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**Software Requirements Specification (SRS) for**

**CEI (Test Report) module**

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1. **About**

The Chief Electrical Inspector (CEI) currently manages its processes manually and aims to enhance efficiency and accuracy by automating their operations through an online portal. This portal will cater to three distinct user roles: Contractor, Supervisor, and Wireman. Each role will have its own set of functionalities and account access levels. The portal will also provide an Admin account to manage and oversee the information submitted by these users.

**Source of Requirement**

This document is prepared and designed after the discussion with below major stakeholders:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr no** | **Name of Stakeholder** | **Designation** | **Address** | **Signature** |
| 1 | Sh. Manoj | SDO | CEI Office Sector 17 Chandigarh |  |

**INTRODUCTION**

**1.1 Purpose**

The purpose of this SRS document is to define the requirements for a system designed to manage the submission, review, and approval of test reports in a CEI (Chief Engineering Inspector) project. This system will facilitate communication and documentation among supervisors, contractors, administrators, and site owners.

**1.2 Business requirement**

The business requirement for this project is to streamline the management of test reports in CEI projects while ensuring secure user account management, reliable notifications, and efficient communication among supervisors, contractors, administrators, and site owners.

**1.3 Scope**

The scope of this SRS document relate to the test report module of the ceiharyana.com web application. This module will be designed and developed using the .Net framework, with careful consideration of the design elements and features requested by the client.

**The primary objectives within the scope of this module include:**

1. **Test Report Submission**: User will have the capability to submit test reports through the web application, providing necessary details and documentation related to CEI test report.
2. **Test Report Management**: The system will facilitate the review, approval, or disapproval of test reports by authorized personnel, including supervisors and contractors.
3. **Unique ID Generation:** Test reports will be assigned unique identification codes to enable easy tracking and retrieval based on predefined formats.
4. **Notifications:** The module will incorporate a notification system to inform relevant parties of important events, such as new test report submissions and approvals.
5. **User Authentication:** User login and logout functionality will be implemented to ensure secure access to the CEI test report module

**The system's key functionalities include:**

1. Only Supervisors can fill and submit test reports.
2. Contractors can review, approve, or disapprove test reports and verify them using OTP (One-Time Password) verification.
3. Notifications will be sent to relevant parties throughout the process.
4. Admin has access to view approved test reports. (view only)
5. Users (contractors, supervisors, and admin) can search for test reports using the UNIQUE ID of the test report.

**2. Site Map**

1. Dashboard
2. Create New Test Report
3. Search Test Reports
4. Test Report Forms

* Transformer Installation
* Line Installation
* Generating Set Installation
* Single/Three-Phase Installation

1. Test Report Submission
2. Verification and Final Submission
3. Work Intimation ID Generation

* Generated based on CONTRACTOR LICENSE NO + WORK INTIMATION
* Example: h-1000(license no)/2023 (year)) / W01 (NO OF WORK)

1. Test Report Unique ID Generation

* Generated based on WORK INTIMATION ID + Test report no
* Format: (H-10000/2023/W01)/ T01 (08-31-2023) SUBMITTED DATE

**2.1 Definitions, Acronyms, and Abbreviations**

1. Supervisor: Responsible for creating and submitting test reports by verifying them using OTP verification.
2. Contractor: Responsible for reviewing, approving, or disapproving test reports, as well as verifying them using OTP verification.
3. Admin: The project administrator who manages user accounts and accesses approved test reports.
4. SRS: Software Requirements Specification.
5. ID: User identification or license number.
6. OTP: One-Time Password.

**3. Specific Requirements**

**3.1 Supervisor Account Creation**

1. Supervisors accounts will be created a unique ID (License No) and an initial password set to "123456."

**3.2 Supervisor Test Report Submission**

1. Supervisors can submit test reports, including category, details, and an acceptance undertaking.
2. Supervisors will verify the test report by OTP (One-Time Password) before submission.

**3.3 Supervisor Test Report Review**

1. Supervisors can view their previously submitted test reports.

**3.4 Contractor Test Report Review**

1. Contractors can review test reports submitted by supervisors.
2. Contractors can approve or disapprove test reports.
3. Contractors can add comments when disapproving test reports.
4. Contractors will verify the test report by OTP (One-Time Password) verification.

**3.5 Notifications**

1. Contractors will receive notifications for new test reports in their notifications area.
2. Site owners will receive notifications upon test report approval. (with unique id of test report by email or mobile)
3. Supervisors receive notifications if their test report is disapproved, along with comments from the contractor.
4. Admin will receive notifications in admin account OR via email and mobile number upon test report approval by the contractor.

**3.6 Work Intimation Selection for Test Report Submission**

* Supervisors will have the functionality to select a specific work intimation project from a dropdown menu when submitting a test report. This dropdown will display all the work intimation projects assigned to the supervisor.
* Upon selecting a work intimation project, supervisor can create the test against that particular work intimation, ensuring accurate tracking and documentation.

**4. External Interface Requirements**

**4.1 User Interfaces**

* The system will have a user-friendly web interface for supervisors, contractors, admin, and site owners to interact with.

**4.2 Hardware Interfaces**

* The system will operate on standard web servers and utilize a database for data storage.

**4.3 Software Interfaces**

* The system will integrate with email and mobile messaging services for notifications.

**5. Non-Functional Requirements**

**5.1 Security**

* User data and login credentials must be securely stored and transmitted.
* Access controls must be in place to restrict unauthorized access to test reports.

**5.2 Usability**

* The user interface must be intuitive and user-friendly.
* The system should be accessible from both desktop and mobile devices.

**5.3 Performance**

* The system must be responsive and capable of handling concurrent users and test report submissions.

**5.4 Availability**

* The system should be available 24/7, with minimal downtime for maintenance.

**6. Assumptions and Dependencies**

* Users' login credentials will be stored securely.
* Email and mobile number verification will be in place.
* The system will have access to a database for data storage.
* Internet connectivity is assumed for users to access the system.

**INPUT FIELDS**

## **SCREEN 1 – Work Intimation Details**

| **Sr. No.** | **Field Name** | **Type of Field** | **Mandatory / Optional / Conditional / Default** | **Size limit** | **Remarks** | |
| --- | --- | --- | --- | --- | --- | --- |
| **Work Intimation Details** | | | | | | |
|  | Assigned Work details | Option set | M |  | Supervisor can select a specific work intimation project from a dropdown menu when submitting a test report. | |
|  | Sanction load/ Contract demand(in KVA) (as per demand notice of utility OR electricity bill. | Numeric | M | Min 1, Max 20000 |  |

## **SCREEN 2 - Supervisor Details**

NOTE: Based on the selection of type of installation, further form will be opened…

| **Sr. No.** | **Field Name** | | **Type of Field** | **Mandatory / Optional / Conditional / Default** | **Size limit** | **Remarks** | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Test Report Form for Supervisor** | | | | | | | |
|  | Name of the owner | | Text/String | M |  |  | |
|  | Installation Address: | | Text/String | M |  |  | |
|  | Type of Premise: | | Option set | M |  |  | |
|  | Type of Installation: | | Option set | C |  | (Multiselection) - Line | Substation Transformer | Generating Station | Lift | LPI single phase (220V) | MPI Three phase (440) | Single-phase/Three-phase  NOTE: In case of (Line – 10 forms, Transformer – 10 Forms, Generating Station – 10 forms, Solar Panel – 5 Forms) can be filled | |
| **SCREEN 3 - Type of Installation is Line** | | | | | | | |
| **Test Report Form for supervisor/ : Type of Installation is Line** | | | | | | | |
| 1 | Voltage of Line | | Option set | O | Other ( Min 1, Max 999) | 220V | 440V | 11kV | 66kV | 132kV | 220kV | Other | |
| 2 | Length of Line (in KM) | | Numeric | M | Min 1, Max 999 |  | |
| 3 | Line Type | | Option set (drop down) | C |  | **Overhead, | Underground**  (NOTE: Depending on Line Type further form will be opened) | |
| **If Line type is selected as OVERHEAD** | | | | | | | |
| 3.1 | No of circuit | | (option set) | M |  | **Single/Double** | |
| 3.2 | Conductor type | | **(option set)** | C |  | **Bare/ Cable** | |
|  | | **IN CASE OF OVERHEAD BARE** | | | | |
| 3.2.1 | Number of Pole/Tower: | | Numeric | M | Min 1, Max 999 |  | |
| 3.2.2 | Size of Conductor:  ( IN SQ.MM) | | Numeric | M | Min 1, Max 999 |  | |
| 3.2.3 | Size of Ground Wire:  ( IN SQ.MM) | | Numeric | M | Min 1, Max 999 |  | |
| 3.2.4 | Number of Railway Crossing: | | Numeric | M | Min 1, Max 99 |  | |
| 3.2.5 | Number of Road Crossing: | | Numeric | M | Min 1, Max 99 |  | |
| 3.2.6 | Number of River/Canal Crossing: | | Numeric | M | Min 1, Max 99 |  | |
| 3.2.7 | Number of Power Line Crossing: | | Numeric | M | Min 1, Max 99 |  | |
| 3.2.8 | Number of Earthing: | | Numeric | M | Min 1, Max 15 | NOTE: Depending on number of Earthing Below fields will be repeated | |
| 3.2.8.1 | 1) Earthing Type  2)Value in (ohms) | | Numeric and option Set | O | Min 1 , Max 10 | Rode | Pipe | Plate | |
| 3.2.8.2 | 1) Earthing Type  2) Value in (ohms) | | Numeric and option Set | O | Min 1 , Max 10 | Rode | Pipe | Plate | |
| **IN CASE OF OVERHEAD CABLE** | | | | | | | |
| 3.3.1 | Number of Pole/Tower: | | Numeric | M | Min 1, Max 999 |  | |
| 3.3.2 | Size of cable: (in MM sq.) | | Numeric | M | Min 1, Max 999 |  | |
| 3.3.3 | Number of Railway Crossing: | | Numeric | M | Min 1, Max 99 |  | |
| 3.3.4 | Number of Road Crossing: | | Numeric | M | Min 1, Max 99 |  | |
| 3.3.5 | Number of River/Canal Crossing: | | Numeric | M | Min 1, Max 99 |  | |
| 3.3.6 | Number of Power Line Crossing: | | Numeric | M | Min 1, Max 99 |  | |
| 3.3.7 | Number of Earthing: | | Numeric | C | Min 1 , Max 15 | NOTE: Depending on number of Earthing Below fields will be repeated | |
| 3.3.7.1 | 1) Earthing Type (option set)  2) Value in (ohms) | | Numeric and option Set | O | Min 1, Max 10 | Rode | Pipe | Plate | |
| 3.3.7.2 | 1) Earthing Type (option set  2) Value in (ohms) | | Numeric and option Set | O | Min 1, Max 10 | Rode | Pipe | Plate | |
| **3.4 --Insulation Resistance—(in case of 440V & above) Note: (Conditional)** | | | | | | | |
| **3.4**.1 | Red Phase – Earth Wire (in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| **3.4**.2 | Yellow Phase – Earth Wire (in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| **3.4**.3 | Blue Phase – Earth Wire (in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| **3.4**.4 | Red Phase – Yellow Phase(in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| **3.4**.5 | Red Phase – Blue Phase(in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| **3.4**.6 | Blue Phase – Yellow Phase(in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| **3.5 --Insulation Resistance— Note: (Conditional)**  **(INCASE OF 220V & ABOVE)** | | | | | | | |
| 3.5.1 | Phase wire - Neutral wire (in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| 3.5.2 | Phase wire - Earth (in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| 3.5.3 | Neutral wire - Earth (in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| **4) If Line type is selected as UNDERGROUND Note: (Conditional)** | | | | | | | |
| 4.1 | Type of Cable: | | Option set | O |  | **XPLE or Other** | |
| 4.2 | Size of Cable: IN (MM sq.) | | Numeric | M | Min 1, Max 999 |  | |
| 4.3 | Cable laid in | | Dropdown | O |  | **(Trench/circuit/cable tray)** | |
| **4.3 -Insulation Resistance— (in case of 440V & above)** | | | | | | | |
| 4.3.1 | Red Phase – Earth Wire (in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| 4.3.2 | Yellow Phase – Earth Wire (in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| 4.3.3 | Blue Phase – Earth Wire (in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| 4.3.4 | Red Phase – Yellow Phase(in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| 4.3.5 | Red Phase – Blue Phase(in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| 4.3.6 | Blue Phase – Yellow Phase(in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| **4.4 --Insulation Resistance—(INCASE OF 220V & ABOVE)** | | | | | | | | |
| 4.4.1 | Phase wire - Neutral wire (in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| 4.4.2 | Phase wire - Earth (in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| 4.4.3 | Neutral wire - Earth (in Mohm) | | Numeric | M | 1Mohm to 9999 Mohm |  | |
| 4.4.4 | Number of Earthing: | | Numeric | C | Min 1, Max 15 | **NOTE: Depending on number of Earthing Below fields will be repeated** | |
| 4.4.5.1 | 1) Earthing Type (option set)  2)Value in (ohms) | | Numeric  And  option Set | O |  | Rode | Pipe | Plate | |
| 4.4.5.2 | 1) Earthing Type (option set)  2) Value in (ohms) | | Numeric  And  option Set | O |  | Rode | Pipe | Plate | |

## **SCREEN 4 – SUBSTATION TRANSFORMER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Report Form for supervisor: Type of Installation is SUBSTATION TRANSFORMER** | | | | | |
|  | Serial number of transformer | Text/string | M |  |  |
|  | Capacity of transformer (IN KVA) | Numeric Dropdown | M | 10000Max (kVA),  1000Max (MVA) | KVA/MVA |
|  | Type of transformer | Option set | C |  | **Oil/ Dry** |
| **TYPE OF TRANSFORMER--IN CASE OF OIL-- Note: (Conditional)** | | | | | |
| 3.1 | Primary voltage(in kva) | Numeric | M | O to 1000 in kVA |  |
| 3.2 | Secondary Voltage(in volte) | Numeric | M |  | 0.220 min in kVA, max  220kVA |
| 3.3 | Capacity of oil(in liters) | Numeric | M | Max 99999 |  |
| 3.4 | BDV level of oil (in kv)  Break down voltage | Numeric | M | Max 999 |  |
| 3.5.1 | **Insulation resistance—**  a) --HT side Insulation Resistance— HV/Earth | Numeric | M |  | (IN MOHM) |
| 3.5.2 | **Insulation resistance—**  b) --LT side Insulation Resistance—LV/Earth | Numeric | M |  | (IN MOHM) |
| 3..5.3 | **Insulation resistance—**  C) between HT LT Side --- | Numeric | M |  | (in ohms) |
| 3.6 | Lightning Arrestor (LA) Location | Text/String | M |  |  |
| 3.7 | Number of Earthing (Minimum 4, Maximum 15) | (Dropdown) Start from 4 to 15 | C |  | (NOTE: Depending on number of Earthing Below fields will be repeated) |
| 3.7.1 | * Earthing Type: * Value (in ohm): * Used For(Dropdown) | Numeric  (Dropdown) | O |  | 1)Rode | Pipe | Plate  **2)Used For (Dropdown)** - Neutral Transformer/ Body of transformer/ LA's/ HT Panels/ LT panels/ Fencing/ Other. |
| 3.7.2 | 1. Earthing Type: 2. Value (in ohm): 3. Used For(Dropdown) | Numeric  (Dropdown) | O |  | 1)Rode | Pipe | Plate  2)**Used For (dropdown)-** Neutral Transformer/ Body of transformer/ LA's/ HT Panels/ LT panels/ Fencing/ Other. |
| 3.8 | Type of HT (Primary Side/ Switch) | Dropdown | C |  | **Dropdown -- GO Switch/ 3Pole Linked Switch(GODO)/ Breaker**  (NOTE: IF CAPACITY OF TRANSFORMER IS 1000 KVA AND ABOVE THEN ONLY BREAKER DROPDOWN WILL BE SHOWN, GOSWITCH AND 3POLE WILL BE HIDDEN)  (NOTE: IF LOWER THEN 1000 THEN ALL DROPDOWN VALUES WILL BE SHOWN) |
| **TYPE OF HT (IN CASE OF BREAKER)** | | | | | |
| 3.8.1 | Load breaking capacity of breaker (IN KA) | Numeric | C | 1 to 1000 KA | **(NOTE: ONLY SHOWN WHEN CAPACITY OF TRANSFORMER IS 1000KVA OR ABOVE)** |
| 3.8.2 | Type of LT protection | Dropdown (option set) | C |  | **Fuse unit/ Breaker(option set)** |
| **Type of LT protection (If chosen Fuse Unit) Note: (Conditional)** | | | | | |
| 3.8.2.1 | Capacity of individual fuse(IN AMPS) | Numeric | M | Min 1 – Max 9999 |  |
| 3.9 **Type of LT protection (If Chosen Breaker) Note: (Conditional)** | | | | | |
| 3.9.1 | Capacity of LT Breaker(IN AMPS) | Numeric | M | Min 1 – Max 9999 |  |
| 3.9.2 | Load Breaking Capacity of Breaker (IN AMPS) | Numeric | M | Min 1 – Max 9999 |  |
| 3.10 | Mean Sea Level of transformer plinth (IN METRES) | Numeric | M | Min 1 – Max 99999 |  |
| **(ADD UNDERTAKING NOTE FOR SUPERVISOR)** | | | | | |
| **TYPE OF TRANSFORMER--IN CASE OF DRY-- Note: (Conditional)** | | | | | |
| 3.2 | Primary voltage(in volte) | Numeric | M |  |  |
| 3.3 | Secondary Voltage(in volte) | Numeric | M |  |  |
| 3.4 | **Insulation resistance—**  a) --HT side Insulation Resistance— HV/Earth | Numeric | M |  | (IN MOHM) |
| 3.4.1 | **Insulation resistance—**  b) --LT side Insulation Resistance—LV/Earth | Numeric | M |  | (IN MOHM) |
| 3.4.2 | **Insulation resistance—**  C) between HT LT Side --- | Numeric | M |  | in (ohms) |
| 3.5 | Lightning Arrested (LA) Location | Text/String | M |  |  |
| 3.6 | Number of Earthing (Minimum 4, Maximum 15) | (Dropdown) Start from 4 to 15 | C |  | (NOTE: Depending on number of Earthing Below fields will be repeated) |
| 3.6.1 | * Earthing Type: * Value (in ohm): * Used For(Dropdown) | Numeric | O |  | Rode | Pipe | Plate  Used For (Dropdown) - Neutral Transformer/ Body of transformer/ LA's/ HT Panels/ LT panels/ Fencing/ Other. |
| 3.6.2 | * Earthing Type: * Value (in ohm): * Used For(Dropdown) | Numeric | O |  | 1)Earthing Type -- Rode | Pipe | Plate  2)**Used For (dropdown)-** Neutral Transformer/ Body of transformer/ LA's/ HT Panels/ LT panels/ Fencing/ Other. |
| 3..7 | Type of HT (Primary Side/ Switch) | Dropdown | C |  | **Dropdown** -- GO Switch/ 3Pole Linked Switch(GODO)/ Breaker  (NOTE: IF CAPACITY OF TRANSFORMER IS 1000 KVA AND ABOVE THEN ONLY BREAKER DROPDOWN WILL BE SHOWN, GOSWITCH AND 3POLE WILL BE HIDDEN)  (NOTE: IF LOWER THEN 1000 THEN ALL DROPDOWN VALUES WILL BE SHOWN) |
| **TYPE OF HT (IN BREAKER)-** | | | | | |
| 3.7.1 | Load breaking capacity of breaker (IN KVA) | Numeric | C |  | (NOTE: ONLY SHOWN WHEN CAPACITY OF TRANSFORMER IS 1000KVA OR ABOVE) |
| 3.8 | Type of LT protection | Dropdown (option set) | C |  | Fuse unit/ Breaker(option set) |
| **TYPE OF LT PROTECTION (If chosen Fuse Unit) Note: (Conditional)** | | | | | |
| 3.8.1 | Capacity of individual fuse (IN AMPS) | Numeric | C |  |  |
| **TYPE OF LT PROTECTION (If Chosen Breaker) Note: (Conditional)** | | | | | |
| 3.8.2 | 1.Capacity of LT Breaker  2. Load Breaking Capacity of Breaker | Numeric | C |  |  |
| 3.9 | Mean Sea Level of transformer plinth (IN METRES) | Numeric | C |  |  |
| **(ADD UNDERTAKING NOTE FOR SUPERVISOR)** | | | | | |
| **SCREEN 5 – Type of Installation is Generating Set** | | | | | |
| **Test Report Form for Supervisor: Type of Installation is Generating Set** | | | | | |
| 1 | Capacity of Generating Set | Dropdown | M | 1 to 9999 | In (KVA/MVA) |
| 2 | Serial no of Ac generator/ Alternator | Text/string |  |  |  |
| 3 | Type of Generating Set | Option set | C |  | Diesel engine/ Gas engine/ Solar panel/ Bio fuel. |
| 4 | Generator voltage level  (IN VOLTS) | Numeric | M | Min 220, max 66000 |  |
| 5 | Current capacity of breaker( IN AMPS) | Numeric | M |  |  |
| 6 | Breaking capacity of breaker (IN KA) | Numeric | M |  |  |
| **TYPE OF GENERATING SET (IN CASE OF SOLAR PANEL) Note: (Conditional)** | | | | | |
| 7 | Type of plant | (option set) | O |  | **Ground Mounted / Roof top** |
| 7.1 | **a)** capacity of plant (IN KW)/ MW  **b)** highest voltage level of DC string (IN VDC) | Drop down Numeric | M | KW – 1 to 999,  MW – 1 To 99 |  |
| 7.2 | Lowest Insulation Resistance Between DC phase wire to earth wire | Numeric | M | Min 1, Max 9999 Mohm |  |
| 7.3 | No of power conditioning units (PCV) or Solar Inverter | Numeric | M | 1 to 100 |  |
| 7.4 | capacity of main LTAC Breaker | Numeric | M | Min 1, Max 9999 Amp |  |
| 7.5 | Lowest Insulation resistance of AC cables | Numeric | M | Min 1, Max 9999 Mohm |  |
| 8 | Number of Earthing (Minimum 4, Maximum 15) | (Dropdown) Start from 4 to 15 | C | Min 4,Max15 | (NOTE: Depending on number of Earthing Below fields will be repeated) |
| 8.1 | * Earthing Type: * Value (in ohm): * Used For(Dropdown) | Numeric, Dropdown | C |  | 1)Earthing Type - Rode | Pipe | Plate  2)Used For (dropdown)- Neutral Transformer/ Body of transformer/ LA's/ HT Panels/ LT panels/ Fencing/ Other. |
| 8.2 | * Earthing Type: * Value (in ohm): * Used For(Dropdown) | Numeric, Dropdown | C |  | 1)Earthing Type -- Rode | Pipe | Plate  2)Used For (dropdown)- Neutral Transformer/ Body of transformer/ LA's/ HT Panels/ LT panels/ Fencing/ Other. |
| **SCREEN 6 – Type of Installation is Single/ Three Phase.** | | | | | |
| **Test Report Form for Supervisor : Type of Installation is Single/ Three Phase.** | | | | | |
| 1 | Type of installation | (option set) | O |  | Single phase/ Three phase |
| 1 | Voltage Level | (option set) | O |  | Dropdown (220 volts/440 volts |
| 2 | Main switch capacity/ Breaker | Numeric | M | 1Amp to 999 Amp |  |
| 3 | Number of Earthing | Numeric | C | Min 1, max 15 | (NOTE: Depending on number of Earthing Below fields will be repeated) |
| 3.1 | * Earthing Type: * Value (in ohm): * Used For(Dropdown) | Numeric | O |  | 1)Earthing Type -- Rode | Pipe | Plate  2)Used For (dropdown)- Neutral Transformer/ Body of transformer/ LA's/ HT Panels/ LT panels/ Fencing/ Other. |
| 3.2 | * Earthing Type: * Value (in ohm): * Used For(Dropdown) | Numeric | o |  | 1)Earthing Type - Rode | Pipe | Plate  2)Used For (dropdown)- Neutral Transformer/ Body of transformer/ LA's/ HT Panels/ LT panels/ Fencing/ Other. |
| 4 | Minimum IR value between wires(in Mohm) | Numeric | M | 9999 Max |  |
| 5 | 5) No of RCCB  a) Rating of RCCB: Text (mA)  b) Current carrying capacity: Text(amps) | Numeric | M |  | No of RCCB – Min1, Max 999 digit  Rating of RCCB - Min10 to 100 mA  Current carrying capacity –  Min 10 to Max 100 |
| 6 | No of circuits | Numeric | M | 1 to 999 |  |
| 7 | No of Motors | Numeric | M | 1. to 999 |  |

**ADD UNDERTAKING NOTE FOR SUPERVISOR)**

## **1.7 SCREEN 7 – Type of Installation is Lift**

| **Sr. No.** | **Field Name** | **Type of Field** | **Mandatory / Optional / Conditional / Default** | **Size limit** | **Remarks** |
| --- | --- | --- | --- | --- | --- |
| **Type of Installation is LIFT** | | | | | |
| 1 | Voltage and system of supply | Option set | O |  | 220/440 Volts (dropdown) |
| 1. **Particulars of works** | | | | | |
| A | M.V Installation | Numeric Dropdown ( 1 to 5) | C,O | Min 1 Max 5 | Further fields will be opened with serial number, depending on the M.V installation selection.( from 2.1 to 2.4) |
| 2.1) | Capacity | Text/string | C |  |  |
| 2.2) | Equipment | Text/string | C |  |  |
| 2.3) | Voltage | Text string | C |  |  |
| 2.4) | Fed from distribution | Option set | C,O |  | Board/ Switch Board |
|  | **B) Lighting** | **( Text/ String)** |  |  |  |
| **C) TEST RESULTS** | | | | | |
| 1 | Insulation Resistance for the whole installation | Text/string | M |  | In Mohm |
| 2 | Between Phases |  |  |  |  |
| 2.1 | * Red Phase – Yellow Phase(in Mohm) | Numeric | M | 1Mohm to 9999 Mohm |  |
| 2.2 | * Red Phase – Blue Phase(in Mohm) | Numeric | M | 1Mohm to 9999 Mohm |  |
| 2.3 | * Blue Phase – Yellow Phase(in Mohm) | Numeric | M | 1Mohm to 9999 Mohm |  |
| 3 | Between each phase and earth |  |  |  |  |
| 3.1 | * Red Phase – Earth Wire (in Mohm) | Numeric | M | 1Mohm to 9999 Mohm | Red Phase – Earth Wire (in Mohm) |
| 3.2 | * Yellow Phase – Earth Wire (in Mohm) | Numeric | M | 1Mohm to 9999 Mohm | Yellow Phase – Earth Wire (in Mohm) |
| 3.3 | * Blue Phase – Earth Wire (in Mohm) | Numeric | M | 1Mohm to 9999 Mohm | Blue Phase – Earth Wire (in Mohm) |
| 4 | Number of Earthing | Numeric | C | Min 1, max15 | (NOTE: Depending on number of Earthing Below fields will be repeated) |
| 4.1 | * Earthing Type: * Value (in ohm): | Numeric | O |  | 1)Earthing Type -- Rode | Pipe | Plate |

## **1.8 SCREEN 8 – Type of Installation is LPI single phase (220 V)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Report Form for Supervisor : Type of Installation LPI single phase (220V)** | | | | | |
| 1 | Main switch capacity/ Breaker | Numeric | M | 1Amp to 999 Amp |  |
| 2 | Number of Earthing | Numeric | C | Min 1, max 15 | (NOTE: Depending on number of Earthing Below fields will be repeated) |
| 2.1 | * Earthing Type: * Value (in ohm): * Used For(Dropdown) | Numeric | O |  | 1)Earthing Type -- Rode | Pipe | Plate  2)Used For (dropdown)- Neutral Transformer/ Body of transformer/ LA's/ HT Panels/ LT panels/ Fencing/ Other. |
| 2.2 | * Earthing Type: * Value (in ohm): * Used For(Dropdown) | Numeric | o |  | 1)Earthing Type - Rode | Pipe | Plate  2)Used For (dropdown)- Neutral Transformer/ Body of transformer/ LA's/ HT Panels/ LT panels/ Fencing/ Other. |
| 3 | Minimum IR value between wires(in Mohm) | Numeric | M | 9999 Max |  |
| 4 | **5) No of RCCB**  a) Rating of RCCB: Text (mA)  b) Current carrying capacity: Text(amps) | Numeric | M |  | No of RCCB – Min1, Max 999 digit  Rating of RCCB - Min10 to 100 mA  Current carrying capacity –  Min 10 to Max 100 |
| 5 | No of circuits | Numeric | M | 1 to 999 |  |
| 6 | No of Motors | Numeric | M | 1. to 999 |  |

**ADD UNDERTAKING NOTE FOR SUPERVISOR)**

## **1.9 SCREEN 9 – Type of Installation is MPI Three phase (440 V)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Report Form for Supervisor : Type of Installation MPI three phase (440V)** | | | | | |
| 1 | Main switch capacity/ Breaker | Numeric | M | 1Amp to 999 Amp |  |
| 2 | Number of Earthing | Numeric | C | Min 1, max 15 | (NOTE: Depending on number of Earthing Below fields will be repeated) |
| 2.1 | * Earthing Type: * Value (in ohm): * Used For(Dropdown) | Numeric | O |  | 1)Earthing Type -- Rode | Pipe | Plate  2)Used For (dropdown)- Neutral Transformer/ Body of transformer/ LA's/ HT Panels/ LT panels/ Fencing/ Other. |
| 2.2 | * Earthing Type: * Value (in ohm): * Used For(Dropdown) | Numeric | o |  | 1)Earthing Type - Rode | Pipe | Plate  2)Used For (dropdown)- Neutral Transformer/ Body of transformer/ LA's/ HT Panels/ LT panels/ Fencing/ Other. |
| 3 | Minimum IR value between wires(in Mohm) | Numeric | M | 9999 Max |  |
| 4 | 5) No of RCCB  a) Rating of RCCB: Text (mA)  b) Current carrying capacity: Text(amps) | Numeric | M |  | No of RCCB – Min1, Max 999 digit  Rating of RCCB - Min10 to 100 mA  Current carrying capacity –  Min 10 to Max 100 |
| 5 | No of circuits | Numeric | M | 1 to 999 |  |
| 6 | No of Motors | Numeric | M | 1. to 999 |  |

**ADD UNDERTAKING NOTE FOR SUPERVISOR)**