



**DALMIA CEMENT (B) LIMITED – CEMENT PLANT
ARIYALUR
ELECTRICAL MANUAL**



| | | | |
|--------------------------|-------------|-------------------------------|----------------|
| Issue No. 01 | Rev. No: 01 | Effective Date: 07.07.2017 | SOP/Elect /041 |
| Issued By: | | Approved By: HOD - ELECTRICAL | |
| SOP for Tri vector Meter | | | |

Scope : SOP for Trivector Meter
Responsibility : Electrical section Technician / Section Engineer
Accountability : Electrical Section Engineer / Head

PPE:

1. Safety Helmet.
2. Safety Shoe.
3. Goggle.

TOOLS:

1. Trivector Meter Manual.

Hazard Analysis:

Risk associated:

Flash Over of Panel
Effect of Shock
Effect of Eye Irritation

Mitigation Measures

Use of Safety Harness
Suitable Electrical Insulated glove
Use of goggles

Parameter Available in the Demand controller

The Trivector meter we are using here is EM 3460 Smart demand controller.
This meter is having 3 sections in it. They are trip, parameters and function.

Trip:

- shed
- restore
- DM>UL
- PdDM > UL

Parameters:

- UL
- ESLD
- MAX. DM



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- Pd DM
- VA **h**
- VAR **h**
- V **Avg**
- F **Avg**
- LL
- PdIN
- DM
- Spr LD
- W **h**
- PF **Avg**
- A **h**
- Hrs Σ

Function:

- **INTEG**
- PROFILE
- **OLD**
- THD%

Display:



SET

CLR

PAR

FUNC

☐
MORE





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Procedure:

1. To read the value that are present in the parameter section, press the PAR option
Until the desired parameter is glowing.
For example: we want to measure the VA, we have to press PAR option till the LED beside VA is turned ON.
2. Similarly there is another option called FUNC, using this button we can select the options present in function column.
3. In this function option there are 4 options as mentioned above. To select the required function press the FUNC option till the LED beside the required function.
4. Certain options in the parameter list are in two different colors, that means they can be used to check two different values. Operation of this can be explained as, we can measure the apparent power by using the option VA, this same parameter when selected can be used for checking the value of VA h.
5. This is possible when we select the function INTEG from the function block and VA option from the parameter block. Similarly, we can measure avg PF, V avg, etc.
6. This means we can easily identify which value we are reading by checking the blocks of parameter and the function blocks properly.
7. Once we selected the required option that is for suppose we selected 'V', then we can measure not only the total voltage but also we can measure the line voltages by pressing the option 'more' and also the phase differences.
8. The option HRS gives the day/ date/month and also the time at that moment.
9. In the OLD option present in the function block, previously deleted data is Present.

Emergency Shut- off:

If any injury is there, give First aid and inform to the Safety department or Call Emergency number 3108/9865152222/9750963761



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Records/Annexure:

JOB SAFETY ANALYSIS: (JSA)

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|--|--|---|--|--|
| Job Safety Analysis | Job: Parameter selection of tri vector meter | Date: 20 - 5 – 2013 | Analysis by: SE | Reviewed by: SH |
| Title of employee doing job: Engineer | Supervisor: Sec.Engr | Department: Electrical | Section: MISS | Approved by: HOD |
| Reqd./recommended PPE: Safety Shoe, Safety helmet, Goggle. | | | | |
| Sequence of Basic Job Steps | Potential Hazards | Recommended Safe Job Procedure | What Could Go Wrong | Corrective Action |
| Identification of Tri Vector Meter | Trip of Power due to wrong selection of Meter. | Cross check with Display which is Displayed | Fail to Cross check the Meter Display not Available | Ensure the SOP to Followed Once in the Year Cross check the Displays. |