

## 3 Phase CT connected kWh Din rail meter

Model Number: DRK-3PCT-415

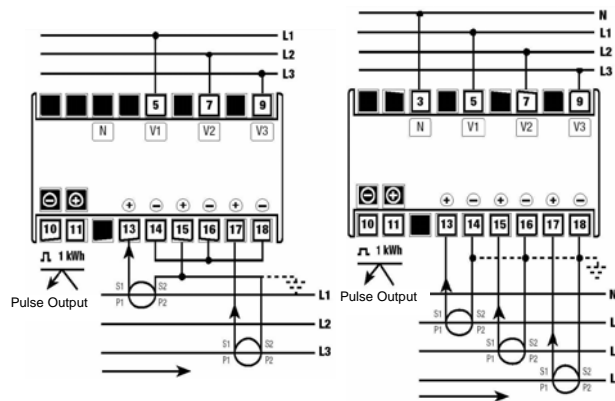
**Warning:** Engineering work should only be performed by qualified, trained personnel abiding by local safety regulations. Ensure power is disconnected from the unit and that associated CTs are unpowered or shorted before commencing work. Follow all local regulations and site rules to ensure a safe working environment.

The unit must be installed in a protective housing so that the terminals are inaccessible after fitting. This unit does not require a protective earth connection. Do not attempt to touch or adjust the dip-switches when the unit is powered.

Do not power or connect the instrument if any part of it is damaged. Read through all of these instructions before starting the fitting operation.

### GUIDE TO INSTALLATION

- Before installing the instrument, select the required CT ratio.
- The instrument should be connected as shown in one of the diagrams as appropriate for 3 phase 3 wire and 3 phase 4 wire.
- 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.
- Terminals are suitable for use with one or two copper wire conductors per terminal, (6 mm<sup>2</sup>) 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.
- 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.
- CT phasing is dependent on energy flow direction. If the yellow warning light comes on, reverse the CT phasing.
- 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.
- It is recommended that CT secondaries be grounded as shown.
- Accuracy will not be maintained if CT current or voltage inputs are outside specification..
- Disconnect power before attempting to change the CT ratio.



### RATING AND SPECIFICATIONS

- Precision: class 2 in accordance with CEI-EN 61036 standard
- Power supply: **3x230V L-N (400V L-L)** ( $\pm 10\%$ )
- Frequency: 50/60 Hz
- Rated current: 5 A
- Maximum current: 6 A
- Minimum start-up current: 15 mA
- Maximum power consumption: voltage circuits < 2,5 VA  
current circuits < 2,5 VA
- Meter constant: 4 imp/kWh
- Voltage inputs: input impedance = 2 M.
- Current inputs: Internal CT with galvanic insulation between primary and secondary
- Optically isolated pulse output:  
impulse duration < 100 ms; voltage 3 - 30 V DC; current < 20 mA
- Insulation: reinforced between impulse output and other terminals reinforced between terminals and parts accessible after installation
- CT ratios available: 5-10-25-50-75-100-125-150-200-250-300-400-500-600-800-1000/5 A
- Operating temp. -10 °C / +45 °C
- Storage temp. -25 °C / +70 °C
- Relative humidity: < 95% non condensing
- Protection level: IP20

### FEATURE LOCATION

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

### CONFORMITY TO EU DIRECTIVES:

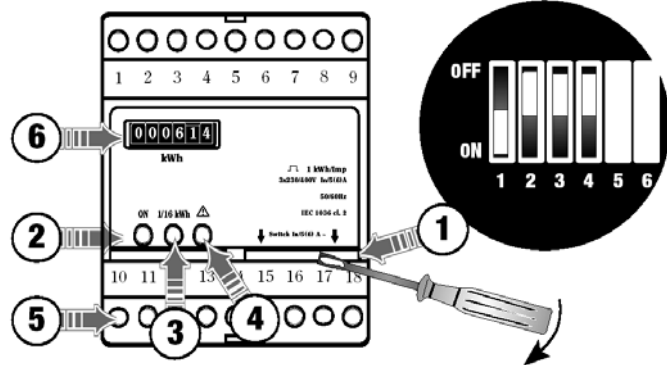
73/23/EEC modified by 93/68/EEC (Low Voltage)

89/336/EEC modified by 92/31/EEC and 93/68/EEC (EMC)

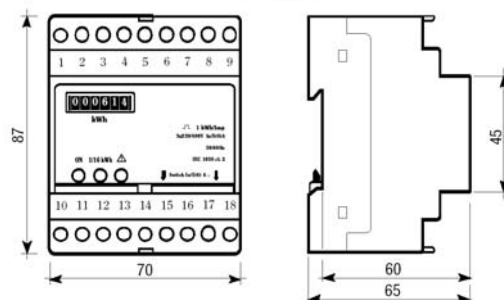
is declared with reference to the following harmonised standards:

- Safety:** CEI-EN 61010-1
- Electromagnetic compatibility:** CEI-EN 61036
- Measurement accuracy:** CEI-EN 61036

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



### Dimensions



# Single Phase CT connected kWh Din rail meter

Model Number: DRK-1PCT-240

**Warning:** Engineering work should only be performed by qualified, trained personnel abiding by local safety regulations. Ensure power is disconnected from the unit and that associated CTs are unpowered or shorted 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. This unit does not require a protective earth connection. Do not attempt to touch or adjust the dip-switches when the unit is powered.

Do not power or connect the instrument if any part of it is damaged. Read through all of these instructions before starting the fitting operation.

## 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<sup>2</sup>) 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.

## RATING AND SPECIFICATIONS

- Precision: class 2 in accordance with CEI-EN 61036 standard
- Power supply: **230 V** (-10% / +15%)
- Frequency: 50/60 Hz
- Rated current: 5 A
- Maximum current: 6 A
- Minimum start-up current: 15 mA
- Maximum power consumption: voltage circuits < 2,5 VA  
current circuits < 2,5 VA
- Meter constant: 16 imp/kWh
- Voltage inputs: input impedance = 2 M.
- Current inputs: Internal CT with galvanic insulation between primary and secondary
- Optically isolated pulse output: impulse duration < 100 ms voltage 3-30 V DC current < 20 mA
- Insulation: reinforced between impulse output and other terminals reinforced between terminals and parts accessible after installation
- CT ratios available: 5-10-25-50-75-100-125-150-200-250-300-400-500-600-800-1000/5 A
- Operating temp. -10 °C / +45 °C
- Storage temp. -25 °C / +70 °C
- Relative humidity: < 95% non condensing
- Protection level: IP20

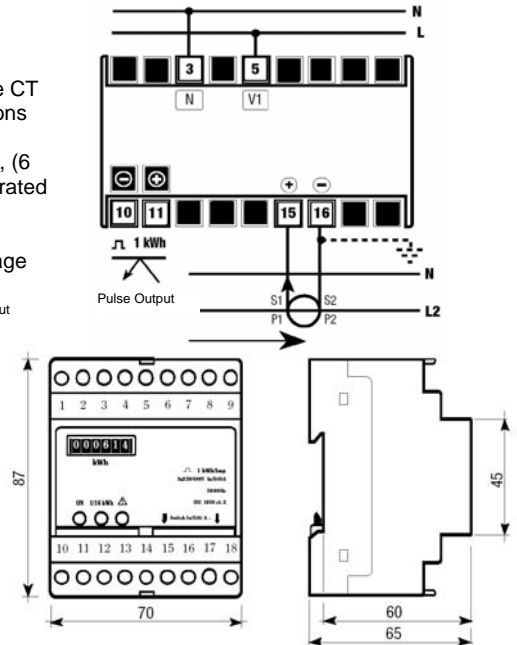
## FEATURE LOCATION

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

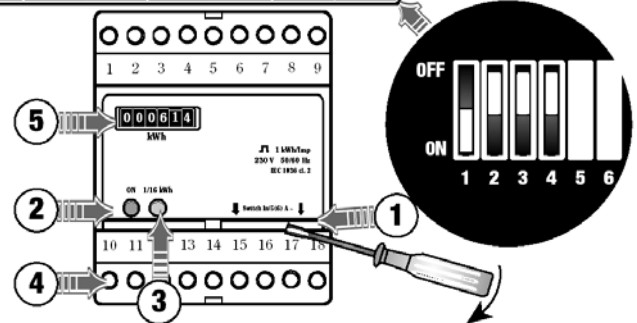
## CONFORMITY TO EU DIRECTIVES:

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89/336/EEC modified by 92/31/EEC and 93/68/EEC (EMC)  
is declared with reference to the following harmonised standards:

1. **Safety:** CEI-EN 61010-1
2. **Electromagnetic compatibility:** CEI-EN 61036
3. **Measurement accuracy:** CEI-EN 61036



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



All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application. Under no circumstances does this constitute an assurance of any particular quality or performance. Such an assurance is only provided in the context of our product specifications or explicit contractual arrangements. Our liability for these products is set forth in our standard terms and conditions of sale.

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