

Engineering Specifications

Commercial Energy Consumption Meter H8163

- A. The Energy Meter shall consist of digital electronic circuitry.
- B. The Energy Meter shall conform to ANSI C12.1 metering accuracy standards.
- C. The Energy Meter system shall consist of a meter and included CT(s) calibrated together as a system.
- D. The Energy Meter's system accuracy shall be +/- 1% from 2 % to 100 % of the rated current over a temperature range of 0-50° C.
- E. The Energy Meter shall require no annual recalibration by users in the field.
- F. The Energy Meter shall derive operating power from its metering connections, and shall not require a separate control power connection.
- G. The Energy Meter electronics shall automatically correct for CT phase reversal.
- H. The Energy Meter CTs shall be factory assembled.
- I. The Energy Meter shall have a backlit LCD display measuring 1.2" X 3.8" that is direct read without the need for multipliers.
- J. The Energy Meter LCD display shall show accumulated kWh on the top half of the display while the bottom half of the display scrolls through Amps, Voltage, PF, KVAR, KVA, KW Real Power, as stated in point Q below.
- K. The Energy Meter shall meet UL and cUL specifications as listed in 3111-1.
- L. The Energy Meter shall directly accept any voltage input from 120-480 VAC.
- M. The Energy Meter shall be internally isolated to 2500 VAC.
- N. The Energy Meter series shall have models available for amperage ranges of 100-2400 Amps.
- O. The Energy Meter shall have a N.O. pulse output with selectable pulse output rates of 0.10, 0.25, 0.50, or 1.00 kWh per pulse.
- P. The Energy Meter shall have a N.C. phase-loss alarm output operating at 100mA @ 24VAC/DC.
- Q. Using the optional Communications Board, the Energy Meter shall be networkable via an RS485 connection to a Modbus RTU network.
- R. The information and capabilities provided by the Energy Meter shall include the following:
 - a. Current, per phase & three-phase total
 - b. Voltage, per phase & three-phase total, phase-to-phase & phase-neutral
 - c. Real Power (kW), per phase & three-phase total
 - d. Reactive Power (kVAR), three phase total
 - e. Apparent Power (kVA), three phase total
 - f. Power Factor, per-phase & three-phase total
 - g. Real Energy (kWh), three phase total
- S. The Energy Meter shall be the H8163 Series supplied by Veris Industries.