

DIREKTRONIK

POWER QUALITY ANALYZER

Item 20114250



POWERCOMPACT3020 is a powerful, portable network analyzer developed for professional analysis of consumption and power quality of the most complex electrical networks. It can be used on single-phase, two-phase, three-phase (balanced and unbalanced) networks, low and medium voltage. The advanced features and analysis software supplied makes it a suitable tool to the most demanding professional needs.

Complete Kit :

- Voltage test leads POWERCOMPACT/VTL – 4 pcs
- Cocodrile POWERCOMPACT/AL – 4 pcs
- Rowgosky AC current clamps (ULTRAFLEX3000) – 3 pcs
- Battery pack POWERCOMPACT/BAT (4x AA NiMh 2100mAh) – 1 pc
- mSD 8Gb1
- External power supply + adapters POWERCOMPACT/PS – 1 set
- Calibration certificate
- User manual
- Transportation case



KPS-POWERCOMPACT3020

POWER QUALITY ANALYZER

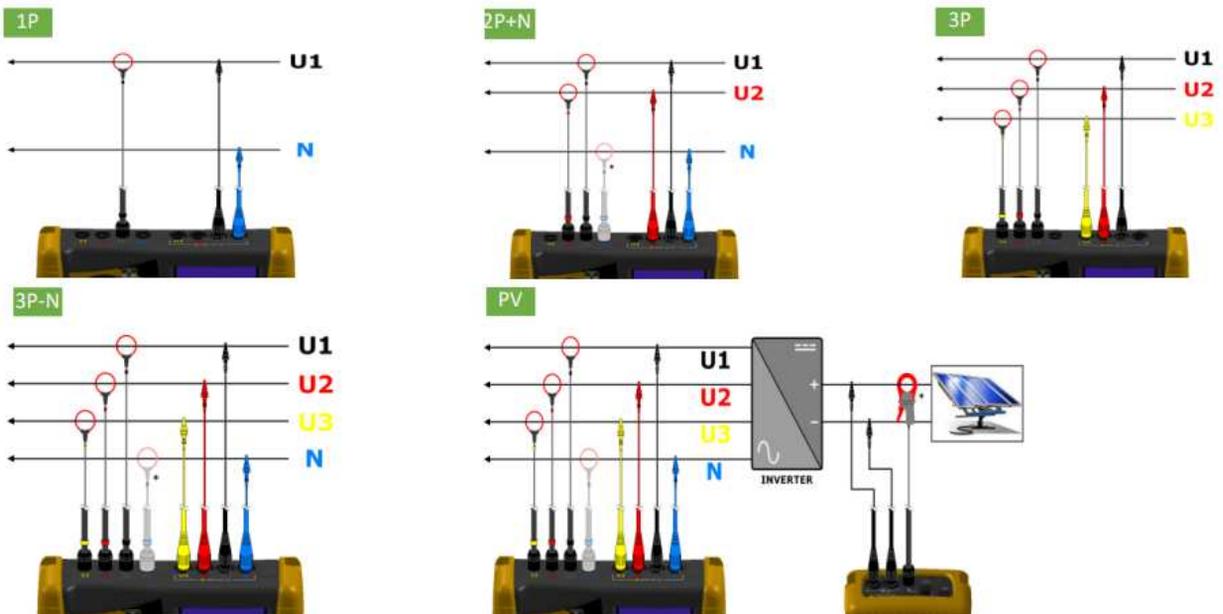
Main Features :

Multiple Inputs

- 3 voltage channels **U1**, **U2** and **U3**, with common neutral (**N**), and the 4 independent current channels **I1**, **I2**, **I3**, **I_n**.
- An independent, auxiliary voltage input (**UAUX**) and an independent, auxiliary current input (**IAUX**) are also available.

This feature makes the equipment a suitable tool for the analysis of all types of low voltage electrical systems such as :

- 3 ϕ +N
- 3 ϕ
- 2 ϕ
- 1 ϕ
- PV systems

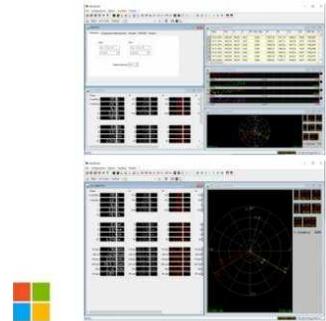


KPS-POWERCOMPACT3020

POWER QUALITY ANALYZER

Powerfull Analysis :

- Data storage through external SMD card (8 Gb)
- Communication to PC through USB port
- Professional Software PowerCompactStudio for full analysis of parameters, events, graphs...etc



Functions:

- Two input channels:
 - o Main channel: 4 voltage inputs and 4 current inputs
 - o Auxiliary channel: 2 voltage inputs and 1 current input.
- Complete energy analysis: V, I, P, Q, S, F, FP, THD%, average / minimum / maximum values, instantaneous, energy consumed and generated, both three-phase and for each phase.
- Harmonic measurement of voltage and current up to order 50 for each phase and for the neutral.
- Load unbalance.
- Record of events in the electrical system: interruptions, surges and brownouts.
- Analysis of energy quality according to EN 50160 standard.
- Visualization of voltage and current waveforms.
- Adjustment of up to 4 tariff bands for calculating energy expenditure.
- Register of 2 adjustable alarms.
- Capture and registration of transients and starting currents.
- Long-term records with adjustable sampling period.

Additional Characteristics:

- A main channel and an auxiliary channel for the simultaneous study of two electrical networks.
- Possibility of connection in 6 types of electrical systems: single-phase, two-phase, balanced three-phase with and without neutral and unbalanced three-phase with and without neutral.
- Automatic detection of the current clamps used.
- Automatic check of a correct connection to avoid errors in the installation of the instrument.
- Shortcut keys to the different menus to facilitate the use of the analyzer.
- Rotating LCD screen for viewing in both orientations.
- 2GB microSD card supplied with the kit for long records.
- Magnetic support on the back of the instrument for fixing to metal doors.
- Large capacity rechargeable battery that guarantees more than 24 hours of operation.
- Three flexible clamps up to 3000A included with the instrument.

KPS-POWERCOMPACT3020

POWER QUALITY ANALYZER

SPECIFICATIONS

DISPLAY

Dimensions	68x68 mm
Type	128x128 FSTN Negative dot matrix LCD
Backlight	White LED
Languages	English - Spanish - Italian - German - French

KEYPAD

Type	Membrane keypad with 10 double-function keys POWER
------	--

SUPPLY

External power supply	wall-plug switching; input 100-240VAC $\pm 10\%$ 47-63Hz with interchangeable plug; output 7.5VDC - 12W
-----------------------	---

Battery pack	4 x AA NiMh 2100mAh
--------------	---------------------

Duration of the battery charge	>24h (wireless off)
--------------------------------	---------------------

CONNECTING SYSTEMS

Systems frequencies	50Hz – 60Hz – 400Hz
---------------------	---------------------

Single pase	✓
-------------	---

Two pase	✓
----------	---

Three-phase, 3-wires, balanced	✓
--------------------------------	---

KPS-POWERCOMPACT3020

POWER QUALITY ANALYZER

SPECIFICATIONS

Three-phase, 3-wires, unbalanced ✓

4-phase, 4-wires, balanced ✓

4-phase, 4-wires, unbalanced ✓

CONNECTIONS

Voltages Flexible cables L = 1.5m; 2.5mm² - 36A; 1000V CAT III - 600V CAT IV with a 4mm, 90° protected blade plug connector, cocodrile clips with a 45mm opening (for sections up to 32mm) and magnetic captors

Currents Interchangeable amperometric sensors

FUNCTIONS

Traditional electrical análisis V, I, P, Q, S, F, PF, THD(V)%, THD(I)%, cos , , peaks, minimums, maximums, averages, max. demands,etc.

Neutral current Measured

Three phase counters kWh, kVARh, kVAh, both absorbed that generated

Counters for each single pase kWh, kVARh, kVAh, both absorbed that generated

Cogeneration ✓

Waveforms V & I

Harmonics Values and histograms up to the 50th order

KPS-POWERCOMPACT3020

POWER QUALITY ANALYZER

SPECIFICATIONS

Sags	Dips, swells & interruptions
Transients	Overvoltages & overcurrents
Unbalance	✓
Test EN 50160	✓
Inrush current	✓
DC measures	✓
K factor	Up to the 25th order
Alarms	Displayed
Alarms log	5 at display
Tariff bands	4
Energy costs	✓
IEC 61724 network parameters	✓

MEASUREMENTS

Sampling frequency	128 samples per cycle (adaptive in 40Hz-70Hz range) 16 samples per cycle at 400HZ
Data record rate	1 sec.
Data storage rate	User selectable: 1", 5", 3", 1', 5', 15'
Type of connections available	Three-phase (3 or 4 leads), two-phase (2 leads), and single phase grid

KPS-POWERCOMPACT3020

POWER QUALITY ANALYZER

SPECIFICATIONS

Type of grid which can be connected	Low and medium voltage (LV and MV)
-------------------------------------	------------------------------------

VOLTAGE (TRMS)

Channels	3 channels with common neutral + 1 independent, auxiliary channel
----------	---

Input impedance	4 Mohm
-----------------	--------

Scales	2
--------	---

Direct Measurement	Phase-phase: 7-1000VAC 40-70Hz Phase-neutral: 5-600VAC 40-70Hz Aux: 5-1000VAC 40-70Hz, 10-1400VDC
--------------------	---

Measurement with VT	Ratio: 1-60000 Maximum value which can be displayed: 20MV
---------------------	--

Permanent overload	Phase-phase: 1200VAC Phase-neutral: 700VAC Aux: 1200VAC, 1700VDC
--------------------	--

Sensitivity	5VAC Phase-neutral, 7VAC Phase-phase, 10VDC
-------------	---

CURRENT (TRMS)

Channels	5 independent channels
----------	------------------------

Input impedance	10KOhm
-----------------	--------

Scales	4
--------	---

Measurement with current clamps	Ratio: 1-60000 Maximum value which can be displayed: 500KA
---------------------------------	---

Sensitivity	0,2% of F.S.
-------------	--------------

KPS-POWERCOMPACT3020

POWER QUALITY ANALYZER

SPECIFICATIONS

POWERS

Single phase power Values < 999 GW, Gvar, GVA

Total power Values < 999 GW, Gvar, GVA

POWER COUNTERS

Maximum value before reset 99999999 kWh, kvarh, kVAh

ACCURACY

RMS voltages: Scale 1 $\pm 0.25\% + 0.1\%FS$ @ RMS V < 350VAC
Scale 2 $\pm 0.25\% + 0.05\%FS$ @ RMS V > 350VAC

RMS currents: Scale 1 $\pm 0.25\% + 0.1\%FS$ @ RMS I < 5% IN clamp
Scale 2 $\pm 0.25\% + 0.05\%FS$ @ 5% < RMS I < 20% IN clamp
Scale 3 $\pm 0.25\% + 0.05\%FS$ @ 20% < RMS I < 50% IN clamp
Scale 4 $\pm 0.25\% + 0.05\%FS$ @ > 50% IN clamp
Power $\pm 0.5\% + 0.05\%FS$

Power Factor (PF) $\pm 0.5^\circ$

Frequency ± 0.01 Hz (40-70Hz)

Active power count (kW) Class 0.5

Reactive power count (kVar) Class 1

HARMONIC ANALYSIS Up to 50th order
Up to 7th at 400Hz

ANALYSIS of EN50160 parameters

Interruptions >500ms

KPS-POWERCOMPACT3020

POWER QUALITY ANALYZER

SPECIFICATIONS

Dips >500mS

Swells >500mS

Transient ANALYSIS

Swells and overcurrents >150uS

Inrush current analysis RMS continuous sampling every 2 periods – Duration 1, 2, 5, 10 sec.

COMUNICATION

USB to PC

DATA STORAGE

Internal memory 64kB

External memory Micro SD (4GB included)

OPERATING CONDITIONS

Operating temperature -10 to +55 °C

Storage temperature -20 to +85 °C

Relative humidity Max 95%

Maximum altitude a.s.l. (600V CAT III) 2000 m

EC COMPLIANCE

Directives 93/68/EEC (Low Voltage Electrical Equipment); 89/336/EEC and 2004/108/EC (EMC - Electromagnetic Compatibility); 2006/95/EC - 72/23/EEC (LVD - Low Voltage Directive); 2002/95/EC (RoHS - Restriction of Hazardous Substances); 2002/96/EC and 2003/108/EC (WEEE - Waste Electrical and Electronic Equipment); IEC 61724
REFERENCE STANDARDS:

KPS-POWERCOMPACT3020

POWER QUALITY ANALYZER

SPECIFICATIONS

Safety

Electromagnetic Compatibility (EMC)

EN 61326 ; EN 61326/A1 ; EN 61326/A2 ;
EN 61326/A3

Temperature

IEC 60068-2-1 (Operating temperature)
IEC 60068-2-2 (Storing temperature)

Vibrations

EC 60068-2-6

Humidity

IEC 60068-2-30 (Humidity)

Overload

IEC 60947-1

Product Code Information

SKU

KPSPQA2030CBINT

EAN code

8435394776194

UPC code

810053671948

Pcs/export carton

1

The logo for DIREKTRONIK is displayed in a bold, italicized, red font with a white outline. The letters are slanted to the right, giving it a dynamic appearance. The logo is set against a yellow background that curves upwards from the bottom left.

Direktronik AB tel. 08-52 400 700 www.direktronik.se