

DATAKOM DKM-405 NETWORK ANALYSER

WITH TOTAL HARMONIC DISTORTION DISPLAY

INTRODUCTION

The DKM-405 is a low cost precision instrument designed to display various AC parameters in a 3-phase distribution panel.

The standard unit is designed for 230/400V network. A different version is available for 120/208V systems.

The harmonic analysis is available for up to 31 harmonics. THD values of both voltage and current inputs are available.

The optional digital input accepts both AC and DC signals and has programmable functions.

The optional relay output is programmable. Relay function is selected through a list.

The unit fits into a standard 92x92mm panel opening.

MEASURED PARAMETERS

Phase to phase voltages: U12-U23-U31

Phase to neutral voltages: V1-V2-V3

Phase currents: I1-I2-I3

Phase active power: P1-P2-P3

Phase reactive power: Q1-Q2-Q3

Phase apparent power: S1-S2-S3

Phase power factor: $\cos 1$ - $\cos 2$ - $\cos 3$

Total active power: ΣP

Total reactive power: ΣQ

Total apparent power: ΣS

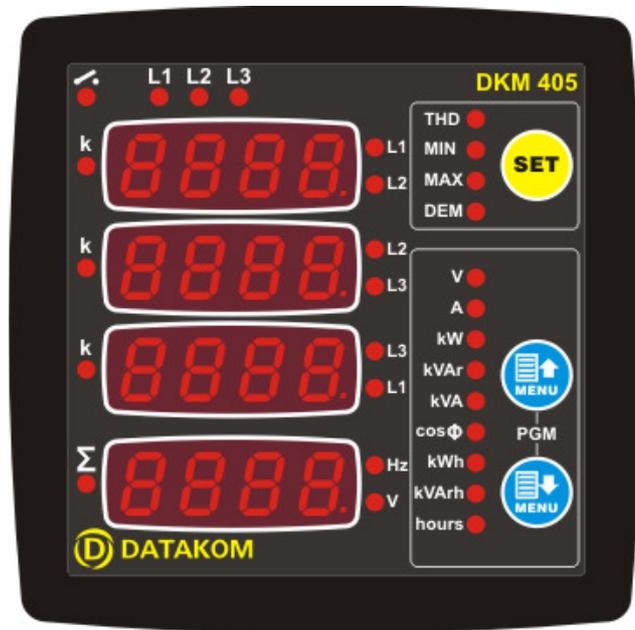
Total power factor: $\Sigma \cos$

Active power counter: Pc1

Reactive power counter: Qc1

Hour counter: Hc1

Total Harmonics of any voltage or current



FEATURES

True RMS measurements

Total harmonic distortion display

Max demand display

Configurable relay output

Energy pulse output capability

Optically isolated, configurable digital input

Active-reactive power counters

Hour counter

Voltage transformer ratio for MV applications

Front panel programming

Reduced panel depth

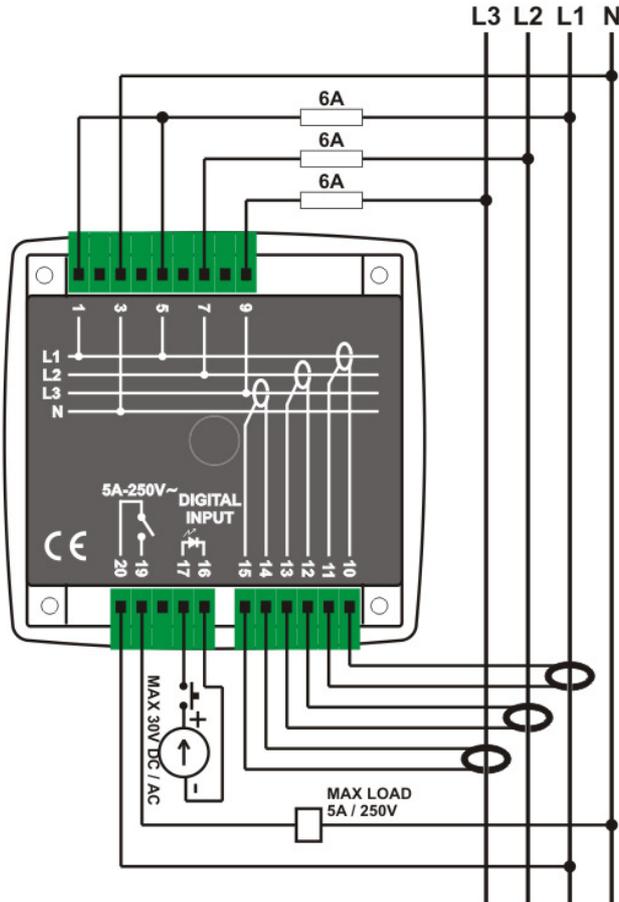
Wide operating temperature range

Sealed front panel (IP54)

Plug-in connection system



CONNECTION DIAGRAM



TECHNICAL SPECIFICATIONS

Power Supply Input:

170 - 275VAC,
50 - 60Hz nominal ($\pm 10\%$)
Different supply voltages available.

Measurement Input Range:

Voltage: 10 - 300 V AC (L-N)
20 - 520 V AC (L-L)

Current: 0.2 - 5.5 A AC

Frequency: 30 - 100 Hz

Accuracy:

Voltage: 0.5%+1 digit

Current: 0.5%+1 digit

Frequency: 0.5%+1 digit

Power(kW,kVAr): 1.0%+2digit

Power factor: 2.0%+2digit

Measurement Range:

CT range: 5/5A to 5000/5A

VT range: 0.1/1 to 200.0/1

kW range: 0.1 kW to 6.5MW

Power Consumption:

< 4 W

Voltage burden:

< 0.1VA per phase

Current burden:

< 1VA per phase

Relay Output:

5A @ 250V AC

Digital Input:

Active level: 5 to 30V-DC or AC

Min pulse: 250ms.

Isolation: 1000V AC, 1 minute

Operating Temperature:

-20°C to +80°C (-4 to +176 °F).

Maximum humidity:

95% non-condensing.

Degree of Protection:

IP 54 (Front Panel)

IP 30 (Back panel)

Enclosure:

Non-flammable, ROHS compliant

Installation:

Flush mounting with rear brackets

Dimensions:

102x102x53mm (WxHxD)

Panel Cutout:

92x92mm

Weight:

200 gr

EU Directives:

2006/95/EC (LVD)

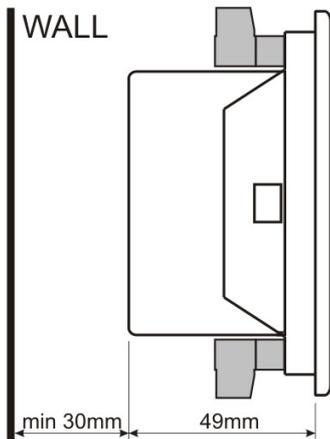
2004/108/EC (EMC)

Norms of reference:

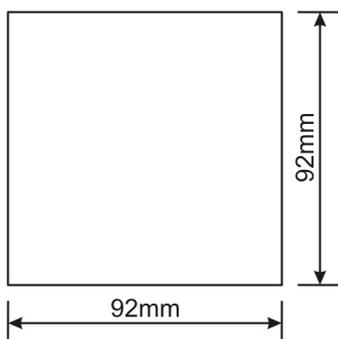
EN 61010 (safety)

EN 61326 (EMC)

MOUNTING TOLERANCES



PANEL CUTOUT



PACKAGING INFORMATION

Pieces per Package: 12 pieces

Package Size: 280 x 170 x 215mm

Package Weight: 2.6 kg

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