Simple, high-performance power monitor

Designed for general-purpose applications

Quick programming

Intuitive navigation

RS485 communication
**Measurement functions**

4-quadrant power monitor - LV/MV networks - 1P+N, 3P, 3P+N

Total and partial energy indices:
Ea import & export, Eq 4Q, Es import & export

Instantaneous values: V, U, I, In, P*, Pt, Q*, Qt, S*, St, PF, PFt, Tanplet, THD V, I, In

Average values: V, U, I, In, Pt, Qt, St, F

Max. values: V, U, I, In, Pt, Qt, St, F

Min. values: Pt, St

Hour meters: installation operating time and duration of power monitor use

Relay output (on-off):
- Ea import & export pulse mode, Eq 4Q, Es import & export
- Alarm mode on 1x quantities: V, U, I, In, Pt, Qt, St, PF, Tanplet

* Products with RS485 communication

**Specifications**

**AC voltage inputs**

- Primary VT: 100 V to 220 kV – Secondary VT: 100 V to 480 V
- Measurement range: 5...130 % Un 50/60 Hz (Un = 100 / 400 V)
- Overload: 130 % of 400 V (permanent) – 800 V (24 hrs)

**AC current inputs**

- Primary CT: 1 A to 25,000 A – Secondary CT: 1 A or 5 A
- Measurement range: 1 % In...130 % In (In = 5 A)
- Transient overload: 250 A (1 s) – Permanent overload – 6.5 A

**Measurement accuracy**

- Active power and energy: Class 1 (IEC61557-12 & IEC62053-21)
- Reactive power and energy: 1% (IEC61557-12)
- Voltage: 0.5% – Current: 0.5% – Frequency: ± 0.1% (IEC61557-12)
- Power factor: ± 0.05 counts (IEC61557-12)

**RS485 output**

- Protocol: Modbus RTU mode or ASCII
- Speed: 2,400...115,200 bauds
- Auxiliary power supply
- Consumption: < 10 VA

**On-off output**

- Type: static relay (IEC 62053-31)
- Operating voltage: 33 Vac / 70 Vdc
- Consumption: < 10 VA
- Dimensions (W x H x D): 96 x 96 x 55 mm

**Auxiliary power supply**

- 230...400 Vac ± 20 % 50/60 Hz
- Auxiliary power supply
- Consumption: < 10 VA

**Electrical connections**

**To order**

- Enerium 30 on-off output RS485 com P01330824
- Enerium 30 RS485 com P01330823

**Accessories**

- DIN-rail mounting kit
- CT short-circuiting switch

- Enerium 30 basic model P01330821

**Current transformers**

- Model | TCR 21 | TCR 21 | TCR 21 | TCR 31 | TCR 31 | TCR 51 | TCR 51 | TCR 61 | TCR 61 | TCR 61
- Primary (A) * | 25 | 100 | 150 | 200 | 250 | 300 | 400 | 600 | 800 | 1000
- Secondary (A) ** | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5
- Accuracy (%) | Cl 3 | Cl 1 | Cl 1 | Cl 1 | Cl 1 | Cl 1 | Cl 1 | Cl 1 | Cl 1 | Cl 1
- Power (VA) | 2.5 | 3.5 | 3 | 3.75 | 7.5 | 7.5 | 15 | 20 | 20 | 20
- a (mm) | 70 | 70 | 70 | 70 | 80.5 | 80.5 | 102 | 102 | 102
- b (mm) | 58 | 58 | 58 | 58 | 64 | 64 | 84.5 | 84.5 | 84.5
- c (mm) | 49 | 49 | 49 | 49 | 60.5 | 60.5 | 76 | 76 | 76
- Cable diam. (mm) | 20 | 20 | 22 | 22 | 28 | 28 | 44 | 44 | 44
- Busbars (mm) | 15 x 10 | 15 x 10 | 15 x 10 | 20 x 10 | 20 x 12 | 20 x 12 | 20 x 25 | 50 x 30 | 50 x 30 | 50 x 30
- Reference | 19202139B | 19202135B | 19202328B | 19202410B | 19202411B | 19203433B | 19204738B | 19204741B | 19204742B

* For intermediate calibres and ratio > 1000 A, please contact us.
** For 1 A secondary, please contact us.