

Rudolf Digital Power Analyzer - Advanced Version

Specifications

Type of measurement

Network (3P3W, 3P4W & single phase)
True RMS value upto harmonics 51st

LV/HV

Accuracy of measurement

Current

0.2% from 10 to 110% In

Voltage

0.2% from 140 to 700% VAC

Power

0.5% of full scale (-90° to +90°)

Power Factor

0.5% for $0.5 < PF < 1$

Frequency

0.1% from 45 to 65 Hz

Active energy

$\pm 0.5%$ from 0.02 to 1.2 In with PF = 0.5L or 0.8C
(Class 0.5s IEC 62053-22)

Reactive energy

$\pm 2%$ from 0.1 to 1.2 In with $\cos \theta = 0.5L$ or C
(Class 2 IEC 62053-23)

Display refresh rate

Time

1sec

Current inputs

Primary CT

5-10000A

Secondary CT

5A / 1A

Sensing range

10mA to 10A

Permissible overload

50A 1sec

Consumption

< 0.3VA

Galvanic insulation

2.5kV

CT earth connection (secondary)

yes

Voltage inputs

Direct measurement

from 18 to 700VAC (phase/ phase)

from 10 to 404VAC (phase/ neutral)

primary up to 500kV

Voltage sensing transformer

(secondary 60, 100, 110, 115, 120, 173, 190V)

Galvanic insulation 2.5kV

Frequency

45 to 65 Hz

Permanent overload

< 760Vac

Update period

1 second

Auxiliary power supply

Standard

110 to 440 VAC $\pm 10%$

120 to 350 VDC $\pm 20%$

Others

12- to 48VDC -6/+20%

Consumption

< 10VA

Inputs

Type

Optocouplers (10 to 30VDC)

Monitoring or command outputs

Type

REED relays (230VAC – 5A – 1150VA)

Pulse outputs

Type

REED relays (100VDC – 0.5A – 10VA)

Communication

RS 485

2 or 3 wire half duplex

Protocol

PROFIBUS DP/ JBUS/ MODBUS RTU

Speed - JBUS/MODBUS RTU

2400 to 38400 Bauds

Speed - PROFIBUS DP

9.6 to 500kBauds

Analogue outputs 0/4 – 20mA

Load resistance

0 to 600 ohms

Response time

1sec

Memory

Memory size

512 ko

Case

Dimensions

96 X 96 X 60mm (without option)

96 X 96 X 80mm (with option)

IP Index

IP52 (front panel) & IP30 (case)

Weight

0.400kg