

Focus on Power Quality Controlled power supply for testing facilities

ISUVOC EPS

The modern voltage and current
source up to 10 MVA

- Ideal for testing of all kind of high voltage equipment like HV-cables, all types of transformers, bushings etc. Replaces the common motor-generator sets and therefore allows high electrical power, precise measurement and short testing time
- The ISUVOC EPS is built as a static frequency converter. A highly efficient control minimizes the high frequency currents and common-mode voltages that are usually produced by fast switching semi-conductors
- Also available as mobile measurement system





ISUVOC EPS - Voltage and current source

The traditional method of using MG-sets to test HV-devices means a lot of maintenance and installation work for the customer. Where once several MG-sets were used, nowadays only EPS is necessary for all IEC-Standard tests.

Today testing requires more and more power what increases the cost of MG-sets. The occurring high frequency distortion of fast switching semi-conductors can be avoided by using special HF technologies.

The ISUVOC EPS with its new generation of IGBTs sets new standards with the following features

- Frequency-selective measurements (independently from each other)
- Power range from 20 kVA up to 10 MVA
- High frequency noise reduction using special filter- and PWM-technology
- Harmonic current injection to test special transformers which are loaded with harmonics

The ISUVOC EPS is designed especially for:

- Earthing and impedance measurements of long HV-power lines, MV-sub-stations etc.
- Measurements of HV-cables
- Tests according IEC/ANSI for dry and oil transformers from 250 kVA up to 400 MVA
- AC source for applied HV-tests

General features of the ISUVOC EPS

- Usage of fibre optic cables between control unit and power electronics to avoid disturbances of control signal interfaces
- Special filtering and modulation
- Easy programming with IPC-Panel
- Remote diagnostics via Internet possible with LAN-interface on IPC-Panel
- All safety functions and supervisions of hardware are integrated

Technical Datas

Input (supply) voltage:	220 ... 690 VAC +/-10%
Input (supply) frequency:	50 / 60 Hz
Output voltage range:	50 ... 1000 VAC (3 or 1 phase)
Output frequency range:	10 ... 500 Hz
Output power range:	20 kVA ... 10 MVA
Switching frequency (dep. on appl.):	2 ... 12 kHz
Frequency and voltage scaling:	0.1 Hz, 0.1 V
System losses (dep. on appl.):	2 ... 4%
Current transducers:	Class 0.5; secondary rating 1 or 5 A
Voltage measurements:	Phase - phase
Ambient temperature:	5 ... 40°C
Relative humidity:	5 ... 95%, no condensation
Protection class, cooling:	IP21, air or water cooled
Control interface:	Profibus - DPV1
PC interfaces:	RS232, 2 LAN interfaces
Total voltage distortion (THDU):	< 1% on 50/60 Hz and $U > 0,7 \times U_n$
Total current distortion (THDI):	< 3%

