

## **SPECIFICATION FOR STREET LIGHT FEEDER PILLAR PANEL**

### **CONSTRUCTION:**

1. The feeder pillar shall be of outdoor type, stand mounting, dust and vermin proof with IP-55 protection.
2. The panel shall be made out of 14 SWG Cold Rolled Close Annealed (CRCA) Sheet Steel. Panel shall have powder coated finish to shade 631 of IS 5 after pretreatment and standard black enamel paint
3. Cable entry shall be at the bottom and through a detachable gland plate. Labels shall be aluminum anodized. Stand for mounting shall be made out of 40 X 40 X 5 M.S Angle.
4. Feeder pillar shall have pad-locking arrangement.
5. The dimensions of the panel shall be at least 400 (L) X 250 (B) x 700 (H) as per the enclosed GA drawing.

### **WIRING:**

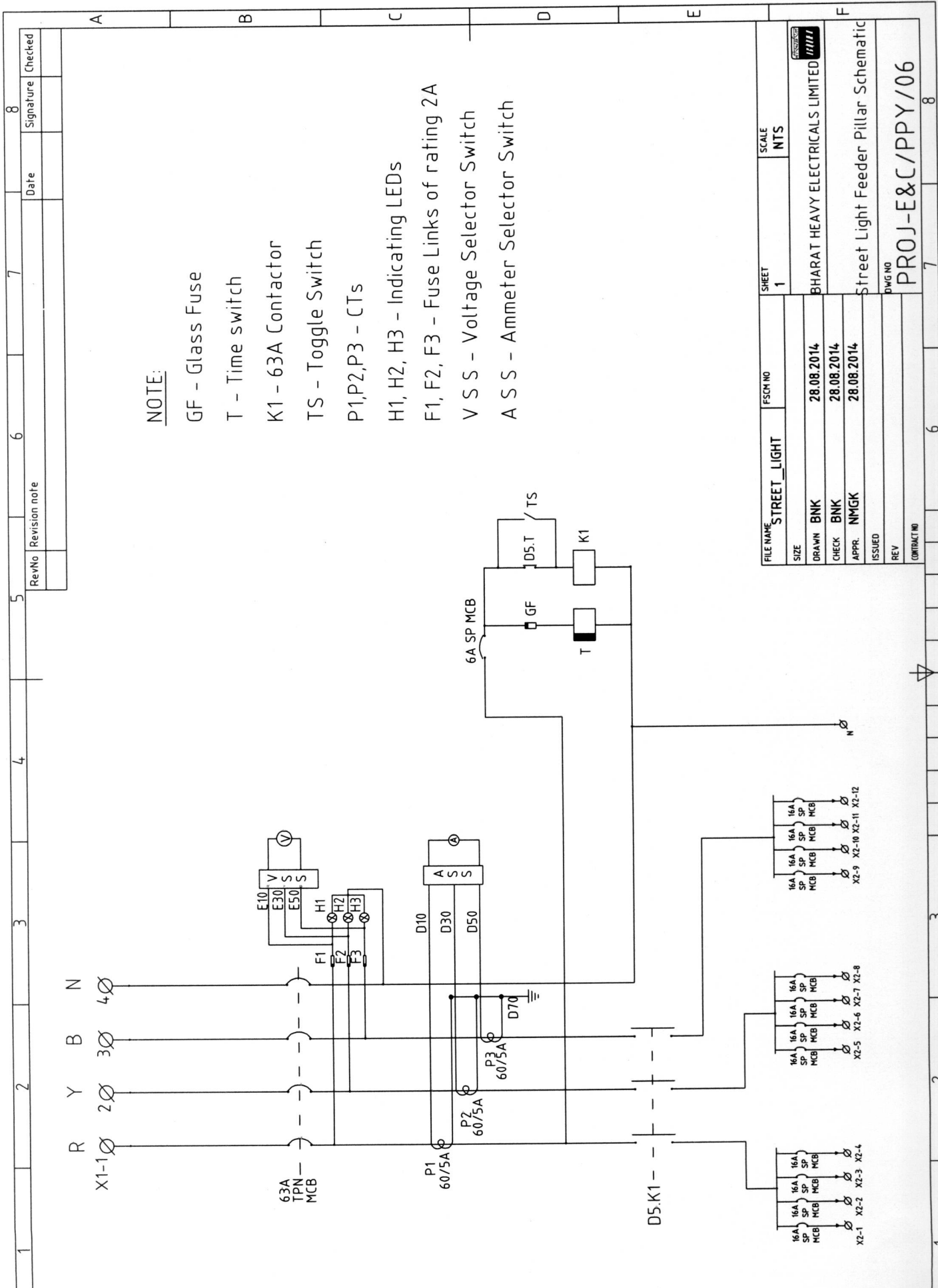
1. The incomer MCB should be 63 Amps, TPN suitable for 415V, 50 Hz Supply. Cable size for wiring from the incomer MCBs should be 16 sq.mm copper flexible cable. The 16 sq.mm cable shall be brought to the incomer MCBs from a terminal block or connector suitable for termination of 3.5C X 50 sq.mm aluminum cables. The flexible cables shall be terminated neatly with insulated lugs of appropriate size.
2. The wiring from Incomer MCB shall be brought to a copper bus bar of appropriate size embedded in a CT. The wiring to be used shall be 16 sq.mm copper flexible cable.
3. The feeder pillar shall have 12 SP 16A MCBs (four per each phase). The wiring from outgoing MCBs should be brought, using a 4 sq.mm copper flexible cable, to the terminal blocks or connectors suitable for termination of 4C X 16 sq.mm Aluminum armored cable. The flexible cables shall be terminated neatly with insulated lugs of appropriate size.
4. The wiring for the control circuit shall be carried out using 1.5 sq.mm flexible copper cable.
5. The power circuit shall have color sleeve of the corresponding phase and ferrule on Cu lugs and control circuit shall have ferrule and insulated cu lugs.
6. 2 nos earth terminals by 12mm diameter bolts shall be provided.

### **OPERATION:**

1. The switching on and switching off shall be controlled by a contactor which in turn is controlled by a time switch as per the enclosed schematic diagram.
2. A toggle switch shall be provided to override the time switch for testing or emergency purpose.
3. Laminated circuit diagram shall be pasted inside the panel on the door.

### BILL OF MATERIAL

| S. No | Description  | Make  |
|-------|--|---|
| 1     | MCB<br>63A TPN – 1No<br>16A SP – 12 Nos<br>10A SP – 1 No | Siemens/Standard/Haier/L&T/ABB                  |
| 2     | 240V AC Contactor with<br>63A contacts                   | L&T/Siemens                                     |
| 3     | 240V AC, Time switch                                     | L&T<br>Type – FM/1 Quartz<br>Model No. – J648B1 |
| 4     | Terminal Connectors                                      | Connectwell/Elemex                              |
| 5     | 72 sq.mm Voltmeter                                       | Conzerv/AE/IMP/UBHA/NIPPON                      |
| 6     | Voltmeter Selector Switch                                | Salzer/L&T/Siemens/GECA/NGEF/Kaycee             |
| 7     | Indicating Lamps   | L&T/Siemens                                     |
| 8     | Toggle Switch  | Kaycee or equivalent make                       |
| 9     | 72 sq.mm Ammeter   | Conzerv/AE/IMP/UBHA/NIPPON                      |
| 10    | Ammeter selector switch                                  | Salzer/L&T/Siemens/GECA/NGEF/Kaycee             |
| 11    | CTs – 60/5A  | Nippen or equivalent                            |
| 12    | Fuse base/fuse carrier                                   | L&T/BUSSMANN                                    |
| 13    | Fuse link  | GE/L&T  |



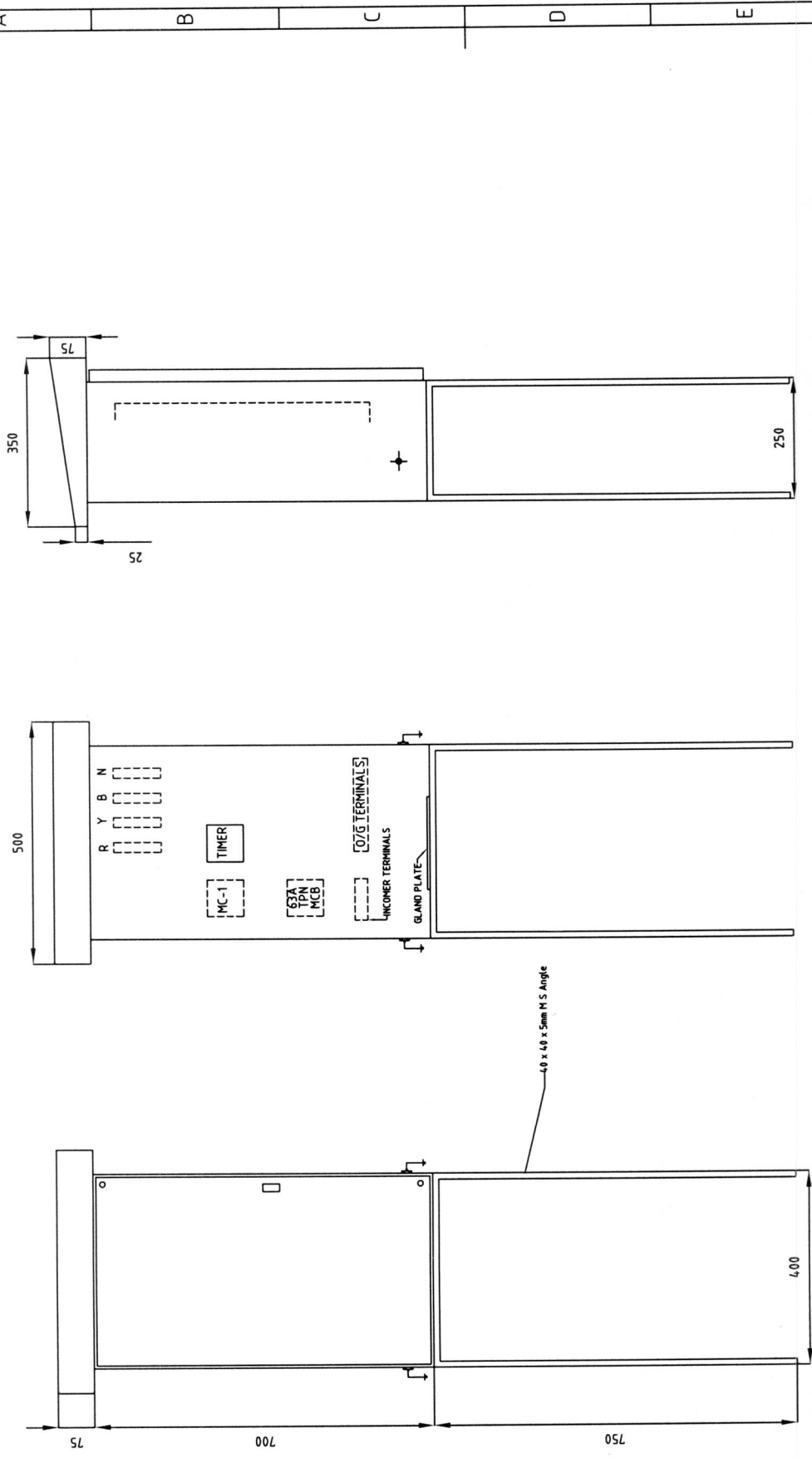
**NOTE:**

- GF - Glass Fuse
- T - Time switch
- K1 - 63A Contactor
- TS - Toggle Switch
- P1,P2,P3 - CTs
- H1, H2, H3 - Indicating LEDs
- F1, F2, F3 - Fuse Links of rating 2A
- V S - Voltage Selector Switch
- A S - Ammeter Selector Switch

|             |                                      |         |            |       |      |       |      |
|-------------|--------------------------------------|---------|------------|-------|------|-------|------|
| FILE NAME   | STREET_LIGHT                         | FSCH NO | 1          | SHEET | 1    | SCALE | NTS  |
| SIZE        | BHARAT                               | DATE    | 28.08.2014 | DRAWN | BNK  | BY    | BNK  |
| ISSUED      | NMGK                                 | DATE    | 28.08.2014 | CHECK | BNK  | BY    | BNK  |
| REV         |                                      | DATE    | 28.08.2014 | APPR. | NMGK | BY    | NMGK |
| CONTRACT NO | Street Light Feeder Pillar Schematic |         |            |       |      |       |      |
| DWG NO      | PROJ-E&C/PPY/06                      |         |            |       |      |       |      |

|       |               |      |           |         |
|-------|---------------|------|-----------|---------|
| RevNo | Revision note | Date | Signature | Checked |
| 5     |               |      |           |         |
| 6     |               |      |           |         |
| 7     |               |      |           |         |
| 8     |               |      |           |         |

|       |   |               |   |      |           |         |   |
|-------|---|---------------|---|------|-----------|---------|---|
| 1     | 2 | 3             | 4 | 5    | 6         | 7       | 8 |
| RevNo |   | Revision note |   | Date | Signature | Checked |   |



|           |              |            |                                  |       |
|-----------|--------------|------------|----------------------------------|-------|
| FILE NAME | STREET_LIGHT | FSCH NO    | SHEET                            | SCALE |
| SIZE      |              |            | 1                                | NTS   |
| DRAWN     | BNK          | 28.08.2014 | BHARAT HEAVY ELECTRICALS LIMITED |       |
| CHECK     | BNK          | 28.08.2014 | Street Light Feeder Pillar GA    |       |
| APPR.     | NMGK         | 28.08.2014 | DWG NO                           |       |
| ISSUED    |              |            | PROJ-E&C/PPY/07                  |       |
| REV       |              |            | CONTRACT NO                      |       |

**NOTE:**  
All dimensions in mm

|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|