Electrical Load Calculation - Migsun Atharva Ghaziabad UP (Plot - A)

S.no	Description	No. of unit		Load per Unit				Total Load		
	Sub Head - (A)									
1	Tower - A	296	units	@	5.00	KW		=	1480	KW
2	Tower - B	124	units	@	6.00	KW		=	744	KW
3	Tower - C	266	units	@	5.00	KW		=	1330	KW
4	Tower - D	86	units	@	10.00	KW		=	860	KW
5	Service Apartments	77	units	@	3.00	KW		=	231	KW
					Total Load (A)			**=**	**4645**	**KW**
	By taking Overall Diversity factor					**50**	**%**	**=>**	**2323**	**KW**
	Sub Head - (B)									
6	Commerical (Shoping & Multilpex)	20299	sqm	@	120	W/sqm		=	2436	KW
					Total Load (B)			**=**	**2436**	**KW**
	By taking Overall Diversity factor					**75**	**%**	**=>**	**1827**	**KW**
					Total Load (A+B)			**=**	**4149**	**KW**
	By taking Power factor					**0.90**		**=>**	**4610**	**KVA**
Electrical Load = 4610 KVA										
Recommended Transformer for Residential units & Commercial = 15 Nos. 400 KVA.										
	Sub Head - (C)									
	Common Services (Towers)	**Nos of Tower**			**=**	**5**				
7	Elevators	26	nos	@	12	KW		=	312	KW
8	Escalator	14	nos	@	10	KW		=	140	KW
9	Common Lights	5	towers	@	5	KW		=	25	KW
	Common Services - General									
10	Community Hall							=	75	KW
11	Tube wells/Water Supply Pumps	1	Job	@	55	KW		=	55	KW
12	STP	1	Job	@	55	KW		=	55	KW
13	External / Gate / Landscape lighting	1	Set	@	8	KW		=	8	KW
14	Basement lighting	55767	sqm	@	0.7	W/sqm		=	39	KW
15	Basement Ventillation							=	100	KW
16	Fire pumps (only jockey pumps have been considered)	2	set	@	10	KW		=	20	KW
					Total Load (C)			**=**	**829**	**KW**
	By taking Overall Diversity factor					**70**	**%**	**=>**	**580**	**KW**
	By taking Power factor					**0.90**		**=>**	**640**	**KVA**
Electrical Load = 640 KVA										
Recommended Transformer for Common Servies = 2 Nos. 400 KVA.										

Essential Electrical Load Calculation - Migsun Atharva Ghaziabad UP (Plot - A)										
S.no	**Description**	**No. of unit**		**Load per Unit**				**Total Load**		
	Sub Head - (A)									
1	Tower - A	296	units	@	1.00	KVA		=	296	KVA
2	Tower - B	124	units	@	1.00	KVA		=	124	KVA
3	Tower - C	266	units	@	1.00	KVA		=	266	KVA
4	Tower - D	86	units	@	1.00	KVA		=	86	KVA
5	Service Apartments	77	units	@	1.00	KVA		=	77	KVA
						Total Load (A)		**=**	**849**	**KVA**
						By taking Overall Diversity factor	**90**	**%**	**=>**	**764**	**KVA**
						Electrical Load - (A) = 764 KVA					
	Sub Head - (B)									
6	Commerical (Shoping & Multilpex)	20299	sqm	@	120.0	W/sqm		=	2436	KW
						Total Load (B)		**=**	**2436**	**KW**
						By taking Overall Diversity factor	**75**	**%**	**=>**	**1827**	**KW**
						By taking Power factor	**0.80**		**=>**	**2284**	**KVA**
						Electrical Load - (B) = 2284 KVA					
	Sub Head - (C)									
	Common Services (Towers)	**Nos of Tower**			**=**	**5**				
7	Elevators	26	nos	@	12	KW		=	312	KW
8	Escalator	14	towers	@	10	KW		=	140	KW
9	Common Lights	5	towers	@	5	KW		=	25	KW
	COMMON SERVICES - General									
10	Community Hall							=	75	KW
11	Tube wells/Water Supply Pumps	1	Job	@	55	KW		=	55	KW
12	STP	1	Job	@	55	KW		=	55	KW
13	External / Gate / Landscape lighting	1	Set	@	8	KW		=	8	KW
14	Basement lighting	55767	sqm	@	0.7	W/sqm		=	39	KW
15	Basement Ventillation							=	100	KW
16	Fire pumps (only jockey pumps have been considered)	2	set	@	10	KW		=	20	KW
						Total Load (C)		**=**	**829**	**KW**
						By taking Overall Diversity factor	**70**	**%**	**=>**	**580**	**KW**
						By taking Power factor	**0.80**		**=>**	**730**	**KVA**
						Electrical Load - (C) = 730 KVA					
						Total Electrical Load (A) + (B) + (C)			**=>**	**3778**	**KVA**
Total Essential Electrical Load = 3778 KVA											
Recommended DG Sets = 3 no. 1250 KVA & 1 no. 750 KVA.											