

# 30 AMP POWER DISTRIBUTION PANEL NO BRANCH CIRCUITS

ECS-5100-XFMR  
TYPE  
TT

## APPLICATION NOTES:

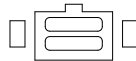
1. TT IS THE TRANSFORMER TYPE  
(TT = 00 NO TRANSFORMER)  
(TT = 02 FOR NORTH AMERICA 480V)  
(TT = 03 FOR NON-NA REGIONS 380/400/416/440V)  
(TT = 04 FOR NON-NA REGIONS 380/416/440/480V)
2. EXAMPLE PART NUMBER: ECS-5100-02 (THIS ECS WOULD HAVE THE NA 480 V TRANSFORMER OPTION).

## MAIN CIRCUIT BREAKER SETTINGS E104DISC

ETU350 LSI  
3VA6140-6HN31-....  
 $I_i = 480A$

☐ ACT  
☐ AL1  
☐ AL2

$I_r/A$			$t_{ld}/s$			$I_{sd} = xI_r$			$t_{sd}/s$		
30	32	3	3	5	3.5	3.5	4	0.08	0.15	0.22	0.3
28	35	2	2	8	3	3	5	0.15	0.22	0.3	0.4
25	37	1	1	10	2.5	2.5	6	0.22	0.3	0.4	
20	39	0.75	0.75	14	2	2	8	0.3	0.4		
15	40	0.5	0.5	17	1.5	1.5	10	0.4			



SET:  $I_r/A = 30 A$   $t_{ld}/s = 5 s$   $I_{sd} = xI_r = 4$   $t_{sd}/s = 0.08 s$

LAST PART SELECTED WITH : GM\_ePartsDB\_202106

DRAWING PACKAGE REVISION LEVEL: B

REFERENCE USED:

ENG. MGR:

NONE REQUIRED



GM - STANDARD

GM ENGINEER:  
HARDWARE  
TEAM

DESIGN SOURCE:

DESIGN LEADER:  
GREG  
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 30 AMP POWER DISTRIBUTION PANEL  
NO BRANCH CIRCUITS

SHEET DESCRIPTION: TITLE AND REFERENCE SHEET

SYSTEM/TOOL NO:

RELEASE DATE:  
2020-04-01

DRAWING NUMBER:  
ECS-5100-TT

REVISION  
LETTER:  
B  
DATE:  
2021-09-23

SECTION  
LETTER:  
A

SHEET  
NUMBER:  
1 OF 3

STATUS: RELEASED

PROJECT NAME: ECS-5100-TT\_RevB(2021-09-23)

SAVE DATE: 2021-09-23

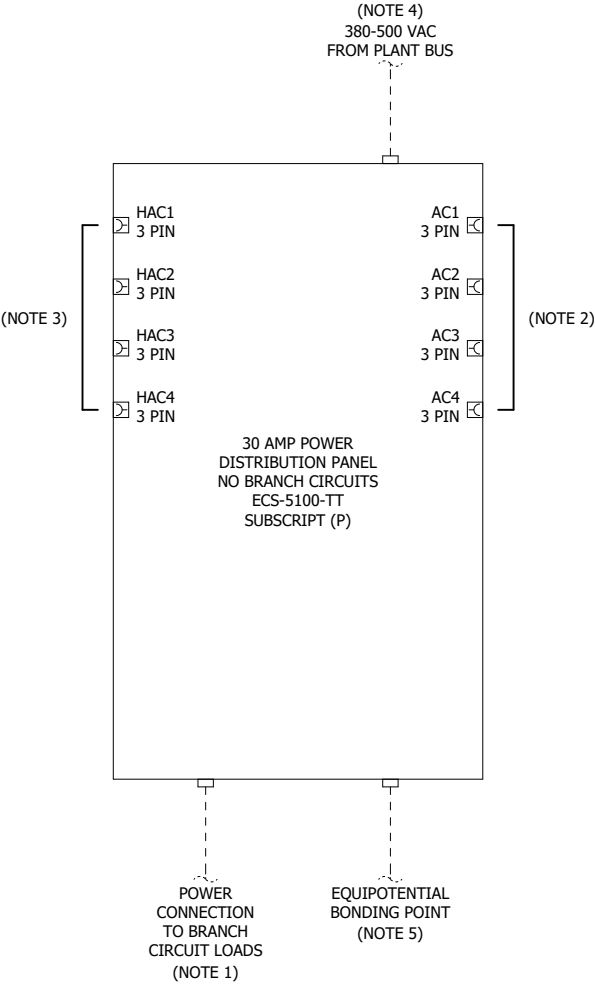
EPLAN VERSION: 2.7.3


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
X	ENCLOSURE	B 1	ENCLOSURE LAYOUT - FRONT
		A 2	ENCLOSURE LAYOUT - SIDE
		3	ENCLOSURE LAYOUT - TOP
		B 4	TAG DETAILS
		B 5	TAG DETAILS
		6	SUBPLATE DETAIL
		B 7	SUBPLATE LAYOUT
		B 8	SUBPLATE DETAIL VIEW
		B 9	SUBPLATE DETAIL VIEW
		10	RECEPTACLE PIN CHART
		A 11	ENCLOSURE FOOTPRINT
YA	BILL OF MATERIAL	B 1	BOM CHANGE SHEET: ECS-5100-TT-BOM (BASE BOM)
		B 2	ECS-5100-TT-BOM (BASE BOM)
		B 3	ECS-5100-TT-BOM (BASE BOM)
YB	VARIABLE BOM	1	BOM CHANGE SHEET: ECS-5100-TT-BOM (TT OPTION)
		2	ECS-5100-TT-BOM (TT OPTION)
YZ	DEVICE LIST	B 1	DEVICE LIST
		B 2	DEVICE LIST

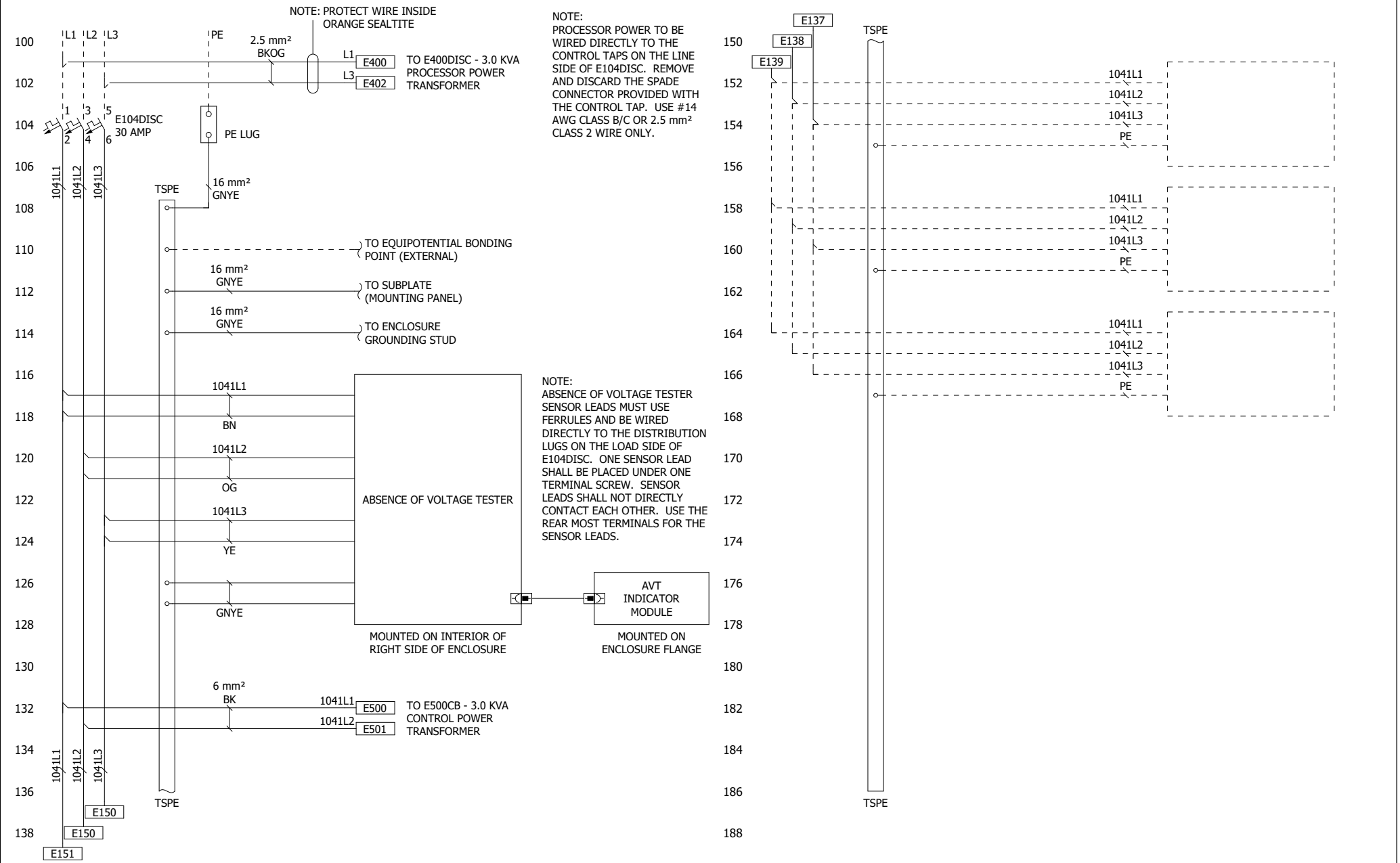
SECTION	REV	SHEET	DESCRIPTION
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- NOTES:
- 1. THIS ENCLOSURE DOES NOT CONTAIN BRANCH CIRCUITS.
  - 2. USE ACx RECEPTACLES TO FEED 120 VAC TO PANELS AND DEVICES REQUIRING AC POWER.
  - 3. USE HACx RECEPTACLES TO FEED 120 VAC TO PANELS AND DEVICES REQUIRING "HOT" AC POWER.
  - 4. USE ONLY WIRE SIZE AND STRAND CLASS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. REMOVE INSULATION FROM WIRE AND TORQUE TERMINALS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
  - 5. EQUIPOTENTIAL BONDING CONNECTION REQUIRED. REFERENCE APPLICATION WD.
  - 6. COVERS ARE REQUIRED FOR UNUSED RECEPTACLES. THESE COVERS ARE NOT INCLUDED WITH THIS ENCLOSURE.



	GM - STANDARD	GM ENGINEER:	DESIGN SOURCE:	DESIGN LEADER:	PROGRAMS:	PACKAGE DESCRIPTION:	30 AMP POWER DISTRIBUTION PANEL NO BRANCH CIRCUITS	SYSTEM/TOOL NO:	RELEASE DATE:	REVISION LETTER:	SECTION LETTER:	SHEET NUMBER:
		HARDWARE TEAM		GREG DOPPKE		SHEET DESCRIPTION:	INTERCONNECT	DRAWING NUMBER:	ECS-5100-TT			
						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												



	GM - STANDARD	GM ENGINEER: HARDWARE TEAM	DESIGN SOURCE:	DESIGN LEADER: GREG DOPPKE	PROGRAMS:	PACKAGE DESCRIPTION: 30 AMP POWER DISTRIBUTION PANEL NO BRANCH CIRCUITS	SYSTEM/TOOL NO:	RELEASE DATE: 2020-04-01	REVISION LETTER:  DATE:	SECTION LETTER:  E	SHEET NUMBER:  1 OF 5
						SHEET DESCRIPTION: 380 - 500 VAC POWER DISTRIBUTION	DRAWING NUMBER: ECS-5100-TT				


STATUS: RELEASED

PROJECT NAME: ECS-5100-TT\_RevB(2021-09-23)

SAVE DATE: 2021-09-14

EPLAN VERSION: 2.7.3

200	250
202	252
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206	256
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214	264
216	266
218	268
220	270
222	272
224	274
226	276
228	278
230	280
232	282
234	284
236	286
238	288

	GM - STANDARD	GM ENGINEER: HARDWARE TEAM	DESIGN SOURCE:	DESIGN LEADER: GREG DOPPKE	PROGRAMS:	PACKAGE DESCRIPTION: 30 AMP POWER DISTRIBUTION PANEL NO BRANCH CIRCUITS	SYSTEM/TOOL NO:	RELEASE DATE: 2020-04-01	REVISION LETTER:  DATE:	SECTION LETTER:  E	SHEET NUMBER:  2 OF 5
						SHEET DESCRIPTION: 380 - 500 VAC POWER DISTRIBUTION	DRAWING NUMBER: ECS-5100-TT				

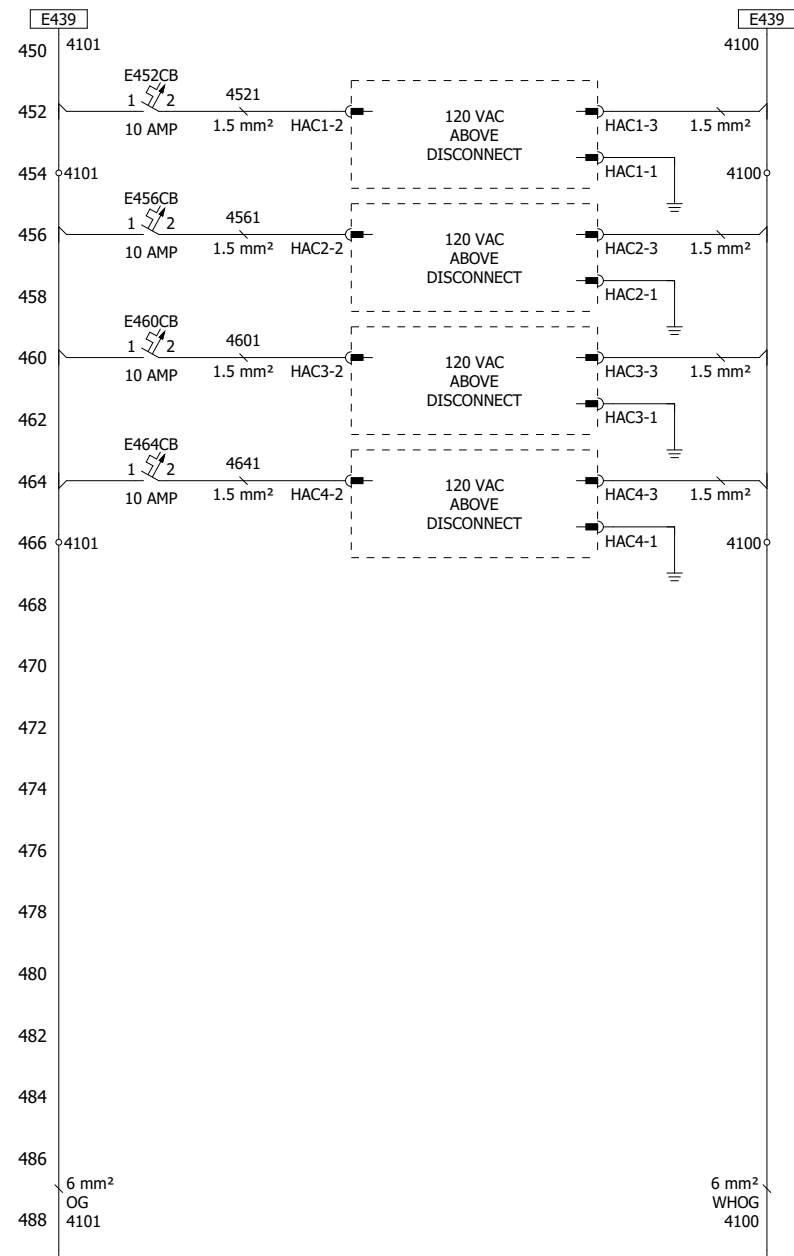
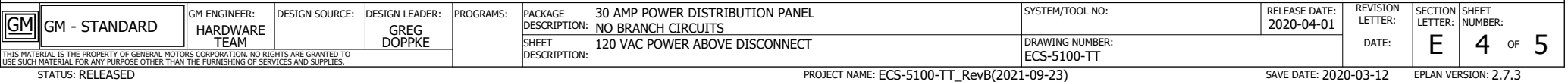
STATUS: RELEASED

PROJECT NAME: ECS-5100-TT\_RevB(2021-09-23)

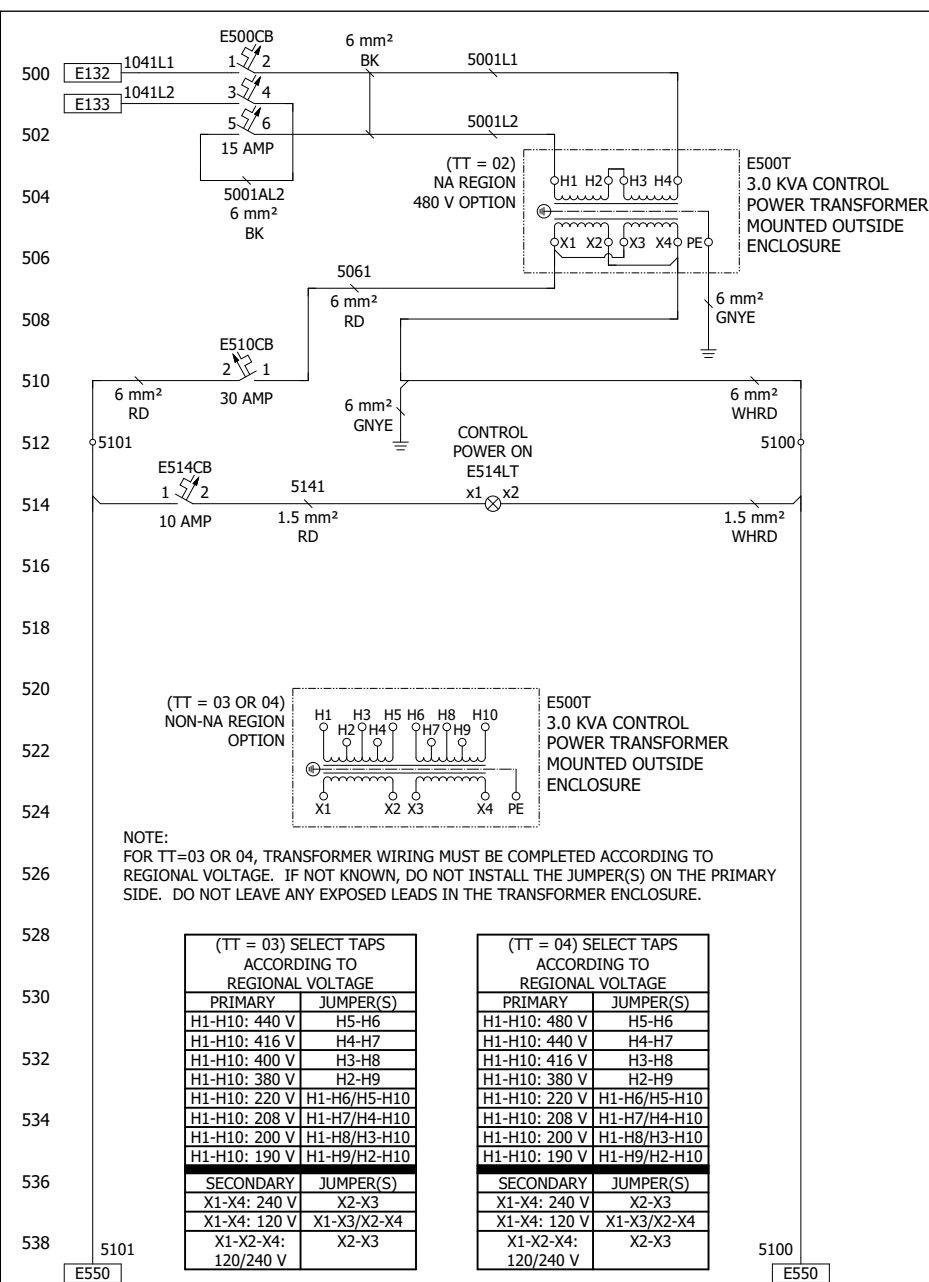
SAVE DATE: 2019-12-19

EPLAN VERSION: 2.7.3

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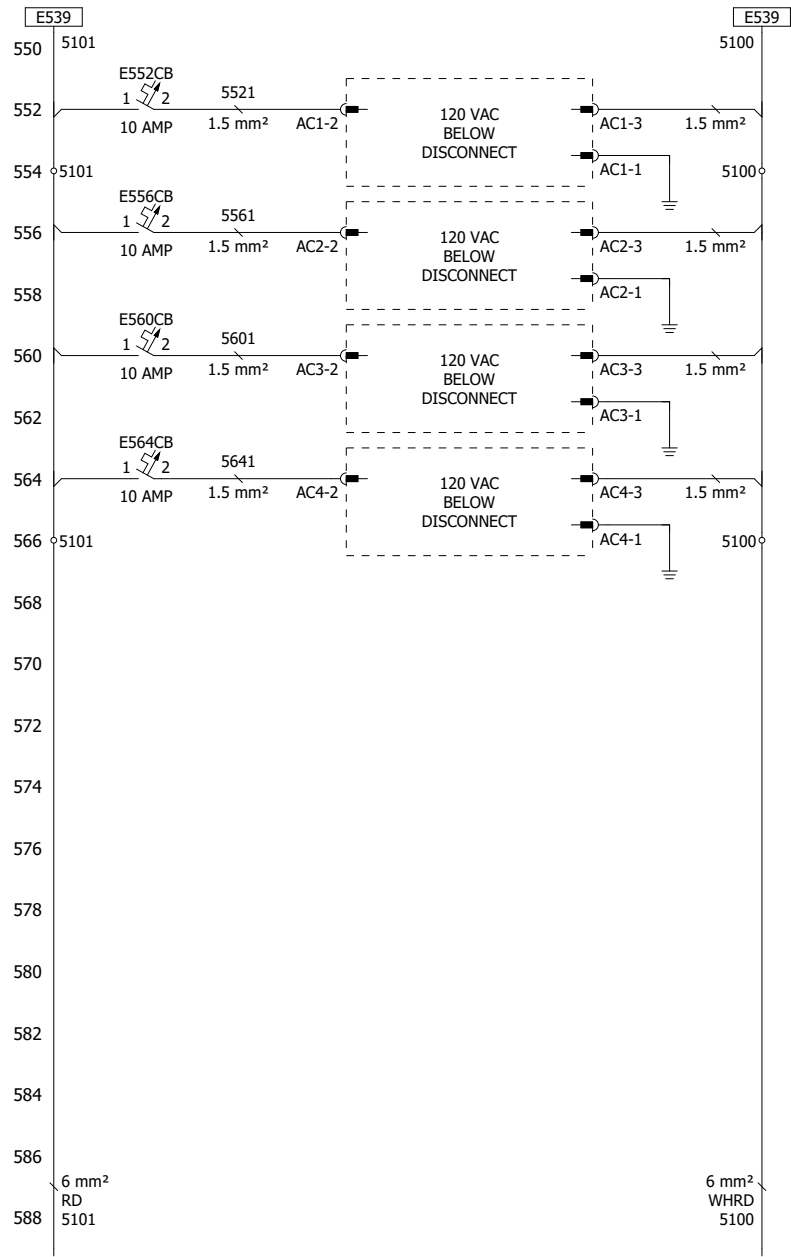


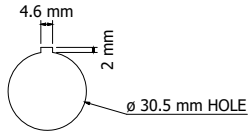


NOTE:  
FOR TT=03 OR 04, TRANSFORMER WIRING MUST BE COMPLETED ACCORDING TO REGIONAL VOLTAGE. IF NOT KNOWN, DO NOT INSTALL THE JUMPER(S) ON THE PRIMARY SIDE. DO NOT LEAVE ANY EXPOSED LEADS IN THE TRANSFORMER ENCLOSURE.

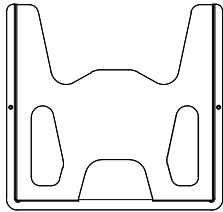
(TT = 03) SELECT TAPS ACCORDING TO REGIONAL VOLTAGE	
PRIMARY	JUMPER(S)
H1-H10: 440 V	H5-H6
H1-H10: 416 V	H4-H7
H1-H10: 400 V	H3-H8
H1-H10: 380 V	H2-H9
H1-H10: 220 V	H1-H6/H5-H10
H1-H10: 208 V	H1-H7/H4-H10
H1-H10: 200 V	H1-H8/H3-H10
H1-H10: 190 V	H1-H9/H2-H10
SECONDARY	JUMPER(S)
X1-X4: 240 V	X2-X3
X1-X4: 120 V	X1-X3/X2-X4
X1-X2-X4: 120/240 V	X2-X3

(TT = 04) SELECT TAPS ACCORDING TO REGIONAL VOLTAGE	
PRIMARY	JUMPER(S)
H1-H10: 480 V	H5-H6
H1-H10: 440 V	H4-H7
H1-H10: 416 V	H3-H8
H1-H10: 380 V	H2-H9
H1-H10: 220 V	H1-H6/H5-H10
H1-H10: 208 V	H1-H7/H4-H10
H1-H10: 200 V	H1-H8/H3-H10
H1-H10: 190 V	H1-H9/H2-H10
SECONDARY	JUMPER(S)
X1-X4: 240 V	X2-X3
X1-X4: 120 V	X1-X3/X2-X4
X1-X2-X4: 120/240 V	X2-X3





**DETAIL "A"**  
ABSENCE OF VOLTAGE TESTER  
INDICATOR MODULE MOUNTING HOLE



PRINT POCKET INSIDE DOOR  
(SUPPLIED WITH ENCLOSURE)

**DOOR BONDING INSTRUCTIONS**

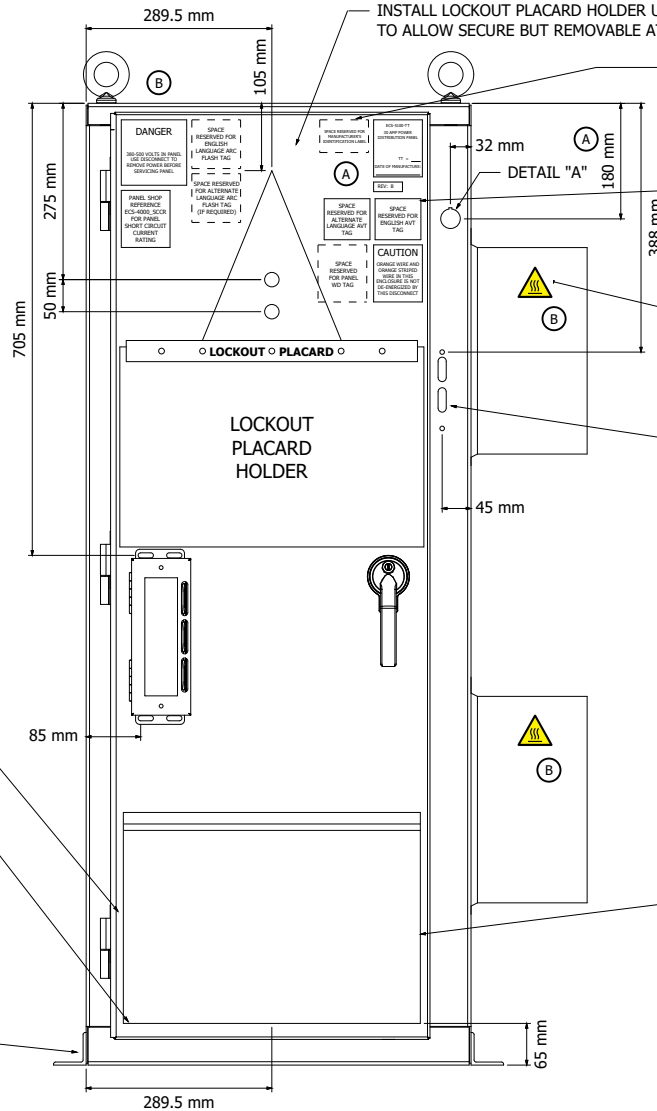
SUPPLY GROUNDING STUD ON  
INTERIOR OF DOOR AND INSIDE  
ENCLOSURE.

PROVIDE 10 mm<sup>2</sup> 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)



**ENCLOSURE - 1500 mm H X 600 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

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.



GM - STANDARD

GM ENGINEER:  
HARDWARE  
TEAM

DESIGN SOURCE:

DESIGN LEADER:  
GREG  
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 30 AMP POWER DISTRIBUTION PANEL  
NO BRANCH CIRCUITS

SHEET DESCRIPTION: ENCLOSURE LAYOUT - FRONT

SYSTEM/TOOL NO:

RELEASE DATE:  
2020-04-01

REVISION  
LETTER:  
B  
DATE:  
2021-09-23

SECTION  
LETTER:  
X

SHEET  
NUMBER:  
1 OF 11

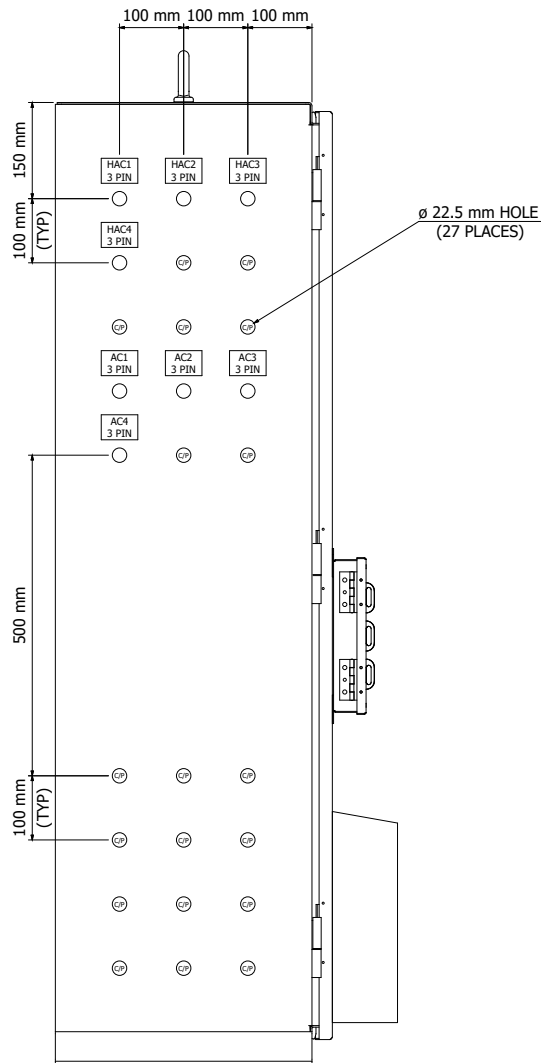
DRAWING NUMBER:  
ECS-5100-TT

PROJECT NAME: ECS-5100-TT\_RevB(2021-09-23)

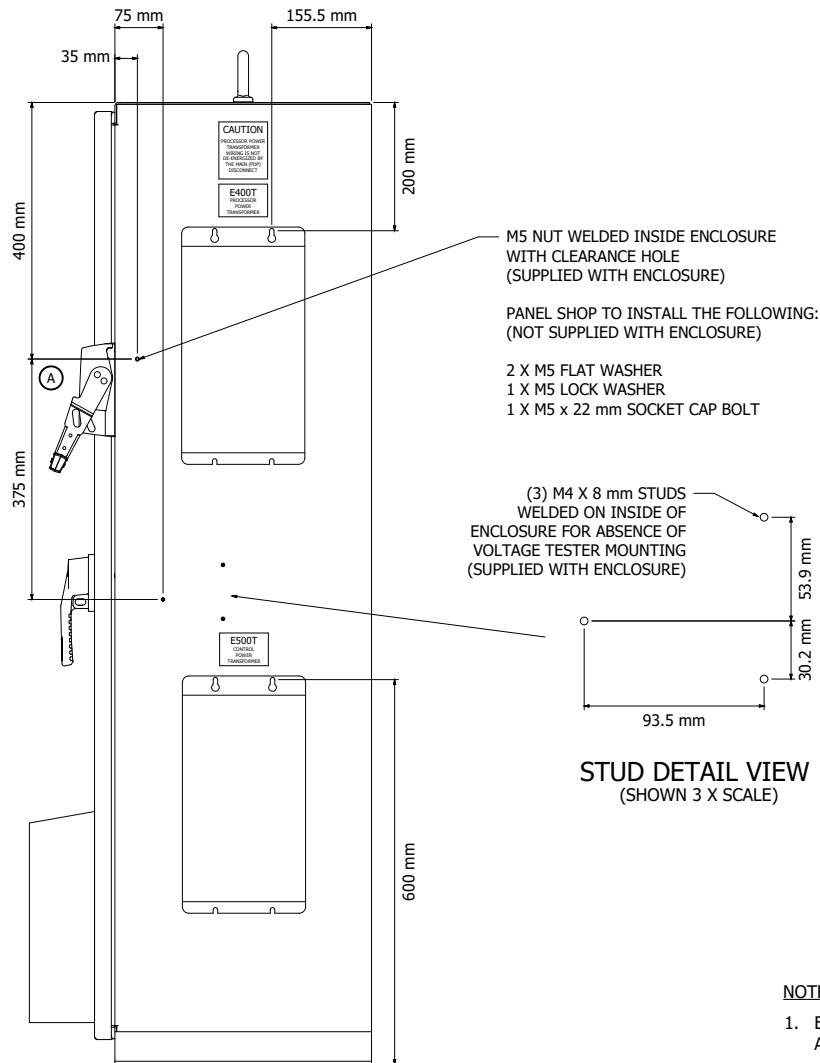
SAVE DATE: 2021-09-23

EPLAN VERSION: 2.7.3

STATUS: RELEASED



LEFT SIDE VIEW



RIGHT SIDE VIEW

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:**

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

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: 30 AMP POWER DISTRIBUTION PANEL  
NO BRANCH CIRCUITS

SHEET DESCRIPTION: ENCLOSURE LAYOUT - SIDE

SYSTEM/TOOL NO:

RELEASE DATE:  
2020-04-01

REVISION  
LETTER:  
A  
DATE:  
2021-01-12

SECTION  
LETTER:  
X

SHEET  
NUMBER:  
2 OF 11

DRAWING NUMBER:  
ECS-5100-TT

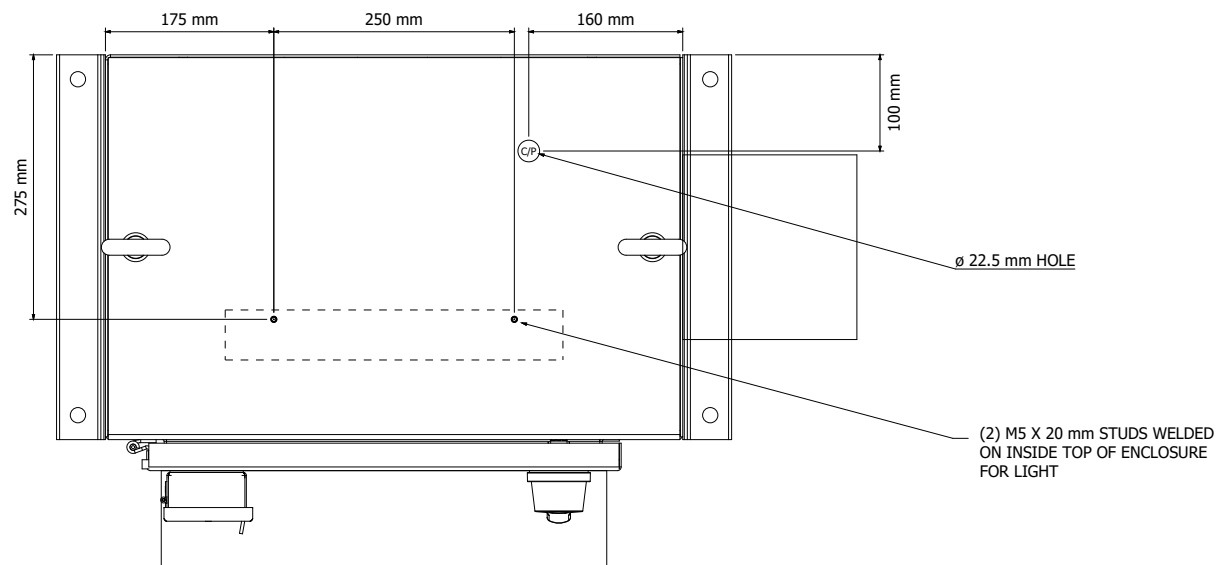
PROJECT NAME: ECS-5100-TT\_RevB(2021-09-23)

SAVE DATE: 2021-09-14

EPLAN VERSION: 2.7.3

STATUS: RELEASED

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TOP VIEW

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



KEY POSITION OF  
RECEPTACLE TYPICAL  
FOR ALL

**NOTES:**

1. ENCLOSURE TO BE CONSTRUCTED TO CURRENT GCCB-1 AND GCCH-1 STANDARDS.
2. INCLUDE A COPY OF THIS DRAWING PACKAGE INSIDE THE ENCLOSURE.
3. PROVIDE A TAG WITH RECEPTACLE NAME ON THE INSIDE AND OUTSIDE OF THE ENCLOSURE FOR EACH RECEPTACLE.
4. 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: 30 AMP POWER DISTRIBUTION PANEL  
NO BRANCH CIRCUITS

SHEET DESCRIPTION: ENCLOSURE LAYOUT - TOP

SYSTEM/TOOL NO:

RELEASE DATE:  
2020-04-01

REVISION  
LETTER:

DATE:

SECTION  
LETTER:

X

SHEET  
NUMBER:

3 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.

STATUS: RELEASED

PROJECT NAME: ECS-5100-TT\_RevB(2021-09-23)

SAVE DATE: 2020-01-14

EPLAN VERSION: 2.7.3

# DANGER

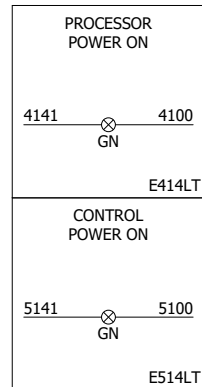
380-500 VOLTS IN PANEL  
USE DISCONNECT TO  
REMOVE POWER BEFORE  
SERVICING PANEL

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-5100-TT  
30 AMP POWER  
DISTRIBUTION PANEL

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:	30 AMP POWER DISTRIBUTION PANEL NO BRANCH CIRCUITS	SYSTEM/TOOL NO:	RELEASE DATE:	REVISION LETTER:	SECTION LETTER:	SHEET NUMBER:
		HARDWARE TEAM		GREG DOPPKE					2020-04-01	B	X	4 OF 11
SHEET DESCRIPTION:						DRAWING NUMBER:		DATE:				
						ECS-5100-TT		2021-09-23				

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-5100-TT RevB(2021-09-23)

SAVE DATE: 2021-09-23

EPLAN VERSION: 2.7.3


TAG SIZE:  
102 mm W x 178 mm H

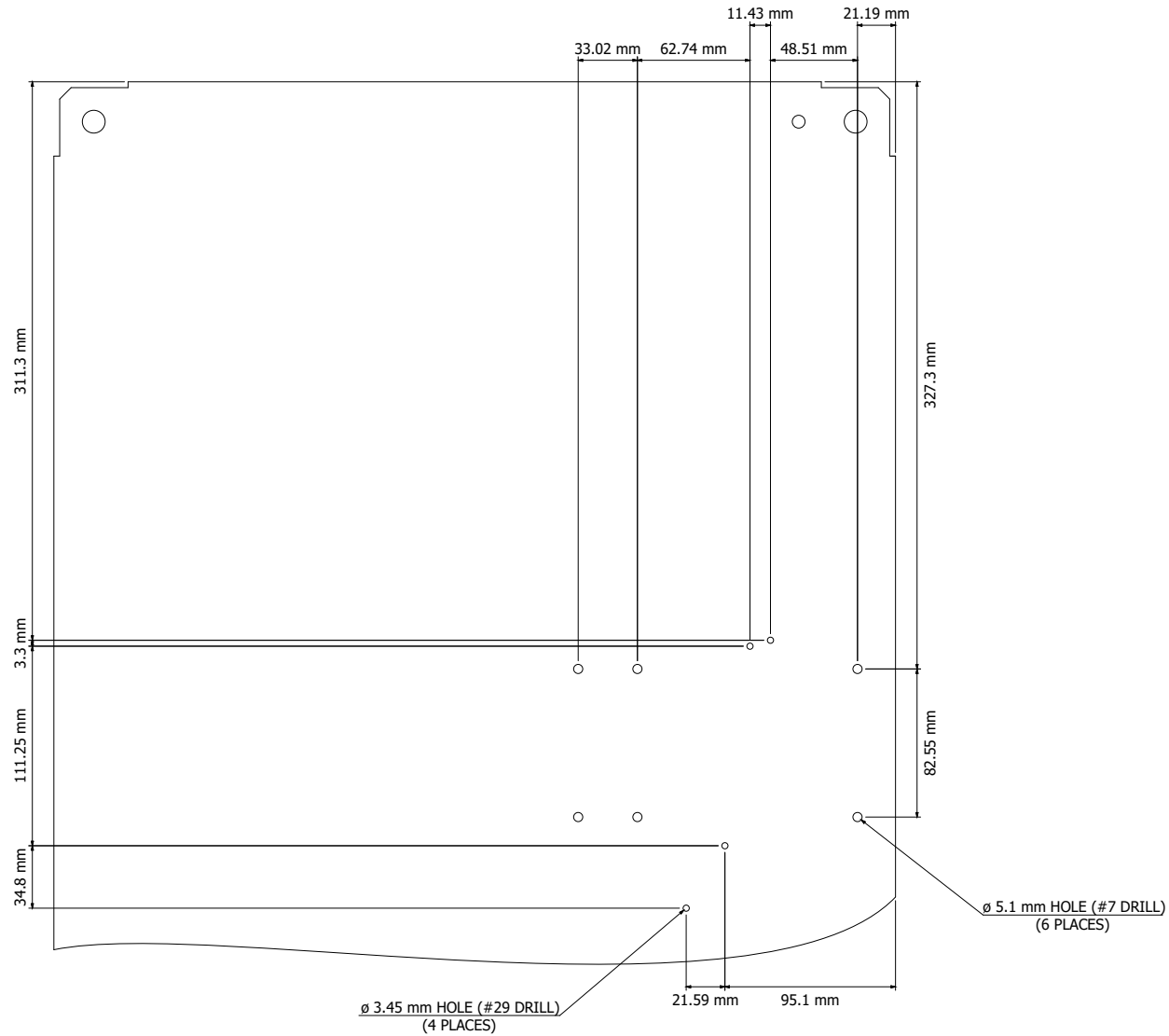
LUG TORQUE VALUES (UL) - ECS-5100			
TERMINAL	WIRE STRANDING CLASS	WIRE SIZE (AWG)	TORQUE (LB-IN)
E104DISC LINE SIDE	CLASS B/C	#10 - 4 #3 - 3/0	105 140
E104DISC LOAD SIDE	CLASS B/C	#14 - 8 #6 - 2	55 62
Ⓑ PE LUG LINE SIDE	NOT SPECIFIED	#10 - 0	53
NOTE: TORQUE VALUES PROVIDED ARE FOR LUGS INCLUDED IN THE 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-5100			
TERMINAL	WIRE STRANDING CLASS	WIRE SIZE (mm²)	TORQUE (N-m)
E104DISC LINE SIDE	CLASS 2	6 - 25 35 - 120	6 10
E104DISC LOAD SIDE	CLASS 2	1.5 2.5 - 10 16 - 35	2.8 6.2 7
Ⓑ PE LUG LINE SIDE	NOT SPECIFIED	6 - 50	6
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: 30 AMP POWER DISTRIBUTION PANEL NO BRANCH CIRCUITS	SYSTEM/TOOL NO:	RELEASE DATE: 2020-04-01	REVISION LETTER: B DATE: 2021-09-23	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.				SHEET DESCRIPTION: TAG DETAILS						DRAWING NUMBER: ECS-5100-TT
STATUS: RELEASED						PROJECT NAME: ECS-5100-TT RevB(2021-09-23)			SAVE DATE: 2021-09-23		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.

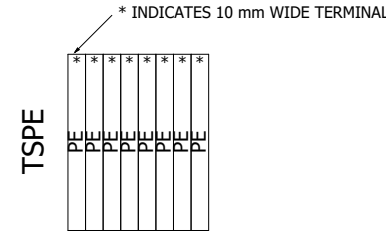
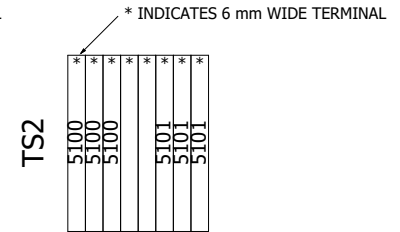
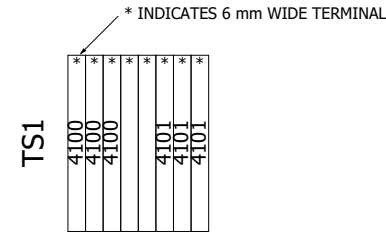
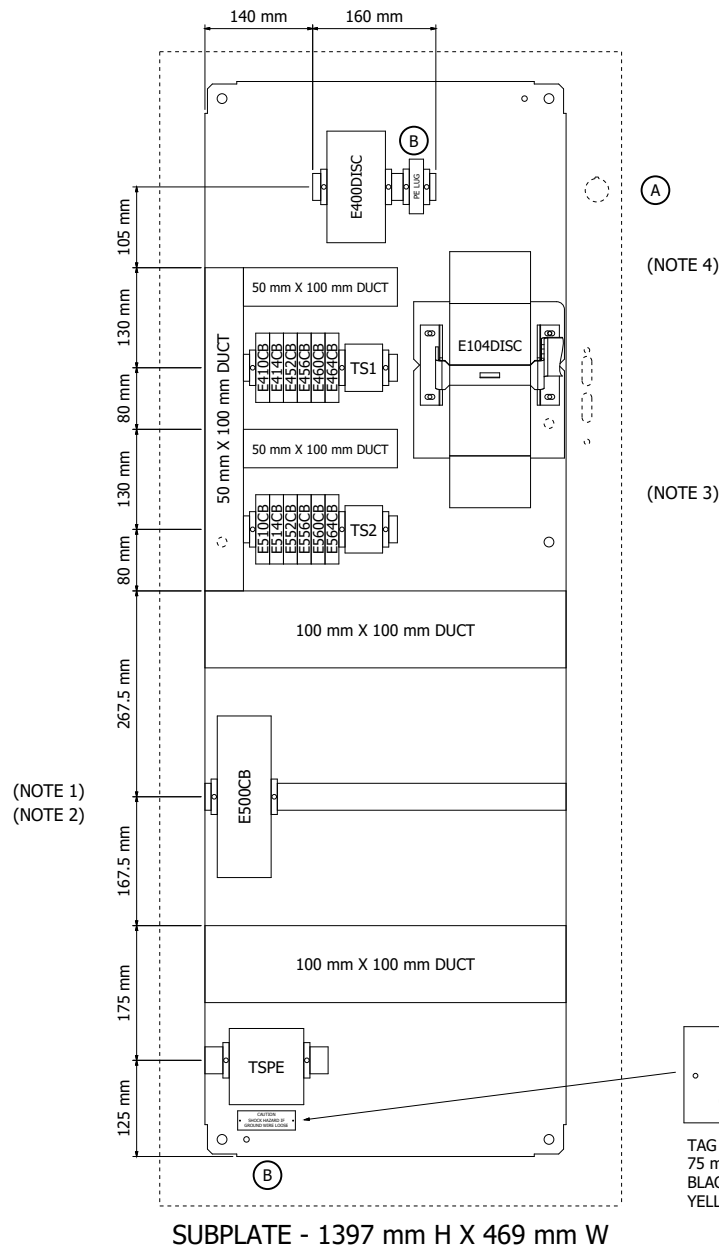
 <b>GM - STANDARD</b>	GM ENGINEER: <b>HARDWARE TEAM</b>	DESIGN SOURCE:	DESIGN LEADER: <b>GREG DOPPKE</b>	PROGRAMS:	PACKAGE DESCRIPTION: 30 AMP POWER DISTRIBUTION PANEL NO BRANCH CIRCUITS	SYSTEM/TOOL NO:	RELEASE DATE: 2020-04-01	REVISION LETTER: DATE:	SECTION LETTER: <b>X</b>	SHEET NUMBER: <b>6</b> OF <b>11</b>
					SHEET DESCRIPTION: SUBPLATE DETAIL	DRAWING NUMBER: ECS-5100-TT				

STATUS: RELEASED

PROJECT NAME: ECS-5100-TT\_RevB(2021-09-23)

SAVE DATE: 2020-03-19

EPLAN VERSION: 2.7.3



#### 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 mm<sup>2</sup> CLASS 2 WIRE ONLY.



GM - STANDARD

GM ENGINEER:  
HARDWARE  
TEAM

DESIGN SOURCE:

DESIGN LEADER:  
GREG  
DOPPKE

PROGRAMS:

PACKAGE DESCRIPTION: 30 AMP POWER DISTRIBUTION PANEL

SHEET DESCRIPTION: NO BRANCH CIRCUITS

SUBPLATE LAYOUT

SYSTEM/TOOL NO:

RELEASE DATE:  
2020-04-01

REVISION  
LETTER:  
B

DATE:  
2021-09-23

SECTION  
LETTER:

X

SHEET  
NUMBER:

7 OF 11

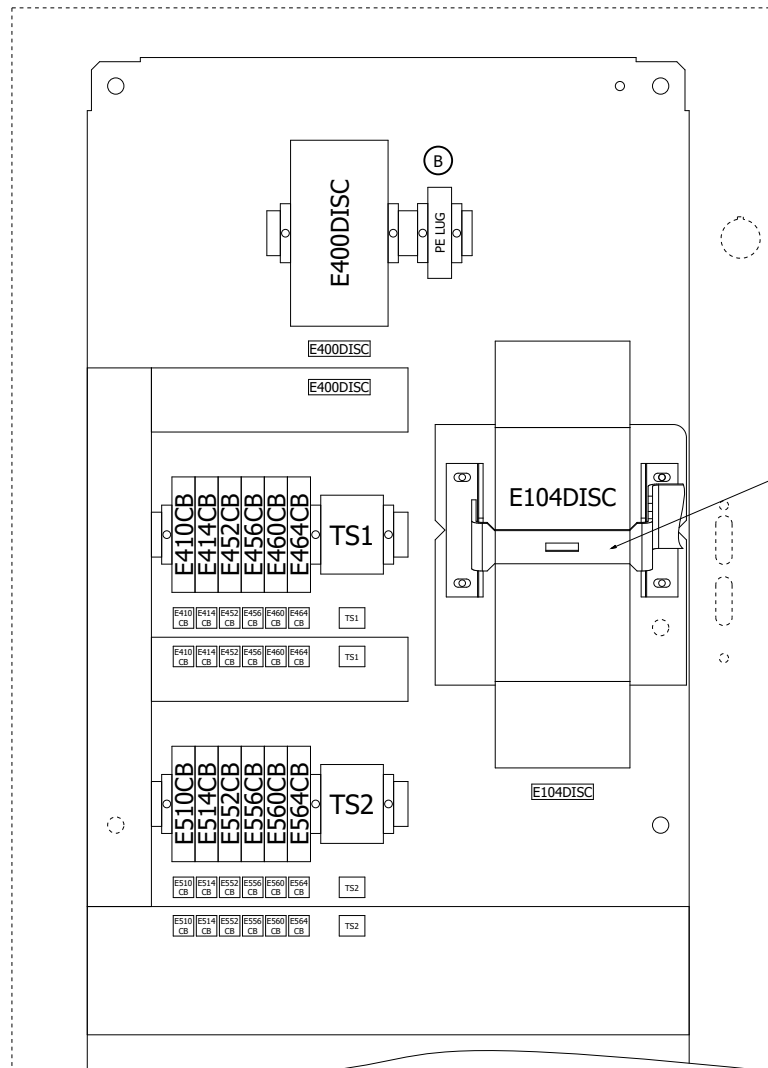
STATUS: RELEASED

PROJECT NAME: ECS-5100-TT\_RevB(2021-09-23)

SAVE DATE: 2021-09-23

EPLAN VERSION: 2.7.3






INSIDE RIGHT VIEW

E114AVT

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

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.

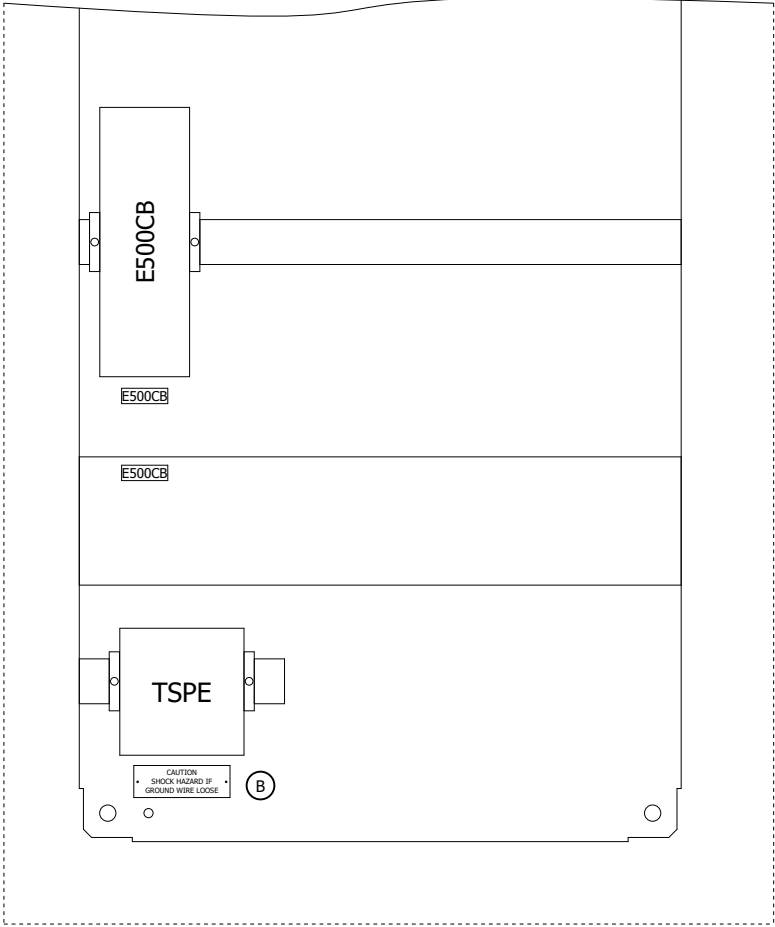
	GM - STANDARD	GM ENGINEER: HARDWARE TEAM	DESIGN SOURCE:	DESIGN LEADER: GREG DOPPKE	PROGRAMS:	PACKAGE DESCRIPTION: 30 AMP POWER DISTRIBUTION PANEL NO BRANCH CIRCUITS	SYSTEM/TOOL NO:	RELEASE DATE: 2020-04-01	REVISION LETTER: B DATE: 2021-09-23	SECTION LETTER: X	SHEET NUMBER: 8 OF 11	
		THIS MATERIAL IS 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: SUBPLATE DETAIL VIEW	DRAWING NUMBER: ECS-5100-TT					
STATUS: RELEASED					PROJECT NAME: ECS-5100-TT RevB(2021-09-23)				SAVE DATE: 2021-09-23		EPLAN VERSION: 2.7.3	

STATUS: RELEASED

PROJECT NAME: ECS-5100-TT\_RevB(2021-09-23)

SAVE DATE: 2021-09-23

EPLAN VERSION: 2.7.3



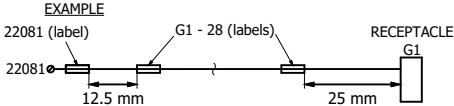
MINI CONNECTOR  
FEMALE - FACE VIEW

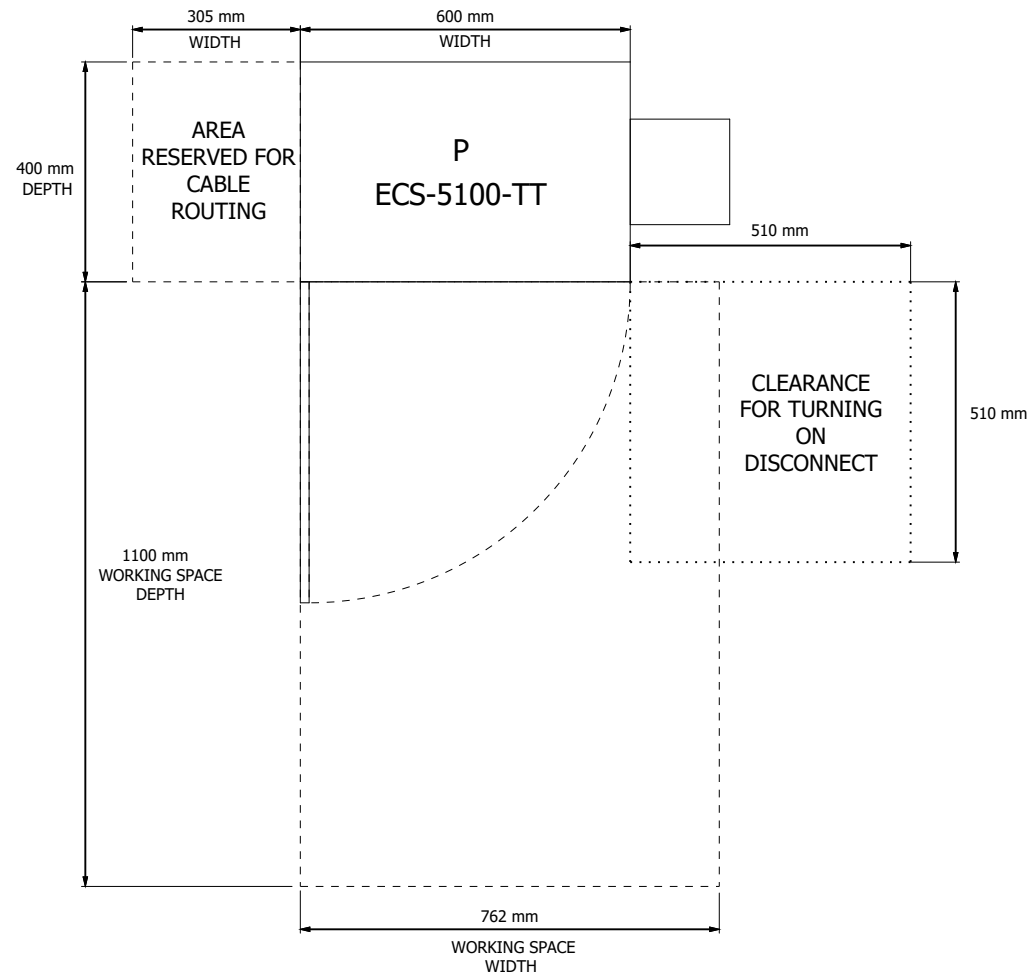
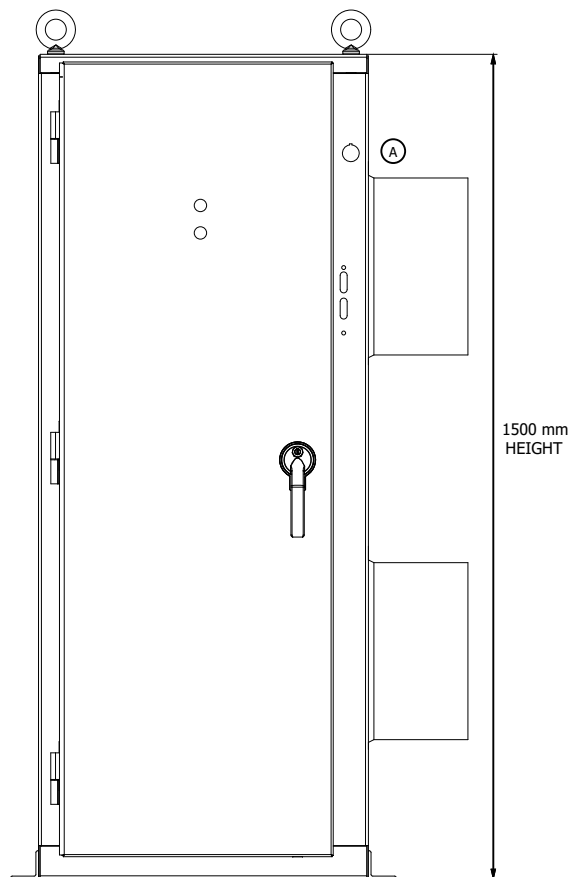
PIN	FUNCTION	COLOR
1	GROUND	GNYE
2	POWER	BK
3	NEUTRAL	WH

**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: 30 AMP POWER DISTRIBUTION PANEL

DESCRIPTION: NO BRANCH CIRCUITS

SHEET DESCRIPTION: ENCLOSURE FOOTPRINT

SYSTEM/TOOL NO:

RELEASE DATE:  
2020-04-01

REVISION  
LETTER: A  
DATE:  
2021-01-12

SECTION  
LETTER: X

SHEET  
NUMBER:  
11 OF 11

STATUS: RELEASED


PROJECT NAME: ECS-5100-TT\_RevB(2021-09-23)

SAVE DATE: 2021-09-14

EPLAN VERSION: 2.7.3

REV	ITEM NUMBER	CHANGE DESCRIPTION	DATE	CHANGE CODE	CHANGED BY
A	75600	PART NUMBER CHANGED FROM 3SB3921-0AA TO 3SU1900-0FA11-0AA0.	2021-01-12	C	DB
B	75813	ADDED ITEM.	2021-09-23	C	SK
	80000	ADDED ITEM.			
	80042	ADDED ITEM.			
	12726	REMOVED ITEM. QTY WAS 1.			

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: 30 AMP POWER DISTRIBUTION PANEL NO BRANCH CIRCUITS	SYSTEM/TOOL NO:	RELEASE DATE: 2020-04-01	REVISION LETTER: B DATE: 2021-09-23	SECTION LETTER: YA	SHEET NUMBER: 1 OF 3		
		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: BOM CHANGE SHEET: ECS-5100-TT-BOM (BASE BOM)	DRAWING NUMBER: ECS-5100-TT						
STATUS: RELEASED					PROJECT NAME: ECS-5100-TT RevB(2021-09-23)					SAVE DATE: 2021-09-23		EPLAN VERSION: 2.7.3	

BOM NAME:  
ECS-5100-TT-BOM (BASE BOM)

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
	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		
	11225	10	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		
	11280	1	CIRCUIT BREAKER 3VA6 UL FRAME 150 BREAKING CAPACITY CLASS H 65KA @ 480V 3-POLE, LINE PROTECTION ETU350, LSI, IN=40A OVERLOAD PROTECTION IR=16A...40A SHORT-CIRCUIT PROTECTION ISD=1.5...10 X IR, II=12 X IN WITHOUT CONNECTION	SIEMENS	3VA6140-6HN31-0AA0	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		
	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		
	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		
	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	16	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		
	12731	1	BLOCK, TERMINAL, END BARRIER, FOR ZDU 10/3AN 1767690000 AND ZDU 16/3AN 1768320000, BEIGE	WEIDMULLER	1749580000	B2-N		
	12738	0 A/R	BLOCK, TERMINAL, MARKING TAG, WS 15/5, 15 X 5 mm, FOR ZDU 16/3AN 1768320000	WEIDMULLER	1609880000	B2-N		

BOM NAME:  
ECS-5100-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
	12739	8	BLOCK, TERMINAL, SPRING CLAMP, GROUND, 600 V, ZPE 16/3AN, 14- 4 AWG, 1.5 - 25 mm², FINGER SAFE, 3 POLE SINGLE CIRCUIT, 12 mm, GREEN-YELLOW	WEIDMULLER	1768310000	B2-N		
	15743	8	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		
	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		
	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	20	HOLE PLUG, 22.5mm DIAMETER	SIEMENS	3SU1900-0FA11-0AA0	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			
	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		
	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		
	80097	1	ENCLOSURE BUILT TO LATEST GCCB-1 AND GCCH-1 SPECIFICATIONS, 1500 mm H X 600 mm W X 400 mm D, RAL 7035 GRAY, 50 mm MOUNTING ANGLES, SUBPLATE, 1397 mm H X 469 mm W, 12 GAUGE MIN, GALVANIZED	HOFFMANN OR EQUIVALENT	X2726	B3		
	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		

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: 30 AMP POWER DISTRIBUTION PANEL  
NO BRANCH CIRCUITS  
SHEET DESCRIPTION: BOM CHANGE SHEET: ECS-5100-TT-BOM (TT OPTION)

SYSTEM/TOOL NO:

DRAWING NUMBER:  
ECS-5100-TT

RELEASE DATE:  
2020-04-01

REVISION  
LETTER:

DATE:

SECTION  
LETTER:

SHEET  
NUMBER:

YB 1 OF 2

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-5100-TT\_RevB(2021-09-23)

SAVE DATE: 2021-09-23

EPLAN VERSION: 2.7.3



BOM NAME:  
ECS-5100-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
	11280	1	CIRCUIT BREAKER 3VA6 UL FRAME 150 BREAKING CAPACITY CLASS H 65KA @ 480V 3-POLE, LINE PROTECTION ETU350, LSI, IN=40A OVERLOAD PROTECTION IR=16A...40A SHORT-CIRCUIT PROTECTION ISD=1.5...10 X IR, II=12 X IN WITHOUT CONNECTION	SIEMENS 3VA6140-6HN31-0AA0
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
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
E400P 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 440-416-400-380-220-208-190 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

DEVICE TAG	ITEM NUMBER	QTY	DESCRIPTION	MANUFACTURER PART NUMBER
	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
E464CB	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
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
	11249	2	TERMINAL COVER FOR BOX TERMINALS FOR CIRCUIT BREAKER 3RV2742 IN SIZE S3	SIEMENS 3RV2948-1LA00
E500P 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 5SJ4130-7HG40
E514CB	11225	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 10 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5SJ4110-7HG40
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 5SJ4110-7HG40
E556CB	11225	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 10 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5SJ4110-7HG40
E560CB	11225	1	CIRCUIT BREAKER, MINIATURE, 240 V, 14 KA, 1-POLE, C, 10 A, D=70 mm TO UL 489, SAME POLARITY	SIEMENS 5SJ4110-7HG40
E564CB	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
PDP	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

DEVICE LIST

DEVICE TAG	ITEM NUMBER	QTY	DESCRIPTION	MANUFACTURER PART NUMBER	DEVICE TAG	ITEM NUMBER	QTY	DESCRIPTION	MANUFACTURER PART NUMBER
PDP	80097	1	ENCLOSURE BUILT TO LATEST GCCB-1 AND GCCH-1 SPECIFICATIONS, 1500 mm H X 600 mm W X 400 mm D, RAL 7035 GRAY, 50 mm MOUNTING ANGLES, SUBPLATE, 1397 mm H X 469 mm W, 12 GAUGE MIN, GALVANIZED	HOFFMANN OR EQUIVALENT X2726					
	75600	20	HOLE PLUG, 22.5mm DIAMETER	SIEMENS 3SU1900-0FA11-0AA0					
	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					
	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					
	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					
2 PE LUG	80000	1	BLOCK, TERMINAL, WPE 50N, PE, 50mm², GREEN-YELLOW	WEIDMULLER 1846040000					
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					
AC4	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					
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					
HAC4	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					