

Test Certificate of	special test to prove suitability to climatic class C2, to environmental class E2 and to fire behaviour test class F1
Apparatus	dry-type power transformer
Designation	ISOCAST type Rated power 900 kVA ; Rated voltages 15/0,4 kV ; Rated frequency 50 Hz
Manufacturer	MARNATE Trasformatori – Marnate (Varese) - ITALY
Tested for	MARNATE Trasformatori – Marnate (Varese) - ITALY
Date(s) of tests	from March 10, 2005 to April 22, 2005
Tested by	CESI S.p.A. – Milano – ITALY

The apparatus, constructed in accordance with the description, drawings and photographs incorporated in the reference documents, identified in this certificate, has been subjected to the series of proving tests in accordance with

IEC 60076-11 (2004)

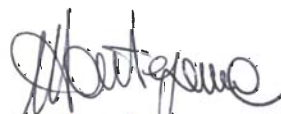

This Test Certificate has been issued by CESI in accordance with above mentioned Standards.

The results are shown in the record of Proving Tests and the oscillograms attached in the Test Reports. The values obtained and the general performance are considered to comply with the above Standards and to justify the ratings assigned by the Manufacturer as listed on page No.2 .

The Certificate applies only to the apparatus tested. The responsibility for conformity of any apparatus having the same designations with that tested rests with the Manufacturer.

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No. of pages	3
Issue date	April 27, 2005
Prepared	PeC - V. Mantegazza
Verified	PeC - F. Pizzi
Approved	PeC M. de Nigris

CESI
CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Business Unit
Prove e Componenti



1 - Ratings assigned by the Manufacturer as proved by the tests

rated power	900 kVA
number of phases	3
rated voltage of the high-voltage winding (primary winding)	15 kV
rated voltage of the low-voltage winding (secondary winding)	400 V
rated current of the high-voltage winding (primary winding)	34,64 A
rated current of the low-voltage winding (secondary winding)	1299 A
rated frequency	50 Hz
connection symbol	Dyn
climatic class	C2
environmental class	E2
fire behaviour class	F1
insulation system temperature	F/F

2 – This Certificate also verifies

Not applicable.

3 – Reference documents

The following reference documents are integral part of this Certificate

No.	Description	CESI registration
1	CESI Test Report	MP-A5/009283
2	CESI Test Report	AT-A5/009401
3	CESI Test Report	BC-A5/019366
4	Manufacturer’s drawings	A5/013866 no. 1 to 8

4 – Additional references

Not applicable.

Activity code 18316K

5 – Record of proving tests

The table below lists all the tests performed and the references to the relevant Test Reports containing the test values.

No. Standard and clause	Description of tests	Reference documents
IEC 60076-11 clause 27.4	Thermal shock test	MP-A5/009283
IEC 60076-11 clause 27.4	Thermal shock test	AT-A5/009401
IEC 60076-11 clause 26.3.2	Condensation and humidity penetration test	MP-A5/009283
IEC 60076-11 clause 28.3	Fire behaviour test	BC-A5/019366

6 – Identification of the sample

The Manufacturer guarantees that the tested object is manufactured according to the submitted drawings.

CESI checked that these drawings adequately represent in shape and dimensions the essential details and the parts of the tested object.

These drawings identified by CESI and numbered A5/013866 no. 1 to 8 have been returned to the Client.