VIEW



RIGHT SIDE VIEW

TOP OF ENCLOSURE (SIDE MOUNTED)
OR
FRONT OF ENCLOSURE (TOP/BOTTOM MOUNTED)

KEY POSITION OF
RECEPTACLE TYPICAL
FOR ALL

TAG SIZE:
76 mm W x 89 mm H
BLACK TEXT ON
YELLOW BACKGROUND

CAUTION
PROCESSOR POWER
TRANSFORMER
WIRING IS NOT
DE-ENERGIZED BY
THE MAIN (PDP)
DISCONNECT

TAG SIZE:
76 mm W x 51 mm H

E400T
PROCESSOR
POWER
TRANSFORMER

TAG SIZE:
76 mm W x 51 mm H

E500T
CONTROL
POWER
TRANSFORMER

NOTES:

- ENCLOSURE TO BE CONSTRUCTED TO CURRENT GCCB-1 AND GCCH-1 STANDARDS.
- INCLUDE A COPY OF THIS DRAWING PACKAGE INSIDE THE ENCLOSURE.
- PROVIDE A TAG WITH RECEPTACLE NAME ON THE INSIDE AND OUTSIDE OF THE ENCLOSURE FOR EACH RECEPTACLE.
- ALL TAGS TO BE WHITE WITH BLACK LETTERING UNLESS NOTED OTHERWISE.



GM - STANDARD

GM ENGINEER:
HARDWARE
TEAM

DESIGN SOURCE:

DESIGN LEADER:
GREG
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL

SHEET DESCRIPTION: (BB) 30 A, (AA) 15 A CIRCUITS

ENCLOSURE LAYOUT - SIDE

SYSTEM/TOOL NO:

RELEASE DATE:

2020-03-31

REVISION

LETTER: A

DATE: 2021-01-12

SECTION

LETTER: X

SHEET

NUMBER:

2 OF 11

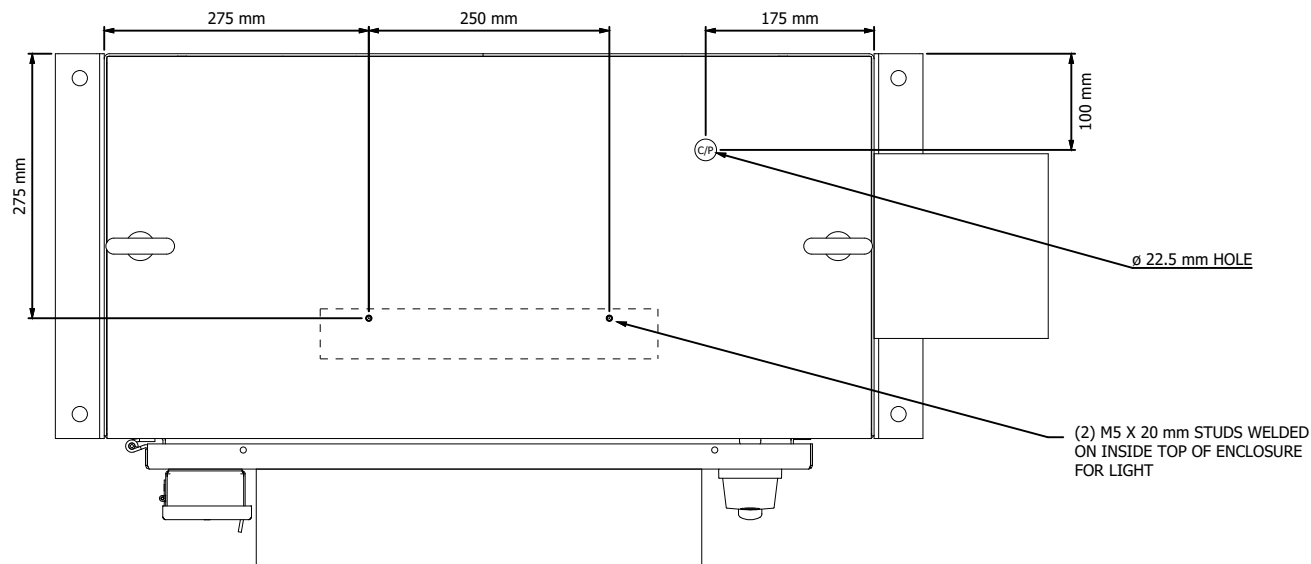
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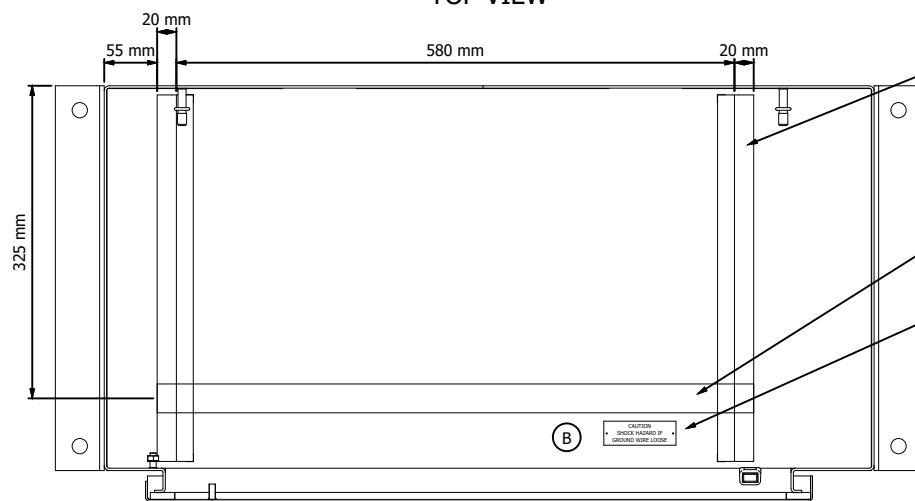
PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2021-01-12

EPLAN VERSION: 2.7.3



TOP VIEW



INSIDE BOTTOM OF ENCLOSURE

TOP OF ENCLOSURE (SIDE MOUNTED)
OR
FRONT OF ENCLOSURE (TOP/BOTTOM MOUNTED)

KEY POSITION OF
RECEPTACLE TYPICAL
FOR ALL

Z-BRACKET WELDED TO BOTTOM OF
ENCLOSURE
20 mm W x 30 mm H
(2 PLACES)

COPPER BUSBAR AND TERMINALS
USED FOR GROUNDING

CAUTION
SHOCK HAZARD IF
GROUND WIRE LOOSE

TAG SIZE:
75 mm W x 25 mm H
BLACK TEXT ON
YELLOW BACKGROUND

NOTES:

- ENCLOSURE TO BE CONSTRUCTED TO CURRENT GCCB-1 AND GCCH-1 STANDARDS.
- INCLUDE A COPY OF THIS DRAWING PACKAGE INSIDE THE ENCLOSURE.
- PROVIDE A TAG WITH RECEPTACLE NAME ON THE INSIDE AND OUTSIDE OF THE ENCLOSURE FOR EACH RECEPTACLE.
- ALL TAGS TO BE WHITE WITH BLACK LETTERING UNLESS NOTED OTHERWISE.



GM - STANDARD

GM ENGINEER:
HARDWARE
TEAM

DESIGN SOURCE:

DESIGN LEADER:
GREG
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL

SHEET DESCRIPTION: (BB) 30 A, (AA) 15 A CIRCUITS

ENCLOSURE LAYOUT - TOP AND INSIDE BOTTOM

SYSTEM/TOOL NO:

RELEASE DATE:
2020-03-31

REVISION
LETTER:
B
DATE:
2021-09-24

SECTION
LETTER:
X

SHEET
NUMBER:
3 OF 11

DRAWING NUMBER:
ECS-5121-BB-AA-TT

PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

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DANGER

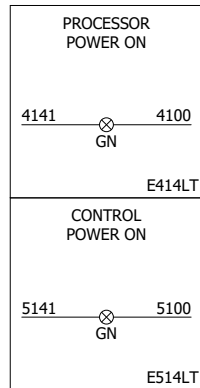
380-500 VOLTS IN PANEL
USE DISCONNECT TO
REMOVE POWER BEFORE
SERVICING PANEL

TAG SIZE:
102 mm W x 102 mm H
WHITE TEXT ON
RED BACKGROUND

(B)

PANEL SHOP
REFERENCE
ECS-4000_SCCR
FOR PANEL
SHORT CIRCUIT
CURRENT
RATING

TAG SIZE:
76 mm W x 89 mm H



TAG SIZE:
76 mm W x 89 mm H

PANEL SHOP TO PROVIDE
INFORMATION FOR ALL BLANK
FIELDS BASED ON ACTUAL
PANEL CONSTRUCTION.

ECS-5121-BB-AA-TT
60 AMP COMBO MCP AND
POWER DISTRIBUTION
PANEL

AA = _____
BB = _____ TT = _____
DATE OF MANUFACTURE:

TAG SIZE:

45 mm W x 15 mm H


REV: B

TAG SIZE:
76 mm W x 89 mm H
BLACK TEXT ON
YELLOW BACKGROUND

CAUTION

ORANGE WIRE AND
ORANGE STRIPED
WIRE IN THIS
ENCLOSURE IS NOT
DE-ENERGIZED BY
THIS DISCONNECT

- NOTES:**
1. ALL TAGS TO BE WHITE WITH BLACK LETTERING UNLESS NOTED OTHERWISE.
 2. WIRE NUMBERS AND PUSHBUTTON COLOR SHOWN ON TAGS FOR WIRING PURPOSES ONLY. DO NOT MARK WIRE NUMBERS OR PB COLOR ON TAGS.

	GM - STANDARD	GM ENGINEER:	DESIGN SOURCE:	DESIGN LEADER:	PROGRAMS:	PACKAGE DESCRIPTION:	SYSTEM/TOOL NO:	RELEASE DATE:	REVISION LETTER:	SECTION LETTER:	SHEET NUMBER:
		HARDWARE TEAM		GREG DOPPKE		60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL (BB) 30 A, (AA) 15 A CIRCUITS		2020-03-31	B	X	4 OF 11
THIS MATERIAL IS THE PROPERTY OF GENERAL MOTORS CORPORATION. NO RIGHTS ARE GRANTED TO USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES.					SHEET DESCRIPTION:	DRAWING NUMBER:	DATE:	2021-09-24			
						ECS-5121-BB-AA-TT					
STATUS: RELEASED					PROJECT NAME: ECS-5121-BB-AA-TT RevB(2021-09-24)			SAVE DATE: 2021-09-24		EPLAN VERSION: 2.7.3	


TAG SIZE:
102 mm W x 178 mm H

LUG TORQUE VALUES (UL) - ECS-5121			
TERMINAL	WIRE STRANDING CLASS	WIRE SIZE (AWG)	TORQUE (LB-IN)
E104DISC LINE SIDE	CLASS B/C	#10 - 4 #3 - 3/0	105 140
15 OR 30 A BRANCH LOAD SIDE	CLASS B	#10 - 4	40 - 53
Ⓑ PE LUG LINE SIDE	NOT SPECIFIED	#10 - 0	53
PE BAR SMALL TERMINAL	NOT SPECIFIED	#16 - 6	35
NOTE: TORQUE VALUES PROVIDED ARE FOR LUGS INCLUDED IN THE STANDARD PDP DESIGN AND WITH THE WIRE STRANDING AND SIZES SHOWN ONLY. IF ALTERNATE LUGS ARE USED, THEN WIRE STRANDING AND SIZE AND TERMINAL TORQUE MUST BE ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.			

TAG SIZE:
102 mm W x 178 mm H

LUG TORQUE VALUES (IEC) - ECS-5121			
TERMINAL	WIRE STRANDING CLASS	WIRE SIZE (mm²)	TORQUE (N-m)
E104DISC LINE SIDE	CLASS 2	6 - 25 35 - 120	6 10
15 OR 30 A BRANCH LOAD SIDE	CLASS 2	10 - 50	4.5 - 6
Ⓑ PE LUG LINE SIDE	NOT SPECIFIED	6 - 50	6
PE BAR SMALL TERMINAL	NOT SPECIFIED	1.5 - 16	4
NOTE: TORQUE VALUES PROVIDED ARE FOR LUGS INCLUDED IN THE STANDARD PDP DESIGN AND WITH THE WIRE STRANDING AND SIZES SHOWN ONLY. IF ALTERNATE LUGS ARE USED, THEN WIRE STRANDING AND SIZE AND TERMINAL TORQUE MUST BE ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.			

- NOTES:**
1. ALL TAGS TO BE WHITE WITH BLACK LETTERING UNLESS NOTED OTHERWISE.
 2. INSTALL TORQUE VALUE LABELS ON THE INSIDE OF THE ENCLOSURE DOOR ON THE UPPER RIGHT SIDE.

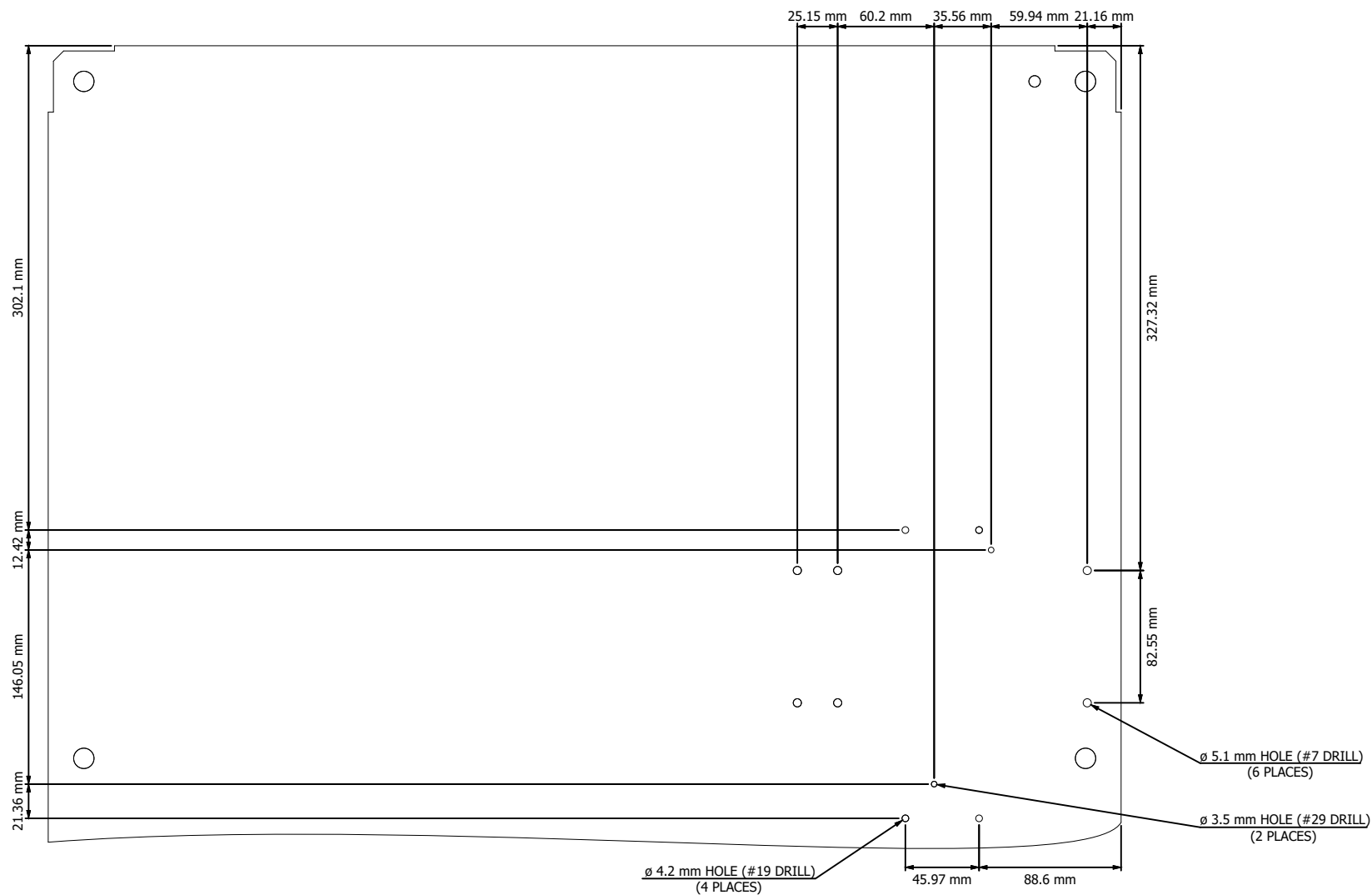
 GM - STANDARD	GM ENGINEER: HARDWARE TEAM	DESIGN SOURCE:	DESIGN LEADER: GREG DOPPKE	PROGRAMS:	PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL SHEET DESCRIPTION: (BB) 30 A, (AA) 15 A CIRCUITS TAG DETAILS	SYSTEM/TOOL NO:	RELEASE DATE: 2020-03-31	REVISION LETTER: B DATE: 2021-09-24	SECTION LETTER: X	SHEET NUMBER: 5 OF 11
	THIS MATERIAL IS THE PROPERTY OF GENERAL MOTORS CORPORATION. NO RIGHTS ARE GRANTED TO USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES.					DRAWING NUMBER: ECS-5121-BB-AA-TT				

STATUS: RELEASED

PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2021-09-24

EPLAN VERSION: 2.7.3



NOTE:

DIMENSIONS SHOWN ARE VALID FOR ENCLOSURE SPECIFIED ON BOM. IF AN ALTERNATIVE ENCLOSURE IS USED, THEN THE DIMENSIONS MAY VARY. THE BREAKER AND OPERATING MECHANISM MUST BE LOCATED PER THE MANUFACTURER'S REQUIREMENTS.

CIRCUIT BREAKER AND DISCONNECT MECHANISM MOUNTING DETAIL

NOTE:

PANEL SHOP TO TAP HOLES IN SUBPLATE - DO NOT FASTEN COMPONENTS WITH NUTS BEHIND THE SUBPLATE.

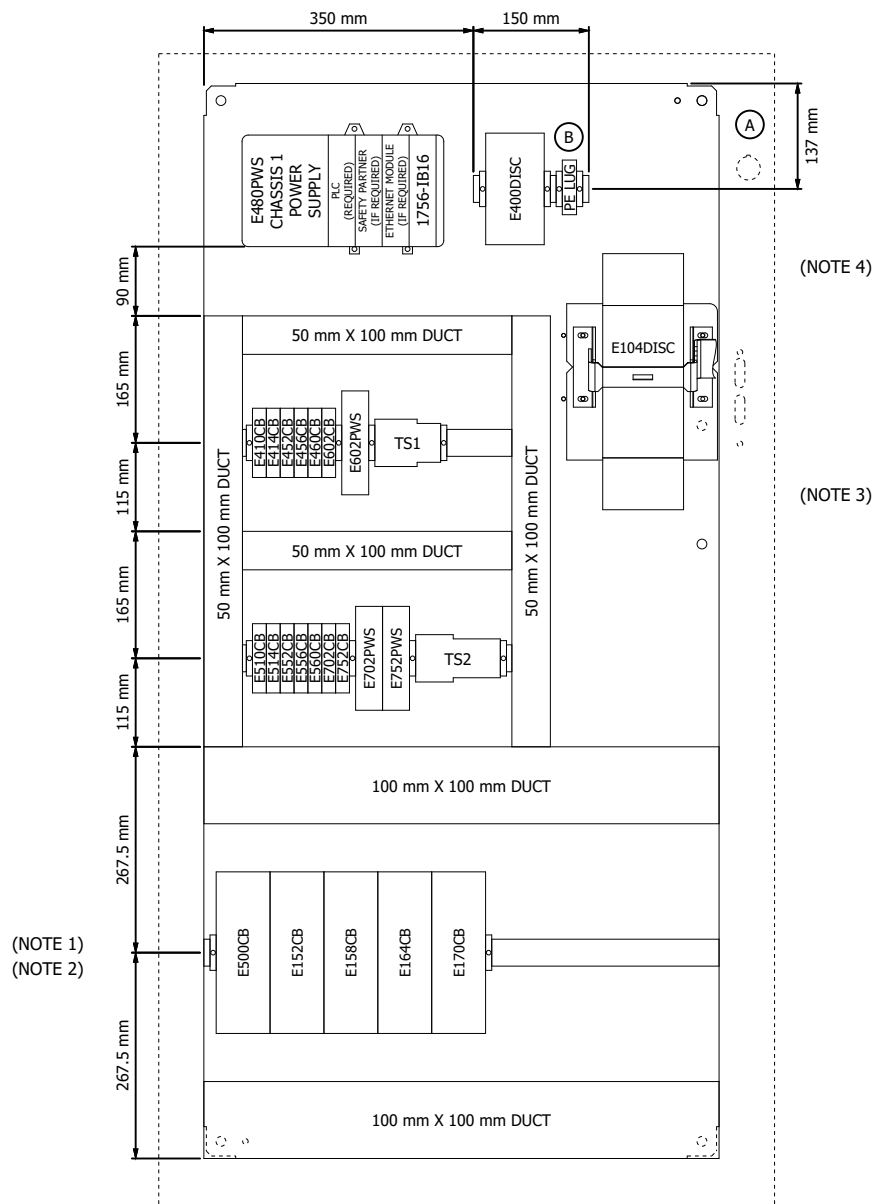
GM - STANDARD	GM ENGINEER: HARDWARE TEAM	DESIGN SOURCE:	DESIGN LEADER: GREG DOPPKE	PROGRAMS:	PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL	SYSTEM/TOOL NO:	RELEASE DATE: 2020-03-31	REVISION LETTER:	SECTION LETTER:	SHEET NUMBER:
					SHEET DESCRIPTION: SUBPLATE DETAIL	DRAWING NUMBER: ECS-5121-BB-AA-TT		DATE:	X	6 OF 11

STATUS: RELEASED

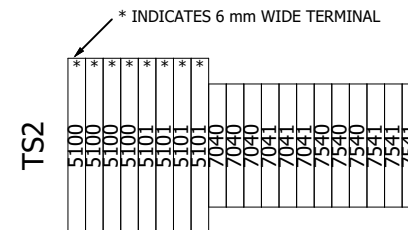
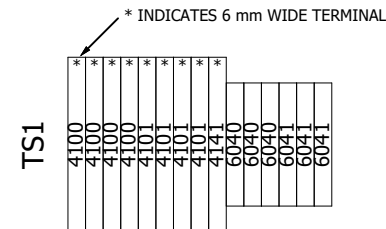
PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2020-01-17

EPLAN VERSION: 2.7,3



SUBPLATE - 1397 mm H X 669 mm W



NOTES:

1. INSTALL BRANCH BREAKERS FROM SMALLEST TO LARGEST SIZE. 15 OR 30 A BRANCHES START AT E152CB.
2. INSTALL TAGS FOR ALL BREAKERS REGARDLESS OF WHETHER OR NOT THE BREAKER IS PRESENT.
3. ABSENCE OF VOLTAGE TESTER SENSOR LEADS MUST USE FERRULES AND BE WIRED DIRECTLY TO THE DISTRIBUTION LUGS ON THE LOAD SIDE OF E104DISC. ONE SENSOR LEAD SHALL BE PLACED UNDER ONE TERMINAL SCREW. SENSOR LEADS SHALL NOT DIRECTLY CONTACT EACH OTHER. USE THE REAR MOST TERMINALS FOR THE SENSOR LEADS.
4. PROCESSOR POWER TO BE WIRED DIRECTLY TO THE CONTROL TAPS ON THE LINE SIDE OF E104DISC. REMOVE AND DISCARD THE SPADE CONNECTOR PROVIDED WITH THE CONTROL TAP. USE #14 AWG CLASS B/C OR 2.5 mm² CLASS 2 WIRE ONLY.



GM - STANDARD

GM ENGINEER:
HARDWARE
TEAM

DESIGN SOURCE:

DESIGN LEADER:
GREG
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL

SHEET DESCRIPTION: (BB) 30 A, (AA) 15 A CIRCUITS

SHEET DESCRIPTION: SUBPLATE LAYOUT

SYSTEM/TOOL NO:

RELEASE DATE:
2020-03-31

REVISION
LETTER:
B

DATE:
2021-09-24

SECTION
LETTER:
X

SHEET
NUMBER:

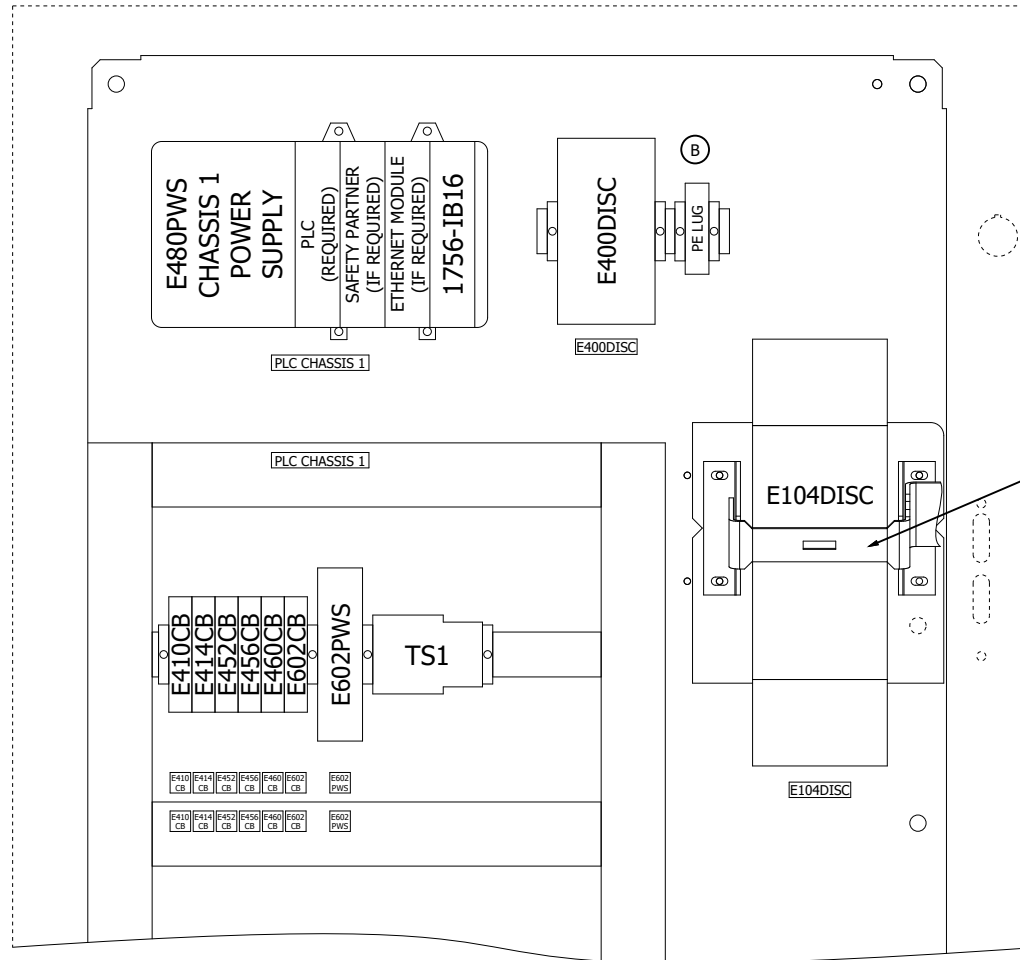
7 OF 11

STATUS: RELEASED

PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2021-09-24

EPLAN VERSION: 2.7.3



PANEL SHOP TO ATTACH TEMPORARY SIGN TO E104DISC OPERATING BAR INDICATING THE TRANSFORMER PRIMARY WIRING STATE. INDICATE EITHER "E400T AND E500T TRANSFORMER PRIMARY WIRING IS NOT COMPLETE, VERIFY PRIMARY WIRING BEFORE ENERGIZING PANEL" OR "E400T AND E500T TRANSFORMER PRIMARY IS WIRED FOR XXX V, VERIFY PRIMARY VOLTAGE BEFORE ENERGIZING PANEL." SPECIFY THE PRIMARY VOLTAGE IF WIRED.

MOUNT ABSENCE OF VOLTAGE TESTER ISOLATION MODULE USING M4 STUDS ON INSIDE RIGHT OF ENCLOSURE.

INSIDE RIGHT VIEW



GM - STANDARD

GM ENGINEER:
HARDWARE
TEAM

DESIGN SOURCE:

DESIGN LEADER:
GREG
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL
SHEET DESCRIPTION: (BB) 30 A, (AA) 15 A CIRCUITS
SUBPLATE DETAIL VIEW

SYSTEM/TOOL NO:

RELEASE DATE:
2020-03-31

REVISION
LETTER: B
DATE:
2021-09-24

SECTION
LETTER: X
SHEET
NUMBER: 8 OF 11

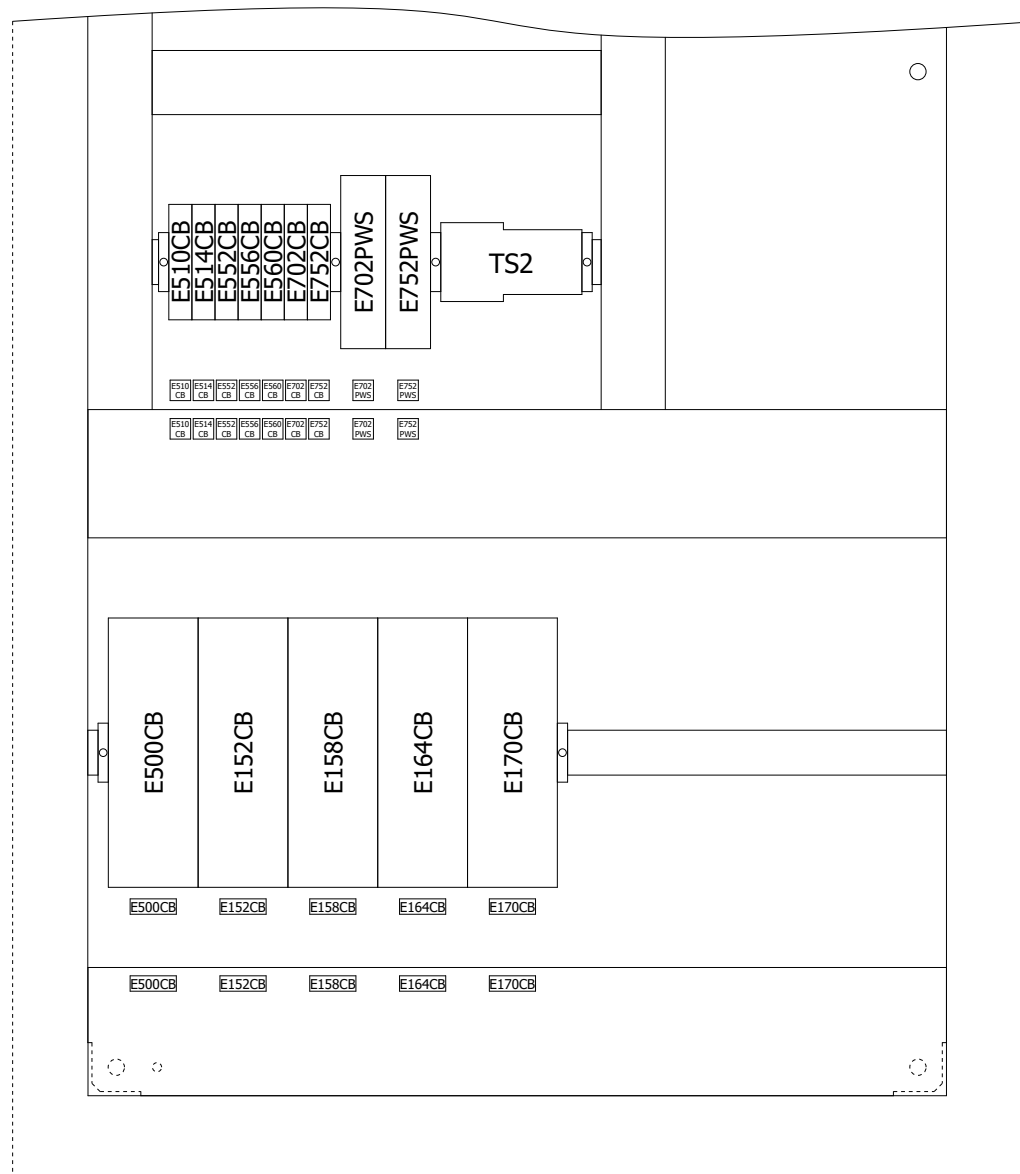
DRAWING NUMBER:
ECS-5121-BB-AA-TT

PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2021-09-24

EPLAN VERSION: 2.7.3

STATUS: RELEASED



GM - STANDARD

GM ENGINEER:
HARDWARE
TEAM

DESIGN SOURCE:

DESIGN LEADER:
GREG
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL
(BB) 30 A, (AA) 15 A CIRCUITS

SHEET DESCRIPTION: SUBPLATE DETAIL VIEW

SYSTEM/TOOL NO:

RELEASE DATE:
2020-03-31

REVISION
LETTER:

DATE:

SECTION
LETTER:

X

SHEET
NUMBER:

9 OF 11

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STATUS: RELEASED

PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2020-02-28

EPLAN VERSION: 2.7.3

MINI CONNECTOR
FEMALE - FACE VIEW

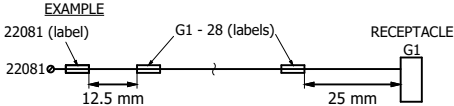
PIN	FUNCTION	COLOR
1	GROUND	GNYE
2	POWER	BK
3	NEUTRAL	WH

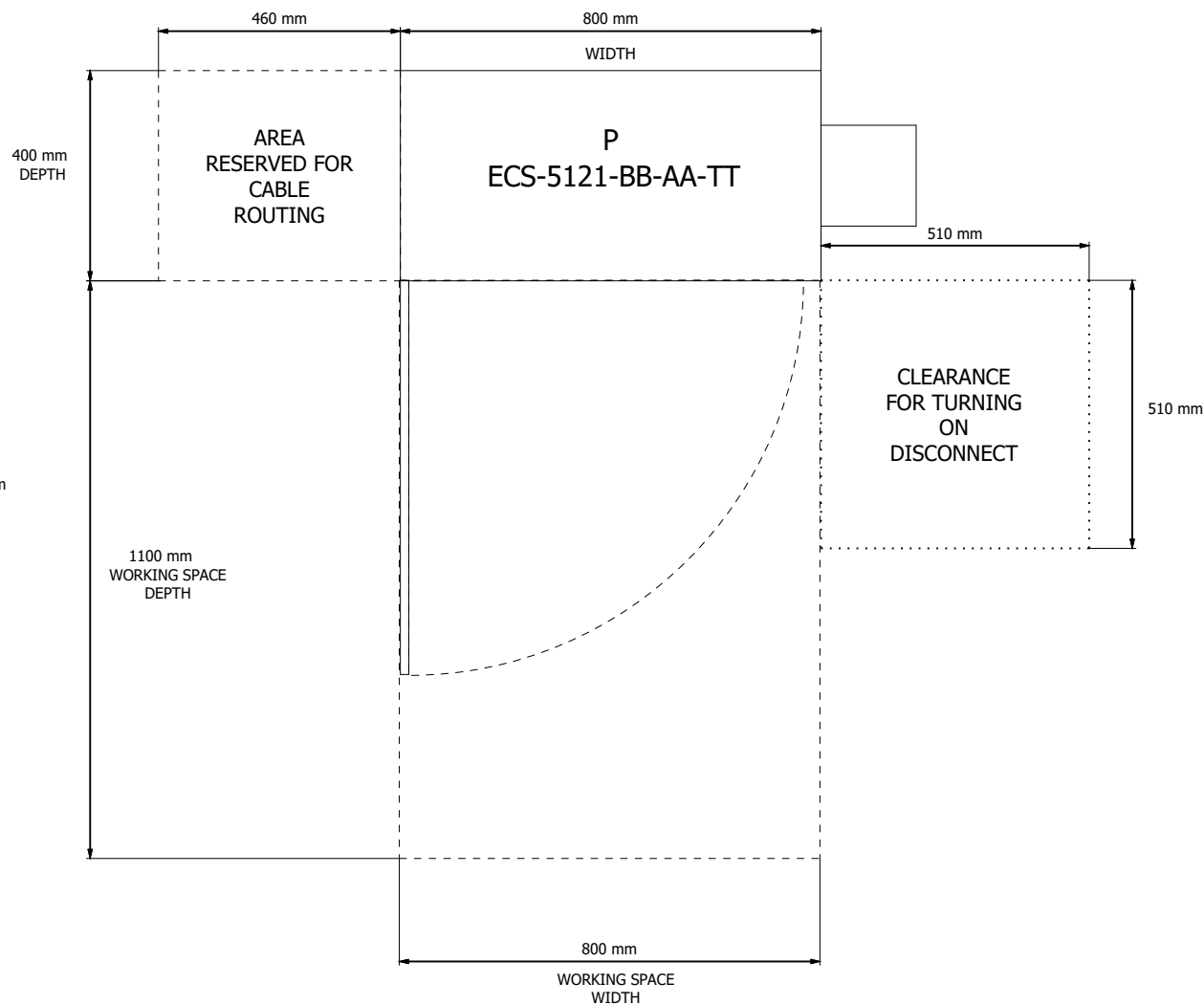
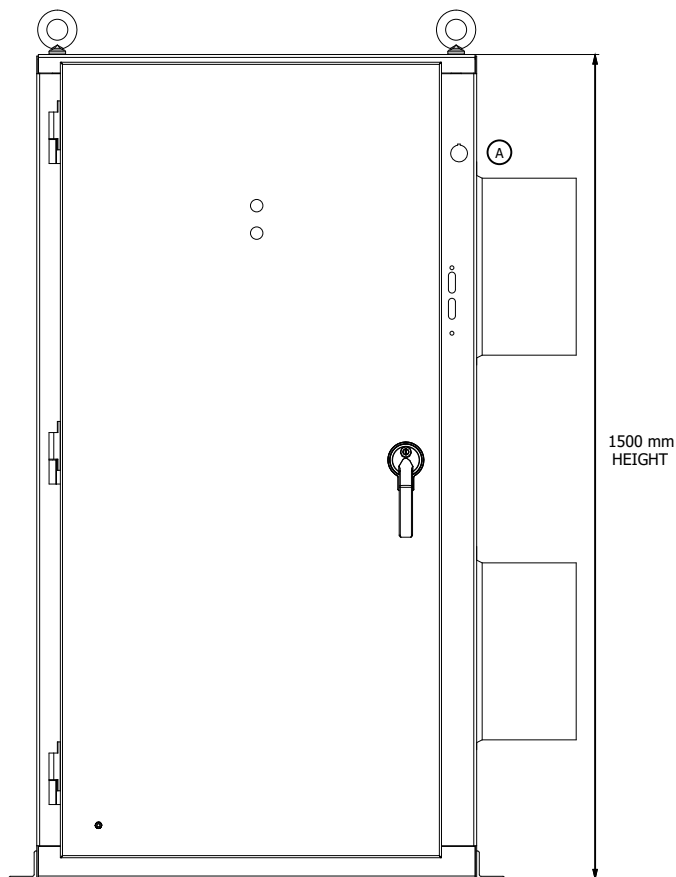
NOTE:
ALL UNUSED RECEPTACLE WIRES SHOULD HAVE ENDS PROTECTED WITH TAPE TO PREVENT UNINTENTIONAL SHORTING.

ALL WIRES ARE TO BE BLUE (BU) UNLESS OTHERWISE SPECIFIED (MINI AND MICRO RECEPTACLE WIRE COLORS TO BE IN COMPLIANCE WITH THE ASSOCIATED IEC OR ANSI STANDARD).

WIRE COLOR	ABBREV
BLACK	BK
BROWN	BN
RED	RD
ORANGE	OG
YELLOW	YE
GREEN	GN
BLUE	BU
VIOLET	VT
GRAY	GY
WHITE	WH
PINK	PK
GOLD	GD
TURQUOISE	TQ
SILVER	SR
GREEN WITH YELLOW TRACER	GNYE
BLACK WITH ORANGE TRACER	BKOG
BLUE WITH ORANGE TRACER	BUOG
WHITE WITH RED TRACER	WHRD
WHITE WITH ORANGE TRACER	WHOG
WHITE WITH BLUE TRACER	WHBU

THE RECEPTACLE WIRES SHALL HAVE THE RECEPTACLE NUMBER AND PIN NUMBER LABELED ON BOTH ENDS.





GM - STANDARD

GM ENGINEER:
HARDWARE
TEAM

DESIGN SOURCE:

DESIGN LEADER:
GREG
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL

DESCRIPTION: (BB) 30 A, (AA) 15 A CIRCUITS

SHEET DESCRIPTION: ENCLOSURE FOOTPRINT

SYSTEM/TOOL NO:

RELEASE DATE:
2020-03-31

REVISION
LETTER:
A

DATE:
2021-01-12

SECTION
LETTER:

X

SHEET
NUMBER:

11 OF 11

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STATUS: RELEASED

PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2021-01-12

EPLAN VERSION: 2.7.3

REV	ITEM NUMBER	CHANGE DESCRIPTION	DATE	CHANGE CODE	CHANGED BY
A	12701	ADDED ITEM.	2021-01-12	C	DB
	19002	PART NUMBER CHANGED FROM ERWPAB3004M020 TO ER1PAB3004M020.			
	75600	PART NUMBER CHANGED FROM 3SB3921-0AA TO 3SU1900-0FA11-0AA0.			
B	11080	PART NUMBER CHANGED FROM 5SH3540 TO 8US1923-1AA01.	2021-09-24	C	SK
	75813	ADDED ITEM.			
	80000	ADDED ITEM.			
	80042	ADDED ITEM.			
	12726	REMOVED ITEM. QTY WAS 1.			

REV	ITEM NUMBER	CHANGE DESCRIPTION	DATE	CHANGE CODE	CHANGED BY

CHANGE CODE	
PR	PRODUCT CHANGE
R	PLANT REQUEST
MP	MECHANICAL PROCESS CHANGE
CP	CONTROL PROCESS CHANGE
M	MECHANICAL DESIGN CHANGE
C	CONTROL DESIGN CHANGE
F	FLOOR AND BUILD CHANGE

BOM NAME:
ECS-5121-BB-AA-TT-BOM (BASE BOM)

SOURCE
LEGEND

F - FURNISHED BY GM
M - CONSTRUCTION SOURCE MAKE ITEM
REF - PURCHASED BY OTHERS (NO SUBSTITUTION)

NOTE: 'N' SUFFIX ON SOURCE CODE DENOTES AN ITEM THAT IS NOT REQUIRED TO BE STOCKED AS SPARE BY THE PLANT.

B1 - PURCHASE ITEM OR EQUIVALENT ITEM (GM APPROVAL NOT REQUIRED)
B2 - PURCHASE ITEM (SUBSTITUTION REQUIRES GM APPROVAL) -INTERCHANGEABLE COMPONENT
B3 - PURCHASE ITEM (SUBSTITUTION REQUIRES GM APPROVAL) -NOT AN INTERCHANGEABLE COMPONENT
B4 - PURCHASE ITEM (NO SUBSTITUTION)

BOM REV	ITEM NUMBER	QUANTITY	PART DESCRIPTION	MANUFACTURER	PART NUMBER	SOURCE	GCCL REFERENCE	COMMENTS
	11080	2	BUSBAR SYSTEM, ACCESSORIES BUSBAR CENTER-TO-CENTER SPACING 60 mm N/PE BUSBAR HOLDER FOR BUSBARS 12X 5 (10)-30X 5 (10) AND 6X 6 mm, FREE-STANDING INSTALLATION OR ATTACHMENT TO 8US1923-2AA01	SIEMENS	8US1923-1AA01	B3-N		
	11103	1	OPERATING UNIT WITH ROD VARIABLE DEPTH FLANGE MOUNTED OPERATOR KIT, 3 POLE: CONSISTING OF: HANDLE STEEL CHROME PLATED NEMA 4/4X BLACK=OFF, BLACK=ON SWITCHING MECHANISM MOUNTING DEPTH 8" TO 16" ACCESSORY FOR: 3VA5 250 3VA6 250, W/ ADAPTER PLATE	SIEMENS	3VA9278-ODK84	B3		
	11106	1	BREAKER 3VA FRONT MOUNTED ROTARY OPERATOR FMRO FOR 3VA51 GRAY STANDARD WITHOUT ILLUMINATION KIT WITHOUT DOOR INTERLOCK WITHOUT DOOR OPENING FUNCTION WITH HANDLE NEMA 1	SIEMENS	3VA9137-0EK11	B3		
	11110	2	SIEMENS LOW VOLTAGE 3VA CIRCUIT BREAKER ACCESSORY. 3-PIECE STEEL BODY 1-CONDUCTOR BOX TERMINAL - WIRE SIZE: 14 - 3/0 AWG. FOR (125A 3VA5) FRAME UL CIRCUIT BREAKERS.	SIEMENS	3VA9133-0JA11	B3		
	11120	2	TERMINAL COVER 3 POLE; 1 PC. WITH PROBE HOLES FOR VOLTAGE TESTING ACCESSORY FOR: 3VA4/5 125 -	SIEMENS	3VA9131-0WD31	B3		
	11126	1	TERMINAL COVER EXTENDED 3 POLE; 1 PC. WITH PROBE HOLES FOR VOLTAGE TESTING ACCESSORY FOR: 3VA6 150/250 3VA5 250 PLUG-IN/DRAW-OUT BASE 3VA6 150/250	SIEMENS	3VA9271-0WF31	B3		
	11133	1	BOX TERMINAL W. CONTROL WIRE VOLTAGE TAP-OFF 3 UNITS ACCESSORY FOR: 3VA6 150/250	SIEMENS	3VA9143-0JH12	B3		
	11144	1	WIRE CONNECTOR FOR 6 CABLES; 3 PCS.; INCL. TERMINAL COVER EXTENDED WITH PROBE HOLES FOR VOLTAGE TEST; ACCESSORY FOR: 3VA6 150/250 PLUG-IN/DRAW-OUT BASE 3VA6 150/250	SIEMENS	3VA9243-0JF68	B3		
	11222	3	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 6 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS	5SJ4106-7HG40	B2		
	11225	8	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 10 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS	5SJ4110-7HG40	B2		
	11230	2	MINIATURE CIRCUIT-BREAKER 240 V 14 KA, 1-POLE, C, 30 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS	5SJ4130-7HG40	B2		
	11249	2	TERMINAL COVER FOR BOX TERMINALS FOR CIRCUIT BREAKER 3RV2742 IN SIZE S3	SIEMENS	3RV2948-1LA00	B3-N		
	11251	1	CIRCUIT BREAKER SIZE S3 FOR SYSTEM PROTECTION WITH APPROVAL CIRCUIT BREAKER UL 489, CSA C22.2 NO.5-02 A-RELEASE 15 A N-RELEASE 225 A SCREW TERMINAL	SIEMENS	3RV2742-5BD10	B3		
	11281	1	CIRCUIT BREAKER 3VA6 UL FRAME 150 BREAKING CAPACITY CLASS H 65KA @ 480V 3-POLE, LINE PROTECTION ETU350, LSI, IN=100A OVERLOAD PROTECTION IR=40A...100A SHORT-CIRCUIT PROTECTION ISD=1.5...10 X IR, II=12 X IN WITHOUT CONNECTION	SIEMENS	3VA6110-6HN31-0AA0	B3		
	11349	1	CIRCUIT BREAKER 3VA5 UL FRAME 125 BREAKING CAPACITY CLASS H 65KA @ 480V 3-POLE, LINE PROTECTION TM210, FTFM, IN=15A OVERLOAD PROTECTION IR=15A FIXED SHORT-CIRCUIT PROTECTION II=15 X IN WITHOUT CONNECTION	SIEMENS	3VA5195-6ED31-0AA0	B3		
	11415	26	TERMINAL, BUSBAR ADAPTER, 60 mm FAST BUS BUSBAR ADAPTER SYSTEM, FOR 5 mm BUSBAR THICKNESS 1,5-16 mm²	SIEMENS	8US1921-2AA00	B3-N		
	11417	1	TERMINAL, BUSBAR ADAPTER, 60 mm FAST BUS BUSBAR ADAPTER SYSTEM, FOR 5 mm BUSBAR THICKNESS 16-70 mm²	SIEMENS	8US1921-2AD00	B3-N		
	12504	2	INDICATOR LIGHT, 22 mm, ROUND, METAL, SHINY, GREEN, SMOOTH LENS	SIEMENS	3SU1051-6AA40-0AA0	B3		
	12630	2	HOLDER FOR 3 MODULES, METAL	SIEMENS	3SU1550-0AA10-0AA0	B3		
	12654	2	LED MODULE WITH INTEGRATED LED, 24-240V AC/DC, GREEN, SPRING-TYPE TERMINAL, FOR FRONT PLATE MOUNTING	SIEMENS	3SU1401-1BH40-3AA0	B3		
	12700	18	BLOCK, TERMINAL, SPRING CLAMP, 600 V, ZDU 2.5-2/3AN, 20 A UL, 26 - 12 AWG, 0.5 - 2.5 mm², FINGER SAFE, 3 POLE SINGLE CIRCUIT, 5 mm, BEIGE	WEIDMULLER	1706010000	B2-N		
	12701	2	BLOCK, TERMINAL, END BARRIER FOR ZDU 2.5-2/3AN 1706010000, BEIGE	WEIDMULLER	1706110000	B2-N		
	12706	0 A/R	BLOCK, TERMINAL, JUMPERS, 2 POLE, ZQV 4/2, TOP MOUNT, 6 mm, FOR ZDU 4-2/4AN 1806980000 AND ZDU 4-2/3AN 1770360000	WEIDMULLER	1608950000	B2-N		

BOM NAME:
ECS-5121-BB-AA-TT-BOM (BASE BOM)

SOURCE
LEGEND

F - FURNISHED BY GM
M - CONSTRUCTION SOURCE MAKE ITEM
REF - PURCHASED BY OTHERS (NO SUBSTITUTION)

NOTE: '-N' SUFFIX ON SOURCE CODE DENOTES AN ITEM THAT IS NOT REQUIRED TO BE STOCKED AS SPARE BY THE PLANT.

B1 - PURCHASE ITEM OR EQUIVALENT ITEM (GM APPROVAL NOT REQUIRED)
B2 - PURCHASE ITEM (SUBSTITUTION REQUIRES GM APPROVAL) -INTERCHANGEABLE COMPONENT
B3 - PURCHASE ITEM (SUBSTITUTION REQUIRES GM APPROVAL) -NOT AN INTERCHANGEABLE COMPONENT
B4 - PURCHASE ITEM (NO SUBSTITUTION)

BOM REV	ITEM NUMBER	QUANTITY	PART DESCRIPTION	MANUFACTURER	PART NUMBER	SOURCE	GCCL REFERENCE	COMMENTS
	12707	0 A/R	BLOCK, TERMINAL, MARKING TAG, WS 12/6, 12 X 6 mm, FOR ZDU 4-2/4AN 1806980000 AND ZDU 4-2/3AN 1770360000	WEIDMULLER	1609900000	B2-N		
	12712	14	BLOCK, TERMINAL, END ANCHORS - DIN RAIL, EW 35, BEIGE	WEIDMULLER	0383560000	B2-N		
	12718	17	BLOCK, TERMINAL, SPRING CLAMP, 600 V, ZDU 4-2/3AN, 33 A UL, 26- 10 AWG, 0.5 - 6 mm², FINGER SAFE, 3 POLE SINGLE CIRCUIT, 6 mm, BEIGE	WEIDMULLER	1770360000	B2-N		
	12719	2	BLOCK, TERMINAL, END BARRIER FOR ZDU 4-2/3AN, 1770360000, BEIGE	WEIDMULLER	1770400000	B2-N		
	14000	1	PLC, 1756 CHASSIS ASSEMBLY - 4 SLOTS	ROCKWELL	1756-A4	B4		
	14005	1	PLC, 1756 CHASSIS POWER SUPPLY, 120-240 VAC INPUT, 10 A	ROCKWELL	1756-PA72	B4		
	14201	1	PLC, 1756 I/O, MODULE, INPUT - 10-30 VDC -16 POINT NO DIAGNOSTIC	ROCKWELL	1756-IB16	B4		
	14207	1	I/O, CHASSIS MOUNTED TERMINAL, 1756 I/O, WIRING ARM - 20 PIN SCREW CLAMP BLOCK	ROCKWELL	1756-TBNH	B4		
	15743	6	CORD, RECEPTACLE, MINI 3 PIN, FEMALE-INTERNAL THREADS, 3 METER (9.84 FT) PIGTAIL - 1/2 INCH NPT, AC C.C., 16 AWG, 600V, 13A	WOODHEAD - MOLEX	1R3000A20M030	B2		
	15763	9	CORD, RECEPTACLE, MINI 4 PIN DC, FEMALE, INTERNAL THREAD, 3 METER (9.84 FT) PIGTAIL, 1/2 INCH -14 NPT, 16 AWG, 10A, 600V	WOODHEAD - MOLEX	1R4000A39M030	B2		
	15875	0 A/R	3/8 INCH - NPT GASKET SEAL FOR MINI RECEPTACLE	WOODHEAD - MOLEX	00-5090	B1-N		
	15876	0 A/R	LOCKING NUT FOR MINI RECEPTACLE	WOODHEAD - MOLEX	30-1100	B1-N		
	19002	2	RECEPTACLE, ETHERNET, 4 PIN, MICRO, FEMALE INT THREAD REC, PG9, TO RJ45, 2 PAIR, CAT5E, 24 AWG, UNSHIELDED, STRANDED, HIGH-FLEX, TPE 2M (6.56 FT)	WOODHEAD - MOLEX	ER1PAB3004M020	B2		
	75108	0 A/R	DUCT,50 mm W X 100 mm H, WITH COVER	TEHALIT	DNG100050	B1-N		
	75110	0 A/R	DUCT,100mm W X 100mm H, WITH COVER	TEHALIT	DNG100100	B1-N		
	75120	0 A/R	STANDARD MOUNTING RAIL 35X27X15,1.5mm THICK, 2 METERS LONG	PHOENIX	0806602	B1-N		
	75278	1	UNIVERSAL LIGHT, LED, 50-60 HZ, 5 W, 100 - 240 VAC	STEGO	02542.3-11	B1		
	75285	1	DOOR POSITION SWITCH, ENCLOSED IN MOLDED-PLASTIC HOUSING 31mm SNAP-ACTION CONTACTS 1NO+1NC, TEFLON PLUNGER	SIEMENS	3SE5232-0HC05	B2		
	75600	25	HOLE PLUG, 22.5mm DIAMETER	SIEMENS	3SU1900-0FA11-0AA0	B1-N		
	75601	1	HOLE PLUG, 16mm DIAMETER	SIEMENS	3SB2908-3AA	B1-N		
	75709	1	KEYLOCK BOX, 9.5" X 3" X1.5"	SAGINAW BAS	SCE-KLB 018115	B2-N		
	75805	0 A/R	TAGS, PANEL, STICK ON OR LAMICOID, MINIMUM FONT SIZE - 5mm (20PT)	CUSTOM	GENERIC TAG - PANEL	M-N		
	75813	2	LABEL, WARNING, PICTOGRAM FOR HOT SURFACE, 50 mm H X 50 mm W	BRADY	Y5062718	B1-N		
	75815	1	SAFETY, HOLDER, PLACARD, FOR 11" X 17" GRAPHIC AND 11" X 8.5" LOCKOUT LIST SHEETS, GMT RED, SCREEN PRINT "LOCKOUT PLACARD", (1) 11" X 17" HORIZONTAL PRINT POCKET SAVERS AND (2) 8.5" X 11" PRINT POCKET SAVERS, HARDWARE INCLUDED (LANDSCAPE)	WECO OR EQUIVALENT	GMT-1218LO-LP	B1-N		
	80000	1	BLOCK, TERMINAL, WPE 50N, PE, 50mm², GREEN-YELLOW	WEIDMULLER	1846040000			
	80030	3	POWER SUPPLY, SITOP, PSU6200, INPUT: 120/230 VAC, OUTPUT: 24 VDC / 3.7 A, NEC CLASS 2	SIEMENS	6EP3333-7LB00-0AX0	B3		
	80040	1	VERISAFE ABSENCE OF VOLTAGE TESTER, 8' (2.4 m) SYSTEM CABLE, 10' (3.1 m) SENSOR LEADS	PANDUIT	VS-AVT-C08-L10	B3		

BOM NAME:
ECS-5121-BB-AA-TT-BOM (BASE BOM)

SOURCE
LEGEND

F - FURNISHED BY GM
M - CONSTRUCTION SOURCE MAKE ITEM
REF - PURCHASED BY OTHERS (NO SUBSTITUTION)

NOTE: '-N' SUFFIX ON SOURCE CODE DENOTES AN ITEM THAT IS NOT REQUIRED TO BE STOCKED AS SPARE BY THE PLANT.

B1 - PURCHASE ITEM OR EQUIVALENT ITEM (GM APPROVAL NOT REQUIRED)
B2 - PURCHASE ITEM (SUBSTITUTION REQUIRES GM APPROVAL) -INTERCHANGEABLE COMPONENT
B3 - PURCHASE ITEM (SUBSTITUTION REQUIRES GM APPROVAL) -NOT AN INTERCHANGEABLE COMPONENT
B4 - PURCHASE ITEM (NO SUBSTITUTION)

BOM REV	ITEM NUMBER	QUANTITY	PART DESCRIPTION	MANUFACTURER	PART NUMBER	SOURCE	GCCL REFERENCE	COMMENTS
	80041	0 A/R	FERRULE, NON-INSULATED, #14 AWG, 12 mm LENGTH, FOR AVT SENSOR LEAD	PANDUIT	F80-12-M	B2		
	80042	1	LITHIUM BATTERY, 3.6 V, SIZE AA	TADIRAN XENO ENERGY SAFT	TL-5903 XLP-060F LS14500	REF		
	80098	1	ENCLOSURE BUILT TO LATEST GCCB-1 AND GCCH-1 SPECIFICATIONS, 1500 mm H X 800 mm W X 400 mm D, RAL 7035 GRAY, 50 mm MOUNTING ANGLES, SUBPLATE, 1397 mm H X 669 mm W, 12 GAUGE MIN, GALVANIZED	HOFFMANN OR EQUIVALENT	X2727	B2-N		
	80100	1	PRINT POCKET, EXTERNAL MOUNT, RAL7035 GREY, 329 mm H x 464 mm W x 101 mm D WITH HINGED COVER	HOFFMANN OR EQUIVALENT	K9187	B2-N		
	81430	0 A/R	COPPER RAIL, TIN PLATED, 30x5x2400	CUSTOM	30X5X2400	B1-N		

REV	ITEM NUMBER	CHANGE DESCRIPTION	DATE	CHANGE CODE	CHANGED BY

REV	ITEM NUMBER	CHANGE DESCRIPTION	DATE	CHANGE CODE	CHANGED BY

CHANGE CODE	
PR	PRODUCT CHANGE
R	PLANT REQUEST
MP	MECHANICAL PROCESS CHANGE
CP	CONTROL PROCESS CHANGE
M	MECHANICAL DESIGN CHANGE
C	CONTROL DESIGN CHANGE
F	FLOOR AND BUILD CHANGE



GM - STANDARD

GM ENGINEER:
HARDWARE
TEAM

DESIGN SOURCE:

DESIGN LEADER:
GREG
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL
(BB) 30 A, (AA) 15 A CIRCUITS
SHEET DESCRIPTION: BOM CHANGE SHEET: ECS-5121-BB-AA-TT-BOM (AA OPTION)

SYSTEM/TOOL NO:

DRAWING NUMBER:
ECS-5121-BB-AA-TT

RELEASE DATE:
2020-03-31

REVISION
LETTER:

DATE:

SECTION
LETTER:

SHEET
NUMBER:

YB 1 OF 2

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STATUS: RELEASED

PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2021-09-24

EPLAN VERSION: 2.7.3

BOM NAME:

ECS-5121-BB-AA-TT-BOM (AA OPTION)


SOURCE
LEGEND

F - FURNISHED BY GM
M - CONSTRUCTION SOURCE MAKE ITEM
REF - PURCHASED BY OTHERS (NO SUBSTITUTION)

B1 - PURCHASE ITEM OR EQUIVALENT ITEM (GM APPROVAL NOT REQUIRED)
B2 - PURCHASE ITEM (SUBSTITUTION REQUIRES GM APPROVAL) -INTERCHANGEABLE COMPONENT
B3 - PURCHASE ITEM (SUBSTITUTION REQUIRES GM APPROVAL) -NOT AN INTERCHANGEABLE COMPONENT
B4 - PURCHASE ITEM (NO SUBSTITUTION)

NOTE: 'N' SUFFIX ON SOURCE CODE DENOTES AN ITEM THAT IS NOT REQUIRED TO BE STOCKED AS SPARE BY THE PLANT.

BOM REV	ITEM NUMBER	QUANTITY	PART DESCRIPTION	MANUFACTURER	PART NUMBER	SOURCE	GCCL REFERENCE	COMMENTS
	11249	2	TERMINAL COVER FOR BOX TERMINALS FOR CIRCUIT BREAKER 3RV2742 IN SIZE S3	SIEMENS	3RV2948-1LA00	B3-N		MULTIPLY QUANTITIES BY AA
	11251	1	CIRCUIT BREAKER SIZE S3 FOR SYSTEM PROTECTION WITH APPROVAL CIRCUIT BREAKER UL 489, CSA C22.2 NO.5-02 A-RELEASE 15 A N-RELEASE 225 A SCREW TERMINAL	SIEMENS	3RV2742-5BD10	B3		MULTIPLY QUANTITIES BY AA



GM - STANDARD

GM ENGINEER:

HARDWARE TEAM

DESIGN SOURCE:

DESIGN LEADER:

GREG DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION:

60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL

SYSTEM/TOOL NO:

RELEASE DATE:

2020-03-31

REVISION LETTER:

SECTION LETTER:

YB

SHEET NUMBER:

2 OF 2

STATUS: RELEASED

PROJECT NAME:

ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE:

2021-01-12

EPLAN VERSION:

2,7,3

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SHEET DESCRIPTION:

ECS-5121-BB-AA-TT-BOM (AA OPTION)

DRAWING NUMBER:

ECS-5121-BB-AA-TT

DATE:

REV	ITEM NUMBER	CHANGE DESCRIPTION	DATE	CHANGE CODE	CHANGED BY

REV	ITEM NUMBER	CHANGE DESCRIPTION	DATE	CHANGE CODE	CHANGED BY

CHANGE CODE	
PR	PRODUCT CHANGE
R	PLANT REQUEST
MP	MECHANICAL PROCESS CHANGE
CP	CONTROL PROCESS CHANGE
M	MECHANICAL DESIGN CHANGE
C	CONTROL DESIGN CHANGE
F	FLOOR AND BUILD CHANGE



GM - STANDARD

GM ENGINEER:
HARDWARE
TEAM

DESIGN SOURCE:

DESIGN LEADER:
GREG
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL
(BB) 30 A, (AA) 15 A CIRCUITS
SHEET DESCRIPTION: BOM CHANGE SHEET: ECS-5121-BB-AA-TT-BOM (BB OPTION)

SYSTEM/TOOL NO:

DRAWING NUMBER:
ECS-5121-BB-AA-TT

RELEASE DATE:
2020-03-31

REVISION
LETTER:

DATE:

SECTION
LETTER: YC
SHEET
NUMBER: 1 OF 2

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USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES.

STATUS: RELEASED

PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2021-09-24

EPLAN VERSION: 2.7.3

BOM NAME:
ECS-5121-BB-AA-TT-BOM (BB OPTION)

SOURCE
LEGEND

F - FURNISHED BY GM
M - CONSTRUCTION SOURCE MAKE ITEM
REF - PURCHASED BY OTHERS (NO SUBSTITUTION)
B1 - PURCHASE ITEM OR EQUIVALENT ITEM (GM APPROVAL NOT REQUIRED)
B2 - PURCHASE ITEM (SUBSTITUTION REQUIRES GM APPROVAL) -INTERCHANGEABLE COMPONENT
B3 - PURCHASE ITEM (SUBSTITUTION REQUIRES GM APPROVAL) -NOT AN INTERCHANGEABLE COMPONENT
B4 - PURCHASE ITEM (NO SUBSTITUTION)
NOTE: '-N' SUFFIX ON SOURCE CODE DENOTES AN ITEM THAT IS NOT REQUIRED TO BE STOCKED AS SPARE BY THE PLANT.

BOM REV	ITEM NUMBER	QUANTITY	PART DESCRIPTION	MANUFACTURER	PART NUMBER	SOURCE	GCCL REFERENCE	COMMENTS
	11249	2	TERMINAL COVER FOR BOX TERMINALS FOR CIRCUIT BREAKER 3RV2742 IN SIZE S3	SIEMENS	3RV2948-1LA00	B3-N		MULTIPLY QUANTITIES BY BB
	11254	1	CIRCUIT BREAKER SIZE S3 FOR SYSTEM PROTECTION WITH APPROVAL CIRCUIT BREAKER UL 489, CSA C22.2 NO.5-02 A-RELEASE 30 A N-RELEASE 390 A SCREW TERMINAL	SIEMENS	3RV2742-5ED10	B3		MULTIPLY QUANTITIES BY BB



GM - STANDARD

GM ENGINEER:
HARDWARE
TEAM

DESIGN SOURCE:

DESIGN LEADER:
GREG
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL

SHEET DESCRIPTION: (BB) 30 A, (AA) 15 A CIRCUITS
ECS-5121-BB-AA-TT-BOM (BB OPTION)

SYSTEM/TOOL NO:

RELEASE DATE:
2020-03-31

REVISION
LETTER:

DATE:

SECTION
LETTER:

YC

SHEET
NUMBER:

2 OF 2

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USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES.

STATUS: RELEASED

PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2021-01-12

EPLAN VERSION: 2.7,3

REV	ITEM NUMBER	CHANGE DESCRIPTION	DATE	CHANGE CODE	CHANGED BY

REV	ITEM NUMBER	CHANGE DESCRIPTION	DATE	CHANGE CODE	CHANGED BY

CHANGE CODE	
PR	PRODUCT CHANGE
R	PLANT REQUEST
MP	MECHANICAL PROCESS CHANGE
CP	CONTROL PROCESS CHANGE
M	MECHANICAL DESIGN CHANGE
C	CONTROL DESIGN CHANGE
F	FLOOR AND BUILD CHANGE



GM - STANDARD

GM ENGINEER:
HARDWARE
TEAM

DESIGN SOURCE:

DESIGN LEADER:
GREG
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 60 AMP COMBO MCP AND POWER DISTRIBUTION PANEL
SHEET DESCRIPTION: (BB) 30 A, (AA) 15 A CIRCUITS
BOM CHANGE SHEET: ECS-5121-BB-AA-TT-BOM (TT OPTION)

SYSTEM/TOOL NO:

DRAWING NUMBER:
ECS-5121-BB-AA-TT

RELEASE DATE:
2020-03-31

REVISION
LETTER:

DATE:

SECTION
LETTER:

SHEET
NUMBER:

YD 1 OF 2

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USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN THE FURNISHING OF SERVICES AND SUPPLIES.

STATUS: RELEASED

PROJECT NAME: ECS-5121-BB-AA-TT_RevB(2021-09-24)

SAVE DATE: 2021-09-24

EPLAN VERSION: 2.7.3

BOM NAME:
ECS-5121-BB-AA-TT-BOM (TT OPTION)

SOURCE
LEGEND

F - FURNISHED BY GM
M - CONSTRUCTION SOURCE MAKE ITEM
REF - PURCHASED BY OTHERS (NO SUBSTITUTION)

NOTE: '-N' SUFFIX ON SOURCE CODE DENOTES AN ITEM THAT IS NOT REQUIRED TO BE STOCKED AS SPARE BY THE PLANT.

B1 - PURCHASE ITEM OR EQUIVALENT ITEM (GM APPROVAL NOT REQUIRED)
B2 - PURCHASE ITEM (SUBSTITUTION REQUIRES GM APPROVAL) -INTERCHANGEABLE COMPONENT
B3 - PURCHASE ITEM (SUBSTITUTION REQUIRES GM APPROVAL) -NOT AN INTERCHANGEABLE COMPONENT
B4 - PURCHASE ITEM (NO SUBSTITUTION)

BOM REV	ITEM NUMBER	QUANTITY	PART DESCRIPTION	MANUFACTURER	PART NUMBER	SOURCE	GCCL REFERENCE	COMMENTS
	16542	2	TRANSFORMER, CONTROL, 3 KVA, PRIMARY 480-240 V, SECONDARY 240-120 V, 1 PHASE, 50/60 HZ, IP54, 115 °C RISE, 40 °C AMBIENT	SIEMENS	1D1N003	B2		TT=02. THIS IS THE NORTH AMERICA OPTION (480 VAC)
	16552	2	TRANSFORMER, CONTROL, 3 KVA, PRIMARY 440-416-400-380-220-208-200-190 V, SECONDARY 240-120 V, 1 PHASE, 50/60 HZ, IP54, 115 °C RISE, 40 °C AMBIENT	SIEMENS	1H1N003CE	B2		TT=03. THIS IS THE NON-NORTH AMERICA OPTION (440/416/400/380 VAC)
	16562	2	TRANSFORMER, CONTROL, 3 KVA, PRIMARY 480-440-416-380-240-220-208-190 V, SECONDARY 240-120 V, 1 PHASE, 50/60 HZ, IP54, 115 °C RISE, 40 °C AMBIENT	SIEMENS	1X1N003CE	B2		TT=04. THIS IS THE NON-NORTH AMERICA OPTION (480/440/416/380 VAC)

DEVICE LIST

DEVICE TAG	ITEM NUMBER	QTY	DESCRIPTION	MANUFACTURER PART NUMBER
E104DISC	11103	1	OPERATING UNIT WITH ROD VARIABLE DEPTH FLANGE MOUNTED OPERATOR KIT, 3 POLE: CONSISTING OF: HANDLE STEEL CHROME PLATED NEMA 4/4X BLACK=OFF, BLACK=ON SWITCHING MECHANISM MOUNTING DEPTH 8" TO 16" ACCESSORY FOR: 3VA5 250 3VA6 250, W/ ADAPTER PLATE	SIEMENS 3VA9278-0DK84
	11126	1	TERMINAL COVER EXTENDED 3 POLE; 1 PC. WITH PROBE HOLES FOR VOLTAGE TESTING ACCESSORY FOR: 3VA6 150/250 3VA5 250 PLUG-IN/DRAW-OUT BASE 3VA6 150/250	SIEMENS 3VA9271-0WF31
	11133	1	BOX TERMINAL W. CONTROL WIRE VOLTAGE TAP-OFF 3 UNITS ACCESSORY FOR: 3VA6 150/250	SIEMENS 3VA9143-0JH12
	11144	1	WIRE CONNECTOR FOR 6 CABLES; 3 PCS.; INCL. TERMINAL COVER EXTENDED WITH PROBE HOLES FOR VOLTAGE TEST; ACCESSORY FOR: 3VA6 150/250 PLUG-IN/DRAW-OUT BASE 3VA6 150/250	SIEMENS 3VA9243-0JF68
	11281	1	CIRCUIT BREAKER 3VA6 UL FRAME 150 BREAKING CAPACITY CLASS H 65KA @ 480V 3-POLE, LINE PROTECTION ETU350, LSI, IN=100A OVERLOAD PROTECTION IR=40A...100A SHORT-CIRCUIT PROTECTION ISD=1.5...10 X IR, II=12 X IN WITHOUT CONNECTION	SIEMENS 3VA6110-6HN31-0AA0
E114AVT ABSENCE OF VOLTAGE TESTER	80040	1	VERISAFE ABSENCE OF VOLTAGE TESTER, 8' (2.4 m) SYSTEM CABLE, 10' (3.1 m) SENSOR LEADS	PANDUIT VS-AVT-C08-L10
	80041	0 A/R	FERRULE, NON-INSULATED, #14 AWG, 12 mm LENGTH, FOR AVT SENSOR LEAD	PANDUIT F80-12-M
	80042	1	LITHIUM BATTERY, 3.6 V, SIZE AA	TADIRAN TL-5903 XENO ENERGY XLP-060F
E152CB	11249	2	TERMINAL COVER FOR BOX TERMINALS FOR CIRCUIT BREAKER 3RV2742 IN SIZE S3	SIEMENS 3RV2948-1LA00
	11251	1	CIRCUIT BREAKER SIZE S3 FOR SYSTEM PROTECTION WITH APPROVAL CIRCUIT BREAKER UL 489, CSA C22.2 NO.5-02 A-RELEASE 15 A N-RELEASE 225 A SCREW TERMINAL	SIEMENS 3RV2742-5BD10
	11254	1	CIRCUIT BREAKER SIZE S3 FOR SYSTEM PROTECTION WITH APPROVAL CIRCUIT BREAKER UL 489, CSA C22.2 NO.5-02 A-RELEASE 30 A N-RELEASE 390 A SCREW TERMINAL	SIEMENS 3RV2742-5ED10
E158CB	11249	2	TERMINAL COVER FOR BOX TERMINALS FOR CIRCUIT BREAKER 3RV2742 IN SIZE S3	SIEMENS 3RV2948-1LA00
	11251	1	CIRCUIT BREAKER SIZE S3 FOR SYSTEM PROTECTION WITH APPROVAL CIRCUIT BREAKER UL 489, CSA C22.2 NO.5-02 A-RELEASE 15 A N-RELEASE 225 A SCREW TERMINAL	SIEMENS 3RV2742-5BD10
	11254	1	CIRCUIT BREAKER SIZE S3 FOR SYSTEM PROTECTION WITH APPROVAL CIRCUIT BREAKER UL 489, CSA C22.2 NO.5-02 A-RELEASE 30 A N-RELEASE 390 A SCREW TERMINAL	SIEMENS 3RV2742-5ED10
E164CB	11249	2	TERMINAL COVER FOR BOX TERMINALS FOR CIRCUIT BREAKER 3RV2742 IN SIZE S3	SIEMENS 3RV2948-1LA00
	11251	1	CIRCUIT BREAKER SIZE S3 FOR SYSTEM PROTECTION WITH APPROVAL CIRCUIT BREAKER UL 489, CSA C22.2 NO.5-02 A-RELEASE 15 A N-RELEASE 225 A SCREW TERMINAL	SIEMENS 3RV2742-5BD10
	11254	1	CIRCUIT BREAKER SIZE S3 FOR SYSTEM PROTECTION WITH APPROVAL CIRCUIT BREAKER UL 489, CSA C22.2 NO.5-02 A-RELEASE 30 A N-RELEASE 390 A SCREW TERMINAL	SIEMENS 3RV2742-5ED10
E170CB	11249	2	TERMINAL COVER FOR BOX TERMINALS FOR CIRCUIT BREAKER 3RV2742 IN SIZE S3	SIEMENS 3RV2948-1LA00
	11251	1	CIRCUIT BREAKER SIZE S3 FOR SYSTEM PROTECTION WITH APPROVAL CIRCUIT BREAKER UL 489, CSA C22.2 NO.5-02 A-RELEASE 15 A N-RELEASE 225 A SCREW TERMINAL	SIEMENS 3RV2742-5BD10

DEVICE TAG	ITEM NUMBER	QTY	DESCRIPTION	MANUFACTURER PART NUMBER
	11254	1	CIRCUIT BREAKER SIZE S3 FOR SYSTEM PROTECTION WITH APPROVAL CIRCUIT BREAKER UL 489, CSA C22.2 NO.5-02 A-RELEASE 30 A N-RELEASE 390 A SCREW TERMINAL	SIEMENS 3RV2742-5ED10
E400DISC	11349	1	CIRCUIT BREAKER 3VA5 UL FRAME 125 BREAKING CAPACITY CLASS H 65KA @ 480V 3-POLE, LINE PROTECTION TM210, FTFM, IN=15A OVERLOAD PROTECTION IR=15A FIXED SHORT-CIRCUIT PROTECTION II=15 X IN WITHOUT CONNECTION	SIEMENS 3VA5195-6ED31-0AA0
	11110	2	SIEMENS LOW VOLTAGE 3VA CIRCUIT BREAKER ACCESSORY. 3-PIECE STEEL BODY 1-CONDUCTOR BOX TERMINAL - WIRE SIZE: 14 - 3/0 AWG. FOR (125A 3VA5) FRAME UL CIRCUIT BREAKERS.	SIEMENS 3VA9133-0JA11
	11106	1	BREAKER 3VA FRONT MOUNTED ROTARY OPERATOR FMRO FOR 3VA51 GRAY STANDARD WITHOUT ILLUMINATION KIT WITHOUT DOOR INTERLOCK WITHOUT DOOR OPENING FUNCTION WITH HANDLE NEMA 1	SIEMENS 3VA9137-0EK11
	11120	2	TERMINAL COVER 3 POLE; 1 PC. WITH PROBE HOLES FOR VOLTAGE TESTING ACCESSORY FOR: 3VA4/5 125 - -	SIEMENS 3VA9131-0WD31
E400A PROCESSOR POWER TRANSFORMER MOUNTED OUTSIDE ENCLOSURE	16542	1	TRANSFORMER, CONTROL, 3 KVA, PRIMARY 480-240 V, SECONDARY 240-120 V, 1 PHASE, 50/60 HZ, IP54, 115 °C RISE, 40 °C AMBIENT	SIEMENS 1D1N003
	16552	1	TRANSFORMER, CONTROL, 3 KVA, PRIMARY 440-416-400-380-220-208-200-190 V, SECONDARY 240-120 V, 1 PHASE, 50/60 HZ, IP54, 115 °C RISE, 40 °C AMBIENT	SIEMENS 1H1N003CE
	16562	1	TRANSFORMER, CONTROL, 3 KVA, PRIMARY 480-440-416-380-240-220-208-190 V, SECONDARY 240-120 V, 1 PHASE, 50/60 HZ, IP54, 115 °C RISE, 40 °C AMBIENT	SIEMENS 1X1N003CE
E410CB	11230	1	MINIATURE CIRCUIT-BREAKER 240 V 14 KA, 1-POLE, C, 30 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5SJ4130-7HG40
E414CB	11225	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 10 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5SJ4110-7HG40
E414LT PROCESSOR POWER ON	12504	1	INDICATOR LIGHT, 22 mm, ROUND, METAL, SHINY, GREEN, SMOOTH LENS	SIEMENS 3SU1051-6AA40-0AA0
	12630	1	HOLDER FOR 3 MODULES, METAL	SIEMENS 3SU1550-0AA10-0AA0
	12654	1	LED MODULE WITH INTEGRATED LED, 24-240V AC/DC, GREEN, SPRING-TYPE TERMINAL, FOR FRONT PLATE MOUNTING	SIEMENS 3SU1401-1BH40-3AA0
E418LS DOOR SWITCH	75285	1	DOOR POSITION SWITCH, ENCLOSED IN MOLDED-PLASTIC HOUSING 31mm SNAP-ACTION CONTACTS 1NO+1NC, TEFLON PLUNGER	SIEMENS 3SE5232-0HC05
E418LT PANEL LIGHT	75278	1	UNIVERSAL LIGHT, LED, 50-60 HZ, 5 W, 100 - 240 VAC	STEGO 02542.3-11
E452CB	11225	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 10 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5SJ4110-7HG40
E456CB	11225	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 10 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5SJ4110-7HG40
E460CB	11225	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 10 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5SJ4110-7HG40
E480PWS CHASSIS 1 POWER SUPPLY	14005	1	PLC, 1756 CHASSIS POWER SUPPLY, 120-240 VAC INPUT, 10 A	ROCKWELL 1756-PA72
	14000	1	PLC, 1756 CHASSIS ASSEMBLY - 4 SLOTS	ROCKWELL 1756-A4
E500CB	11251	1	CIRCUIT BREAKER SIZE S3 FOR SYSTEM PROTECTION WITH APPROVAL CIRCUIT BREAKER UL 489, CSA C22.2 NO.5-02 A-RELEASE 15 A N-RELEASE 225 A SCREW TERMINAL	SIEMENS 3RV2742-5BD10

DEVICE LIST

DEVICE TAG	ITEM NUMBER	QTY	DESCRIPTION	MANUFACTURER PART NUMBER
E500CB	11249	2	TERMINAL COVER FOR BOX TERMINALS FOR CIRCUIT BREAKER 3RV2742 IN SIZE S3	SIEMENS 3RV2948-1LA00
E500CB CONTROL POWER TRANSFORMER MOUNTED OUTSIDE ENCLOSURE	16542	1	TRANSFORMER, CONTROL, 3 KVA, PRIMARY 480-240 V, SECONDARY 240-120 V, 1 PHASE, 50/60 HZ, IP54, 115 °C RISE, 40 °C AMBIENT	SIEMENS 1D1N003
	16552	1	TRANSFORMER, CONTROL, 3 KVA, PRIMARY 440-416-400-380-220-208-200-190 V, SECONDARY 240-120 V, 1 PHASE, 50/60 HZ, IP54, 115 °C RISE, 40 °C AMBIENT	SIEMENS 1H1N003CE
	16562	1	TRANSFORMER, CONTROL, 3 KVA, PRIMARY 480-440-416-380-240-220-208-190 V, SECONDARY 240-120 V, 1 PHASE, 50/60 HZ, IP54, 115 °C RISE, 40 °C AMBIENT	SIEMENS 1X1N003CE
E510CB	11230	1	MINIATURE CIRCUIT-BREAKER 240 V 14 KA, 1-POLE, C, 30 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5S34130-7HG40
E514CB	11225	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 10 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5S34110-7HG40
E514LT CONTROL POWER ON	12504	1	INDICATOR LIGHT, 22 mm, ROUND, METAL, SHINY, GREEN, SMOOTH LENS	SIEMENS 3SU1051-6AA40-0AA0
	12630	1	HOLDER FOR 3 MODULES, METAL	SIEMENS 3SU1550-0AA10-0AA0
	12654	1	LED MODULE WITH INTEGRATED LED, 24-240V AC/DC, GREEN, SPRING-TYPE TERMINAL, FOR FRONT PLATE MOUNTING	SIEMENS 3SU1401-1BH40-3AA0
E552CB	11225	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 10 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5S34110-7HG40
E556CB	11225	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 10 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5S34110-7HG40
E560CB	11225	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 10 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5S34110-7HG40
E602CB	11222	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 6 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5S34106-7HG40
E602PWS POWER SUPPLY	80030	1	POWER SUPPLY, SITOP, PSU6200, INPUT: 120/230 VAC, OUTPUT: 24 VDC / 3.7 A, NEC CLASS 2	SIEMENS 6EP3333-7LB00-0AX0
E702CB	11222	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 6 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5S34106-7HG40
E702PWS POWER SUPPLY	80030	1	POWER SUPPLY, SITOP, PSU6200, INPUT: 120/230 VAC, OUTPUT: 24 VDC / 3.7 A, NEC CLASS 2	SIEMENS 6EP3333-7LB00-0AX0
E752CB PDP	11222	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 6 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5S34106-7HG40
	80030	1	POWER SUPPLY, SITOP, PSU6200, INPUT: 120/230 VAC, OUTPUT: 24 VDC / 3.7 A, NEC CLASS 2	SIEMENS 6EP3333-7LB00-0AX0
	75813	2	LABEL, WARNING, PICTOGRAM FOR HOT SURFACE, 50 mm H X 50 mm W	BRADY Y5062718
	75805	0 A/R	TAGS, PANEL, STICK ON OR LAMICOID, MINIMUM FONT SIZE - 5mm (20PT)	CUSTOM GENERIC TAG - PANEL
	80098	1	ENCLOSURE BUILT TO LATEST GCCB-1 AND GCCH-1 SPECIFICATIONS, 1500 mm H X 800 mm W X 400 mm D, RAL 7035 GRAY, 50 mm MOUNTING ANGLES, SUBPLATE, 1397 mm H X 669 mm W, 12 GAUGE MIN, GALVANIZED	HOFFMANN OR EQUIVALENT X2727
	75600	25	HOLE PLUG, 22.5mm DIAMETER	SIEMENS 3SU1900-0FA11-0AA0
	75601	1	HOLE PLUG, 16mm DIAMETER	SIEMENS 3SB2908-3AA

DEVICE TAG	ITEM NUMBER	QTY	DESCRIPTION	MANUFACTURER PART NUMBER
	75709	1	KEYLOCK BOX, 9.5" X 3" X1.5"	SAGINAW SCE-KLB BAS 018115
	12712	14	BLOCK, TERMINAL, END ANCHORS - DIN RAIL, EW 35, BEIGE	WEIDMULLER 0383560000
	75815	1	SAFETY, HOLDER, PLACARD, FOR 11" X 17" GRAPHIC AND 11" X 8.5" LOCKOUT LIST SHEETS, GMT RED, SCREEN PRINT "LOCKOUT PLACARD", (1) 11" X 17" HORIZONTAL PRINT POCKET SAVERS AND (2) 8.5" X 11" PRINT POCKET SAVERS, HARDWARE INCLUDED (LANDSCAPE)	WECO OR EQUIVALENT GMT-1218LO-LP
	80100	1	PRINT POCKET, EXTERNAL MOUNT, RAL7035 GREY, 329 mm H x 464 mm W x 101 mm D WITH HINGED COVER	HOFFMANN OR EQUIVALENT K9187
	75120	0 A/R	STANDARD MOUNTING RAIL 35X27X15,1.5mm THICK, 2 METERS LONG	PHOENIX 0806602
	75110	0 A/R	DUCT,100mm W X 100mm H, WITH COVER	TEHALIT DNG100100
	75108	0 A/R	DUCT,50 mm W X 100 mm H, WITH COVER	TEHALIT DNG100050
	15875	0 A/R	3/8 INCH - NPT GASKET SEAL FOR MINI RECEPTACLE	WOODHEAD - MOLEX 00-5090
	15876	0 A/R	LOCKING NUT FOR MINI RECEPTACLE	WOODHEAD - MOLEX 30-1100
1 PE BAR	11080	2	BUSBAR SYSTEM, ACCESSORIES BUSBAR CENTER-TO-CENTER SPACING 60 mm I/PE BUSBAR HOLDER FOR BUSBARS 12X 5 (10)-30X 5 (10) AND 6X 6 mm, FREE-STANDING INSTALLATION OR ATTACHMENT TO 8US1923-2AA01	SIEMENS 8US1923-1AA01
	81430	0 A/R	COPPER RAIL, TIN PLATED, 30x5x2400	CUSTOM 30X5X2400
	11415	26	TERMINAL, BUSBAR ADAPTER, 60 mm FAST BUS BUSBAR ADAPTER SYSTEM, FOR 5 mm BUSBAR THICKNESS 1,5-16 mm²	SIEMENS 8US1921-2AA00
	11417	1	TERMINAL, BUSBAR ADAPTER, 60 mm FAST BUS BUSBAR ADAPTER SYSTEM, FOR 5 mm BUSBAR THICKNESS 16-70 mm²	SIEMENS 8US1921-2AD00
2 PE LUG	80000	1	BLOCK, TERMINAL, WPE 50N, PE, 50mm², GREEN-YELLOW	WEIDMULLER 1846040000
PLC1.3 (16) DC INPUT	14201	1	PLC, 1756 I/O, MODULE, INPUT - 10-30 VDC -16 POINT NO DIAGNOSTIC	ROCKWELL 1756-IB16
	14207	1	I/O, CHASSIS MOUNTED TERMINAL, 1756 I/O, WIRING ARM - 20 PIN SCREW CLAMP BLOCK	ROCKWELL 1756-TBNH
AC1	15743	1	CORD, RECEPTACLE, MINI 3 PIN, FEMALE-INTERNAL THREADS, 3 METER (9.84 FT) PIGTAIL - 1/2 INCH NPT, AC C.C., 16 AWG, 600V, 13A	WOODHEAD - MOLEX 1R3000A20M030
AC2	15743	1	CORD, RECEPTACLE, MINI 3 PIN, FEMALE-INTERNAL THREADS, 3 METER (9.84 FT) PIGTAIL - 1/2 INCH NPT, AC C.C., 16 AWG, 600V, 13A	WOODHEAD - MOLEX 1R3000A20M030
AC3	15743	1	CORD, RECEPTACLE, MINI 3 PIN, FEMALE-INTERNAL THREADS, 3 METER (9.84 FT) PIGTAIL - 1/2 INCH NPT, AC C.C., 16 AWG, 600V, 13A	WOODHEAD - MOLEX 1R3000A20M030
DC1	15763	1	CORD, RECEPTACLE, MINI 4 PIN DC, FEMALE, INTERNAL THREAD, 3 METER (9.84 FT) PIGTAIL, 1/2 INCH -14 NPT, 16 AWG, 10A, 600V	WOODHEAD - MOLEX 1R4000A39M030
DC2	15763	1	CORD, RECEPTACLE, MINI 4 PIN DC, FEMALE, INTERNAL THREAD, 3 METER (9.84 FT) PIGTAIL, 1/2 INCH -14 NPT, 16 AWG, 10A, 600V	WOODHEAD - MOLEX 1R4000A39M030
DC3	15763	1	CORD, RECEPTACLE, MINI 4 PIN DC, FEMALE, INTERNAL THREAD, 3 METER (9.84 FT) PIGTAIL, 1/2 INCH -14 NPT, 16 AWG, 10A, 600V	WOODHEAD - MOLEX 1R4000A39M030
DC4	15763	1	CORD, RECEPTACLE, MINI 4 PIN DC, FEMALE, INTERNAL THREAD, 3 METER (9.84 FT) PIGTAIL, 1/2 INCH -14 NPT, 16 AWG, 10A, 600V	WOODHEAD - MOLEX 1R4000A39M030

DEVICE LIST

DEVICE TAG	ITEM NUMBER	QTY	DESCRIPTION	MANUFACTURER PART NUMBER
DC5	15763	1	CORD, RECEPTACLE, MINI 4 PIN DC, FEMALE, INTERNAL THREAD, 3 METER (9.84 FT) PIGTAIL, 1/2 INCH -14 NPT, 16 AWG, 10A, 600V	WOODHEAD - MOLEX 1R4000A39M030
DC6	15763	1	CORD, RECEPTACLE, MINI 4 PIN DC, FEMALE, INTERNAL THREAD, 3 METER (9.84 FT) PIGTAIL, 1/2 INCH -14 NPT, 16 AWG, 10A, 600V	WOODHEAD - MOLEX 1R4000A39M030
EN	19002	1	RECEPTACLE, ETHERNET, 4 PIN, MICRO, FEMALE INT THREAD REC, PG9, TO RJ45, 2 PAIR, CAT5E, 24 AWG, UNSHIELDED, STRANDED, HIGH-FLEX, TPE 2M (6.56 FT)	WOODHEAD - MOLEX ER1PAB3004M020
EN2	19002	1	RECEPTACLE, ETHERNET, 4 PIN, MICRO, FEMALE INT THREAD REC, PG9, TO RJ45, 2 PAIR, CAT5E, 24 AWG, UNSHIELDED, STRANDED, HIGH-FLEX, TPE 2M (6.56 FT)	WOODHEAD - MOLEX ER1PAB3004M020
HAC1	15743	1	CORD, RECEPTACLE, MINI 3 PIN, FEMALE-INTERNAL THREADS, 3 METER (9.84 FT) PIGTAIL - 1/2 INCH NPT, AC C.C., 16 AWG, 600V, 13A	WOODHEAD - MOLEX 1R3000A20M030
HAC2	15743	1	CORD, RECEPTACLE, MINI 3 PIN, FEMALE-INTERNAL THREADS, 3 METER (9.84 FT) PIGTAIL - 1/2 INCH NPT, AC C.C., 16 AWG, 600V, 13A	WOODHEAD - MOLEX 1R3000A20M030
HAC3	15743	1	CORD, RECEPTACLE, MINI 3 PIN, FEMALE-INTERNAL THREADS, 3 METER (9.84 FT) PIGTAIL - 1/2 INCH NPT, AC C.C., 16 AWG, 600V, 13A	WOODHEAD - MOLEX 1R3000A20M030
HDC1	15763	1	CORD, RECEPTACLE, MINI 4 PIN DC, FEMALE, INTERNAL THREAD, 3 METER (9.84 FT) PIGTAIL, 1/2 INCH -14 NPT, 16 AWG, 10A, 600V	WOODHEAD - MOLEX 1R4000A39M030
HDC2	15763	1	CORD, RECEPTACLE, MINI 4 PIN DC, FEMALE, INTERNAL THREAD, 3 METER (9.84 FT) PIGTAIL, 1/2 INCH -14 NPT, 16 AWG, 10A, 600V	WOODHEAD - MOLEX 1R4000A39M030
HDC3	15763	1	CORD, RECEPTACLE, MINI 4 PIN DC, FEMALE, INTERNAL THREAD, 3 METER (9.84 FT) PIGTAIL, 1/2 INCH -14 NPT, 16 AWG, 10A, 600V	WOODHEAD - MOLEX 1R4000A39M030

DEVICE TAG	ITEM NUMBER	QTY	DESCRIPTION	MANUFACTURER PART NUMBER
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