



**Электрические счетчики трехфазные Socomes Countis E30 / E31 / E32 / E33 / E34 / E35 / E36  
- брошюра на продукцию. Юниджет**

Постоянная ссылка на страницу: <https://www.uni-jet.com/catalog/commutation/schetchiki/socomes-countis-e30-e31-e32-e33.html>



# COUNTIS E3x

## Active energy meters

three-phase - direct 100 A



COUNTIS E32 - MID

Single-circuit metering,  
measurement &  
analysis

### Function

The **COUNTIS E3x** is a modular active electrical energy meter displaying the energy and power consumed (kWh and kW) directly on its backlit LCD display. It is designed for three-phase load metering and is used for direct connections of up to 100 A.

COUNTIS E32, E34 and E36 are MID certified.

### Common characteristics

- Measurement accuracy: 1 %
- Backlit LCD display.
- Detects connection errors.

### Advantages

#### RS485 communication (MODBUS or M-BUS) or pulse output

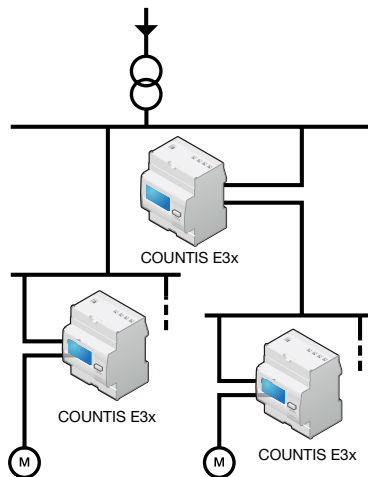
To enable the remote reporting of energy consumption, COUNTIS E3x are provided with either a pulse output or an RS485 communication output, with MODBUS or M-BUS protocol.

In addition to their reporting functions, COUNTIS E3x with RS485 can be configured remotely and enable access to multi-measurement values.

#### Detection of connection errors

The product is protected against phase/neutral inversion and detects wiring errors. This simplifies the installation and commissioning, thereby reducing associated costs, and ensures that the device operates correctly.

### Principle diagram



count\_225\_a\_1\_x\_cat

#### MID certified B+D module

COUNTIS E products with MID certification provide the guaranteed accuracy required for applications in which sub-billing of the electrical energy consumed is necessary. "Module B+D" certification guarantees that the design and manufacturing process of products are approved by an accredited laboratory.

#### Bi-directional metering (available only on the E33 and E35)

This function is for metering energy production or energy consumption.

#### Multi-measurement and load curve

Display of electrical values (I, U, V, P, Q, S, PF) and load curve over a 7 day period via communication.

### The solution for

- Industry
- Infrastructure
- Data centre



### Strong points

- RS485 communication (MODBUS or M-BUS) or pulse output
- Detection of connection errors
- MID certified B+D module
- Bi-directional metering
- Multi-measurement and load curve

### MID certification

- COUNTIS E comply with the MID directive, guaranteeing accuracy and reliability when metering, an indispensable function for energy billing applications.
- COUNTIS E MID feature tamper-proof components to prevent fraud.



### Conformity to standards

- IEC 62053-21 class 1
- IEC 62053-31
- IEC 62053-11
- EN 50470-1
- EN 50470-3



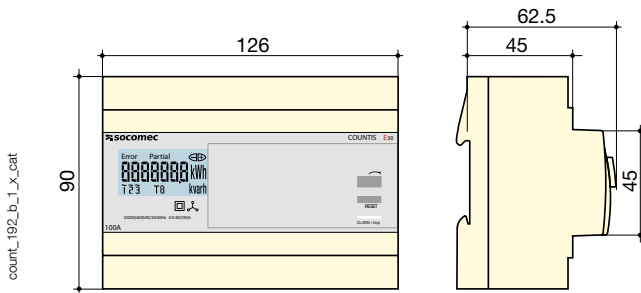
| Models | Key characteristics                             |
|--------|---|
| E30    | Pulse output                                    |
| E31    | Dual tariff (2 partial counters) + Pulse output |
| E32    | Dual tariff + MID + Pulse output                |
| E33    | Dual tariff + RS485 MODBUS communication        |
| E34    | Dual tariff + RS485 MODBUS communication + MID  |
| E35    | Dual tariff + M-BUS communication               |
| E36    | Dual tariff + M-BUS communication + MID         |

## Front panel



1. Terminal shrouds (COUNTIS E32, E34 and E36).
2. Backlit LCD display.
3. MID marking (COUNTIS E32, E34 and E36).
4. Serial number (COUNTIS E32, E34 and E36).
5. Navigation key.
6. Reset key.
7. Metrological LED.

## Case



|                              |                            |
|------------------------------|----------------------------|
| Type                         | modular                    |
| Number of modules            | 7                          |
| Dimensions W x H x D         | 126 x 90 x 62.5 mm         |
| Case degree of protection    | IP20                       |
| Front degree of protection   | IP51                       |
| Display type                 | backlit LCD display        |
| Rigid cable cross-section    | 2.5 ... 35 mm <sup>2</sup> |
| Flexible cable cross-section | 2.5 ... 35 mm <sup>2</sup> |
| Weight                       | 490 g                      |

## Electrical characteristics

### Current measurement

|                                  |                            |
|----------------------------------|----------------------------|
| Type                             | three-phase - direct 100 A |
| Input consumption                | 0.5 VA max. per phase      |
| Startup current ( $I_{st}$ )     | 80 mA                      |
| Minimum current ( $I_{min}$ )    | 0.5 A <sup>(1)</sup>       |
| Transition current ( $I_{tr}$ )  | 2 A <sup>(2)</sup>         |
| Reference current ( $I_{ref}$ )  | 20 A <sup>(3)</sup>        |
| Permanent overload ( $I_{max}$ ) | 100 A                      |
| Intermittent overload            | 3000 A max for 10 ms       |

### Voltage measurement

|                      |   |
|----------------------|---|
| Range of measurement | 230 ... 400 V $\pm$ 20 %                |
| Consumption (VA)     | 2                                       |
| Permanent overload   | 280 V phase-neutral / 480 V phase-phase |

### Energy accuracy

|                                    |         |
|------------------------------------|---------|
| Active (according to IEC 62053-21) | Class 1 |
| Active (according to EN 50470)     | Class B |

### Power supply

|               |            |
|---------------|------------|
| Self-supplied | yes        |
| Frequency     | 50 / 60 Hz |

### Output (pulsed) (COUNTIS E30/E31/E32)

|                     |                                      |
|---------------------|--------------------------------------|
| Number              | 1                                    |
| Type of optocoupler | IEC 62053-31 class A (20 ... 30 VDC) |
| Fixed pulse weight  | 100 Wh                               |
| Pulse duration      | 100 ms                               |

### Operating conditions

|                       |               |
|-----------------------|---------------|
| Operating temperature | -10 ... 55 °C |
| Storage temperature   | -20 ... 70 °C |
| Relative humidity     | 85 %          |

### Communication

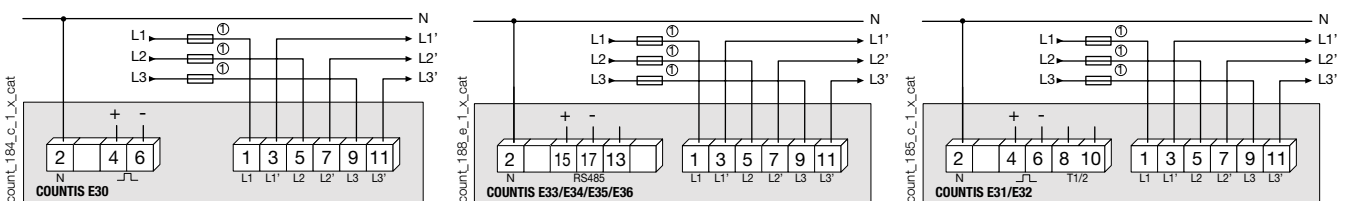
|          | COUNTIS E33/34        | COUNTIS E35/E36     |
|----------|-----------------------|---------------------|
| Link     | RS485                 | Connection          |
| Type     | 2 half duplex wires   | 2 half duplex wires |
| Protocol | MODBUS RTU            | M-BUS               |
| Speed    | 4800 ... 38 400 bauds | 300 ... 9600 bauds  |

(1)  $I_{min} \leq 0.5 \cdot I_{tr}$

(2) The accuracy class is guaranteed between  $I_{tr}$  and  $I_{max}$ .

(3)  $I_{ref} = I_{tr}$  (base current) =  $10 \cdot I_{tr}$  for direct connection COUNTIS.

## Connection



1. 100 A gG / Am fuses max.

## References

| Type   | COUNTIS E30 Reference | COUNTIS E31 Reference | COUNTIS E32 Reference | COUNTIS E33 Reference | COUNTIS E34 Reference | COUNTIS E35 Reference | COUNTIS E36 Reference |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 100 A direct   | 4850 3005             |                       |                       |                       |                       |                       |                       |
| 100 A direct - Dual tariff   |                       | 4850 3006             |                       |                       |                       |                       |                       |
| 100 A direct - Dual tariff - MID   |                       |                       | 4850 3007             |                       |                       |                       |                       |
| 100 A direct - Dual tariff with RS485 MODBUS com. <sup>(1)</sup>         |                       |                       |                       | 4850 3012             |                       |                       |                       |
| 100 A direct - Dual tariff with RS485 MODBUS com. - MID <sup>(1)</sup>   |                       |                       |                       |                       | 4850 3013             |                       |                       |
| 100 A direct - Dual tariff with M-BUS communication <sup>(1)</sup>       |                       |                       |                       |                       |                       | 4850 3025             |                       |
| 100 A direct - Dual tariff with M-BUS communication - MID <sup>(1)</sup> |                       |                       |                       |                       |                       |                       | 4850 3026             |
| Management software for COUNTIS  | See page 618          |                       |                       |                       |                       |                       |                       |

(1) 4 tariffs through RS485 communication.