ekorsys units: protection, telemanagement & communication

ekor.upg
Generator set protection unit

Reliable innovation. Personal solutions.
Preface

The ekor.upg unit is an easy-application portable unit, based on zero-sequence voltage detection, which can be installed in a wide range of configurations.

» It does not need an earthing network.
» The installation and removal times of the unit are minimal.
» Zero-sequence overvoltage detection
» History log
» DC auxiliary battery
» Cables and interconnections

Protects generator sets used to supply power to Low Voltage customers in the event of an incident. Allows to protect an area of the distribution network, energised by the generator set through the MV / LV transformer. Provides safety for people and devices in the event of faults.

Applications

» Generator set protection in case of:
  » Maintenance operations
  » Network remodelling
  » Incidents at installations

Tests

Electromagnetic Compatibility

IEC 60255-11
IEC 60255-2
IEC 60255-4
IEC 60255-6
IEC 61000-4-8
IEC 60255-22-1
IEC 60255-3
IEC 60255-5
IEC 60255-25
IEC 61000-4-12

Climatic

IEC 60068-2-1
IEC 60068-2-30
IEC 60068-2-2
IEC 60068-2-78

Mechanical

UNE 49-908-79
ISO2247:1985 / EN2247:1992

Technical Characteristics

General

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>Consumption [VA]</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Time setting 5%</td>
</tr>
<tr>
<td></td>
<td>(minimum 20 ms)</td>
</tr>
<tr>
<td>Frequency [Hz]</td>
<td>50; 60 +/- 1%</td>
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<tr>
<td>Maximum frequency</td>
<td>Without load 72000 operations / hour</td>
</tr>
<tr>
<td>With load 600</td>
<td></td>
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<tr>
<td>Maximum switching voltage</td>
<td>400</td>
</tr>
<tr>
<td>With load 300</td>
<td></td>
</tr>
<tr>
<td>Switching power [VA]</td>
<td>Maximum 2000</td>
</tr>
</tbody>
</table>

Protection Functions

Voltage absence/presence detection
Zero-sequence overvoltage detection

Zero-sequence detection
Zero-sequence voltage U0 [kV] 1 to 25,5

Insulation Tests

Power frequency for 36 kV networks [kV] 70 / 1 minute
Lightning-type impulse for 36 kV networks 170 / ±15 pulses
Partial discharge test [kV] Stress 24 (rms) 21 < 10 pC

Mechanical design

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Dimensions [mm] 344 x 235 x 335
Weight [kg] 7,25

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Dimensions [mm] 491 x 565 x 224
Weight [kg] 15,5