



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

Issue No:02	Rev. No: 00	Effective Date: 01.11.2019	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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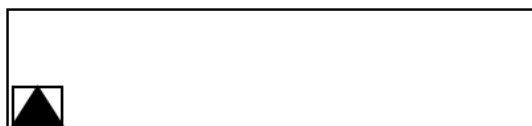
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- Pd DM
- VA **h**
- VAR **h**
- V **Avg**
- F **Avg**
- LL
- PdIN
- DM
- Spr LD
- W **h**
- PF **Avg**
- A **h**
- Hrs  $\Sigma$

**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)**

<b>Job Safety Analysis</b>	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.				
<b>Sequence of Basic Job Steps</b>	<b>Potential Hazards</b>	<b>Recommended Safe Job Procedure</b>	<b>What Could Go Wrong</b>	<b>Corrective Action</b>
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.