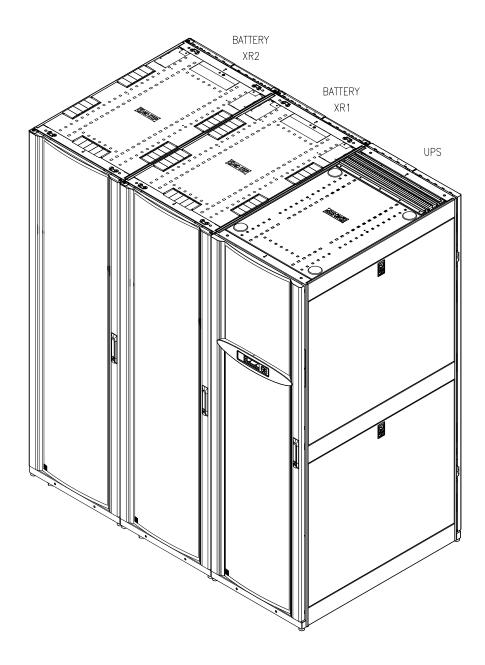
Symmetra PX 160kW 400V without PDU Package.

Sheet No.	Component /Detail	Description
1	Drawing Guide	Symmetra PX 32-160kW 400V Top/Bottom Feed Drawing guide
2-5 Solution		Symmetra PX 32-160kW 400V Top/Bottom Feed
6	UPS	Symmetra PX 32-160kW 400V UPS Internal View
7 Battery		Symmetra PX 32-160kW 400V Battery Internal View
8	MBP Interface Board	Symmetra PX 32-160kW 400V MBP Interface Board Wiring Details
9	EPO WIRING	Symmetra PX 32-160kW 400V MBP EPO Wiring Details
10	System One Line Diagram	Symmetra PX 32-160kW 400V One Line Diagram

LEGEND					
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION		
_× *	CIRCUIT BREAKER	<u>~</u>	CONVERTER		
→ ~	SWITCH DISCONNECT	<u>-</u> ~	INVERTER		
<u></u>	BATTERY MODULE		BYPASS SSW		



- 1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL REGULATIONS.

 2. PLEASE REFER TO PRODUCT MANUALS FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.

 3. CABLE ENTRY IS FROM BOTTOM OF THE UNIT.

 4. FRONT AND REAR SERVICE ACCESS IS REQUIRED.

- 5. ENCLOSURE PROTECTION: IP20

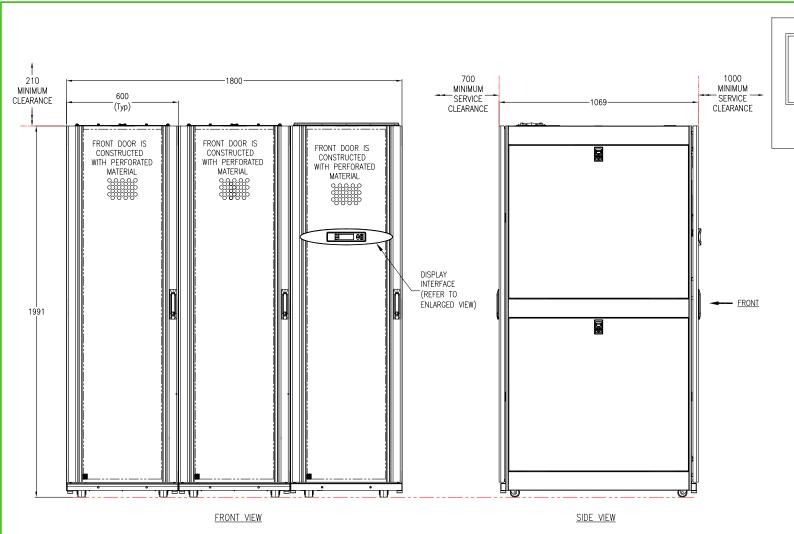
THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF SCHNEIDER ELECTRIC AND SHALL NOT BE COPIED, REPRODUCED OR USED IN WHOLE OR IN PART, AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION FROM SCHNEIDER ELECTRIC. THIS DRAWING IS BASED UPON LATEST AVAILABLE INFORMATION AND IS SUBJECT TO CHANGE WITHOUT NOTICE.



Input: 400V AC 3PH SINGLE/DUAL MAINS	DWG NO:	Y32K1	160H
Output:400/230V AC&400V AC 3PH 32-160kW SOLUTION ISOMETRIC VIEW	DRAWN:	BALA	1-JUL-19
	ENGINEER:	J WOLSKI	1-JUL-19
ROJECT: DRAWINGS SHEET 2 OF 11	APPROVED:	J WOLSKI	1-JUL-19

FIRST

ANGLE PROJECTION



DISPLAY INTERFACE (ENLARGED)

O LOAD POWERE

CHECK

CRITICAL

APC

www.apcc.com

Floor Loading Data					
SKU#	Dimensions HxWxD in mm	Weight in kg	Floor Loading [kg/m ²]		
SYCF160KH (UPS Cabinet)	1991x600x1070	595	927		
SYCFXR9 (XR Batt. Cabinet)	1991x600x1070	1252	1950		

UPS / PDU XR / XR BATTERY FRONT COG Y-distance COG COG X-distance Z-distance SIDE VIEW FRONT VIEW

UPS CABINET

<u>\$\</u>			Number of	Total	Center	of Gravity w	ith PM's	Center	of Gravity w	ithout PM's
		Powermodules	Blanking plates	Weight	X DISTANCE	y distance	Z DISTANCE	X DISTANCE	Y DISTANCE	Z DISTANCE
	160kW	10	NA	610kg	294 mm	1094 mm	439 mm			
IORK.	128kW	8	2	553kg	293 mm	1024 mm	448 mm			
	96kW	6	4	496kg	293 mm	970 mm	460 mm	289 mm	968 mm	518 mm
	64kW	4	6	439kg	292 mm	934 mm	474 mm			
	32kW	2	8	382kg	290 mm	929 mm	493 mm			

2. PLEASE REFER TO PRODUCT MANUALS FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATIONK WORK. 3. ALL DIMENSIONS ARE IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED.

4. CABLE ENTRY IS FROM THE TOP OR BOTTOM OF THE PANEL. BOTTOM CABLE ENTRY IS ONLY APPLICABLE FOR SYSTEMS INSTALLED IN A RAISED FLOOR.

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL REGULATIONS.

 \triangle 5. FOR UPS NET WEIGHT AND COG DETAILS. REFER TABLE

NET WEIGHT OF THE UNIT WITHOUT POWER MODULES IS 325 kg.

NET WEIGHT OF THE POWER MODULE IS 28.5kg.

6. XR BATTERY NET WEIGHT.

NET WEIGHT OF THE ENCLOSURE WITHOUT BATTERY UNITS IS 345 kg

NET WEIGHT OF THE BATTERY UNIT (SYBTU2-PLP) IS 25.2 kg NET WEIGHT OF THE ENCLOSURE WITH BATTERY UNITS INSTALLED IS 1252 kg.

7. OPERATING TEMPERATURE: 32-104°F [0-40°C]

8. COLOUR: BLACK

△ 9. THIS INFORMATION PROVIDED CONSERVATIVE CENTER OF GRAVITY CALCULATION.

XR BATTERY CABINET

<u>}</u>	CENTER OF GRAVITY	ENTER OF GRAVITY WITH BATTERIES		
	X DISTANCE	297.5 mm	299.5 mm	
	Y DISTANCE	1107.0 mm	1023.6 mm	
	Z DISTANCE	419.9 mm	545.5 mm	

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF SCHNEIDER ELECTRIC AND SHALL NOT BE COPIED, REPRODUCED OR JSED IN WHOLE OR IN PART, AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION FROM SCHNEIDER ELECTRIC. THIS DRAWING IS BASED UPON LATEST AVAILABLE INFORMATION AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

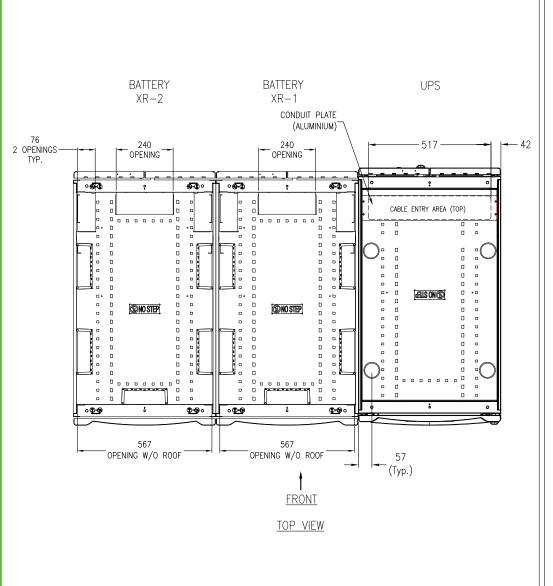


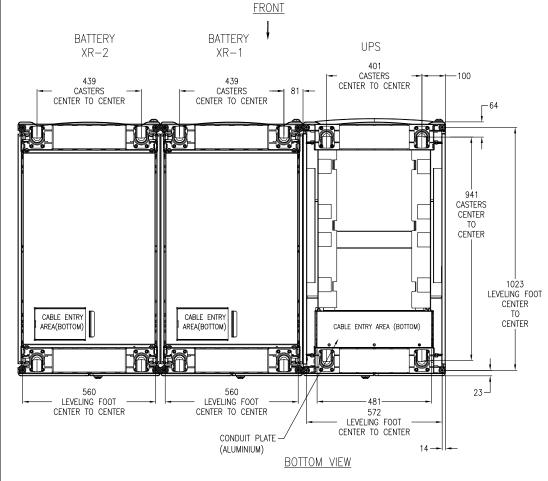
TITLE: SYMMETRA PX 160	C
Input: 400V AC 3PH SINGLE/DUAL MAINS Output:400/230V AC&400V AC 3PH 32-160kW SOLUTION GENERAL ARRANGEMENT	D
	Ε

PROJECT: DRAWINGS SHEET 3 OF 11

	DWG NO: SY
Input: 400V AC 3PH SINGLE/DUAL MAINS htput:400/230V AC&400V AC 3PH 32-160kW SOLUTION GENERAL ARRANGEMENT	DRAWN:
	ENGINEER:

DWG NO: SY	′32K1	60H	REV. 1
DRAWN:	BALA	1-JUL-19	FIRST
ENGINEER:	J WOLSKI	1-JUL-19	ANGLE
APPROVED:	J WOLSKI	1-JUL-19	PROJECTION





- 1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL REGULATIONS.
- 2. PLEASE REFER TO PRODUCT MANUALS FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
- 3. ALL DIMENSIONS ARE IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED.
- 4. FOR TOP OR BOTTOM CABLE ENTRY REMOVE TOP OR BOTTOM CONDUIT PLATE, DRILL/PUNCH HOLES WITH-IN PROVIDED CABLE ENTRY AREA REFIT COVER AND INSTALL CONDUITS.

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF SCHNEIDER ELECTRIC AND SHALL NOT BE COPIED, REPRODUCED OR USED IN WHOLE OR IN PART, AS THE BASIS FOR THE MAUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION FROM SCHNEIDER ELECTRIC. THIS DRAWING IS BASED UPON LATEST AVAILABLE INFORMATION AND IS SHRIFTED TO CHAMBE WITHOUT MOTICE



TITLE: SYMMETRA PX 160 Input: 400V AC 3PH SINGLE/DUAL MAINS Output:400/230V AC&400V AC 3PH 32-160kW SOLUTION TOP AND BOTTOM VIEWS	DWG NO: SY
SOLUTION TOP AND BOTTOM VIEWS	DRAWN:
	ENGINEER:
PROJECT: DRAWINGS SHEET 4 OF 11	APPROVED:

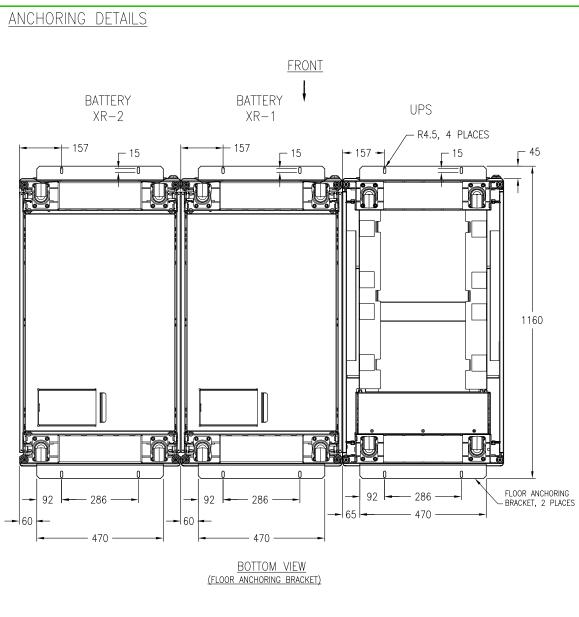
NO SY32K160H REV. 1

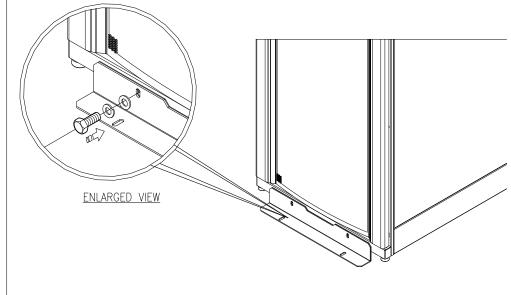
EAWN: BALA 1-JUL-19 FIRST

GINEER: J WOLSKI 1-JUL-19 PROJECTION

PROJECTION

PROJECTION





- 1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL REGULATIONS.
- 2. PLEASE REFER TO PRODUCT MANUALS FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
- ALL DIMENSIONS ARE IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED.
 TO STABILIZE ENCLOSURE IN THE FIELD USE INCLUDED ANCHORING BRACKETS.
 - ATTACH THE BRACKETS TO THE UNIT AS SHOWN.

 USE CODE COMPLIANT FASTENERS TO SECURE THE UNIT TO THE FLOOR

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF SCHNIEDER ELECTRIC AND SHALL NOT BE COPIED, REPRODUCED OR USED IN WHOLE OR IN PART, AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION FROM SCHNIEDER ELECTRIC. THIS DRAWING IS BASED UPON LATEST AVAILABLE INFORMATION AND IS SUBJECT TO CHANGE WITHOUT NOTICE.



Input: 400V AC 3PH SINGLE/DUAL MAINS		DWG NO: SY32K1		
SOLUTION ANCHORING [DRAWN:	BALA		
		ENGINEER:	J WOLSKI	
PROJECT: DRAWINGS	SHEET 5 OF 11	APPROVED:	J. WOLSKI	

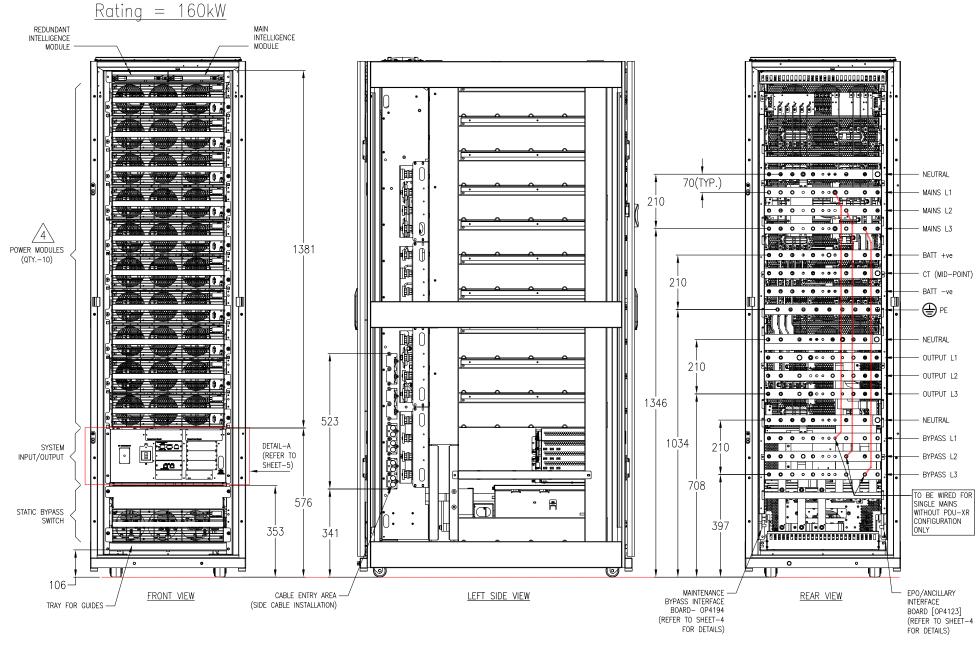
ISOMETRIC VIEW
(FLOOR ANCHORING BRACKET MOUNTING DETAILS)

60H

1-JUL-19 FIRST

1-JUL-19 ANGLE

1-JUL-19 PROJECTION



- 1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL REGULATIONS.
- 2. PLEASE REFER TO PRODUCT MANUALS FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
- 3. ALL DIMENSIONS ARE IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED.
- △4. CONFIGURATION SHOWN WITH "SYCF160KH + (10) SYPM10K16H" FOR 160kW

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF SCHNEIDER ELECTRIC AND SHALL NOT BE COPIED, REPRODUCED OR USED IN WHOLE OR IN PART, AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION FROM SCHNEIDER ELECTRIC. THIS DRAWING IS BASED UPON LATEST AVAILABLE INFORMATION AND IS SUBJECT TO CHANGE WITHOUT NOTICE.



TITLE: SYMMETRA PX 16 Input: 400V AC 3PH SINGLE	DWG NO: SY32K1		
Input: 400V AC 3PH SINGLE Output:400/230V AC&400V AC UPS INTERNAL VIE	DRAWN:	BALA	
		ENGINEER:	J WOLSKI
PROJECT: DRAWINGS	SHEET 6 OF 11	APPROVED:	J WOLSKI

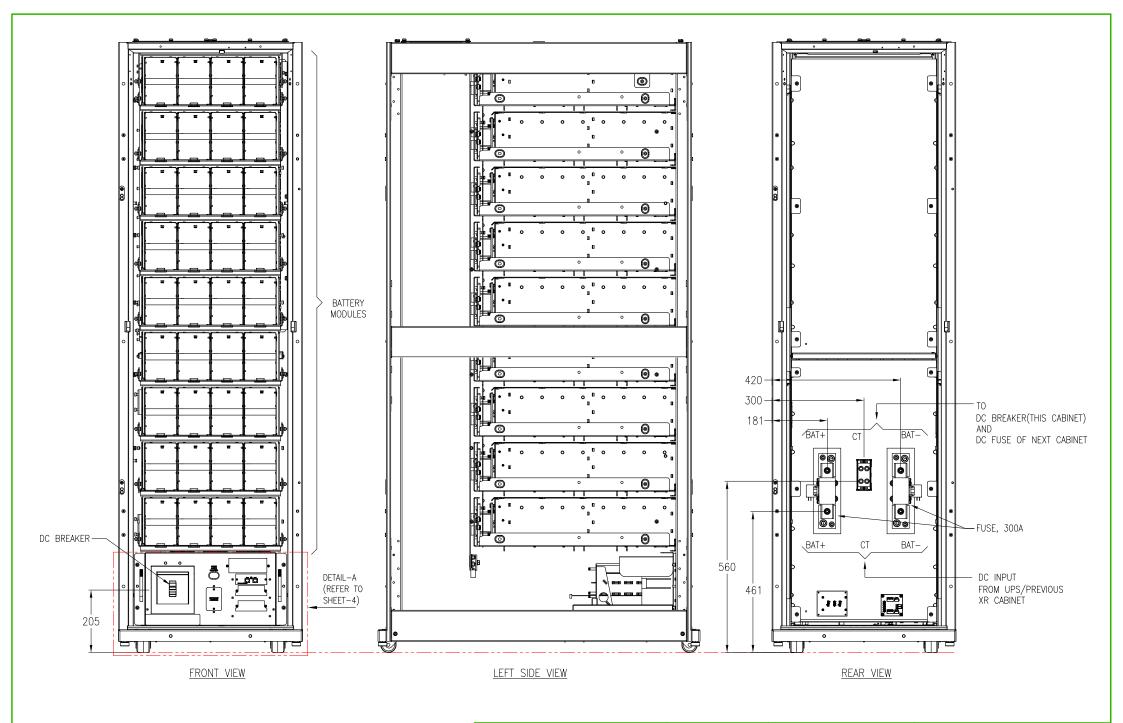
60H

1-JUL-19

1-JUL-19 ANGLE

1-JUL-19 PROJECTION

FIRS1



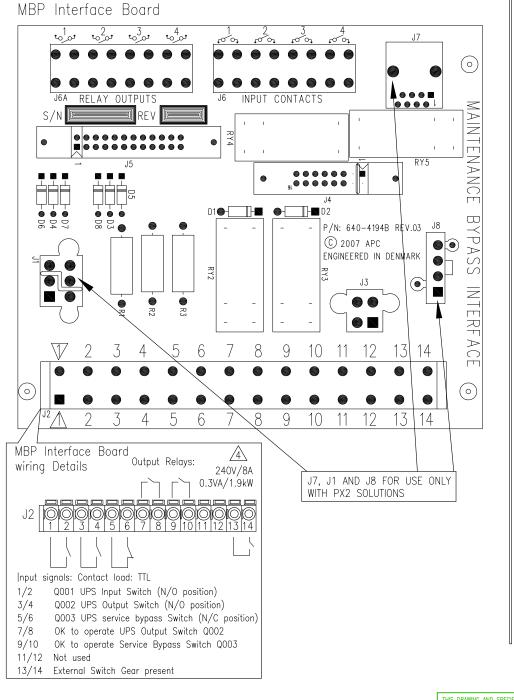
- 1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL REGULATIONS. 2. PLEASE REFER TO PRODUCT MANUALS FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
 3. ALL DIMENSIONS ARE IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED.

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF SCHNEIDER ELECTRIC AND SHALL NOT BE COPIED, REPRODUCED OR USED IN WHOLE OR IN PART, AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION FROM SCHNEIDER ELECTRIC. THIS DRAWING IS BASED UPON LATEST AVAILABLE INFORMATION AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

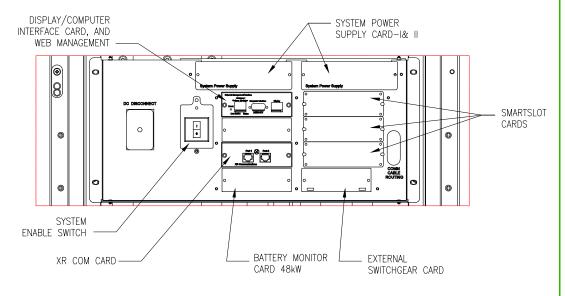


	TITLE: SYMMETRA PX 160 Input: 400V AC 3PH SINGLE/DUAL MAINS Output:400/230V AC&400V AC 3PH 32-160kW BATTERY INTERNAL VIEW	DWG NO: C
	BATTERY INTERNAL VIEW	DRAWN:
•		ENGINEER:
	PROJECT: DRAWINGS SHEET 7 OF 11	APPROVED:

NS	DWG NO: S	[№] :SY32K160H						
160kW	DRAWN:	BALA	1-JUL-19	FIRST				
	ENGINEER:	J WOLSKI	1-JUL-19	ANGLE				
OF 11	APPROVED:	J WOLSKI	1-JUL-19	PROJECTION				



DETAIL-A (SYSTEM INPUT/OUTPUT)



- 1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL REGULATIONS.
- 2. PLEASE REFER TO PRODUCT MANUALS FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
- 3. ALL DIMENSIONS ARE IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED..
- △4. 0.3VA MINIMUM POWER CONSUMPTION OF THE RELAY.

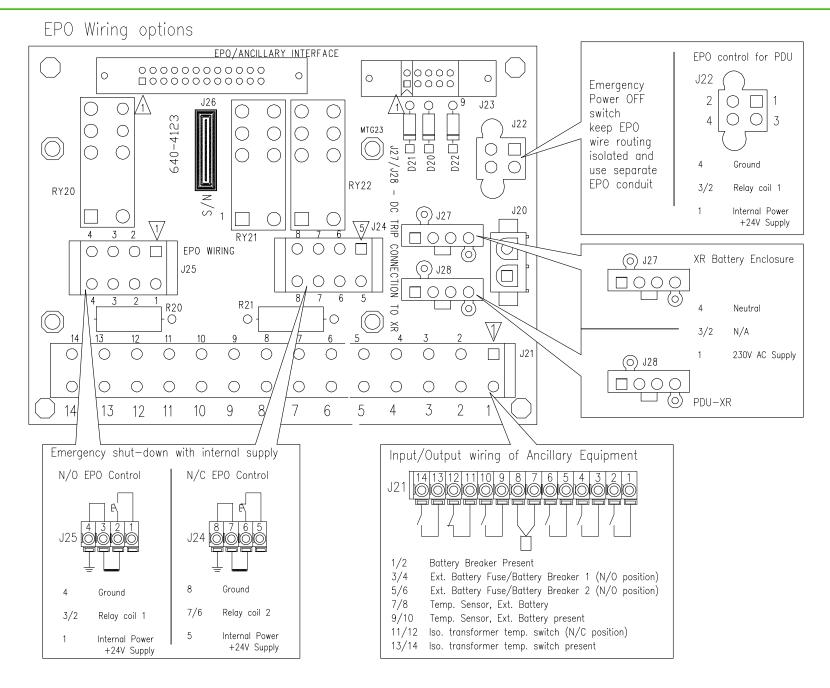
1.9kW - MAXIMUM POWER THAT CAN FLOW THROUGH THE CONTACTS

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF SCHNEIDER ELECTRIC AND SHALL NOT BE COPIED, REPRODUCED OR USED IN WHOLE OR IN PART, AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION FROM SCHNEIDER ELECTRIC. THIS DRAWING IS BASED UPON LATEST AVAILABLE INFORMATION AND IS SUBJECT TO CHANGE WITHOUT NOTICE.



TITLE: SYMMETRA PX 160 Output: 400V AC AND 400V AC 3PH 160kW	DW
Output: 400V AC AND 400V AC 3PH 160kW Output:400/230V AC&400V AC 3PH 32-160kW MBP INTERFACE BOARD WIRING DETAIL	DR
	EN

TITLE: SYMMETRA PX 16 Output: 400V AC AND 400V	AC 3PH 160kW	DWG NO: S	Y32K1	160H	REV. 1
Output:400/230V AC&400V AC MBP INTERFACE BOARD WIF	SPH 32-160kW RING DETAIL	DRAWN:	BALA	1-JUL-19	FIRST
		ENGINEER:	J WOLSKI	1-JUL-19	ANGLE
PROJECT: DRAWINGS	SHEET 8 OF 11	APPROVED:	J WOLSKI	1-JUL-19	PROJECTION



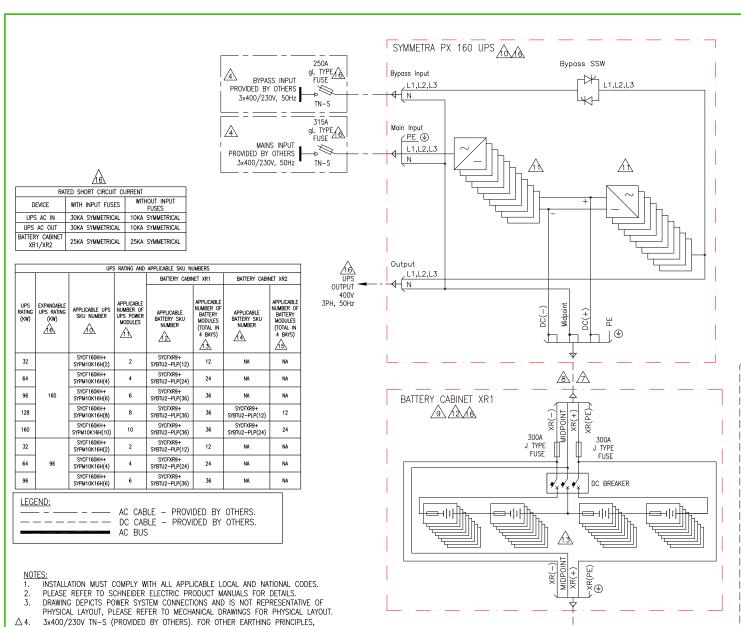
- 1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL REGULATIONS.
- 2. PLEASE REFER TO PRODUCT MANUALS FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
- 3. ALL DIMENSIONS ARE IN MILLIMETERS. UNLESS OTHERWISE SPECIFIED.

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF SCHNEIDER ELECTRIC AND SHALL NOT BE COPIED, REPRODUCED OR JSED IN WHOLE OR IN PART, AS THE BASIS FOR THE MANUFACTUR OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION FROM SCHNEIDER ELECTRIC. THIS DRAWING IS BASED UPON LATEST AVAILABLE INFORMATION AND IS SUBJECT TO CHANGE WITHOUT NOTICE.



	DWG NO: S
Input: 400V AC 3PH SINGLE/DUAL MAINS Output:400/230V AC&400V AC 3PH 32-160kW EPO/ANCILLARY INTERFACE DETAILS	DRAWN:
	ENGINEER:
PROJECT: DRAWINGS SHEET 9 OF 11	APPROVED:

METRA PX 16 3PH SINGLE,	DUAL MAINS	DWG NO: SY32K160H					
AC&400V AC ARY INTERFACI	3PH 32-160kW E DETAILS	DRAWN:	BALA	1-JUL-19	FIRS'		
		ENGINEER:	J WOLSKI	1-JUL-19	ANGL		
WINGS	SHEET 9 OF 11	APPROVED:	J WOLSKI	1-JUL-19	PROJECTIO		



 \triangle BATTERY CABINET XR2 300A J TYPE J TYPE FUSE FUSE DC BREAKER $A \mid A$ TO NEXT XR 9 BATTERY CABINET

- PLEASE CONTACT SCHNEIDER ELECTRIC. RECOMMENDED UPSTREAM PROTECTION IS A MINIMUM RATING TO SUPPORT MAXIMUM CURRENT, WITHOUT SELECTIVITY. IF SELECTIVITY IS REQUIRED, PLEASE CONTACT SCHNEIDER ELECTRIC.
- 5. ALL AC POWER CABLING IS L1, L2, L3, N, PE.
- △6. DUAL MAINS CONFIGURATION IS DEFAULT.
 - FOR SINGLE MAINS OPTION, MAINS AND BYPASS BARS HAVE TO BE CONNECTED WITH 3 CABLES PROVIDED WITH THE UNIT.
- △7. DC CABLING TO BE 600V RATED, 2 WIRE + GROUND, EACH CIRCUIT TO BE RUN IN SEPARATE CONDUITS, POSITIVE, NEGATIVE + GROUND.
- CABLING PROVIDED BY OTHERS IF UPS AND BATTERY CABINETS ARE INSTALLED REMOTELY, FOR LINE-UP SOLUTION CABLING PROVIDED BY SCHNEIDER ELECTRIC.
- NUMBER OF BATTERIES AND DC NOMINAL CURRENT SHOWN IN THIS DIAGRAM PROVIDES 5 MINUTES RUN TIME.

MAXIMUM 4 BATTERY ENCLOSURES MAY BE USED WITH THE SYSTEM.

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF SCHNEIDER ELECTRIC AND SHALL NOT BE COPIED, REPRODUCED OR JSED IN WHOLE OR IN PART, AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION FROM SCHNEIDER ELECTRIC. THIS DRAWING IS BASED UPON LATEST AVAILABLE INFORMATION AND IS SUBJECT TO CHANGE WITHOUT NOTICE.

	SYMMETRA PX 160
	Input: 400V AC 3PH SINGLE/DU
Schneider	Input: 400V AC 3PH SINGLE/DU Output:400/230V AC&400V AC 3PI SYSTEM ONE LINE DIAGR
	SYSTEM ONE LINE DIAGR
Electric	

TITLE: SYMMETRA PX 16 Input: 400V AC 3PH SINGLE, Output:400/230V AC&400V AC	DWG NO: SY	REV. 1			
SYSTEM ONE LINE DIA	SPH SZ-160KW GRAM	DRAWN:	BALA	1-JUL-19	FIRST
	ENGINEER:	J WOLSKI	1-JUL-19	ANGLE	
PROJECT: DRAWINGS	SHEET 10 OF 11	APPROVED:	j wolski	1-JUL-19	PROJECTION

						INFRA	STRUXURE	PLANNING (GUIDE SYMN	METRA PX96 ,	/ PX160 (400V)					
	UPS RA	ATING KVA	/ KW		AC INPUT (400V)				BATTERY SYSTEM (WITH 320A DC 3POLE BREAKER)			AC OUTPUT (400V)		MAINTENANCE BYPASS BREAKER RATING. (SINGLE OR DUAL MAINS)			
UPS FRAME	QTY OF POWER	[P] KW NOMINAL	POWER	POWE	R (KW)	UTILITY S	SOURCE	CURREN	IT I (A)	*Q1 PROTECTION	NOMINAL VOLTAGE	FULL LOAD	IMAX DC DISCHARGE	IN (A)	*Q2 PROTECTION	*03	**Q5
	MODULE NOMINAL (16KW)	FACTOR	NOMINAL	NOMINAL + CHARGING	FREQUENCY (HZ)	VOLTAGE (V)	NOMINAL	NOMINAL + CHARGING	BREAKER (A)	(V DC)	POWER P (KW)	(A)	II V (A)	BREAKER (A)	ųσ	QS	
	1	16		17	19			24	27	63		17	55	23	32	32	32
96KVA/160KVA , 96KW/160KW	2	32		34	37			49	53	80		34	110	46	63	63	63
60K 160	3	48		51	56			73	80	100		51	165	69	80	80	80
XW/	4	64		67	74			97	107	160		68	220	92	125	125	125
6KV 96	5	80	1	84	93	50	400	122	134	160	2X192	85	275	115	160	160	160
6	6	96	'	101	111] 30	400	146	160	225	2/13/2	102	330	139	160	160	160
	7	112		118	130			170	187	225		119	385	162	250	250	250
₹ ×	8	128		135	148		194	214	250		135	440	185	250	250	250	
160KVA / 160KW	9	9 144 15	152	167			219	241	400		152	495	208	250	250	250	
	10	160		168	185			243	267	400		169	550	231	250	250	250

SYMMETRA PX96 CONTAINS 2 FRAMES 1 X POWER FRAME AND 1 X BATTERY FRAME.

SYMMETRA PX160 CONTAINS 3 FRAMES 1 X POWER FRAME AND 2 BATTERY FRAMES.

THE SYMMETRA PX96 IS UPGRADABLE TO 160kW BY ADDING POWER MODULES AND BATTERY FRAME.

*Q1, Q2, Q3 AND Q5 - RECOMMENDED FOR 3RD PARTY MAINTENANCE BYPASS.

**USED FOR 3RD PARTY BYPASS WITH DUAL MAINS.

THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF SCHNEIDER ELECTRIC AND SHALL NOT BE COPIED, REPRODUCED OR USED IN WHOLE OR IN PART, AS THE BASIS FOR THE AMUNEACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION FROM SCHNEIDER ELECTRIC. THIS DRAWING IS BASED UPON LATEST AVAILABLE INFORMATION AND IS SUBJECT TO CHANCE WITHOUT NOTICE.



TITLE: SYMMETRA PX 16 Input: 400V AC 3PH SINGLE, Output:400/230V AC&400V AC		DWG NO: S	Y32K1	160H	REV. 1
SITE PLANNING GU	JPH JZ-160KW IDE	DRAWN:	BALA	1-JUL-19	FIRST
		ENGINEER:	J WOLSKI	1-JUL-19	ANGLE
PROJECT: DRAWINGS	SHEET 11 OF 11	APPROVED:	J W OLSKI	1-JUL-19	PROJECTION