

S7-330

Multifunctional Power Meter



- 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



FM 40649



TAIK ELECTRIC

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-grammable measuring voltage, current, power factor, active power, apparent power, components and max. Var.

TAIK's new S7-330 by 5 push buttons on the displaying screen



acquisition of measured signals with 31th content as the distorted and non-grammable measuring voltage, current, power, reactive power, frequency, harmonic demand in A, VA, W,

is also programmed the front panel, and 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.

SPECIFICATION

Local display	Total	Phase 1	Phase 2	Phase 3	Accuracy**
L-L voltage	●*	●	●	●	0.2%
L-N voltage	●	●	●	●	0.2%
Line current	●*	●	●	●	0.2%
Neutral current	●				1%
Active power	●	●	●	●	0.5%
Reactive power	●	●	●	●	0.5%
Apparent power	●	●	●	●	0.5%
Power factor	●*	●	●	●	0.5%
Frequency	●*				0.05%
Active energy +	●	●	●	●	0.5%
Reactive energy +	●	●	●	●	0.5%
Active energy -	●	●	●	●	0.5%
Reactive energy -	●	●	●	●	0.5%
Total harmonic - I ⁽¹⁾	●*	●	●	●	2%
Total harmonic - V ⁽¹⁾	●*	●	●	●	2%

(1) up to 31th 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%
 Power factor range $\cos \theta$ ($\sin \theta$) 0.5 ~ 1
 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 $\geq 200K\Omega$

Input current

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

Power supply

Nominal voltage AC 110V/220V $\pm 15\%$, 50/60HZ
 or DC 110V, 24V $\pm 10\%$
 Burden (AC) $\leq 5VA$, (DC) $\leq 5W$

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 ~ 500 Ω)
 or DC 1 ~ 5V (1K Ω ~ DC)
 Output points Max. 2 points, programmable
 Output accuracy $\pm 0.5\%$ RO.

Communication

Interface RS485
 Protocol MODBUS, RTU framing
 Baud rate 1200 ~ 38400 programmable
 Address range 1 ~ 255 programmable
 Data format N.8.1/N.8.2/O.8.1/E.8.1 pro.
 Number of meter up to 32 on standard RS485

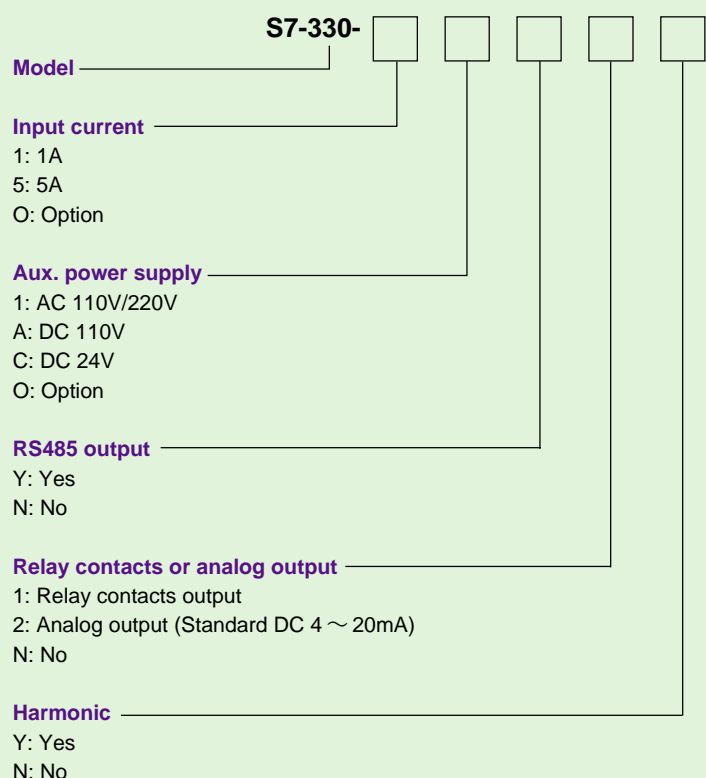
General

Dielectric strength IEC 688, AC 2.3KV 1 minute
 between Input/Output/Power
 AC 2.8KV 1 minute between all terminal/ground
 Operating temperature 0 ~ 60°C
 Storage temperature -10 ~ 70°C
 Temperature coefficient ≤ 100 PPM/°C
 Max. humidity 95%

Electromagnetic compatibility

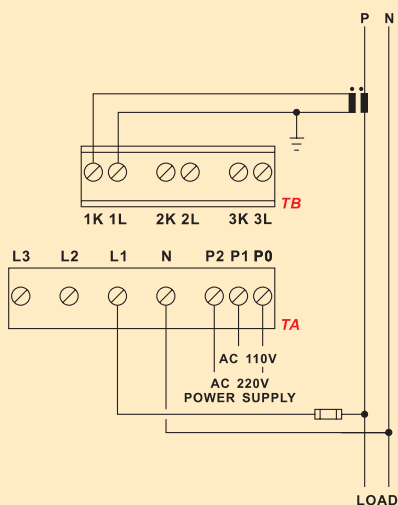
Withstanding impulse voltage IEC 1000-4-5
 Electrical transient in burst IEC 1000-4-4
 Electrostatic discharge IEC 1000-4-2
 Electromagnetic fields immunity IEC 1000-4-3
 Wave damping IEC 255-4

ORDERING INFORMATION

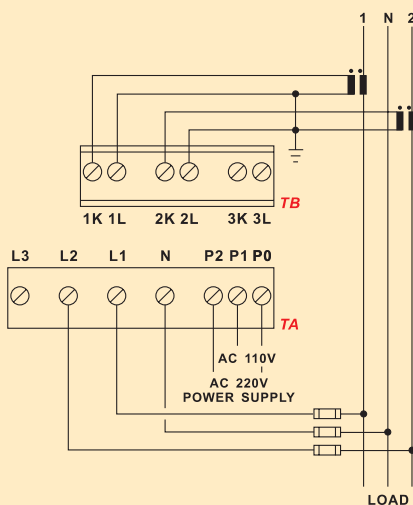


CONNECTION

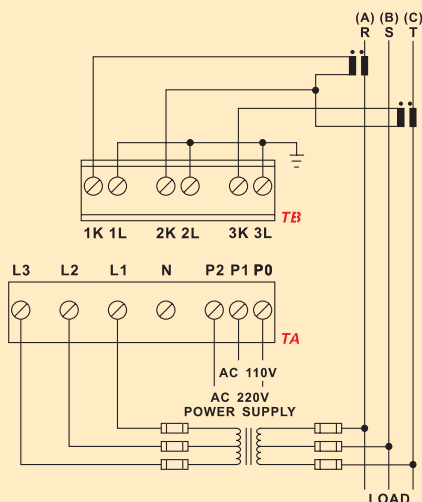
• 1-Phase 2-Wire



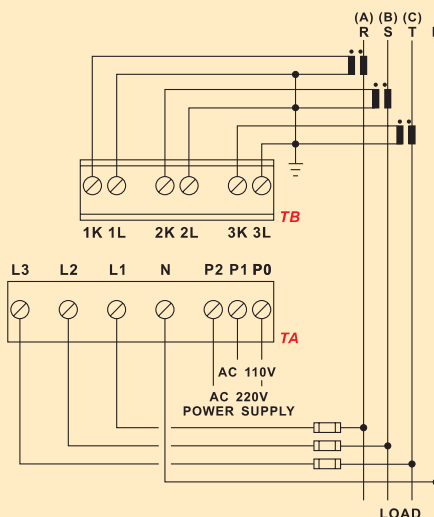
• 1-Phase 3-Wire



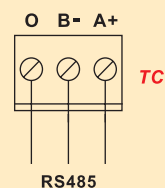
• 3-Phase 3-Wire (2CT)



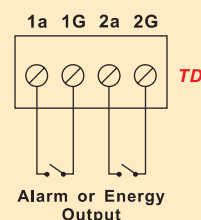
• 3-Phase 4-Wire



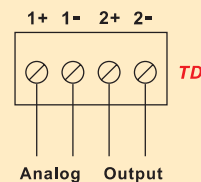
• RS485 Output



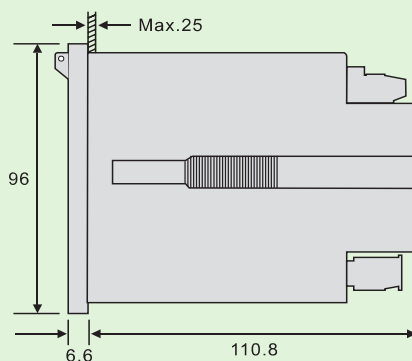
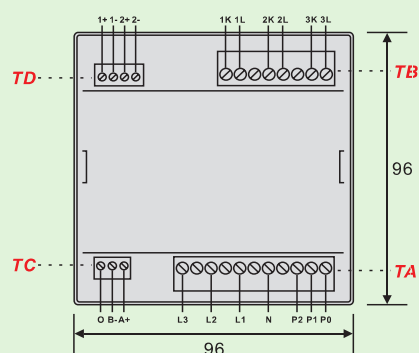
• Relay Contacts Output



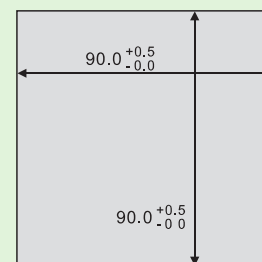
• Analog Output



OUTSIDE DIMENSION (Unit: mm)



• Panel Cut-Out



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