

Three-Phase Transformer Demagnetizer **DEM60C**

- Fully automatic demagnetization
- Demagnetization currents 5 mA – 60 A DC
- Demagnetization progress graph
- Automatic discharging circuit
- Lightweight – 13,1 kg / 28.8 lbs



Description

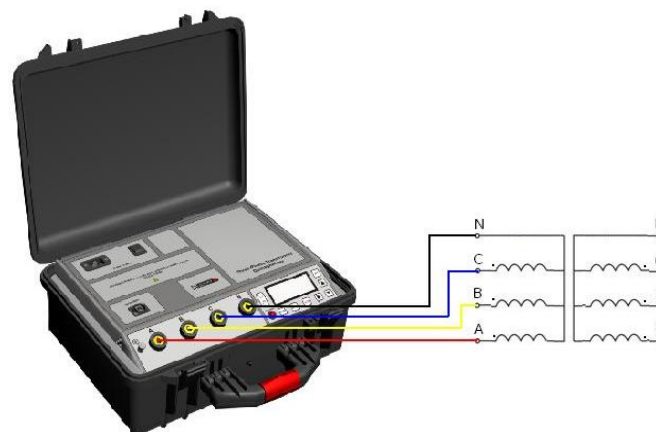
DEM60C is a three-phase, fully automatic test set specially designed for transformer demagnetization. Transformer magnetic core demagnetization requires alternating current applied with magnitude decreasing to zero. DEM60C provides this alternating current by internally changing the polarity of a controlled DC current. During the demagnetization process the instrument supplies the current at decreasing magnitude for each step, following a proprietary software solution. DEM60C is based on a state of the art technology, using the most

advanced technique available today. The test set can be used to demagnetize single-phase and three-phase transformers.

For a three-phase operation, the instrument is connected to all the three phases of a transformer to be demagnetized. If specific vector diagrams are selected for different types of transformers, DEM60C will run a specific demagnetization procedure for each transformer type (i.e., single phase, delta, wye/star, zig-zag.) without a need to switch the test hookup cables.

Application

When suspecting remanent magnetism, or when various test results, like FRA or magnetization/excitation current, show possible remanency, DEM60C can be used to perform fully automatic demagnetization.



Connecting DEM60C to Three-phase Transformer

Benefits and features

Eliminating Problems Created by Remanent Magnetism

After a DC current test, such as a winding resistance measurement, the magnetic core of a power or instrument transformer may be magnetized (remanent magnetism). Also, when disconnecting a transformer from service, some amount of magnetic flux trapped in the core could be present. The remanent magnetism can cause various problems such as erroneous diagnostics, inaccurate measurements on a transformer, an inrush current at a start-up of power transformer, or an incorrect operation of protective relays due to magnetized CT cores. To eliminate this source of potential problems, demagnetization should be performed.

DV-Win Software

The DV-Win software is included in the purchase price, and all its updates are free of charge. The software allows full control of DEM60C functions from a PC, and is capable of plotting demagnetization current graph in a real time. The graphical display of demagnetizing current enables monitoring the transformer core demagnetization process. The generated graph can be saved on a computer. This option provides easy after-the-test analysis of the demagnetization process, in terms of current waveforms and values for each step, along with the duration of the complete process.

Discharging Circuit

Injection of current and discharging energy from the inductance are both automatically regulated. During and after the operation, an intrinsically safe discharge circuit with an indicator rapidly dissipates the stored magnetic energy. The discharging circuit is independent of power supply, which means it will dissipate the stored energy even in case DEM60C power supply is accidentally broken.

Technical Data

Mains Power Supply

- Connection: according to IEC/EN60320-1; UL498, CSA 22.2
- Mains supply: 90 – 264 V AC
- Frequency: 50/60 Hz
- Input power: 2250 VA
- Fuse: 15 A / 250 V, type F, but not user replaceable

Output Data

- Test current 5 mA – 60 A DC

Display

- LCD screen 20 characters by 4 lines
- LCD display with backlight, visible in bright sunlight

Interface

- USB (standard)
- RS232 (optional)

Dimensions and weight

- Dimensions (W x H x D):
480 x 190 x 385 mm
18.9 x 7.48 x 15.16 in
- Weight:
13,1 kg / 28.8 lbs

Environmental Conditions

- Operating temperature:
-10 °C – + 55 °C / 14 °F – +131 °F
- Storage & transportation:
-40 °C – + 70°C / -40 °F – +158 °F
- Humidity: 5 % – 95 % relative humidity, non-condensing

Warranty

- 3 years

Applicable Standards

- Installation/Overvoltage category: II
- Pollution degree: 2
- Safety: LVD 2014/35/EU (CE Conform)
Standard EN 61010-1:2001
- EMC : Directive 2014/30/EU (CE Conform)
Standard EN 61326-1:2006

All specifications herein are valid at ambient temperature of + 25 °C and recommended accessories.
Specifications are subject to change without notice.



Set of 4 current cables with
TTA clamps

Cable bag

Cable plastic case

Transport case

Order info

| Instrument with included accessories | Article No |
|---|--------------|
| Three-phase Transformer Demagnetizer DEM60C | DEM60CX-N-00 |
| DV-Win PC software | |
| USB cable | |
| Ground (PE) cable | |
| Mains power cable | |

| Recommended | Article No |
|--|--------------|
| Current cables 4 x 10 m, 10 mm ² (32.8 ft, 7 AWG) with TTA clamps | C4-10-10LMWC |
| Cable bag | CABLE-BAG-00 |
| Transport case | HARD-CASE-LC |

| Optional | Article No |
|--|--------------|
| Current cables 4 x 15 m, 10 mm ² (49.2 ft, 7 AWG) with TTA clamps | C4-15-10LMWC |
| Current cables 4 x 20 m, 16 mm ² (65.6 ft, 5 AWG) with TTA clamps | C4-20-16LMWC |
| Cable plastic case – small size | CABLE-CAS-01 |
| Cable plastic case – medium size | CABLE-CAS-02 |
| Cable plastic case with wheels – medium size | CABLE-CAS-W2 |
| Cable plastic case – large size | CABLE-CAS-03 |
| Cable plastic case with wheels – large size | CABLE-CAS-W3 |
| Plastic transport case | HARD-CASE-PC |
| Plastic transport case with wheels | HARD-CASE-PW |
| Bluetooth communication module | BLUET-MOD-01 |