
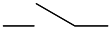

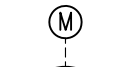
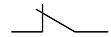
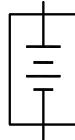
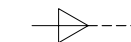



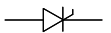




Symmetra PX 250kW 3/4 wire Single/Dual Mains Top Entry 1 MOD with Remote Modular Battery

Sheet No.	Component /Detail	Description
1	Draw ing Guide	Symmetra PX 250 kW 3/4 w ire Single/Dual mains Top entry 1 MOD w ith Remote Modular Battery Cabinet Draw ing Guide
2	Solution Isometric	Symmetra PX 250 kW 3/4 w ire Single/Dual mains Top entry 1 MOD w ith Remote Modular Battery Cabinet Solution Isometric
3	Run time Details	Symmetra PX 250 kW 3/4 w ire Single/Dual mains Top entry 1 MOD w ith Remote Modular Battery Cabinet Runtime Details
4	Solution General Arrangements	Symmetra PX 250 kW 3/4 w ire Single/Dual mains Top entry 1 MOD w ith Remote Modular Battery Cabinet Solution General Arrangements
5	Solution Anchoring Details	Symmetra PX 250 kW 3/4 w ire Single/Dual mains Top entry 1 MOD w ith Remote Modular Battery Cabinet Solution Anchoring
6	UPS Frame Internal view s	Symmetra PX 250kW UPS Internal Details
7-9	Input-Output Frame Internal view s	Symmetra PX 250kW UPS Input Output Frame internal Details
10	SYBSC Internal view s	Symmetra PX Battery side car Internal View s
11	Battery Frame Internal view s	Symmetra PX Battery Frame Internal view s
12-13	System One Line Diagram	Symmetra PX 250kW 3/4 w ire Single/Dual mains Top entry 1 MOD w ith Remote Modular Battery Cabinet System One Line Diagram
14	Site Planning Data	Symmetra PX 250kW 3/4 w ire Single/Dual mains Top entry 1 MOD w ith Remote Modular Battery Cabinet Site Planning Data
15	System Wiring Diagram	Symmetra PX 250kW 3/4 w ire Single/Dual mains Top entry 1 MOD w ith Remote Modular Battery Cabinet System Wiring Diagram

LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CIRCUIT BREAKER		NORMALLY OPEN CONTACT		CONVERTER
	MOTORIZED CIRCUIT BREAKER		NORMALLY CLOSED CONTACT		BATTERY MODULE
	TERMINATION POINT		BUS BAR LINK		INVERTER
	FUSE		STATIC SWITCH		
	TERMINAL		LAMP		

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TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH 250kW
TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT
DRAWING GUIDE

PROJECT: DRAWINGS SHEET 1 OF 15

DWG NO: SY250K250TGC1-RB

DRAWN BY: BALAMURUGAN 29-OCT-13

ENGINEER: DAVID L. 29-OCT-13

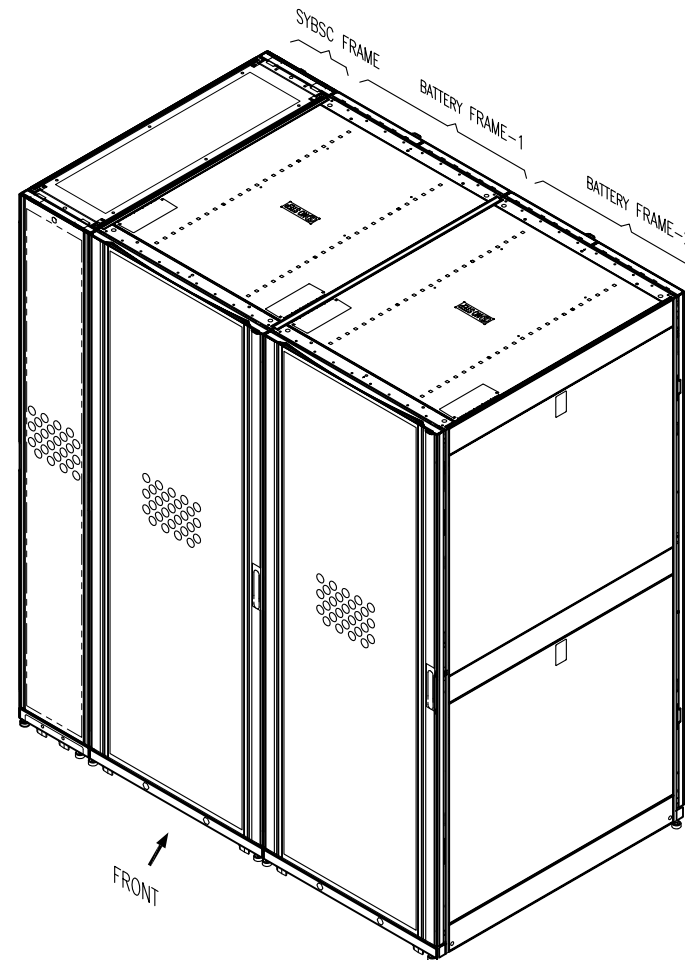
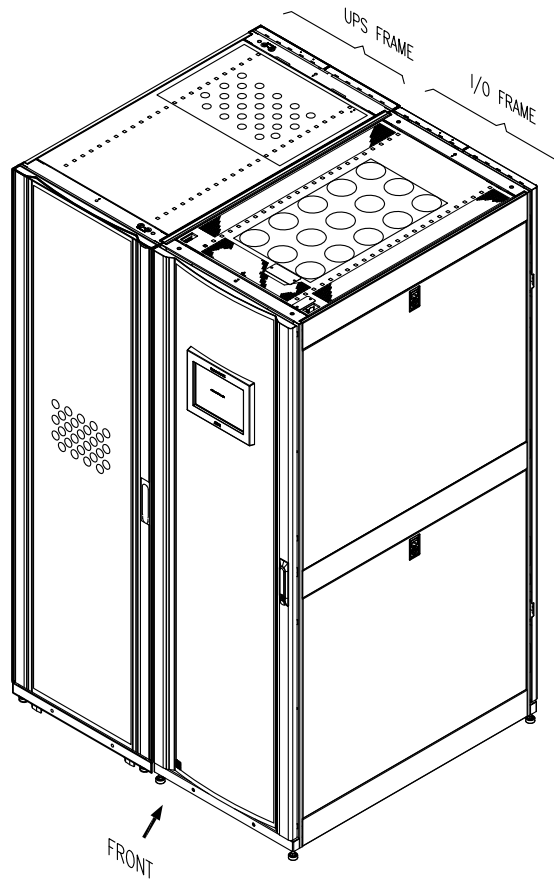
APPROVED BY: PAUL B. 29-OCT-13

REV. 0

ANGLE

PROJECTION

N/A



ISOMETRIC VIEW

NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. CABLE ENTRY IS FROM TOP OF THE UNIT.

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Schneider
Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH 250kW
TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT
SOLUTION ISOMETRIC

PROJECT: DRAWINGS SHEET 2 OF 15

DWG NO: SY250K250TGC1-RB

DRAWN BY: BALAMURUGAN 25-FEB-15

ENGINEER: DAVID L 25-FEB-15

APPROVED BY: PAUL B 25-FEB-15

REV. 1

THIRD

ANGLE

PROJECTION

100 - 250kW TOP FEED SINGLE/DUAL MAINS 1 MODULE WITH REMOTE BATTERIES (6min to 105min) △4

SKU Number	No. of In-Out Frame	No. of Power Frames	No. of Power Modules	Battery details for various runtime options																															
				6 min		8 min		10 min		12 min		15 min		20 min		25 min		30 min		40 min		50min		60min		70min		80min		90min		100min		105min	
				No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules	No. of Battery Frames	No. of Battery Modules		
SY100K250D	1	1	4	1	7	1	8	2	9	2	10	2	12	2	14	3	17	3	19	3	24	4	29	4	33	5	37	6	41	6	45	6	49	7	51
SY125K250D	1	1	5	1	8	2	10	2	11	2	13	2	15	3	18	3	21	3	24	4	30	5	36	5	41	6	46	7	52	7	57	8	62	8	64
SY150K250D	1	1	6	2	10	2	12	2	13	2	15	3	18	3	21	4	25	4	29	5	36	6	43	6	49	7	56	8	62	N/A	N/A	N/A	N/A	N/A	N/A
SY200K250D	1	1	8	2	13	2	16	3	18	3	20	3	23	4	28	5	33	5	38	6	48	7	57	8	65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. FOR POWER LEVELS/CONFIGURATIONS NOT DETAILED PLEASE CONTACT CONFIGURATION ENGINEERING.
- △4. BATTERY RUN TIMES ARE THEORETICAL AND CALCULATED BASED ON DATA PROVIDED BY BATTERY MANUFACTURER ASSUMING OPTIMUM ENVIRONMENT AND LOAD CONDITIONS.

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TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH 250kW
TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT
SOLUTION RUNTIME DETAILS

PROJECT: DRAWINGS SHEET 3 OF 15

DWG NO: SY250K250TGC1-RB

DRAWN BY: BALAMURUGAN 29-OCT-13

ENGINEER: DAVID L. 29-OCT-13

APPROVED BY: PAUL B. 29-OCT-13

REV. 0

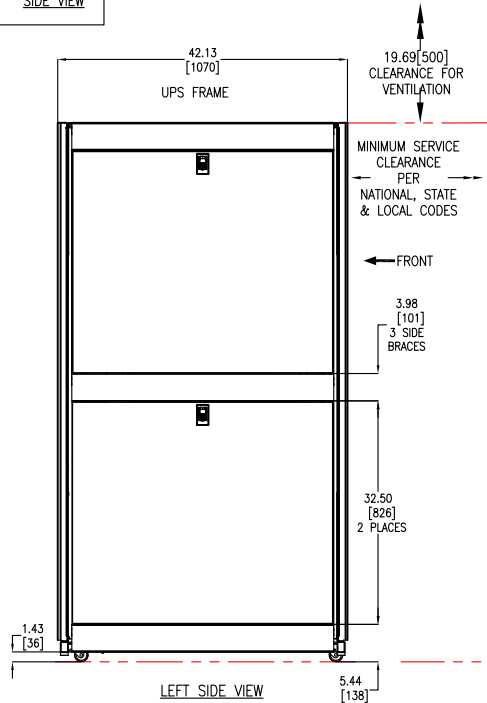
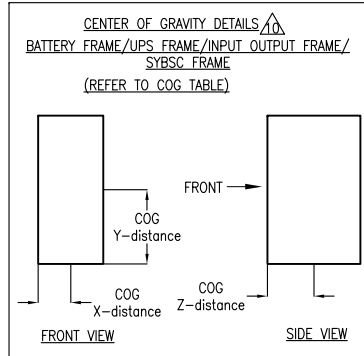
ANGLE

PROJECTION

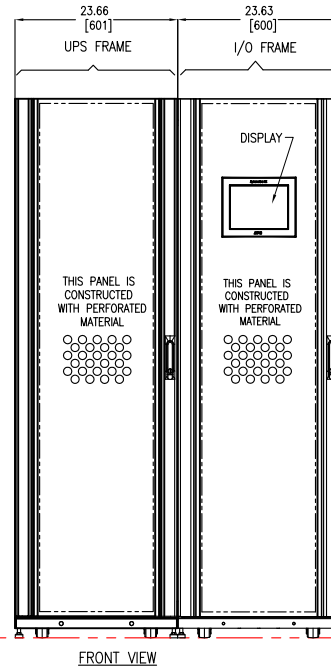
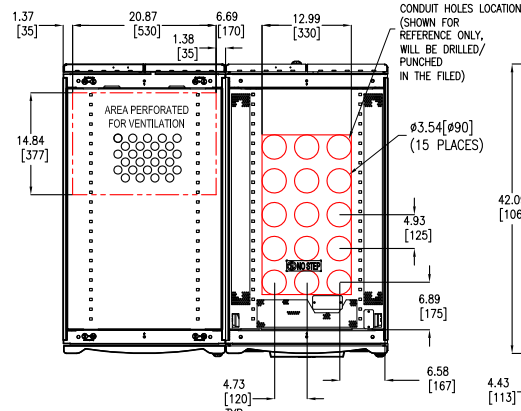
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Floor Loading Data (Fully Populated unit)				
Description	SKU Reference	Dimensions H x W x D Inch[mm]	Weight in LBS [Kg]	Floor Loading lbs/sq. ft[kg / sq. m]
BATTERY FRAME	SYBFXR8-8	78.39x29.53x42.13 [1991x750x1070]	3510 [1595]	406 [1988]
UPS FRAME	SYPF250KD with 10 Power Modules	78.39x23.62x42.13 [1991x600x1070]	1484 [675]	215 [1051]
I/O FRAME	SYIOF500KD with 250kW Static Switch	78.39x23.54x42.13 [1991x598x1070]	904 [411]	131 [640]
BATTERY ENCLOSURE SIDE CAR	SYBSC250K500	78.39x11.81x42.13 [1991x300x1070]	327 [149]	95 [463]

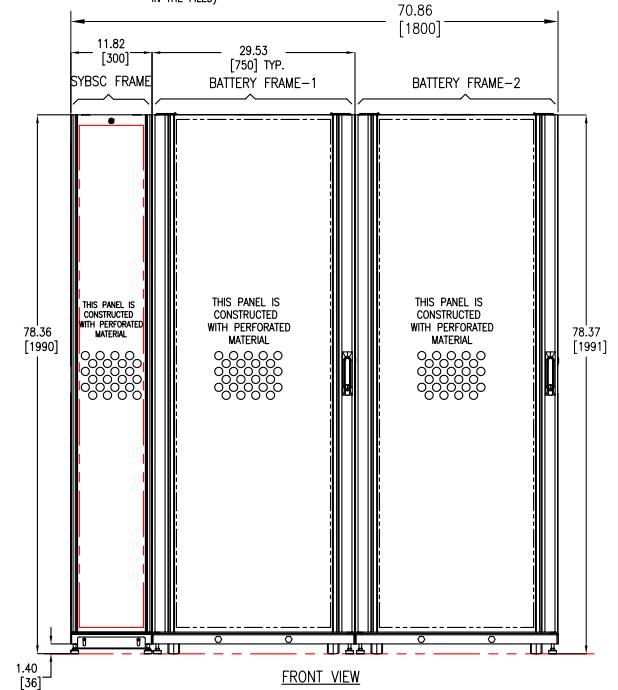
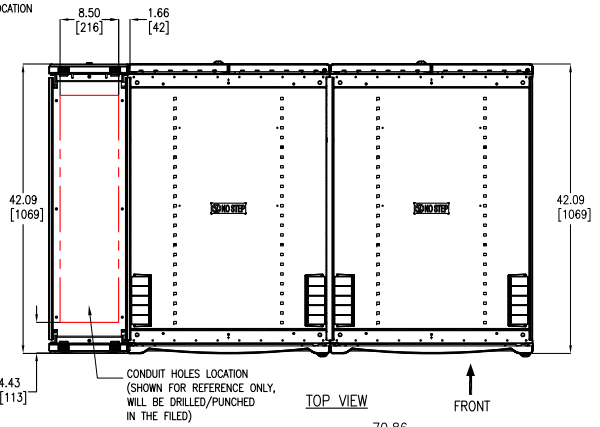
COG TABLE				
CENTER OF GRAVITY	BATTERY FRAME	UPS FRAME	I/O FRAME	SYBSC FRAME
	INCHES[MM]	INCHES[MM]	INCHES[MM]	INCHES[MM]
X - DISTANCE	14.76[375]	12.85[326.4]	12.96[329.2]	11.81[300]
Y - DISTANCE	39.17[995]	42.14[1070.3]	21[533.5]	43.7[1110]
Z - DISTANCE	22.44[570]	16.65[423.0]	31[788.5]	18.5[470]



- NOTES:
1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
 2. REFER TO [PRODUCT DOCUMENTATION](#) FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
 3. ALL DIMENSIONS ARE IN INCHES[MILLIMETERS].
 4. WEIGHT PER FRAME (UNPOPULATED) LBS KG
 - UPS FRAME 534.00 242.73
 - IN/OUT FRAME 730.00 332.00
 - BATTERY FRAME 373.60 822.00
 - 250kW SSW 174.00 79.00
 5. CABLE ENTRY IS FROM TOP OF THE UNIT.
 6. ENCLOSURE PROTECTION CLASS : NEMA1, IP20.
 7. FRONT SERVICE CLEARANCE AND TOP VENTILATION CLEARANCE REQUIRED AS SHOWN.



8. OPERATING TEMPERATURE : 0 TO 40°C.
9. COLOR : BLACK
10. THIS INFORMATION PROVIDED CONSERVATIVE CENTER OF GRAVITY CALCULATION.
11. REQUIREMENTS FOR BACK TO BACK SYMMETRA PX250/500 UPS INSTALLATIONS.
- TO ENSURE PROPER AIR FLOW, YOU MUST INSTALL A PLEXIGLAS FRENCH DOOR KIT(OH-0242) AT THE REAR OF EACH POWER FRAME AND I/O FRAME IN ONE OF THE TWO SYSTEMS.
- TO PREVENT BATTERIES FROM BEING OVERHEATED BY HOT AIR FROM POWER FRAMES, BATTERY FRAMES MUST BE INSTALLED BACK TO BACK AND POWER FRAMES MUST BE INSTALLED BACK TO BACK.



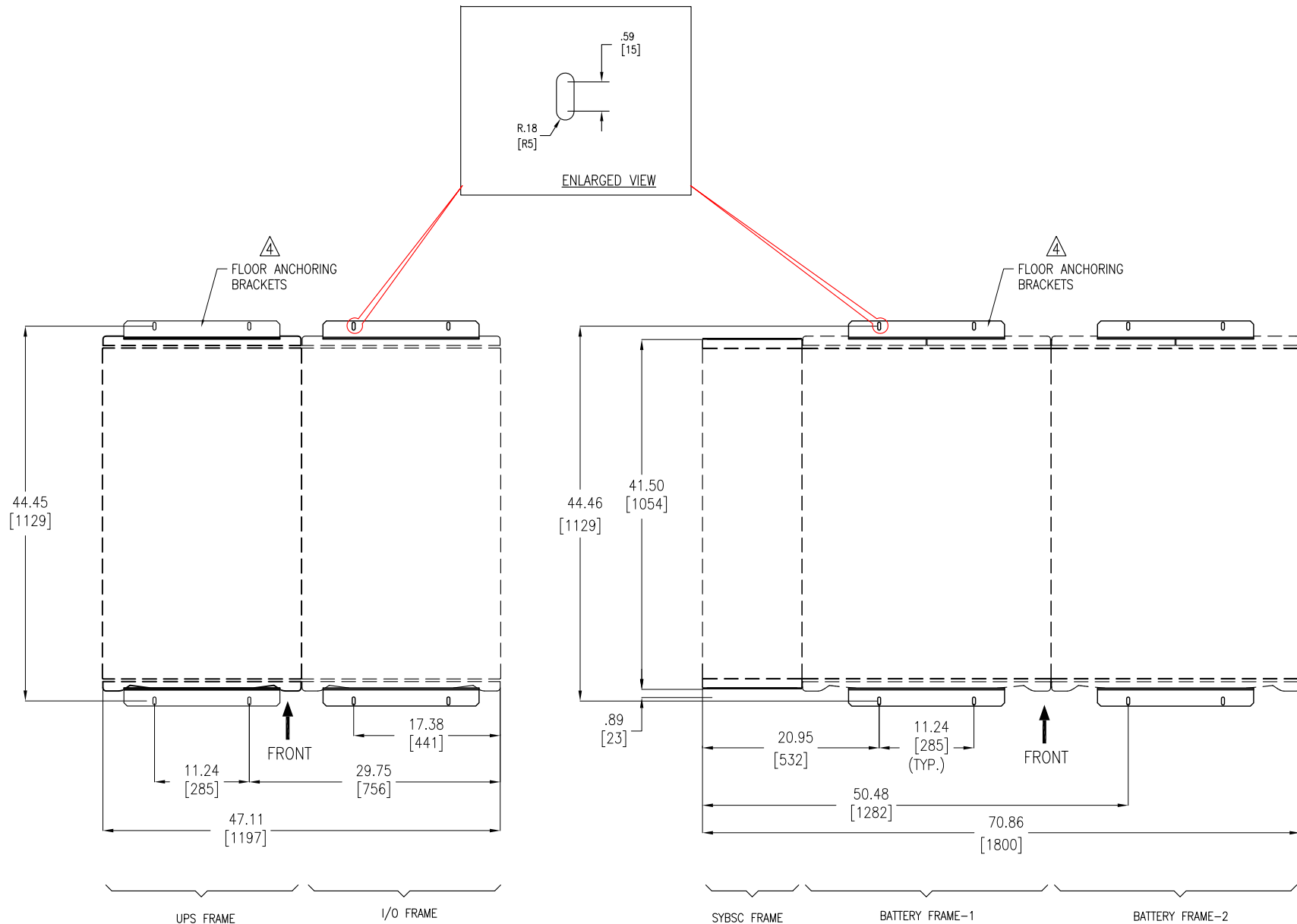
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Schneider Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH 250KW
TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT SOLUTION GENERAL ARRANGEMENT

DWG NO: SY250K250TGC1-RB
DRAWN BY: BALAMURUGAN
ENGINEER: DAVID L
APPROVED BY: PAUL B

REV. 2
THIRD ANGLE PROJECTION



FLOOR ANCHORING DETAILS

NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
 2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
 3. ALL DIMENSIONS ARE IN INCHES[MILLIMETERS].
- △4. FLOOR ANCHORING BRACKETS CAN BE USED TO ANCHOR ENCLOSURE. USE CODE COMPLIANT FASTENERS TO SECURE THE UNIT.

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Schneider Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH 250kW
TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT
SOLUTION ANCHORING

PROJECT: DRAWINGS SHEET 5 OF 15

DWG NO: SY250K250TGC1-RB

DRAWN BY: BALAMURUGAN 29-OCT-13

ENGINEER: DAVID L. 29-OCT-13

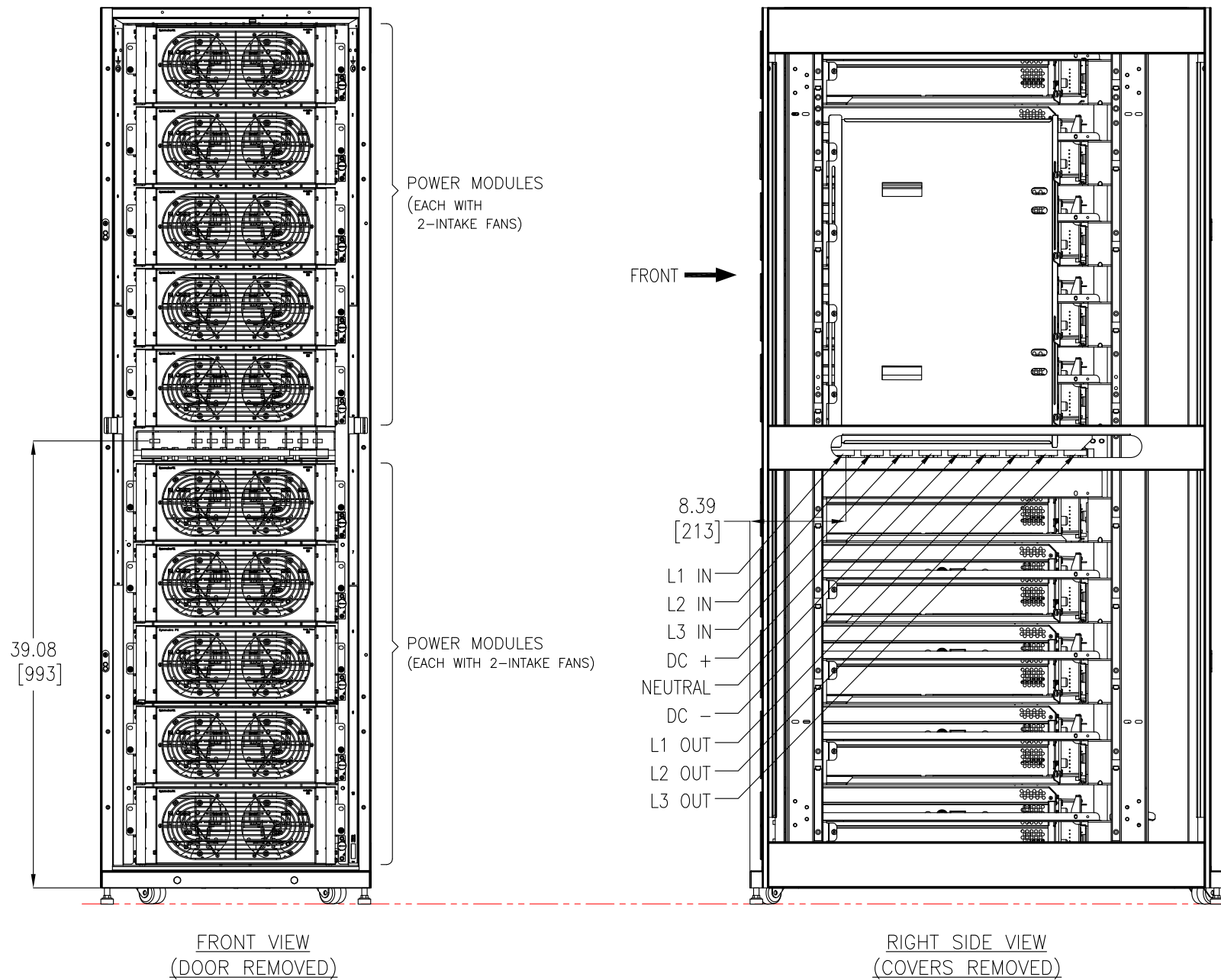
APPROVED BY: PAUL B. 29-OCT-13

REV. 0

THIRD

ANGLE

PROJECTION



NOTES:

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3. ALL DIMENSIONS ARE IN INCHES[MILLIMETERS].
4. SOME STRUCTURAL DETAILS HAVE BEEN OMITTED FOR CLARITY.

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Schneider
Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH 250kW
TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT
UPS POWER FRAME INTERNAL VIEW

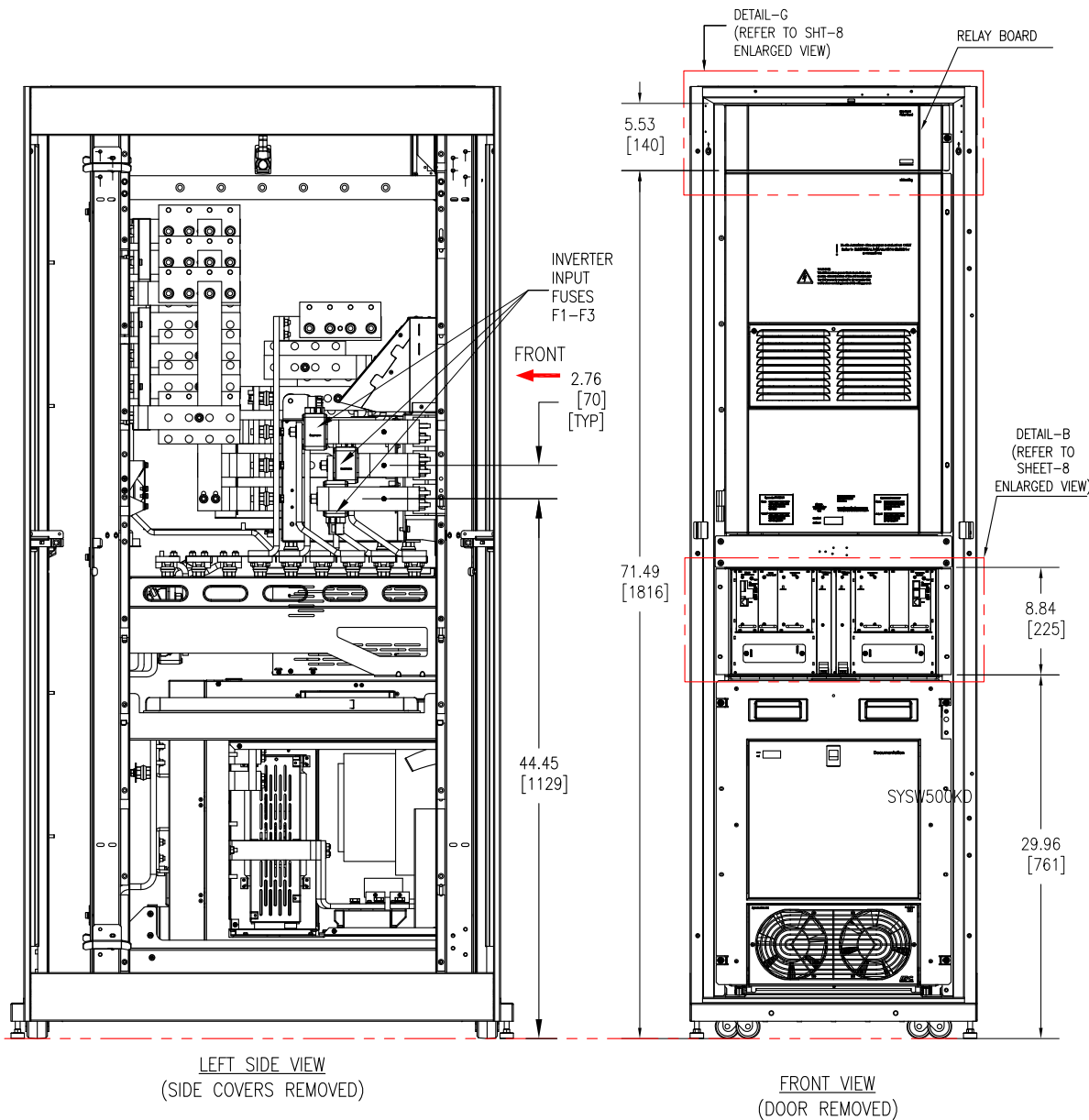
PROJECT: DRAWINGS SHEET 6 OF 15

DWG NO: SY250K250TGC1-RB

DRAWN BY: BALAMURUGAN 29-OCT-13
ENGINEER: DAVID L. 29-OCT-13

APPROVED BY: PAUL B. 29-OCT-13

REV. 0
THIRD
ANGLE
PROJECTION



NOTES:

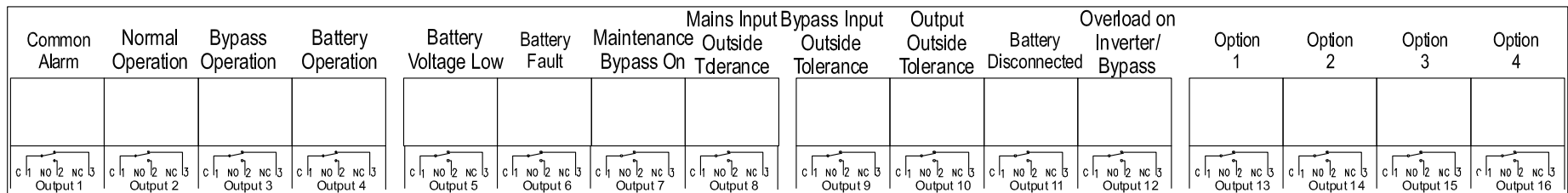
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3. ALL DIMENSIONS ARE IN INCHES[MILLIMETERS].
4. SOME STRUCTURAL DETAILS HAVE BEEN OMITTED FOR CLARITY.
5. BUSBAR SHALL BE REMOVED FOR DUAL MAINS CONFIGURATION.

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Schneider Electric

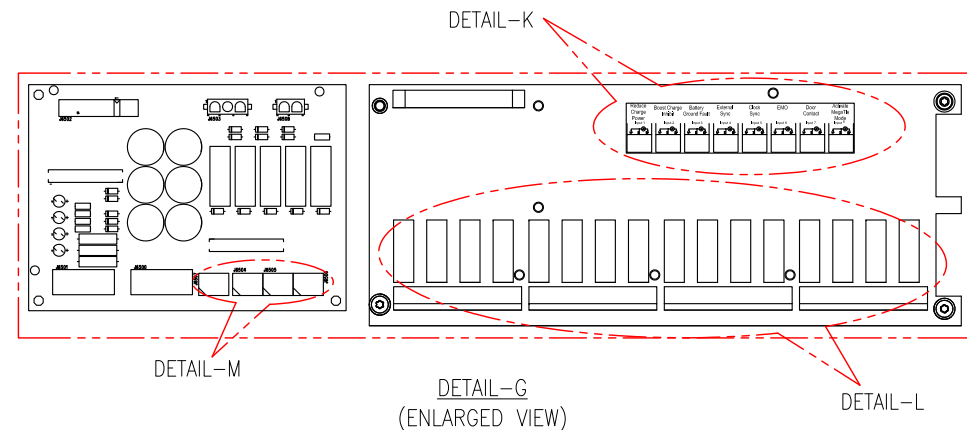
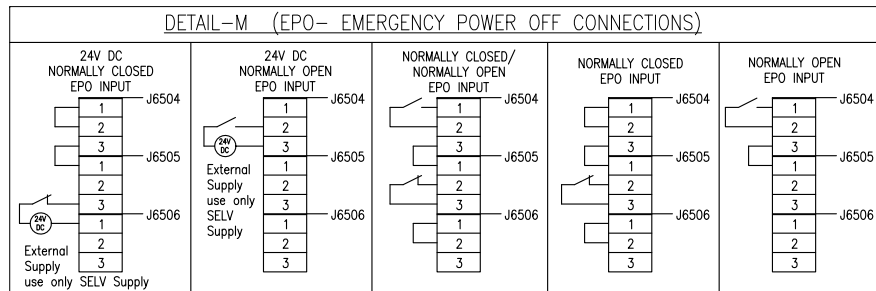
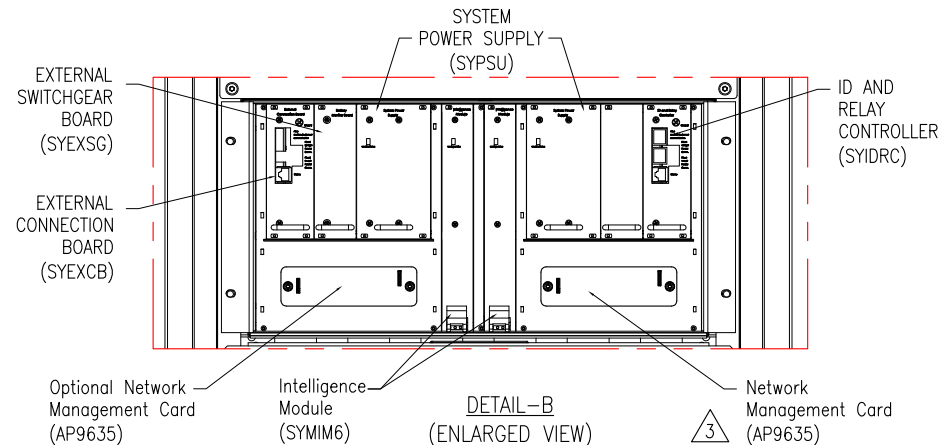
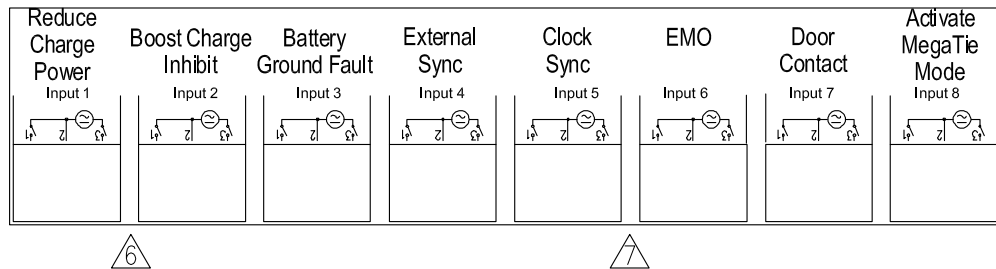
TITLE: SYMMETRA PX
 Input: 480V AC 3PH SINGLE/DUAL MAINS
 Output: 480V AC 3PH 250kW
 TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT
 UPS INPUT- OUTPUT FRAME INTERNAL VIEW
 PROJECT: DRAWINGS SHEET 7 OF 15

DWG NO: SY250K250TGC1-RB
 DRAWN BY: BALAMURUGAN
 ENGINEER: DAVID L
 APPROVED BY: PAUL B / C FLY
 25-FEB-15
 25-FEB-15
 25-FEB-15
 REV. 1
 THIRD ANGLE
 PROJECTION



DETAIL-L (ENLARGED VIEW)

DETAIL-K (ENLARGED VIEW)



NOTES:

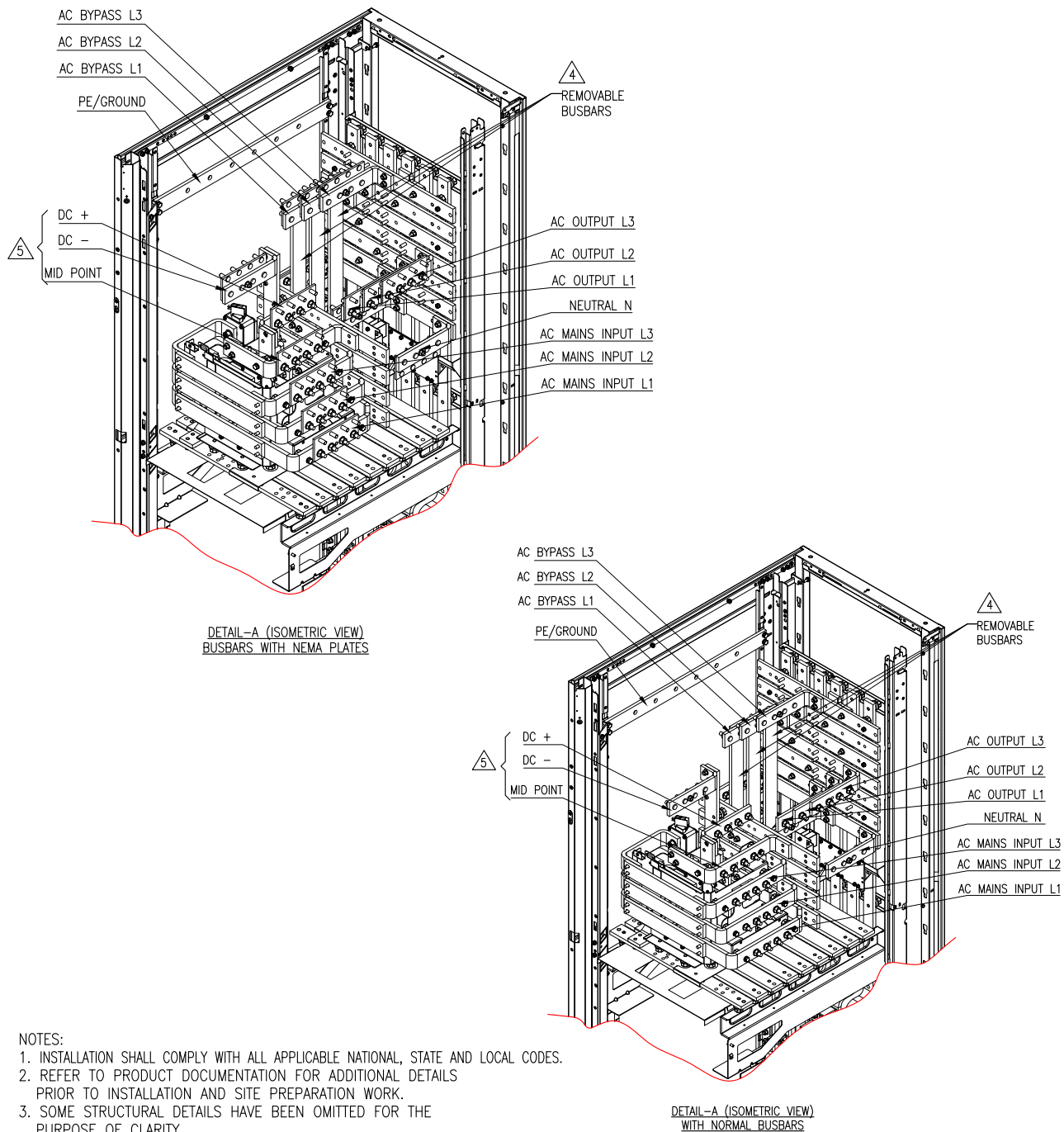
1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
- △ 3. ONLY ONE NMC(NETWORK MANAGEMENT CARD) IS INSTALLED AS STANDARD, THE OTHER NMC IS OPTIONAL.
4. OUTPUT RELAYS SPECIFICATION-MAXIMUM CURRENT ACCEPTED BY EACH OUTPUT RELAY IS 7.2A/250VAC.
5. INPUT RELAYS SPECIFICATION-MINIMUM 12VAC/DC, MAX. 28VAC/40VDC, ALL INPUTS MUST BE FROM THE SAME SOURCE.
- △ 6. PLACE A JUMPER OR CONTROL SIGNAL BETWEEN PIN 1&2, IF EXTERNAL SYNCHRONIZATION FEATURE IS USED.
- △ 7. INPUTS 5 AND 6 ARE RESERVED FOR FUTURE USE.
8. ALL WIRING TO THE RELAY BOARD SHOULD BE CONSIDERED AS FIELD WIRING RATED MINIMUM 480V AC, AND MUST USE COPPER CONDUCTORS ONLY.

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Schneider Electric

TITLE: SYMMETRA PX
 Input: 480V AC 3PH SINGLE/DUAL MAINS
 Output: 480V AC 3PH 250kW
 TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT
 UPS INPUT- OUTPUT FRAME INTERNAL DETAILS
 PROJECT: DRAWINGS SHEET 8 OF 15

DWG NO: SY250K250TGC1-RB REV. 2
 DRAWN BY: JAYAPRAKASH 09-FEB-16 THIRD
 ENGINEER: DAVID L. 09-FEB-16 ANGLE
 APPROVED BY: PAUL B. 09-FEB-16 PROJECTION



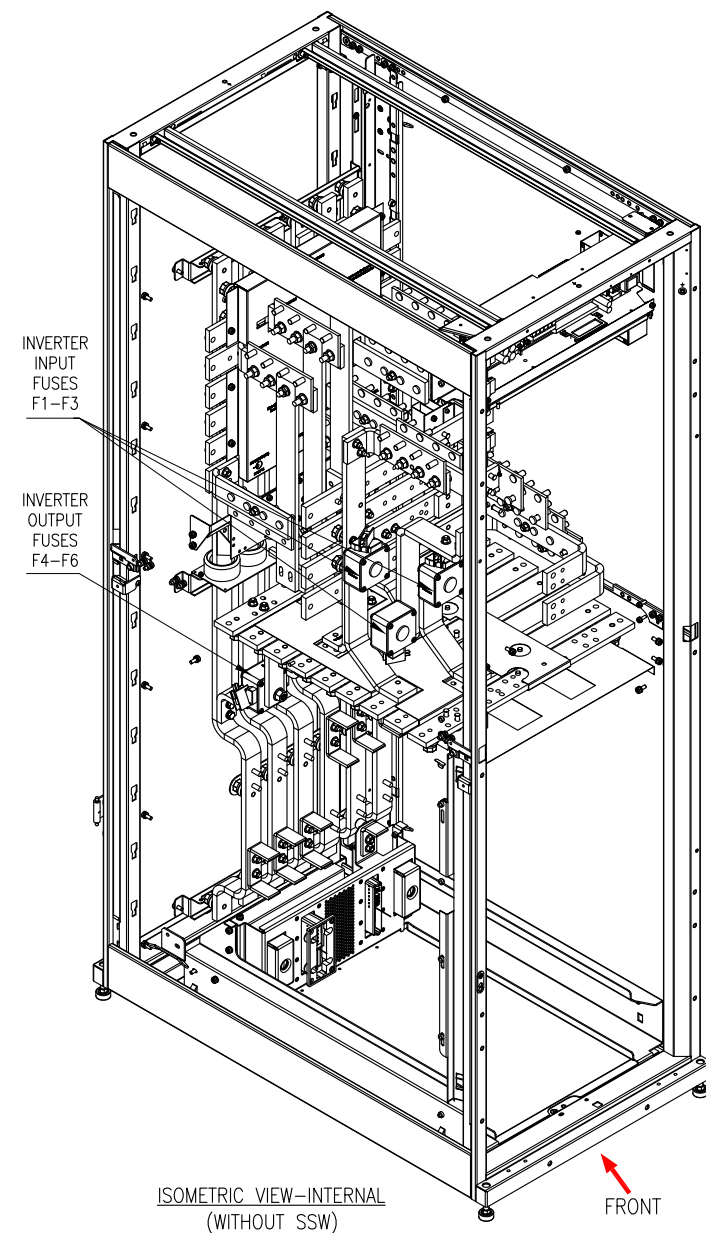
NOTES:

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2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. SOME STRUCTURAL DETAILS HAVE BEEN OMITTED FOR THE PURPOSE OF CLARITY.

- △4. BUSBARS SHALL BE REMOVED FOR DUAL MAINS CONFIGURATION.
- △5. NOT REQUIRED FOR LINE UP & MATCH BATTERY SOLUTION. ONLY USED FOR REMOTE XR BATTERY FRAMES OR FOR THIRD PARTY BATTERY SOLUTIONS.

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Schneider
Electric



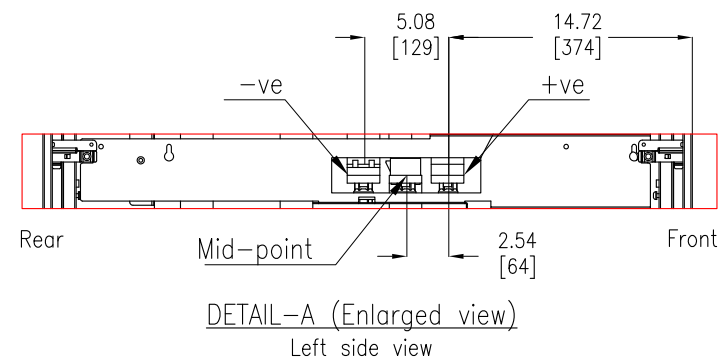
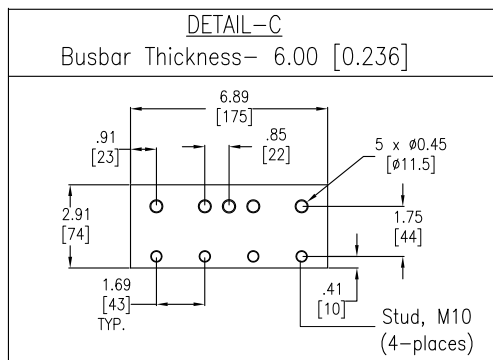
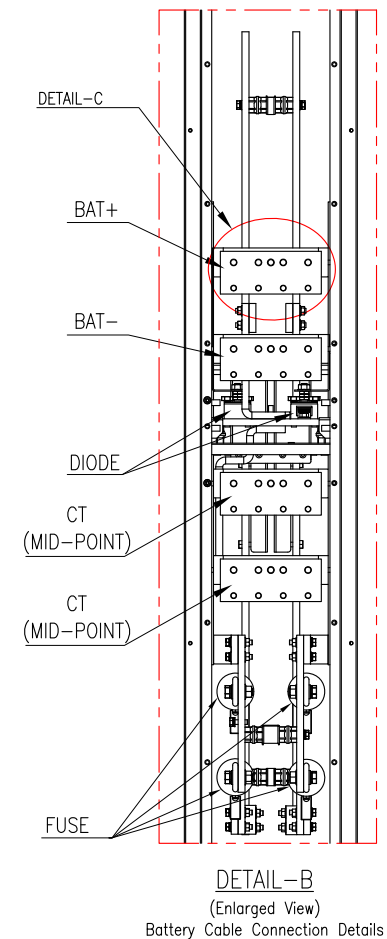
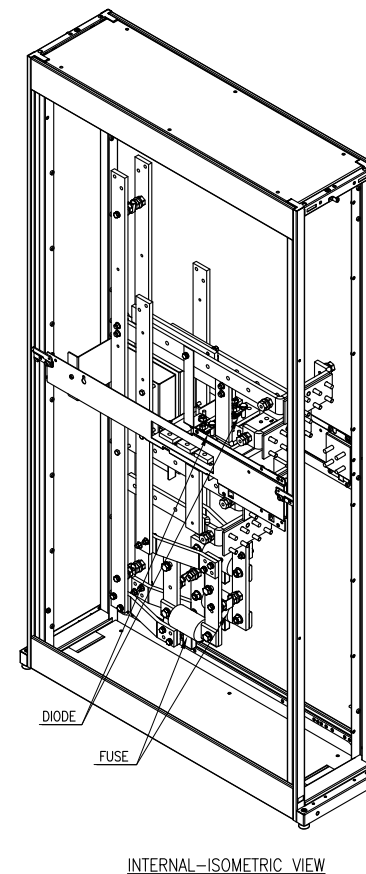
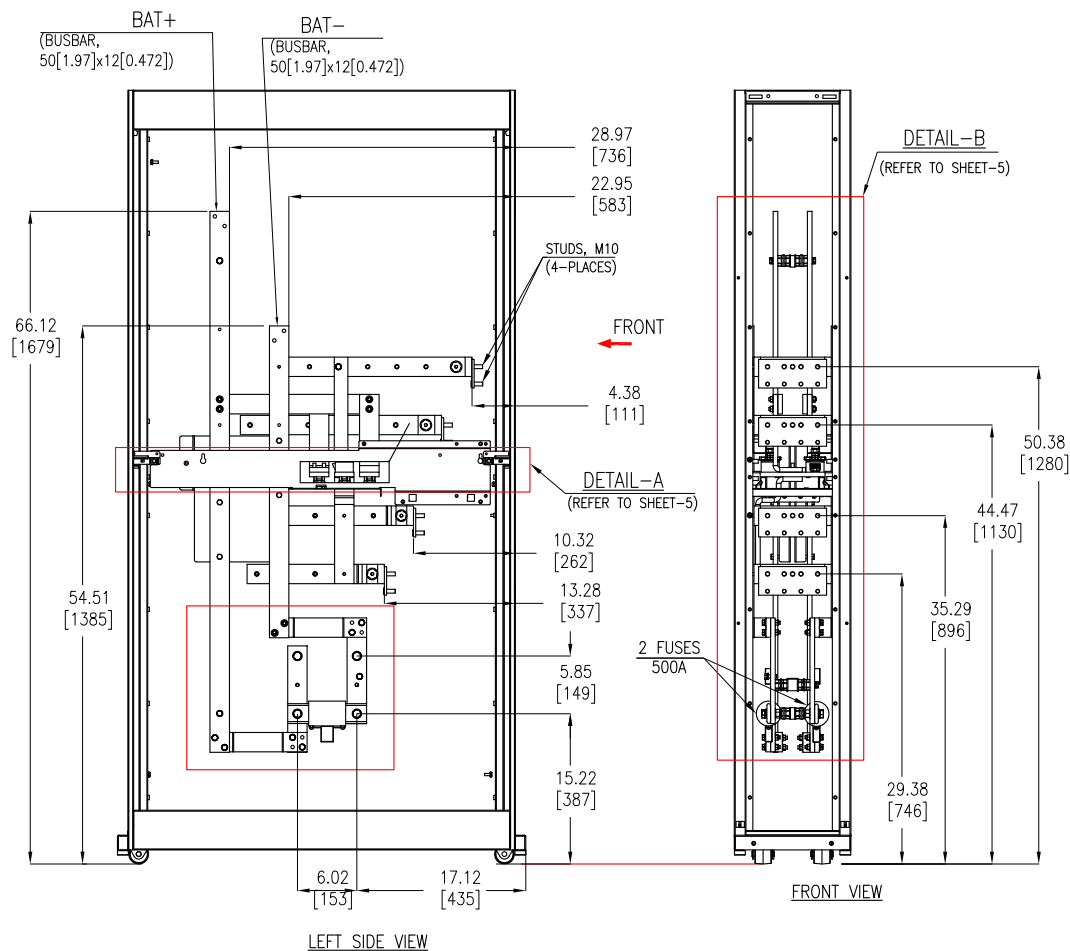
TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH 250kW
TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT
UPS INPUT- OUTPUT FRAME INTERNAL ISOMETRIC

DWG NO: SY250K250TGC1-RB
DRAWN BY: BALAMURUGAN
ENGINEER: DAVID L
APPROVED BY: PAUL B / C FLY

REV. 1
THIRD ANGLE
PROJECTION

PROJECT: DRAWINGS SHEET 9 OF 15

25-FEB-15
25-FEB-15
25-FEB-15



NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. ALL DIMENSIONS ARE IN INCHES[MILLIMETERS].

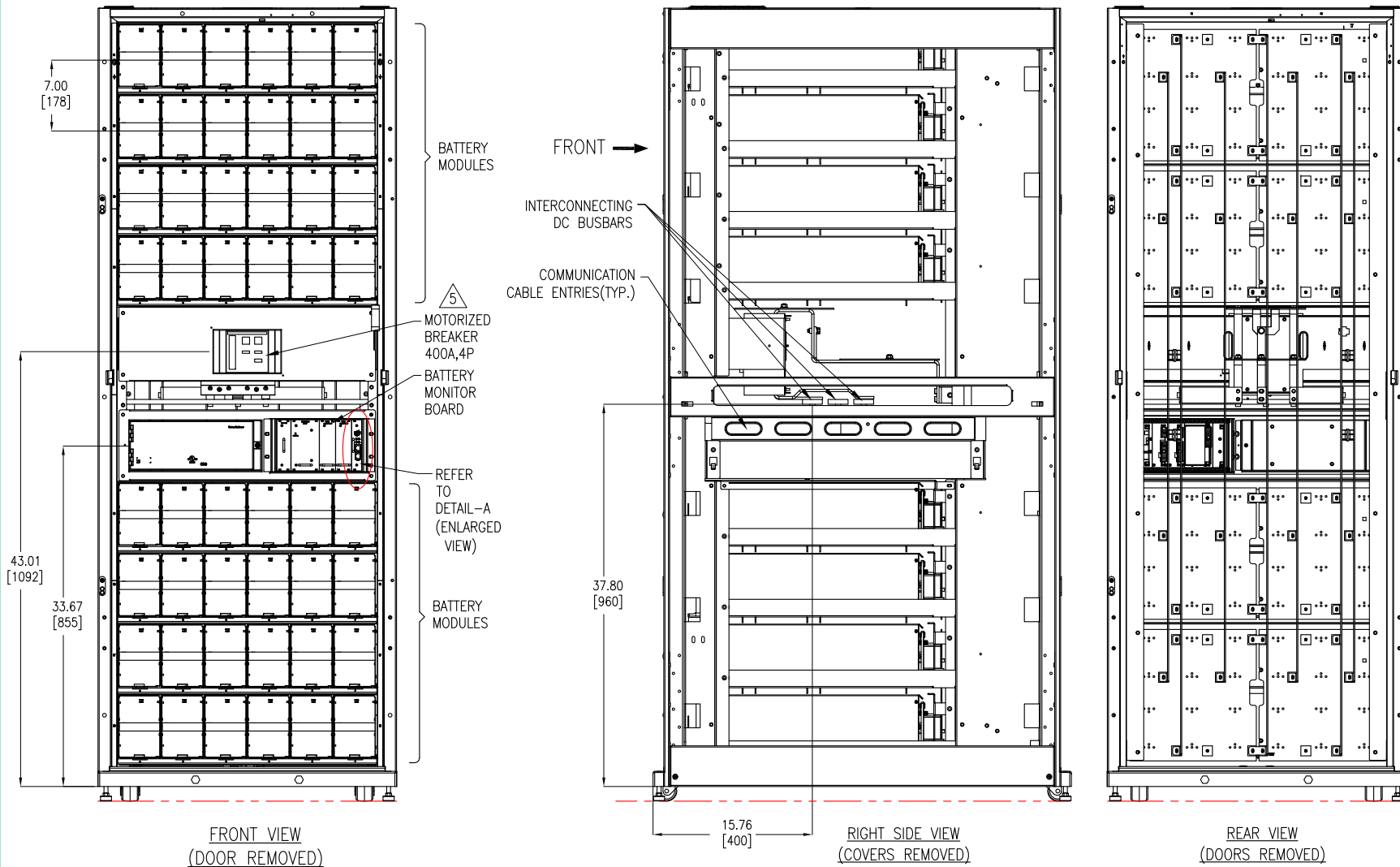
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Schneider Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH 250kW
TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT
SYBSC FRAME INTERNAL VIEW

DWG NO: SY250K250TGC1-RB
DRAWN BY: BALAMURUGAN
ENGINEER: DAVID L
APPROVED BY: PAUL B

REV. 0
THIRD
ANGLE
PROJECTION



NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. SOME STRUCTURAL DETAILS HAVE BEEN OMITTED FOR THE PURPOSE OF CLARITY.
4. ALL DIMENSIONS ARE IN INCHES[MILLIMETERS].
5. CIRCUIT BREAKER (MOTORIZED), ABB, 400A 600V 4POLE T5, WITH 24V DC SHUNT TRIP AND AUX. CONTACT.
MOTORIZED BREAKER TRIP UNIT ACTIVATED THROUGH EPO/UPS 24V DC SIGNAL.

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Schneider Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH 250kW
TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT
BATTERY FRAME INTERNAL VIEW

PROJECT: DRAWINGS SHEET 11 OF 15

DWG NO: SY250K250TGC1-RB

DRAWN BY: BALAMURUGAN 29-OCT-13

ENGINEER: DAVID L. 29-OCT-13

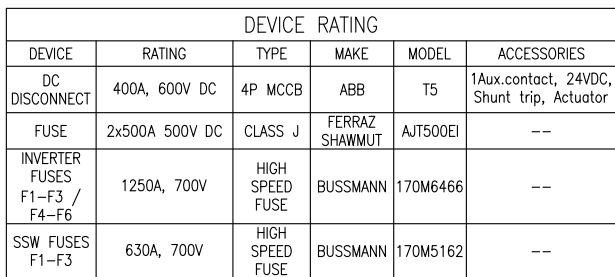
APPROVED BY: PAUL B. 29-OCT-13

REV. 0

THIRD

ANGLE

PROJECTION



REV. 2
ANGLE
PROJECTION:

LEGEND:	
-----	DC CABLE - PROVIDED BY OTHERS
-----	AC CABLE - PROVIDED BY OTHERS

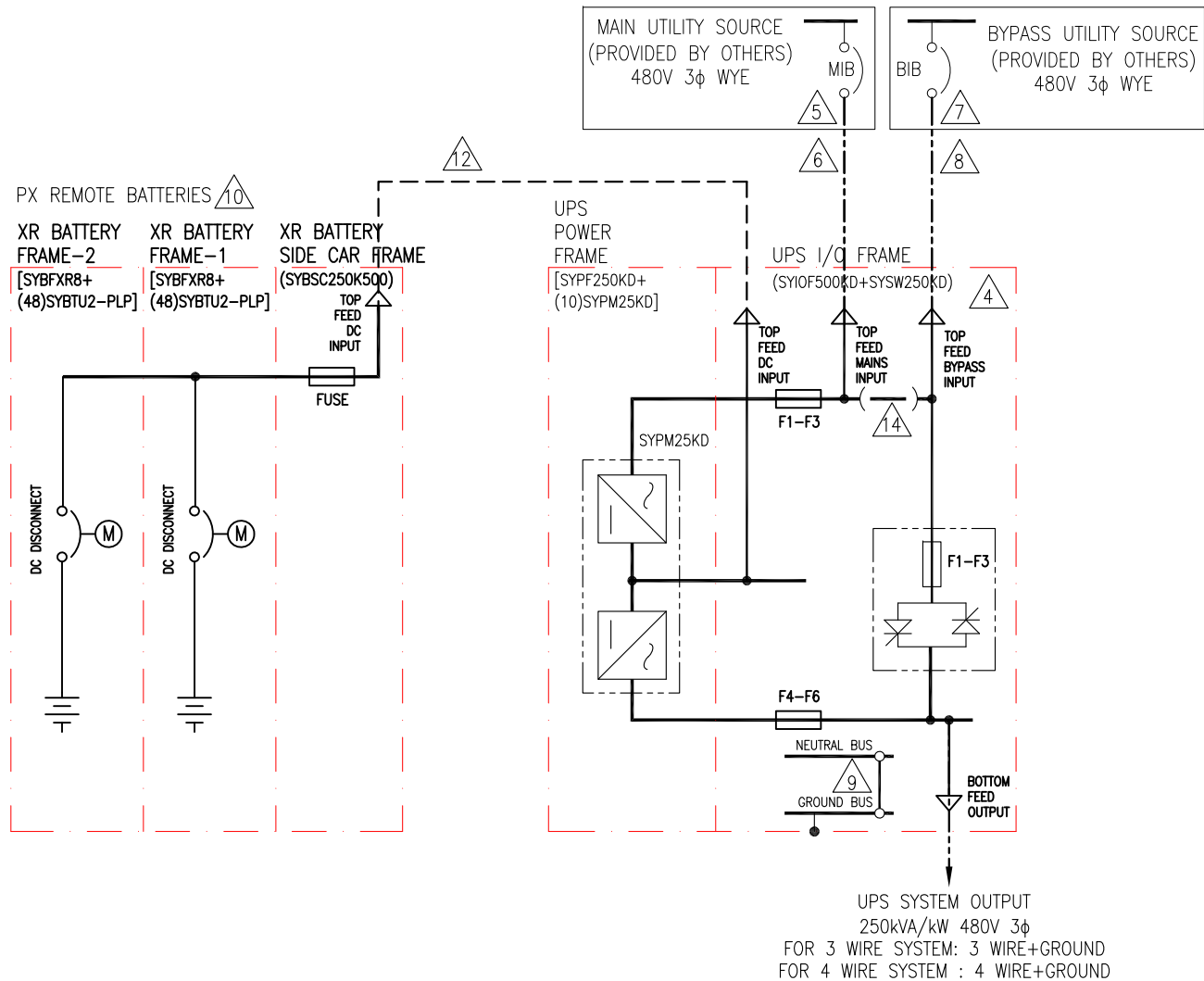
DEVICE RATING					
DEVICE	RATING	TYPE	MAKE	MODEL	ACCESSORIES
DC DISCONNECT	400A, 600V DC	4P MCCB	ABB	T5	1Aux.contact, 24VDC, Shunt trip, Actuator
FUSE	2x500A 500V DC	CLASS J	FERRAZ SHAWMUT	AJT500EI	--
INVERTER FUSES F1-F3 / F4-F6	1250A, 700V	HIGH SPEED FUSE	BUSSMANN	170M6466	--
SSW FUSES F1-F3	630A, 700V	HIGH SPEED FUSE	BUSSMANN	170M5162	--

- NOTES:
1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
 2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
 3. DRAWING DEPICTS POWER SYSTEM CONNECTIONS AND IS NOT REPRESENTATIVE OF PHYSICAL LAYOUT, PLEASE REFER TO MECHANICAL DRAWINGS FOR PHYSICAL LAYOUT.
 - △4. MAXIMUM RATED SHORT CIRCUIT CURRENT IS 50KAIC.
 - △5. FOR 3 WIRE SYSTEM :
AC MAINS UTILITY SOURCE SHALL BE 480VAC, 3Ø, SOLIDLY GROUND WYE, 3 WIRE+GROUND.
FOR 4 WIRE SYSTEM :
AC MAINS UTILITY SOURCE SHALL BE 480VAC, 3Ø, SOLIDLY GROUND WYE, 3 WIRE+GROUND.
CONTACT Schneider Electric IF OTHER. REFER TO SHEET-14 FOR SITE PLANNING DATA.
 - △6. FOR 3 WIRE SYSTEM : AC CABLING SHALL BE 600V RATED, 3 WIRE+GROUND.
FOR 4 WIRE SYSTEM : AC CABLING SHALL BE 600V RATED, 3 WIRE+GROUND.
 - △7. FOR 3 WIRE SYSTEM :
AC BYPASS UTILITY SOURCE SHALL BE 480VAC, 3Ø, SOLIDLY GROUND WYE, 3 WIRE+GROUND.
FOR 4 WIRE SYSTEM :
AC BYPASS UTILITY SOURCE SHALL BE 480VAC, 3Ø, SOLIDLY GROUND WYE, 4 WIRE+GROUND.
CONTACT Schneider Electric IF OTHER. REFER TO SHEET-14 FOR SITE PLANNING DATA.
 - △8. FOR 3 WIRE SYSTEM : AC CABLING SHALL BE 600V RATED, 3 WIRE+GROUND.
FOR 4 WIRE SYSTEM : AC CABLING SHALL BE 600V RATED, 4 WIRE+GROUND.
 - △9. THE NEUTRAL TO GROUND SYSTEM BONDING JUMPER PROVIDED BY Schneider Electric, SHALL BE INSTALLED ONLY FOR 3 WIRE OUTPUT CONFIGURATION, SHALL NOT BE INSTALLED FOR THE 4 WIRE OUTPUT CONFIGURATION. SEE INSTALLATION MANUAL FOR DETAILS.
 - △10. THIS DRAWING SHOWS MINIMUM NUMBER OF BATTERY FRAMES. MAXIMUM (8) XR BATTERY FRAMES CAN BE USED. XR BATTERY FRAME HAS MOTORIZED BREAKER.
 11. BATTERY SIZING BASED ON MAXIMUM 1 VOLT DROP PER HALF-STRING AT NORMAL RATED DC CURRENT. CE SHALL ADJUST CABLE SIZE BASED ON INSTALLATION PARAMETERS.
 - △12. DC CABLING SHALL BE 600V RATED, 3-WIRE +GROUND. SEE SHEET 14 FOR ADDITIONAL DATA.
 13. CABLE LUGS ARE NOT PROVIDED.
 - △14. SINGLE MAINS IS A DEFAULT CONFIGURATION. THE BUS BAR LINKS SHALL BE REMOVED FOR DUAL MAINS CONFIGURATION.

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TITLE: SYMMETRA PX Input: 480V AC 3PH SINGLE/DUAL MAINS Output: 480V AC 3PH 250kW TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT SYSTEM ONE LINE DIAGRAM-DUAL MAINS		DWG NO: SY250K250TGC1-RB	REV. 2
PROJECT: DRAWINGS	SHEET 13 OF 15	DRAWN BY: BALAMURUGAN/S CUNHA ENGINEER: D LOEWENSTEIN/P BOUCHER APPROVED BY: B SHERIDAN/C FLY	25-FEB-15 25-FEB-15 25-FEB-15
		ANGLE	PROJECTION: N/A



Symmetra™ PX 250kW UPS 1 Module Site Planning Data - Single/Dual Feed - 3 Wire/ 4Wire

UPS Rating				Voltage(VAC)		Mains AC Input - (MIB) ¹						Bypass AC Input - (BIE) ²						External Battery System ^{3, 6}						AC Output ²						Mechanical Data (UPS+I/O Frame only) ^{5, 11}			
						Current(A)		Recommendations ³				Current(A)		Recommendations ^{3, 4}				Nominal VDC	Battery kW	Current @ Nom. VDC (A)	Recommendations		Current(A)		Recommendations ³				Typical Dmensions (HxWxD) inch [mm]	Average Weight Lbs [kg]	Floor Loading Lbs/Ft ² [kg/m ²]	Heat Rejection Battery Fully Charged BTU/HR	
UPS Frame Rating	Qty of 25kW Power Modules ⁹	kVA	kW	Input ¹	Output ²	Full Load	Max. ⁷	100% OCPD	100% Cable	80% OCPD	80% Cable	NOM.	Max. ⁸	100% OCPD	100% Cable	80% OCPD	80% Cable				100% OCPD	100% Cable	NOM.	Max. ⁸	100% OCPD	100% Cable	80% OCPD	80% Cable					
250kVA/250kW 1x 250K Frame	4	100	100	480	480	139	149	150A	1x 1/0	175A	1x 2/0	120	150	125A	1x 1	150A	1x 1/0	2x 288	104	181	200A	1x 3/0	120	150	125A	1x 1	150A	1x 1/0	73.4x62.7x42 [1591x1592x1067]	2446 [1112]	134 [655]	14217	
	5	125	125	480	480	173	186	200A	1x 3/0	225A	1x 4/0	150	188	150A	1x 1/0	200A	1x 3/0	2x 288	130	226	250A	1x 4/0	150	188	150A	1x 1/0	200A	1x 3/0		2539 [1154]	139 [679]	17771	
	6	150	150	480	480	208	223	225A	1x 4/0	300A	1x 300	180	226	200A	1x 3/0	250A	1x 4/0	2x 288	156	271	300A	1x 300	180	226	200A	1x 3/0	250A	1x 4/0		2631 [1196]	144 [734]	21325	
	7	175	175	480	480	242	261	300A	1x 300	350A	1x 350	210	263	225A	1x 4/0	300A	1x 300	2x 288	182	316	350A	1x 400	210	263	225A	1x 4/0	300A	1x 300		2724 [1238]	149 [729]	24879	
	8	200	200	480	480	277	298	300A	1x 350	350A	1x 500	241	301	250A	1x 250	350A	1x 350	2x 288	208	362	400A	1x 500	241	301	250A	1x 250	350A	1x 350		2816 [1280]	154 [754]	28433	
	9	225	225	480	480	312	335	350A	1 x 400	400A	2x 3/0	271	338	300A	1x 300	350A	1x 500	2x 288	234	407	450A	2x 4/0	271	338	300A	1x 300	350A	1x 500		2908 [1322]	159 [778]	31988	
	10 ⁹	250	250	480	480	346	372	400A	1x 500	450A	2x 4/0	301	376	350A	1x 350	400A	1x 500	2x 288	260	452	500A	2x 4/0	301	376	350A	1x 350	400A	1x 500		3000 [1364]	164 [833]	35542	

Symmetra™ PX

Notes.

1. For 3 wire System :
Single Mains:- Mains Input source must be 480V Wye 3-wire + Ground. Contact Schneider Electric if other.
Dual Mains:- Mains/Bypass Input source must be 480V Wye 3-wire + Ground. Contact Schneider Electric if other.
- For 4 Wire System :
Single Mains :- Mains Input source must be 480V Wye 4 wire + Ground. Contact Schneider Electric if other.
Dual Mains:- Mains input source must be 480V Wye 3 wire + Ground and the Bypass input source must be 480V Wye 4 wire +Ground. Contact Schneider Electric if other.
2. For 3 wire System :
Output is 480V Wye 3-wire + Ground. The bypass source must match the output configuration
- For 4 Wire System :
Output is 480V Wye 4-wire + Ground. The bypass source must match the output configuration
3. Recommended cables are AWG/kcmil minimum requirement for three (3) current carrying conductors in raceway sized for 30°C environment and 75°C terminations.
All cabling must comply with installation site conditions and any applicable Local and or National codes.
4. Ratings of the cables and over current devices supplied for information only. User to consult with their engineering services before adopting.
5. Mechanical Data is approximate and does not include the battery system or external DC Disconnects. For precise mechanical data on your planned system configuration contact Schneider Electric.
- 6.Contact Schneider Electric for assistance with all external battery designs. Maximum allowed DC cabling voltage drop is 1 VDC. Schneider Electric Standard external DCD's are rated 500A (PX250kVA) & 1000A (PX 500kVA)
7. Electronic Input Current Limit
8. This is the UPS short time rating of 125% Overload for 10 minutes. Actual short time performance may be limited by the overcurrent protective device selected.
9. For maximum scalability or future expansion it is recommended that the UPS frames be installed at their full ratings - see bold text data.
10. All OCPD's and cabling are by others.
11. Heat rejection calculations are based on watt to BTU/HR conversion factor of 1 watt = 3.412 BTU/HR
12. OCPD = Over Current Protective Device
13. All wirings to be in accordance with all applicable national and/or local electrical codes.
14. Control wiring and power wiring must be run in separate conduit.
15. Input: THDI < 5% at full load.
16. Output: THDU < 2% Linear Load, < 3% Non Linear Load.
17. Requirements for back-to-back Symmetra PX250/500 UPS installations:
- To ensure proper airflow, you must install a Plexiglass French Door Kit (0H-0242) at the rear of each Power frame and I/O frame in one of the two systems.
- To prevent batteries from being overheated by hot air from the power frames, battery frames must be installed back to back, and power frames must be installed back to back.

Efficiency Details

UPS Rating	25% load	50% load	75% load	100% load
250kVA/250kW	95.2%	96.2%	96.3%	96.3%

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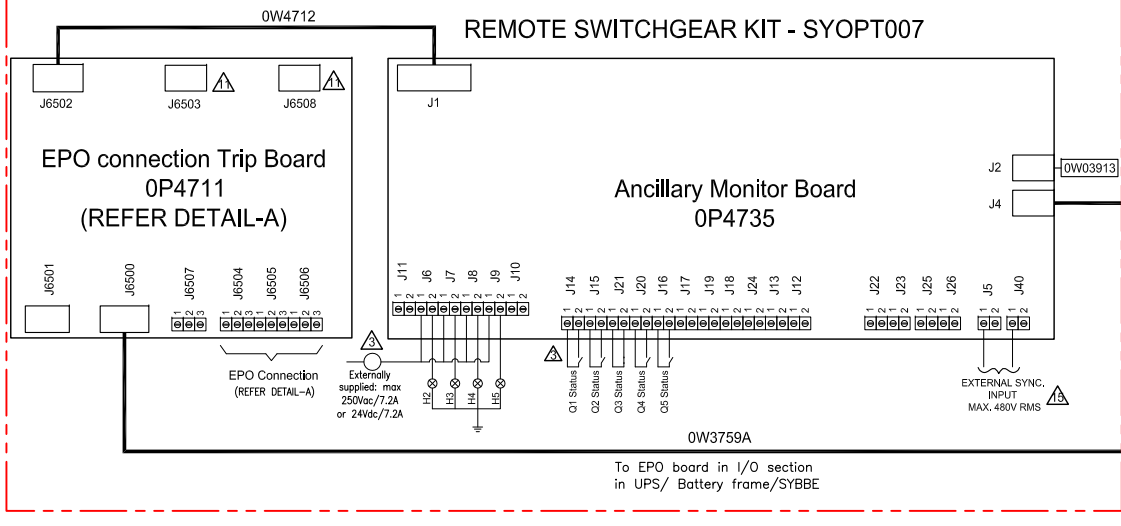


TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH 250kW
TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT
SITE PLANNING DATA
PROJECT: DRAWINGS SHEET 14 OF 15

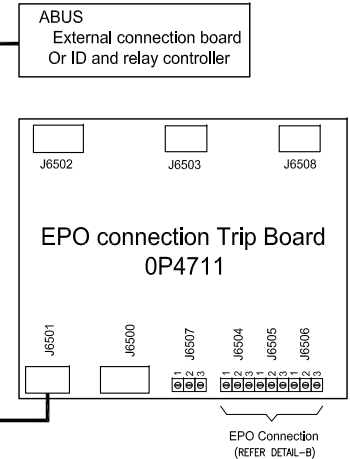
DWG NO: SY250K250TGC1-RB
DRAWN BY: BALAMURUGAN
ENGINEER: DAVID L
APPROVED BY: PAUL B

REV. 0
29-OCT-13
29-OCT-13
ANGLE
PROJECTION:
N/A

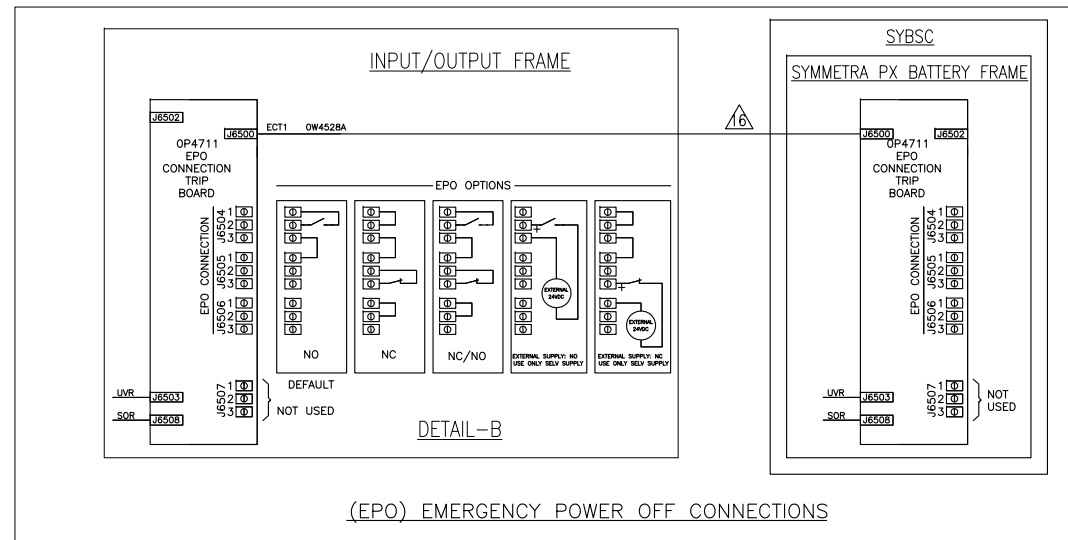
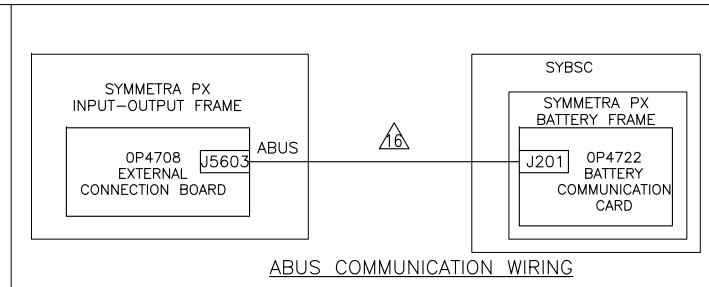
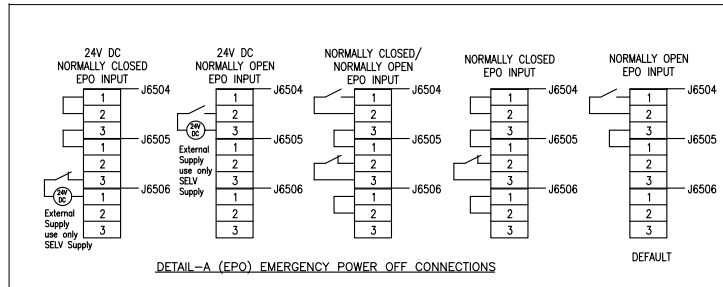
THIRD PARTY
Maintenance
Bypass
Panel
(MBP)



Input/Output Panel -SYIOF500KD



1. INSTALLATION MUST COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK..
3. LIGHTS AND CONTACTS ARE FIELD WIRED.
4. STANDARD CABLE LENGTH IS 50 METERS AND IS PART OF SKU SYOPT007.
5. ON EACH SYOPT007, INSTALL TERMINATOR OW03913 IN THE J2 TERMINAL ON THE AMB.
6. ON EACH SYOPT007, CONNECT THE "ABUS" CABLE(OW3785C) FROM J4 ON THE AMB(OP4735) TO THE "ABUS" TERMINAL EXTERNAL CONNECTION BOARD OF ID AND RELAY CONTROLLER ON THE FRONT OF THE INPUT/OUTPUT ENCLOSURE.
7. IN EACH UPS, CONNECT THE ECT CABLE(OW3759A) FROM J6500 ON THE ECT BOARD(OP4711) IN MBP TO J6501 ON THE ECT BOARD(OP4711) IN THE TOP OF THE INPUT/OUTPUT ENCLOSURE.
8. IN EACH UPS, CONNECT NORMALLY OPEN(NO) AUXILIARY SWITCH FOR Q1, Q2 AND Q5 STATUS.
9. IN EACH UPS, CONNECT H2 AND H5 LAMPS FOR PERMISSION TO OPERATE Q2 AND Q5.
10. INSTALL 1A FUSE ON EACH PHASE ON THE EXTERNAL SYNC CABLE AT THE SYNC. SOURCE.
11. IN EACH UPS, CONNECT CABLE FOR Q2 TRIPPING TO EITHER:
 - A. J6503(UVR). WHEN USING SQUARE D UVR OR ABB S8 UVR, AN EXTERNAL 24V DC SELV SUPPLY SHOULD BE CONNECTED TO J6507. FOR THE UVR, THE FOLLOWING PARTS ARE NEEDED TO CONNECT J6503 PIN 2 AND 3: 1 TYCO 1-480700-0, M&L 3-POSITINO PLUG HOUSING AND 2 TYCO 3650218-3 M&L PIN, AWG 20-14 (NOT SUPPLIED).
 - B. J6508 (SOR). FOR THE SOR SHUNT TRIP, THE FOLLOWING PARTS ARE NEEDED TO CONNECT TO J6508: 1 TYCO 1-480698-0, M&L 2-POSITINO PLUG HOUSING AND 2 TYCO 350218-3 M&L PIN, AWG 20-147 (NOT SUPPLIED).
12. CONNECT NC CONTACT FOR Q3. EACH UPS MUST BE CONNECTED TO A SEPARATE DRY CONTACT.
13. CONNECT NO CONTACT FOR Q4. EACH UPS MUST BE CONNECTED TO A SEPARATE DRY CONTACT.
14. CONNECT H3 AND H4 LAMPS IN PARALLEL.
15. OPTION: CONNECT EXTERNAL SYNCHRONIZATION CABLES FROM L1 AND L2 OF THE PREFERRED AC SOURCE TO J5(L1) AND J40(L2) ON THE OP4735 BOARD FOR EACH UPS IN PARALLEL SYSTEM.
16. STANDARD CABLE LENGTH IS 50 METERS, IS PART OF SKU NUMBER :SYBSC500K500.



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TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH 250kW
TOP ENTRY 1 MOD W/ REMOTE MODULAR BATT
SYSTEM WIRING DIAGRAM

PROJECT: DRAWINGS SHEET 15 OF 15

DWG NO: SY250K250TGC1-RB

DRAWN BY: BALAMURUGAN 29-OCT-13

ENGINEER: DAVID L. 29-OCT-13

APPROVED BY: PAUL B. 29-OCT-13

REV. 0

ANGLE

PROJECTION:

N/A