

Application:

Rish Master 3490 is a 96mm x 96mm panel mounted kilowatt hour meter it measures active energy to class 1.0 accuracy with 7 digit auto-resetting electro-mechanical counter. The unit provides LED indication for healthy phase, earthed load reverse current. The RISH Master 3490 is available in two version 3phase 3 wire and 3 phase 4 wire unbalanced load and is ideal for secondary metering in industrial applications.

Product Features:

- Class 1.0 Accuracy
- Class 0.5 optional
- Available in 3 phase 4 wire and 3 phase 3 wire version
- Led indication: Healthy phase, Reverse Current
- Complies to Standards IS 13779, IEC 62053-21
- 7 Digit auto-resettable mechanical counter
- True RMS measurement
- Fully programmable CT ratios
- Fully isolated current input
- Built in transient protection
- State of art SMD technology
- Pulse output: one potential free relay contact

LED Indication:

-3 phase voltage status:

The unit contains three green LED, one for each voltage phase. Three illuminated LED's indicate active monitoring of each of the three phases. In case if any one phase voltage is missing the appropriate LED will switch 'OFF'. However the meter will continue to accurately measure energy for the available voltage phases. In case of phase sequence error all three LED will start blinking with a repetition rate of 1Hz.

-Reverse connected current transformer :

Three red LED's are provided for each of three phases. Illumination of the red LED indicates a reverse connected CT. The meter will continue to register the energy consumption even if the CT's are reverse connected.

-Pulse Indication:

The unit features a red LED pulse indicator which flashes at rate proportional to measured power.

Low back depth:

The instrument has very low back depth (behind the panel) of less than 80 mm in spite of optional features like pulse output

Enclosure Protection for dust and water:

conforms to IP 54 (front face)

Compliance to International Safety standards

Compliance to International Safety standard IEC 61010-1- 2001

Advantages:

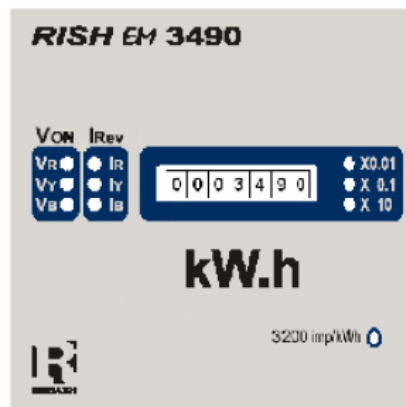
- Since CT ratio is user selectable, a single meter can be used for all application
- Low VA burden
- Tamper proof
- Easy to wire

Dimension:

Dimension	96mm high x 96mm wide x 80mm deep
Panel cutout	92mm x 92mm
Weight	320-400 gm

Reference conditions for Accuracy:

Reference temperature	23°C +/- 2°C
Input waveform	Sinusoidal (distortion factor 0.005)
Input frequency	50 or 60 Hz ±2%
Auxiliary supply voltage	Rated Value ±1%



Technical Specifications:

Accuracy:

Active energy (kWh) Class 1.0 (0.5Optional)

Input Voltage:

Nominal input voltage (AC RMS) Phase –Neutral 57.7 - 277V L-N
Line-Line 100 - 480V L-L
according to IEC 62053-21

Max continuous input voltage
Input voltage tolerance 85-500V L-L (49-288V L-N)

Input Current:

Nominal input current 5A
System CT Primary Ratios : 5A-9999A
Max Continuous Input Current : 120% of Nominal Value or 6A
MAX(as per standard)
0.2% of the rated current

Start up current
Max continuous input current 6A

Pulse output

Pulsed output Relay contact
Pulse duration >=40ms

Auxiliary Supply:

AC Auxiliary Supply Self powered
AS Auxiliary supply frequency range 45 to 66 Hz

VA Burden:

Nominal input voltage burden < 8 VA
Nominal input current burden < 2 VA

Counter:

Counter: 7 digit auto-resetting electro-mechanical counter
Reading resolution 1 per kWh

LED Indication:

LED indicator display: 3 x green: Voltage phase monitoring
3 x red : reverse connected CT warning
Pulse indicator Red LED flashing at a rate proportional to measured power.

Overload Withstand:

Voltage 2 x rated value for 1 second, repeated 10 times at 10 second intervals
Max short duration Current 20x for 1 second, repeated 5 times at 5 min

Operating Measuring Ranges

Power Factor 0.5 inductive – 1 – 0.8 capacitive

Enclosure style:

Enclosure style Panel mount to DIN 42700
Enclosure material Polycarbonate
Terminals M4 captive screw clamp
Fixing 2 side clamps

Applicable Standards:

Standard IS 133779, IEC62053-21
 Compliant with IEC 1036, EMC and LVDT
 IP protection IP54

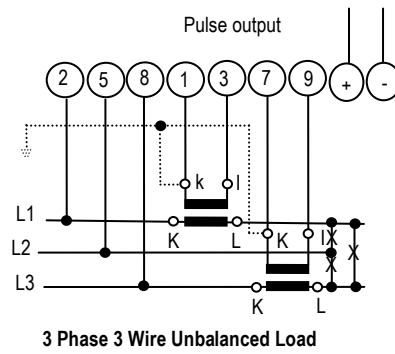
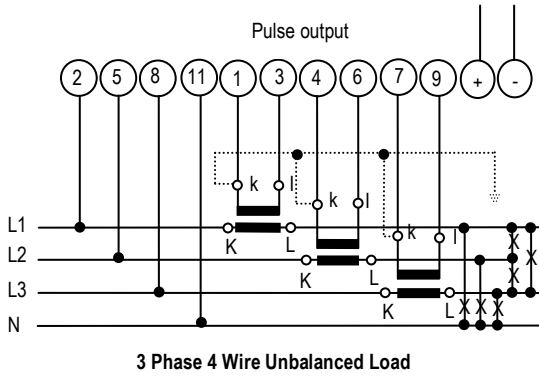
Environmental

Operating temperature 0 to +55°C
 Storage temperature -20 to +65°C

Electrical Connections:

Wiring:

Input connections are made directly to shrouded screw clamp terminals. Numbering is clearly marked on the plastic molding. Choice of cable should meet local regulations. Terminals for both current and voltage inputs will accept up to two 12 AWG diameter cables.



Dimensions:

