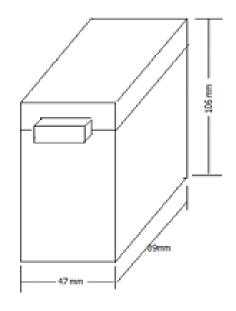
OPERATING MANUAL FOR MPD MODEL : S-DXA / 40 TO 500 A

<u>Dimension for Controller Unit</u> <u>Dimension for Display cum Keypad Unit</u>





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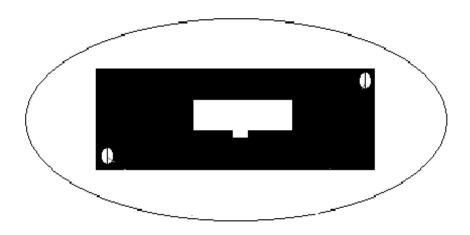
Note: Length of FRC Available is 1 meter OR 2 meter.

Functions of Keys:

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

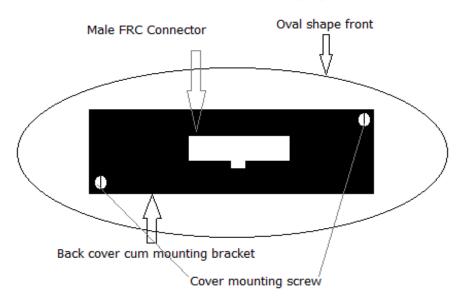
Mounting of Display on Panel Door (Door Cutout: 70 X 30 mm)

Step:1



Step: 2

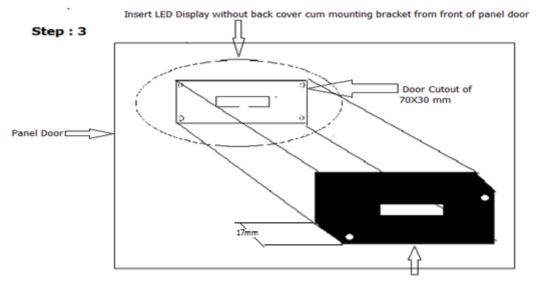
Rear view of LED Display



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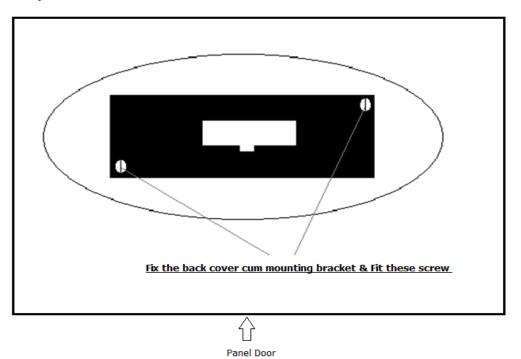
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Back cover cum mounting bracket

Step: 4 Mounting of Display on door





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<u>List of Parameter for MPD Model: S-DXA / 40 - 500 Amp</u>

Sr. No.	Parameter Name/Meaning	Settable Value	Password
01.	Set Current [5] / FLC of Motor	40 TO 500 Amp	Factory
02.	Under Current [L]/ No Load Current of Motor	0 TO 450 Amp	Factory
03.	Set Earth Fault Current [E]	0.1 TO 25.0 Amp	Factory
04.	Calibration [[●] / OFFSET of R Phase	±10 Amp	Factory
05.	Calibration [[-] / OFFSET of Y Phase	±10 Amp	Factory
06.	Calibration [[•] / OFFSET of B Phase	±10 Amp	Factory
07.	Scrolling Time [L] / Time interval for scrolling	0 To 10 Second (1)	Factory
08.	Phase Reversal [Ph-E] [Ph-d] (2)	Enable/Disable	Factory
09.	Auto Reset [Ar-E] [Ar-d](3)	Enable/Disable	Factory
10.	CT Ratio [R500] / 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

Sten: 2

Press **VALUE** ^ till **P** 105 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** \wedge OR **VALUE** \vee till desire value.

Step 5:

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

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RUN Display

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

Display	Meaning
•4 15	Current in R Phase: 415 Amp
•405	Current in Y Phase: 405 Amp
•453	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 [a] with indication of the phase which draws highest current & that current value. Trip time will be according to settable O/L Curve (see page- IT CHARECTERISTICS).

UNBALANCE:

If difference between <u>any</u> two phase current > (Set Current/ 3) then MPD will trip on Unbalance & display show [b] with indication of two phase which are unbalance with value of unbalance current.

SINGLE PHASE PROTECTION:

If anyone phase, out of R, Y, B is absent <u>or</u> OFF then MPD will trip on Single Phase & display will shows [5PP] with indication of phase which sense '0' current.

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 [\square] with indication of the phase which draws highest current out of three phase but lower than value of Under load set point & that current value.

LOCK ROTOR:

If anyone phase current (R, Y, B) > SET O/L CUR x 7 times, then MPD will trip on Lock Rotor. Display will show [L] & shows maximum current and the phase in which maximum current flows also <u>indicate with the help of 'LED indication'</u>.

SHORT CKT:

If anyone phase current (R, Y, B) > SET OL CUR x 8 times, then MPD will trip on Short Ckt. & Display will show [5] & shows maximum current and the phase in which maximum current flows also <u>indicate with the help of 'LED indication'</u>.

EARTH FAULT:

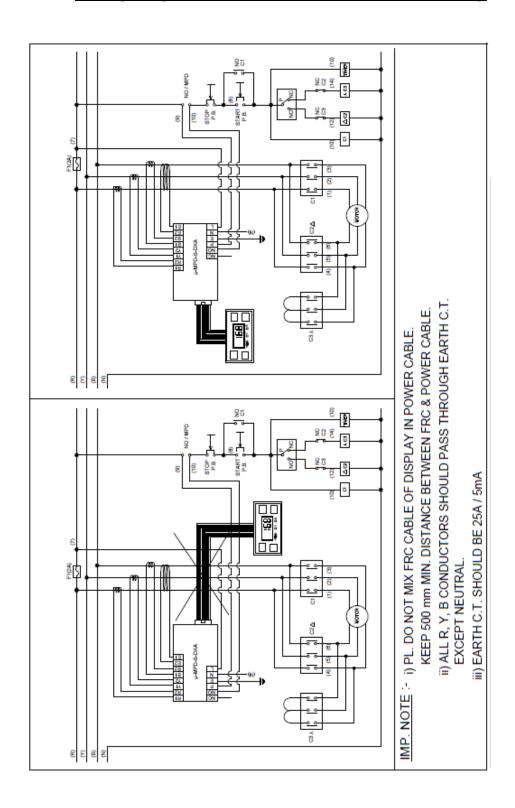
If Earth current [2] > SET EARTH CURRENT [5] then MPD will trip on Earth Fault & display will show [5] & shows recent earth leakage current.

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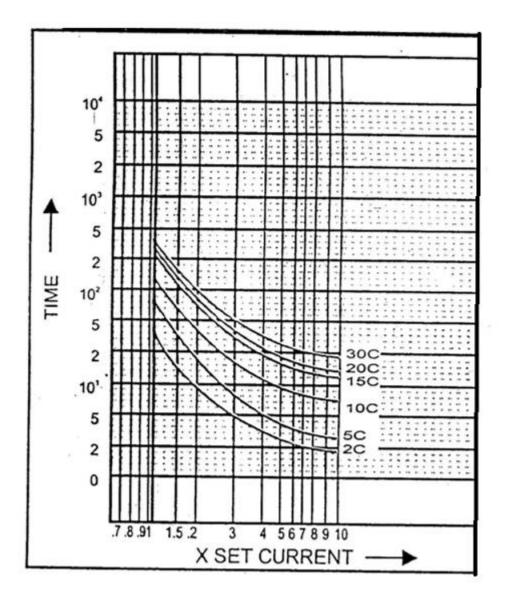
Wiring Diagram of MPD Model: S-DXA/40-500 Amp



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IT Characteristics for Over Load Trip Time



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