

ENERIUM 300 Power Monitor



Monitoring of compliance with the EN50160 standard

Detection of voltage dips and surges

Harmonic analysis

Class 0.2s

Quality of
LV and HV
electrical
networks

ENERIUM 300 Power Monitor

Specifications

Voltage inputs (AC)

Primary VT: 100 V to 650 kV – Secondary VT: 100 V to 480 V
Measurement range: 5 to 130 % of Vn for Vn = 57.7 / 230 V (ph-N)
5 to 130 % of Un for Un = 100 / 400 V (ph-ph)

Overload: 130 % of 400 V (permanent) - 800 V (24 hours)

Current inputs (AC)

Primary CT: 1 A to 25,000 A – Secondary CT: 1 A or 5 A
Measurement range: 1 % to 130 % of In for In = 5 A
Overload: 250 A for 1 second (transient) – 6.5 A (permanent)

Measurement accuracy

Power and active energy: class 0.2s (IEC 62053-22) - class 0.2 (IEC 61557-12)
Power and reactive energy: class 0.2 (IEC 61557-12) - class 2 (IEC 62053-23)
Power and apparent energy: 0.5 % (IEC 61557-12)
Voltage: 0.2 % – Current: 0.2 % – Frequency: ± 0.1 % (IEC 61557-12)
Power factor: ± 0.05 counts (IEC 61557-12)

RS485 output

Protocol: Modbus in RTU or ASCII mode
Speed: 2,400...115,200 bauds

Ethernet output

Protocol: Modbus TCP
Speed (configurable): compatible with 10, 100 and 1000 base T networks

Auxiliary power supply

80... 265 Vac 50/60 Hz - 110... 375 Vdc - 19... 57 Vdc
Consumption: < 0.1 VA

Environment

Operating temperature: -10 °C to +55 °C
Operating humidity: 95 % at 40 °C
Storage temperature: -25 °C to +70 °C

Mechanical specifications

Dimensions (L x H x D) : 144 x 144 x 55 mm

To order

ENERIUM 300 1 2 3 4 5 6 7 8

1 Frequency of network measured

0 50 / 60 Hz

2 Auxiliary power supply

0 80 to 265 Vac / 110 to 375 Vdc
1 19,2 to 58 Vdc

3 Communication

0 RS485
1 Ethernet

4 Metering (or On-Off) inputs

0 none
2 2 inputs
4 4 inputs
6 6 inputs
8 8 inputs

5 On-Off outputs

0 none
2 2 outputs
4 4 outputs
6 6 outputs
8 8 outputs

6 Analogue inputs

0 none
2 2 analogue inputs
4 4 analogue inputs
6 6 analogue inputs
8 8 analogue inputs

7 Analogue outputs

0 none
2 2 outputs
4 4 outputs

8 Accuracy class

5 0.5 s
2 0.2 s

Also available in
ENERIUM 310
version without display

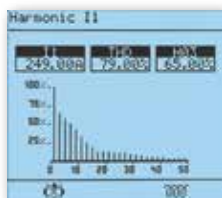
Example: Enerium 300, frequency 50/60 Hz, auxiliary power supply 80 to 265 Vac, RS485 communication, 2 On-Off inputs, no On-Off output, no analogue input, no analogue output, class 0.2 s => order ENERIUM 300 01020002 •
1-0 • 2-0 • 3-0 • 4-2 • 5-0 • 6-0 • 7-0 • 8-2

Advanced functions



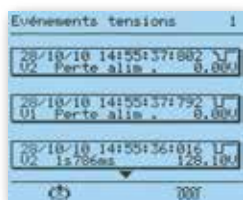
Harmonic analysis

- Measurement of THD per phase on U, I and In
- Spectral analysis up to 50th order per phase on V, U, I and In



Qualimetry

- Statistical analysis graphs as per EN50160
- Log of the last 1,024 events (dips, outages, voltage surges, current surges)
- Wave capture (V-U-I-In)



Accessories

Optical head	P01330401
DIN-rail mounting kit	P01330360
690V / 400 resistive voltage adapter (for wind application)	P01330402
85 à 264 Vac/12 Vdc - 3,5 A (42W) power supply for On-Off input	ACCJ1004

E.view+

Software for configuring the power monitor, viewing all the electrical parameters and **processing the quantities covered by the EN50160 standard** by means of summary tables, histograms and load curves.

Ref. : P01330610



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