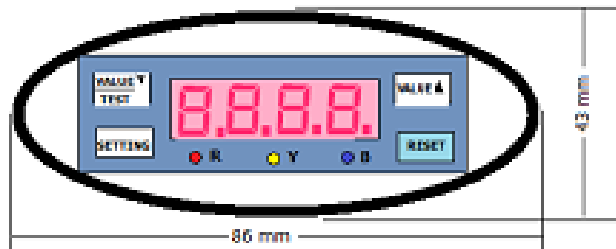
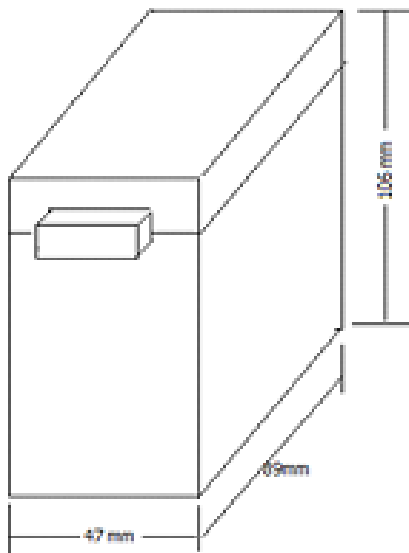


# OPERATING MANUAL FOR MPD MODEL : S-EC / 40 TO 500 A

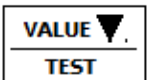
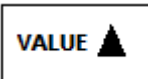
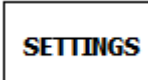

## Dimension for Controller Unit

## Dimension for Display cum Keypad Unit



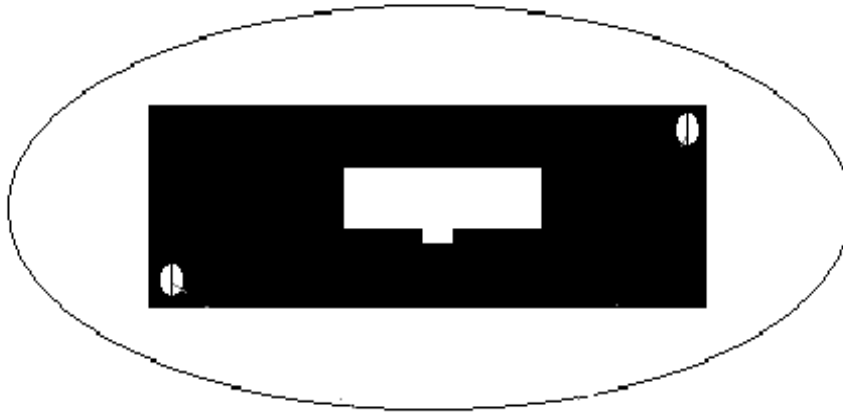
**Note: Length of FRC Available is 1 meter OR 2 meter.**

### Functions of Keys :

	To reduce values during setting of parameters & to TEST the RELAY contact when no current is passing through device.
	To increase values during setting of parameter.
	To enter in setting of paramters
	To reset the device after trip during falult occur.

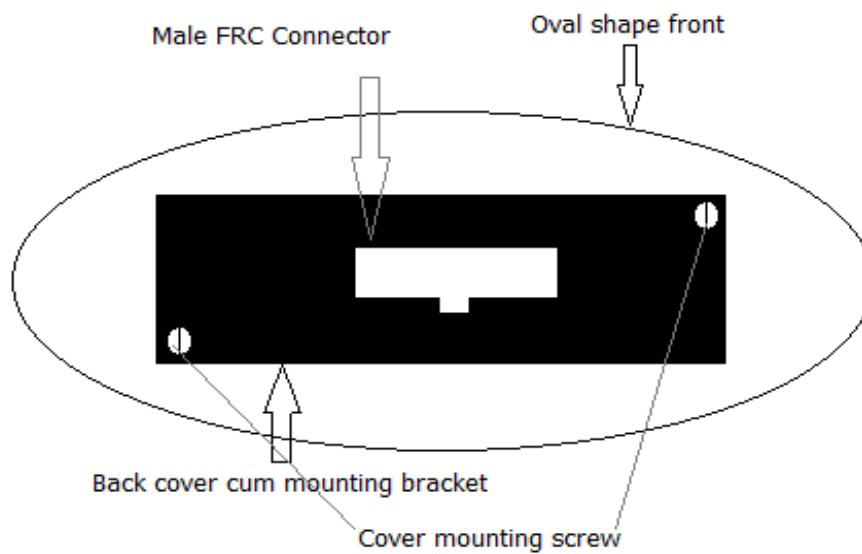
## Mounting of Display on Panel Door (Door Cutout : 70 X 30 mm)

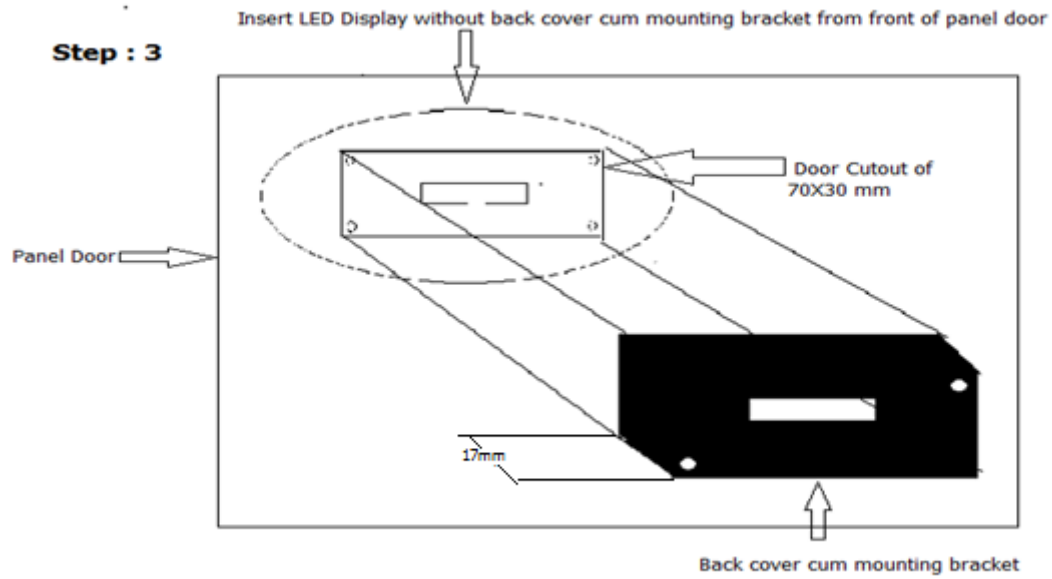
### Step : 1



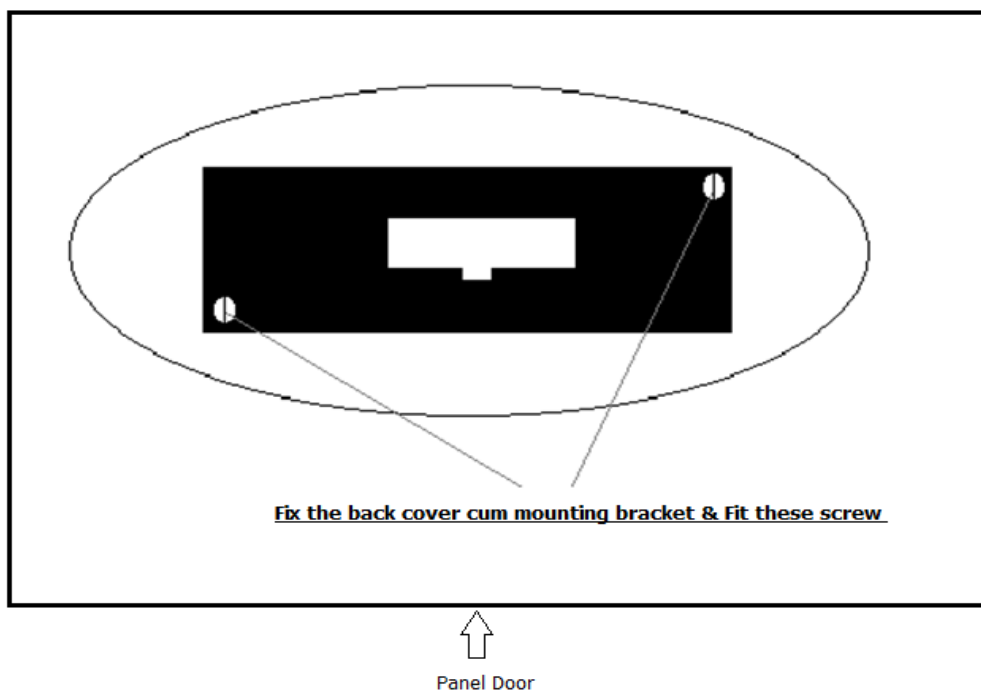
### Step : 2

#### Rear view of LED Display





**Step : 4** Mounting of Display on door



## List of Parameter for MPD Model: S-EC / 40 – 500 Amp

Sr. No.	Parameter Name/Meaning	Settable Value	Password
01.	Set Current [ <b>5</b> ] / FLC of Motor	40 TO 500 Amp	Factory
02.	Under Current [ <b>U</b> ]/ No Load Current of Motor	0 TO 450 Amp	Factory
03.	Calibration [ <b>E•</b> ] / OFFSET of R Phase	±10 Amp	Factory
04.	Calibration [ <b>E•</b> ] / OFFSET of Y Phase	±10 Amp	Factory
05.	Calibration [ <b>E•</b> ] / OFFSET of B Phase	±10 Amp	Factory
06.	Scrolling Time [ <b>t</b> ] / Time interval for scrolling	0 To 10 Second (1)	Factory
07.	Phase Reversal [ <b>Ph-E</b> ] [ <b>Ph-d</b> ] (2)	Enable/Disable	Factory
08.	Auto Reset [ <b>Rr-E</b> ] [ <b>Rr-d</b> ](3)	Enable/Disable	Factory
09.	CT Ratio [ <b>R500</b> ] / Primary Value of External CT (Secondary Value is Fixed of 5 Amp)	100 TO 500A	Engineering

- (1) Scroll Time 0 : Only one Phase Current indication & Selected Phase by [VALUE ^] Key
- (2) If **Ph-r** fault is present & if Phase Reversal is Enable (**Ph-E**) then MPD trip on **Ph-r** automatically. If it is Disable (**Ph-d**) then MPD will not trip on **Ph-r**.
- (3) If Auto Reset is 'Enable' [**Rr-E**] then MPD Reset automatically after 10 minutes. If it is Disable [**Rr-d**] then MPD Reset manually by pressing **RESET** key.

### Password:

There are two PASSWORDS to protect parameters from authorized changes.

- A) Factory Password – Set **P 106** & then Press **PARA** key
- B) Engineering. Password – Set **P 147** & then Press **PARA** key

### Setting of Parameter:

Step: 1

Press **SETTING** button on Keypad, Display will show **P 100**

Step: 2

Press **VALUE** ^ till **P 106** OR **P 147** according to parameter to be change as per requirement

Step: 3

Press **SETTING** button, then display will show Parameter as per above Table.

Step 4:

Change required value for particular para by Key **VALUE** ^ OR **VALUE** v till desire value.

Step 5:

Press **SETTING** button to go to next para OR leave the key pad. Last data changed will save automatically.

## **RUN Display**

In Normal Running condition Display will show Three Phase Current in Scrolling manner as Scroll Time has been set.

<b>Display</b>	<b>Meaning</b>
•415	Current in R Phase : 415 Amp
•405	Current in Y Phase : 405 Amp
•423	Current in B Phase : 423 Amp

## **TRIPPING & FAULT MESSAGE**

### **OVERLOAD:**

If any phase current (R, Y, B) > Set Current [5] then MPD will trip on Over Load & indicates [OL]. Trip time will be according to settable O/L Curve (see page- IT CHARECTERISTICS).

### **UNBALANCE:**

If difference between any two phase current > (Set Current/ 3) then MPD will trip on Unbalance & display show [Ub].

### **SINGLE PHASE PROTECTION:**

If anyone phase, out of R, Y, B is absent or OFF then MPD will trip on Single Phase & display will shows [SPP].

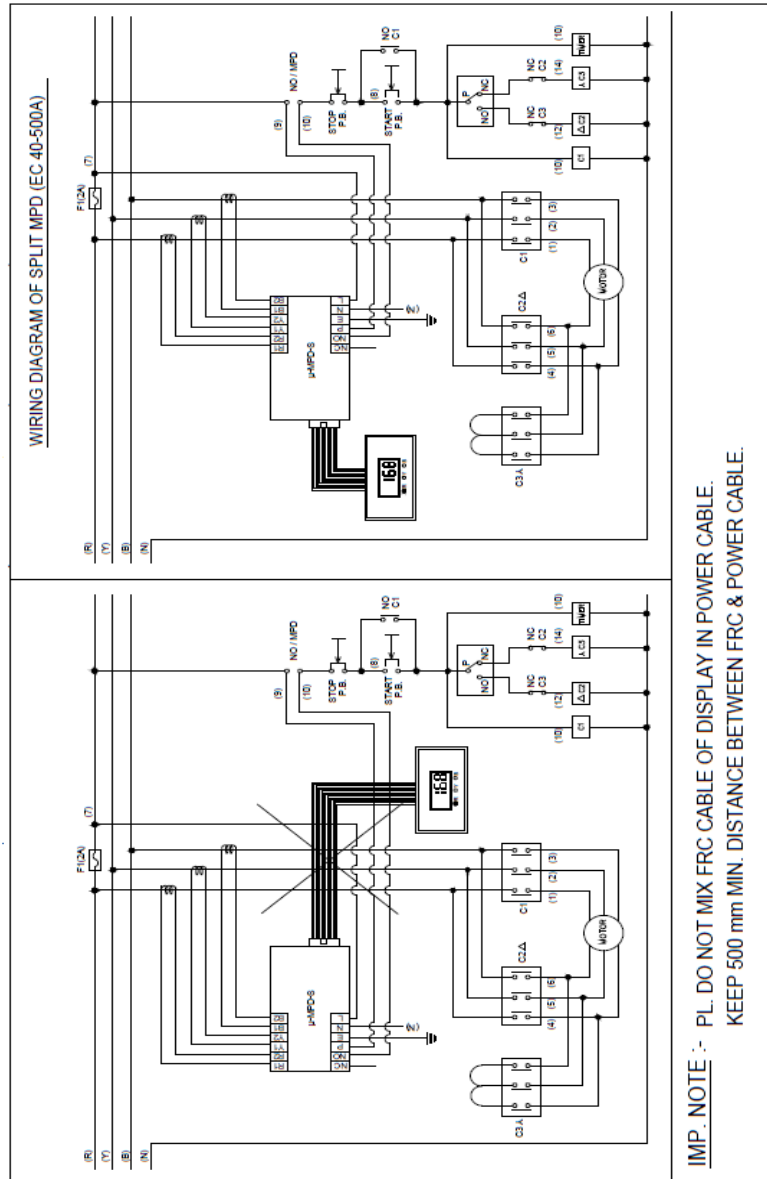
### **PHASE REVERSE:**

If any two phase (R, Y & B) are interchanged then MPD will trip on phase reversal and display will show [Ph-r]

### **UNDERLOAD:**

If all 3 phases values (R, Y, B) are < Underload Current then MPD will trip on under load and display will show [UL].

## Wiring Diagram of MPD Model: S-EC/40-500 Amp



## IT Characteristics for Over Load Trip Time

