

DISTRIBUTION PANEL OPTIONS			
OPTION REFERENCE	BREAKER FRAME RATING	MAX. QTY 3P	SHORT CIRCUIT CURRENT RATING
T1	100A	16	22kAIC
T3	225A	12	25kAIC
T5	400A	SEE NOTE-11	25kAIC

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

- NOTES:**
- INSTALLATION SHALL COMPLY WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.
  - PLEASE REFER TO PRODUCT MANUALS FOR ADDITIONAL DETAILS.
  - DRAWING DEPICTS POWER SYSTEM CONNECTIONS AND IS NOT REPRESENTATIVE OF PHYSICAL LAYOUT, PLEASE REFER TO MECHANICAL DRAWINGS FOR PHYSICAL LAYOUT.
  - MAXIMUM RATED SHORT CIRCUIT CURRENT IS 50kA.
  - AC MAIN UTILITY SOURCE SHALL BE 480VAC, 3φ, SOLIDLY GROUNDED WYE, 3 WIRE+GROUND (CONTACT Schneider Electric IF OTHER). SEE SHEET 3 FOR SITE PLANNING SUBMITTAL DATA.
  - AC CABLING SHALL BE 600V RATED, 3 WIRE+GROUND.
  - AC BYPASS UTILITY SOURCE SHALL BE 480VAC, 3φ, SOLIDLY GROUNDED WYE, 4 WIRE+GROUND (CONTACT Schneider Electric IF OTHER). SEE SHEET 3 FOR SITE PLANNING SUBMITTAL DATA.
  - AC CABLING SHALL BE 600V RATED, 4 WIRE+GROUND.
  - SINGLE MAINS IS FACTORY DEFAULT CONFIGURATION. THE I/O FRAME TO MBwD FRAME BUS BAR LINKS SHALL BE REMOVED FOR DUAL MAINS INSTALLATION. FOR SINGLE MAINS INSTALLATION CONTACT Schneider Electric FOR RELATED SUBMITTAL DRAWINGS.
  - THE NEUTRAL TO GROUND SYSTEM BONDING JUMPER PROVIDED BY by Schneider Electric SHALL NOT BE INSTALLED FOR 4 WIRE OUTPUT CONFIGURATION. SEE INSTALLATION MANUAL FOR DETAILS.
  - MAXIMUM QUANTITY OF DISTRIBUTION BREAKERS (T5 OPTION ONLY)  
 4 - IF THE NEUTRAL BAR KIT IS INSTALLED  
 8 - IF THE NEUTRAL BAR KIT IS NOT INSTALLED.
  - THIS DRAWING SHOWS MINIMUM NUMBER OF XR BATTERY FRAMES. MAXIMUM (8) XR BATTERY FRAMES CAN BE BAYED TO UPS. BAYING KIT IS SUPPLIED WITH THIS SOLUTION. XR BATTERY FRAME HAS MOTORIZED BREAKER.
  - CABLE LUGS ARE NOT PROVIDED.

DEVICE RATING					
DEVICE	RATING	TYPE	MAKE	MODEL	ACCESSORIES
Q1	1000A, 600V	3P MCSW	Schneider Electric	ON-1003	1Aux.sw. K7AS
Q2	800AT/800AF, 600V	4P MCCB	ABB	S6N800BW-4	1Aux.sw. 24Vdc shunt trip
Q3	800A, 600V	4P MCSW	ABB	S6H800DW-4	1Aux.sw. K7AS
Q5	800A, 600V	3P MCSW	ABB	S6H800DW	1Aux.sw. K7AS
INVERTER FUSES F1-F3 / F4-F6	1250A, 700V	HIGH SPEED FUSE	BUSSMANN	170M6466	--
SSW FUSES F1-F3	630A, 700V	HIGH SPEED FUSE	BUSSMANN	170M5162	--
DC DISCONNECT	400A, 600V DC	4P MCSW	ABB	T5	1Aux.contact, 24VDC, Shunt trip, Actuator

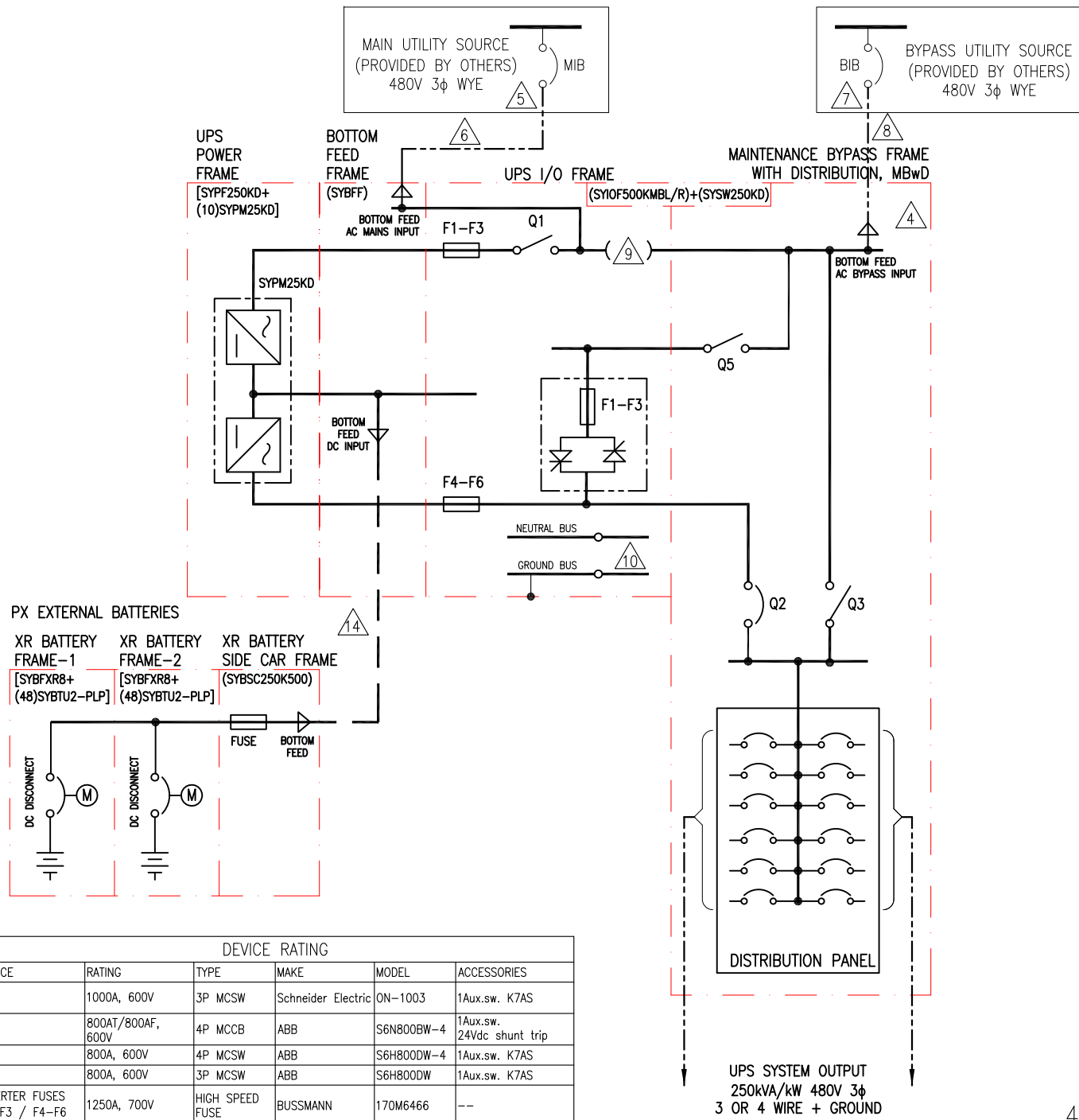
UPS SYSTEM OUTPUT  
 250kVA/kW 480V 3φ  
 3 OR 4 WIRE + GROUND

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TITLE: SYMMETRA PX INPUT: 480V 3φ WYE, DUAL MAINS OUTPUT: 480V 250kVA/kW BOTTOM FEED WITH LINE-UP BATTERIES SYSTEM ONE LINE DIAGRAM	DWG NO: SY250K250BG2C1-4W-SD	REV. 3
PROJECT: SUBMITTAL DRAWINGS	SHEET 1 OF 3	APPROVED: B SHERIDAN
		03-JUL-15
		03-JUL-15
		03-JUL-15
		PROJ ANGLE N.A.

4 WIRE OUTPUT CONFIGURATION, DUAL MAINS



DISTRIBUTION PANEL OPTIONS			
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T1	100A	16	22kAIC
T3	225A	12	25kAIC
T5	400A	SEE NOTE-11	25kAIC

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

- NOTES:**
- INSTALLATION SHALL COMPLY WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.
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  - DRAWING DEPICTS POWER SYSTEM CONNECTIONS AND IS NOT REPRESENTATIVE OF PHYSICAL LAYOUT, PLEASE REFER TO MECHANICAL DRAWINGS FOR PHYSICAL LAYOUT.
  - MAXIMUM RATED SHORT CIRCUIT CURRENT IS 50kA.
  - AC MAIN UTILITY SOURCE SHALL BE 480VAC, 3 $\phi$ , SOLIDLY GROUNDED WYE, 3 WIRE+GROUND (CONTACT Schneider Electric IF OTHER). SEE SHEET 3 FOR SITE PLANNING SUBMITTAL DATA.
  - AC CABLING SHALL BE 600V RATED, 3 WIRE+GROUND.
  - AC BYPASS UTILITY SOURCE SHALL BE 480VAC, 3 $\phi$ , SOLIDLY GROUNDED WYE, 4 WIRE+GROUND (CONTACT Schneider Electric IF OTHER). SEE SHEET 3 FOR SITE PLANNING SUBMITTAL DATA.
  - AC CABLING SHALL BE 600V RATED, 4 WIRE+GROUND.
  - SINGLE MAINS IS FACTORY DEFAULT CONFIGURATION. THE I/O FRAME TO MBWD FRAME BUS BAR LINKS SHALL BE REMOVED FOR DUAL MAINS INSTALLATION. FOR SINGLE MAINS INSTALLATION CONTACT BY Schneider Electric FOR RELATED SUBMITTAL DRAWINGS.
  - THE NEUTRAL TO GROUND SYSTEM BONDING JUMPER PROVIDED BY Schneider Electric SHALL NOT BE INSTALLED FOR 4 WIRE OUTPUT CONFIGURATION. SEE INSTALLATION MANUAL FOR DETAILS.
  - MAXIMUM QUANTITY OF DISTRIBUTION BREAKERS (T5 OPTION ONLY)
    - 4 - IF THE NEUTRAL BAR KIT IS INSTALLED
    - 8 - IF THE NEUTRAL BAR KIT IS NOT INSTALLED.
  - THIS DRAWING SHOWS MINIMUM NUMBER OF BATTERY FRAMES. MAXIMUM (8) XR BATTERY FRAMES, OR THIRD PARTY BATTERIES CAN BE BAYED TO UPS. BAYING KIT IS SUPPLIED WITH THIS SOLUTION. XR BATTERY FRAME HAS MOTORIZED BREAKER.
  - 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.
  - DC CABLING SHALL BE 1000V RATED, 3-WIRE +GROUND. SEE SHEET 3 FOR ADDITIONAL DATA.
  - CABLE LUGS ARE NOT PROVIDED.

**PX EXTERNAL BATTERIES**

XR BATTERY FRAME-1 [SYBFXR8+ (48)SYBTU2-PLP]  
 XR BATTERY FRAME-2 [SYBFXR8+ (48)SYBTU2-PLP]  
 XR BATTERY SIDE CAR FRAME [SYBSC250K500]

DEVICE RATING					
DEVICE	RATING	TYPE	MAKE	MODEL	ACCESSORIES
Q1	1000A, 600V	3P MCSW	Schneider Electric	ON-1003	1Aux.sw. K7AS
Q2	800AT/800AF, 600V	4P MCCB	ABB	S6N800BW-4	1Aux.sw. 24Vdc shunt trip
Q3	800A, 600V	4P MCSW	ABB	S6H800DW-4	1Aux.sw. K7AS
Q5	800A, 600V	3P MCSW	ABB	S6H800DW	1Aux.sw. K7AS
INVERTER FUSES F1-F3 / F4-F6	1250A, 700V	HIGH SPEED FUSE	BUSSMANN	170M6466	--
SSW FUSES F1-F3	630A, 700V	HIGH SPEED FUSE	BUSSMANN	170M5162	--
DC DISCONNECT	400A, 600V DC	4P MCSW	ABB	T5	1Aux.contact, 24VDC, Shunt trip, Actuator
DC FUSES	500A, 500V DC	CLASS J	FERRAZ SHAWMUT	AJT500EI	--

**UPS SYSTEM OUTPUT**  
 250kVA/kW 480V 3 $\phi$   
 3 OR 4 WIRE + GROUND

4 WIRE OUTPUT CONFIGURATION, DUAL MAINS

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TITLE: SYMMETRA PX INPUT: 480V 3 $\phi$ WYE, DUAL MAINS OUTPUT: 480V 250kVA/kW BOTTOM FEED WITH EXTERNAL BATTERIES SYSTEM ONE LINE DIAGRAM	DWG NO: SY250K250BG2C1-4W-SD	REV: 3
PROJECT: SUBMITTAL DRAWINGS SHEET 2 OF 3	DRAWN: V BUSH/S CUNHA/BALA ENGINEER: C FLY/A WARNER	03-JUL-15 03-JUL-15
	APPROVED: B SHERIDAN	03-JUL-15

**Symmetra® PX 250K and 500K UPS Frame Site Planning Data - 480Y/277V Dual Feed with MBwD**

UPS Rating		Voltage		Mains AC Input - (MIB) <sup>1</sup>							Bypass AC Input - (BIB) <sup>2</sup>					External Battery System <sup>3, 5</sup>					AC Output <sup>2</sup>	
				Current		Recommendations <sup>3</sup>			Currents		Recommendations <sup>3, 4</sup>			Nominal VDC	Battery kW	Current @ Nom. VDC	Recommendations		Current			
UPS Frame Rating	Qty of 25kW Power Modules <sup>8</sup>	kVA	kW	Input <sup>1</sup>	Output <sup>2</sup>	Full Load	Max. <sup>6</sup>	100% OCPD w /Electronic Trip	80% OCPD w /Electronic Trip	Cable	NOM.	Max. <sup>7</sup>	100% OCPD w /Electronic Trip				80% OCPD w /Electronic Trip	Cable				100% OCPD
250kVA/250kW 1x 250K Frame	4	100	100	480	480	139	149	600AF/150AT	600AF/150AT	1x 1/0	120	150	600AF/125AT	600AF/125AT	1x 1	2x 288	104	181	200A	1x 3/0	120	150
	5	125	125	480	480	173	186	600AF/200AT	600AF/200AT	1x 3/0	150	188	600AF/150AT	600AF/150AT	1x 1/0	2x 288	130	226	250A	1x 4/0	150	188
	6	150	150	480	480	208	223	600AF/225AT	600AF/225AT	1x 4/0	180	226	600AF/200AT	600AF/200AT	1x 3/0	2x 288	156	271	300A	1x 300	180	226
	7	175	175	480	480	242	261	600AF/300AT	600AF/300AT	1x 300	210	263	600AF/225AT	600AF/225AT	1x 4/0	2x 288	182	316	350A	1x 400	210	263
	8	200	200	480	480	277	298	600AF/300AT	600AF/300AT	1x 350	241	301	600AF/250AT	600AF/250AT	1x 250	2x 288	208	362	400A	1x 500	241	301
	9	225	225	480	480	312	335	600AF/350AT	600AF/350AT	1 x 400	271	338	600AF/300AT	600AF/300AT	1x 300	2x 288	234	407	450A	2x 4/0	271	338
	10 <sup>8</sup>	250	250	480	480	346	372	600AF/400AT	600AF/400AT	1x 500	301	376	600AF/350AT	600AF/350AT	1x 350	2x 288	260	452	500A	2x 4/0	301	376
500kVA/500kW 2x 250K Frame	11	275	275	480	480	381	410	600AF/450AT	600AF/450AT	2x 4/0	331	413	600AF/350AT	600AF/350AT	1x 400	2x 288	286	497	500A	2x 250	331	413
	12	300	300	480	480	416	447	600AF/450AT	600AF/450AT	2x 4/0	361	451	600AF/400AT	600AF/400AT	1x 500	2x 288	312	543	600A	2x 300	361	451
	13	325	325	480	480	450	484	600AF/500AT	800AF/500AT	2x 250	391	489	600AF/400AT	600AF/400AT	2x 3/0	2x 288	339	588	600A	2x 350	391	489
	14	350	350	480	480	485	521	600AF/600AT	800AF/600AT	2x 300	421	526	600AF/450AT	600AF/450AT	2x 4/0	2x 288	365	633	700A	2x 400	421	526
	15	375	375	480	480	519	558	600AF/600AT	800AF/600AT	2x 300	451	564	600AF/480AT	600AF/480AT	2x 4/0	2x 288	391	678	700A	2x 500	451	564
	16	400	400	480	480	554	596	600AF/600AT	800AF/600AT	2x 350	481	601	600AF/500AT	800AF/500AT	2x 250	2x 288	417	723	800A	2x 500	481	601
	17	425	425	480	480	589	633	800AF/640AT	800AF/640AT	2x 400	511	639	600AF/600AT	800AF/600AT	2x 300	2x 288	443	769	800A	3x 300	511	639
	18	450	450	480	480	623	670	800AF/700AT	1200AF/700AT	2x 400	541	677	600AF/600AT	800AF/600AT	2x 300	2x 288	469	814	1000A	3x400	541	677
	19	475	475	480	480	658	707	800AF/800AT	1200AF/800AT	2x 500	571	714	600AF/600AT	800AF/600AT	2x 350	2x 288	495	859	1000A	3x 400	571	714
		20 <sup>8</sup>	500	500	480	480	693	745	800AF/800AT	1200AF/800AT	2x 500	601	752	800AF/640AT	800AF/640AT	2x 350	2x 288	521	904	1000A	3x 400	601

[Symmetra® PX](#)

Notes.

1. Mains Input source must be 480V Wye 3-wire + Ground or 4-wire+Ground. Contact Schneider Electric if other.
2. Output is either 480V Wye 3-wire + Ground or 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. See applicable submittal drawings for additional details.
5. Contact Schneider Electric for assistance with all external battery designs. Maximum allowed DC cabling voltage drop is 1 VDC. DC cabling between the remote battery system and the UPS must be 1000V rated. Schneider Electric Standard external DCD's are rated 500A (PX 250kVA) or 1000A (PX 500kVA).
6. Electronic Input Current Limit
7. 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.
8. For maximum scalability or future expansion it is recommended that the UPS frames be installed at their full ratings - see bold highlighted data
9. All OCPD's and cabling are by others.
10. OCPD = Over Current Protective Device
11. Final selections are responsibility of engineer of record based on installed conditions and SCC/selective coordination/arc-flash analysis.

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TITLE: SYMMETRA PX  
INPUT: 480V 3ø, DUAL MAINS  
OUTPUT: 480V 250kVA/kW  
SITE PLANNING SUBMITTAL DATA

PROJECT: SUBMITTAL DRAWINGS SHEET 3 OF 3

DWG NO: SY250K250BG2C1-4W-SD REV. 1

DRAWN: BALAMURUGAN 03-JUL-15 PROJ

ENGINEER: A WARNER 03-JUL-15 ANGLE

APPROVED: B SHERIDAN 03-JUL-15 N.A