

ENERGY SCOUT+ WATTHOUR METER MODEL ESP3-354EDM-N

LOW-COST

DESCRIPTION

The model ESP3 Watthour meter is used to measure energy at the input to electrical load centers or branch circuits. The unit displays Volts, Amps, Watts and power factor, in addition to import and export energy.

The unit is DIN-rail mounted and has optional indoor and outdoor enclosures. Solid-core or split-core current transformers are available.

FEATURES

- Single model for all 1Φ and 3Φ applications over range of 120-240Vac
- Indoor or outdoor package options
- Optional split-core current transformers



APPLICATIONS

- Input to electrical load centers
- Branch circuits

18 MONTH WARRANTY



CONNECTION OPTIONS

SYSTEM CONFIGURATION	VOLTAGE INPUT (Vac)	MODEL ESP3-
1-Phase 2-Wire*	120	354EDM-N
1-Phase 2-Wire*	240	
1-Phase 3-Wire*	120/240	
1-Phase 3-Wire Network*	120/208	
3-Phase 3-Wire*	208	
3-Phase 4-Wire*	120/208	

*Use in a 1Φ2W system requires 1 CT, use in a 1Φ3W or 3Φ3W system requires 2 CTs, use in a 3Φ4W system requires 3 CTs. Solid and Split-Core CTs are available separately. See SCT and BCT spec sheets.

ORDERING INFORMATION

Example: 3Φ3W Watthour Meter with 208Vac and 200Aac Input, with Split-core CTs in Outdoor Surface-mount Enclosure

ESP3-354EDM-N with SCT-013-200 (Qty 2) and ENC-OSM

UL-listed enclosure required per UL listing.

SPECIFICATIONS

INPUT

Current Range
 With appropriate CTs* ... 0-200, 0-400, 0-600, 0-800Aac**
 Over-range without damage.....125% F.S.
 Voltage..... Nominal.....120, 208, 240V_{L-L}
 Operating Range.....Nominal ±30%
 Power Factor..... any
 Frequency Range 47-63Hz
 Power Consumption..... <1VA

OUTPUT

Pulse Value*** 1.0kWh/Pulse x S.F., polarity sensitive
 Contact Closure (Low-impedance).... low<3Ω, high>1MΩ
 Duration... 50% duty cycle or 80ms, whichever is greater
 Encoder Dataexactly matches register reading
 Version 2.0 MetersRS-485, 1200 baud (E,7,1)
 Version 3.0 MetersRS-485, 9600 baud (E,7,1)

DISPLAYED VALUES***

	Resolution
Energy (Import and Export).....(kWh)...	XXXXXX.XX
Volts (Per-Phase).....(Vac).....	XXX.X
Amps (Per-Phase).....(Aac).....	XXX.X
Power (Per-Phase and Total).....(W).....	XXXXX
Power Factor (Per-Phase w/Direction) ... (C or L).....	X.XX
Display scroll time..... Total kWh (2 min).....	all others (3s)

DIELECTRIC TEST

Input/Output/Case..... 2250Vac

***SCALING FACTOR (for CTs with other than 200A primary)

Displayed Values and Pulse Values must be multiplied by a scaling factor that is determined by dividing the primary current rating of the CTs by 200. (for 200A primary, S.F. = 1)
 For example: If using 400A CTs, S.F. = 400/200 = 2.
 Pulse Value = 1.0 x 2 = 2.0kWh/Pulse.
 Displayed Values: displayed values x 2 = actual

TIME OF USE (Parameters Available via RS-485 Port)

Real-Time Clock Calendar with Battery Back-up
 4 Tariff Periods Per Day
 Max. Demand for 15-, 30-, or 60-Minute Intervals.
 Resettable Demand via RS-485 Port
 NOTE: See ESP3 Serial Reading & Programming Guide (7004-00097-A) for details.

ACCURACY

IEC 61036 5(200)A & 10(400)A Class 0.5

PHYSICAL & ENVIRONMENTAL

Operating Range.....-30° to 55°C
 Storage Range..... 0° to 40°C
 Operating Humidity 0-85% non-condensing
 Weight..... 10.0 oz
 Termination (Screw Compression).....20-16 AWG
 Enclosure MaterialABS

**UL listing applies only to ESP3 units used with 200A CTs.



4242 REYNOLDS DRIVE * HILLIARD, OHIO * 43026-1264
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DISPLAY, CONNECTIONS & DIMENSIONS

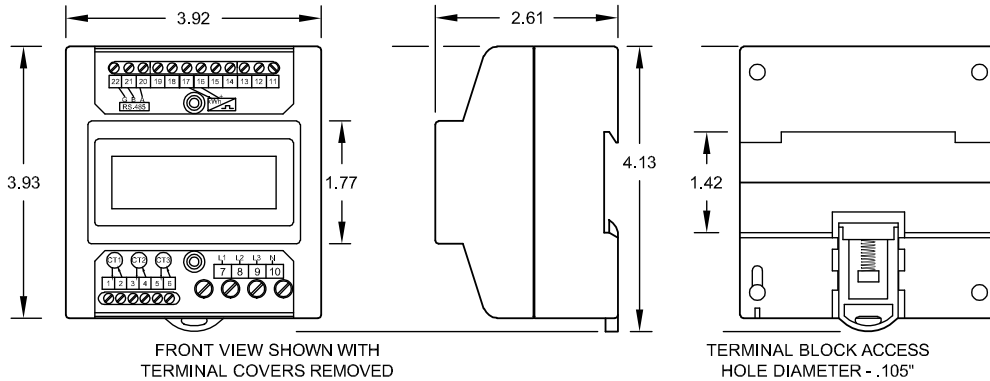
MODEL **ESP3-**

DISPLAY REGISTERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Total kWh	Reverse kWh	Volts L1	Volts L2	Volts L3	Amps L1	Amps L2	Amps L3	Watts L1	Watts L2	Watts L3	Total Watts	Cos L1	Cos L2	Cos L3

Display scrolls through each register with Total kWh displayed for 2 min. followed by the remaining registers for 3 sec. each.

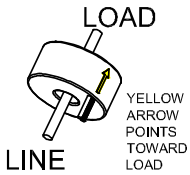
CASE DIMENSIONS



Dwg# 0902-00949-B Rev --

CONNECTION DIAGRAMS

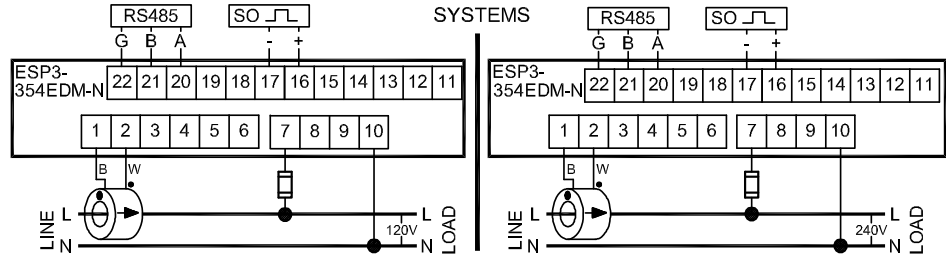
ORIENTATION OF CT ON WIRE (FOR ALL CONFIGURATIONS)



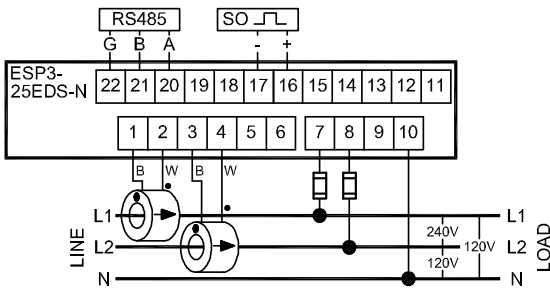
FUSE SIZE

1 AMP (MAX) IN-LINE FUSE PER UL LISTING

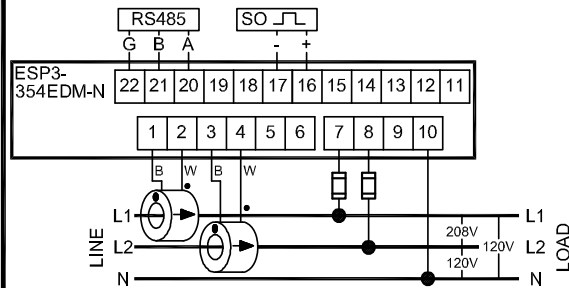
1-PHASE 2-WIRE SYSTEMS



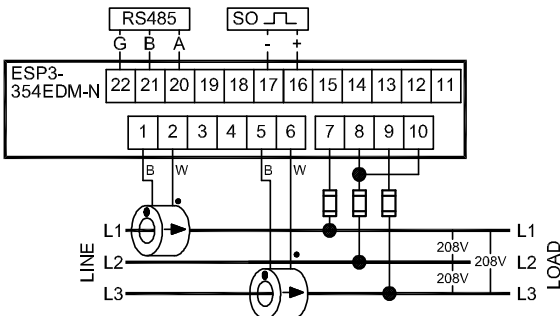
1-PHASE 3-WIRE SYSTEMS



1-PHASE 3-WIRE NETWORK SYSTEMS



3-PHASE 3-WIRE SYSTEMS



3-PHASE 4-WIRE SYSTEMS

