AX-PM-DRK

Din Rail Mounted kWh Meters - Single and Three Phase

Product Overview

The AX-PM-DRK range of kWh meters are a compact DIN rail mounted design. There are both direct connected and CT connected versions for both single and three phase supply. The units give a pulse output to the BMS

Features

- Single and three Phase versions
- Direct and CT operated versions
- Pulse output to BMS
- DIN rail mounted

Product Specifications

Power Supply:	Single Phase	230Vac 50/60Hz Line to Neutral
	Three Phase	230Vac 50/60Hz Line to Neutral
		400V Line to Line
Frequency Range:		45 to 65Hz
Maximum Current:	Direct connected	
	Single Phase	63 Amps
	Three Phase	90 Amps
	CT connected	5Amps (max 6A)
Minimum Start up Current:		<50mA (<15mA for CT operated)
Power Consumption:	Voltage Circuit	Max <4VA (0.5W)
	Current Circuit	Max <2VA
Pulse Output:		1 per 0.1kWh
Pulse Duration:		<75ms Voltage 3-30Vdc Current < 20mA
CT Ratio's:	CT connected only	5,10,25,50,75,100,125,150,200,250,300,400,500,600,800,1000/5A
Precision Class:		Class 2 in accordance with CEI-EN 61036
LED Indication:		Green- Power on Red- Metering energy 1 flash per pulse
Protection:		IP20
Dimensions:		70 (w) x 87 (h) x 65 (d)mm
Ambient Temp. Range:		-10 to +45deg C, 0-95% RH
Conformance:		72/23/EEC modified by 93/68/EEC Low Voltage
		89/336/EEC modified by 92/31/EEC and 98/68/EEC
		Safety CEI-EN 61010-1 (1994)
		EMC CEI-EN 61036 (1997)
		Measurement Accuracy CEI-EN 61036 (1997)
Country of Origin:		UK

Order Codes

AX-PM-DRK-1P-230-D63	**Single phase direct connected DIN rail kWh meter**
AX-PM-DRK-3P-230-D100	**Three phase direct connected DIN rail kWh meter**
AX-PM-DRK-1PCT-240	**Single phase CT connected DIN rail kWh meter**
AX-PM-DRK-3PCT-415	**Three phase CT connected DIN rail kWh meter**

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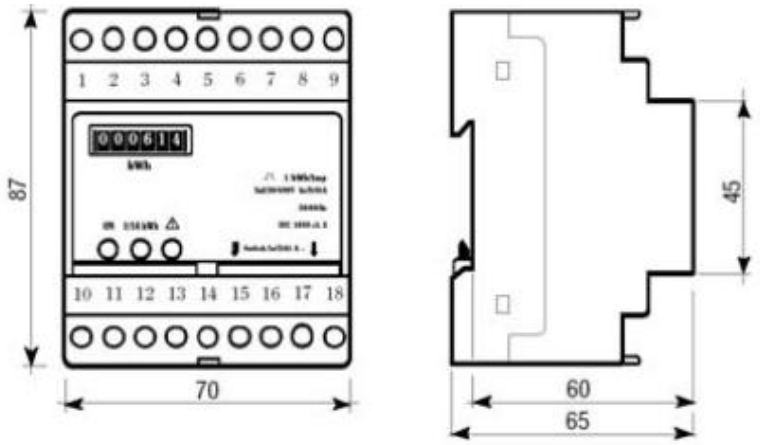
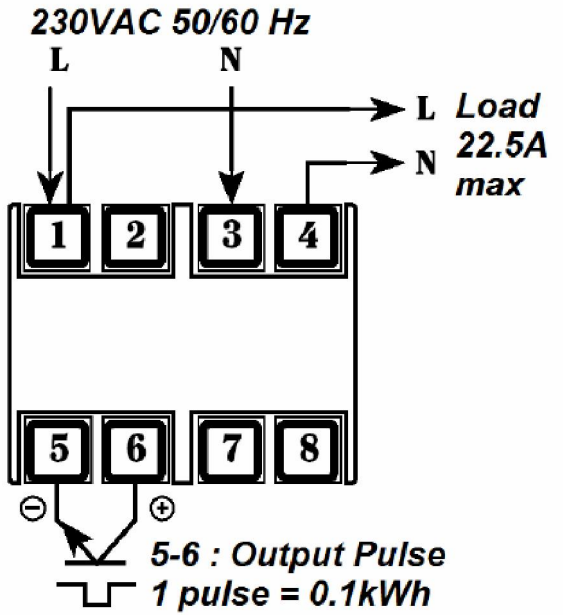
Installation:

Engineering works should only be carried out by qualified, trained personnel abiding by local safety regulations.
Ensure power is disconnected from the unit before commencing work. Follow all local regulations and site rules to ensure a safe working environment.
The unit must be installed in a protective housing so that the terminals are inaccessible after fitting.
Voltage connections must be fused.
Do not connect poweer or connect the instrument if any part of the unit is damaged.

Dimensions



Single Phase direct connected



Three Phase direct connected

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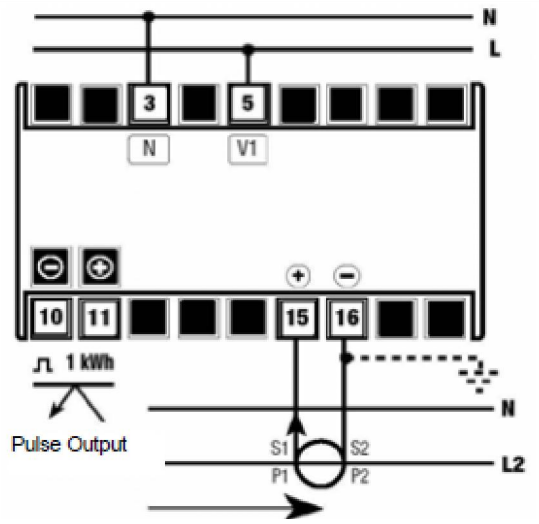
Single Phase CT connected

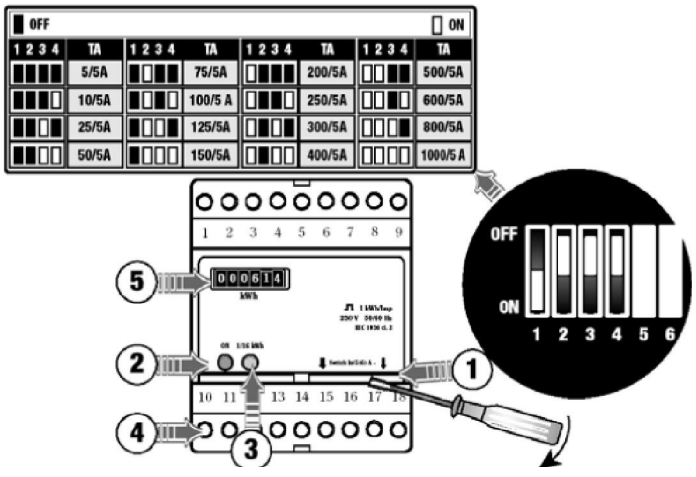
GUIDE TO INSTALLATION

1. Before installing the instrument, select the required CT ratio.
2. The instrument should be connected as shown in the diagram.
3. **Voltage connections must be fused with a 2 A fuse rated at 230 V.** Do not fuse CT connections. Connection wires should be sized to comply with applicable regulations and codes of practice, and be rated for minimum 70 deg C.
4. Terminals are suitable for use with one or two copper wire conductors per terminal, (6 mm^2) or less. Tighten terminal screws to 2,0 Nm. Ensure all connection wires are rated and approved to the highest voltage connected to the unit.
5. The equipment into which these units are installed must have a readily accessible, clearly marked, adjacent switch or circuit breaker which will isolate the supply voltage and permit safe access for subsequent maintenance.
6. CT phasing is dependent on energy flow direction. If the unit does not meter kWh correctly, reverse the CT connections.
7. It is recommended that the CT secondary be grounded as shown
8. Accuracy will not be maintained if CT current or voltage inputs are outside specification..
9. Disconnect power before attempting to change the CT ratio



FEATURE LOCATION

1. Dip-switch for CT setting
2. **Green warning light:** lights up to indicate power on
3. **Red warning light:** flashes to indicate that the instrument is metering energy (1 flash=1/16 kWh)
4. Impulse output: Optically insulated
5. Electro-mechanical impulse counter: resolution 1 kWh



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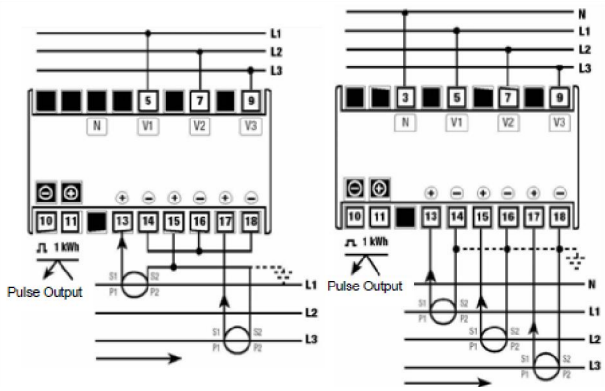
Three Phase CT connected

GUIDE TO INSTALLATION

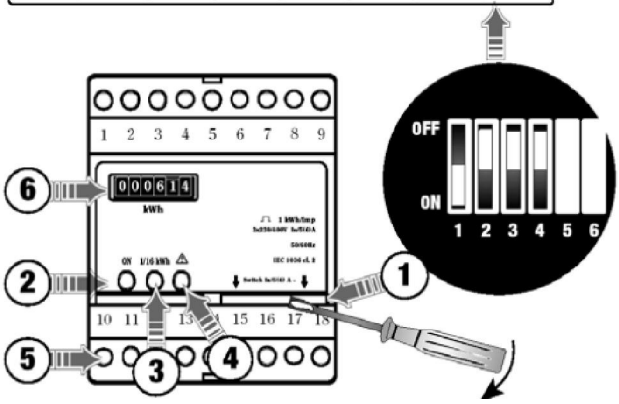
1. Before installing the instrument, select the required CT ratio.
2. The instrument should be connected as shown in one of the diagrams as appropriate for 3 phase 3 wire and 3 phase 4 wire.
3. **Voltage connections must be fused with a 2 A fuse rated at 400 V.** Do not fuse CT connections. Connection wires should be sized to comply with applicable regulations and codes of practice, and be rated for minimum 70 deg C.
4. Terminals are suitable for use with one or two copper wire conductors per terminal, (6 mm^2) or less. Tighten terminal screws to 2,0 Nm. Ensure all connection wires are rated and approved to the highest voltage connected to the unit.
5. The equipment into which these units are installed must have a readily accessible, clearly marked, adjacent switch or circuit breaker which will isolate the supply voltage and permit safe access for subsequent maintenance.
6. CT phasing is dependent on energy flow direction. If the yellow warning light comes on, reverse the CT phasing.
7. Always ensure that the phasing on all 3 CT's is the same. For example, if one CT is reversed in an approximately balanced 4 wire system, the unit may appear to function correctly but the kWh reading will only be about one third of the true value.
8. It is recommended that CT secondaries be grounded as shown.
9. Accuracy will not be maintained if CT current or voltage inputs are outside specification..
10. Disconnect power before attempting to change the CT ratio.



FEATURE LOCATION

1. Dip-switch for CT setting
2. **Green warning light:** lights up to indicate power on
3. **Red warning light:** flashes to indicate that the instrument is metering energy (1 flash=1/4 kWh)
4. **Yellow warning light:** when lit the instrument has detected 1/4 kWh negative (probable incorrect CT connection) and remains lit until 1/4 kWh positive is detected
5. Impulse output: Optically insulated
6. Electro-mechanical impulse counter: resolution 1 kWh

OFF								ON
1 2 3 4	TA	1 2 3 4	TA	1 2 3 4	TA	1 2 3 4	TA	
■■■■	5/5A	■□□□	75/5A	□■■■	200/5A	□□■■	500/5A	
■■■□	10/5A	■□■□	100/5 A	□■■□	250/5A	□□■□	600/5A	
■■□■	25/5A	■□□■	125/5A	□■□■	300/5A	□□□■	800/5A	
■■□□	50/5A	■□□□	150/5A	□■□□	400/5A	□□□□	1000/5 A	



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