

**MOTO ECO PREVENTER
MODEL - MCS_3P3CEM**



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The digital display meters are a new generation of programmable meters, which are mainly used in the real-time measurement and indication on voltage in an electric circuit with features of high precision, good stability calibration-free long-term operation. The **ECO PREVENTER** is a digital device designed to protect 3-phase motor from Dry run amps, overload amps, phase failure, and phase reversal. It offers accurate monitoring and control of your motor performance, ensuring efficient operation and preventing damage. It is suitable for submersible pumps, and 3-phase motors.

SPECIFICATION:

MODEL	: MCS_3P3CEM
TYPE	: DIGITAL
BOX	: PVC BOX
COLOUR	: BLACK
INPUT SUPPLY	: 3-PHASE
OPERATING VOLTAGE	: 440 VAC
PACKAGE CONTAINS	: 1x ECO PREVENTER, 3x CT COIL 40A, 1x USER MANUAL.

FEATURES:

- 7SEGMENT LED DISPLAY.
- SINGLE PHASE PREVENTER.
- HIGH & LOW VOLTAGE PROTECTION.
- PHASE FAILURE & PHASE REVERSAL PROTECTION.
- DIFFERENT VOLTAGE PROTECTION.
- OVER LOAD & DRY RUN PROTECTION.
- CURRENT SENSING PHASE -3(3CT).
- INDIVIDUAL AMPS SETTINGS.
- VOLTAGE CALIBRATION & AMPS CALIBRATION.
- CYCLIC TIMER WITH RESUME OPTION.
- YIELD TIMER OPTION.
- AUTO START OPTION.
- STAR DELTA TIMER.
- WATER LEVEL CONTROLLER OPTION.
- PUMP ERROR & FLOAT FAULT OPTION.

ADVANTAGES:

- SUITABLE FOR ALL BUTTON STARTER.
- DIGITAL VOLT & AMP METER.
- ACCURACY WITH TRIPPING & DISPLAY FAULT STATUS.
- USER FRIENDLY TIMER AND VOLTAGE SETTINGS.
- AUTO / MANUAL MODE OPERATION.
- EASY INSTALLATION AND MAINTENANCE.
- DISPLAY MOTOR RUN HISTORY AND RUNNING STATUS.

DESCRIPTION:



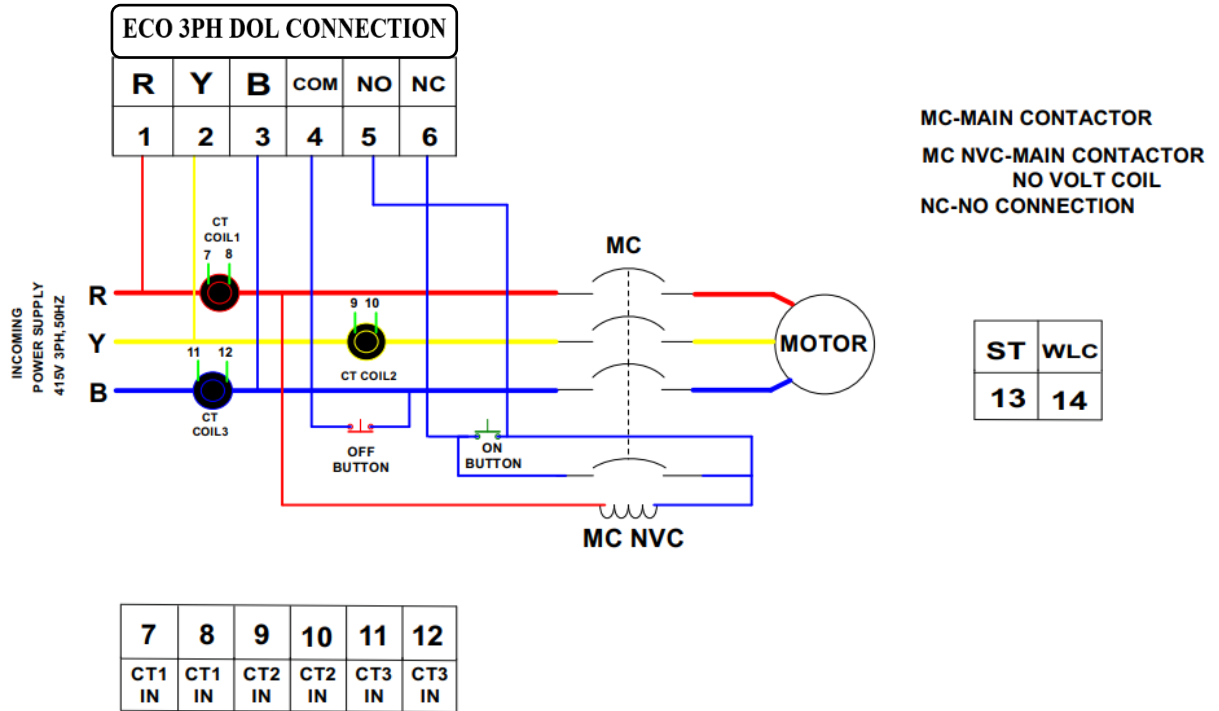
1. SEQUENCE LED.
2. AUTO LED.
3. DC LED.
4. 7SEG DISPLAY.
5. SET BUTTON.
6. INCREMENT BUTTON.
7. DECREMENT BUTTON.

FUNCTION:

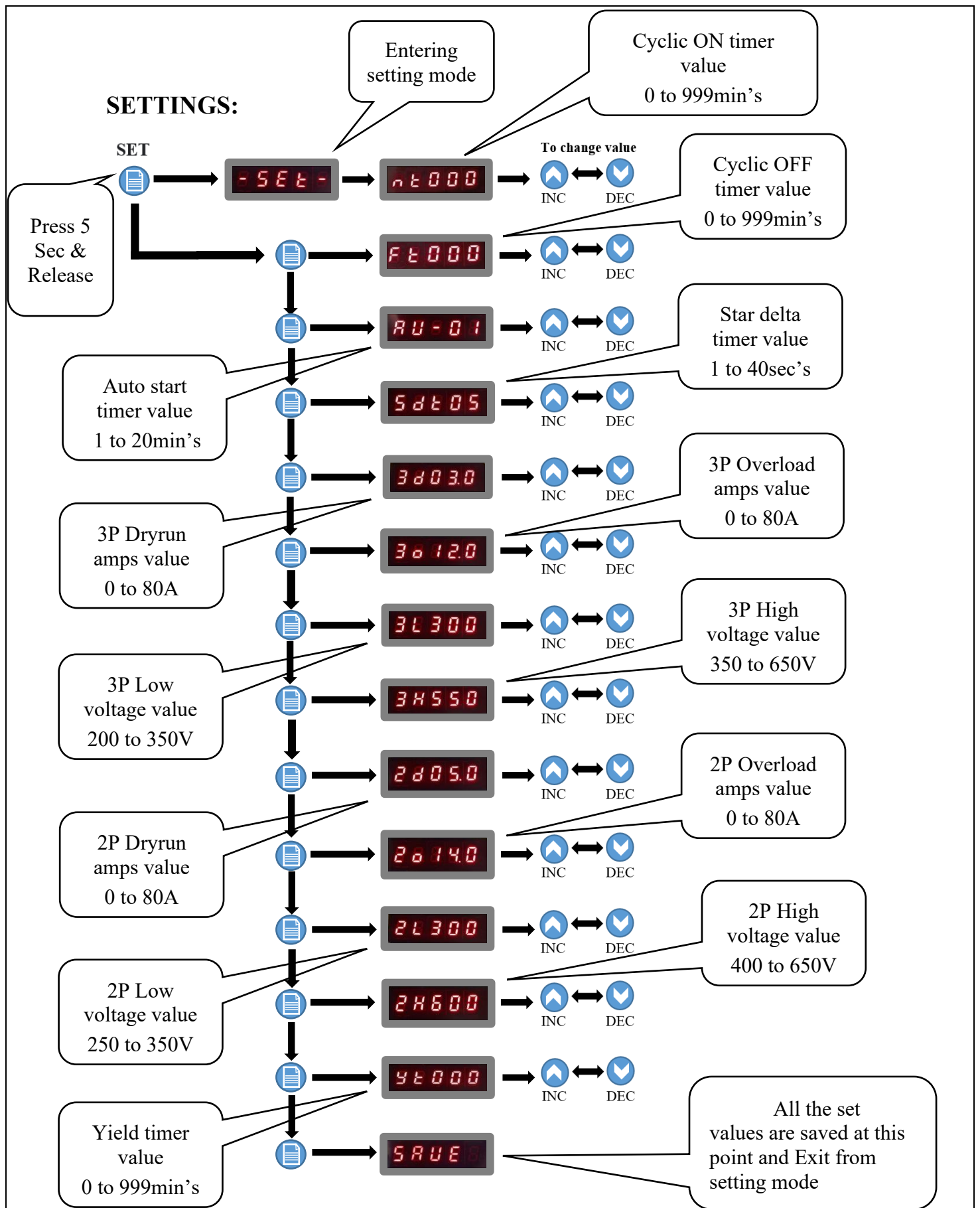
Turn on power supply, if voltage is normal the green led will turn on and display shows the real time voltage in AC circuit. Auto led used to indicate that the auto start timer is enabled and dc led is used to indicate 2phase mode is enabled. Now controller is ready to monitor the power supply condition. If upper tank water level is empty controller will turn on the motor automatically and upper tank water level is full controller will turn off the motor automatically based on float sensor output. A cyclic timer, which will allow the user to switch ON or OFF the motor on user's set time. If auto start timer is enabled, the motor will turn on automatically when the power is on, based on user set time.

WIRING DIAGRAM:

Fig 1: 3PHASE DOL STARTER CONNECTION DIAGRAM



NOTE: ALWAYS DISCONNECT POWER BEFORE INSTALLATION OR MAINTENANCE.



NOTE: IF 2PHASE MODE IS ENABLE THEN 2PHASE SETTINGS WILL DISPLAY IN SETTINGS MENU (STEP 9 TO STEP 12). ELSE 2PHASE SETTINGS WILL NOT DISPLAY IN SETTINGS MENU (STEP 9 TO STEP 12).

AUTO AMPS SET MODE:

- Long Press DEC Button while motor on in 3phase mode to set the 3P DRYRUN value for 80% and 3P OVERLOAD value for 120% of reading value (AS-3P).
- Long Press DEC Button while motor on in 2phase mode to set the 2P DRYRUN value as 80% and 2P OVERLOAD value for 130% of reading value (AS-2P).



WATER LEVEL CONTROLLER MODE:

- Long Press DEC Button while motor off to Enable the Water Level Option.
- Long Press DEC Button while motor off to Disable the Water Level option.



AUTO START TIMER MODE:

- Long Press DEC Button while power on to enable the AUTO START TIMER option.
- Long Press DEC Button while power on to disable the AUTO START TIMER option.



TWO PHASE MODE:

- Long Press INC Button while power on to enable the TWO PHASE option.
- Long Press INC Button while power on to disable the TWO PHASE option.



INDIVIDUAL AMPS SETTINGS:

- In default condition, Common amps is enabled (CA-E). To set individual amps common amps should be disabled in the E-SEt settings.
- Long press INC & DEC button for 5 sec to enter into E-SEt settings, then select the common amps settings (CA-d).
- All the step 1,2,3,4 are common, then step 5 & 6 changed as shown below, then step set 7 & 8 are common, then step 9 and step 10 will be changed as shown below.

INDIVIDUAL AMPS SETTINGS:

SET

To change value

Press 5 Sec & Release

3P L2 Dryrun amps value
0 to 80 A

3P L1 Overload amps value
0 to 80 A

3P L3 Overload amps value
0 to 80 A

2P L3 Dryrun amps value
0 to 80 A

2P L3 Overload amps value
0 to 80 A

3P L1 Dryrun amps value
0 to 80 A

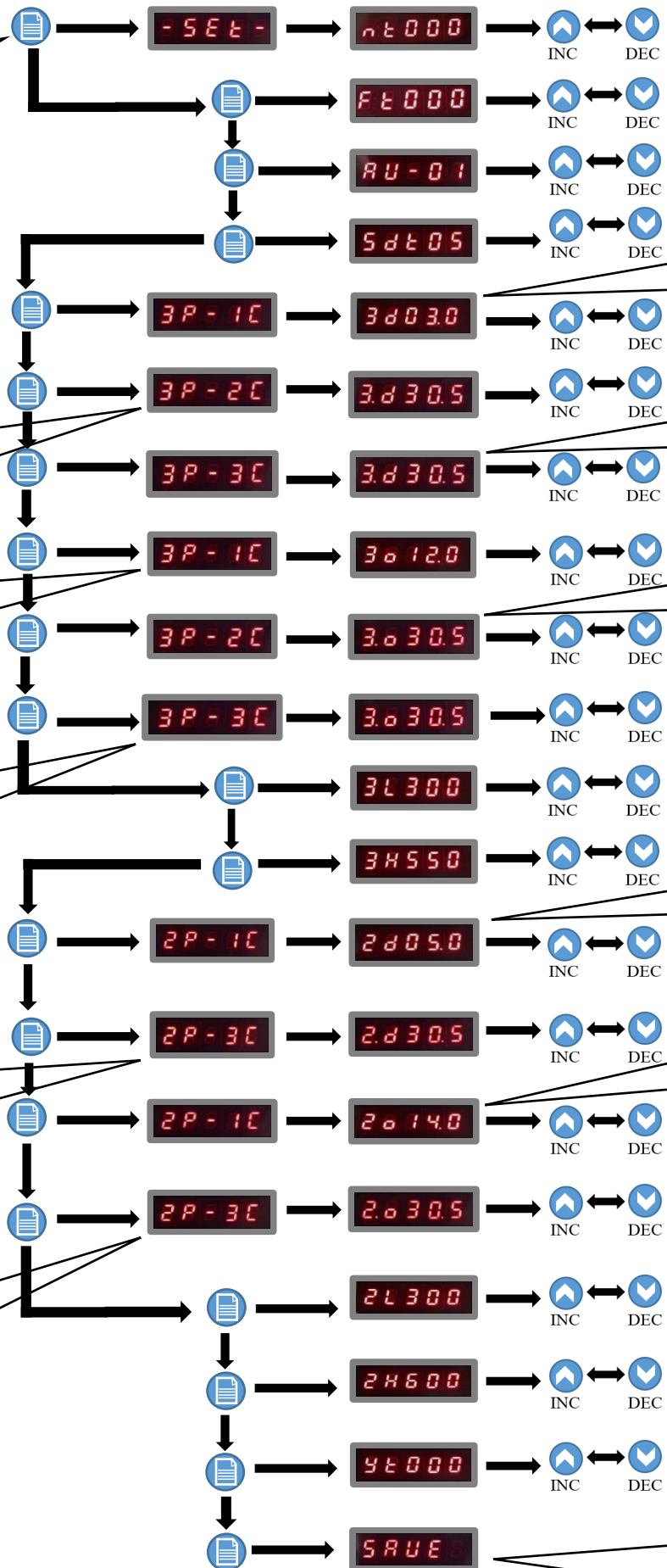
3P L3 Dryrun amps value
0 to 80 A

3P L2 Overload amps value
0 to 80 A

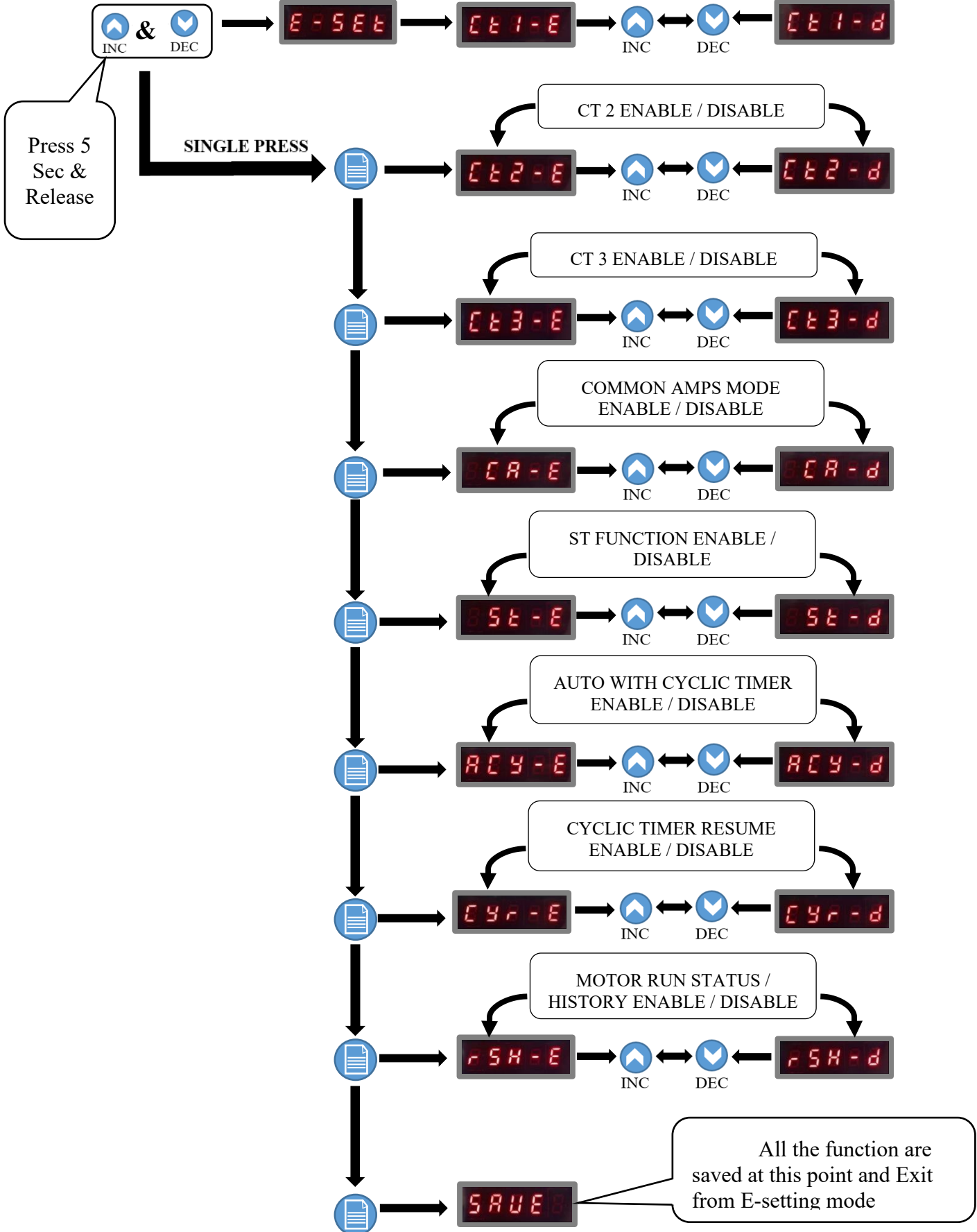
2P L1 Dryrun amps value
0 to 80 A

2P L1 Overload amps value
0 to 80 A









All the set values are saved at this point and Exit from setting mode



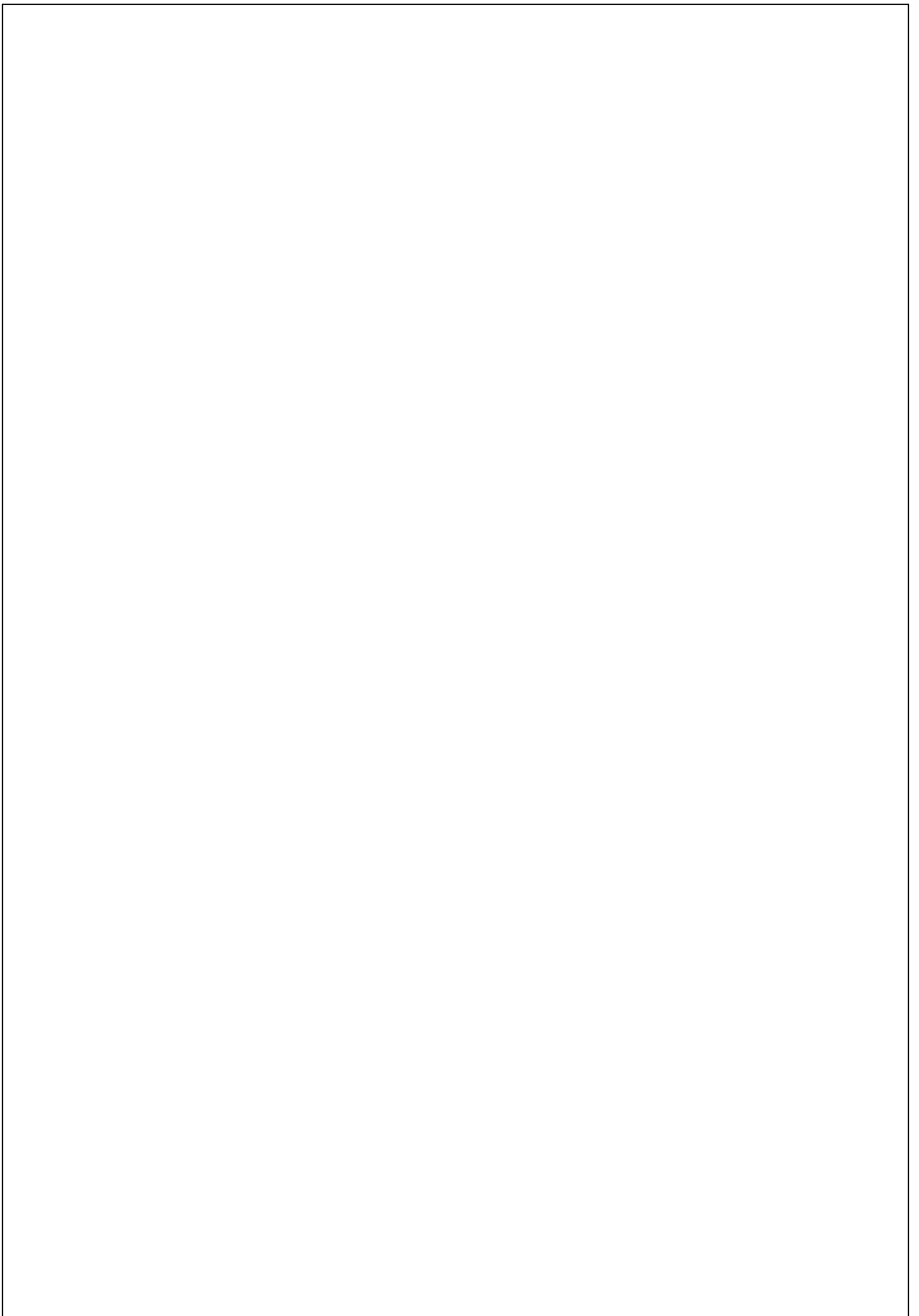
ENABLE / DISABLE SETTINGS:



FAULT INDICATION AND SOLUTION:

DISPLAY	ABBREVIATION	SOLUTION
	DRYRUN AMPS FAULT	1. CHECK WATER LEVEL OF BOREWELL. 2. CHECK SETTINGS.
	OVERLOAD AMPS FAULT	1. CHECK MOTOR CONNECTION. 2. ENSURE GATEVALVE IS OPEN.
	AMPS PROBLEM FAULT	1.CHECK CT COIL 2.CHECK MOTOR WIRING
	LOW VOLTAGE FAULT	1. CHECK INPUT VOLATGE.
	HIGH VOLTAGE FAULT	1. CHECK INPUT VOLATGE.
	DIFFERENT VOLTAGE FAULT	1. CHECK R, Y & B SEQUENCE. 2. INPUT VOLTAGE. 3. PHASE FAILURE.
	FLOAT FAULT	1.CHECK FLOAT SENSOR
	PUMP ERROR FAULT	1.CHECK MOTOR

Thank you for choosing the **ECO PREVENTER**. This user manual provides comprehensive information to help you operate and maintain your device effectively. If you have any further questions or require technical support, please contact our customer service team.





WARRANTY:

CUSTOMER NAME:

MOBILE NUMBER:

ADDRESS:

.....

SERIAL NO: BATCH NO:

E-MAIL:

PURCHASE DATE:

DEALER DETAILS:

***NOTE:**

WARRANTY NOT APPLICABLE FOR PHYSICAL DAMAGE, WATER DAMAGE, NATURAL DISASTER, HIGH VOLTAGE FROM MAINS AND THIRD PARTY REPAIRS.

----- NOTES -----

MANUFACTURED BY:

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