**ΥΠΟΔΕΙΓΜΑ**

Παρ.2.4.3.3.Β.9 ΔΙΑΚΗΡΥΞΗΣ ΔΕΕΔ-47

**ΠΙΝΑΚΑΣ ΔΟΚΙΜΩΝ ΤΥΠΟΥ**

**ΠΕΡΙΕΧΟΜΕΝΑ**

1. ΔΙΑΚΟΠΤΗΣ GIS 170kV
2. ΑΠΟΖΕΥΚΤΗΣ GIS 170kV
3. Μ/Σ 150 kV / Μ.Τ. 40/50 MVA
4. ΜΕΤΑΛΛΟΕΝΔΕΔΥΜΕΝΟΙ ΠΙΝΑΚΕΣ 24kV
5. ΨΣΕ

**ΠΙΝΑΚΑΣ ΔΟΚΙΜΩΝ ΤΥΠΟΥ ΒΑΣΙΚΟΥ ΕΞΟΠΛΙΣΜΟΥ**

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| Διαγωνιζόμενος : | | | | |
| **ΔΙΑΚΟΠΤΗΣ GIS 170 kV** | | | **ΚΑΤΑΣΚΕΥΑΣΤΗΣ ΚΑΙ ΤΥΠΟΣ**: | |
|  | ΠΕΡΙΓΡΑΦΗ ΔΟΚΙΜΗΣ | ΕΡΓΑΣΤΗΡΙΟ | ΠΙΣΤΟΠΟΙΗΤΙΚΟ (ΑΡΙΘΜΟΣ & ΗΜΕΡΟΜΗΝΙΑ) | ΑΠΟΤΕΛΕΣΜΑΤΑ ΤΗΣ ΔΟΚΙΜΗΣ |
| **1** | **Dielectric withstand tests**  Power frequency 1min, dry (open, closed) |  |  |  |
|  | Lightning impulse positive & negative (open, closed) |  |  |  |
|  | Partial discharge tests |  |  |  |
| **2** | **Τemperature rise tests** |  |  |  |
| **3** | **Mechanical endurance tests** |  |  |  |
| **4** | **Breaking capacity tests**  TD1. 10% symm breaking capacity |  |  |  |
|  | TD2. 30% symm breaking capacity |  |  |  |
|  | TD3. 60% symm breaking capacity |  |  |  |
|  | TD4. 100% symm breaking capacity |  |  |  |
|  | TD5. 100% asymm. breaking capacity |  |  |  |
| **5** | **Rated making capacity** |  |  |  |
| **6** | **Short-time & peak s/c current tests** |  |  |  |
| **7** | **Tests on switching of lines on no-load** |  |  |  |
| **8** | **Tests on switching of cables on no-load** |  |  |  |
| **9** | **Short-line fault tests** |  |  |  |
|  | 75% symm. b/c |  |  |  |
|  | 90% symm. b/c |  |  |  |
| **10** | **Rated out of phase breaking current** |  |  |  |
| **11** | **Interruption of small inductive current** |  |  |  |
| **12** | **Verification of the IP coding** |  |  |  |
| **13** | **Tests to prove the strength of enclosures** |  |  |  |
| **14** | **Gas tightness test** |  |  |  |
| **15** | **Earthquake tests** |  |  |  |
|  |  |  |  |  |
|  | **Special Tests** |  |  |  |
| **1** | **Timing test** |  |  |  |

**\*The pressure test will be carried out in every SF6 compartment.**

**ΠΙΝΑΚΑΣ ΔΟΚΙΜΩΝ ΤΥΠΟΥ ΒΑΣΙΚΟΥ ΕΞΟΠΛΙΣΜΟΥ**

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| Διαγωνιζόμενος : | | | | |
| **ΑΠΟΖΕΥΚΤΗΣ GIS 170 kV** | | | **ΚΑΤΑΣΚΕΥΑΣΤΗΣ ΚΑΙ ΤΥΠΟΣ**: | |
|  | ΠΕΡΙΓΡΑΦΗ ΔΟΚΙΜΗΣ | ΕΡΓΑΣΤΗΡΙΟ | ΠΙΣΤΟΠΟΙΗΤΙΚΟ (ΑΡΙΘΜΟΣ & ΗΜΕΡΟΜΗΝΙΑ) | ΑΠΟΤΕΛΕΣΜΑΤΑ ΤΗΣ ΔΟΚΙΜΗΣ |
| **1** | **Dielectric withstand tests**  Power frequency 1min, dry (open, closed) |  |  |  |
|  | Lightning impulse positive & negative (open, closed) |  |  |  |
|  | Partial discharge tests |  |  |  |
| **2** | **Τemperature rise tests** |  |  |  |
| **3** | **Out of phase capacitive switching test** |  |  |  |
| **4** | **Bus transfer switching test** |  |  |  |
| **5** | **Mechanical endurance tests** |  |  |  |
| **6** | **Short-time & peak s/c current tests** |  |  |  |
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**ΠΙΝΑΚΑΣ ΔΟΚΙΜΩΝ ΤΥΠΟΥ ΒΑΣΙΚΟΥ ΕΞΟΠΛΙΣΜΟΥ**

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| Διαγωνιζόμενος : | | | | |
| **Μ/Σ 40/50 ΜVA** | | | **ΚΑΤΑΣΚΕΥΑΣΤΗΣ ΚΑΙ ΤΥΠΟΣ**: | |
|  | ΠΕΡΙΓΡΑΦΗ ΔΟΚΙΜΗΣ | ΕΡΓΑΣΤΗΡΙΟ | ΠΙΣΤΟΠΟΙΗΤΙΚΟ (ΑΡΙΘΜΟΣ & ΗΜΕΡΟΜΗΝΙΑ) | ΑΠΟΤΕΛΕΣΜΑΤΑ ΤΗΣ ΔΟΚΙΜΗΣ |
| **1** | **Temperature rise test** |  |  |  |
| **2** | **Noise Level Test** |  |  |  |
| **3** | **Measurement of the power taken by the fans** |  |  |  |
|  |  |  |  |  |
|  | **Special Tests** |  |  |  |
| **1** | **Chopped wave lightning impulse test (LIC)** |  |  |  |
| **2** | **Switching impulse test (SI)** |  |  |  |
| **3** | **Line terminal AC withstand test (LTAC)** |  |  |  |
| **4** | **Measurements of the harmonics of the no-load current** |  |  |  |
| **5** | **Measurement of Zero Sequence Impedance** |  |  |  |
| **6** | **Winding hot-spot temperature-rise measurements** |  |  |  |
| **7** | **Sweep Frequency Response Analysis** |  |  |  |
|  |  |  |  |  |
| **Μηχανισμός αλλαγής λήψεως υπό φορτίο(OLTC)** | |  |  |  |
| **1** | **Temperature rise of contacts** |  |  |  |
| **2** | **Switching tests** |  |  |  |
| **3** | **Short – circuit test** |  |  |  |
| **4** | **Transition resistor test** |  |  |  |
| **5** | **Mechanical tests** |  |  |  |
| **6** | **Dielectric tests** |  |  |  |
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| **Μονωτήρες (Bushings)** | |  |  |  |
| **1** | **Power – frequency voltage withstand test** |  |  |  |
| **2** | **Lightning impulse voltage withstand test from environmental overvoltage** |  |  |  |
| **3** | **Electromagnetic compatibility test** |  |  |  |
| **4** | **Thermal stability test** |  |  |  |
| **5** | **Temperature rise test** |  |  |  |
| **6** | **Verification of thermal short – time current withstand** |  |  |  |
| **7** | **Cantilever load withstand test** |  |  |  |
| **8** | **Tightness test** |  |  |  |
| **9** | **Verification of dimensions** |  |  |  |

**ΠΙΝΑΚΑΣ ΔΟΚΙΜΩΝ ΤΥΠΟΥ ΒΑΣΙΚΟΥ ΕΞΟΠΛΙΣΜΟΥ**

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| Διαγωνιζόμενος : | | | | |
| **ΜΕΤΑΛ/ΝΟΙ ΠΙΝΑΚΕΣ Μ.Τ.** | | | **ΚΑΤΑΣΚΕΥΑΣΤΗΣ ΚΑΙ ΤΥΠΟΣ**: | |
|  | ΠΕΡΙΓΡΑΦΗ ΔΟΚΙΜΗΣ | ΕΡΓΑΣΤΗΡΙΟ | ΠΙΣΤΟΠΟΙΗΤΙΚΟ (ΑΡΙΘΜΟΣ & ΗΜΕΡΟΜΗΝΙΑ) | ΑΠΟΤΕΛΕΣΜΑΤΑ ΤΗΣ ΔΟΚΙΜΗΣ |
| **1** | **Impulse Voltage dry test, 125KV peak** |  |  |  |
| **2** | **Power Frequency Voltage dry test, 50KV 1min** |  |  |  |
| **3** | **Temperature rise test, at the nominal current of the main circuit of the panel.** |  |  |  |
| **4** | **Short time current test on main circuits, 16kA 3sec, 40kA peak** |  |  |  |
| **5** | **Short time current test on earthing circuits**  **Grounding switch: 16kA, 3sec, 40kA peak** |  |  |  |
| **6** | **Verification of making and breaking capacity of the circuit breaker** |  |  |  |
| **7** | **Mechanical operation and robustness test** |  |  |  |
| **8** | **Verification of the degrees of protection of persons against hazardous approach to live and moving parts, IP31D.** |  |  |  |
| **9** | **Arcing due to internal fault** |  |  |  |
| **10** | **Measuring of the resistances of the main circuit** |  |  |  |
| **11** | **Tests for breaking and making of capacitive currents of BC2 test cycles for the circuit breakers of TM and CM panels** |  |  |  |
| **12** | **Dielectric tests of the auxiliary and control circuits** |  |  |  |
| **13** | **Verification of the protection code of the panel, according to IP** |  |  |  |
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**ΠΙΝΑΚΑΣ ΔΟΚΙΜΩΝ ΤΥΠΟΥ ΒΑΣΙΚΟΥ ΕΞΟΠΛΙΣΜΟΥ**

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| Διαγωνιζόμενος : | | | | |
| **ΨΣΕ** | | | ΚΑΤΑΣΚΕΥΑΣΤΗΣ ΚΑΙ ΤΥΠΟΣ: | |
|  | ΠΕΡΙΓΡΑΦΗ ΔΟΚΙΜΗΣ | ΕΡΓΑΣΤΗΡΙΟ | ΠΙΣΤΟΠΟΙΗΤΙΚΟ (ΑΡΙΘΜΟΣ &  ΗΜΕΡΟΜΗΝΙΑ) | ΑΠΟΤΕΛΕΣΜΑΤΑ ΤΗΣ ΔΟΚΙΜΗΣ |
| **1** | **Impulse voltage test according to IEC- 60255-27, all the circuits, class III** |  |  |  |
| **2** | **High frequency test according to IEC-**  **60255-26, class III** |  |  |  |
| **3** | **Electrostatic discharge test according to IEC-60255-26, κλάση III** |  |  |  |
| **4** | **Electrical fast transient test according to IEC-60255-26, class III** |  |  |  |
| **5** | **Vibration test according to IEC-60068-2-6** |  |  |  |
| **6** | **Disturbance test of radiated**  **electromagnetic field according to IEC- 60255-26 class III** |  |  |  |
| **7** | **Field immunity radio influence test**  **according to IEC-CISPR 22** |  |  |  |
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