



# Multifunction Meter

Instrument  
Division

AE 9000 BM ▶ AE 9001BM ▶ AE 9002 BM ▶ AE 9003 BM

## 1. Product Perspective

AE -900xBM is used in variety of industrial and commercial applications .AE – 900x BM computes -Display, Monitor, stores, and communicate up to 08 electrical parameters, including true RMS Voltage, Current, PF, Frequency, Active power, Reactive power, Apparent power, Active energy, The meter offers simple user-friendly Programming of Voltage and current Measurement parameters using a menu driven interface. Status of all parameters can be viewed on the 3 line, 4 digits LED display. The AE -900xBM has digital RS485 Communication outputs for MODBUS.

## 2. Operation

AE – 900x BM offers high functionality and uncomplicated operation. The AE- 900x BM measures & monitor important fundamental Electrical parameters. A two-button interface on the front panel gives simple access to user.

## 3. Monitors

- Voltage- Line – Line , Line - Neutral & System voltage.
- Current- Individual Phase, Average.
- Frequency
- Power (Active, Reactive and Apparent)
- Energy (Active)
- Power Factor(average)

## 6. Typical Classification

| Parameter               | AE-9000<br>BM | AE-9001<br>BM | AE-9002<br>BM | AE-9003<br>BM |
|-------------------------|---------------|---------------|---------------|---------------|
| Voltage<br>(L-L & L-N)  | ✓             | ✓             | ✓             | ✓             |
| Voltage<br>(System)     | ✓             | ✓             | ✓             | ✓             |
| Current<br>(L-N)        | ✓             | ✓             | ✓             | ✓             |
| Current<br>(System)     | ✓             | ✓             | ✓             | ✓             |
| Frequency<br>(F)        | ✓             | ✓             | ✓             | ✓             |
| P.F.(System)            | ✓             | ✓             | ✓             | ✓             |
| Active Power<br>(W)     | ✓             | ✓             |               |               |
| Reactive<br>Power (VAr) | ✓             | ✓             |               |               |
| Apparent<br>Power (VA)  | ✓             | ✓             |               |               |
| Active Energy<br>(KWh)  | ✓             |               | ✓             |               |

## 4. Product Features

- Fully programmable CT and PT ratio (Primary / Secondary).
- Fully programmable selection of three phase 3 wire or 4 wire configuration.
- The true RMS measurement.
- Display and communication of up to 10 parameters
- Simultaneously three parameters can be view
- Active Energy Measurement.
- Display all three Power i.e. Watt, VA & VAr
- RS 485 interface (optional).
- Confirm to IP52 (front face)
- LED test facility.
- High quality LED display.
- Simple menu driven front board.
- Universal Auxiliary Power Supply.

## 5. Typical Applications

- Energy Generation & Distribution Systems
- Industrial & Commercial Generator sets.
- Control & Monitoring Systems.
- Process Control.
- Switch Gear.





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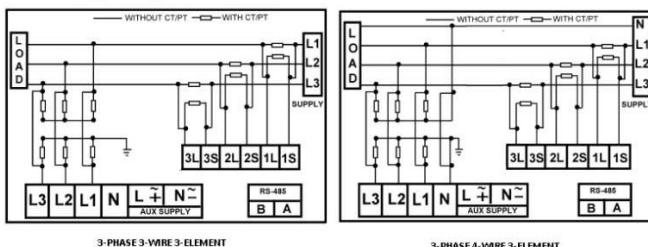
## 7. Specifications

|                      |   |
|----------------------|---|
| Type:                | 3-Phase-3-wire/ 4wire, (Programmable through front panel Switches).   |
| Input voltage V AC   | 110V or 440 V (L-L)   |
| Voltage Overload     | 1.5 times for 10 sec  |
| Input Current A AC   | 1A or 5A  |
| Current Overload     | 50A max for 3 sec   |
| Auxiliary supply     | AC / DC: 85 V - 300 V.  |
| Burden               | For Voltage / Current - 0.2 VA max per Volt/Amp input, Auxiliary - 3VA max  |
| Frequency            | 45 Hz - 55Hz  |
| Resolution           | RMS 4 digit, Integral 8 digit   |
| Accuracy Class:      | 1.0.  |
| RS485 communication: | Two wire half duplex, Baud rates - 9600, 19200, 38400.  |
| Isolation:           | 2k VAC isolation for 1min. between communication and other circuit.   |
| Environmental:       | Operating Temp. -10 to +60 °C. Storage temp.-20 to +85°C, Humidity [95% RH non condensing].   |
| Mechanical Size:     | Bezel : 96 x 96 mm,<br>Depth : 83mm behind Bezel  |
| Protection           | IP52 for front Display.   |
| Conform to           | IS13875, IEC- 61000-4-2, IEC61000-4-5, IEC61000-4-6, EMI/EMC- IS14697;CL 12.8.5.<br>For Energy Accuracy - <b>Class 1</b> - IS13779 / IEC 62052-11 & 62053-21. |
| Casing               | ABS   |
| Keypad               | 2 Functional keys   |
| Display              | 3 line, 4 digits LED display.   |

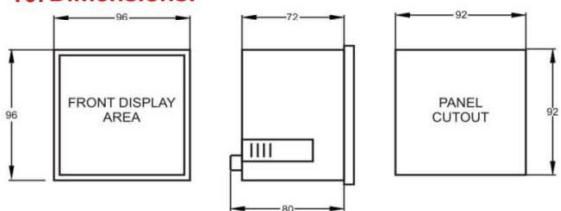
## 8. Digital Communication (OPTIONAL)

An RS485 communication Port is available for direct connection to SCADA systems (EMS / BMS) using the Modbus RTU protocol. Remote monitoring enables the user to record the systems parameters in real time basis.

## 9. Wiring Diagram:



## 10. Dimensions:



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