

Single Phase 45A Kilowatt Hour Meter



Description

Single Phase 45A Kilowatt Hour Meter (KWH)

Performance Criteria:

- Operating Humidity: $\leq 75\%$
- Storage Humidity: $\leq 95\%$
- Operating Temperature: -30° Celsius - $+50^{\circ}$ Celsius
- Storage Temperature: -30° Celsius - $+70^{\circ}$ Celsius
- International Standard: IEC 62053-21
- Accuracy Class: 1
- Protection Against Penetration of dust and water: IP51
- Insulating encased meter of protective class: II

Technical Data:

- Meter Type: LXEM145(LCD)
- Nominal Voltage: 240AC
- Operational Voltage: 161-300VAC
- Insulation capabilities:
 - AC voltage withstand: 2KV for 1 minute
 - Impulse voltage withstand: 6KV – 1.2 μ v waveform
- Basic current(Ib): 5A
- Maximum Rated Current(I_{max}): 45A
- Operational Current Range: 0.4% IB-I_{max}
- Over current withstand: 30 I_{max} for 0.01s
- Operational Frequency Range: 50hz $\pm 10\%$
- Internal Power Consumption: ≤ 2 W / 10VA
- Test Output Flash Rate(RED LED): 2000imp/kWh
- Pulse Output Rate (pins 20 & 21): 2000imp/kWh
- Consumption Indicator (RED LED): Flashing at Loading

Warranty:

2 Year Warranty
Validated upon Proof that
this Product was installed by
a Licensed Electrician



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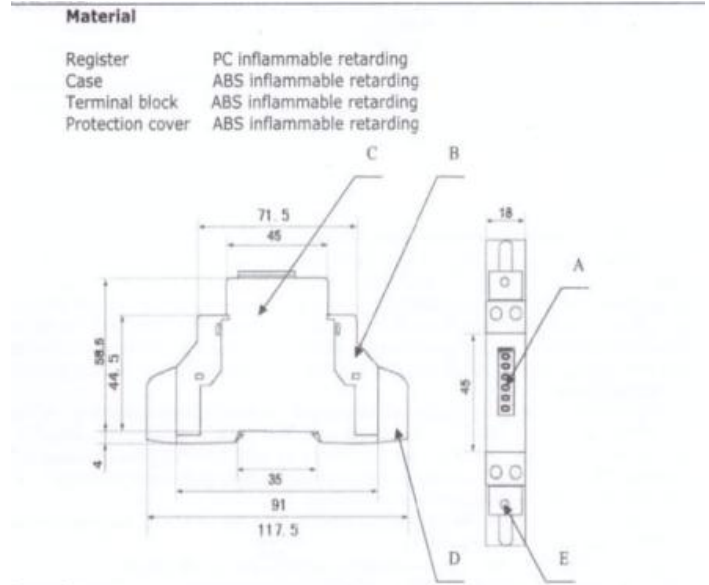
Dimension:

- Height: 117.5 mm
- Width: 18mm
- Depth: 58.5mm
- Weight: 0.12 Kg

Description:

- Register(LCD)
- BTerminal Block
- Case
- Protection Cover
- Security Hasp

Line Diagram:



Installation:

⚠ CAUTION

- ◆ Turn off all the power before working on it.
- ◆ Always use a properly rated voltage sensing device to confirm that power is off.

⚠ WARNING

- ◆ Installation should be performed by qualified personnel familiar with related procedures and regulations.
- ◆ Use insulating tools to install the meter.
- ◆ Fuse or thermal cut-off or single-pole circuit breaker can't be fitted on the supply line and not the neutral line.
- ◆ The case is sealed, do not break it



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Operating

Consumption Indication

There is a LED which has two colors (green and red) while flashing in the front panel of LXEM145. When consumption happens, the LED will flash and display red. The more quickly LED flash, the more consumption there is.

Reading the meter

The LXEM145 energy meter is equipped with 5+2 LCD display, which is used as recording consumption and can't be reset to zero. The reading accuracy is 1/100 kWh.

Pulse output

The LXEM145 DIN rail energy meter is equipped with a pulse output which is fully separated from the inside circuit. That generates pulses in proportion to the measured energy for accuracy testing. The pulse output is a polarity dependant, passive transistor output requiring an external voltage source for correct operation. For this external voltage source, the voltage (Ui) should be 5-27V DC, and the maximum input current is 27mA DC. To connect the impulse output, connect 5-27V DC to connector 20 (anode), and the signal wire (S) to connector 21 (cathode).

Troubleshooting

Caution

- During reparation and maintenance, do not touch the meter connecting clamps directly with your bare hands, with metal, blank wire or other material as you may get electricity shock
- Turn off all powers supplying the energy meter and the equipment on which the meter installed before opening the protection cover to avoid getting electric shock

Warning

- Maintenance or reparation should be performed by qualified personned familiar with applicable codes and regulations
- Use insulated tools to maintain or repair the meter
- Make sure the protection cover is in place after maintenance or reparation
- Case is sealed, failure to observe this instruction can result in damage for meter



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Problem	Check	Solution
No Light for the power supply indicator?	<input type="checkbox"/> Is AC Power supply connected to the meter?	<input type="checkbox"/> Check switch or circuit-breaker and fuse or thermal cut-off
	<input type="checkbox"/> Is the 1 and 4 connecting correct?	<input type="checkbox"/> Reinstall terminal screws on the 1 and 4. Make sure all screws are fixed. Then there should be a 230V 50Hz AC voltage between the terminal screws on the 1 and 4 when power supply is input.
	<input type="checkbox"/> Maybe there is a fault in the inside circuit	<input type="checkbox"/> Please contact your technical supporter to replace this meter.
No Light for the Consumption indicator?	<input type="checkbox"/> Is the load running?	<input type="checkbox"/> Only when load is running, this LED will flash
	<input type="checkbox"/> Is the operating power too low?	<input type="checkbox"/> If the operating power is too low, the spacing interval of flashing will take some more time, this is why it seems like LED isn't burning
	<input type="checkbox"/> Maybe there is a fault in the inside circuit	<input type="checkbox"/> Please contact your technical supporter to replace this meter.
The register can't run	<input type="checkbox"/> Is there a power supply inside the meter?	<input type="checkbox"/> Check that the power supply indicator is burning.
	<input type="checkbox"/> Is the operating power too low?	<input type="checkbox"/> If the operating power is too low, the spacing interval of the pulses will take some more time, this is why it seems like the meter won't count.
	<input type="checkbox"/> Maybe there is a fault inside the meter circuit.	<input type="checkbox"/> Please contact you technical supporter to replace this meter
No Pulse Output	<input type="checkbox"/> Is DC power supply connected to the meter?	<input type="checkbox"/> Check the external voltage source (Ui) is 5-27 V DC
	<input type="checkbox"/> Is the connecting correct?	<input type="checkbox"/> Check correct connecting: Connect 5-27V DC to connector 20(anode), and the signal wire (S) to connector 21(cathode)
	<input type="checkbox"/> Maybe there is a fault inside the meter circuit.	<input type="checkbox"/> Please contact you technical supporter to replace this meter
Pulse output rate wrong	Maybe there is a fault in the inside circuit	Please contact your technical supporter to replace the meter.



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