Class 1.0s accuracy as per IS13779

Microcontroller Based

Seven Segment LED Based Display

Measures all important Electrical Parameters

Compact 96 X 96 DIN enclosure

RS485 port for connection to SCADA/EMS

The EM9400 from Trinity is an easy-to-use, cost effective electrical power meter that offers all the basic measurement capabilities required to monitor an electrical installation. In addition to measuring the instantaneous parameters, it also measures all three energies, thus helping to measure energy costs.

Over the basic metering, it provides RS485 port supporting MODBUS RTU protocol, THD measurements, Phase angle, Unbalance % for Voltage and Current, On Hour & Run Hour, Power Interruption recording. These parameters are available over RS485 only.

The CT Primary, Secondary and PT ratios are site selectable.
## Technical Specifications

<table>
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<td><strong>Type</strong></td>
<td><strong>Name</strong></td>
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<tr>
<td>Supply</td>
<td>Three Phases and Neutral of a 3P4W system</td>
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</table>
| Voltage                     | Direct Voltage Input: 25 to 500V L-L, 25 to 300V L-N  
PT Ratio: Site Selectable  
Burden: 0.5VA                                                                 |
| Current                     | Secondary Current Input: 5A or 1A (Site Selectable)  
CT Ratio: Site Selectable  
Range of Reading: 5 - 5000A  
Burden: < 1.0VA  
Overload: 5A CT → 6A RMS Continuous  
1A CT → 1.2A RMS Continuous                                                      |
| * Power Supply              | Auxiliary Supply (AC): 40 - 480 VAC/DC, 50-60 Hz  
Auxiliary Supply (DC): 8 - 32 VDC                                                                                              |
| True RMS Basic Parameters   |                                                                                                                                          |
| Voltage (Volts L-N & L-L)   | VL-N - Accuracy: 0.5% of Reading                                                                                                         |
| Current (Amps IR, IY, IB)   | VL-L - Accuracy: 1.0% of Reading                                                                                                         |
| Line Frequency              | Accuracy: 0.25% of Reading                                                                                                               |
| Power Factor (P)            | Accuracy (For IP(>0.5)): 1% of Reading                                                                                                  |
| Reactive Power (Q)          | Accuracy (Between 0.5 Lag to 0.8 Lead): 1.5% of Reading                                                                                    |
| Apparent Power (S)          | Accuracy: 1% of Reading                                                                                                                   |
| Total Active Energy (KWh)   | Range of Reading: 0 to 9999999.9  
Accuracy: Class 1.0s as per IS13779                                                                                                 |
| Total Apparent Energy (KVArh)| Range of Reading: 0 to 9999999.9  
Accuracy: 1.0% of Reading                                                                                                              |
| Total Apparent Energy (KVAr)| Range of Reading: 0 to 9999999.9  
Accuracy: 1.5% of Reading                                                                                                              |
| Power Quality               | THD for each phase current  
THD for each phase voltage                                                                                                               |
| Miscellaneous Dimensions    | Bezel: 96 X 96 mm  
Panel Cutout: 92 X 92 mm  
Depth of installation: 55 mm  
Display: 4x3 7-Segment  
Operating temp: 10°C to 50°C  
Weight: 0.29 Kgs (Approx.)  
Min. Operating Current: 0.4% to 120% of CT primary                                                                                      |
| Comm.                       | RS485 Modbus-RTU protocol                                                                                                                |

*Note: To be specified at the time of ordering*