



E61C20



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BASIC POWER MONITORING WITH ETHERNET CONNECTION

DESCRIPTION

The **E61C20 Panel Mount Power and Energy Meter** provides basic four quadrant metering capability with Modbus communication via Ethernet cable. It includes voltage and current inputs with digital and optical outputs with a multi-tariff feature for storing accumulated energy data. The E61C20 requires external power to operate.

FEATURES

- Ethernet connection...easier Internet connection
- Multi-tariff feature...track power use at peak and off-peak times
- Standard 96x96 mm size...easy installation with standard size and no-tool clips
- Digital I/O...synchronize with external pulses

APPLICATIONS

- Basic THD monitoring
- Industrial monitoring
- Energy and cost allocation
- Billing verification and energy procurement

SPECIFICATIONS

CONTROL POWER	
AC	100 to 277 Vac _{L-N} ± 10%; 100 to 415 Vac _{L-L} ± 10%
DC	125 to 250 Vdc ± 20%
AC Burden	5 W/11 VA max. at 415 Vac
DC Burden	4 W max. at 125 Vdc
Frequency	50/60 Hz ± 5 Hz
Fuses	500 mA
Wire Size	0.82 to 3.31 mm ² (18 to 12 AWG)
Terminal Block Torque	0.5 to 0.6 N-m (4.4 to 5.3 in-lb)
VOLTAGE INPUTS	
Measured Voltage	UL CAT III, 20-347V _{L-N} /35-600V _{L-L} (Delta) IEC CAT III, 20-400V _{L-N} /35-690V _{L-L}
Frequency	50/60 Hz
CURRENT INPUTS	
Nominal Current	1 A or 5 A
Measured Current	5 mA to 8.5 A
Withstand	20 A continuous; 50 A@10 sec/hr; 500 A@1 sec/hr
Frequency	50/60 Hz
DIGITAL OUTPUT	
Maximum Load Voltage	40 Vdc
Maximum Load Current	50 mA
On Resistance	50 Ω max.
Pulse Width	50% duty cycle
Pulse Frequency	25 Hz max.
Leakage Current	0.03 μA
Isolation	5 kV RMS
LED OPTICAL OUTPUT	
Pulse Width (orange LED)	200 μsec
Pulse Frequency	50 Hz max.
COMMUNICATION	
Ethernet Port	10/100 Mbps; Modbus TCP/IP; 1 port
MEASUREMENT ACCURACY	
Accuracy	0.5%; IEC 61557-12 PMD/[SD]/K70/0.5
Real Power and Energy	0.5%; Class 0.5 as per IEC 61557-12; Class 0.5S as per IEC 62053-22
Reactive Power and Energy	Class 2 as per IEC 61557-12; Class 2S as per IEC 62053-23
Current, Phase	0.5%; Class 0.5 as per IEC 61557-12
Voltage, L-N	0.5%; Class 0.5 as per IEC 61557-12
OPERATING CONDITIONS	
Operating Temp. Range	-25 to 70 °C (-13 to 158 °F) 5 to 95% RH noncondensing Display functions to -25 °C with reduced performance
Storage Temp. Range	-40 to 85 °C (-40 to 185 °F)
Altitude of Operation	< 2000 m
COMPLIANCE INFORMATION	
Approvals	CE; UL61010-1; IEC 61010-1; IEC62052-11; IEC61557-12
Housing	Pollution Degree 2, Installation Category III
WARRANTY	
Limited Warranty	2 years

Symbols per IEC 417 that may appear in this document

- Direct Current (DC)
- ~ Alternating Current (AC)
- ~ AC/DC
- 3~ 3phase AC



ORDERING INFORMATION



E61C20

INSTANTANEOUS RMS VALUES

Bi-directional energy measurements current (per phase and neutral)	●
Voltage (total, per phase L-L and L-N)	●
Frequency	●
Real, reactive, and apparent power (total and per phase)	●
True power factor (total and per phase)	●

ENERGY VALUES**

Accumulated active, reactive and apparent energy	●
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POWER QUALITY MEASUREMENTS

THD, thd (Total Harmonic Distortion) I, $V_{AC,W}$, $V_{AC,L}$ per phase	●
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OTHER MEASUREMENTS**

Alarm counters and alarm logs	●
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DATA RECORDING

Min/max of instantaneous values, plus phase identification*	●
Alarms with 1s timestamping*	●
Data logging	●

DEMAND VALUES**

Current average	●
Active power	●
Reactive power	●
Apparent power	●
Demand calculation (sliding, fixed and rolling block, thermal methods)	●
Synchronization of the measurement window to input, communication command or internal clock	●
Settable demand intervals	●

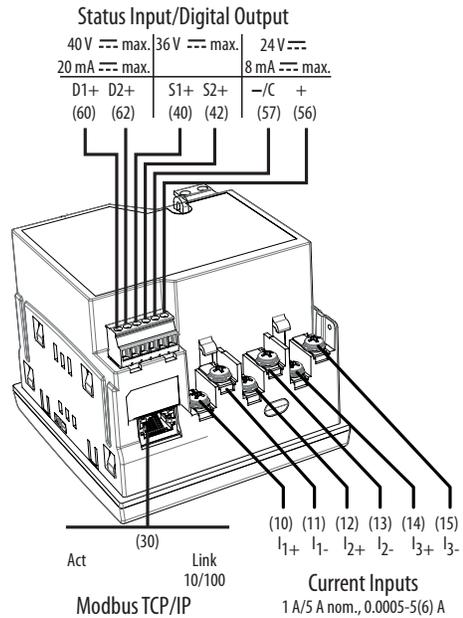
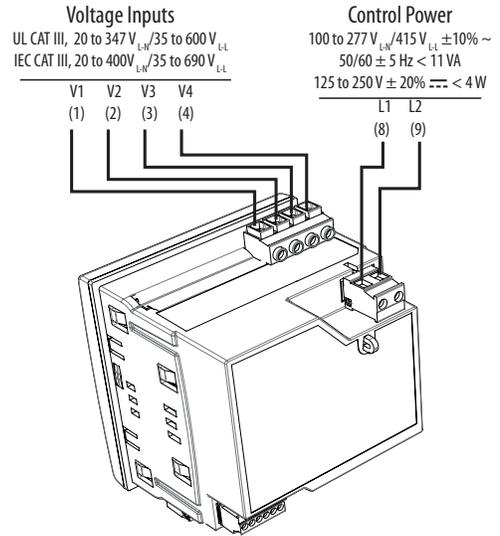
INPUTS & OUTPUTS

Two digital outputs (form A relay)	●
Two digital inputs with timestamp	●
Whetting voltage	●

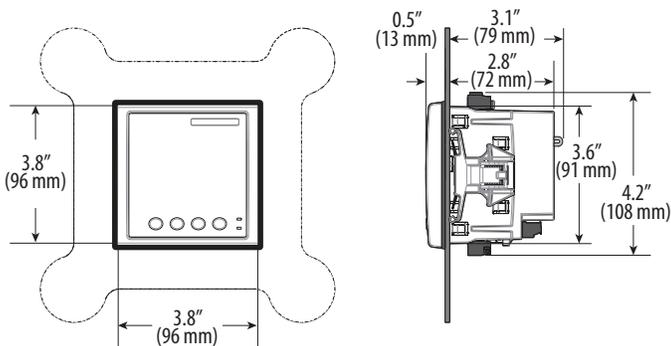
* The CE mark indicates RoHS2 compliance. Please refer to the CE Declaration of Conformity for additional details.

** Stored in non-volatile memory.

WIRING DIAGRAMS



DIMENSIONAL DRAWINGS



ACCESSORIES

- Split-core CTs (H681x-xxxA-5A)
- CT Mounting brackets (AH06)

