EKM-25IDS and EKM-25IDS-N Spec Sheet

Use these meters for accurately measuring 120/240 volt 3-wire loads (not to be used on 120 volt 2-wire loads, for this use our EKM-15IDS) Use if you have easy access to your wires, and if you wires are under 3/8" in diameter. For larger amperages and wire sizes use our EKM-Omnimeter.

Single Phase 120/240 volt 3-wire, 100 amp, DIN Rail Mount
Nominal Voltage Ranges:

120/240, 3-wire, Single-phase, 2 Lines and Neutral

Range of allowable environmental conditions: Pollution Degree 2, Measurement Category III, Altitude rating 2000 meters max. Maximum Temperature Range: -30 Deg. C to 70 Deg. C. Tamper Detection Class 1.

The equipment is protected throughout by double insulation as indicated by:

Safety Precautions

•Meter should be installed by a qualified electrician.

•Turn off all power supplying the equipment before performing any wiring operations. Use a properly rated volt meter to confirm power is off.

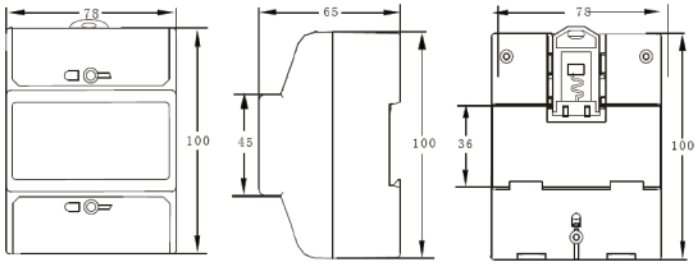
•Use of this device inconsistent with this manual can cause permanent damage to the unit and/or serious harm to the operator.

Tools/Materials List

- •Volt meter
- •Small standard screwdriver
- •Wire stripper
- •DIN-Rail
- •16-22 AWG UL rated stranded copper wire

Specs:

1. Rated voltage: 120V/240V 3-wire (2 Lines, 1 Neutral)
2. Rated current: 5(100)A
3. Pulse Output：800imp/kWh
4. Rated frequency: 60Hz
5. Class of Accuracy: 1.0
6. Start current: 0.4%Ib(1.0)
7. Creep: logical design of Anti-creep
8. Power consumption: ≤1W（when 220V 20A）
9. Temperature -20—45°C
   Max. limit work temperature -30—55°C
   relative humidity ≤85%
10. Weight：12.8 oz. or 0.32kg
11. Outside dimensions：78×100×65mm



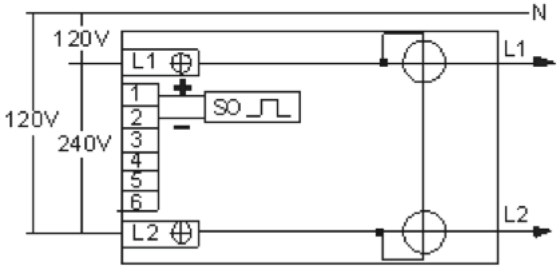
Load current	Power factor COSΦ	Basic error%	
		Class 0.5	Class 1
0.05Ib	1.0	±1.0	±1.5
0.1Ib~Imax	1.0	±0.5	±1.0
0.1Ib	0.5(L)	±1.0	±1.5
	0.8(C)	±1.0	±1.5
0.2Ib~Imax	0.5(L)	±0.5	±1.0
	0.8(C)	±0.5	±1.0

Installation Instructions

For All Systems

1. Disconnect or switch power off before attempting to install, connect, disconnect or service the meter. ALL POWER MUST BE DISCONNECTED!
2. Mount the meter using 35mm DIN Rail in a protected indoor location; an enclosure is always recommended.
3. IMPORTANT: Distinguish and then identify the Neutral and the Line(s) ('hot' wire(s), usually black or red). Label the Neutral and then, depending on your electrical system, assign labels as described below.

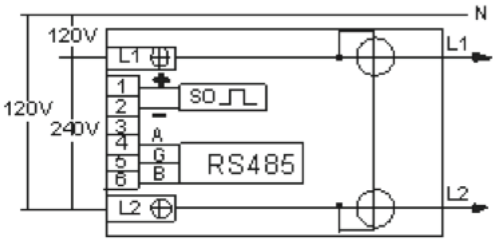
120/240V, Single Phase, 3-Wire



Wiring Diagram 1: for EKM-25IDS

1. Label line 1- "L1" and line 2 - "L2". (Arbitrarily assign labels.)
2. Pass the L1 stranded copper wire through the L1 port (the tube

in the body of the meter. Pass the L2 stranded copper wire through the L2 port in the meter. If the wire will fit through the provided centering bushings, then the bushings should be used. These wires should be passed so that the power flows from bottom of meter (source side) to the top of the meter (load side). The Neutral wire will bypass the meter.
3. Tighten down the L1 wire tap and the L2 wire tap.
4.Secure the terminal block cover.



Wiring Diagram 2: for EKM-25IDS-N

Both EKM-25IDS and EKM-25IDS-N have 7 digits. Displayed as 99999.99
They also have a pulse output of 800 pulses per kWh

Communications:
For EKM-25IDS-N RS-485: Connect RS-485 A on meter to RS-485 A on the communication converter. Connect RS-485 b on meter to RS-485 b on the communication converter. Up to 256 of these meters can be daisy chain connected to the meter network on up to 4000 feet of wire.

For a lot more information on installation, communications, and operation of these meters, please go to this page on the web:

http://www.ekmmetering.com/information/the-complete-guide.html

Warranty:
These meters come with a 2 year warranty.

CE Mark
IEC 62052-11
IEC 62053-21

CE