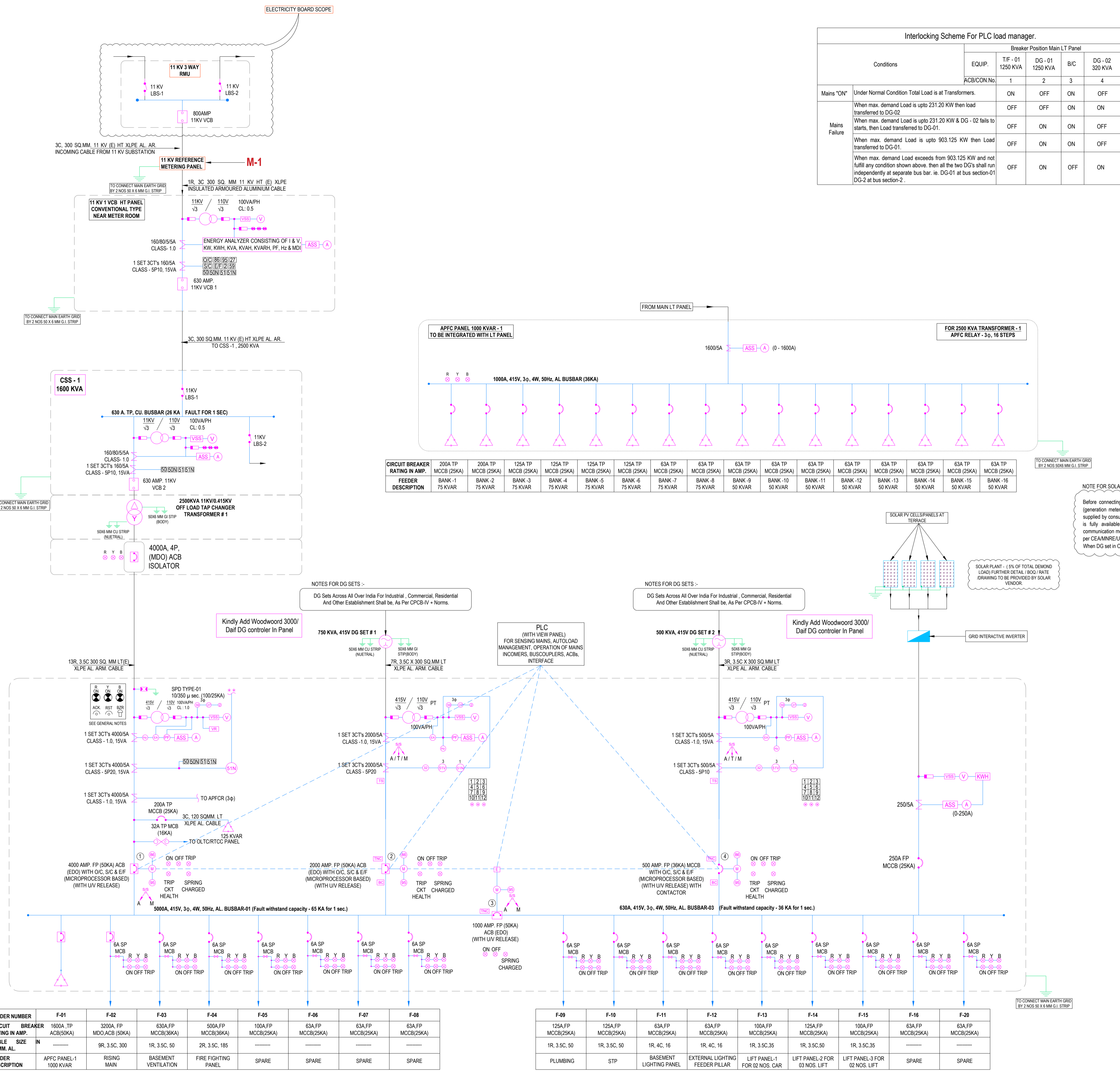


This PLC system shall have:  
 The PLC shall have a provision of interlocking between different Incomers & Bus couplers to avoid Paralleling of two different supplies from Transformer & DG sets.  
 Logic to auto start & auto stop for each DG sets.  
 Taking data from Energy Analysers and issuing and selecting starting command for DG set as per above logic. Further it shall also be possible to Start/Stop DG sets in Manual/Test Mode.  
 Paralleling of DG sets have not been envisaged. In case of any discrepancy in interlocking scheme inform consultant before execution.

NOTE :-  
 FOR 11KV BREAKER  
 1) Fault level of 25KA for 3 seconds (Minimum) at busbar, breaker, CT, PT.  
 2) 11KV breaker fault current shall be 25KA for 3 seconds minimum.  
 3) Internal arc of 11KV VCB shall be 25KA for 0.1 second AFLR minimum at 33/11KV Substation.

GA DRAWINGS SHALL BE GOT APPROVED BEFORE FABRICATION. THE PANEL HAS TO BE SPECIFICALLY FABRICATED AS PER THE SPACE AVAILABLE AT PANEL ROOM IN BASEMENT. THE EXISTING COLUMN POSITIONS WILL ALSO BE CONSIDERED.

Electrical SLD Confirming The Location of all Energy Meter. (Common Area Lighting, Exterior Area Lighting, Energy Meter For Lifts, STP, Pump & Motors, Club House, Dy Sets, Regeneration)



**LEGENDS**

SYMBOL	DESCRIPTION
[Symbol]	VCB (VACUUM CIRCUIT BREAKER)
[Symbol]	ACB (AIR CIRCUIT BREAKER)
[Symbol]	MOULDED CASE CIRCUIT BREAKER
[Symbol]	CURRENT TRANSFORMER
[Symbol]	POTENTIAL TRANSFORMER
[Symbol]	CAPACITOR
[Symbol]	ANNUNCIATION WINDOW WITH
[Symbol]	TRANSFORMER
[Symbol]	DG SET
[Symbol]	LOAD BREAK SWITCH(LBS)/ISOLATOR
[Symbol]	SELECTOR SWITCH
[Symbol]	MCB (MINIATURE CIRCUIT BREAKER)
[Symbol]	SURGE PROTECTION DEVICE
[Symbol]	AMMETER SELECTOR SWITCH
[Symbol]	VOLTMETER SELECTOR SWITCH
[Symbol]	TRIP/NORMAL/CLOSE SWITCH
[Symbol]	VOLTAGE RELAY
[Symbol]	KILO VOLT AMPERE HOUR METER
[Symbol]	HRC FUSE
[Symbol]	TEMPERATURE SCANNER
[Symbol]	BATTERY CHARGER
[Symbol]	AMMETER
[Symbol]	VOLTMETER
[Symbol]	ENERGY ANALYZER
[Symbol]	FREQUENCY METER(Hz)
[Symbol]	POWER FACTOR METER
[Symbol]	TIMER
[Symbol]	UNDER VOLTAGE RELAY WITH TIMER
[Symbol]	REVERSE POWER RELAY
[Symbol]	INST. O-C RELAY
[Symbol]	IDMT RELAY
[Symbol]	SENSITIVE EARTH FAULT RELAY
[Symbol]	IDMT EARTH FAULT RELAY
[Symbol]	VOLTAGE RESTRAINED OVER CURRENT RELAY
[Symbol]	IDMT & INSTANTANEOUS RELAY
[Symbol]	OVER VOLTAGE RELAY WITH TIMER
[Symbol]	MASTER TRIP RELAY
[Symbol]	DIFFERENTIAL RELAY
[Symbol]	TRIP CIRCUIT SUPERVISION RELAY

NOTE :-  
 FOR MAIN LT PANELS  
 1) All ACB should have Ics = Icu = Icw = 50 KA for 1 sec, fully rated at 50°C ambient temperature.  
 2) All ACB's shall have an inbuilt facility of O/C, S/C, Instantaneous S/C & Earth fault protection.  
 3) All ACB's shall have Auxiliary switches with 4NO + 4NC contacts.  
 4) All Incoming ACB's shall have Auxiliary switches with LCD / LED display for event history & measurement of current parameters.  
 5) All MCCB shall be microprocessor based with inbuilt O/L & S/C release with EF protection.  
 6) All MCCB's shall be Ics = 100% Icu.  
 7) All MCCB's shall have adjustable O/L & S/C trip setting as per load requirement.  
 8) All the indications & metering shall be done through 110/220 Volts from secondary of PT's. No indication lamps & V metering should not be operated at 415 Volts.

**DRAWING RELEASED FOR:-**  
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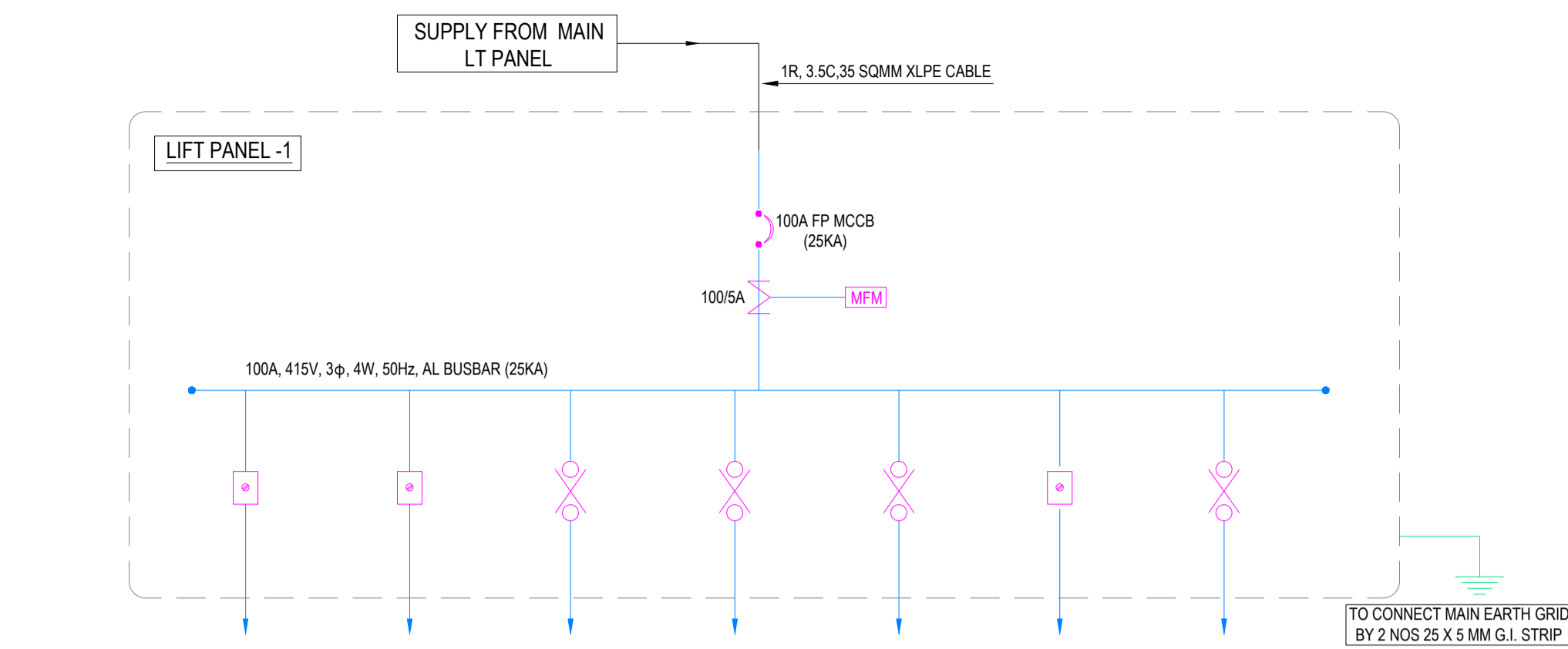
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 PROPOSED COMMERCIAL FOR  
**M/s. VINAYAKA EXPO PLAZA**  
 PVT. LTD. AT PLOT No. SLC-3/5,  
 SECTOR-ALPHA-2 G.N.OIDA. (U.P.)

**CLIENT :**  
 ARCHITECTS:-  
 P. N. ANDLEY B.ARCH. A.I.I.A.  
 ANDLEYS ASSOCIATES PVT. LTD.  
 ARCHITECTS ENGINEERS PLANNERS 39  
 HOUSING SOCIETY N.D.S.E.-1 NEW DELHI  
 110049

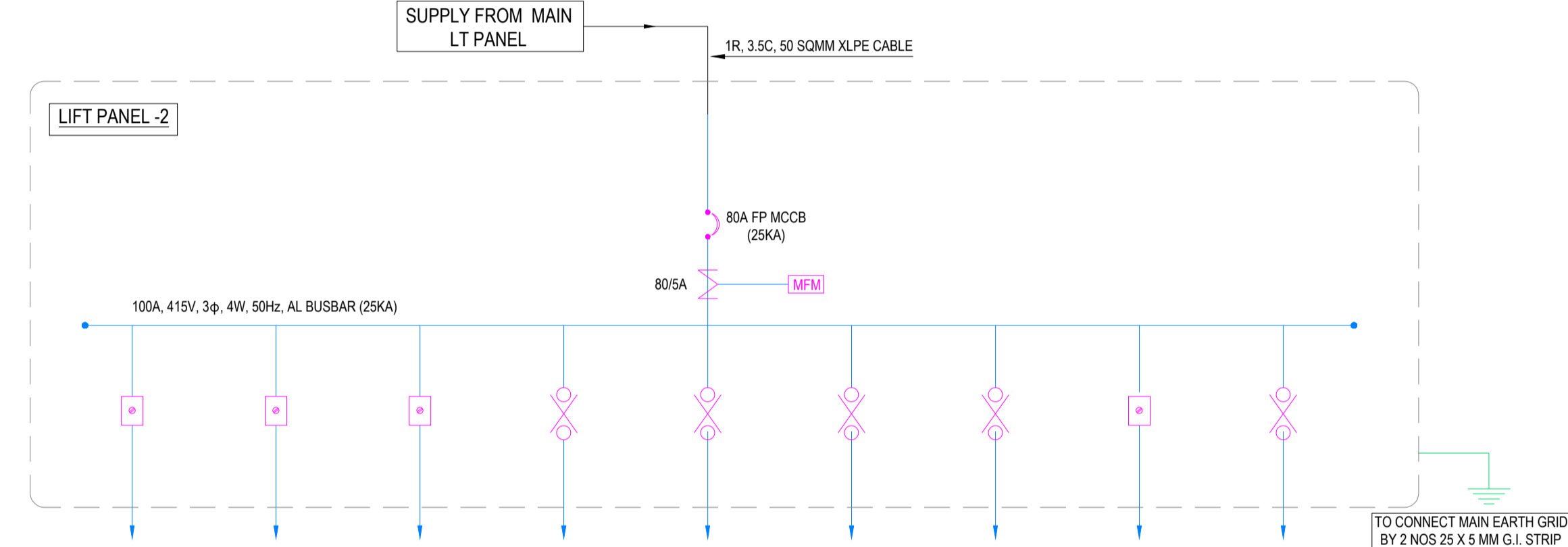
**MEP Consultants:**  
**PKV Consulting Engineers (P) Ltd.**  
 C-815, DDA Flats Lon Road, Delhi -110093  
 E-mail: pramod@pkv.co.in, info@pkv.co.in  
 TELEFAX - 011-22816297

**DRAWING TITLE:-**  
 ELECTRICAL MAIN SCHEMATIC LAYOUT  
 FOR RESIDENTIAL & COMMERCIAL

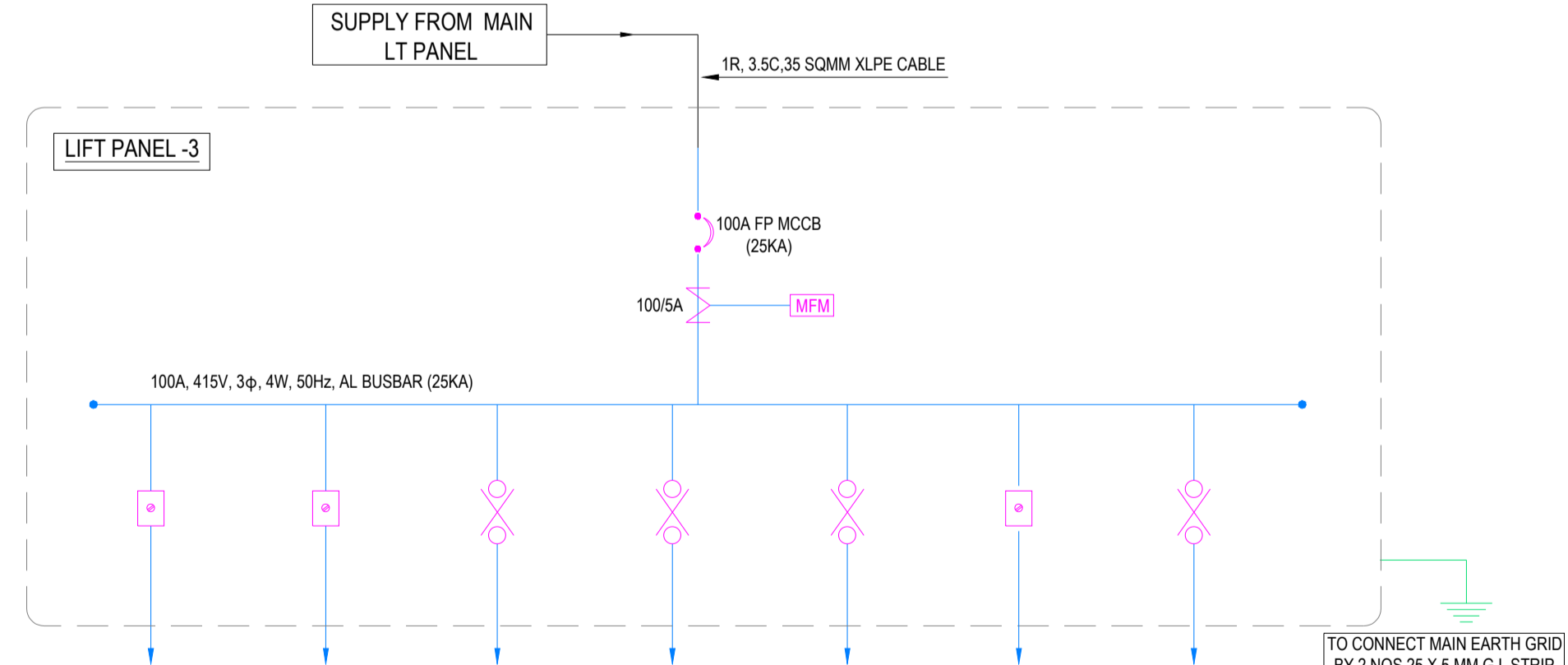
**DRAWN :-** ANIL **SCALE :-** N.T.S  
**CHECKED :-** P.K.S. **SHEET :-** A1  
**DATE :-** 28/01/2025 **DWG. NO. :-** PKV/SLD/001



CIRCUIT BREAKER RATING IN AMP.	63A TP MPCB (25KA)	63A TP MPCB (25KA)	40A DP MCB (16KA)	40A FP MCB (16KA)	40A FP MCB (16KA)	63A TP MPCB (25KA)	40A FP MCB (16KA)
CABLE SIZE IN SQMM. AL.	1R, 4C, 16SQMM.	1R, 4C, 16SQMM.	1R, 2C, 10SQMM.	1R, 4C, 10SQMM.	1R, 4C, 10SQMM.	-----	-----
FEEDER DESCRIPTION	LIFT-1	LIFT-2	MACHINE ROOM DB	LIFT PRESSURIZATION-1	LIFT PRESSURIZATION-2	SPARE	SPARE



CIRCUIT BREAKER RATING IN AMP.	63A TP MPCB (25KA)	63A TP MPCB (25KA)	63A TP MPCB (16KA)	40A DP MCB (16KA)	40A FP MCB (16KA)	40A FP MCB (16KA)	40A FP MCB (16KA)	63A TP MPCB (25KA)	40A FP MCB (16KA)
CABLE SIZE IN SQMM. AL.	1R, 4C, 16SQMM.	1R, 4C, 16SQMM.	1R, 4C, 16SQMM.	1R, 2C, 10SQMM.	1R, 4C, 10SQMM.	1R, 4C, 10SQMM.	1R, 4C, 10SQMM.	-----	-----
FEEDER DESCRIPTION	LIFT-1	LIFT-2	LIFT-3	MACHINE ROOM DB	LIFT PRESSURIZATION-1	LIFT PRESSURIZATION-2	LIFT PRESSURIZATION-3	SPARE	SPARE



CIRCUIT BREAKER RATING IN AMP.	63A TP MPCB (25KA)	63A TP MPCB (25KA)	40A DP MCB (16KA)	40A FP MCB (16KA)	40A FP MCB (16KA)	63A TP MPCB (25KA)	40A FP MCB (16KA)
CABLE SIZE IN SQMM. AL.	1R, 4C, 16SQMM.	1R, 4C, 16SQMM.	1R, 2C, 10SQMM.	1R, 4C, 10SQMM.	1R, 4C, 10SQMM.	-----	-----
FEEDER DESCRIPTION	LIFT-1	LIFT-2	MACHINE ROOM DB	LIFT PRESSURIZATION-1	LIFT PRESSURIZATION-2	SPARE	SPARE

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[ASS]	AMMETER SELECTOR SWITCH
[VMS]	VOLTMETER SELECTOR SWITCH
[TNS]	TRIP NORMAL CLOSE SWITCH
[KWH]	KILO VOLT AMPERE HOUR METER
[VRE]	VOLTAGE RELAY
[HRC]	HRC FUSE
[TS]	TEMPERATURE SCANNER
[BC]	BATTERY CHARGER
[A]	AMMETER
[V]	VOLTMETER
[EA]	ENERGY ANALYZER
[FM]	FREQUENCY METER (Hz)
[PF]	POWER FACTOR METER
[T]	TIMER
[UVR]	UNDER VOLTAGE RELAY WITH TIMER
[RPR]	REVERSE POWER RELAY
[IOCR]	INST. O-C RELAY
[IDMT]	IDMT RELAY
[SEFR]	SENSITIVE EARTH FAULT RELAY
[IDMT EFR]	IDMT EARTH FAULT RELAY
[VRR]	VOLTAGE RESTRAINED OVER CURRENT RELAY
[IDMT IR]	IDMT & INSTANTANEOUS RELAY
[OVR]	OVER VOLTAGE RELAY WITH TIMER
[MTR]	MASTER TRIP RELAY
[DR]	DIFFERENTIAL RELAY
[TCR]	TRIP CIRCUIT SUPERVISION RELAY
[MPCB]	MOTOR PROTECTION CIRCUIT BREAKER

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 APPROVAL       SUBMISSION  
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CLIENT :  
 ARCHITECTS:-

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 C-815, DDA Flats, Loni Road, Delhi - 110093  
 E-mail: pramod@pkv.co.in, info@pkv.co.in  
 TELEFAX - 011-22816297

DRAWING TITLE:-  
**ELECTRICAL MAIN SCHEMATIC LAYOUT  
 FOR RESIDENTIAL & COMMERCIAL**

DRAWN -> ANIL      SCALE -> N.T.S  
 CHECKED -> P.K.S.      SHEET -> A1  
 DATE -> 28.01.2025      DWG. NO. -> PKVSLD002