# www.metroprepaid.co.za

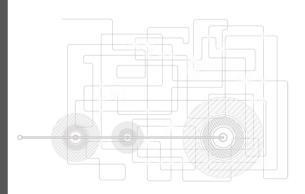




# **MET100**

(CL710K16)

# Single Phase Prepaid Electronic Meter User Manual



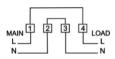
# 1.Product Appearance



# 2.Technical Parameters

Item	Parameter
Wiring Mode	Single Phase Two-wire LNNL
Basic Current (Ib)	5A
Max Current (Imax)	80A
Starting Curren(0.4%lb)	20mA
Rated Voltage (Un)	230V
Voltage Range	70% Un ~ 120%Un
Frequency(fn)	50Hz ± 5%
Accuracy Class	Active IEC Class 1.0
Meter Constant	Active 1000imp/kWh

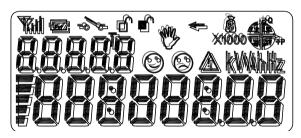
# 3. Wiring Diagram



# 4. LCD Display

# 4.1. LCD Display characteristics

Meter Full Display:



Icon	Name	Function
8.8.8.8	Short code	Display 3-digit short code
8888888	Main screen	To display electricity quantity, demand, time, voltage, current and meter ID number etc
8	Tariff	Display the current tariff
kV\AhHz	Unit tag	Indicates units of registers: 1 )Power: kW, kVA 2) Energy: kWh, kVAh 3) Current: A 4) Voltage: V 5) Frequency: Hz

Icon	Name	Function
w	Tampering hand-shaped tag	Indicates whether the meter is under tampering or not; the tampering event includes open meter cover and open terminal cover. The display mode is as follows:  1)Disappears; no tampering occurred.  2)Blinks, detect tampering and confirm now. (Instantaneous state set)  3) Keep displaying, tampering event has detected. (confirmation state set)
$\triangle$	Alert tag	Indicates the detected meter alert event. The alert event includes below two types:  1) Meter failure:relay, time failure and meter not be calibrated and metering error  2) Alert events: over current, over voltage, under voltage, current reverse, low power factor  The display is as follows:  1) Disappears, no alert status has been detected.  2) Blinks, alert event is detected.  3) Keep displaying, meter failure event has detected.
<b>←</b>	Current Reverse tag	Indicates reversal current
• •	Relay tag	Indicates the current relay status The display mode is as follows 1) Keep displaying, the relay is in disconnected status. 2) Disappears, the relay is in connected status 3) Blinks, the relay is under failure or pre closing state
Ŧ	Credit level tag	Indicates the meter is in the pre-paid mode, the current remaining credit line level is classified as follows: When the low credit line is not 0, the ratio of low credit will be used to classify the level. When 0 < Remaining credit \$\leq Low credit, it is classified as 1 level; when Low credit < Remaining credit \$\leq \text{Limes of low credit, it is classified as 2 level, and the subsequent level is analogized.

Icon	Name	Function
4 <b>6</b> 4 <b>0</b> **	Quadrant tag	Indicate the quadrant where the meter is operating:  Note: When the meter is no load state, it only displays coordinate symbols, not quadrant symbols.
<b>3</b>	Payment mode tag	When the meter is in the prepaid mode, the icon keeps display. In the prepaid mode, blink indicates allow credit alert status.
C	Battery tag	Disappears, the battery is normal.     Keeps displaying, voltage of battery is low.
Ext.	Reserved	Reserved
Yul	Reserved	Reserved
	Open meter cover tag	Disappears, meter cover has not been opened.     Blinks, meter cover is opening.     Keeps displaying, meter cover has been turned on and it will disappear after the tampering is reset.
Ъ	Open terminal cover tag	Disappears, terminal cover has not been opened.     Blinks, terminal cover is opening.     Keep displaying, terminal cover has been turned on and it will disappear after the tampering is reset.
X1000	Reserved	Reserved
☺		Disappears, the meter is in user mode     Keep displaying, the meter is in factory mode.
		Disappears, the meter is operation mode     Kep displaying, the meter is non-operation mode.

# 4.2. Display List:

# > Automatic scroll display list:

Short Code	Display Items
007	Remaining credit

### Power down list:

### >

In pre-paid mode:

Short Code	Display Items
007	Remaining credit

# In post-paid mode:

Short Code	Display Items
001	Total active energy (forward + reverse)

# 4.3 LED Indicators

LED	Function
Active pulse LED	Pulse LED is red, and it blinks during active power consumed.
Alarm LED	Alert LED is red, and will blink when alert events occurred, and keeps displaying when the relay is tripping.
	When the credit is normal, the credit LED will keep displaying Green.
	Low credit threshold, the credit LED will blink in green.
0 111.50	The emergency mode is not activated and relay open when arrears, the credit LED will blink in red.
Credit LED	Consumption in emergency mode (or power consumption during friendly hours), red and green lights blink alternately.
	The emergency mode has been activated which relay trips due to running out of emergency credit, the light will keep displaying in red.

# 5. Electricity Purchasing Process

### 5.1. Check Meter number

Input "6" "5" and then press button , the meter will auto display 11-digit the meter number in two screens.

Note: The displayed number must be the same as the card/barcode (for purchasing electricity).

### 5.2 Purchasing Power

- Visit the store (see all other options on Metro website)
- Provide meter ID number to the operator.
- Inform the operator how much credit you want to buy and pay.
- Obtain 20-digit TOKEN.

### 5.3. Recharge Meter

- Input the 20 digits of purchasing TOKEN via keypad.
- Confirm the entered TOKEN code on the display.
- If TOKEN input is incorrect, please delete it with " on the keypad.
- After the input TOKEN is correct, press " to confirm
- If TOKEN is correct, "accept" will be displayed on the screen and meter recharge is successful.
- If TOKEN is incorrect, "reject" will be displayed on the screen and recharge had failed

# 6. Purchase Power Data Displaying on the LCD

If TOKEN is correct, "accept" will be displayed as below:



> If TOKEN is incorrect, "reject" will be displayed as below:



If TOKEN is expired, "old" will be displayed as below:



> If TOKEN has been used, "used" will be displayed as below:



# 7. Troubleshooting

Condition	Solution
When LCD displays only some symbols, LCD is unclear or energy LED flashes, or LCD has stops displaying.	Contact Metro Help Desk
LCD has no display and the pulse LED doesn't blink.	1.Check whether the wiring correct and the breaker on the main board is ON     2.Check whether voltage is within operating range.
LCD displays normal, but the energy pulse LED doesn't flash during power consumption.	Check whether the wiring is connected properly     Power usage amount is less than 0.4%lb.

# 8. Cleaning the Meter

Use a soft cloth to clean meter until it is clean. The meters must be cleaned regularly.

- > Don't use sharp objects to clean meter.
- Don't use wet clothes to clean meter.
- Don't use liquid like alcohol to clean meter.