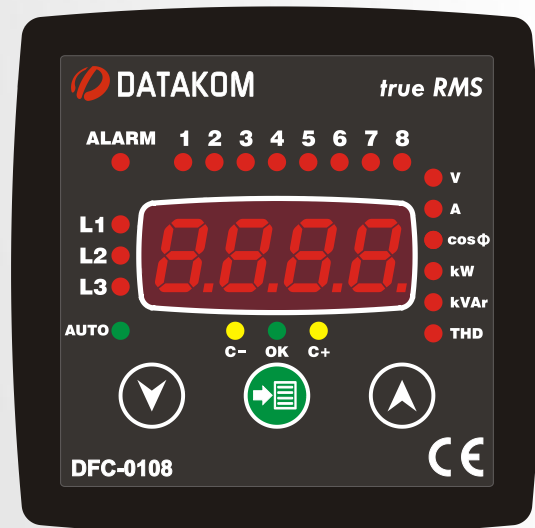


DFC-0108

POWER FACTOR CONTROLLER

8 BANKS, HARMONIC DISTORTION DISPLAY



INTRODUCTION

DFC-0108 is a high technology controller allowing the power factor of the installation to be stabilized to the requested value by switching capacitor banks through contactors. The unit allows also the visualization of various AC parameters like a network analyzer.

The unit makes harmonic analysis up to the 31th component. The THD values of all voltages and currents are available.

Stepping algorithms are selectable between various types. Thanks to the automatic setup function, the commissioning and programming are made easy.

The optimal stepping program provides longest contactor and capacitor life cycles.

The unit fits into a standard 96x96mm panel opening.

MEASUREMENTS

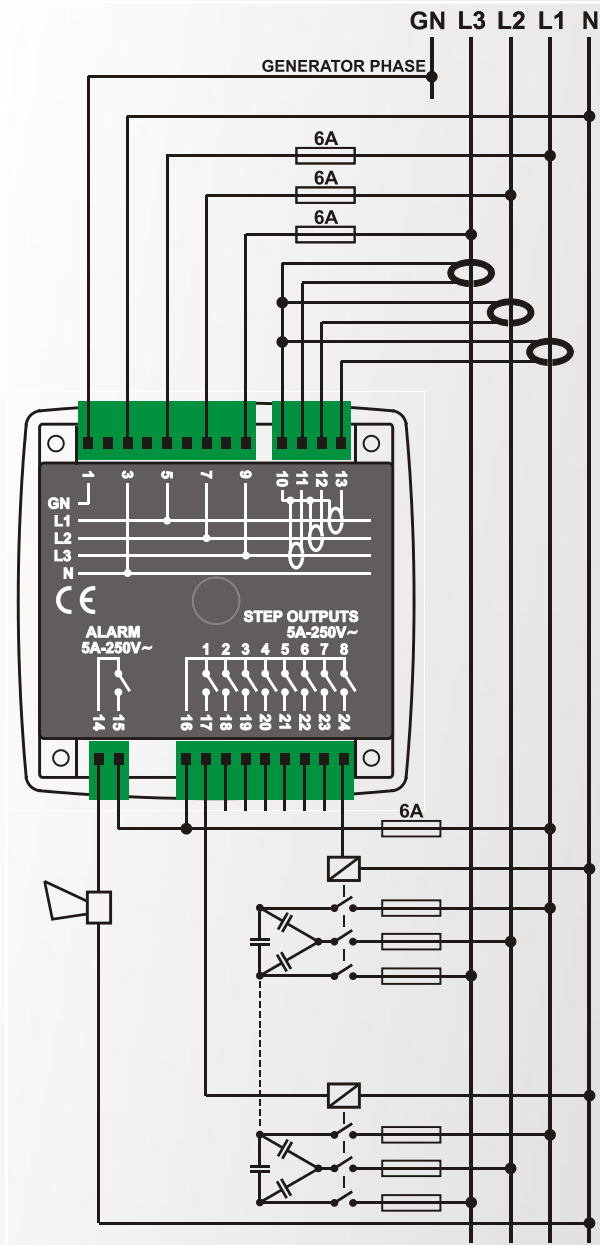
Phase to phase voltages: L12-L23-L31
Phase to neutral voltages: L1-L2-L3
Phase currents: I1-I2-I3
Network frequency: Fr
Phase active power: P1-P2-P3
Phase reactive power: Q1-Q2-Q3
Phase apparent power: S1-S2-S3
Phase power factor: cos1-cos2-cos3
Total active power: $\sum P$
Total reactive power: $\sum Q$
Total apparent power: $\sum S$
Total power factor: $\sum \cos$
Total Harmonics of any voltage or current
Step bank ratings: CAP1...CAP8

FEATURES

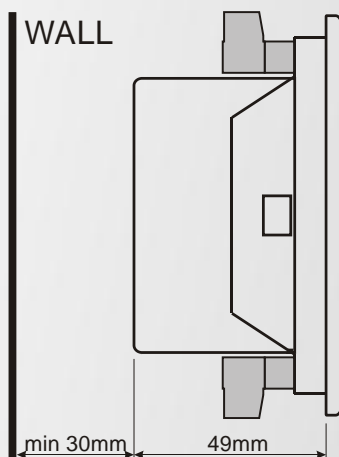
Small size
Cost effective and high performance
True RMS AC measurements, high accuracy
Easy commissioning through automatic setup
Automatic CT reverse polarity correction
Automatic detection of faulty banks
Electronic/mechanical power counter selection
Supports single-phase and tri-phase banks
Per-phase regulation capability
Connection/disconnection of all banks at once
Dynamic update of capacitor ratings
Adjustable delay timers
Equal aging of contactors
Per phase and total V-A-kW-kVAr-cos display
THD display of all V-I parameters (31 harmonic)
Generator phase input
VT ratio for MV applications
kW and kVAr tick output possibility
Front panel programmable
Low panel depth, easy installation
Wide temperature range
Sealed front panel (IP54)
Plug-in connection system, easy replacement



CONNECTION DIAGRAM



MOUNTING TOLERANCES



TECHNICAL SPECIFICATIONS

Power Supply Input:

170 - 275VAC, between L1-N
50 - 60Hz nominal ($\pm 10\%$)

Generator Input: 70-300 V AC

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% + 2 digit

Power factor: 0.5% + 1 digit

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

Step count:

8

Relay Outputs:

5A @ 250V AC

Operating Temperature:

-20°C to +70°C (-4 to +158 °F).

Maximum humidity:

95% non-condensing.

Degree of Protection:

IP 54 (Front Panel)

IP 30 (Back panel)

Enclosure:

Non-flammable, ROHS compliant

ABS/PC (UL94-V0)

Installation:

Flush mounting with rear brackets

Dimensions:

102x102x53mm (WxHxD)

Panel Cutout:

92x92mm

Weight:

370 gr

EU Directives:

2006/95/EC (LVD)

2004/108/EC (EMC)

Norms of reference:

EN 61010 (safety)

EN 61326 (EMC)

PACKAGING INFORMATION

Pieces per Package: 12 pieces

Package Size: 280 x 170 x 215mm

Package Weight: 4.6 kg

PANEL CUTOUT DIMENSIONS

