
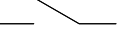

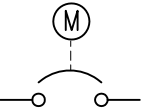
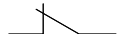
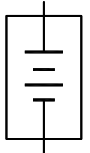
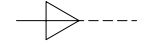
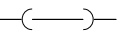







Symmetra PX 250kW 3/4 wire Single/Dual Mains Bottom Entry 1 MOD with Line-up Modular Battery

Sheet No.	Component /Detail	Description
1	Drawing Guide	Symmetra PX 250kW 3/4 Wire Single/Dual Mains Bottom Entry 1 MOD with Line-up Modular Battery Drawing Guide
2	Solution Isometric	Symmetra PX 250kW 3/4 Wire Single/Dual Mains Bottom Entry 1 MOD with Line-up Modular Battery Solution Isometric
3	Run time Details	Symmetra PX 250kW 3/4 Wire Single/Dual Mains Bottom Entry 1 MOD with Line-up Modular Battery Runtime Details
4-5	Solution General Arrangements	Symmetra PX 250kW 3/4 Wire Single/Dual Mains Bottom Entry 1 MOD with Line-up Modular Battery Solution General Arrangement
6	Solution Anchoring Details	Symmetra PX 250kW 3/4 Wire Single/Dual Mains Bottom Entry 1 MOD with Line-up Modular Battery Solution Anchoring
7	UPS Frame Internal view s	Symmetra PX 250 kW UPS Internal Details
8-10	Input-Output Frame Internal view s	Symmetra PX 250 kW UPS Input Output Frame internal Details
11	Battery Frame Internal view s	Symmetra PX Battery Frame Internal view s
12-13	Bottom Feed Frame	Symmetra PX Bottom Feed Frame
14-15	System One Line Diagram	Symmetra PX 250 kW 3/4 Wire Single/Dual Mains Bottom Entry 1 MOD with Line-up Modular Battery System One Line Diagram
16	Site Planning Data	Symmetra PX 250 kW 3/4 Wire Single/Dual Mains Bottom Entry 1 MOD with Line-up Modular Battery Site Planning Data
17	System Wiring Diagram	Symmetra PX 250 kW 3/4 Wire Single/Dual Mains Bottom Entry 1 MOD with Line-up Modular Battery 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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Schneider
Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH, 250kW
BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT
DRAWING GUIDE

PROJECT: DRAWINGS SHEET 1 OF 17

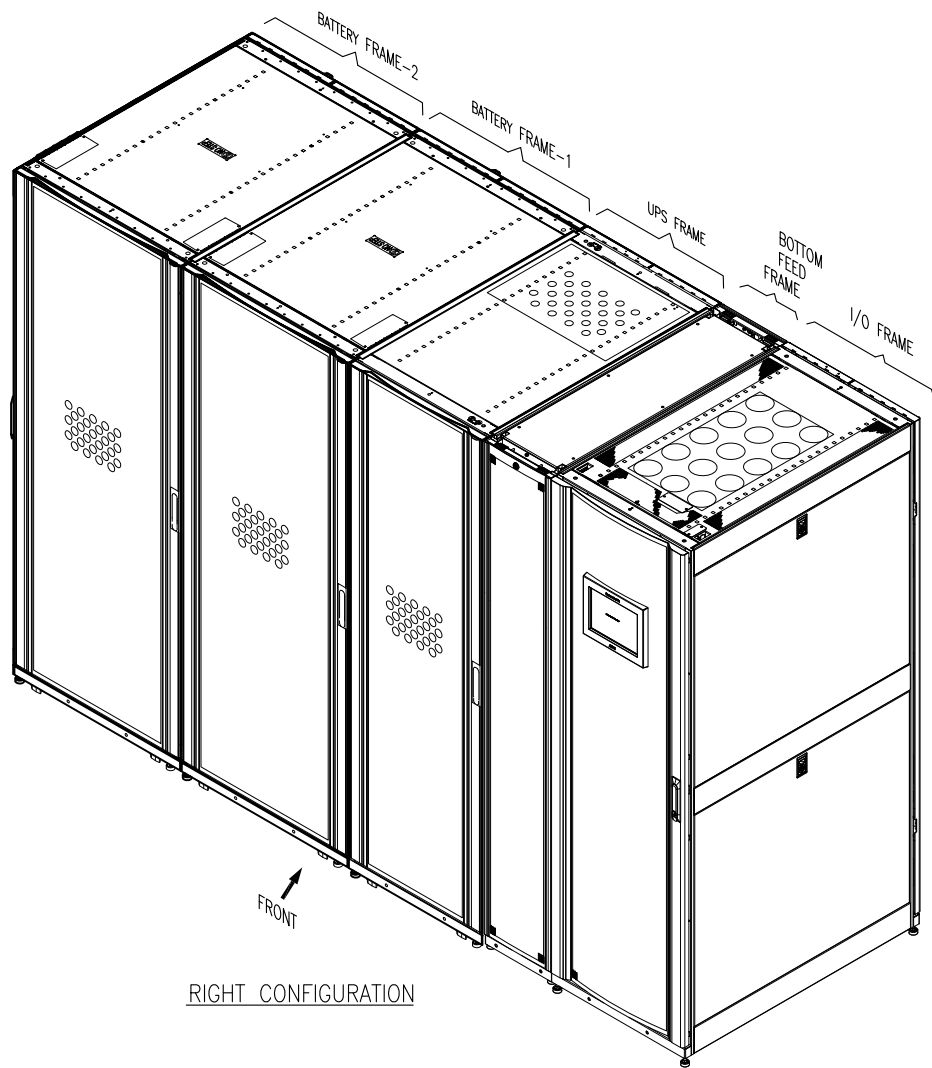
DWG NO: SY250K250BGC1-LB

DRAWN BY: BALAMURUGAN 29-OCT-13

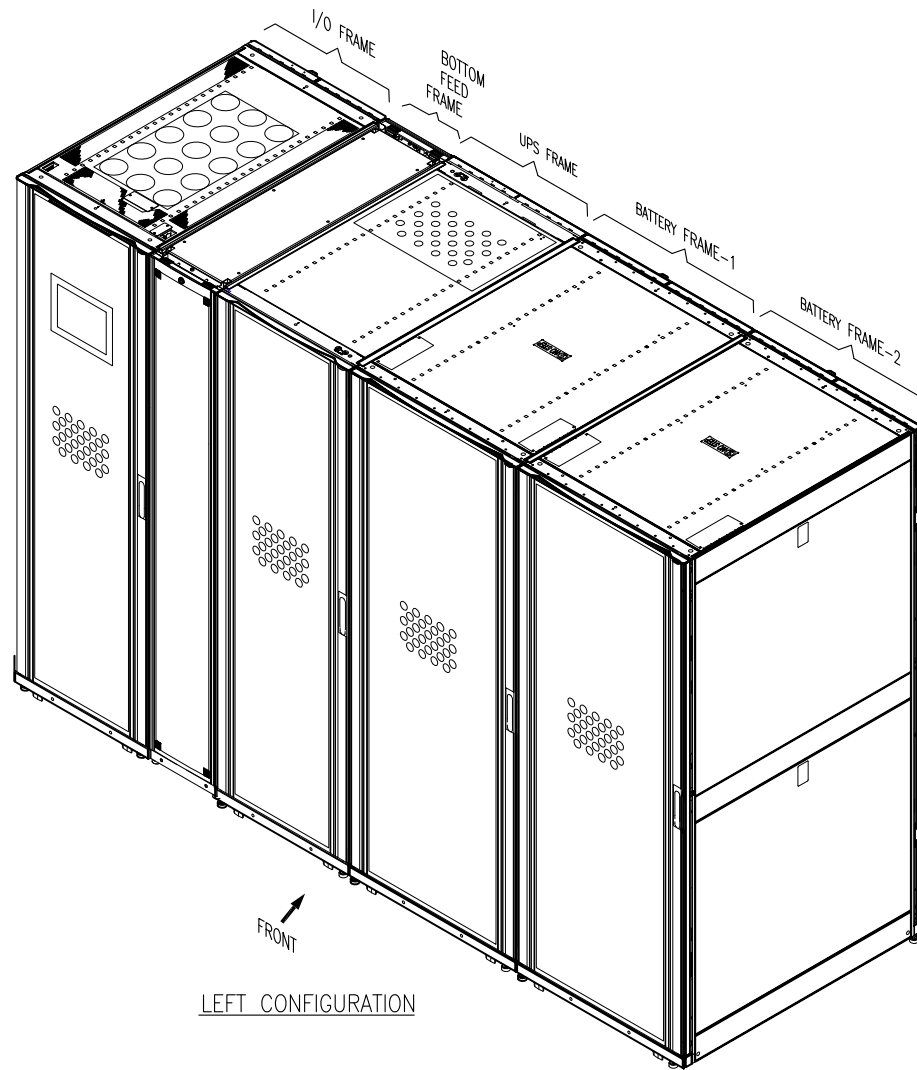
ENGINEER: DAVID L. 29-OCT-13

APPROVED BY: PAUL B. 29-OCT-13

REV. 0
ANGLE
PROJECTION
N/A



RIGHT CONFIGURATION



LEFT CONFIGURATION

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 BOTTOM OF THE UNIT.

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Schneider
Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH, 250kW
BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT
SOLUTION ISOMETRIC

PROJECT: DRAWINGS SHEET 2 OF 17

DWG NO: SY250K250BGC1-LB

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 LINE-UP BATTERIES (6min to 105min) 																																			
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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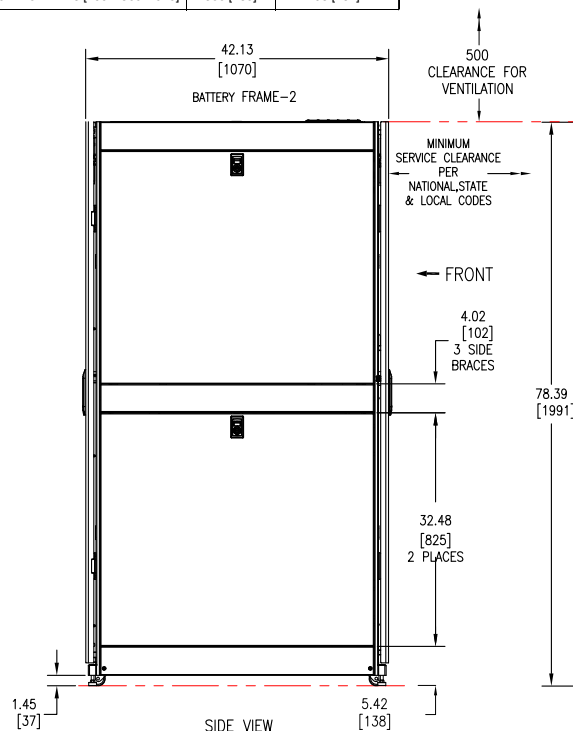
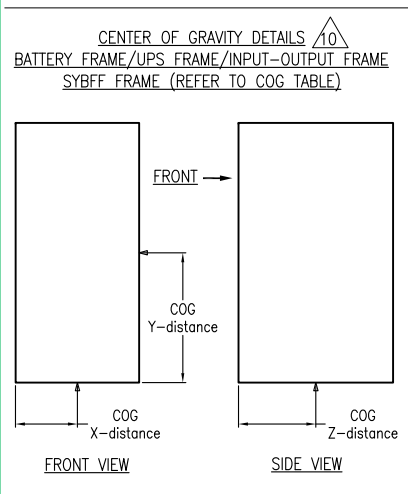


TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH, 250kW
BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT
SOLUTION RUNTIME DETAILS
PROJECT: DRAWINGS SHEET 3 OF 17

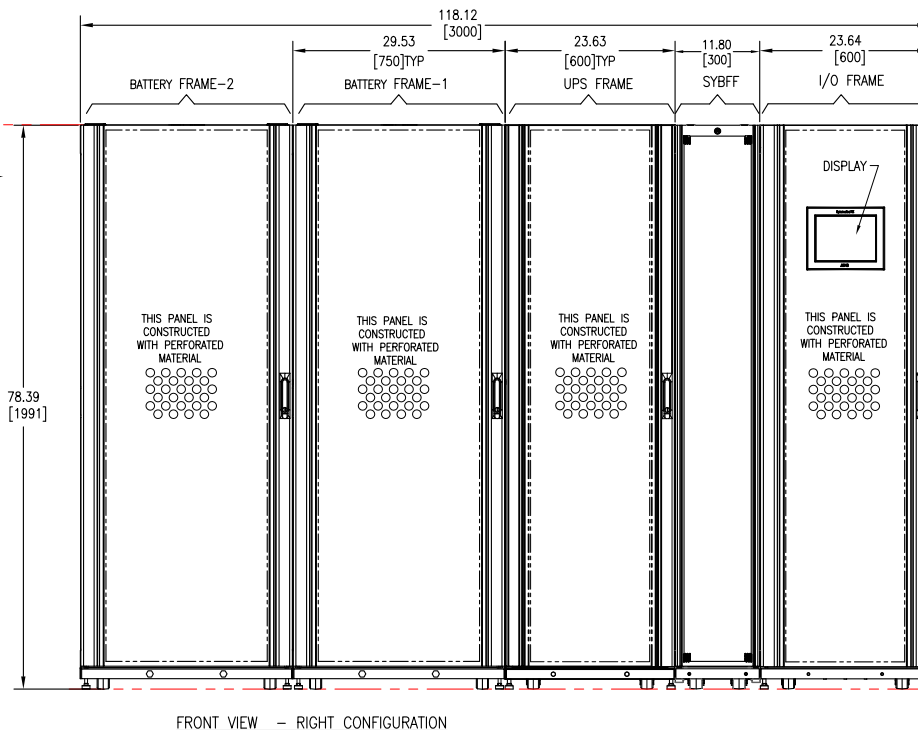
DWG NO: SY250K250BGC1-LB
DRAWN BY: BALAMURUGAN 29-OCT-13
ENGINEER: DAVID L 29-OCT-13
APPROVED BY: DAVID L 29-OCT-13

REV. 0
ANGLE
PROJECTION
N/A

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	78.39x23.62x42.13 [1991x600x1070]	904 [411]	131 [640]
BOTTOMFEED FRAME	SYBFF	78.39x11.81x42.13 [1991x300x1070]	300 [150]	96 [467]



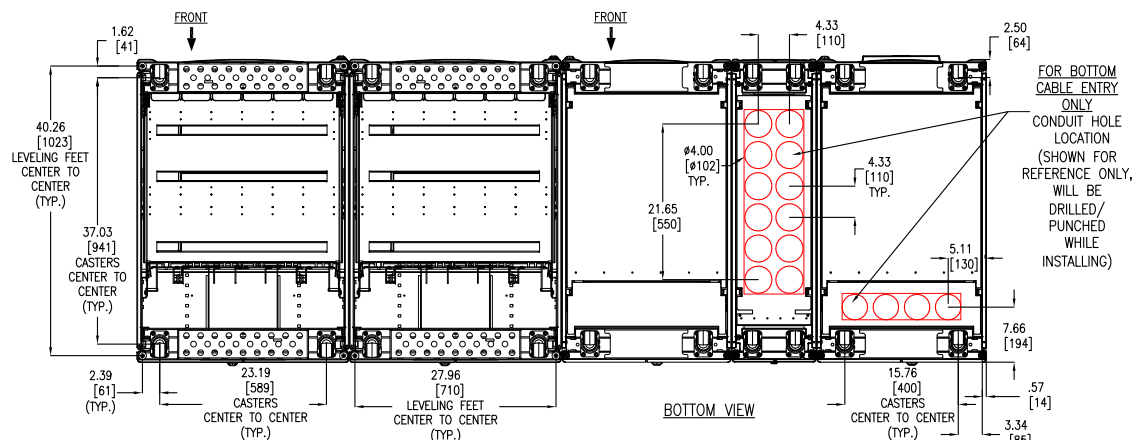
COG TABLE			
CENTER OF GRAVITY	BATTERY FRAME	UPS FRAME	I/O FRAME
	INCHES[MM]	INCHES[MM]	INCHES[MM]
X - DISTANCE	14.76[375]	12.85[326.4]	12.96[329.2]
Y - DISTANCE	39.17[995]	42.14[1070.3]	21[533.5]
Z - DISTANCE	22.44[570]	16.65[423.0]	31[788.5]



- 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 BOTTOM 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(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 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

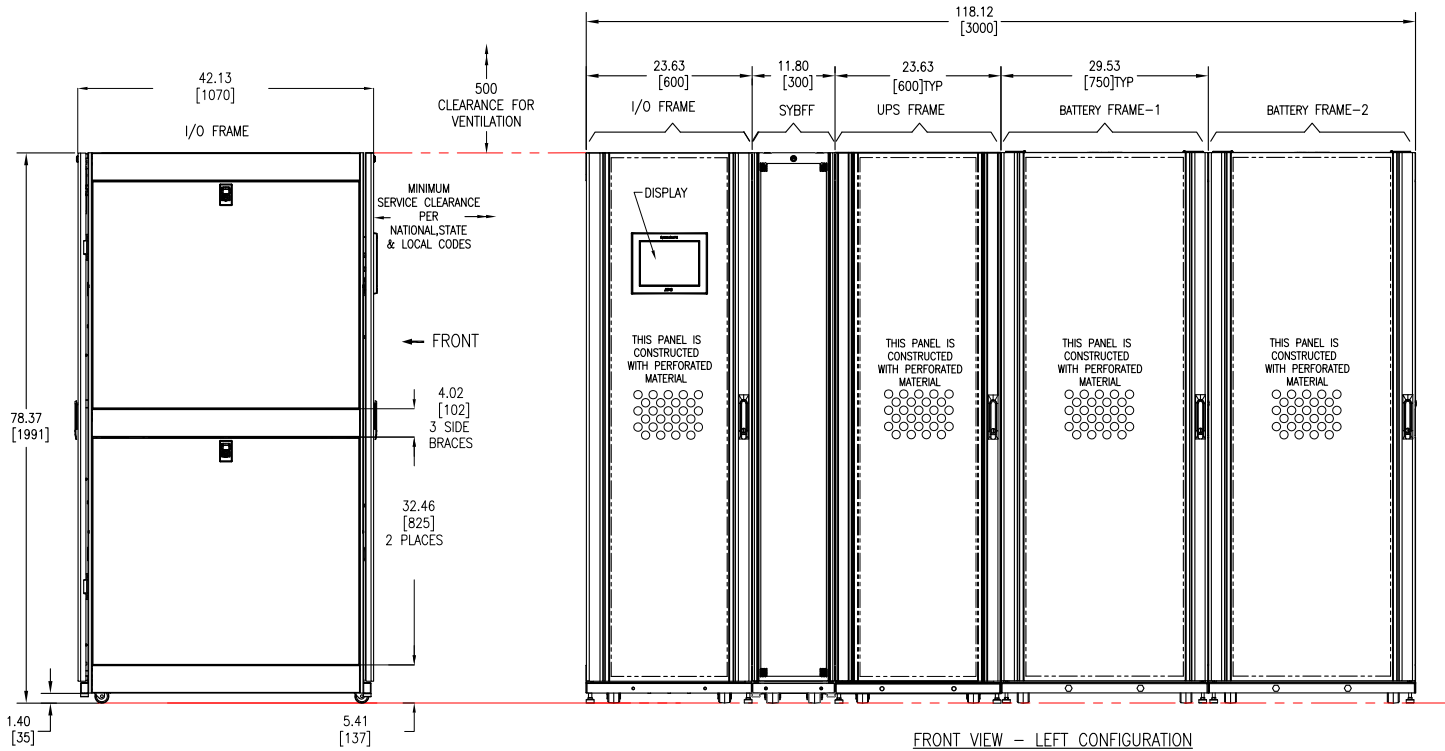
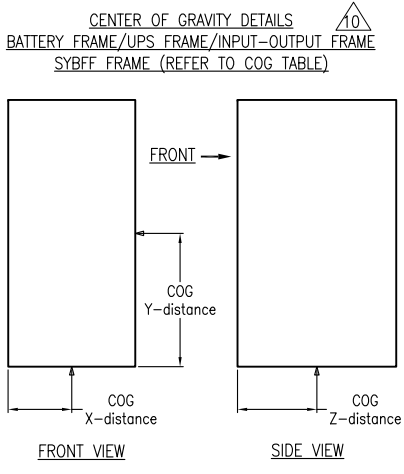
TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH, 250kW
BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT
SOLUTION GENERAL ARRANGEMENT - RIGHT CONFIG
PROJECT: DRAWINGS SHEET 4 OF 17

DWG NO: SY250K250BGC1-LB
DRAWN BY: BALAMURUGAN
ENGINEER: DAVID L
APPROVED BY: PAUL B

REV. 1
THIRD ANGLE
PROJECTION

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]
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COG TABLE			
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Z - DISTANCE	22.44[570]	16.65[423.0]	31[788.5]



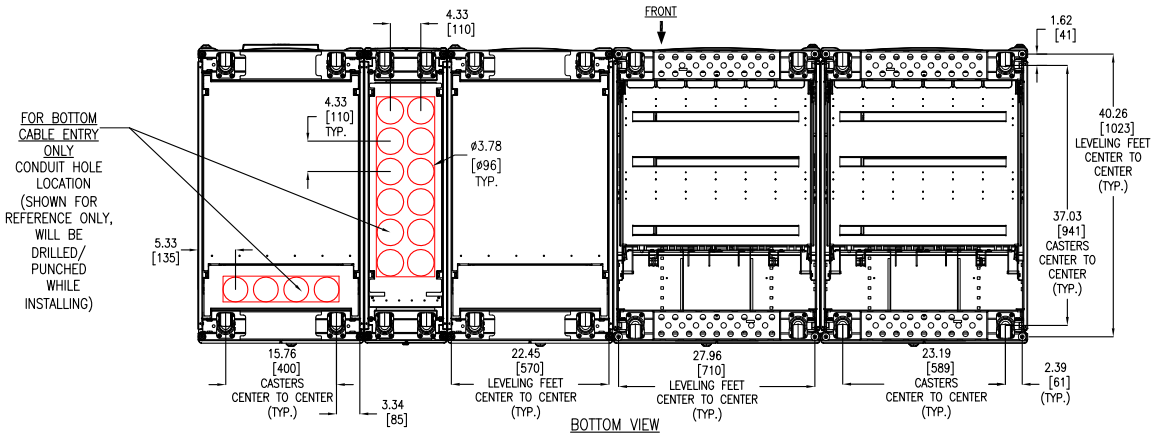
- NOTES:
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 2. REFER TO [PRODUCT DOCUMENTATION](#) FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
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 4. WEIGHT PER FRAME (UNPOPULATED)

	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 BOTTOM 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.

SIDE VIEW



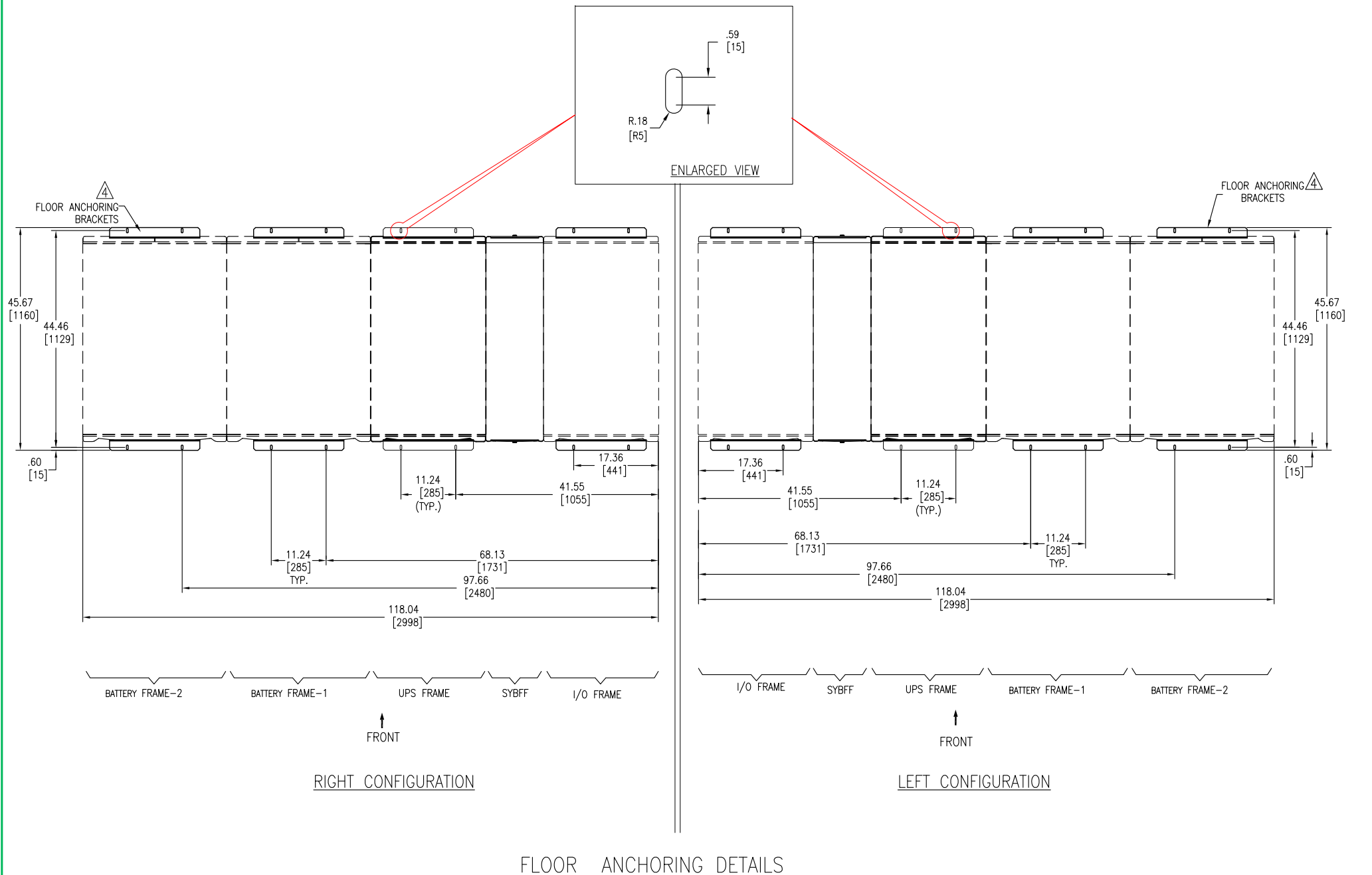
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Schneider
Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH, 250kW
BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT
SOLUTION GENERAL ARRANGEMENT - LEFT CONFIG
PROJECT: DRAWINGS SHEET 5 OF 17

DWG NO: SY250K250BGC1-LB
DRAWN BY: BALAMURUGAN
ENGINEER: DAVID L
APPROVED BY: PAUL B

REV. 1
26-FEB-16
26-FEB-16
26-FEB-16
THIRD
ANGLE
PROJECTION



NOTES:

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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.

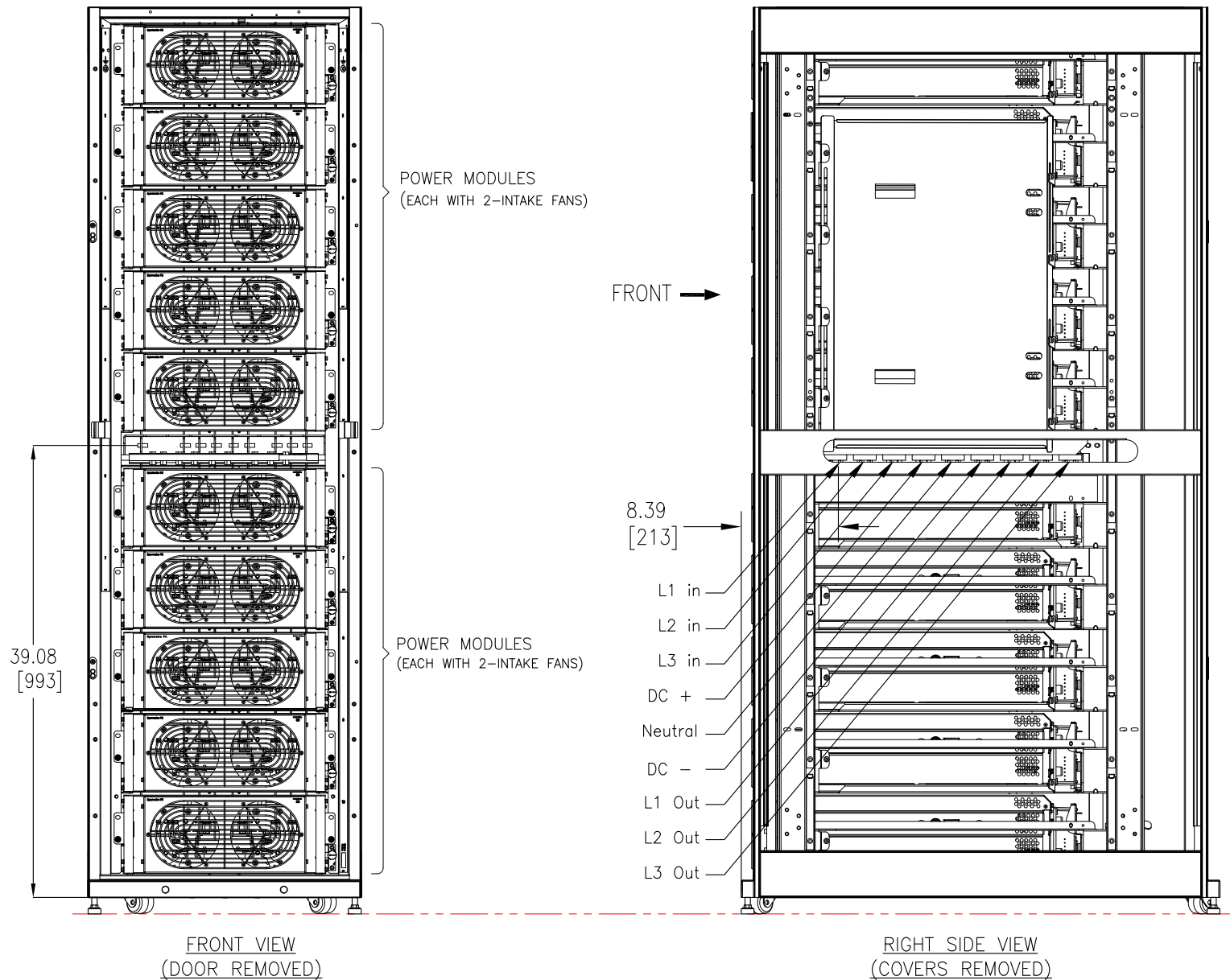
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TITLE: SYMMETRA PX
 Input: 480V AC 3PH SINGLE/DUAL MAINS
 Output: 480V AC 3PH, 250kW
 BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT SOLUTION ANCHORING

PROJECT: DRAWINGS SHEET 6 OF 17

DWG NO:	SY250K250BGC1-LB	REV:	0
DRAWN BY:	BALAMURUGAN	29-OCT-13	THIRD
ENGINEER:	DAVID L	29-OCT-13	ANGLE
APPROVED BY:	PAUL B	29-OCT-13	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
BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT
UPS POWER FRAME INTERNAL VIEW

PROJECT: DRAWINGS SHEET 7 OF 17

DWG NO: SY250K250BGC1-LB

DRAWN BY: BALAMURUGAN 29-OCT-13

ENGINEER: DAVID L. 29-OCT-13

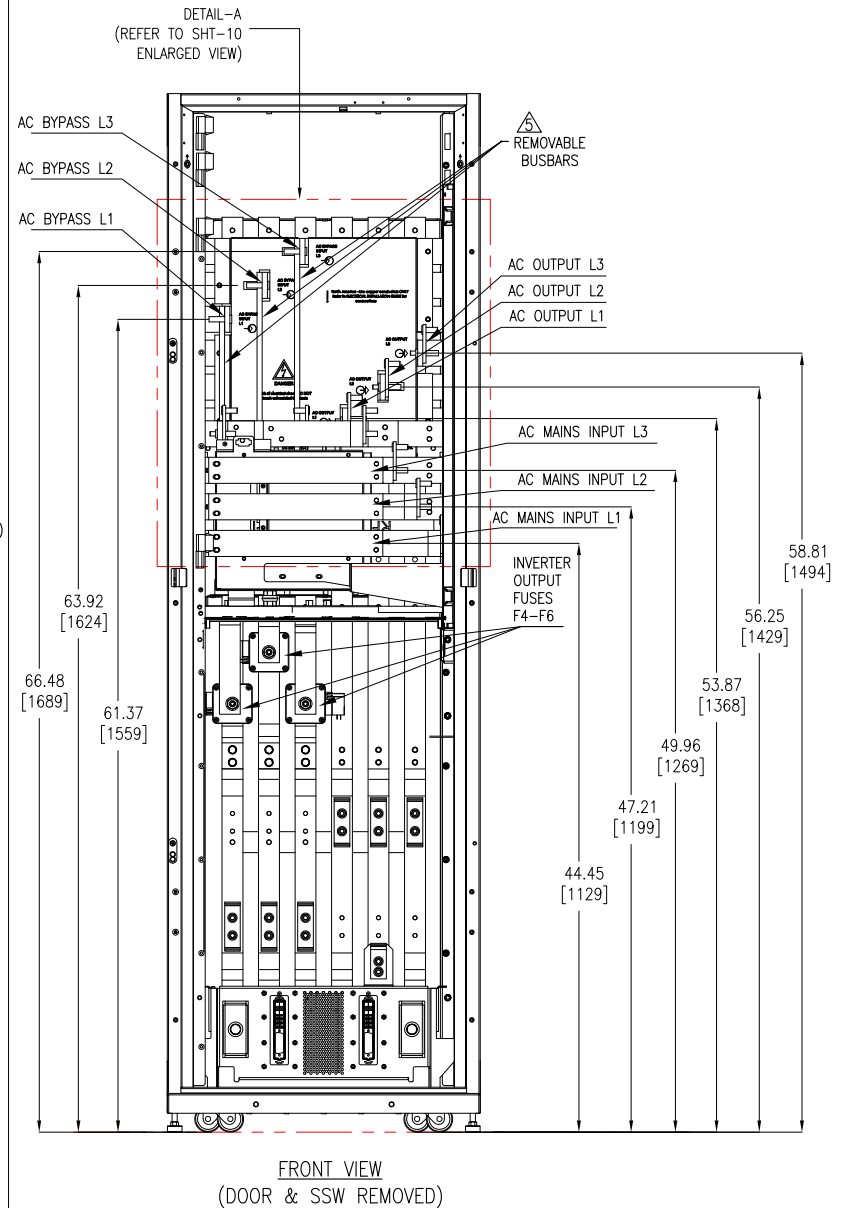
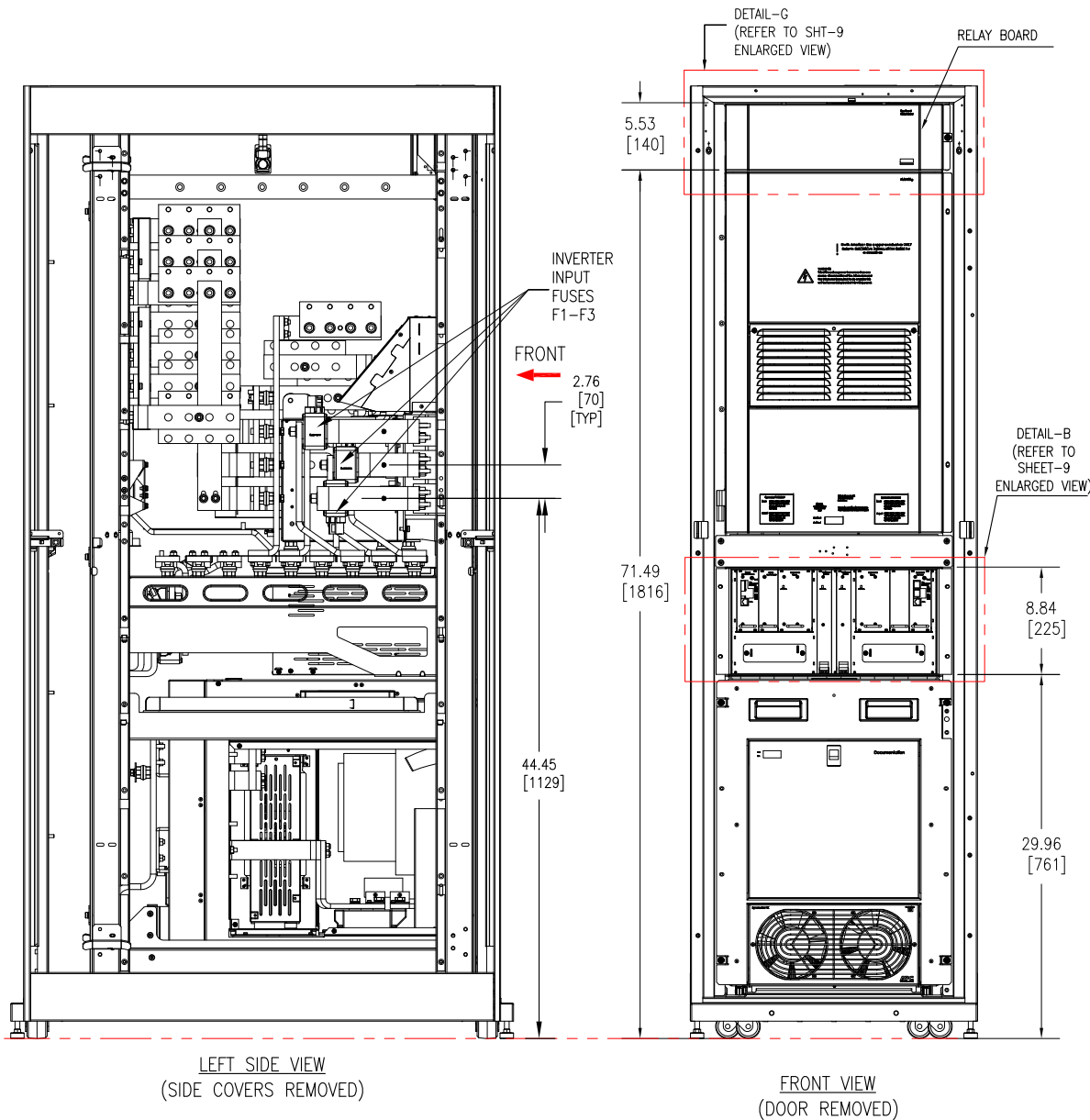
APPROVED BY: PAUL B. 29-OCT-13

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. BUS BARS 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
BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT
UPS INPUT- OUTPUT FRAME INTERNAL VIEW

PROJECT: DRAWINGS SHEET 8 OF 17

DWG NO: SY250K250BGC1-LB

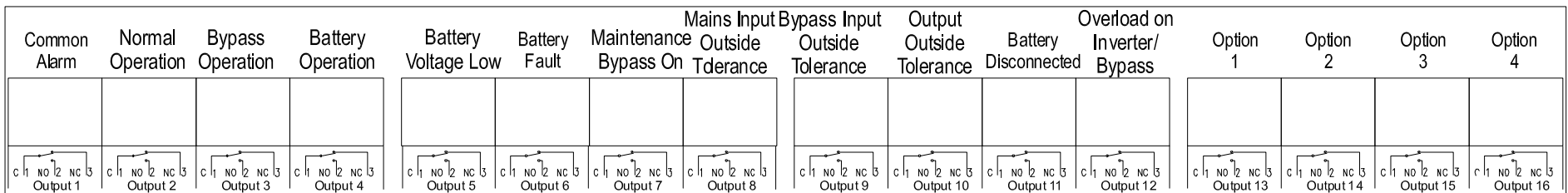
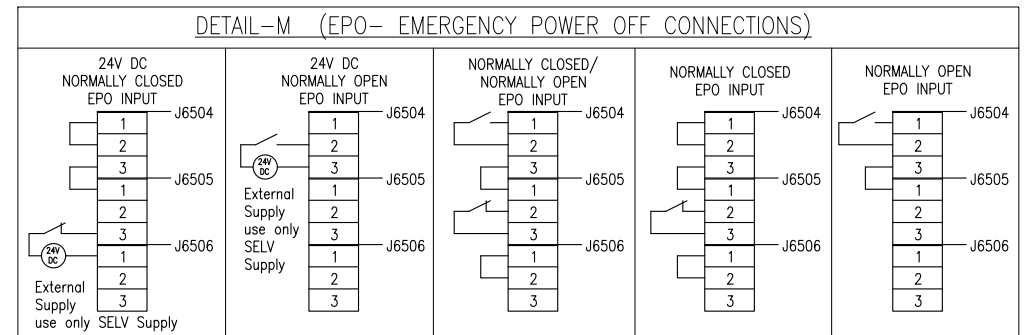
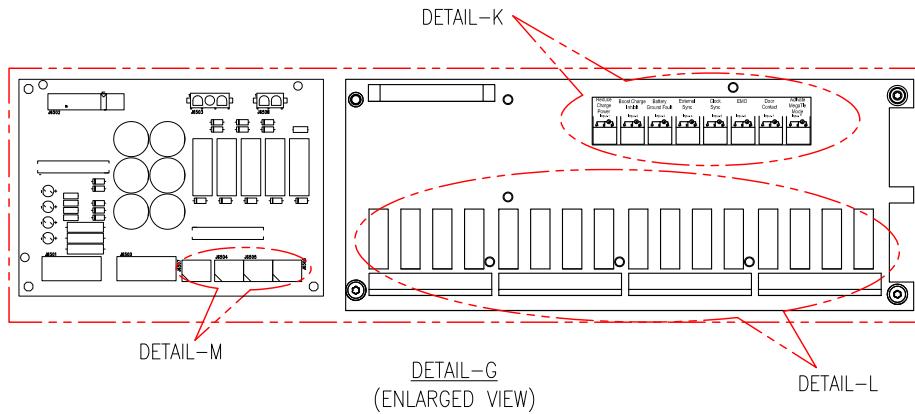
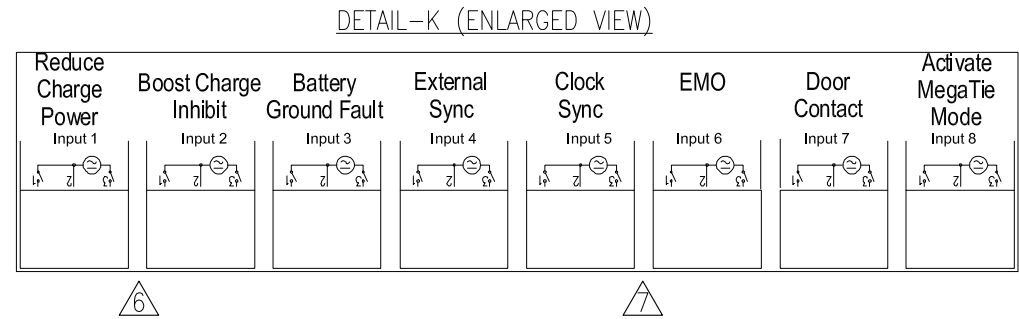
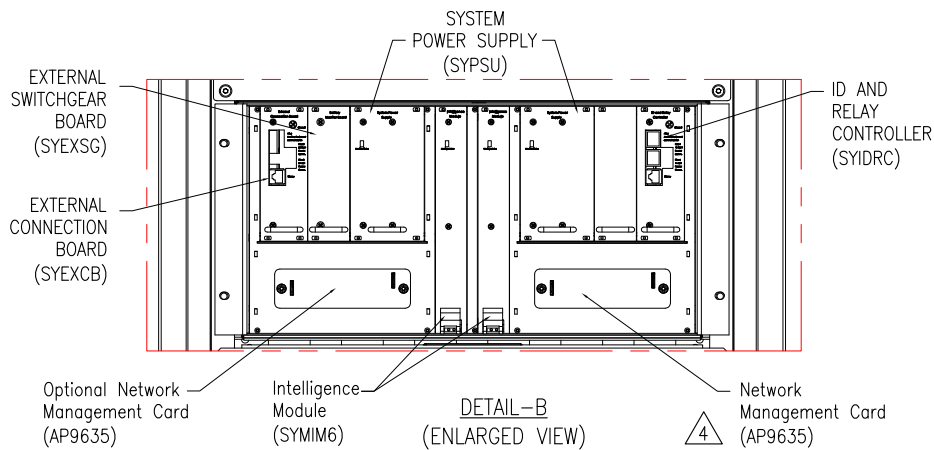
DRAWN BY: BALAMURUGAN 25-FEB-15

ENGINEER: DAVID L 25-FEB-15

APPROVED BY: PAUL B /C FLY 25-FEB-15

REV. 1

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. OUTPUT RELAYS SPECIFICATION-MAXIMUM CURRENT ACCEPTED BY EACH OUTPUT RELAY IS 7.2A/250VAC.
- △ 4. ONLY ONE NMC (NETWORK MANAGEMENT CARD) IS INSTALLED AS STANDARD, THE OTHER NMC IS OPTIONAL.
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.

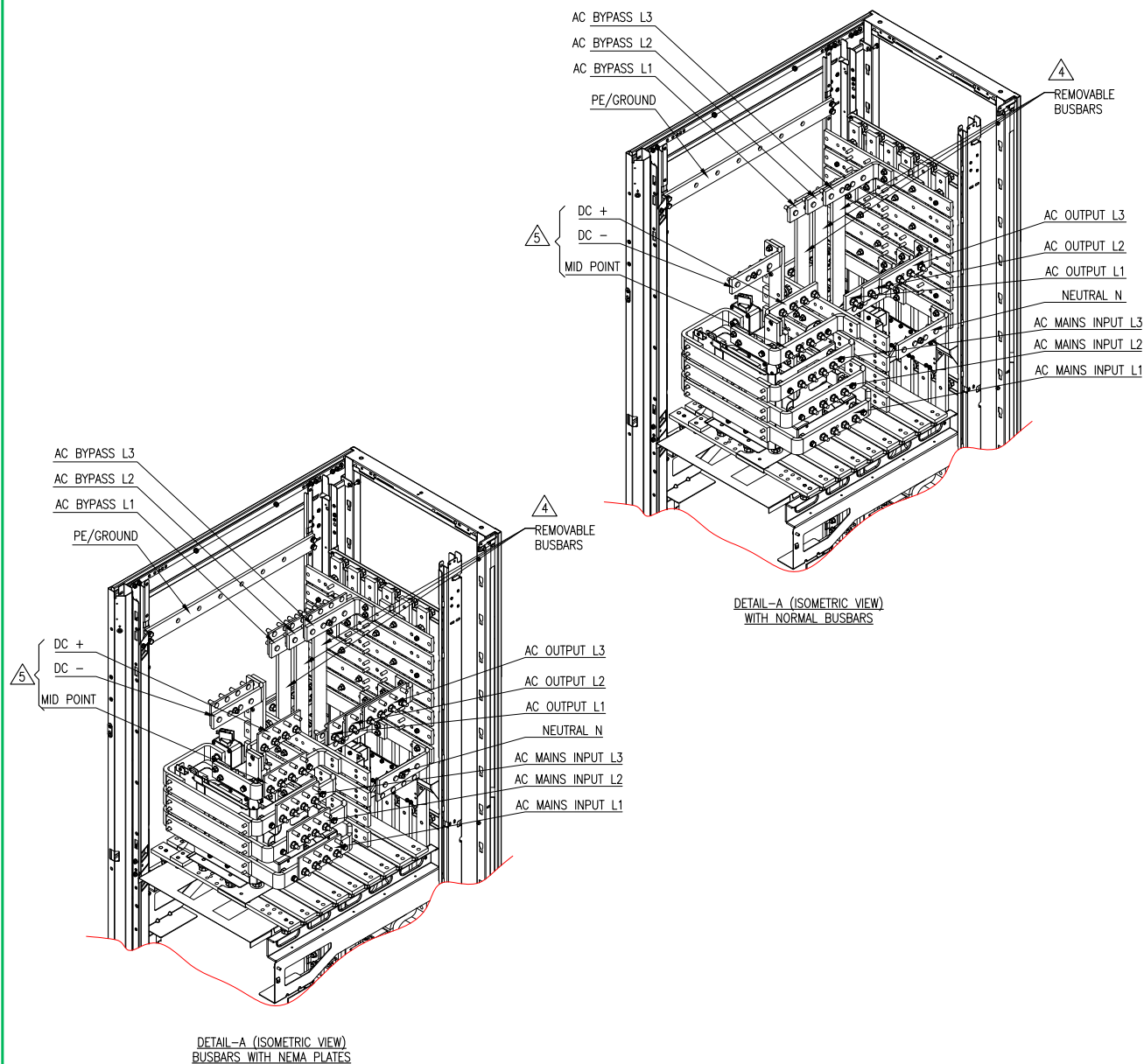
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Schneider Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH, 250kW
BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT
UPS INPUT- OUTPUT FRAME INTERNAL DETAILS
PROJECT: DRAWINGS SHEET 9 OF 17

DWG NO: SY250K250BGC1-LB
DRAWN BY: JAYAPRAKASH
ENGINEER: DAVID L.
APPROVED BY: PAUL B.

REV. 2
THIRD ANGLE PROJECTION



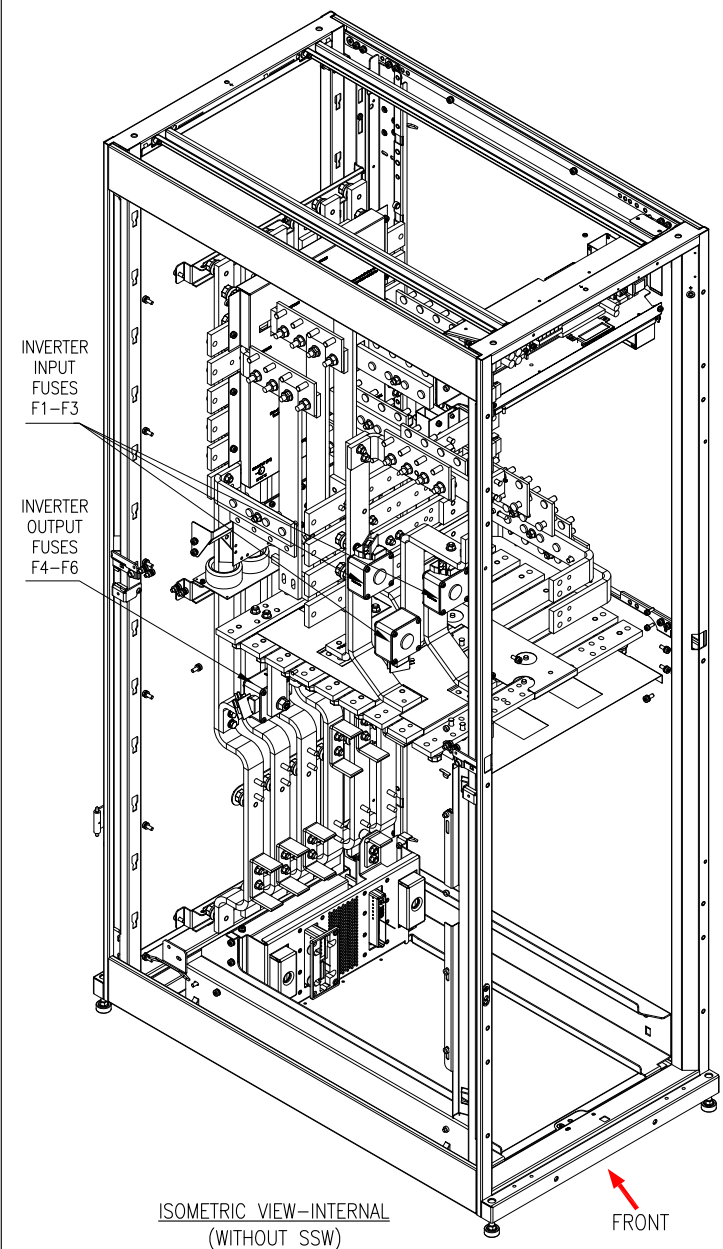
NOTES:

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. 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
BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT
UPS INPUT- OUTPUT FRAME INTERNAL ISOMETRIC

DWG NO: SY250K250BGC1-LB

REV. 1

DRAWN BY: BALAMURUGAN 25-FEB-15

THIRD

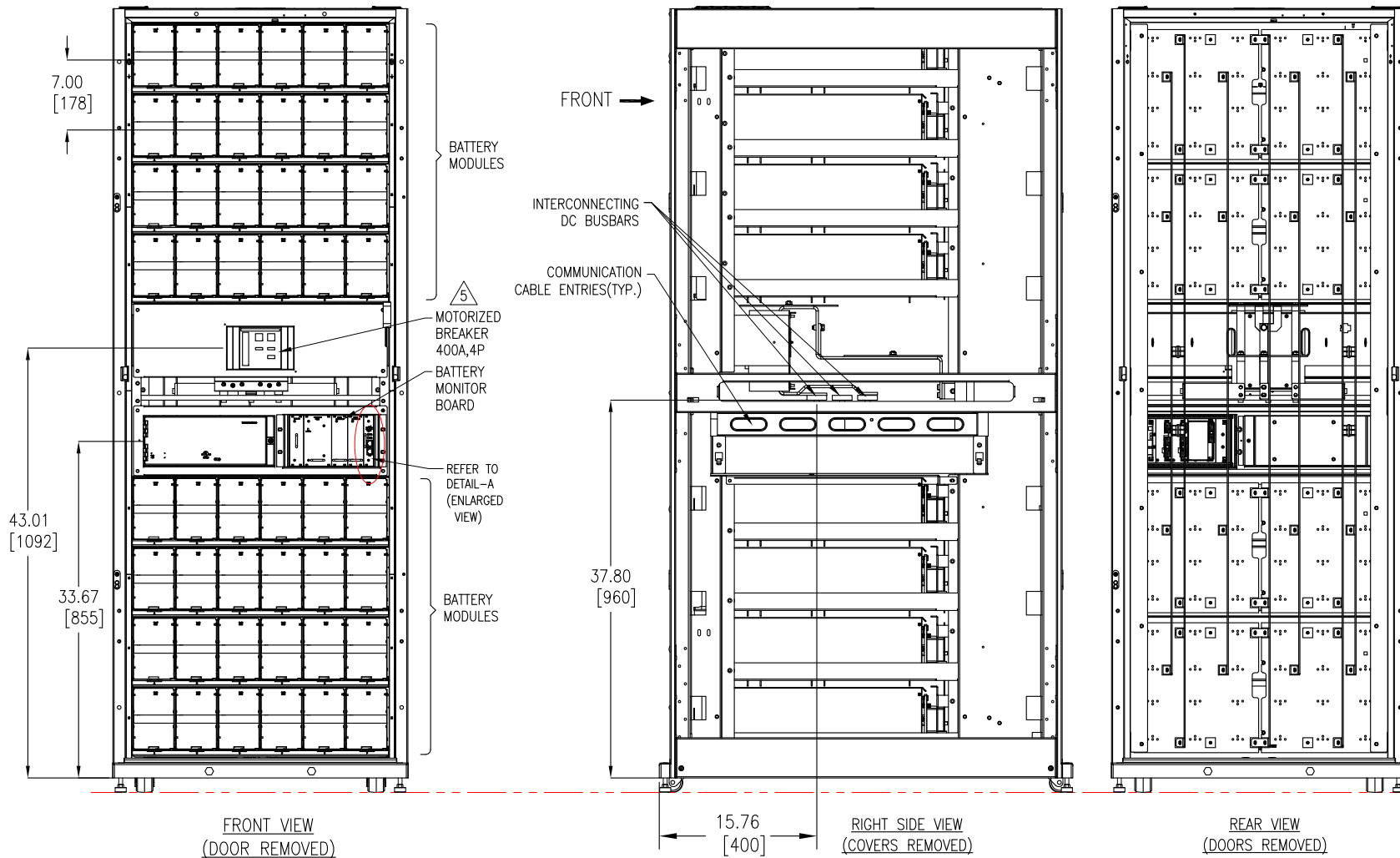
ENGINEER: DAVID L 25-FEB-15

ANGLE

APPROVED BY: PAUL B /C FLY 25-FEB-15

PROJECTION

PROJECT: DRAWINGS SHEET 10 OF 17



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. SOME STRUCTURAL DETAILS NOT SHOWN FOR CLARITY PURPOSE.

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
BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT
BATTERY FRAME INTERNAL VIEW

PROJECT: DRAWINGS SHEET 110F17

DWG NO: SY250K250BGC1-LB

DRAWN BY: BALAMURUGAN 29-OCT-13

ENGINEER: DAVID L. 29-OCT-13

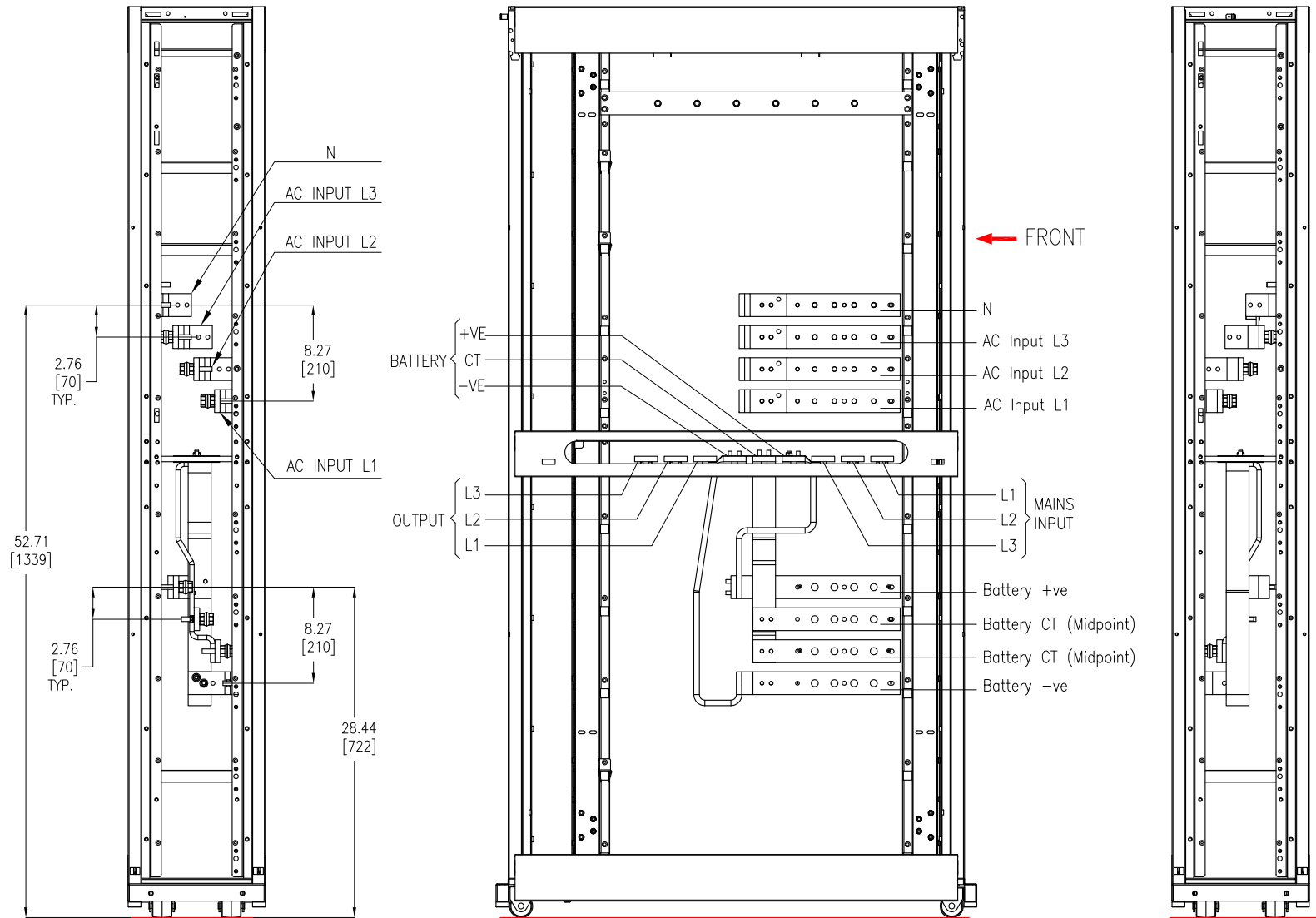
APPROVED BY: PAUL B. 29-OCT-13

REV. 0

THIRD

ANGLE

PROJECTION



FRONT VIEW

LEFT SIDE VIEW

REAR VIEW

NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. PLEASE REFER TO PRODUCT DOCUMENTATION FOR FURTHER DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS [INCHES].
4. SOME MECHANICAL 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 500kW
BOTTOM ENTRY 1 MOD W/ LINE-UP MODULAR BATT
BOTTOM FEED FRAME-INTERNAL VIEWS

PROJECT: DRAWINGS SHEET 12 OF 17

DWG NO: SY500K500BGC1-RB

DRAWN BY: BALAMURUGAN 30-JUL-13

ENGINEER: DAVID L 29-OCT-13

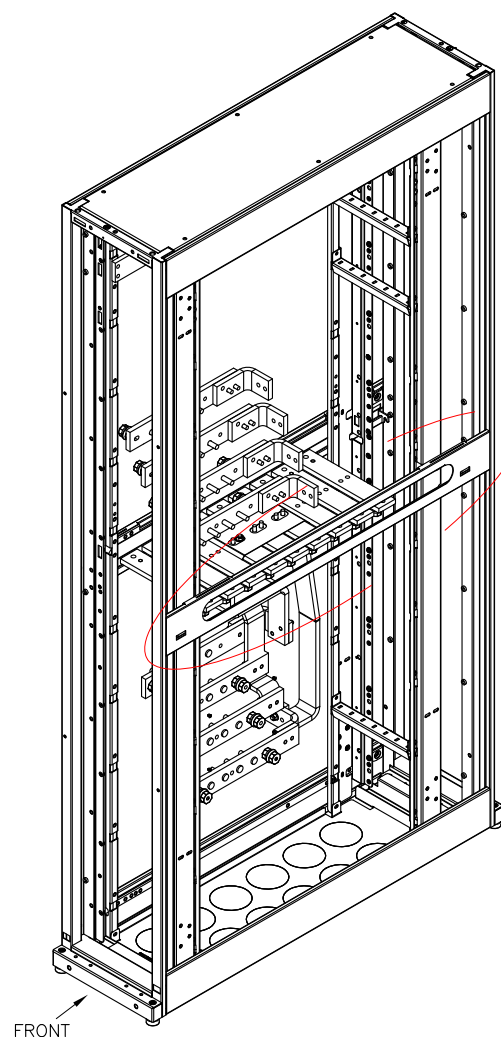
APPROVED BY: PAUL B 29-OCT-13

REV. 0

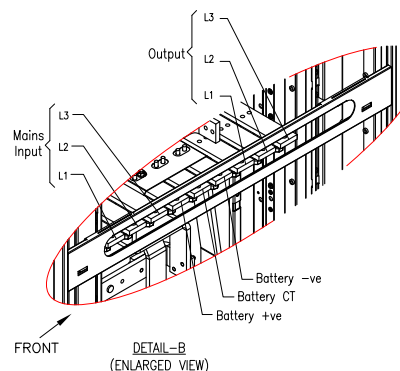
THIRD

ANGLE

PROJECTION



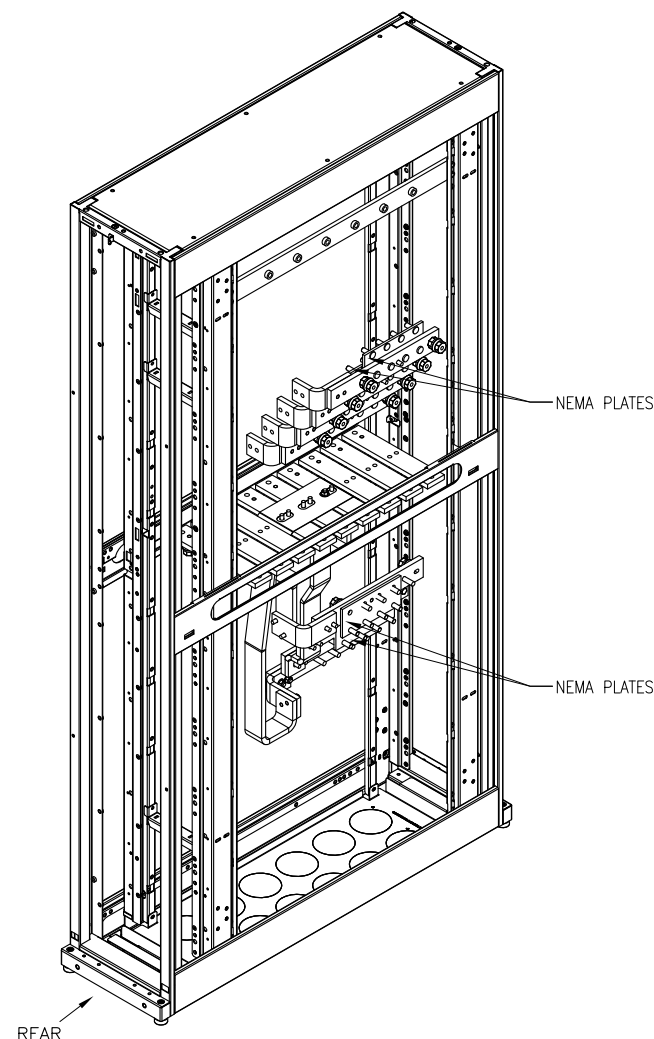
DETAIL-B
(REFER TO
ENLARGED
VIEW)



FRONT

DETAIL-B
(ENLARGED VIEW)

INTERNAL-ISOMETRIC VIEW
(WITH NORMAL BUSBARS)



INTERNAL-ISOMETRIC VIEW
(WITH NEMA PLATE BUSBARS)

NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. PLEASE REFER TO PRODUCT DOCUMENTATION FOR FURTHER DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. SOME MECHANICAL 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 500kW
BOTTOM ENTRY 1 MOD W/ LINE-UP MODULAR BATT
BOTTOM FEED FRAME-INTERNAL ISOMETRIC
PROJECT: DRAWINGS SHEET 13 OF 17

DWG NO: SY500K500BGC1-RB
DRAWN BY: BALAMURUGAN 30-JUL-13
ENGINEER: DAVID L. 29-OCT-13
APPROVED BY: PAUL B. 29-OCT-13

REV. 0
THIRD ANGLE
PROJECTION

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 Dimensions (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 [1191x1159x210.67]	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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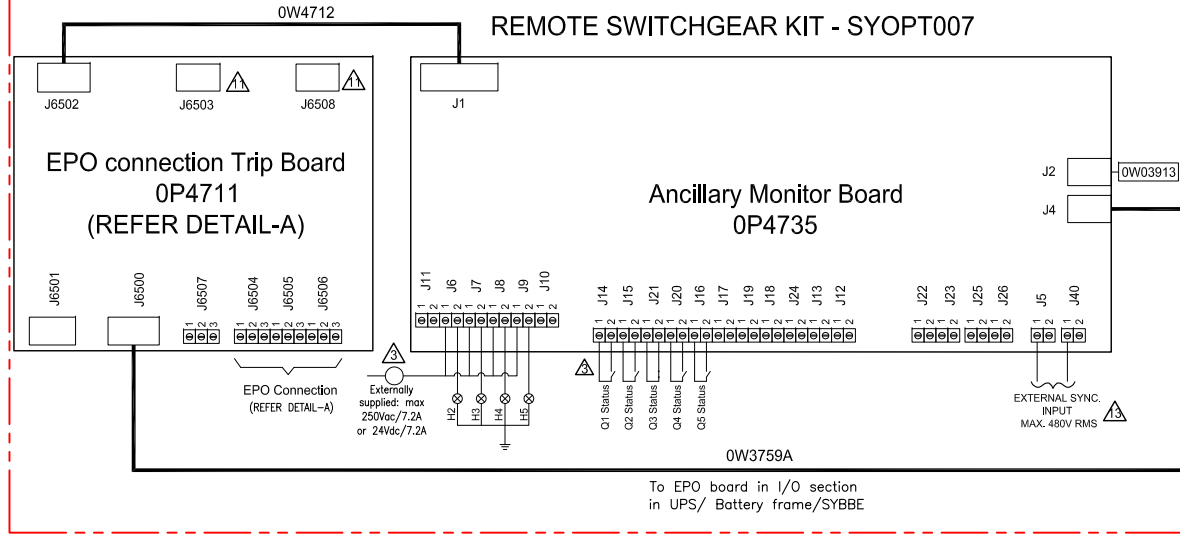


TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH, 250kW
BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT
SITE PLANNING DATA
PROJECT: DRAWINGS SHEET 16 OF 17

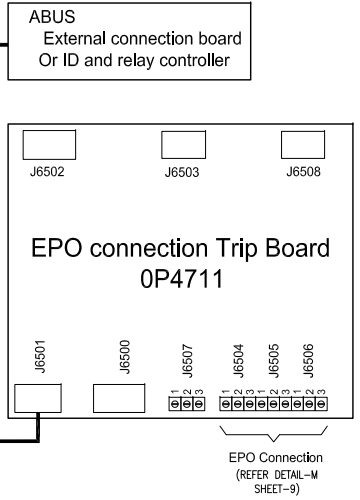
DWG NO: SY250K250BGC1-LB
DRAWN BY: BALAMURUGAN
ENGINEER: DAVID L
APPROVED BY: PAUL B

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

THIRD PARTY
Maintenance
Bypass
Panel
(MBP)

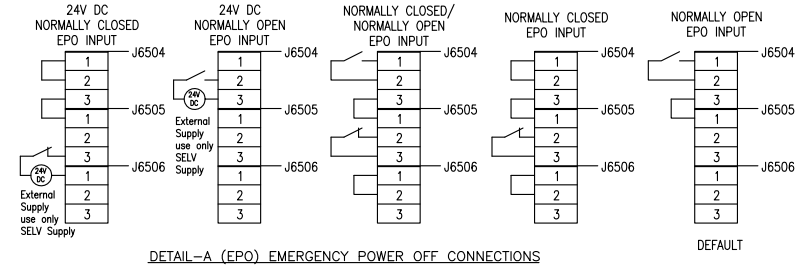


Input/Output Panel -SYIOF500KD



NOTES

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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. INSTALL TERMINATOR 0W03913 IN THE J2 TERMINAL ON THE AMB.
6. CONNECT THE ABUS CABLE(0W3758C) FROM J4 ON THE AMB(0P4735) TO THE ABUS TERMINAL EXTERNAL CONNECTION BOARD OR ID AND RELAY CONTROLLER ON THE FRONT OF THE INPUT/OUTPUT ENCLOSURE.
7. CONNECT THE ECT CABLE(0W3759A) FROM J6500 ON THE ECT BOARD(0P4711) IN THE MBP TO J6501 ON THE ECT BOARD(0P4711) IN THE TOP OF THE INPUT/OUTPUT ENCLOSURE.
8. CONNECT A NORMALLY OPEN(NO) AUXILIARY SWITCH Q1,Q2,Q3,Q4,Q5 STATUS. Q1 IS MANDATORY AND Q2,Q4 AND Q5 ARE OPTIONAL DEPENDING ON INSTALLATION. IF THE INPUTS ARE NOT USED, JUMPERS MUST BE INSTALLED,
9. CONNECT NORMALLY CLOSED(NC) AUXILIARY FOR Q3 STATUS.
10. CONNECT H2 TO H5 LAMPS FOR PERMISSION TO OPERATE Q2 TO Q5 (MAX, 7.2A/250V AC).
- △ 11. 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 TO J6503 PIN2 AND PIN3: 1 TYCO 1-48700-0, M&L 3-POSITION PLUG HOUSING AND 2 TYCO 350218-3 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-POSITION PLUG HOUSING AND 2 TYCO 350218-3 M&L PIN, AWG 20-14 (NOT SUPPLIED).
12. CONNECT CONTACT FOR DOOR OPEN/CLOSE. IF THE INPUT IS NOT USED, JUMPERS MUST BE INSTALLED.
- △ 13. OPTION: CONNECT EXTERNAL SYNCHRONIZATION CABLES FROM L1 AND L2 OF THE PREFERRED AC SOURCE TO J5(L1) AND J40(L2).
14. INSTALL 1A FUSE ON EACH PHASE ON THE EXTERNAL SYNC CABLE AT THE SYNC SOURCE.



DETAIL-A (EPO) EMERGENCY POWER OFF CONNECTIONS

DEFAULT

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Schneider Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE/DUAL MAINS
Output: 480V AC 3PH, 250kW
BOTTOM ENTRY 1MOD W/ LINE-UP MODULAR BATT
SYSTEM WIRING DIAGRAM

PROJECT: DRAWINGS SHEET 17 OF 17

DWG NO: SY250K250BGC1-LB

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