

# Three Phase 100A Kilowatt Hour Meter with LCD Display



## Description

Three Phase 100A Kilowatt Hour Meter (KWH)

## Performance Criteria:

- Operating Humidity:  $\leq 75\%$
- Storage Humidity:  $\leq 95\%$
- Operating Temperature:  $-10^{\circ}$  Celsius -  $+50^{\circ}$  Celsius
- Storage Temperature:  $-30^{\circ}$  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:

- Nominal Voltage: 240/415V AC (3~)
- Operational Voltage: 161-300VAC
- Insulation capabilities:
  - AC voltage withstand: 4KV for 1 minute
  - Impulse voltage withstand: 6KV – 1.2  $\mu$ v waveform
- Starting Current (1<sup>st</sup>): 0.04A
- Transitional current(Itr): 1A
- Minimum Current: 0.5A
- Reference current (Iref): 10A
- Maximum Current (Imax): 1000A
- Current Measuring range: 0.5 – 10(100)A
- Peak current withstand: 3000A for 0.01s
- Operational frequency range : 50-60Hz  $\pm 10\%$
- Internal Power Consumption:  $\leq 2$ W / 10VA per phase
- Pulse Output Rate : 400imp/kWh

## Warranty:

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

MUST BE  
INSTALLED  
BY A  
LICENSED  
ELECTRICIAN



Lanx Australis is an Australian owned company which manufactures and distributes quality electrical products throughout Australia and New Zealand. we guarantee you will be 100% satisfied with our full range of products.

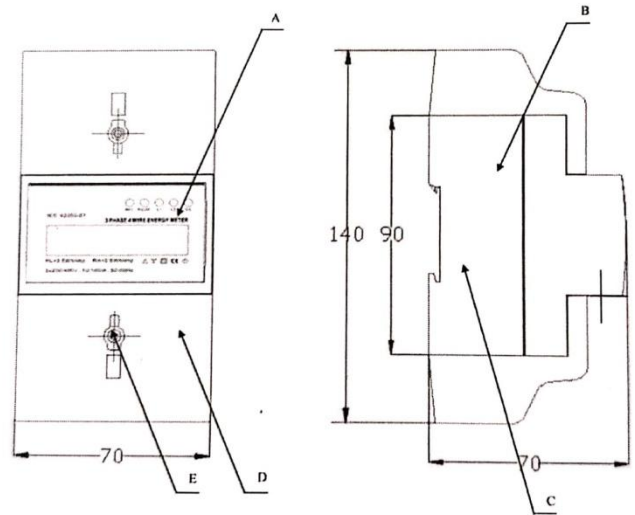
Dimension:

- Height: 140mm
- Width: 70mm
- Depth: 64mm
- Size of Connection clamp: 8 x 8mm
- Size of connect clamp(Diagonal): 11.3mm
- Weight: 0.4 Kg

Description:

- Front Panel
- Cover
- Base
- Protection Cover
- Security Hasp

Line Diagram:



Installation:

<b>⚠ CAUTION</b>
<ul style="list-style-type: none"> <li>◆ Turn off all the power before working on it.</li> <li>◆ Always use a properly rated voltage sensing device to confirm that power is off.</li> </ul>

<b>⚠ WARNING</b>
<ul style="list-style-type: none"> <li>◆ Installation should be performed by qualified personnel familiar with related procedures and regulations.</li> <li>◆ Use insulating tools to install the meter.</li> <li>◆ Fuse or thermal cut-off or single-pole circuit breaker can't be fitted on the</li> </ul>

<ul style="list-style-type: none"> <li>◆ supply line and not the neutral line.</li> <li>◆ The case is sealed, do not break it</li> </ul>
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Material:

- Front Panel: PC Inflammable retarding
- Protection Cover: ABS/PC Alloy inflammable retarding
- Cover: ABS/PC Alloy inflammable retarding
- Base: ABS/PC Alloy inflammable retarding



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## Operating

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### Working Indication

On the LXEM3100's front panel, there are three power indicating LED which have different color from each other. The yellow LED represent L1 phase; the green LED represent L2 phase; the red LED represent L3 phase. When any phases work normally, the LED representation will burn. When any phase have failure or no power, the LED will turn off

### Consumption Indication

There is a PULSE LED which is used as indicating power consumption in the front panel of LXEM3100. When consumption happens, the LED will flash. The more quickly LED flash, the more consumption there is. For this LED, the flash rate is 400 impulses per kWh (2.5Wh/imp).

### Reverse Indication:

There is REV. LED on LXEM3100 front plate. When meter load current flow is reverse, the LED lighten.

### Reading the meter

The LXEM3100 energy meter is equipped with 5+2 LCD display, which is used as recording consumption and can't be reset to zero. The number system is based on 10 and unit is kWh.

### Pulse output

The LXEM3100 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 remote reading purposes and 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). The meter pulse is 800 per kWh(1.25Wh/imp)

## Troubleshooting

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### 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



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Problem	Check	Solution
No Light for the power supply indicator(L1, L2 & L3 LED)?	<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 L1, L2, L3 and N connecting correct?	<input type="checkbox"/> Reinstall terminal screws on the L1, L2, L3 & N. Make sure all screws are fixed. Then there should be a 230V 50Hz AC voltage between the terminal screws on the L1, L2 or L3 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 flashes 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.

