

S. No.	Description (Equipment Name)	Unit Rating (kW)	Quantity	Total Connected Load (kW)	Diversity Factor (%)	Maximum Demand (kW)	NOTE
PART A: RESIDENTIAL LOAD (Flats)							
1	Standard 3BHK Flat Load (Lights, Fans, Sockets)	5	40	200	50	100	
2	VRV Air Conditioning (Indoor + Outdoor Units)	6	40	240	60	144	
3	Geysers & Heavy Appliances	3	40	120	40	48	
TOTAL RESIDENTIAL LOAD				560		292	
PART B: COMMON AREA SERVICES							
4	Schindler Passenger Lift (High Speed)	7	2	14	100	14	
5	Water Transfer Pumps (Domestic)	7.5	2	15	50	7.5	
6	Common Area Lighting (LED)	5	1	5	100	5	
7	External/Landscape Lighting	4	1	4	100	4	
8	EV Charging Stations	7.4	5	37	40	14.8	
9	STP (Sewage Treatment Plant)	10	1	10	100	10	
TOTAL COMMON LOAD				85		55.3	
PART C: CRITICAL / FIRE SERVICES							
10	Main Fire Pump	55	1	55			Only runs during Fire
11	Jockey Pump	5.5	1	5.5			Maintains pressure
12	Staircase Pressurization Fan	7.5	2	7.5			Smoke control
PARAMETER		VALUE	UNIT				
Total Connected Load		645	KW				
Total Max Demand (P)		347.3	KW				
Power Factor (PF)		0.8	KW				
Calculated KVA (P/PF)		434.125	KW				
Safety Margin		14	KW				
Final Transformer Capacity		520.95	KW				
Selected Standard Rating		630	KW				

Level	Component Name	Rating	Quantity	Note	Column1
Source	Transformer	630 kVA	1	Outdoor	
Source	DG Set (Backup)	250 kVA	1	Acoustic Enclosure	
Main Panel	Main LT Panel (PCC)	1000 A	1	With ATS (Auto Switch)	
Riser	Main Busbar (BBT)	800 A	40 Meters	G to Terrace Height	
Floors	Tap-off Box	63 A	10	1 per Floor	
Floors	Meter Board	0	10	4 Meters inside	
Final	Flat DB	8 Way TPN	40	Inside Flats	

S.No.	Item Description	Unit	Quantity	Rate (₹)	Amount (₹)
1	Transformer: 630 kVA, 11/0.433 kV, Oil Cooled Type	Nos.	1	950,000	950000
2	Diesel Generator (DG Set): 250 kVA, Silent Enclosure, Auto-Start	Nos.	1	1,400,000	1400000
3	Main LT Panel: Floor mounted, with 1000A ACB Incomer & Busbar coupler	Nos.	1	450,000	450000
4	Capacitor Bank (APFC): 250 kVAR	Nos.	1	180,000	180000
5	Rising Mains (BBT): 800A, 4-Pole Aluminium Busbar Trunking	Mtrs.	45	9,500	427500
6	Tap-off Box: Plug-in unit for BBT with 125A MCCB	Nos.	10	18,000	180000
7	Floor Distribution Panel: Wall mounted, for 4 Flats metering	Nos.	10	35,000	350000
8	Energy Meters: Single Phase Digital kWh Meter	Nos.	40	2,500	100000
9	Sub-main Cable: 4C x 16 sq.mm Al. Armoured Cable (Floor Panel to Flat DB)	Mtrs.	600	350	210000
10	Earthing: Copper Plate Earthing Set	Sets	4	8,000	32000
				Total Project Cost=	4279500