
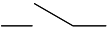


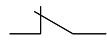


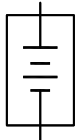
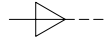
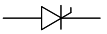







Symmetra PX 250kW 3 wire Dual Mains Top Entry 2 MOD with Remote Modular Battery

Sheet No.	Component /Detail	Description
1	Draw ing Guide	Symmetra PX 250 kW 3 w ire Dual mains Top entry 2 MOD SYBSC Draw ing Guide.
2	Solution Isometric	Symmetra PX 250 kW 3 w ire Dual mains Top entry 2 MOD SYBSC Solution Isometric
3	Run time Details	Symmetra PX 250 kW 3 w ire Dual mains Top entry 2 MOD SYBSC Runtime Details
4	Solution General Arrangements	Symmetra PX 250 kW 3 w ire Dual mains Top entry 2 MOD SYBSC Solution General Arrangements
5	Solution Anchoring Details	Symmetra PX 250 kW 3 w ire Dual mains Top entry 2 MOD SYBSC 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 Frame Internal view s	Symmetra PX SYBSC Frame Internal View s
11	Battery Frame Internal view s	Symmetra PX Battery Frame Internal View s
12	System One Line Diagram	Symmetra PX 250kW 3 w ire Dual mains Top Entry 2 MOD SYBSC System One Line Diagarm
13	Site Planning Data	Symmetra PX 250kW 3 w ire Dual mains Top Entry 2 MOD SYBSC Site Planning Data
14	System Wiring Diagram	Symmetra PX 250kW 3 w ire Dual mains Top Entry 2 MOD SYBSC System Wiring Diagram

LEGEND

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

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Schneider
Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE MAINS
Output: 480V AC 3PH 500kW
TOP ENTRY 2MOD W/ SYBSC
DRAWING GUIDE

PROJECT: DRAWINGS SHEET 1 OF 14

DWG NO: SY250K500TG2C2-3W-RB

DRAWN BY: RAMESH B 11-FEB-13

ENGINEER: M.LEPARD/A.WARNER 11-FEB-13

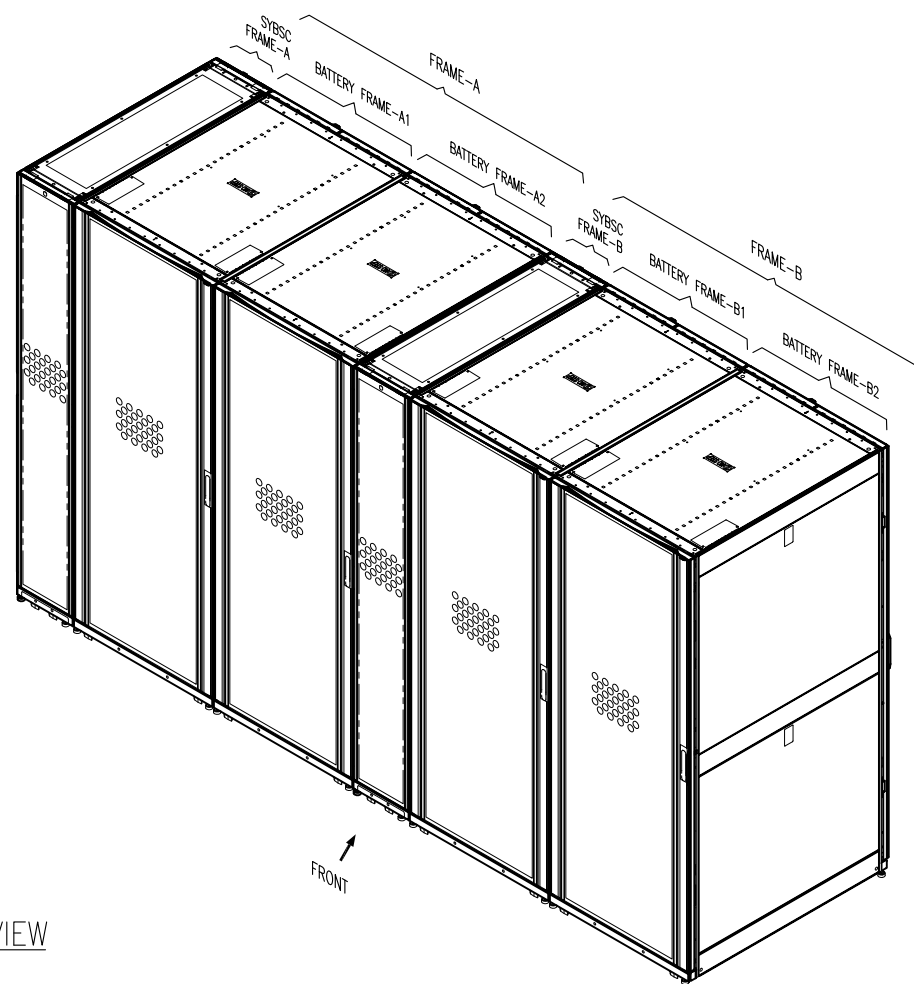
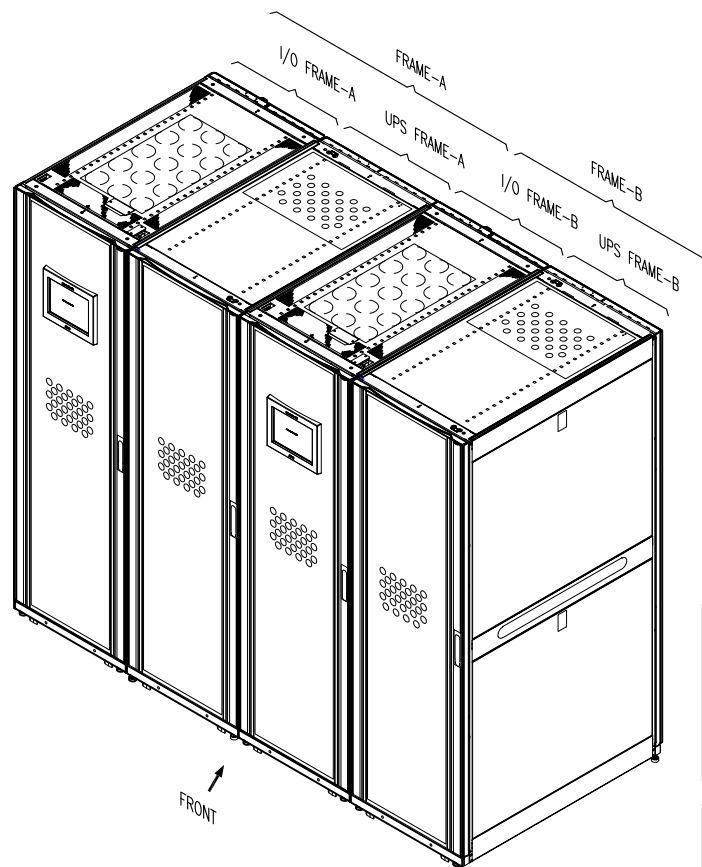
APPROVED BY: B.SHERIDAN/E.SILVA 11-FEB-13

REV. 1

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.
4. FRONT SERVICE ACCESS IS REQUIRED.

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Schneider
Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE MAINS
Output: 480V AC 3PH 500kW
TOP ENTRY 2MOD W/ SYBSC
SOLUTION ISOMETRIC

PROJECT: DRAWINGS SHEET 2 OF 14

DWG NO: SY250K500TG2C2-3W-RB

DRAWN BY: JAYAPRAKASH 13-FEB-15

ENGINEER: D LOEWENSTEIN/P BOUCHER 13-FEB-15

APPROVED BY: B SHERIDAN 13-FEB-15

REV. 2

THIRD

ANGLE

PROJECTION

100 - 250kW TOP FEED SINGLE/DUAL MAINS 2 MODULE WITH LINE-UP BATTERIES (6min to 105min)⚠																																			
UPS rating	Total No. of In-Out Frames	Total No. of Power Frames	Total 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	
				Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules	Total No. of Battery Frames	Total No. of Battery Modules		
2x(100kVA/100KW)	2	2	8	2	14	2	16	4	18	4	20	4	24	4	28	6	34	6	38	6	48	8	58	8	66	10	74	12	82	12	90	12	98	14	102
2x(125kVA/125kW)	2	2	10	2	16	4	20	4	22	4	26	4	30	6	36	6	42	6	48	8	60	10	72	10	82	12	92	14	104	14	114	16	124	16	128
2x(150kVA/150kW)	2	2	12	4	20	4	24	4	26	4	30	6	36	6	42	8	50	8	58	10	72	12	86	12	98	14	112	16	124	N/A	N/A	N/A	N/A	N/A	
2x(200kVA/200kW)	2	2	16	4	26	4	32	6	36	6	40	6	46	8	56	10	66	10	76	12	96	14	114	16	130	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2x(250kVA/250kW)	2	2	20	4	32	6	38	6	44	8	50	8	58	10	70	12	84	12	96	16	118	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

NOTES:

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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. SOLUTION WEIGHT INCLUDES 250kW STATIC SWITCH.

△ 5. 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 MAINS
Output: 480V AC 3PH 500kW
TOP ENTRY 2MOD W/ SYBSC
SOLUTION RUNTIME DETAILS

PROJECT: DRAWINGS

SHEET 3 OF 14

DWG NO: SY250K500TG2C2-3W-RB

DRAWN BY: RAMESH B 12-APR-12

ENGINEER: M.LEPARD/A.WARNER 12-APR-12

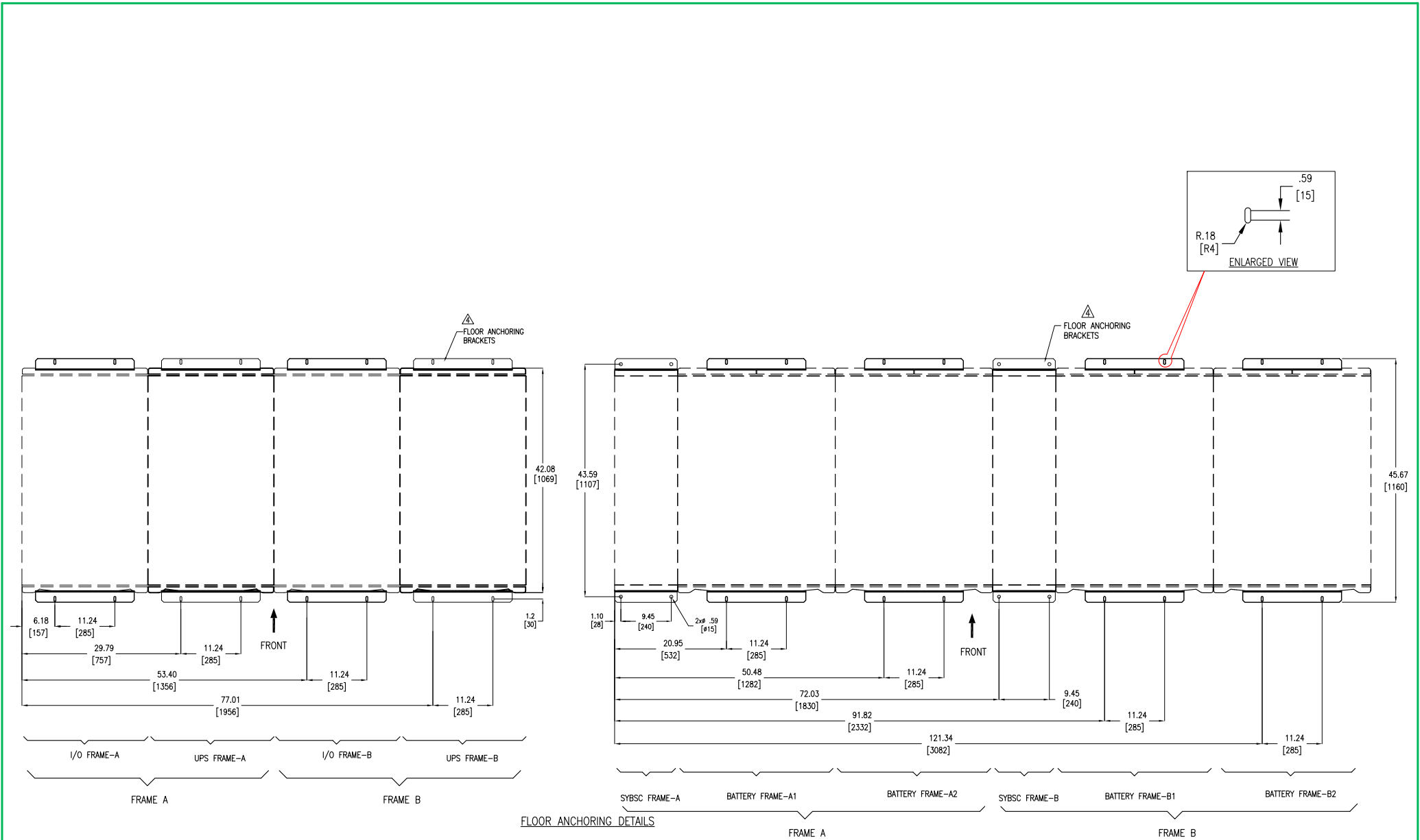
APPROVED BY: B.SHERIDAN/E.SILVA 12-APR-12

REV. 0

ANGLE

PROJECTION

N/A



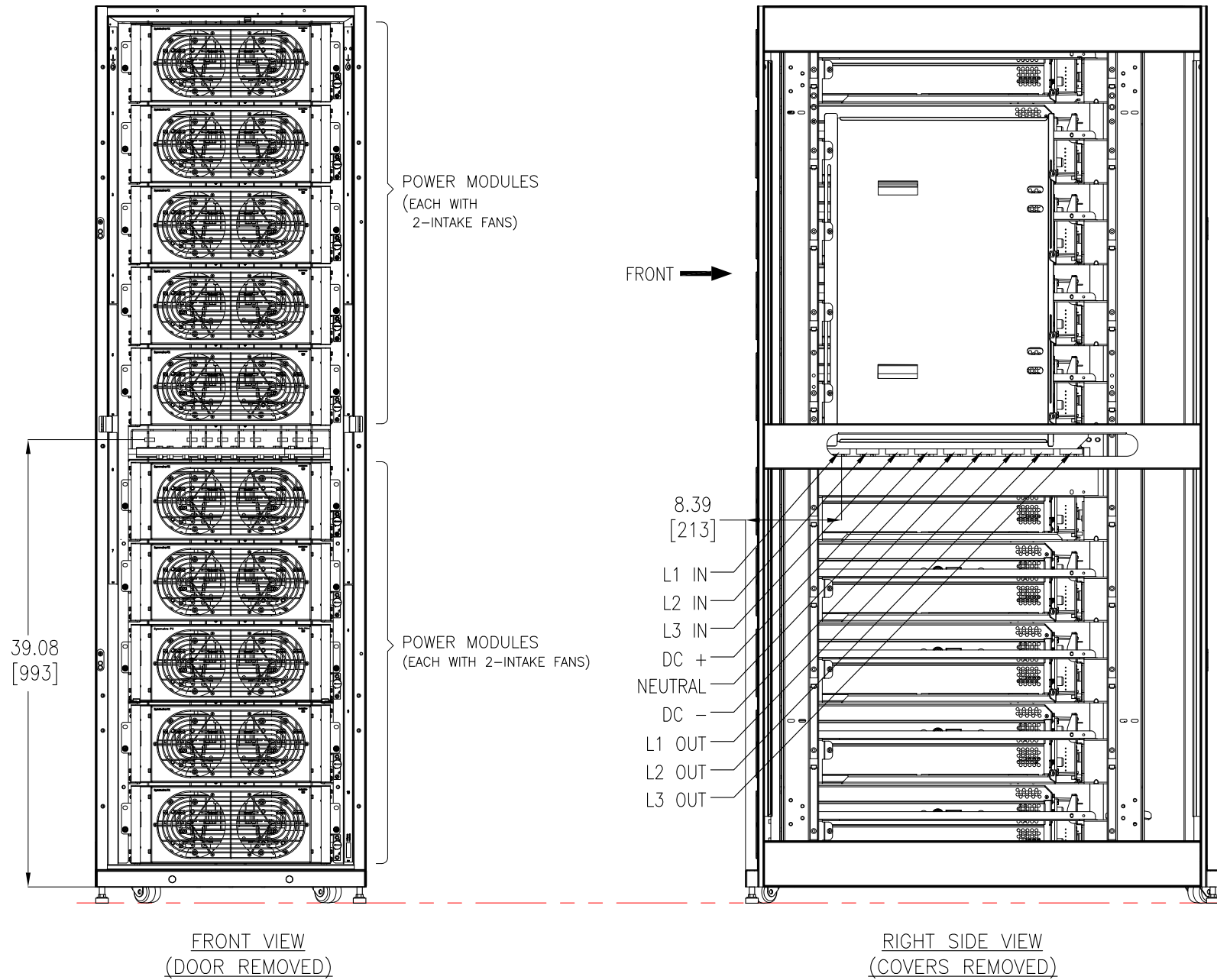
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1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
 2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
 3. ALL DIMENSIONS ARE IN INCHES[MILLIMETERS].
 - △4. FLOOR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

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TITLE: SYMMETRA PX
 Input: 480V AC 3PH SINGLE MAINS
 Output: 480V AC 3PH 500kW
 TOP ENTRY 2MOD W/ SYBSC
 SOLUTION ANCHORING

DWG NO:	SY250K500TG2C2-3W-RB		REV:	0
DRAWN BY:	RAMESH B	12-APR-12	THIRD	ANGLE
ENGINEER:	M.LEPARD/A.WARNER	12-APR-12	PROJECTION	
APPROVED BY:	B.SHERIDAN/E.SILVA	12-APR-12		



NOTES:

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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 HAVE BEEN OMITTED FOR CLARITY.

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Schneider
Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE MAINS
Output: 480V AC 3PH 500kW
TOP ENTRY 2MOD W/ SYBSC
UPS POWER FRAME INTERNAL VIEW

PROJECT: DRAWINGS SHEET 6 OF 14

DWG NO: SY250K500TG2C2-3W-RB

DRAWN BY: RAMESH B 12-APR-12

ENGINEER: M.LEPARD/A.WARNER 12-APR-12

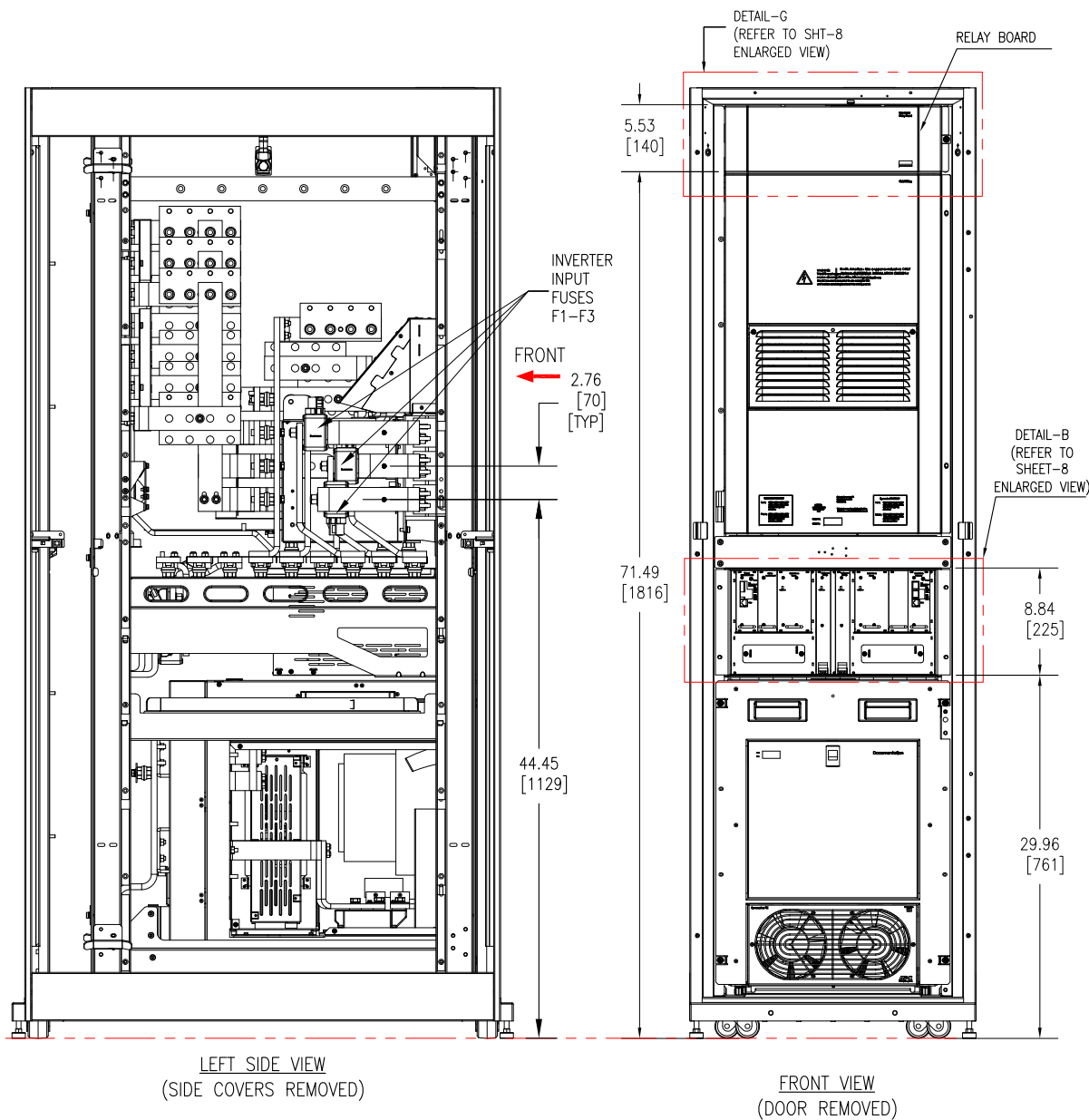
APPROVED BY: B.SHERIDAN/E.SILVA 12-APR-12

REV. 0

THIRD

ANGLE

PROJECTION



NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
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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 MAINS
Output: 480V AC 3PH 500kW
TOP ENTRY 2MOD W/ SYBSC
UPS INPUT- OUTPUT FRAME INTERNAL VIEW

PROJECT: DRAWINGS SHEET 7 OF 14

DWG NO: SY250K500TG2C2-3W-RB

DRAWN BY: JAYAPRAKASH 13-FEB-15

ENGINEER: M.LEPARD/A.WARNER 13-FEB-15
















APPROVED BY: B.SHERIDAN/E.SILVA 13-FEB-15

REV. 2

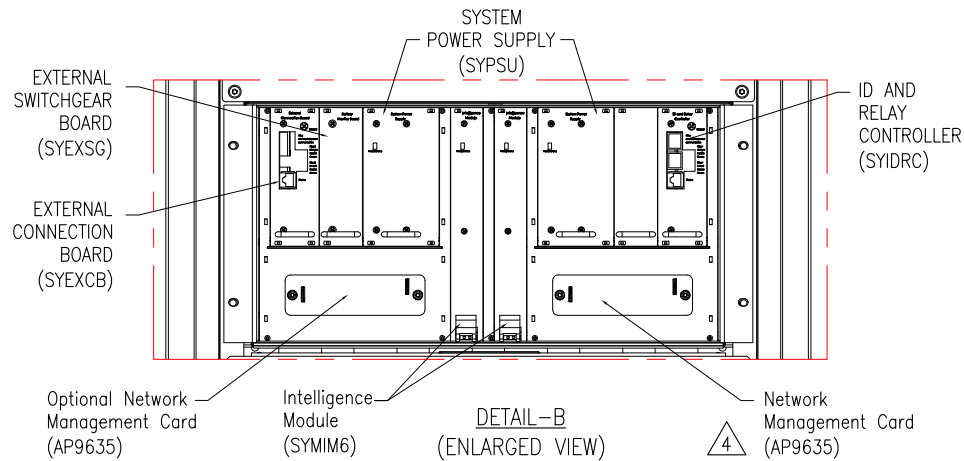
THIRD

ANGLE

PROJECTION

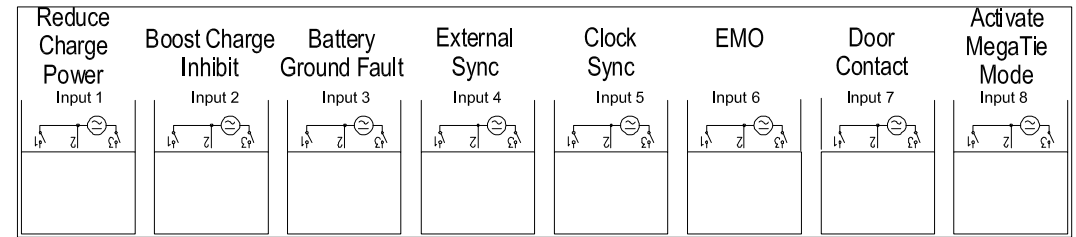
Mains Input Bypass Input Output Overload on															
Common Alarm	Normal Operation	Bypass Operation	Battery Operation	Battery Voltage Low	Battery Fault	Maintenance Bypass On	Outside Tolerance	Outside Tolerance	Battery Disconnected	Inverter/ Bypass	Option 1	Option 2	Option 3	Option 4	
															
C 1 NO 2 NC 3 Output 1	C 1 NO 2 NC 3 Output 2	C 1 NO 2 NC 3 Output 3	C 1 NO 2 NC 3 Output 4	C 1 NO 2 NC 3 Output 5	C 1 NO 2 NC 3 Output 6	C 1 NO 2 NC 3 Output 7	C 1 NO 2 NC 3 Output 8	C 1 NO 2 NC 3 Output 9	C 1 NO 2 NC 3 Output 10	C 1 NO 2 NC 3 Output 11	C 1 NO 2 NC 3 Output 12	C 1 NO 2 NC 3 Output 13	C 1 NO 2 NC 3 Output 14	C 1 NO 2 NC 3 Output 15	C 1 NO 2 NC 3 Output 16

DETAIL-L (ENLARGED VIEW)



DETAIL-B (ENLARGED VIEW)

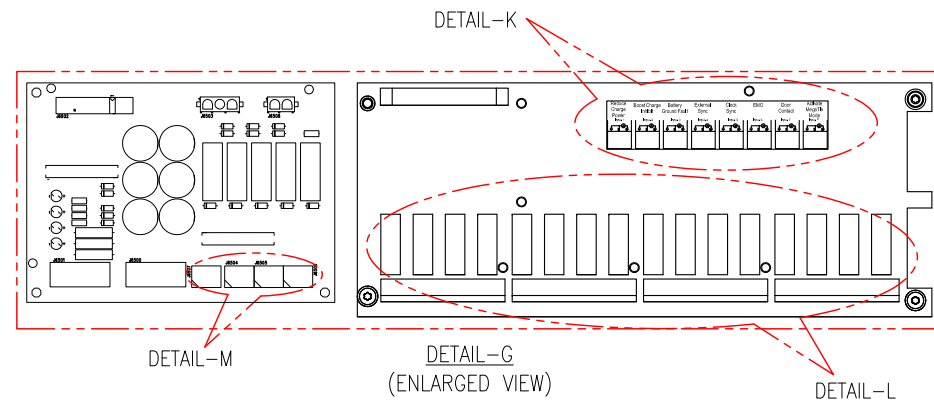
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6

7

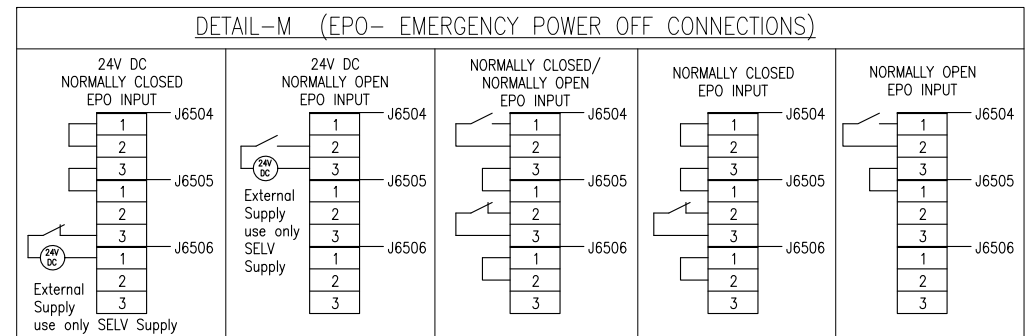
DETAIL-K (ENLARGED VIEW)



DETAIL-M

DETAIL-G (ENLARGED VIEW)

DETAIL-L



DETAIL-M (EPO- EMERGENCY POWER OFF CONNECTIONS)

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. INPUT 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 MAINS
Output: 480V AC 3PH 500kW
TOP ENTRY 2MOD W/ SYBSC
UPS INPUT- OUTPUT FRAME INTERNAL DETAILS

PROJECT: DRAWINGS SHEET 8 OF 14

DWG NO: SY250K500TG2C2-3W-RB

DRAWN BY: JAYAPRAKASH 08-FEB-16

ENGINEER: A.WARNER 08-FEB-16

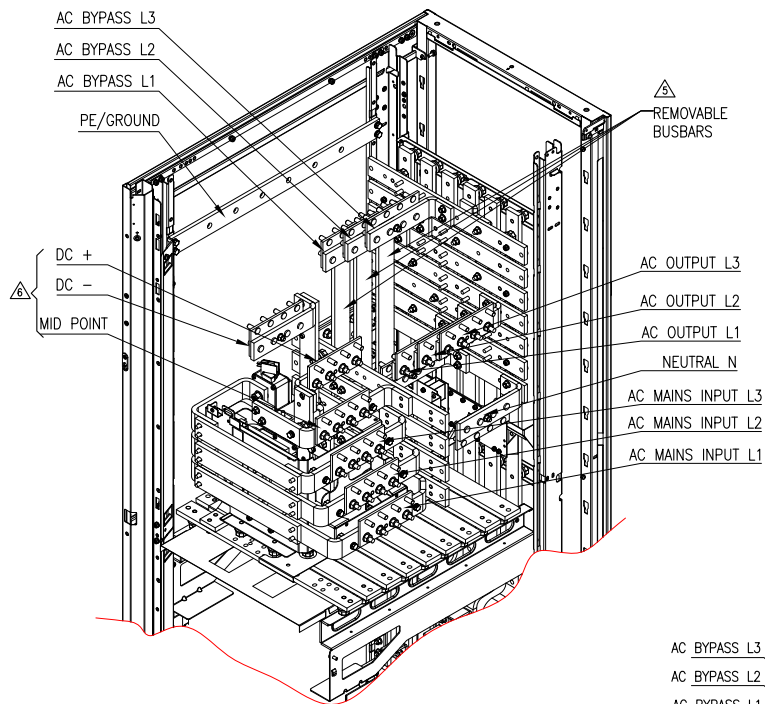
APPROVED BY: B.SHERIDAN 08-FEB-16

REV. 3

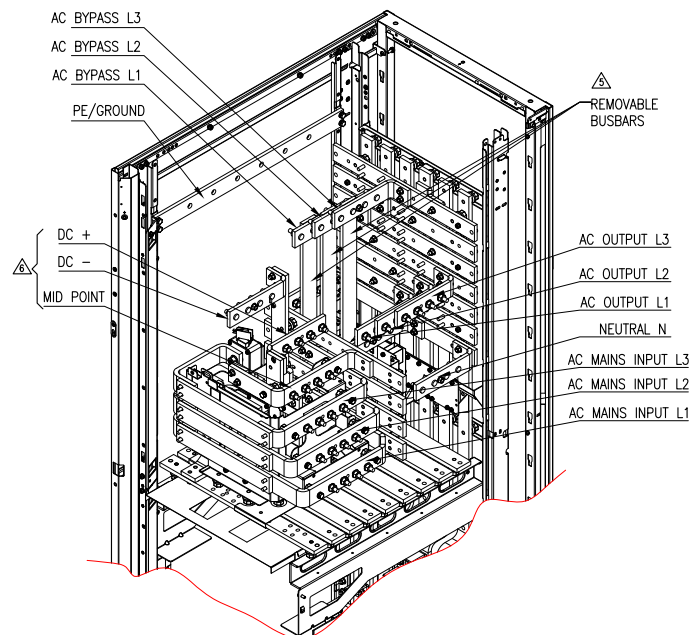
THIRD

ANGLE

PROJECTION



DETAIL-A (ISOMETRIC VIEW)
BUSBARS WITH NEMA PLATES



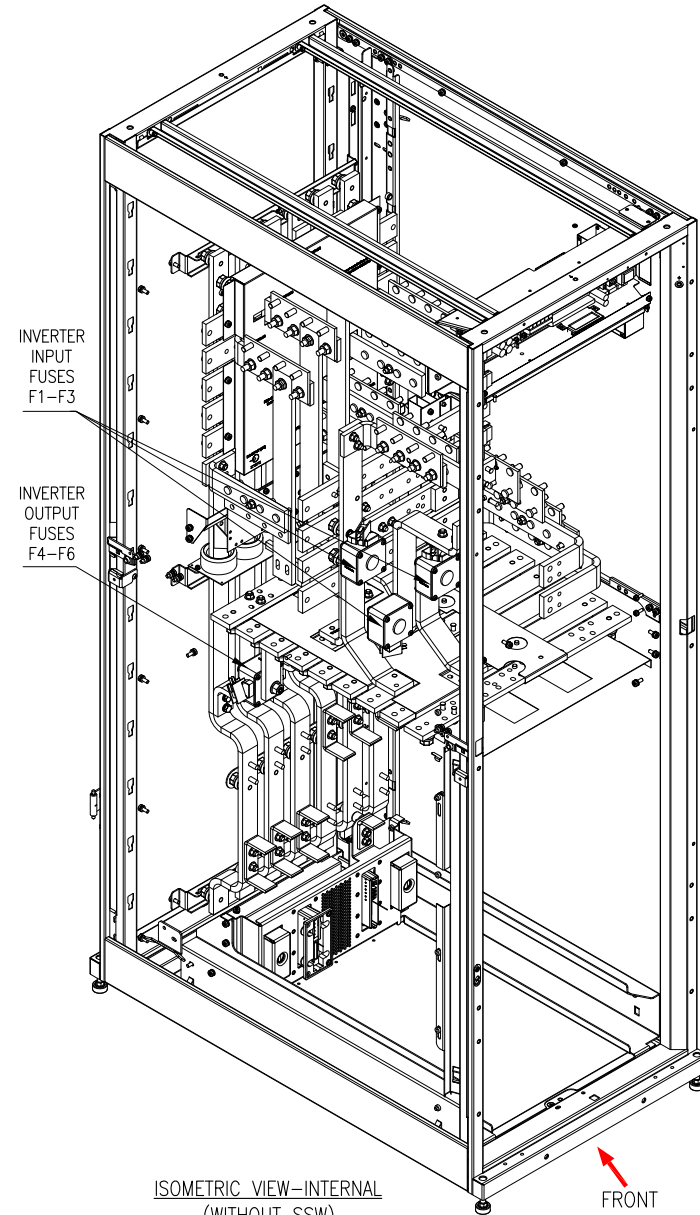
DETAIL-A (ISOMETRIC VIEW)
WITH NORMAL BUSBARS

NOTES:

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3. SOME STRUCTURAL DETAILS HAVE BEEN OMITTED FOR THE PURPOSE OF CLARITY.
4. ALL DIMENSIONS ARE IN INCHES[MILLIMETERS].
- △5. BUSBARS SHALL BE REMOVED FOR DUAL MAINS CONFIGURATION.
- △6. 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 MAINS
Output: 480V AC 3PH 500kW
TOP ENTRY 2MOD W/ SYBSC
UPS INPUT- OUTPUT FRAME INTERNAL ISOMETRIC

DWG NO: SY250K500TG2C2-3W-RB

REV. 1

DRAWN BY: JAYAPRAKASH 13-FEB-15

THIRD

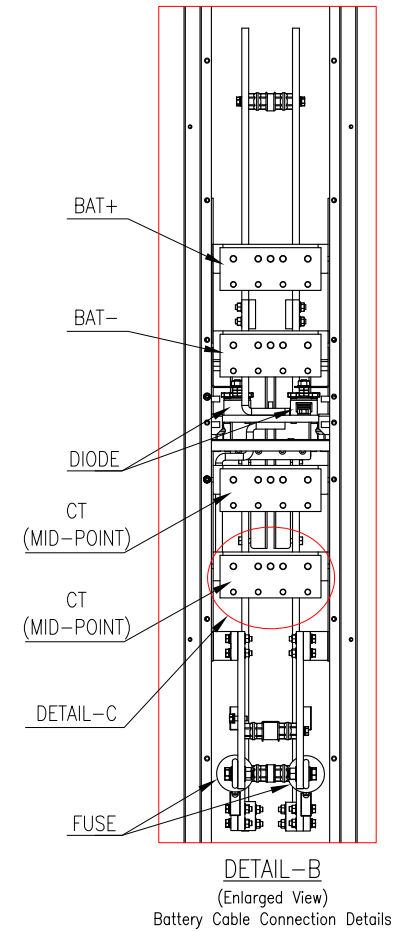
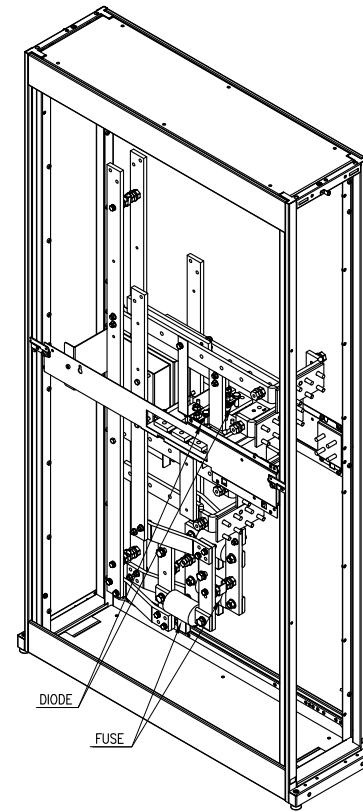
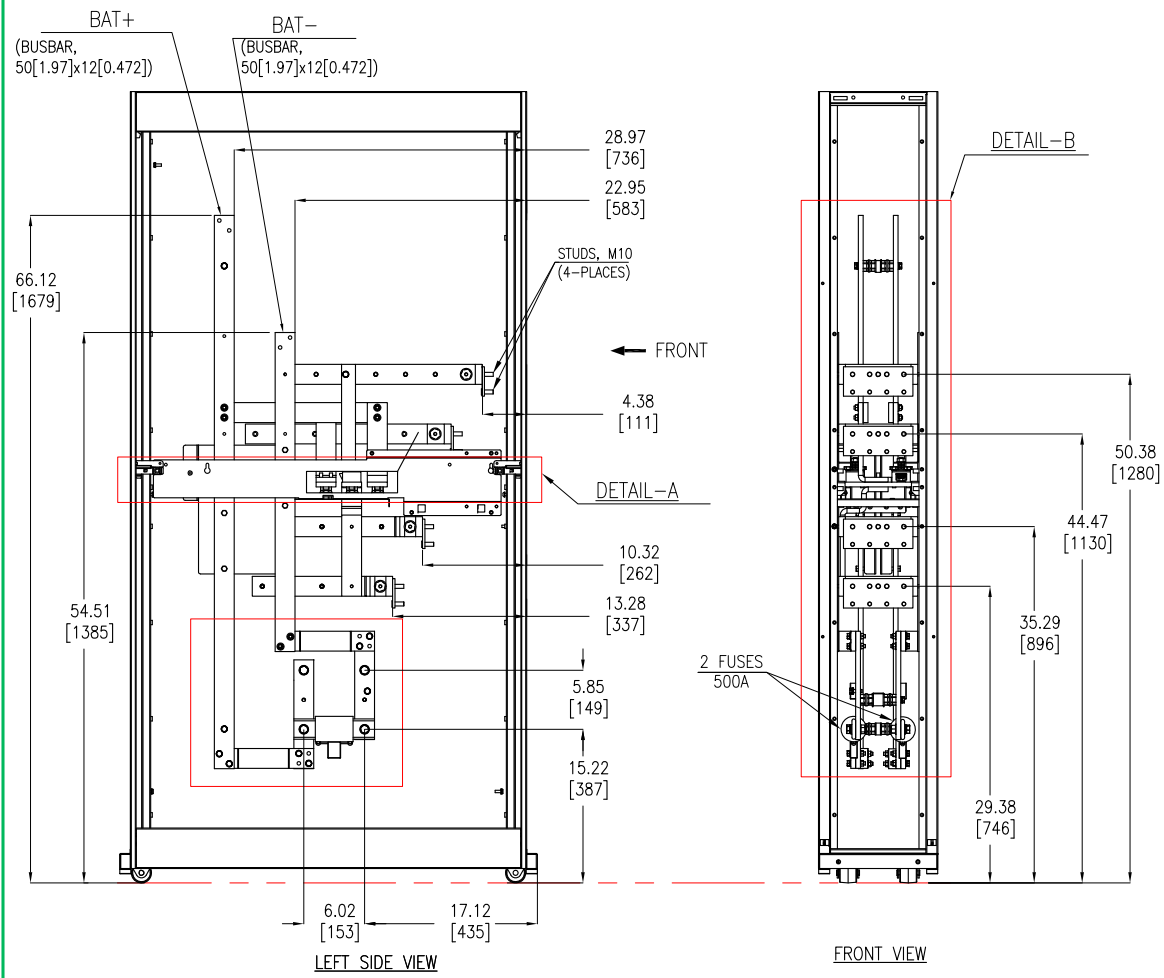
ENGINEER: M.LEPARD/A.WARNER 13-FEB-15

ANGLE

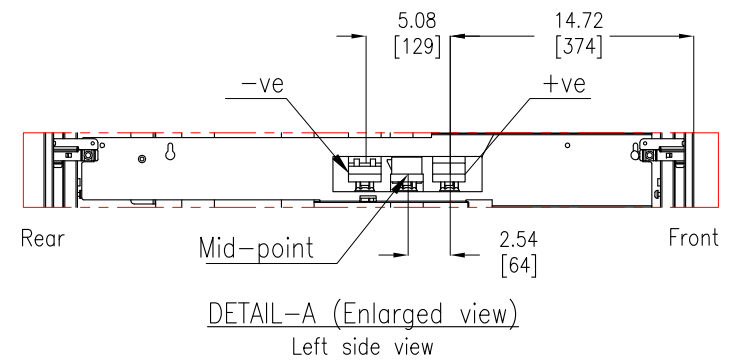
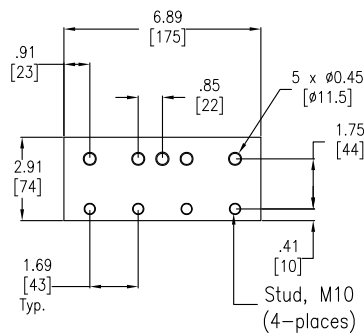
APPROVED BY: B.SHERIDAN/E.SILVA 13-FEB-15

PROJECTION

PROJECT: DRAWINGS SHEET 9 OF 14



DETAIL-C
Busbar Thickness- 6.00 [0.236]



NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
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3. ALL DIMENSIONS ARE IN INCHES[MILLIMETERS].

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Schneider Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE MAINS
Output: 480V AC 3PH 500kW
TOP ENTRY 2MOD W/ SYBSC
SYBSC FRAME INTERNAL VIEW

PROJECT: DRAWINGS **SHEET** 10 OF 14

DWG NO: SY250K500TG2C2-3W-RB

DRAWN BY: RAMESH B 12-APR-12

ENGINEER: M.LEPARD/A.WARNER 12-APR-12

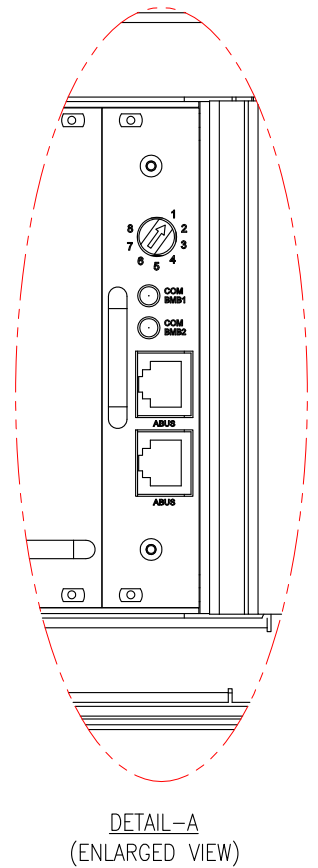
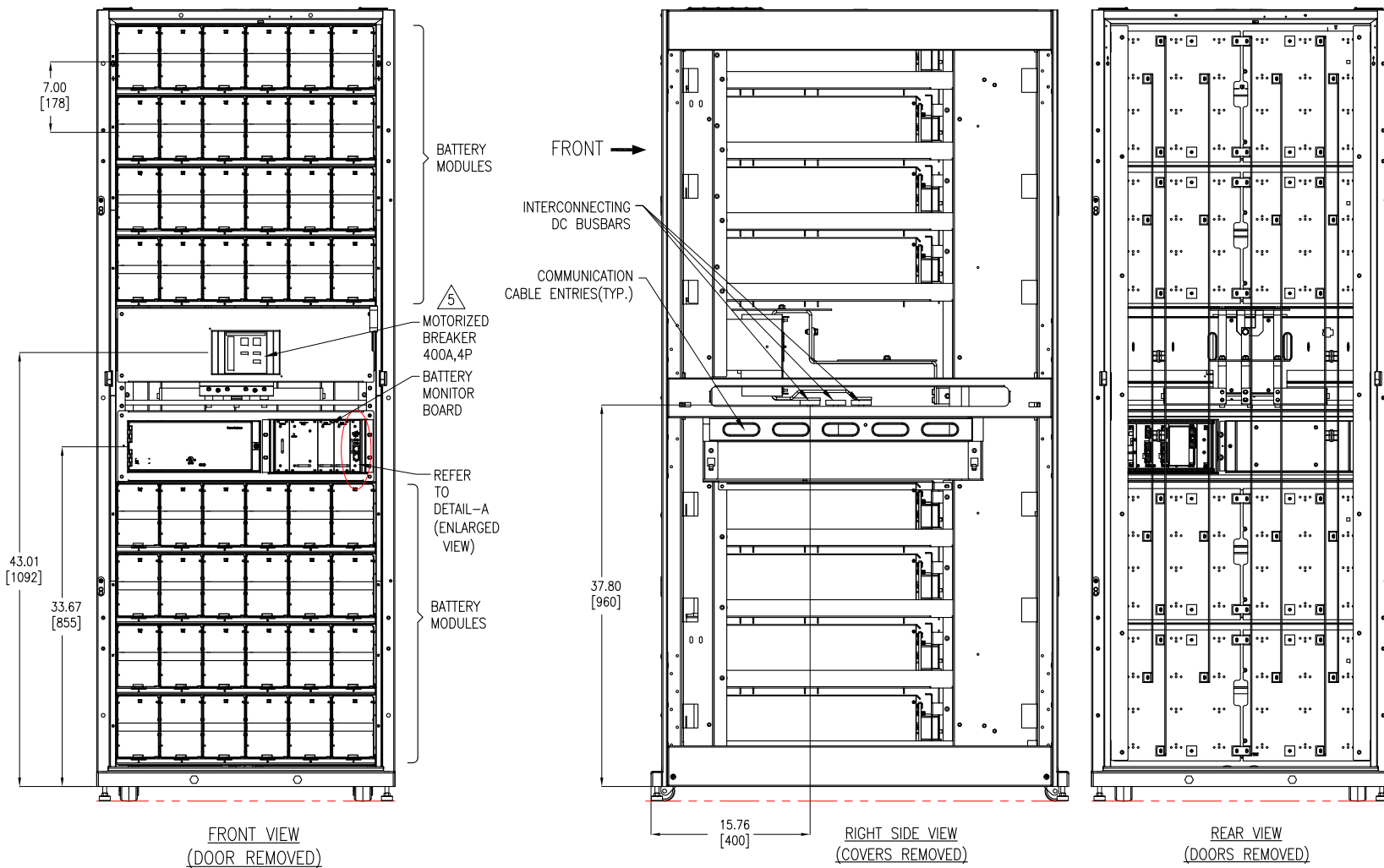
APPROVED BY: B.SHERIDAN/E.SILVA 12-APR-12

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 MAINS
Output: 480V AC 3PH 500kW
TOP ENTRY 2MOD W/ SYBSC
BATTERY FRAME INTERNAL VIEW

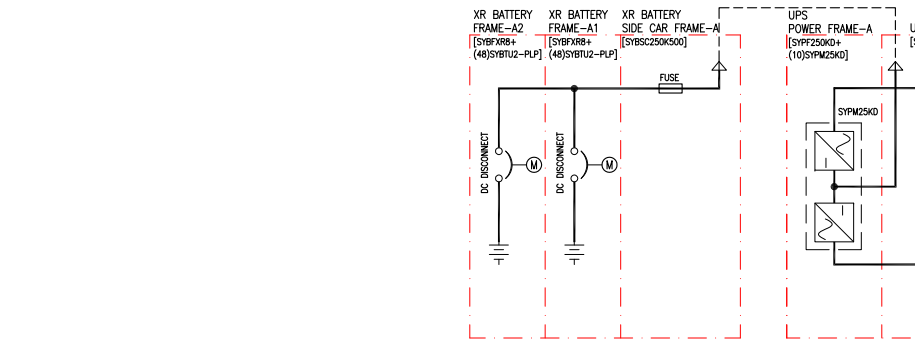
PROJECT: DRAWINGS SHEET 11 OF 14

DWG NO: SY250K500TG2C2-3W-RB

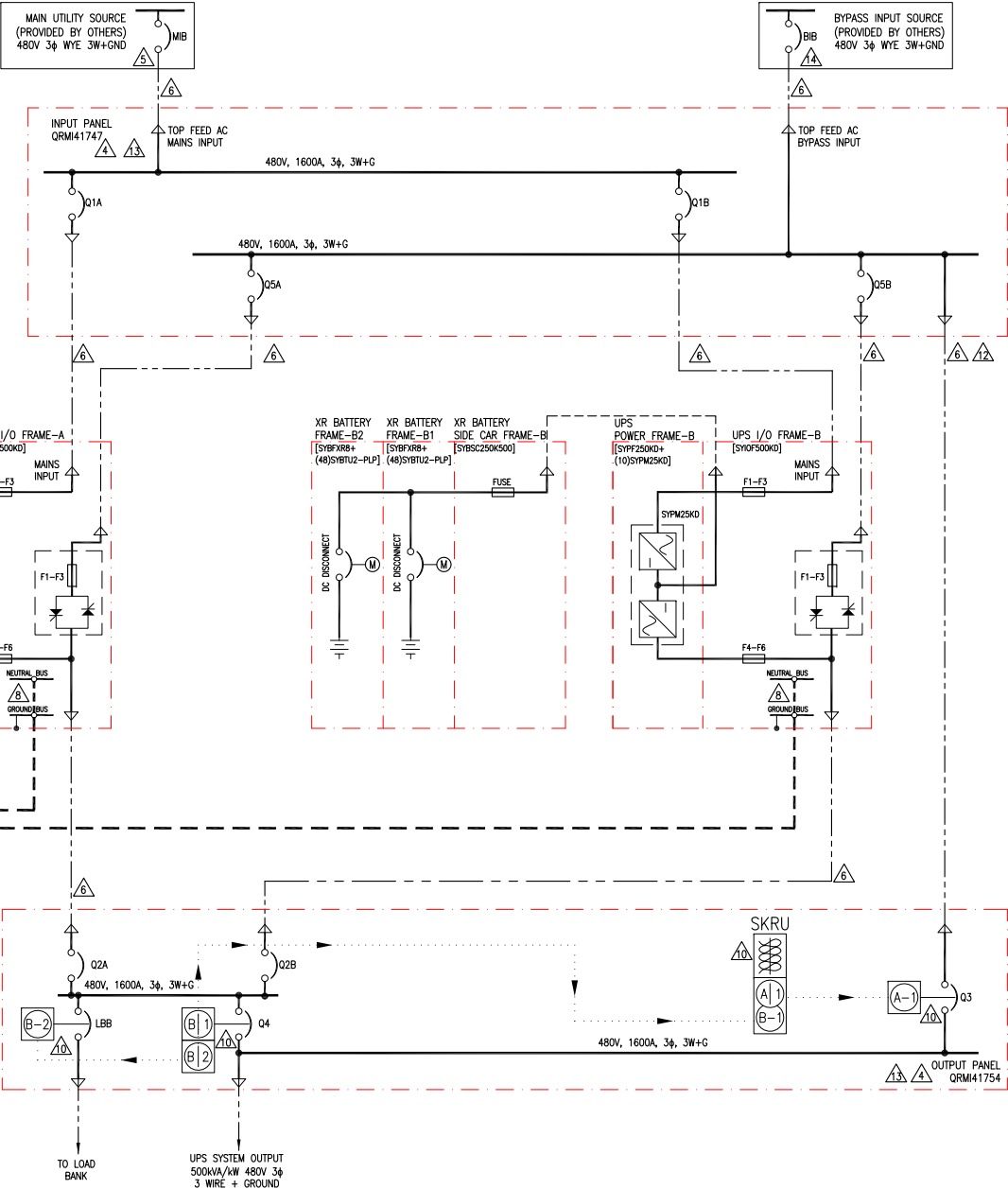
DRAWN BY: RAMESH B 12-APR-12
ENGINEER: M.LEPARD/A.WARNER 12-APR-12
APPROVED BY: B.SHERIDAN/E.SILVA 12-APR-12

REV. 0
THIRD ANGLE
PROJECTION

DEVICE RATING					
DEVICE	RATING	TYPE	MAKE	MODEL	ACCESSORIES
Q1A, Q1B	800A, 600V 100% RATED	MCCB, 3 POLE	Schneider Electric	PJP36080CU33AACBCKSKYP	3A/3B AUX CONT, BELL ALARM, 24VDC SHUNT TRIP, ML 5.0 TRIP UNIT
Q2A, Q2B	700A, 600V 100% RATED	ICCB, 4 POLE	Schneider Electric	BL1AAV33B9CXBXXXXA	8A/8B AUX CONT, BELL ALARM, 24VDC SHUNT TRIP, ML 5.0 TRIP UNIT
Q3	1600A, 600V 100% RATED	ICCB, 4 POLE	Schneider Electric	BL1EEV33A9CXFXXXXA	8A/8B AUX CONT, BELL ALARM, 120VAC SHUNT TRIP, ML 5.0 TRIP UNIT
Q4	1600A, 600V 100% RATED	ICCB, 4 POLE	Schneider Electric	BL1EEV33A9CXBXXXXA	8A/8B AUX CONT, BELL ALARM, 24VDC SHUNT TRIP, ML 5.0 TRIP UNIT
Q5A, Q5B	700A, 600V 100% RATED	MCCB, 3 POLE	Schneider Electric	PJP36080CU33BCBCKSKYP	3A/3B AUX CONT, BELL ALARM, 24VDC SHUNT TRIP, ML 5.0 TRIP UNIT
LBB	1600A, 600V 100% RATED	ICCB, 3 POLE	Schneider Electric	WL1EEV33A9CXBXXXXA	8A/8B AUX CONT, BELL ALARM, 24VDC SHUNT TRIP, ML 5.0 TRIP UNIT
DC DISCONNECT	400A, 600V DC	MCCB, 4 POLE	ABB	T5	1 AUX CONT, 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 65kAIC, FOR UPS AND INPUT/OUTPUT PANELS.
 5. AC UTILITY SOURCE SHALL BE 480VAC, 3 ϕ , SOLIDLY GROUNDED WYE, 3 WIRE+GROUND (CONTACT Schneider Electric IF OTHER). SEE SHEET 13 FOR SITE PLANNING DATA.
 6. AC CABLING SHALL BE 600V RATED, 3 WIRE+GROUND.
 7. CABLE LUGS ARE NOT PROVIDED.
 8. THE NEUTRAL TO GROUND SYSTEM BONDING JUMPER PROVIDED BY SCHNEIDER ELECTRIC SHALL BE INSTALLED FOR 3 WIRE OUTPUT CONFIGURATION. PLACE A N-G BOND IN EACH UPS MODULE AND THEN CONNECT THE EQUIPMENT GROUND OF EACH UPS VIA TAP CONDUCTORS TO A COMMON GROUNDING ELECTRODE BUSBAR AND A SINGLE GROUNDING ELECTRODE CONDUCTOR. SEE NEC 250.30 (A)(4), INCLUDING EXCEPTION#1. L-N LOADING IS NOT PERMITTED. SEE INSTALLATION MANUAL FOR DETAILS.
 9. THIS DRAWING SHOWS MINIMUM NUMBER OF XR BATTERY FRAMES PER UPS. MAXIMUM (8) XR BATTERY FRAMES CAN BE BAYED TO EACH UPS. BAYING KIT IS SUPPLIED WITH THIS SOLUTION. XR BATTERY FRAME HAS MOTORIZED BREAKER.
 10. KEY INTERLOCKS WITH SKRU, SCHEME 39, BETWEEN Q3 AND Q4, ARE OPTIONAL AND ARE NOT INCLUDED AS STANDARD WITH THE SYSTEM. (SCHEME 39 ADDER IS QCC67185) KEY INTERLOCKS WITH SKRU, SCHEME 29, BETWEEN LBB AND Q4, ARE OPTIONAL AND ARE NOT INCLUDED AS STANDARD WITH THE SYSTEM. (SCHEME 29 ADDER IS QCB3A9274) LBB IS OPTIONAL AND IS NOT INCLUDED AS STANDARD WITH THE SYSTEM. (LBB ADDER IS QRM44243) INSTALLATION OF LBB AND KEY INTERLOCKS WITH SKRU IS STRONGLY RECOMMENDED.
 11. CABLE LENGTHS FOR STATIC BYPASS INPUT AND OUTPUT SHALL BE SAME SUM TOTAL TO ENSURE CORRECT LOAD SHARING IN STATIC BYPASS OPERATION.
 12. CABLE SIZE AND INSTALLATION SHALL COMPLY WITH NEC ART. 240.21. IF NOT, USE CABLES RATED SAME AS THE MIB FEEDER.
 13. THIRD PARTY PRODUCT PROVIDED BY Schneider Electric. NOT PART OF THIS SOLUTION.
 14. AC BYPASS SOURCE SHALL BE 480VAC, 3 ϕ , SOLIDLY GROUNDED WYE, 3 WIRE+GROUND (CONTACT Schneider Electric IF OTHER). SEE SHEET 13 FOR SITE PLANNING DATA.



LEGEND:

----- AC CABLE - PROVIDED BY OTHERS
----- DC CABLE - PROVIDED BY OTHERS

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Schneider Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE MAINS
Output: 480V AC 3PH 500kW
TOP ENTRY 2MCD W/ SYBSC
SYSTEM ONE LINE DIAGRAM

DWG NO: SY250K500TG2C2-3W-RB

ENGINEER: D LOEWENSTEIN/P BOUCHER

APPROVED: B B SHERIDAN/C FLY

PROJECT: DRAWINGS

SHEET 12 OF 14

REV. 2

ANGLE

PROJECTION: N/A

Symmetra™ PX 250K UPS 2 Module Site Planning Data - Dual Feed w/o MBwD - 3Wire																																
UPS Rating				Voltage(VAC)		Mains AC Input - (MIB) ¹						Bypass AC Input - (BIB) (Q5) (Q3) ^{2, 4}						External Battery System ^{3, 6}				AC Output (Q2) ²				Mechanical Data (UPS+I/O Frame only) ^{5, 11}						
						Current(A)		Recommendations ³				Current(A)		Recommendations ³				Nominal VDC	Battery kW	Current @ Nom. VDC(A)	Recommendations		Current(A)		Recommendations ³		Typical Dimensions (HxWxD) [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	78.4x47.3x42 [1991x1201x1067]	1808 [822]	131 [641]	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		1901 [864]	138 [674]	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		1993 [906]	144 [707]	21325
	7	175	175	480	480	242	261	300A	1x 300	350A	1x 350	210	263	225A	1x 4/0	300A	2x 1/0	2x 288	182	316	350A	1x 400	210	263	225A	1x 4/0	300A	1x 300		2086 [948]	151 [740]	24879
	8	200	200	480	480	277	298	300A	1x 350	350A	1x 500	241	301	250A	1x 250	350A	2x 2/0	2x 288	208	362	400A	1x 500	241	301	250A	1x 250	350A	1x 350		2178 [990]	158 [773]	28433
	9	225	225	480	480	312	335	350A	1 x 400	400A	2x 3/0	271	338	300A	2x 1/0	350A	2x 2/0	2x 288	234	407	450A	2x 4/0	271	338	300A	1x 300	350A	1x 500		2270 [1032]	165 [805]	31988
	10	250	250	480	480	346	372	400A	1x 500	450A	2x 4/0	301	376	350A	2x 2/0	400A	2x 3/0	2x 288	260	452	500A	2x 4/0	301	376	350A	1x 350	400A	1x 500		2363 [1074]	171 [838]	35542

Symmetra® PX 250K UPS 2 Module SWBD Site Planning Data ¹³																		
UPS System Rating				Voltage(VAC)		Mains AC Input Single or Dual Feed (MIB) ¹				Bypass AC Input - Dual Feed (BIB - Q3) ²				AC Output (Q4-LBB) ²				Heat Rejection Battery Fully Charged BTU/HR
UPS Frame Rating	QTY in parallel	kVA	kW			Input ¹	Output ²	Current(A)		Recommendations ³		Current(A)		Recommendations ³		Current(A)		
				Full Load	Max. ⁷			100% OCPD	100% Cable	NOM	Max. ⁸	100% OCPD	100% Cable	NOM	Max. ⁸	100% OCPD	100% Cable	
250kVA 250kW	2	500	500	480	480	693	745	800A	2x 500	601	752	700A	2x 350	601	752	700A	2x 350	71,083

Symmetra™ PX

Notes.

- Mains Input source must be 480V Wye 3-wire+ Ground. Contact Schneider Electric if other.
- Output is 480V Wye 3-wire + Ground. The bypass source must match the output configuration .
- Recommended cables are AWG1cmil 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.
- Dual Feed static bypass input feeder is limited to maximum size of 250kcmil conductor.
- 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.
- Contact Schneider Electric for assistance with all external battery designs. Maximum allowed DC cabling voltage drop is 1 VDC. Schneider Electric Standard external DCDs are rated 500A (PX 250kVA) & 1000A (PX 500kVA).
- Electronic Input Current Limit.
- This is the UPS short time rating of 125% Overload for 10minutes. Actual short time performance may be limited by the over current protective device selected.
- For maximum scalability or future expansion it is recommended that the UPS frames be installed at their full ratings - see bold text data.
- All OCPDs and cabling are by others.
- Heat rejection calculations are based on watt to BTU/HR conversion factor of 1watt= 3.412 BTU/HR.
- OCPD = Over Current Protective Device.
- Common battery system is not allowed or supported for this product.
- All wirings to be in accordance with all applicable national and/or local electrical codes.
- Control wiring and power wiring must be run in separate conduit.
- Input: THDI < 5% at full load.
- Output: THDU < 2% Linear Load, < 3% Non Linear Load.
- Ratings of the cables and over current devices supplied for information only. User to consult with their engineering services before adopting.
- For back-to-back UPS installations, the Plexiglass French Door Kit (0H-0242) must be installed at the rear of each Power frame and I/O frame to ensure proper air flow. 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 MAINS
Output: 480V AC 3PH 500kW
TOP ENTRY 2MOD W/ SYBSC
SITE PLANNING DATA

PROJECT: DRAWINGS SHEET 13 OF 14

DWG NO: SY250K500TG2C2-3W-RB

DRAWN BY: RAMESH B 12-APR-12

ENGINEER: M.LEPARD/A.WARNER 12-APR-12

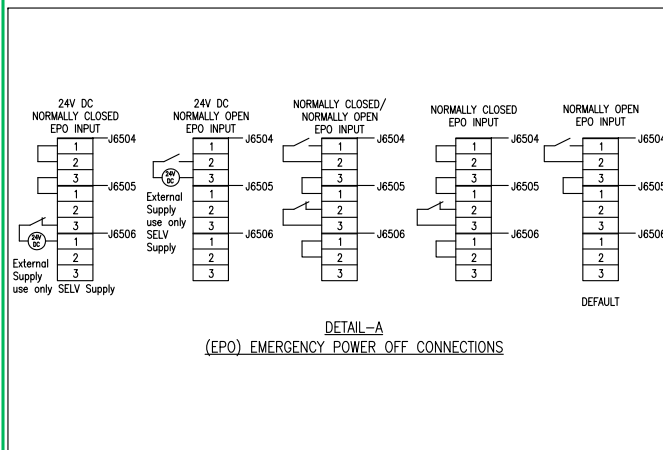
APPROVED BY: B.SHERIDAN/E.SILVA 12-APR-12

REV. 0

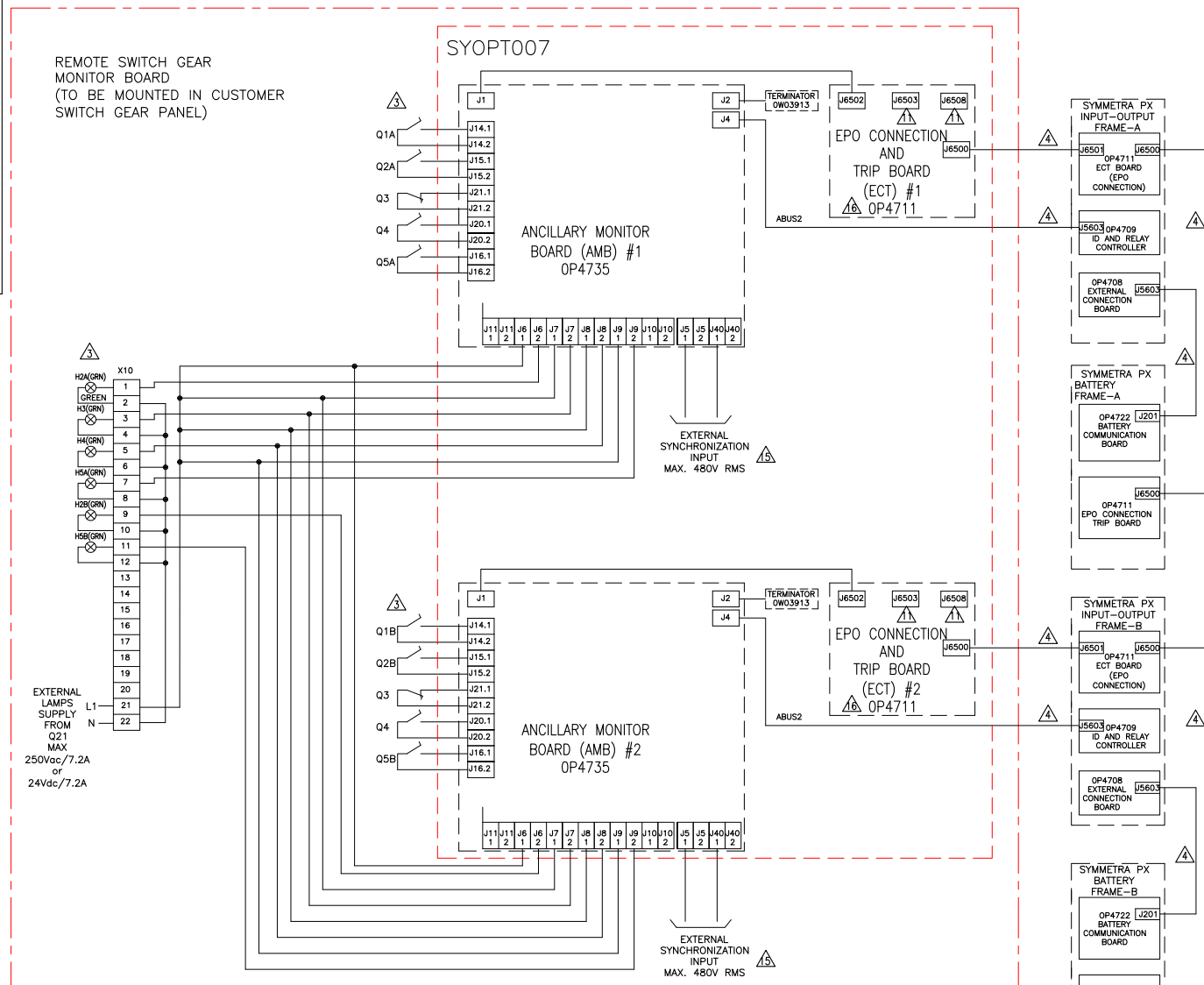
ANGLE

PROJECTION

N/A



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 0W03913 IN THE J2 TERMINAL ON THE AMB.
6. ON EACH SYOPT007, CONNECT THE "ABUS" CABLE(0W3785C) 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(0W3759A) 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. FOR EPO CONNECTION DEFAULT SETTING AND OPTIONS REFER TO DETAIL-A.



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Schneider Electric

TITLE: SYMMETRA PX
Input: 480V AC 3PH SINGLE MAINS
Output: 480V AC 3PH 500kW
TOP ENTRY 2MOD W/ SYBSC
SYSTEM WIRING DIAGRAM

PROJECT: DRAWINGS SHEET 14 OF 14

DWG NO: SY250K500TG2C2-3W-RB

DRAWN BY: BALAMURUGAN 26-FEB-16
ENGINEER: M.LEPARD 26-FEB-16

APPROVED BY: N BOBBITT 26-FEB-16

REV. 2
ANGLE PROJECTION
N/A