Honeywell E-Mon

Class 3400 Meters

ADVANCED KWH/DEMAND METERS WITH COMMUNICATION

SPECIFICATION DATA



Dim. 8" H x 6" W x 3 3/4

Fig. 1.

FEATURES

- Standard features Include advanced 4-line large display showing:
  - kWh
  - kW demand (with peak date & time)
  - Power factor per phase
  - Real-time load in kW
  - Amps per Phase
  - Volts per phase
- On-board set-up option for:
  - IP address
  - Meter date/time
  - Load Control Settings
  - ID codes for EZ7, Modbus and BACnet
- Optional expanded feature package provides additional features:
  - Load control option for load control/shedding
  - Two external meter inputs (water, gas, BTU, etc.) (stored in channels 5 & 6)
  - Two Pulse outputs (one kWh and one kVARh)
- 0-2 volt output split-core current sensors allow for enhanced safety and accurate remote mounting of sensors up to 500 feet from meter without power interruption. (Optional solid-core sensors available.)
- Onboard installation diagnostics and verification system.
- Built-in RS-485 EZ 7communications capability supports the following connection configurations
  - Up to 52 Class 3200, 3400 or 5000 meters and/ or IDR interval data recorders
  - Cabling is daisy-chain configuration,3-conductor, 22 AWG, up to 4,000 cable feet total per channel.
- Communications (Built-in Communication)
  - RS-485
  - Ethernet
  - Pulse output
- Protocols
  - EZ7
  - BACnet MS/TP*
  - Modbus RTU
  - BACnet IP*
  - Modbus TCP/IP

NOTE: *Interval data not available via BACnet or Lon-Works.

- Records kWh & kVARh delivered, kWh & kVARh received in first four channels. Data stored in 15-min. intervals for up to 72 days or 5-minute intervals for up to 24 days. Maintains interval data storage in a first-in, first-out format.
- Compatible with E-Mon Energy software via EZ7 protocol for automatic meter reading, billing & profiling of interval energy data.
- Meter is designed for use on both 3-phase, 3-wire (delta) and 3-phase, 4-wire (wye) circuits. Optional single-phase, 3-wire configuration available.
- Outdoor NEMA 4X polycarbonate enclosure (standard) with padlocking hasp & mounting flanges for indoor/outdoor installation (stand alone) with one 1 1/16” KO on bottom of enclosure.
- Optional industrial grade JIC steel enclosure w/padlocking hasp & mounting flanges for indoor installation with three 1 1/16” KO (3/4” conduit) on bottom of enclosure.
- UL/CUL listed. Meets or exceeds ANSI C12.20 national accuracy standards. (+/- 0.2% from 1% to 100% of rated load)
- Meter meets or exceeds MID accuracy standards.
- BACnet protocol is BTL certified. LonWorks protocol is LonMark certified.
- MV-90 compatible (with EZ7 only.)

MODEL NUMBERS

120/208-240V, 127/220V, 3-Phase
E34-208100-R01KIT (100 amp)
E34-208200-R01KIT (200 amp)
E34-208400-R01KIT (400 amp)
E34-208800-R01KIT (800 amp)
E34-2081600R01KIT (1600 amp)
E34-2083200R01KIT (3200 amp)

220/380V, 230/400V, 240/415V, 3-Phase
E34-400100-R01KIT (100 amp)
E34-400200-R01KIT (200 amp)
E34-400400-R01KIT (400 amp)
E34-400800-R01KIT (800 amp)
E34-4001600R01KIT (1600 amp)
E34-4003200R01KIT (3200 amp)

277/480V, 3-Phase
E34-480100-R01KIT (100 amp)
E34-480200-R01KIT (200 amp)
E34-480400-R01KIT (400 amp)
E34-480800-R01KIT (800 amp)
E34-4801600R01KIT (1600 amp)
E34-4803200R01KIT (3200 amp)

347/600V, 3-Phase 4 Wire
E34-600100-R01KIT (100 amp)
E34-600200-R01KIT (200 amp)
E34-600400-R01KIT (400 amp)
E34-600800-R01KIT (800 amp)
E34-6001600R01KIT (1600 amp)
E34-6003200R01KIT (3200 amp)

Enclosure Options
Meters supplied standard in NEMA 4X outdoor enclosures.
Not available in MMU Configuration.
To order a JIC Steel enclosure replace “R” in model number with “J” (E34-208100-J01KIT)

Communication Protocol & Option Packages
The models above represent the 01 protocol package. To specify a different protocol package replace “01” in model number with the specification below.

Table 1.

RS-485 Port	Ethernet Port	Specify
EZ7	EZ7 Ethernet	01
Modbus RTU	EZ7 Ethernet	02
BACnet MS/TP	EZ7 Ethernet	03
EZ7	Modbus TCP/IP	04
EZ7	BACnet IP	05
Modbus RTU	Modbus TCP/IP	06

Expanded Feature Package
To order meters with the expanded feature package add the specification “-X-” before the word KIT in the model number. (E34-208100-R05-X-KIT)

Options
Three-phase meter kits are supplied with (3) split-core current sensors.
To order a single-phase, 3-wire meter kit add “-SP” before KIT in the model number. Ex. E34-208100-R01-SPKIT
To order a single-phase, 3-wire meter with expanded feature package add “XSP” before KIT in the model number. Ex. E34-208100-R01XSPKIT
Single-phase meters will be supplied with (2) split-core current sensors.

CLASS 3400 SMART METER SPECIFICATIONS

Meter shall be fully electronic with 4-line by 20-character backlit LCD display showing kwh, kW demand (with peak date and time), power factor per phase, real-time load in kW, Amps per phase and Volts per phase.

Meter shall utilize 0-2 volt AC output current sensors to allow paralleling and/or mounting up to 500 feet from the meter. Sensors shall be of split-core configuration to allow installation without disconnecting cabling, etc. Sensors shall be available from 100 amp to 3200 amp. Sensors shall be optionally available in solid-core configuration (100 & 200 amp.)

Meter shall be field programmable for meter date/time, IP address and ID code for communication option and optional load control settings.

Meter shall provide installation diagnostics on display.

Meter shall be enclosed in a NEMA 4X polycarbonate enclosure (standard) with padlocking hasp & mounting flanges for indoor/outdoor installation (stand alone) with one 1 1/16” KO on bottom of enclosure. Optional heavy duty JIC steel enclosure available for indoor installation.

Meter shall be UL/CUL listed to latest applicable standards for safety.

Meter shall meet or exceed ANSI C12.20 accuracy standards.

Meter shall meet or exceed MID accuracy standards.

Meter shall provide non-volatile memory to maintain reading during power outages.

Meter shall store interval data for kW and kVAR for up to 72 days in first-in first-out format. Interval data not available via BACnet or LonWorks.

Meter shall be optionally available in single-phase, 3-wire configuration.

Meter shall provide optional 5th & 6th channel for logging inputs from third-party metering devices (gas, water, BTU, etc.) Both channels provide interval data logging that can be read via E-Mon Energy software and Modbus.

Meter shall be capable of daisy-chain connection using RS-485 communications in combinations of Din-Mon D2 & D5, Class 3200s, 3400s, 5000s, IDR-8s, IDR-16s not to exceed 52 devices. Cabling shall be available through terminal block (3-conductor), 18-22 AWG, up to 4,000 cable feet total.

Meter shall be available with the following communication protocol & option packages: See Table 1

BACnet protocol shall be BTL certified.

Home and Building Technologies
In the U.S.:
Honeywell E-Mon
715 Peachtree Street NE
Atlanta, GA 30308
customer.honeywell.com

Honeywell E-Mon

® U.S. Registered Trademark
© 2018 Honeywell International Inc.
38-00064—01 M.S. 12-18
Printed in United States