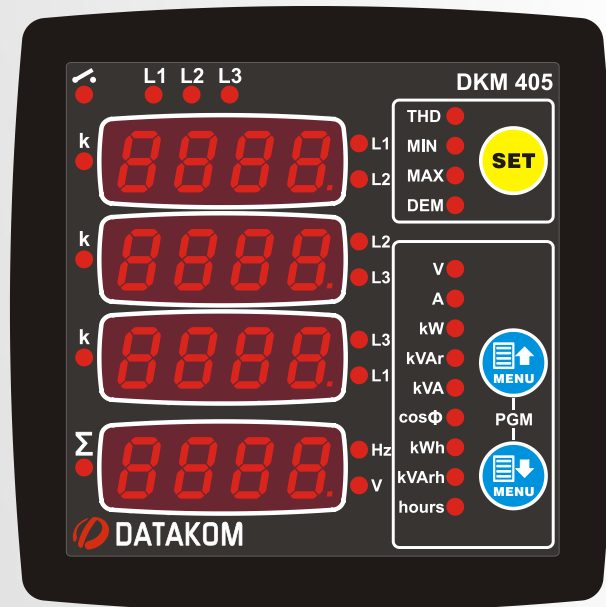


# DKM-405

## 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: cos1-cos2-cos3

Total active power:  $\Sigma P$

Total reactive power:  $\Sigma Q$

Total apparent power:  $\Sigma S$

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**

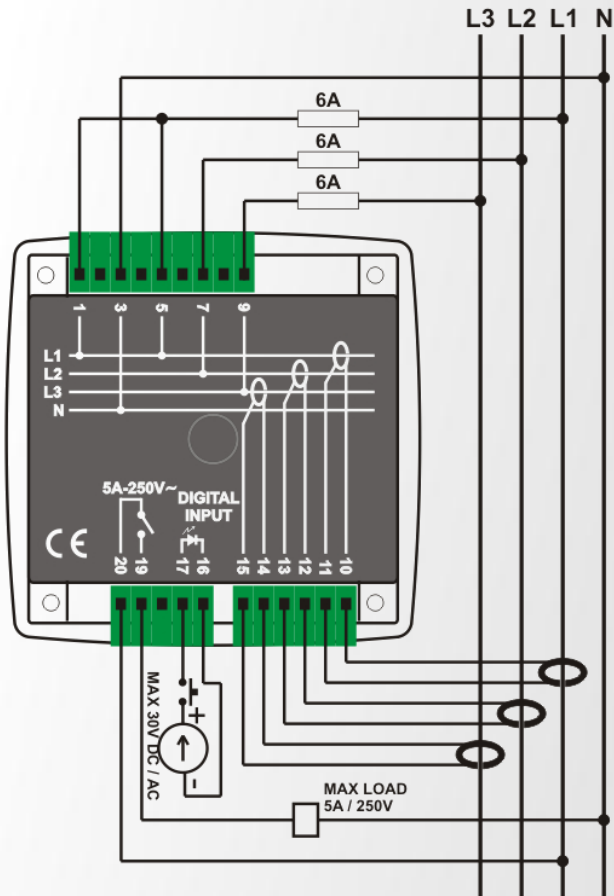
**Reduced panel depth**

**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,kVA):** 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)

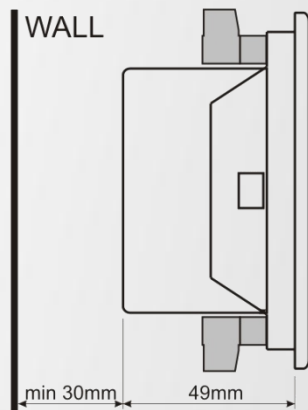
2004/108/EC (EMC)

### Norms of reference:

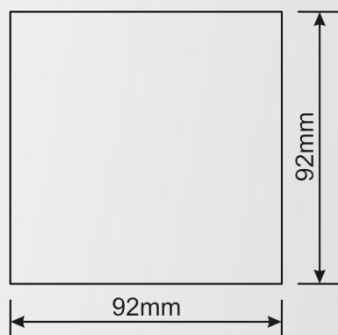
EN 61010 (safety)

EN 61326 (EMC)

## MOUNTING TOLERANCES



## PANEL CUTOUT DIMENSIONS



## PACKAGING INFORMATION

**Pieces per Package:** 12 pieces

**Package Size:** 280 x 170 x 215mm

**Package Weight:** 2.6 kg

