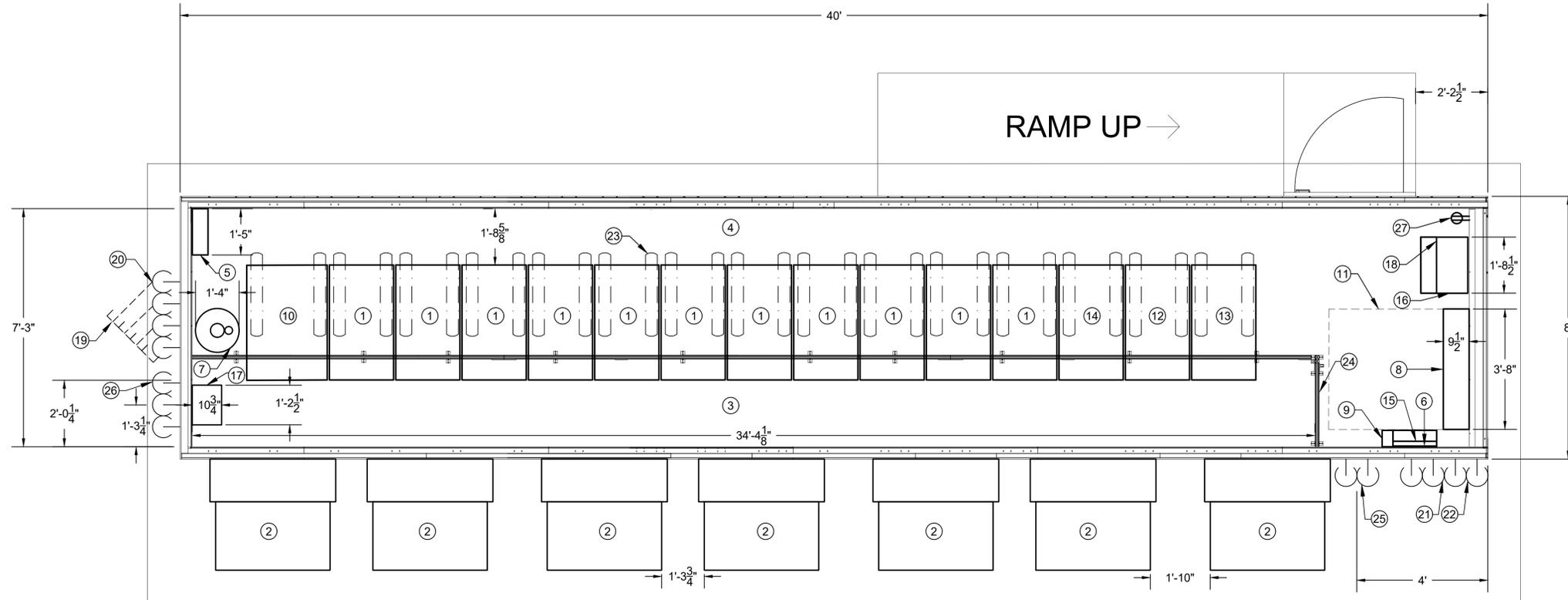




# PREFAB CONFIGURATION-11

PREFAB FRAME SIZE (KW)	MAX IT LOAD (KW)	PREFAB MODULE DIMENSIONS (APPROXIMATE)			MDP-100 SYSTEM VOLTAGE LEVEL (V)	UPS SYSTEM MODEL	SERVICE ENTRANCE PANEL MODEL	SERVICE ENTRANCE PANEL(A)	WALL MOUNT COOLING UNIT WITH HEATER(MODEL)	NO. OF WALL MOUNT COOLING UNITS WITH HEATER	IT RACK (MODEL)/ NETWORKING IT RACK(MODEL)	NO. OF IT RACKS	RACK DENSITY (KW/RACK)	NUMBER OF SINGLE PHASE POLES IN MBP	IT RACK DIMENSIONS (APPROXIMATE)			IT RACK DISTRIBUTION UNIT (MODEL)
		DEPTH (FT)	WIDTH (FT)	HEIGHT (FT)											DEPTH (FT)	WIDTH (FT)	HEIGHT (FT)	
100	75	40	8	9.5	480	SYMMETRA PX100	I-LINE	800	WMF0661	7	AR3100/ AR3150	12	6.25	72	3.5	2	6.5	AP8865



## GENERAL NOTES:

- REFER TO THE ONE LINE DIAGRAM ON SHEET E400 FOR ADDITIONAL DETAILS ON THE ELECTRICAL SYSTEM.
- FOR ELECTRICAL SCHEDULES, SEE DRAWINGS ON SHEETS E600 AND E601.

## PLAN NOTES:

- IT RACK.
- WMF0661 WALL MOUNT COOLING UNIT WITH HEATER.
- HOT AISLE.
- COLD AISLE.
- FIRE ALARM CONTROL PANEL. INSTALLATION SHALL MEET NFPA 72 REQUIREMENTS.
- GENERATOR ANNUNCIATOR PANEL(OPTIONAL).
- FIRE SUPPRESSION CYLINDER.
- 480V SERVICE ENTRANCE MAIN DISTRIBUTION PANEL(MDP-100).
- SOURCE TRANSFER CONTROL PANEL(CP-100).
- NETWORKING IT RACK.
- REQUIRED CLEARANCE(TYPICAL).
- SYMMETRA PX100 UPS MODULE.

- PX100 UPS BATTERY CABINET.
- PX100 POWER DISTRIBUTION UNIT.
- ACCESS CONTROL PANEL(OPTIONAL).
- 480-208/120V STEP DOWN TRANSFORMER(TRF-2).
- HUMIDIFIER(OPTIONAL).
- 208/120V DISTRIBUTION PANEL(PDB-200).

- PROVIDE FOUR(4) 3" CONDUITS FOR DATA/FIBER OPTICS. CONDUITS SHALL BE CONNECTED PERPENDICULARLY TO MODULE WALL AT 100-1/2" ABOVE FINISHED SLAB AT LOCATION SHOWN. TURN VERTICALLY WITH A 36" RADIUS DOWN TO SLAB FOR UNDERGROUND RUN. PROVIDE UNDERGROUND PORTION TO JUST OUTSIDE OF SLAB EDGE AS SHOWN. PROVIDE STRUCTURAL SUPPORT FOR ABOVEGROUND PORTION. CO-ORDINATE HEIGHT OF CONDUITS ABOVE FINISHED SLAB AS REQUIRED.
- RUN UNDERGROUND PORTION DIAGONALLY AT 45 DEGREES TO THE LEFT, AS SHOWN, TO EXTEND 48" BEYOND THE EDGE OF THE PAD TO BE CONTINUED BY OTHERS. CAP CONDUIT ENDS AT THIS POINT.

- PROVIDE TWO(2) 2-1/2" CONCRETE ENCASED UNDERGROUND PVC SCH-80 CONDUITS FOR POWER FROM UTILITY. CO-ORDINATE HEIGHT OF CONDUITS ABOVE FINISHED SLAB AS REQUIRED.
- PROVIDE TWO(2) 2-1/2" AND TWO(2) 3/4" CONCRETE ENCASED UNDERGROUND PVC SCH-80 CONDUITS FOR POWER AND CONTROLS FROM GENERATOR. CO-ORDINATE HEIGHT OF CONDUITS ABOVE FINISHED SLAB AS REQUIRED.
- E-CHAINS(TYP.) FOR PROVIDING RACK MOVEMENT FOR PROVIDING WORKING DEPTH ADJUSTMENT ON FRONT AND REAR SIDE OF THE RACK AS REQUIRED.
- SLIDING DOOR.

- CONDUITS FOR POWER CONNECTIONS TO WALL MOUNT COOLING UNITS. CONDUITS SHALL BE CONNECTED PERPENDICULARLY TO MODULE WALL AT 100-1/2" ABOVE FINISHED SLAB AT LOCATION SHOWN.CO-ORDINATE HEIGHT OF CONDUITS ABOVE FINISHED SLAB AS REQUIRED.
- PIPES FOR HUMIDIFICATION AND DEHUMIDIFICATION. PIPES SHALL BE CONNECTED PERPENDICULARLY TO MODULE WALL AT 7-1/2" ABOVE FINISHED SLAB AT LOCATION SHOWN.
- 120V GENERAL PURPOSE RECEPTACLE (TYPICAL).

## ELECTRICAL PREFAB MODULE DETAILS CONFIGURATION-11

SCALE: 1/2" = 1'-0"

CONSULTANTS:



IT MISSION CRITICAL SERVICES, INC.  
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SEAL:

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PROJECT INFORMATION:

75KW DATA CENTER  
REFERENCE DESIGN  
PREFAB  
CONFIGURATION-11

KEYPLAN:

REV.	DATE	DESCRIPTION
0	4/17/2019	CONCEPTUAL DRAWINGS
1		
2		

DRAWN BY: GR

CHECKED BY: MN

PROJECT NUMBER: DMP-XXXXXX

DRAWING SCALE: NONE

SHEET TITLE:  
**ELECTRICAL  
PREFAB MODULE DETAILS  
CONFIGURATION-11**

DATE: 04/12/19

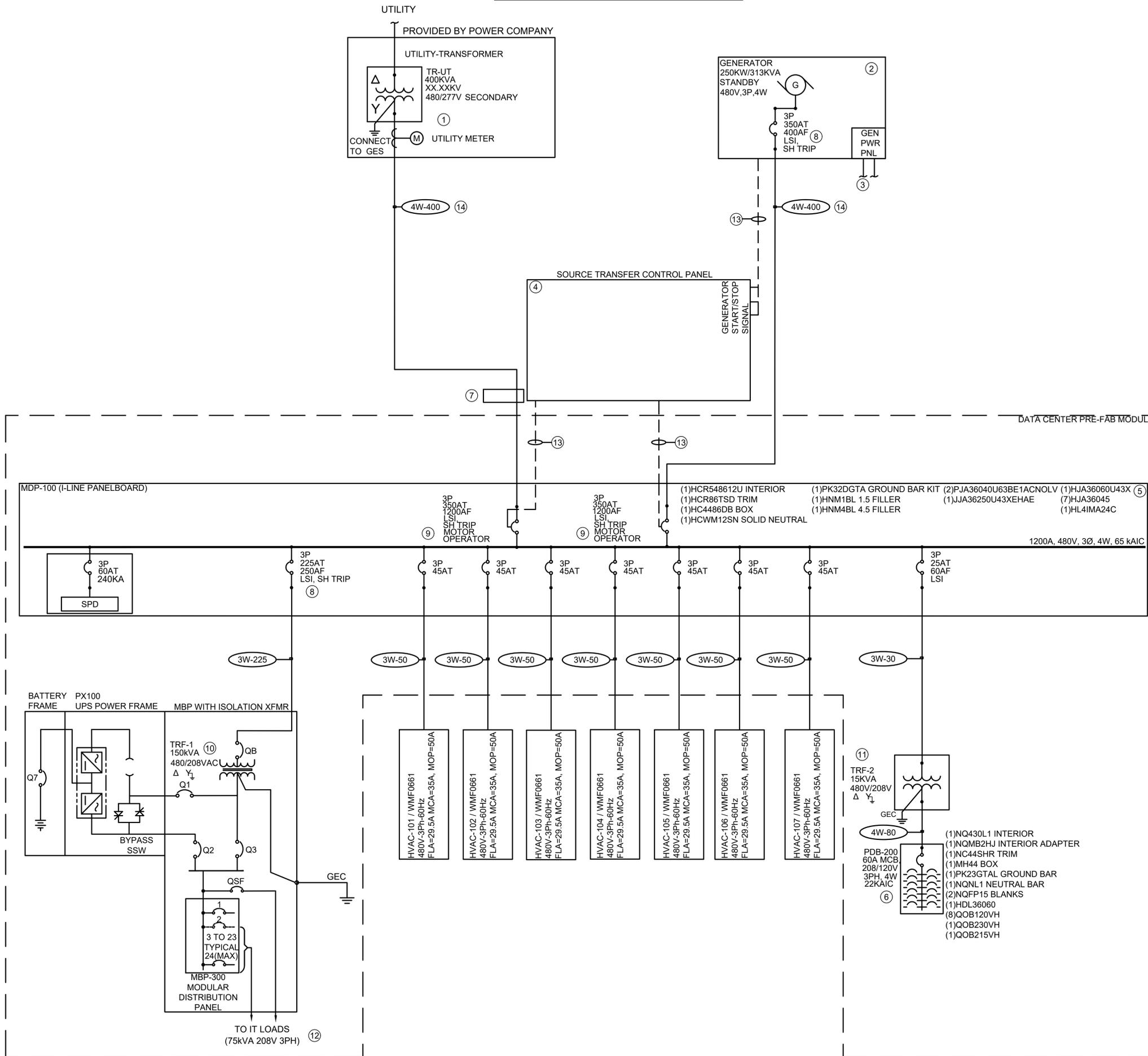
DRAWING NUMBER:

**E102**





**ELECTRICAL ONE LINE DIAGRAM:**



**GENERAL NOTES:**

- SEE DRAWING E001 FOR ABBREVIATIONS AND SYMBOLS.
- SEE DRAWING E002 AND E003 FOR ELECTRICAL SPECIFICATIONS.
- SEE DRAWINGS E600 AND E601 FOR ELECTRICAL SCHEDULES.

**CONTROLS NOTES:**

- SUPPLY OF CONTROL PANELS ALONG WITH THEIR INTEGRATION SERVICES WITH THE DATA CENTER SYSTEM SHALL BE PROVIDED BY SCHNEIDER EPMS DIVISION.
- PROVIDE A SEPARATE CONDUIT FOR CONNECTING THE SPD WITH POWER QUALITY METER(IF PROVIDED) FOR SPD FAILURE MONITORING.
- PROVIDE A 1KVA 480V/120V CPT FOR PROVIDING 120V CONTROL POWER TO CONTROL EQUIPMENT ON 120V AC SUPPLY.
- PROVIDE A 120V AC TO 24V DC POWER SUPPLY FOR 24V DC CONTROL POWER REQUIREMENTS.
- THE CIRCUIT BREAKER INSIDE THE GENERATOR ENCLOSURE SHALL BE EQUIPPED WITH A 24V DC SHUNT TRIP UNIT. SHUNT TRIPS SHALL BE WIRED TO EPO PANEL.
- PROVIDE AN ETHERNET SWITCH WITH SUFFICIENT PORTS FOR CONNECTING THE POWER QUALITY METER(IF PROVIDED), UPS SYSTEM COMPONENTS AND ALL OTHER COMPONENTS THAT REQUIRE REMOTE MONITORING AND CONFIGURATION.

**PLAN NOTES:**

- UTILITY METER (PROVIDED BY POWER COMPANY).
- 250KW/313KVA STANDBY GENERATOR.
- RUN TWO PHASE WIRES, A NEUTRAL WIRE AND A GROUND WIRE IN A 3/4" CONDUIT FROM PDB-200 PANEL TO GENERATOR POWER PANEL. REFER TO PANEL SCHEDULE ON DRAWING E-600 FOR DETAILS.
- AUTOMATIC TRANSFER BETWEEN UTILITY BREAKER AND GENERATOR BREAKER IS ACHIEVED USING THE SOURCE TRANSFER CONTROL PANEL.
- 1200AMP SERVICE ENTRANCE I-LINE PANELBOARD.
- 100AMP NQ PANEL.
- OPTIONAL 400A SERVICE ENTRANCE RATED DISCONNECT SWITCH (PROVIDED BY OTHERS).
- CIRCUIT BREAKER WILL BE EQUIPPED WITH A MICROLOGIC 5.2S/5.3S LSI ELECTRONIC TRIP UNIT AND A SHUNT TRIP UNIT. SHUNT TRIPS SHALL BE WIRED TO EPO PANEL.
- UTILITY AND GENERATOR MAIN CIRCUIT BREAKERS SHALL BE EQUIPPED WITH MICROLOGIC 5.0 POWER TRIP UNIT AND A SHUNT TRIP UNIT. SHUNT TRIPS SHALL BE WIRED TO EPO PANEL.
- 150KVA UPS INPUT TRANSFORMER.
- 15KVA TRANSFORMER MODEL EX15T3H.
- SEE PANEL MBP-300 SCHEDULE ON DRAWING E601 FOR DETAILS.
- CONTROL WIRING.
- CONDUCTORS FROM UTILITY AND GENERATOR SHOWN AS PER WIRE SCHEDULE SHALL BE RUN IN 2-1/2" PVC SCH-80 CONDUITS.



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PROJECT INFORMATION:

**75KW DATA CENTER REFERENCE DESIGN PREFAB CONFIGURATION-11**

KEYPLAN:

REV.	DATE	DESCRIPTION
0	4/17/2019	CONCEPTUAL DRAWINGS
1		
2		

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CHECKED BY: MN

PROJECT NUMBER: DMP-XXXXXX

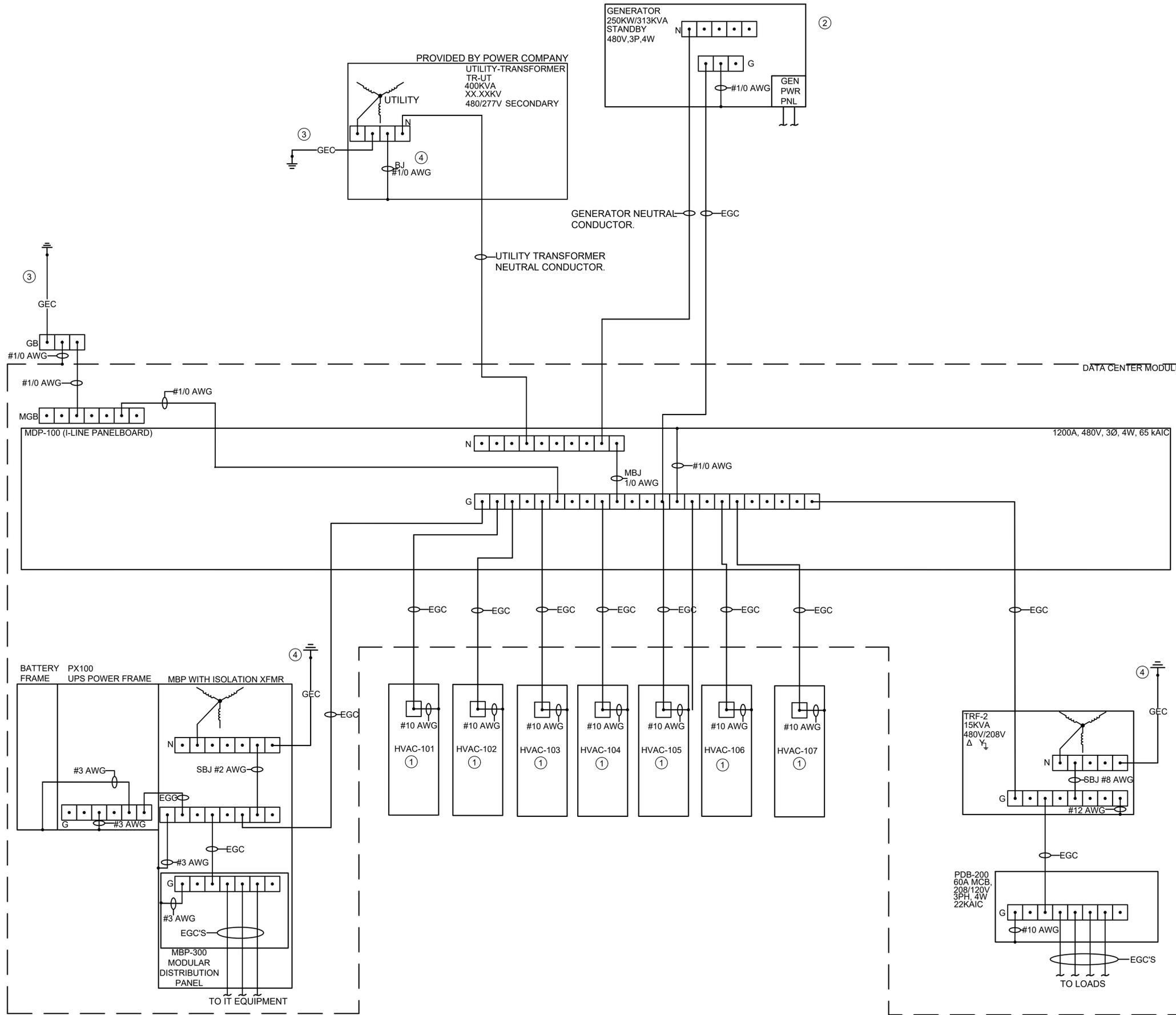
DRAWING SCALE: NONE

SHEET TITLE:  
**ELECTRICAL ONE LINE DIAGRAM CONFIGURATION-11**

DATE: 04/12/19

DRAWING NUMBER:  
**E400**

**ELECTRICAL GROUNDING DIAGRAM:**



**GENERAL NOTES:**

- SEE DRAWING E001 FOR ABBREVIATIONS AND SYMBOLS.
- SEE DRAWING E002 AND E003 FOR ELECTRICAL SPECIFICATIONS.
- SEE DRAWING E400 FOR ELECTRICAL ONE LINE DIAGRAM.
- SEE DRAWING E500 FOR ELECTRICAL DETAILS.
- SEE DRAWING E600 AND E601 FOR ELECTRICAL SCHEDULES.
- ALL GROUNDING CONNECTIONS AND BONDINGS SHALL BE BY ARTICLE 250 OF NFPA 70. EGC SIZING IS NORMALLY RUN WITH CIRCUIT CONDUCTORS. SEE DRAWING E400 AND E401 FOR ELECTRICAL ONE LINE DIAGRAMS AND E600 ELECTRICAL SCHEDULES FOR EGC SIZING DETAILS.
- REFER TO ELECTRICAL GROUNDING AND LIGHTNING PROTECTION DRAWING ON SHEET E103 FOR ADDITIONAL DETAILS.

**PLAN NOTES:**

- ① WALL MOUNT COOLING UNIT WITH HEATER(TYP.).
- ② GENERATOR GROUNDING SYSTEM IS BASED ON A NON-SEPERATELY DERIVED SYSTEM.
- ③ SEE DRAWING E103 GROUNDING AND LIGHTNING PROTECTION FOR DETAILS.
- ④ BONDING JUMPER(PROVIDED BY OTHERS) TO BE INSTALLED AS REQUIRED. ALL GROUNDING CONNECTIONS AND BONDINGS SHALL BE AS PER ARTICLE 250 AND 450 OF NFPA 70 AND SHALL MEET ALL STATE AND LOCAL CODE REQUIREMENTS.

**LEGEND:**

- EGC — EQUIPMENT GROUNDING CONDUCTOR NORMALLY RUN IN RACEWAYS WITH CIRCUIT CONDUCTORS. SIZE PER NEC.
- GEC — GROUNDING ELECTRODE CONDUCTOR.
- BJ — BONDING JUMPER. SIZE PER NEC.
- MBJ — MAIN BONDING JUMPER.
- SBJ — SYSTEM BONDING JUMPER.
- MGB MAIN GROUNDING BAR.
- N NEUTRAL BAR.
- G GROUND BAR.



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PROJECT INFORMATION:

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REFERENCE DESIGN  
PREFAB  
CONFIGURATION-11**

KEYPLAN:

REV.	DATE	DESCRIPTION
0	4/17/2019	CONCEPTUAL DRAWINGS
1		
2		

DRAWN BY: GR

CHECKED BY: MN

PROJECT NUMBER: DMP-XXXXXX

DRAWING SCALE: NONE

**SHEET TITLE:  
ELECTRICAL  
GROUNDING DIAGRAM  
CONFIGURATION-11**

DATE: 04/12/19

DRAWING NUMBER:

**E401**



DISTRIBUTION PANELBOARD 'MDP-100' SCHEDULE																
VOLTAGE	PH	WIRE	MCB (A)	MLO (A)	AIC	MOUNTING SURFACE	LOCATION MODULE	PANEL CATALOG NUMBER :								
277 / 480	3	4	1200A	1200A	65,000			LOAD (KVA)	COND. SIZE	WIRE SIZE	CIRCUIT BRKR	ITEM SERVED	CKT #			
CTK #	ITEM SERVED	CIRCUIT BRKR TRIP	P	WIRE SIZE	COND. SIZE	LOAD (KVA)	PHASE A B C	LOAD (KVA)	COND. SIZE	WIRE SIZE	P	TRIP	ITEM SERVED	CTK #		
1	UPS	175	3	4/0	2"	76.00	25.33	25.33	0.00	3"	3	350	UTILITY INPUT(1200AF BREAKER)	2		
3							8.17	8.17						4		
5							16.35	16.35						6		
7							8.17	8.17	0.00	3"	3	350	GENERATOR(1200AF BREAKER)	8		
9	HVAC-101	45	3	8	3/4"	24.52	16.35	16.35	24.52	3/4"	8	3	45	10		
11							16.35	16.35						12		
13							16.35	16.35						14		
15	HVAC-102	45	3	8	3/4"	24.52	16.35	16.35	24.52	3/4"	8	3	45	16		
17							16.35	16.35						18		
19							16.35	16.35						20		
21	HVAC-103	45	3	8	3/4"	24.52	8.17	8.17	24.52	3/4"	8	3	45	22		
23							8.17	8.17						24		
25							8.17	8.17	0.00	3/4"	8	3	45	26		
27	HVAC-104	45	3	8	3/4"	24.52	3.69	3.69						28		
29							3.69	3.69						30		
31							0.00	0.00						32		
33	TRF-2	25	3	10	3/4"	11.06	0.00	0.00						34		
35							0.00	0.00						36		
37							0.00	0.00						38		
39	SPACE						0.00	0.00						40		
41							0.00	0.00						42		
43							0.00	0.00						44		
45	SPD BREAKER	60	3	6	3/4"	0.00	0.00	0.00						46		
47							0.00	0.00						48		
							78.06	78.06								
LOAD TYPE	LOAD (KVA)	PNL	PNL	PNL	PNL	PNL	PNL	PNL	PNL	PNL	TOTAL (KVA)	DEM FAC	DEM LD	NOTES		
UPS	76.00	-	-	-	-	-	-	-	-	-	76.00	1.00	76.00			
HVAC-101	24.52	-	-	-	-	-	-	-	-	-	24.52	1.00	24.52			
HVAC-102	24.52	-	-	-	-	-	-	-	-	-	24.52	1.00	24.52			
HVAC-103	24.52	-	-	-	-	-	-	-	-	-	24.52	1.00	24.52			
HVAC-104	24.52	-	-	-	-	-	-	-	-	-	24.52	1.00	24.52			
HVAC-105	24.52	-	-	-	-	-	-	-	-	-	24.52	1.00	24.52			
HVAC-106	24.52	-	-	-	-	-	-	-	-	-	24.52	1.00	24.52			
HVAC-107(REDUNDANT)	0.00	-	-	-	-	-	-	-	-	-	0.00	1.00	0.00			
TRF-2	11.06	-	-	-	-	-	-	-	-	-	11.06	1.00	11.06			
											234.18		234.18	TOTAL KVA		
25 % OF Largest Motor Load	2.28	-	-	-	-	-	-	-	-	-	2.28	1.00	2.28			
25 % OF UPS Continuous Load plus Battery Charging	31.20	-	-	-	-	-	-	-	-	-	31.20	1.00	31.20			
25 % OF TRF-2's Continuous Loads	2.03	-	-	-	-	-	-	-	-	-	2.03	1.00	2.03			
											269.69		269.69	SUM TOTAL KVA(125% CONTINUOUS LOAD+ 100% NON CONTINUOUS LOAD+100% MOTOR LOADS+ 25% LARGEST MOTOR LOAD)		
											324.38		324.38	TOTAL AMPS		

DISTRIBUTION PANELBOARD 'PDB-200' SCHEDULE																
VOLTAGE	PH	WIRE	MCB (A)	MLO (A)	AIC	MOUNTING SURFACE	LOCATION MODULE	PANEL CATALOG NUMBER :								
120/ 208	3	4	60	22,000	22,000			LOAD (KVA)	COND. SIZE	WIRE SIZE	CTK. BRK	ITEM SERVED	CTK #			
CTK #	ITEM SERVED	CTK. BRK TRIP	P	WIRE SIZE	COND. SIZE	LOAD (KVA)	PHASE A B C	LOAD (KVA)	COND. SIZE	WIRE SIZE	P	TRIP	ITEM SERVED	CTK #		
1	ERV & DAMPER SYSTEM	20	1	12	3/4"	0.60	1.20	0.60	3/4"	12	1	20	FIRE SUPPRESSION	2		
3	RECEPTACLES	20	1	12	3/4"	1.26	1.26	0.00			1	20	SPARE	4		
5							3.50	3.50	1.00	3/4"	12	1	20	CONTROLS POWER	6	
7	GENERATOR POWER PANEL	30	2	10	3/4"	5.00	3.50	1.00	3/4"	12	1	20	EXTERIOR LIGHTING	8		
9	INTERIOR LIGHTING	20	1	12	3/4"	0.50	1.05	1.10	3/4"	12	2	15	HUMIDIFIER(OPTIONAL)	10		
11								0.00			1	20	SPARE	12		
13	SPACE												SPARE	14		
15													SPARE	16		
17													SPARE	18		
19													SPARE	20		
21													SPARE	22		
23													SPARE	24		
25													SPARE	26		
27													SPARE	28		
29													SPARE	30		
LOAD TYPE	LOAD (KVA)	PNL	PNL	PNL	PNL	PNL	PNL	PNL	PNL	PNL	TOTAL (KVA)	DEM FAC	DEM LD	NOTES		
ERV & DAMPER SYSTEM	0.60	-	-	-	-	-	-	-	-	-	0.60	1.00	0.60			
FIRE SUPPRESSION	0.60	-	-	-	-	-	-	-	-	-	0.60	1.00	0.60			
RECEPTACLES	1.26	-	-	-	-	-	-	-	-	-	1.26	1.00	1.26			
HUMIDIFIER(OPTIONAL)	1.10	-	-	-	-	-	-	-	-	-	1.10	1.00	1.10			
GENERATOR POWER PANEL	5.00	-	-	-	-	-	-	-	-	-	5.00	1.00	5.00			
CONTROLS POWER	1.00	-	-	-	-	-	-	-	-	-	1.00	1.00	1.00			
INTERIOR LIGHTING	0.50	-	-	-	-	-	-	-	-	-	0.50	1.00	0.50			
EXTERIOR LIGHTING	1.00	-	-	-	-	-	-	-	-	-	1.00	1.00	1.00			
SPARE	0.00	-	-	-	-	-	-	-	-	-	0.00		0.00			
SPARE	0.00	-	-	-	-	-	-	-	-	-	0.00		0.00			
											11.06		11.06	TOTAL KVA		
25% Of Continuous Loads	2.03	-	-	-	-	-	-	-	-	-	2.30	1.00	2.30			
											13.36		13.36	SUM TOTAL KVA(125% CONTINUOUS LOAD+ 100% NON CONTINUOUS LOAD)		
											37.08		37.08	TOTAL AMPS		

3-WIRE FEEDER SIZING SCHEDULE				
SYMBOL	# OF SETS	CONDUCTORS (COPPER)	GND.	CONDUIT
3W-15	1	3 #12	#12	3/4"
3W-20	1	3 #12	#12	3/4"
3W-25	1	3 #10	#12	3/4"
3W-30	1	3 #10	#10	3/4"
3W-35	1	3 #8	#10	3/4"
3W-40	1	3 #8	#10	3/4"
3W-45	1	3 #8	#10	3/4"
3W-50	1	3 #8	#10	3/4"
3W-60	1	3 #6	#10	3/4"
3W-70	1	3 #4	#8	1"
3W-80	1	3 #4	#8	1"
3W-90	1	3 #3	#8	1-1/4"
3W-100	1	3 #3	#8	1-1/4"
3W-110	1	3 #2	#6	1-1/4"
3W-125	1	3 #1	#6	1-1/4"
3W-150	1	3 1/0	#6	1-1/2"
3W-175	1	3 2/0	#6	2"
3W-200	1	3 3/0	#6	2"
3W-225	1	3 4/0	#4	2"
3W-250	1	3 250 MCM	#4	2-1/2"
3W-300	1	3 350 MCM	#4	2-1/2"
3W-350	1	3 500 MCM	#3	3"
3W-400	2	3 3/0	#3	2"
3W-450	2	3 4/0	#2	2"
3W-500	2	3 250 MCM	#2	2-1/2"
3W-600	2	3 350 MCM	#1	2-1/2"
3W-700	2	3 500 MCM	1/0	3"
3W-800	3	3 300 MCM	1/0	2-1/2"
3W-1000	3	3 400 MCM	2/0	2-1/2"
3W-1200	4	3 350 MCM	3/0	2-1/2"
3W-1600	5	3 400 MCM	4/0	2-1/2"
3W-2000	6	3 400 MCM	250 MCM	2-1/2"
3W-2500	7	3 500 MCM	350 MCM	3"
3W-3000	8	3 500 MCM	400 MCM	3"
3W-4000	11	3 500 MCM	500 MCM	3"
3W-5000	11	3 700 MCM	700 MCM	3-1/2"
3W-6000	13	3 750 MCM	800 MCM	3-1/2"

+ WHERE THE FEEDER SYMBOL IS SHOWN WITH A SUBSCRIPT 'IG', THE FEEDER SHALL BE PROVIDED WITH A SEPERATE ISOLATED GROUND CONDUCTOR SIZED TO MATCH THE EQUIPMENT GROUND.

-CONDUCTOR SIZING BASED ON NEC TABLE 310.15(B)(16) FOR COPPER CONDUCTORS RATED AT 75°C.

-EQUIPMENT GROUNDING CONDUCTOR SIZING BASED ON NEC TABLE 250.122 FOR COPPER CONDUCTORS.

-CONDUIT SIZING BASED ON NEC TABLE C.1 FOR TYPE THHN, THWN, THWN-2 CONDUCTORS IN ELECTRICAL METALLIC TUBING.

4-WIRE FEEDER SIZING SCHEDULE				
SYMBOL	# OF SETS	CONDUCTORS (COPPER)	GND.	CONDUIT
4W-15	1	4 #12	#12	3/4"
4W-20	1	4 #12	#12	3/4"
4W-25	1	4 #10	#12	3/4"
4W-30	1	4 #10	#10	3/4"
4W-35	1	4 #8	#10	3/4"
4W-40	1	4 #8	#10	3/4"
4W-45	1	4 #8	#10	3/4"
4W-50	1	4 #8	#10	3/4"
4W-60	1	4 #6	#10	1"
4W-70	1	4 #4	#8	1-1/4"
4W-80	1	4 #4	#8	1-1/4"
4W-90	1	4 #3	#8	1-1/4"
4W-100	1	4 #3	#8	1-1/4"
4W-110	1	4 #2	#6	1-1/4"
4W-125	1	4 #1	#6	1-1/2"
4W-150	1	4 1/0	#6	2"
4W-175	1	4 2/0	#6	2"
4W-200	1	4 3/0	#6	2"
4W-225	1	4 4/0	#4	2-1/2"
4W-250	1	4 250 MCM	#4	2-1/2"
4W-300	1	4 350 MCM	#4	3"
4W-350	1	4 500 MCM	#3	3"
4W-400	2	4 3/0	#3	2"
4W-450	2	4 4/0	#2	2-1/2"
4W-500	2	4 250 MCM	#2	2-1/2"
4W-600	2	4 350 MCM	#1	3"
4W-700	2	4 500 MCM	1/0	3"
4W-800	3	4 300 MCM	1/0	2-1/2"
4W-1000	3	4 400 MCM	2/0	3"
4W-1200				

SYSTEM LOAD CALCULATION		
ITEM	LOAD	UNIT
CRITICAL LOAD	76.000	KVA
HVAC 101	24.520	KVA
HVAC 102	24.520	KVA
HVAC 103	24.520	KVA
HVAC 104	24.520	KVA
HVAC 105	24.520	KVA
HVAC 106	24.520	KVA
HVAC 107(REDUNDANT)	0.000	KVA
ERV & DAMPER SYSTEM	0.600	KVA
FIRE SUPPRESSION	0.600	KVA
RECEPTACLES	1.260	KVA
HUMIDIFIER(OPTIONAL)	0.600	KVA
GENERATOR POWER PANEL	5.400	KVA
CONTROLS POWER	1.000	KVA
INTERIOR LIGHTING	0.6	KVA
LOBBY VENTILATION	0.12	KVA
EXTERIOR LIGHTING	1	KVA
<b>TOTAL KVA</b>	<b>234.300</b>	<b>KVA</b>

DISTRIBUTION PANELBOARD 'MBP-300' SCHEDULE																
VOLTAGE	PH	WIRE	MCB (A)	MLO (A)	AIC	MOUNTING	LOCATION	PANEL CATALOG NUMBER								
120/ 208	3	4	400		65,000	SURFACE	MODULE									
CKT #	ITEM SERVED	CKT. TRIP	BRK P	WIRE SIZE	COND. SIZE	LOAD (KVA)	PHASE	LOAD (KVA)	COND. SIZE	WIRE SIZE	CKT. P	BRK TRIP	ITEM SERVED	CKT #		
							A B C									
1	RACK#1	30	3	10		6.25	4.17			6.25		10	3	30	RACK#8	2
3							4.17									4
5							4.17									6
7	RACK#2	30	3	10		6.25	4.17			6.25	10	3	30	RACK#9	8	
9							4.17								10	
11							4.17								12	
13	RACK#3	30	3	10		6.25	4.17	4.17		6.25	10	3	30	RACK#10	14	
15							4.17	4.17							16	
17							4.17	4.17							18	
19	RACK#4	30	3	10		6.25	4.17			6.25	10	3	30	RACK#11	20	
21							4.17								22	
23							4.17								24	
25	RACK#5	30	3	10		6.25	4.17			6.25	10	3	30	RACK#12	26	
27							4.17								28	
29							4.17								30	
31	RACK#6	30	3	10		6.25	2.08	2.08						SPACE	32	
33							2.08	2.08							34	
35							2.08	2.08							36	
37	RACK#7	30	3	10		6.25	2.08	2.08						SPACE	38	
39							2.08	2.08							40	
41							2.08	2.08							42	
43	SPACE						0.00							SPACE	44	
45							0.00								46	
47							0.00								48	
49	SPACE						0.00							SPACE	50	
51							0.00								52	
53							0.00								54	
55	SPACE						0.00							SPACE	56	
57							0.00								58	
59							0.00								60	
61	SPACE						0.00							SPACE	62	
63							0.00								64	
65							0.00								66	
67	CP-100	15	1	12		1.00	1.00							SPACE	68	
69	SPARE	15	1			0.00	0.00								70	
71	SPARE	15	1			0.00	0.00								72	
							26.00	25.00	25.00							
NOTES:										76.00	TOTAL KVA					
DEMAND FACTOR IN ACCORANCE WITH NEC.										210.95	TOTAL AMPS					
RACKS HAVE (N) DISTRIBUTION. OPTIONAL UPGRADE TO (2N) DISTRIBUTION SHALL BE AVAILABLE ON REQUEST.																

**PLAN NOTES:**

- ① POWER SHALL BE DISTRIBUTED TO IT RACKS AND CONTROL PANEL LOAD THROUGH CABLE TRAYS.



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PROJECT INFORMATION:  
**75KW DATA CENTER  
REFERENCE DESIGN  
PREFAB  
CONFIGURATION-11**

KEYPLAN:

REV.	DATE	DESCRIPTION
0	4/17/2019	CONCEPTUAL DRAWINGS
1		
2		

DRAWN BY: GR

CHECKED BY: MN

PROJECT NUMBER: DMP-XXXXXX

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