

Part 2: Supply characteristics and earthing arrangement**Section-1:Mains incoming**

System earthing: TN-C
 Brief note (in case of confusion): wewe
 Number and type of live conductors: AC
 Brief note: 54545454
 AC : 1-phase

| Nature of supply parameters | R-Y | R-B | Y-B | R-N | Y-N | B-N | R-PE | Y-PE | B-PE |
|-------------------------------------|-------|-------|-------|--------|--------|-------|--------|--------|---------|
| Nominal voltage U/U0 (V) | 45.00 | 45.00 | 4.00 | 54.00 | 5.00 | 45.00 | 454.00 | 545.00 | 4.00 |
| Nominal Frequency f (HZ) | 4.00 | 5.00 | 4.00 | 545.00 | 454.00 | 5.00 | 45.00 | 4.00 | 54.00 |
| Prospective fault current Ipfc (kA) | 54.00 | 54.00 | 5.00 | 45.00 | 4.00 | 5.00 | 45.00 | 45.00 | 54.00 |
| External Loop Impedance Ze (Ω) | 5.000 | 5.000 | 4.000 | 5.000 | 45.000 | 4.000 | 54.000 | 5.000 | 454.000 |

Incoming (supply) protective device characteristics

Type of Over Current Protective Device: 5
 Rated current (A): 5
 Current for disconnection with in 0.2 seconds: 5

Section-2:Alternative source of supply

System earthing: TN-C

Brief note (in case of confusion): wewe

Number and type of live conductors: AC

Brief note: 54545454

Availability of alternate supply: Yes

Number of alternate sources of supply: Yes

Alternate supply no : 212121

Short name of alternate supply: 21

System earthing: TT

Number and type of live conductors: AC

Brief note: 2

AC : 1-phase, 3-wire (LLM)

| Nature of supply parameters | R-Y | R-B | Y-B | R-N | Y-N | B-N | R-PE | Y-PE | B-PE |
|--|-----------|--------|--------|---------|--------|---------|--------|----------|--------|
| Nominal voltage U/U_0 (V) | 655165.00 | 56.00 | 56.00 | 54.00 | 654.00 | 65.00 | 6.00 | 65.00 | 6.00 |
| Nominal Frequency f (HZ) | 165.00 | 1.00 | 651.00 | 65.00 | 165.00 | 16.00 | 51.00 | 65.00 | 16.00 |
| Prospective fault current I_{pfc} (kA) | 51.00 | 65.00 | 1.00 | 51.00 | 5.00 | 1651.00 | 651.00 | 51.00 | 65.00 |
| External Loop Impedance Z_e (Ω) | 65.000 | 16.000 | 5.000 | 651.000 | 65.000 | 6.000 | NA | 6165.000 | 65.000 |

InstalledCapacity : 6

Actual Load Current (R,Y,B, N) : 5655,6,655,NA

Incoming (supply) protective device characteristics

Type of Over Current Protective Device: 651

Rated current (A): 651

Current for disconnection with in 0.2 seconds: 656

Brief note (in case of confusion): 565

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|-------------------------------------|-----------------------|
| Alternate supply no : | 16 |
| Short name of alternate supply: | 5 |
| System earthing: | TN-C |
| Number and type of live conductors: | AC |
| Brief note: | 6 |
| AC : | 1-phase, 3-wire (LLM) |

| Nature of supply parameters | R-Y | R-B | Y-B | R-N | Y-N | B-N | R-PE | Y-PE | B-PE |
|-------------------------------------|-----------------|--------|-------|--------|-------|-------|--------|-------|--------|
| Nominal voltage U/U0 (V) | 165166 56.00 | 46.00 | 54.00 | 654.00 | 6.00 | 6.00 | 6.00 | 6.00 | 65.00 |
| Nominal Frequency f (HZ) | 46.00 | 5.00 | 66.00 | 121.00 | 21.00 | 21.00 | 2.00 | 12.00 | 12.00 |
| Prospective fault current Ipfc (kA) | 2.00 | 1.00 | 21.00 | 21.00 | 21.00 | 2.00 | 12.00 | 2.00 | 1.00 |
| External Loop Impedance Ze (Ω) | 21.000 | 21.000 | 2.000 | 2.000 | 1.000 | 2.000 | 21.000 | 2.000 | 12.000 |

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|----------------------------------|----------|
| InstalledCapacity : | 12 |
| Actual Load Current (R,Y,B, N) : | 2,2,12,1 |

Incoming (supply) protective device characteristics

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|--|-----|
| Type of Over Current Protective Device: | 22 |
| Rated current (A): | 1 |
| Current for disconnection with in 0.2 seconds: | 22 |
| Brief note (in case of confusion): | 121 |

Section-3:Particulars of installation referred in the report

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|-------------------------------|--------------------|
| Maximum demand kVA: | 455 |
| Maximum load: | 45 |
| Means of earthing : | Suppliers Facility |
| Type of earth electrode : | Horizontal |
| Material of earth electrode : | Copper |
| No of Locations : | 4 |

| Location No | Location Name | Electrode resistance to earth in () | Electrode resistance to grid () |
|-------------|---------------|-------------------------------------|---------------------------------|
| 4554 | 54 | 5 | 454 |
| 545 | 5 | 45 | 4 |
| 5 | 5 | 4 | 5 |
| 5 | 4 | 454 | 5 |

Section-4:Details of main protective conductor

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|--|-----|
| Size of earthing conductor : | 44 |
| Material of earthing conductor : | 4 |
| Earthing conductor continuity and connection verified : | Yes |
| Size of main protective bonding conductor : | 455 |
| Material of main protective bonding conductor : | 45 |
| Main protective bonding conductor continuity and connection verified : | No |
| Type of joints (impairing safety) : | 545 |
| No of joints : | 4 |

| Location | Joint No | Joint resistance () |
|----------|----------|----------------------|
| 45 | 45 | 45 |
| 5 | 45 | 4 |
| 54 | 54 | 54 |
| 5 | 54 | 4554 |

| | |
|---|-----|
| Size of main protective earthing conductor: | 5 |
| Material of main protective earthing conductor: | 4 |
| Main Protective Conductor continuity and connection verified: | Yes |
| Type of Joints: | 545 |
| No of Joints: | 4 |

| Location | Joint No | Joint resistance () |
|----------|----------|----------------------|
| 454 | 54 | 54 |
| 54 | 54 | 54 |
| 545 | 4 | 5454 |
| 54 | 54 | 5 |

Section 5: Details of main switch or circuit breaker

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|---------------------------------------|------|
| Location: | 6464 |
| Type: | ACB |
| No of poles: | 646 |
| Current Rating: | 4 |
| Voltage Rating: | 5465 |
| Fuse Rating or Settings: | 4654 |
| Rated residual operating Current In: | 654 |
| Rated residual operating time @In Tn: | 5 |

| | |
|---------------------------------------|------|
| Location: | 5 |
| Type: | ACB |
| No of poles: | 5 |
| Current Rating: | 545 |
| Voltage Rating: | 45 |
| Fuse Rating or Settings: | 465 |
| Rated residual operating Current In: | 46 |
| Rated residual operating time @In Tn: | 5465 |