Measurement of current, voltage, active, reactive and apparent power, power factor, line frequency, energy, harmonic and MD.

High-brightness LEDs display

Extreme accuracy up to 0.2%

Programmable adjustment for current and voltage transformers ratio

With RS485 output

Indication of neutral current

Dual relay contact for energy or alarm output (option)

Dual analog output (option)

Setting protected by password

Memory of all setting values and energy data over ten years

Memory of the Max. and Min. values (V. A. W)

Outside dimension compatible for DIN standard 96x96mm
The S7-330 is an upgraded model under the S7 Series of Multifunctional Power Meters. This new model equips not only original features but also adds new state of the art characteristics and functions.

The S7-330 is a microprocessor-based instrument with a 16 bit algorithm which is used for the measurement, monitoring, and management of electrical parameters in either single-phase or 3-phase systems. This meter offers outstanding quality, flexibility, and ease of use in a low-cost and compact configuration.

These added characteristics include actual demand measurement in 4 parameters (A, VA, W, Var). The demand measurement of these selected parameters will be programmed by setting the time in a period. This unit also equips 2 galvanically isolated analog outputs (DC4-20mA or DC1-5V), and these measured electrical parameters can be assigned to the required analog signal for a precise control to the load. Furthermore, this model also allows for the acquisition of measured signals with 31th content as the distorted and non-linear waveform is in a continuous condition. The S7-330 is programmed by 5 push buttons on the front panel, and the displaying screen in 3 rows of 4 digits resolution on all instantaneous alphanumeric readings is luminesced by the selected bright LEDs. With this meter, the required electric parameters can be effectively monitored by relay contactors, analog outputs and a convenient digital output. This meter is equipped with serial communication for a remote control through standard interface in the form of RS-485. Meanwhile, the S7-330 also utilizes the Modbus communication protocol to transmit all electrical information in a digital form to PC, PLC, SCADA and even a display repeater.

This unit has specially designed for power monitoring applications in the field of industry, factory and building. It features main advantages with high performance, low cost, easy installation and stability, which can completely satisfy all customers’ demands on their applications. With a combination of innovation and conventional process is thoroughly created a multi-function measuring instrument for a complete resolution of all difficulties in electricity. With this meter will save you more cost on all energy consumption.
**Multifunctional Power Meter**

**S 7 - 3 3 0**

**SPECIFICATION**

<table>
<thead>
<tr>
<th>Local display</th>
<th>Total</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Accuracy **</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-L voltage</td>
<td>● *</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>0.2%</td>
</tr>
<tr>
<td>L-N voltage</td>
<td>●</td>
<td></td>
<td>●</td>
<td>●</td>
<td>0.2%</td>
</tr>
<tr>
<td>Line current</td>
<td>● *</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>0.2%</td>
</tr>
<tr>
<td>Neutral current</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Active power</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>0.5%</td>
</tr>
<tr>
<td>Reactive power</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>0.5%</td>
</tr>
<tr>
<td>Apparent power</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>0.5%</td>
</tr>
<tr>
<td>Power factor</td>
<td>● *</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>0.5%</td>
</tr>
<tr>
<td>Frequency</td>
<td></td>
<td>● *</td>
<td>●</td>
<td>●</td>
<td>0.05%</td>
</tr>
<tr>
<td>Active energy +</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>0.5%</td>
</tr>
<tr>
<td>Reactive energy +</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>0.5%</td>
</tr>
<tr>
<td>Active energy -</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>0.5%</td>
</tr>
<tr>
<td>Reactive energy -</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>0.5%</td>
</tr>
<tr>
<td>Total harmonic - I (1)</td>
<td>● *</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>2%</td>
</tr>
<tr>
<td>Total harmonic - V (1)</td>
<td>● *</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>2%</td>
</tr>
</tbody>
</table>

(1) up to 31st harmonic  * Average value ** Full scale of ranges

**Accuracy performance range**
- Current range: 2 ~ 120%
- Voltage range: 2 ~ 120%
- Power & energy: current, 2 ~ 120%, voltage, 2 ~ 120%
- Frequency range: 45 ~ 70Hz
- Distortion level: from 10% to 120%

**Input voltage**
- Voltage range (line to line): 8 ~ 500V
- Voltage range (line to neutral): 5 ~ 290V
- Maximum overload: 750V
- Input impedance: 200kΩ

**Input current**
- Current range: 5A or 1A
- Maximum overload: 6A, continuous, 50A 5 sec., 15A, continuous, 250A 1 sec. (Option)
- Input burden: 0.1VA
- Isolation: Each phase, 600V
- Starting current: 1% F.S.

**Power supply**
- Nominal voltage: 110V/220V ± 15%, 50/60Hz or DC 110V, 24V ± 10%
- Burden: (AC) 5VA, (DC) 5W

**Display**
- Type: High-brightness red LED
- Digital height: 0.4", 10.2mm
- Digital format: 3 rows of 4 digits
- Digits for Wh, Varh, VAh: 8 digits (two rows)

**Relay contacts output for energy or alarm**
- Energy value: 100 pulse for 1KWh or 1KVarh
- Alarm set point: 2 points, programmable
- Relay contacts: AC 240V 1A, DC 24V 1A

**Demand**
- Actual demand parameters: A, W
- Time of period: 1 ~ 60 min. programmable
- Max. demand: A, W

**Analog output**
- Output: DC 4 ~ 20mA (0 ~ 500Ω) or DC 1 ~ 5V (1KΩ ~ DC)
- Output points: Max. 2 points, programmable
- Output accuracy: ± 0.5% RO.

**Communication**
- Interface: MODBUS, RTU framing
- Baud rate: 1200 ~ 38400 programmable
- Address range: N.81/N.82/O.81/E.81 pro.
- Number of meter: up to 32 on standard RS485

**General**
- Dielectric strength: IEC 688, AC 2.3KV 1 minute between Input/Output/Power
- Operating temperature: 0 ~ 60°C
- Storage temperature: -10 ~ 70°C
- Temperature coefficient: ± 100 PPM/°C
- Max. humidity: 95%

**Electromagnetic compatibility**
- Withstanding impulse voltage: IEC 1000-4-5
- Electrical transient in burst: IEC 1000-4-4
- Electrostatic discharge: IEC 1000-4-2
- Electromagnetic fields immunity: IEC 1000-4-3
- Wave damping: IEC 255-4

**ORDERING INFORMATION**

**Model**

S7-330-

**Input current**
- 1: 1A
- 5: 5A
- O: Option

**Aux. power supply**
- 1: AC 110V/220V
- A: DC 110V
- C: DC 24V
- O: Option

**RS485 output**
- Y: Yes
- N: No

**Relay contacts or analog output**
- 1: Relay contacts output
- 2: Analog output (Standard DC 4 ~ 20mA)
- N: No

**Harmonic**
- Y: Yes
- N: No
Multifunctional Power Meter

CONNECTION

- **1-Phase 2-Wire**
- **1-Phase 3-Wire**
- **3-Phase 3-Wire (2CT)**
- **3-Phase 4-Wire**

OUTSIDE DIMENSION (Unit: mm)

- **Panel Cut-Out**

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