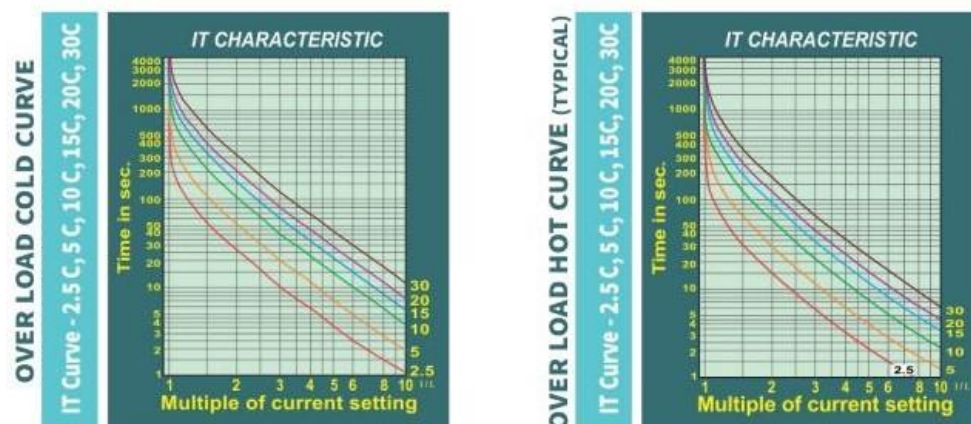


## CYCLIC LOAD ENERGY SAVER ( $\mu$ LEDXT-DSM)



MODEL:  $\mu$ LEDXT-DSM

CYCLIC LOAD ENERGY SAVER is an equipment developed to save power on variable load machines like press Machines, Injection Molding Machines, Agitators, Conveyors and Textile Mills etc. This unit save power during the no-load or partial load periods using delta to star change over and the power saving can be up to 30 To 40% of the no-load power. The amount invested can be realized in few months.

### FEATURES:

- LED Seven Segment Display, bright pixels
- Display 3 phase currents and thermal capacity used
- Annunciation for each type of fault
- Numerical Algorithm for fast, reliable operation
- Thermal Overload curves selectable as per requirement
- Excellent accuracy and longtime Stability of thermal curves due to complete software-based implementation
- Customized protection CT as per load requirement supplied with the relay
- Continuous self – supervision and fail-safe operation
- Annunciation in case, motor fails to stop after protection device issues trip command
- Man – Machine interface through keypad
- Up to five event trip records, FIFO based
- Reset Inhibit function, Hour Counter, Onsite calibration, Password facility (on demand)
- Robust mechanical design with shock proof non-metallic screw less unit.
- IP54 degree of protection at front of enclosure (when panel mounted)

### OPTIONAL:

- RS 485 Data communication over MODBUS RTU protocol
- 4-20mA Analogue output
- Password facility

### PROTECTION:

- Over Load
- Single Phasing - Current Based
- Unbalance Protection - Current Based
- Locked Rotor
- Under Current
- Short Circuit
- Earth Fault

### RANGE:

- 0.2 to 6.25 Amp
- 0.4 to 12.5 Amp
- 0.8 to 25 Amp
- 2 to 62.5 Amp
- 4 to 125 Amp
- 40 to 250 Amp
- 80 to 500 Amp

### MEASURING & DISPLAY

#### PARAMETERS:

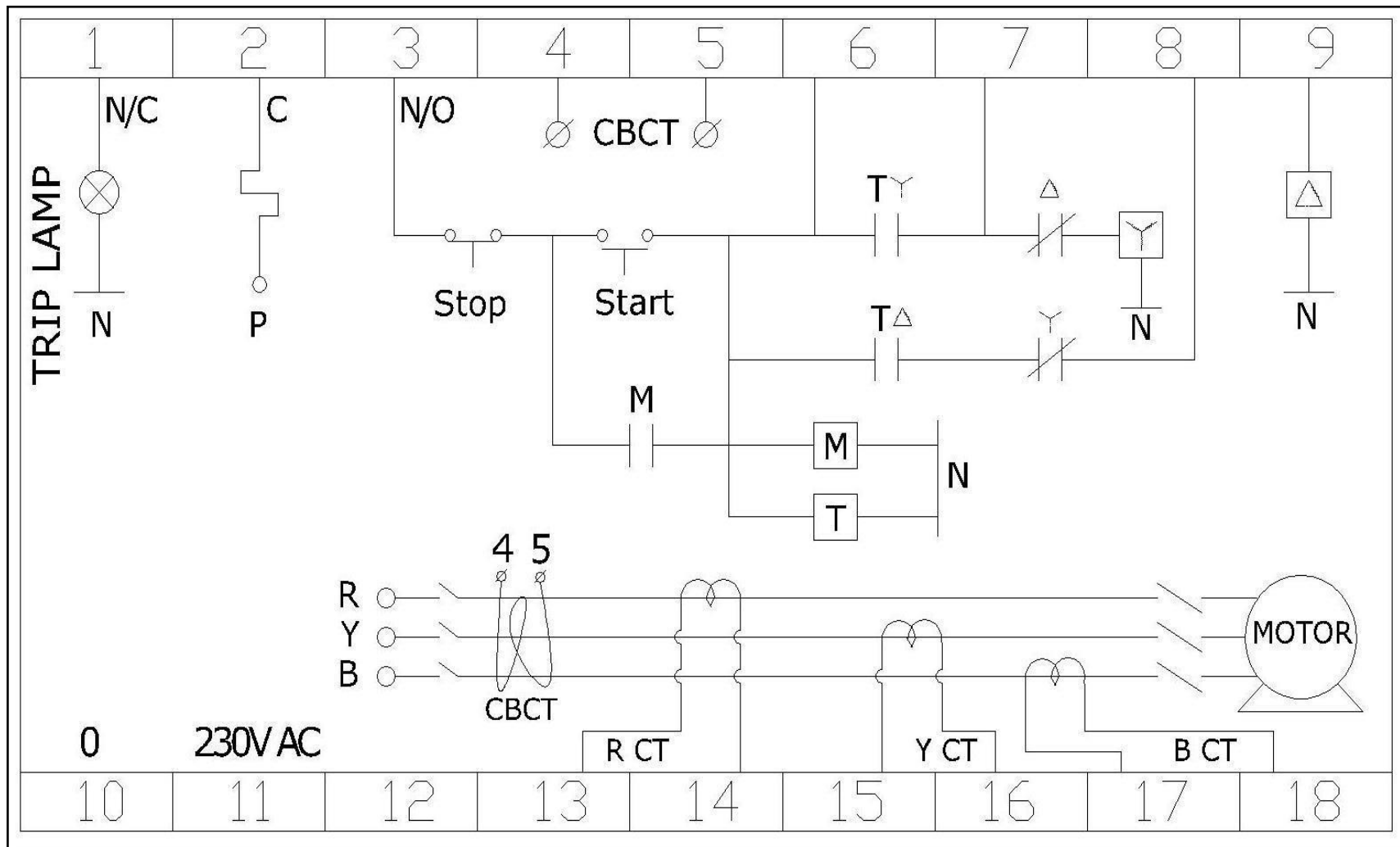
- R Phase Current ( $I_r$ )
- Y Phase Current ( $I_Y$ )
- B Phase Current ( $I_b$ )
- Has Hour counter (Hr) (min)
- Has Start Counter
- Has Calibration facility

## SPECIFICATIONS:

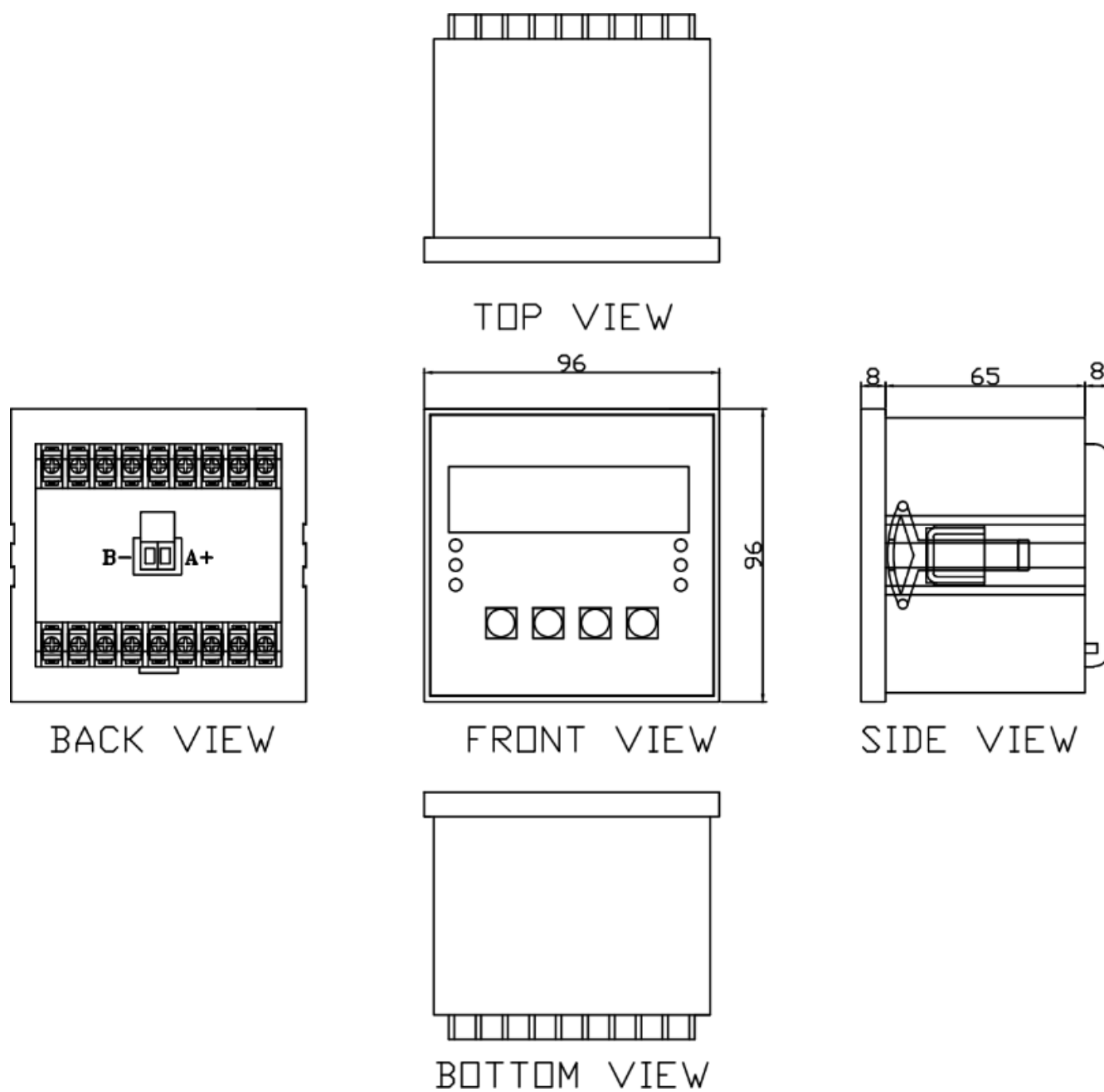
Aux. supply	230VAC (optional 110VAC / 415VAC), 50 Hz
CT	With External CT
*Rated current (As per motor FLC)	0.2 to 500A (Seven CT ranges)
Rated Frequency	50Hz/ 60Hz
Mass of the device	500gms. (approx.)
Mounting type	Flush mounted
Dimensions (L X W X D)	96 X 96 X 65 mm
Panel Cutout	92 X 92 mm
Thermal Overload setting range	0.2 to 500A, as per CT range selected
Thermal Overload curve selection	2.5C, 5C, 10C,15C,20C & 30C (six curves)
Thermal Overload Operating time	As per thermal curve selected
Under current feature	Enable/Disable
Under current setting range	10% to 80% FLC
Under current operating time	1 to 60 sec
Locked Rotor setting range	Current range selected, pick up 3 X FLC
Locked Rotor pick up delay time (During starting)	1 to 30 sec.
Earth fault trip start delay (during starting)	Enable or disable
(When enable; earth fault function will not operate during motor starting for 10 seconds)	
Earth fault setting range	10% to 30% FLC
Earth fault operating time	0.5 sec to 3 sec.
Short Circuit setting range	Current range selected, Pick up 8 X FLC
Short Circuit operating time	Instantaneous
Single phasing setting	Enable or disable
Single phase operating time	2 sec (fixed)
Unbalance protection	Enable or disable
Unbalance protection setting range	10% to 40%
Unbalance protection operating time	3 to 10 sec.
Thermal Reset function	Enable or disable
Thermal Reset Inhibit time	1 to 999 sec. (applicable when thermal reset is disable)
LED Annunciation	R, Y, B Phase Current Indication & Delta, star and bypass mode Indication
Delta to Star ChangeoverTime	1-60 Sec. Settable
Start to Delta Change overTime	Instantaneous
Automatic delta to star Bypass facilities	Enable and disable
Analog Output	4-20 mA
Ambient service temperature	0 deg. C to + 55 deg. C
Degree of protection (enclosure panel mounted)	IP 54 (Front side of the Device)

**\*Note: Current range 80-500 Amp is available with all the above protection except short circuit protection.**

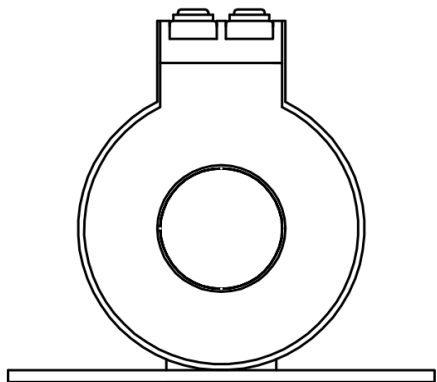
WIRING DIAGRAM



DIMENSION

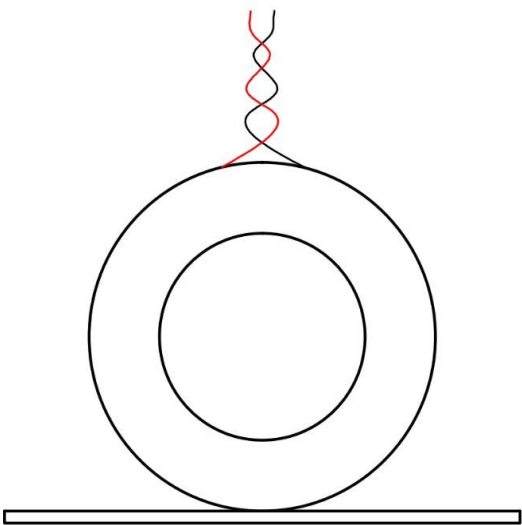


CT DIMENSION



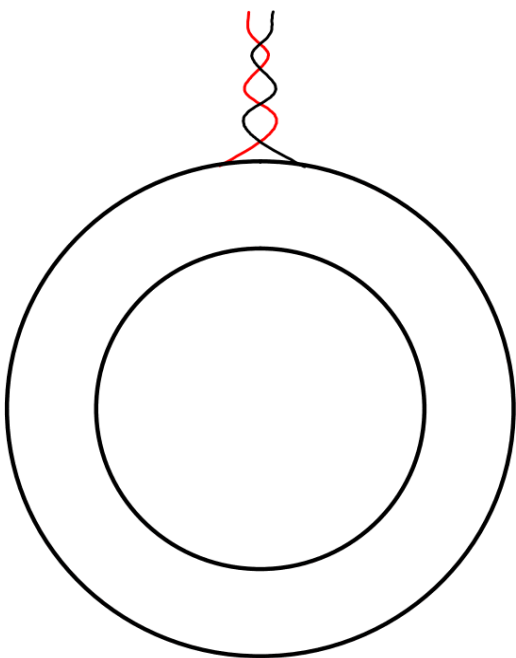
20mm LINE CT  
 INNER DIA.-20mm  
 OUTER DIA.-47mm

FOR 0.2 TO 6.25A, 0.4 TO 12.5A,  
 0.8 TO 25A, 2 TO 62.5A



35mm LINE CT  
 INNER DIA.-35mm  
 OUTER DIA.-59mm

FOR 4 TO 125A



55mm LINE CT  
 INNER DIA.-55mm  
 OUTER DIA.-85mm

FOR 40 TO 250A