



## 3 x 1 phase - Direct 100 A

### ➤ Function

The **COUNTIS E63** is a communicating active energy meter, with breakdown of consumption per phase. It provides metering of the consumption of single phase loads on a single-phase or three-phase network. It is connected on-line up to 100 A.

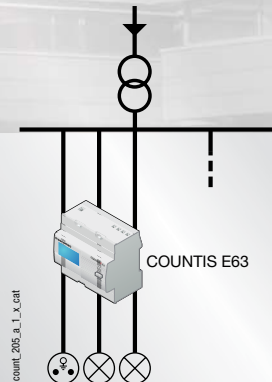
**COUNTIS E63** are protected against phase/neutral inversion and detect wiring errors.

### ➤ Applications

The **COUNTIS E63** is an active energy meter and concentrator that provides a direct reading of the power consumed per phase as well as the total consumed by the 3 phases. It has a JBUS/MODBUS RTU communication output on RS485. A partial meter with reset allows you to meter the energy over a specific period for each of the phases or for the total of all 3 phases.

The **COUNTIS E63** is unidirectional : it only meters the positive active energy (generator mode).

### ➤ Applications



Due to the integration of 3 single phase meters in the same case (7 modules wide), the **COUNTIS E63** provides a significant space-saving feature.

In addition, it is designed to provide metering of single phase loads up to 100 A.

Its communication output port provides access to advanced multi-measurement functions :

- Instantaneous currents: I1, I2, I3
- Instantaneous voltages: U1, U2, U3
- Instantaneous power: 3P, 3S
- Instantaneous power factors: 3PF
- Load curves for each of the 3 phases : reproduction of average positive active power energy consumption demand for a programmable period.

### ➤ Conformity to standards

- IEC 62053-21 class 1

➤ Front panel

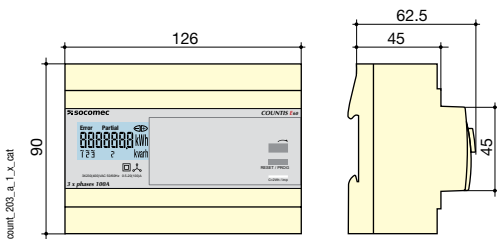


➤ Electrical characteristics

| Current measurement                |   |
|------------------------------------|---|
| Type                               | 100 A direct                            |
| Input consumption                  | 0.5 VA max. per phase                   |
| Startup current ( $I_{st}$ )       | 80 mA                                   |
| Minimum current ( $I_{min}$ )      | 0,5 A                                   |
| Transition current ( $I_t$ )       | 2 A                                     |
| Reference current ( $I_{ref}$ )    | 20 A                                    |
| Permanent overload ( $I_{max}$ )   | 100 A                                   |
| Short-time over-current            | 3000 A max for 10 ms                    |
| Voltage measurement                |   |
| Range of measurement               | 230 ... 400 V +/- 20 %                  |
| Consumption on inrush (VA)         | 2                                       |
| Permanent overload                 | 280 V phase-neutral / 480 V phase-phase |
| Energy accuracy                    |   |
| Active (according to IEC 62053-21) | Class 1                                 |
| Supply                             |   |
| Self supplied                      | Yes                                     |
| Frequency                          | 50 / 60 Hz                              |

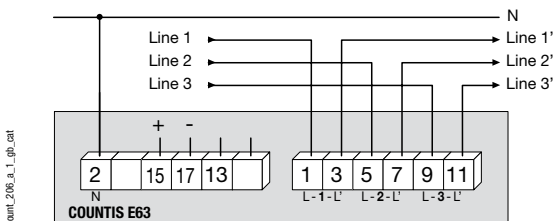
| Output (pulsed)          |                                      |
|--------------------------|--------------------------------------|
| Number                   | 1                                    |
| Type of optocoupler      | IEC 62053-31 Class A (20 ... 30 VDC) |
| Fixed weight of impulses | 100 Wh                               |
| Impulse duration         | 100 ms                               |
| Operating conditions     |                                      |
| Operating temperature    | -10 to 55 °C                         |
| Storage temperature      | -20 to 70 °C                         |
| Relative humidity        | 95 %                                 |
| Communication            |                                      |
| Link                     | RS485                                |
| Type                     | 2 ... 3 half duplex wires            |
| Protocol                 | JBUS/MODBUS® in RTU mode             |
| JBUS/MODBUS® speed       | 3800 ... 38400 bauds                 |

➤ Case



|                                   |                           |
|-----------------------------------|---------------------------|
| Type                              | Modular                   |
| Number of modules                 | 7                         |
| Dimensions W x H x D              | 126 x 90 x 62.5 mm        |
| Case protection index             | IP20                      |
| Front protection rating           | IP51                      |
| Display type                      | Backlit LCD display       |
| Rigid cable connection section    | 2.5 to 35 mm <sup>2</sup> |
| Flexible cable connection section | 2.5 to 35 mm <sup>2</sup> |
| Weight                            | 490 g                     |

➤ Terminals and connections



➤ References

**Type**  
3x 100 A direct with JBUS/MODBUS communication via RS485<sup>(1)</sup>  
(1) 4 tariffs via RS485 communication.

**COUNTIS E63**  
**Reference**  
4850 3016