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Enterprise No.:
NO 939 350 675 MVA

TEST REPORT

TITLE

PD measurement on oil-immersed transformer

TEST CONDUCTED BY

Horst Förster, Rolf Hegerberg

CLIENT(S)

Møre Trafo AS, 6230 Sykkylven, Norway

LR NO.

LR F2460

DATE

2008-05-19

CLIENT'S REF.

Kårstein Longva

ELECTRONIC FILE CODE

08051910443

RESPONSIBLE

Rolf Hegerberg

PROJECT NO.

14X47043

NUMBER OF PAGES

5

TEST LOCATION

High voltage laboratory, SINTEF Energy Research

TEST OBJECT

Transformer OTK5538, transf. nr 0800058, 420/22000 V, 200 kVA, Yyn0

TEST OBJECT RECEIVED

2008-05-06

TEST PROGRAM

Pd measurement according to IEC 60076-13 (2006-05) sub-cl 12.1

DATE OF TEST

2008-05-08

SUMMARY

The transformer fulfilled the requirements of the standard.

The test results relate only to the items tested

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KEYWORDS

SELECTED BY
AUTHOR(S)

Transformer

PD measurement

IEC 60076-13

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1 OBSERVERS

The tests were observed by Kårstein Longva and Arnulf Karlsvik, representing Møre Trafo AS.

2 TEST OBJECT

One oil-immersed transformer 420/22000 V; 200 kVA produced by Møre Trafo AS.
Designation OTK5538, serial No. 0800058, connection Yyn0

3 TEST PROGRAM

The transformer was tested according to sub-cl 12.1 of IEC 60076-13 (2006-05).
The transformer was magnetised from the lv windings and one HV terminal earthed during pd-measurements on the other HV terminals (see circuit diagram).

4 TEST RESULTS

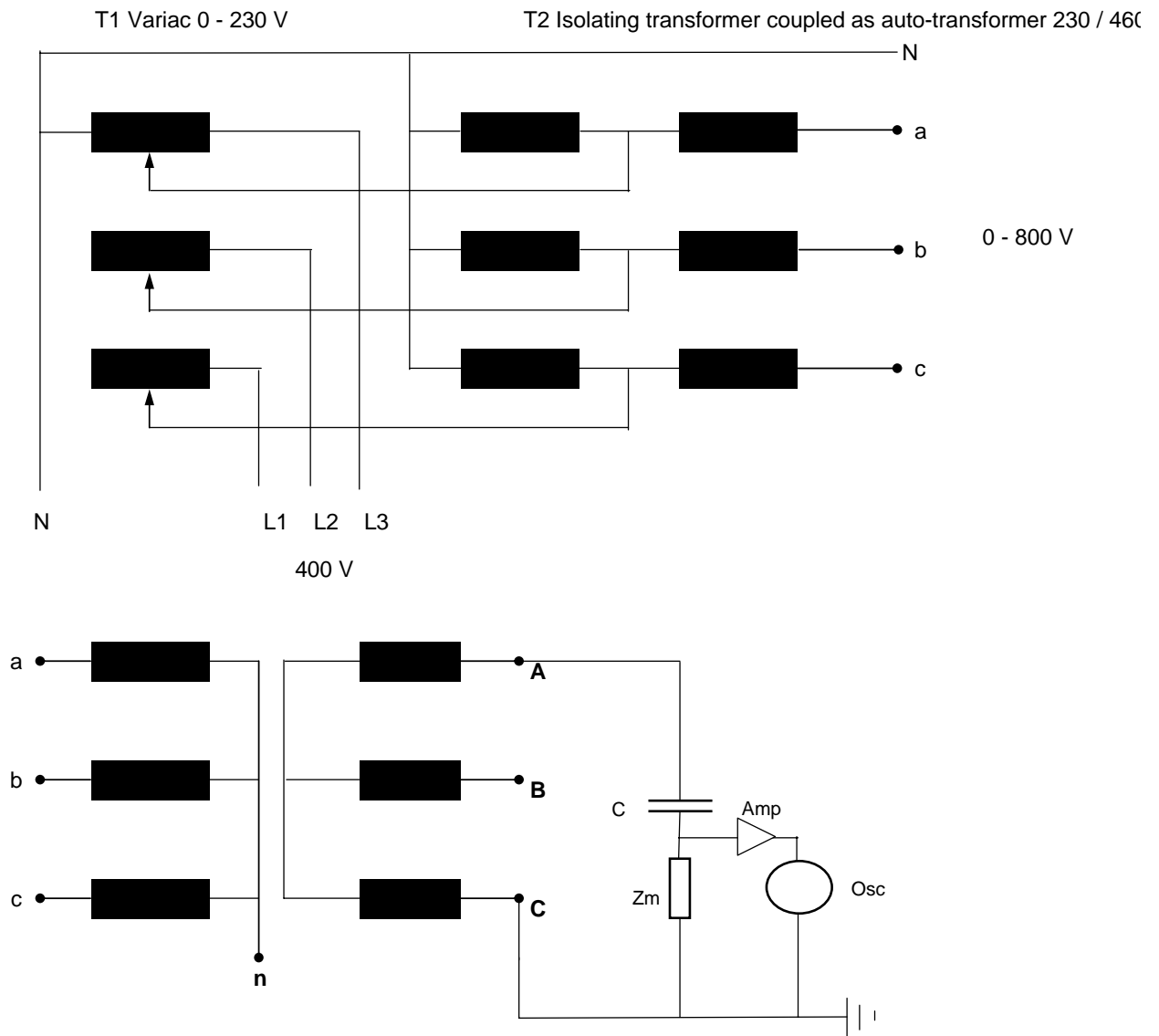
The test results are summarised in the table:

Measured on phase	A	B	C	Requirement
Earthed phase	C	C	A	
U= 1.8U _r =22,9 kV; t = 30 sec	-	-	-	-
U= 1.4U _r =17,8kV; t = 5 min	50 pC	25 pC	40 pC – 30 pC	< 100 pC
U= 1.2U _r =15,2 kV; t = 30 sec	< 10 pC	< 10 pC	≈ 10 pC	< 50 pC

Where a range of values are given, the measured PD amplitude decreased during the measuring period.

5 CONCLUSION

The transformer fulfilled the requirements of IEC 60076-13 (2006-05), sub-cl 12.1.

CIRCUIT DIAGRAM

Equipment:

T1: Variac B01-0466

T2: Isolating transformer B01-0576 (connected as autotransformer)

Coupling capacitor C: 750pF/120 kV K03-0106

 Shunt Z_m : I06-0397

Amplifier Amp: N07-0102 / N07-0067-1

PD calibrator: H02-0131

Oscilloscope: G04-0027

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