

PANELBOARD (Ground Floor)														
CKT NO.	LOAD DESCRIPTION	NO. OF OUTLETS	Voltage	Volt Ampere	AMP. CKT.	Phase Current			CURRENT		SIZE OF WIRE		CONDUIT SIZE	
						AB	BC	CA	AT	AF	mm²	Type	mm²	Type
1	Lighting Outlet	17	230	1700	7.39	7.39			15	50	3-2.0	THHN	20	PVC/FLEX. HOSE
2	Lighting Outlet	17	230	1700	7.39	7.39			15	50	3-2.0	THHN	20	PVC/FLEX. HOSE
3	Lighting Outlet	18	230	1800	7.83		7.83		15	50	3-2.0	THHN	20	PVC/FLEX. HOSE
4	Lighting Outlet	13	230	1300	5.65		5.65		15	50	3-2.0	THHN	20	PVC/FLEX. HOSE
5	Lighting Outlet	17	230	1700	7.39			7.39	15	50	3-2.0	THHN	20	PVC/FLEX. HOSE
6	Lighting Outlet	16	230	1600	6.96			6.96	15	50	3-2.0	THHN	20	PVC/FLEX. HOSE
7	Lighting Outlet	12	230	1200	5.22	5.22			15	50	3-2.0	THHN	20	PVC/FLEX. HOSE
8	Lighting Outlet	10	230	1000	4.35	4.35			15	50	3-2.0	THHN	20	PVC/FLEX. HOSE
9	Convenience Outlet	7	230	2520	10.96		10.96		20	50	3-3.5	THHN	20	PVC/FLEX. HOSE
10	Convenience Outlet	6	230	2160	9.39		9.39		20	50	3-3.5	THHN	20	PVC/FLEX. HOSE
11	Convenience Outlet	5	230	1800	7.83			7.83	20	50	3-3.5	THHN	20	PVC/FLEX. HOSE
12	Convenience Outlet	6	230	2160	9.39			9.39	20	50	3-3.5	THHN	20	PVC/FLEX. HOSE
13	Convenience Outlet	4	230	1440	6.26	6.26			20	50	3-3.5	THHN	20	PVC/FLEX. HOSE
14	2Hp ACU	1	230		12.00	12.00			30	50	3-5.5	THHN	20	PVC/FLEX. HOSE
15	2Hp ACU	1	230		12.00		12.00		30	50	3-5.5	THHN	20	PVC/FLEX. HOSE
16	3Hp ACU	1	230		15.00		15.00		30	50	3-5.5	THHN	20	PVC/FLEX. HOSE
17	2Hp ACU	1	230		12.00			12.00	30	50	3-5.5	THHN	20	PVC/FLEX. HOSE
18	2Hp ACU	1	230		12.00			12.00	30	50	3-5.5	THHN	20	PVC/FLEX. HOSE
19	2Hp ACU	1	230		12.00	12.00			30	50	3-5.5	THHN	20	PVC/FLEX. HOSE
20	2Hp ACU	1	230		12.00	12.00			30	50	3-5.5	THHN	20	PVC/FLEX. HOSE
21	Exhaust Fan	2	230	1000	4.35		4.35		20	50	3-3.5	THHN	20	PVC/FLEX. HOSE
22	Spare (Convenience Outlet)	3	230	1080	4.70		4.70		20	50				
23	Spare (Convenience Outlet)	5	230	1800	7.83			7.83	20	50				
24	Spare (Convenience Outlet)	5	230	1800	7.83			7.83	20	50				
						66.61	69.87	71.22						

Line Current = 71.22 * 1.73
= 123.21 A

For Feeder Conductor = 1.25 * 123.21 A = 154.01 A
3 - 50mm² THHN cu.wire in 65mm PVC Pipe/Flexible Hose Spiral

For Feeder Protection = Use 125AT,150AF, 3Phase 230V, 60Hz, MCCB Bolt on Type

PANEL BOARD (PB2) SECOND FLOOR														
CKT.NO	LOAD DESCRIPTION	NO. OF OUTLETS	VOLTAGE	TOTAL VA	AMP/CKT.	AMP./PHASE			CKT. PROTECTION		SIZE OF WIRE		SIZE OF CONDUIT	
						AB	BC	CA	AT	AF	mm²	TYPE	mm²	TYPE
1	Lighting Outlet	21	230	2100	9.13	9.13			15	50	3-2.0	THHN	20	PVC
2	Lighting Outlet	16	230	1600	6.96	6.96			15	50	3-2.0	THHN	20	PVC
3	Lighting Outlet	12	230	1200	5.22		5.22		15	50	3-2.0	THHN	20	PVC
4	Lighting Outlet	9	230	900	3.91		3.91		15	50	3-2.0	THHN	20	PVC
5	Lighting Outlet	16	230	1600	6.96			6.96	15	50	3-2.0	THHN	20	PVC
6	Lighting Outlet	15	230	1500	6.52			6.52	15	50	3-2.0	THHN	20	PVC
7	Lighting Outlet	6	230	600	2.61	2.61			15	50	3-2.0	THHN	20	PVC
8	Lighting Outlet	15	230	1500	6.52	6.52			15	50	3-2.0	THHN	20	PVC
9	Lighting Outlet	12	230	1200	5.22		5.22		15	50	3-2.0	THHN	20	PVC
10	Convenience Outlet	9	230	3240	14.09		14.09		20	50	3-3.5	THHN	20	PVC
11	Convenience Outlet	8	230	2880	12.52			12.52	20	50	3-3.5	THHN	20	PVC
12	Convenience Outlet	7	230	2520	10.96			10.96	20	50	3-3.5	THHN	20	PVC
13	2 HP Airconditioning Unit	1	230		12.00	12.00			30	50	3-5.5	THHN	20	PVC
14	2 HP Airconditioning Unit	1	230		12.00	12.00			30	50	3-5.5	THHN	20	PVC
15	2 HP Airconditioning Unit	1	230		12.00		12.00		30	50	3-5.5	THHN	20	PVC
16	2 HP Airconditioning Unit	1	230		12.00		12.00		30	50	3-5.5	THHN	20	PVC
17	2 HP Airconditioning Unit	1	230		12.00			12.00	30	50	3-5.5	THHN	20	PVC
18	2 HP Airconditioning Unit	1	230		12.00			12.00	30	50	3-5.5	THHN	20	PVC
19	2 HP Airconditioning Unit	1	230		12.00	12.00			30	50	3-5.5	THHN	20	PVC
20	SPARE													
21	SPARE													
22	SPARE													
Total						61.22	52.43	60.96						

Line Current = (1.73) x 61.22
= 105.91 A

For Feeder Conductor = 1.25 x 105.91 A = 132.38 A
Use 3 - 50mm² THHN cu.wire in 50mm PVC Pipe

For Feeder Protection Use 130AT,130AF, 3Phase 230V, 60Hz, MCCB Bolt on Type

MAIN DISTRIBUTION PANEL														
CKT.NO	LOAD DESCRIPTION	NO. OF OUTLETS	VOLTAGE	TOTAL VA	AMP/CKT.	AMP./PHASE			CKT. PROTECTION		SIZE OF WIRE		SIZE OF CONDUIT	
						AB	BC	CA	AT	AF	mm²	TYPE	mm²	TYPE
1	PANEL BOARD 1		230		126.89						65	THHN	65	PVC
2	PANEL BOARD 2		230		105.91						50	THHN	50	PVC
						232.80								

Line Current =
= 232.80 A

For Feeder Conductor = 1.25 x 232.80 A = 291.00 A
Use 3 - 150mm² THHN cu.wire in 80mm PVC Pipe

For Feeder Protection Use 300AT,300AF, 3Phase 230V, 60Hz, MCCB Bolt on Type



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