Panelboard: MDP Location: GF EE Room Mounting : SURFACE Voltage System: 230V, 3-PHASE, 3-WIRE + G, 60Hz NEMA 1 Enclosure:

PNL No.	I PANELBOARD DESIGNATION	2000 N	Qty. of	Qty. (Other Loads)	VOLT- AMPS	VOLTS	PHASE / LINE CURRENT				CIRC	UIT BRE	AKER	No. OF WIRE & SIZE	CONDUIT
NO.		C.O.	L.O.				ØAB	ØCA	ØBC	ØABC	AT	AF	P	CONDUCTOR (mm²)	(mmø)
1	DP-1	129	236	30	78314	230	62.94	67.47	63.18	84.82	250	250	3	3- 125mm² THHN + 1- 22mm² THHN G	80
2	DP-2	127	229	47	93799	230	87.71	87.79	85.42	84.82	300	400	3	3- 200mm2 THHN + 1- 22mm2 THHN G	80
3	DP-3	166	297	61	121514	230	102.17	101.97	96.55	131.43	450	600	3	2 x (3- 100mm ² THHN + 1- 14mm ² THHN G)	2 x 65
4	ELEVATOR			1	7875	230				19.77	50	100	3	3- 5.5mm2 THHN + 1-5.5mm2 THHN G	20
5	Pump- 2 x 7.5 HP			1	17528	230				44.00	80	100	3	3- 14mm2 THHN + 1- 5.5mm2 THHN G	32
	FEEDER/ MAIN OCP	422	762	139	319030	230	252.82	257.23	245.15	364.83	800	800	3	3 x (3- 150mm2 THHN + 1- 22mm2 THHN G)	3 x 80

I(total)wire = (539.95A - 184.29A+ 1.732 x 257.23A) x 0.70 D.F. + 0.25 588.45 A x 8.4 x 7.5 = |(total)ocp = (539.95A - 184.28A + 1.732 x 257.23A) x 0.70 D.F. + 0.75 630.86 A x 84.82A=

KVA (total) = 1.732 x 588.45A x 230V/ 1000 = USE: Standby AC Generator, 300KVA, 3-Phase, 230Vac, 60 Hz

	Panelboard: DP-FP Voltage System: 230V, 3-PHASE, 3-WII	RE + G, 6	i0Hz		Location: GF EE Room Mounting : SURFACE Enclosure: NEMA 1										
PNL No.	PANELBOARD DESIGNATION	Cothe		Qty. (Other	VOLT- AMPS	VOLTS	PHASE / LINE CURRENT				CIRCUIT BREAKER			No. OF WIRE & SIZE	CONDUIT
NO.		C.O.	L.O.	Loads)	AIVIPS		ØAB	ØСА	ØBC	ØABC	AT	AF	P	CONDUCTOR (mm²)	(mmø)
1	FP-1			1	68750	230				172.58	1000	1000	3	3-100m m 2 + 14m m 2 THHN G	65
2	JP-1	129	0	0	4663	230				11.70	20	100	3	3- 3.5mm 2 THHN + 3.5mm 2 THHN G	15
3	SPACE											100	3		
	FEEDER/ MAIN OCP	129	0	1	73413	230	0.00	0.00	0.00	184.29	1200	1200	3	3- 125mm² THHN + 1- 22mm² THHN G	80
	I (total) wire = 179.31A + 0.25 x 172.58A : I (total) ocp = 6 x 172.58A + 6.73A =		227.43 1047.20												

Panelboard: DP-1 Location: GF EE Room Mounting : SURFACE PANELBOARD DESIGNATION | Qty. of | C.O. | C. 2 PP-1 3 PPM-1 4 SPARE

	Panelboard: LP-1				Location	n: GF EE	Room	Mountin	ıg:	SURFAC	E				
	Voltage System: 230V, 3-PHASE, 3-WI		Enclosu				re:	NEMA:	1						
αкт.	LOAD DESCRIPTION	Quy. or Quy. or		Qty. (Other	VOLT-	VOLTS	PH/	PHASE / LINE CURR			CIRCUIT BREAKER			No. OF WIRE & SIZE	CONDUIT
No.		CO.	L.O.	Loads)	I AIMPS I		ØAB	ØCA	ØBC	ØABC	ΑT	AF	Р	CONDUCTOR (mm²)	(mmø)
1	L.O		38		1419	230	6.17				20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
2	L.O. (Stairs)		17		337	230	1.46				20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
3	L.O		36		1525	230		6.63			20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
4	L.O		27		1190	230		5.17			20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
5	L.O		38	1	1321	230			5.75		20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
6	L.O		30		1076	230			4.68		20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
7	L.O		50		604	230	2.63				20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
8	SPARE		0		0	230	0.00				20	100	2		
9	SPARE		0		0	230		0.00			20	100	2		
10	SPARE					230					20	100	2		
	FEEDER/ MAIN OCP	0	236	1	7472	230	10.26	11.80	10.42	0.00	100	100	3	3-30mm2THHN+1-8.0mm2THHNG	40
	$I(total) = 0.00A + 1.25 \times 1.732 \times 11.80A$	=			25.55	Α									
	Load Computation:														
	General Lighting: 1436 sq.m x 24 VA/s	34464	VA												
	I(total) = 34,464 VA/ (1.732 x 230 Vac	86.51	A												



	PANEL: PP-1 SYSTEM: 230V, 3-PHASE, 3-WI	RE + G, 6	50Hz			n: GF EE		Enclosu	_	NEMA	1				
акт.	LOAD DESCRIPTION		Qty. of	Qty. (Other	VOLT-	VOLTS	PHA	PHASE / LINE CURREN			CIRC	UIT BE	REAKER	No. OF WIRE & SIZE	CONDUIT
No.		1 CO. 1 LO. 1		Loads)	AMPS		ØAB	ØCA	ØBC	ØABC	AT	AF	P	CONDUCTOR (mm²)	(mmø)
1	C.O. (Open Air Lobby)	10			1800	230	7.83				20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
2	C.O. (Toilet)	1			1800	230	7.83				20	100	2	$2-3.5$ m m 2 THHN + $1-3.5$ m m 2 THHN G	15
3	C.O Elevator pump (1 HP?)	1			2300	230		10.00			20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
4	C.O. (Dental, Physician, Dental)	11			2200	230		9.57			20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
5	C.O. (Nurse Station, Med. Records, Bed)	11			1980	230			8.61		20	100	2	$2-3.5$ m m 2 THHN + $1-3.5$ m m 2 THHN G	15
6	C.O. (Hand Dryer MT)	1			1800	230			7.83		20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
7	C.O. (Hallway, Receiving, Bundy)	10			1800	230	7.83				20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
8	C.O. (GSO Staff)	6			1200	230	5.22				20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
9	C.O. (Outside)	5			900	230		3.91			20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
10	C.O. (Gallery, Reception)	12			2400	230		10.43			20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
11	C.O. (CCTV Room)	4			2000	230			8.70		20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
12	C.O. (PTA, Cashiers)	9			1620	230			7.04		20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
13	C.O. (Hand Dryer FT)	1			1800	230	7.83				20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
14	C.O. (GSO Staff)	5			1000	230	4.35				20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
15	C.O. (Fire Exit)	1			500	230		2.17			20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
16	C.O. (Common Pantry)	1			1500	230		6.52			20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
17	C.O. (Registrar, Pump, EE, Records)	13			2340	230			10.17		20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
18	C.O. (Supply Storage, Property Office)	9			1620	230			7.04		20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
19	C.O. (Outside)	5			900	230	3.91				20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
20	C.O. (Refrigerator, Water dispenser)	2			1050	230	4.57				20	100	2	2-3.5m m ² THHN + 1-3.5m m ² THHN G	15
21	C.O. (Registrar)	11			2200	230		9.57			20	100	2	2-3.5m m² THHN + 1-3.5m m² THHN G	15
22	SPARE					230		0.00			20	100	2		
	FEEDER/ MAIN OCP	129	0	0	34710	230	49.35	52.17	49.39	0.00	125	250	3	3- 38m m 2 THHN + 1- 14m m 2 THHN G	50

	PANEL: PPM-1 SYSTEM: 230V, 3-PHASE,		Location: GF EE Room			Mounting: SURFAC Enclosure: NEMA 1		1000							
скт.	LOAD DESCRIPTION		f Qty. of	Qty. (Other	VOLT-	VOLTS	PH	PHASE / LINE CURRENT			CIRCUIT BREAKER			No. OF WIRE & SIZE	CONDUIT
No.			C.O. L.O.		AMPS		ØAB	ØCA	ØBC	ØABC	AT	AF	Р	CONDUCTOR (mm²)	(mmø)
1	ACCU-15TR			1	16894	230				42.41	70	100	3	3- 14mm² THHN + 1- 5.5mm² THHN G	32
2	ACCU-15TR			1	16894	230				42.41	70	100	3	3- 14mm² THHN + 1- 5.5mm² THHN G	32
3	FCU- 1u@1TR, 1u@1.5TR (Ex Ckt. 8)			2	98	230	0.42				20	100	2	2- 3.5mm² THHN + 1- 3.5mm² THHN G	15
4	FCU- 2u@2.5TR (Ex Ckt. 7)			2	362	230	1.58				20	100	2	2- 3.5mm² THHN + 1- 3.5mm² THHN G	15
5	TF-1- 1 u (Ex Ckt. 9)			1	235	230		1.02			20	100	2	2- 3.5mm² THHN + 1- 3.5mm² THHN G	15
6	FCU- 1u@1TR, 1u@2TR			2	98	230		0.42			20	100	2	2- 3.5mm² THHN + 1- 3.5mm² THHN G	15
7	FCU- 3u@2.5TR, 1u@1TR (Ex Ckt. 4)			4	579	230			2.52		20	100	2	2- 3.5mm ² THHN + 1- 3.5mm ² THHN G	15
8	FCU- 2u@2TR, 2u@1TR (Ex Ckt. 3)			4	195	230			0.85		20	100	2	2- 3.5mm2 THHN + 1- 3.5mm2 THHN G	15
9	FCU- 2u@1.5TR, 1u@2.5TR (Ex Ckt.5)			3	306	230	1.33				20	100	2	2- 3.5mm² THHN + 1- 3.5mm² THHN G	15
10	SPARE					230	0.00				20	100	2		
11	EXH-1- 2 u			2	471	230		2.05			20	100	2	2- 3.5mm² THHN + 1- 3.5mm² THHN G	15
12	SPARE					230		0.00	_		20	100	2		
	FEEDER/ MA	N OCP		22	36132	230	3.33	3.49	3.37	84.82	125	250	3	3- 30mm2 THHN + 1- 8.0mm2 THHN G	40

I(total)wire = 84.82A + 0.25 x 42.41A + 1.732 x 3.49A = I(total)ocp = 84.82A + 0.75 x 42.41A + 1.732 x 3.49A = 122.68 A

Panelboard: DP-2 Location: 2F EE Room Mounting: SURFACE Voltage System: 230V, 3-PHASE, 3-WIRE + G, 60Hz Enclosure: NEMA 1

PNL No.	PANELBOARD DESIGNATION		Qty. of L.O.			Qty. (Other	VOLT-	VOLTS	PH	ASE / LIN	IE CURRE	NT	CIRC	UIT B	REAKER	No. OF WIRE & SIZE	CONDUIT
NO.		C.O.		Loads)	AMPS		ØAB	ØCA	ØBC	ØABC	AT	AF	Р	CONDUCTOR (mm²)	(mmø)		
1	LP-2	0	229	25	12161	230	18.58	17.63	16.67	0.00	100	100	3	3- 30mm2 THHN + 1- 8.0mm2 THHN G	40		
2	PP-2	127	0	0	46360	230	66.96	68.13	66.48	0.00	125	250	3	4- 38mm2 THHN + 1- 14mm2 THHN G	50		
3	PPM-2	0	0	22	35278	230	2.18	2.03	2.27	84.82	150	250	3	3- 50mm2 THHN + 1- 14mm2 THHN G	50		
4	SPARE										100	100	3				
	FEEDER/ MAIN OCP	127	229	47	93799	230	87.71	87.79	85.42	84.82	300	400	3	3- 200mm ² THHN + 1- 22mm ² THHN G	80		
	I(total)wire = 84.82A + 0.25 x 42.41A + 1.732 x 87.79A =					A									_		

I(total)ocp = 84.82A + 0.75 x 42.41A + 1.732 x 87.79A = 268,676 A

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