

Contents

Page

Foreword	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	3
5 Construction, additional equipment	4
5.1 Thermal protection.....	4
5.2 Output current sensing coil.....	4
6 Physical environment and operating conditions	5
6.1 General.....	5
6.2 Ambient air temperature.....	5
6.3 Humidity.....	5
6.4 Altitude.....	5
6.5 Transportation and storage.....	5
6.6 Provisions for handling.....	5
6.7 Cooling liquid temperature.....	6
7 Tests	6
7.1 Test conditions.....	6
7.2 Type tests.....	6
7.3 Routine tests.....	7
8 Protection against electric shock	7
8.1 Insulation resistance.....	7
8.2 Dielectric strength.....	7
8.3 Calibration of output current sensing coil.....	8
8.4 Protection against electric shock in normal service (direct contact).....	9
8.5 Protection against electric shock in case of fault condition (indirect contact).....	9
8.6 Class II transformer insulation requirements.....	9
9 Thermal rating	9
9.1 General.....	9
9.2 Limits of temperature rise.....	10
9.3 Heating test conditions.....	11
9.4 Methods of temperature measurements.....	13
10 Rated output voltage	15
10.1 General.....	15
10.2 a.c. no-load voltage (U_{20}).....	15
10.3 d.c. no-load voltage (U_{2d}).....	15
11 No-load input current (I_{10})	15
11.1 General.....	15
11.2 Measurement procedure.....	16
12 Short-circuit voltage (U_{cc})	16
13 Output current under load condition	16
14 Cooling liquid circuit	17
15 Dynamic behaviour	17
16 Rating plate	17
16.1 General.....	17
16.2 Description.....	18
17 Instruction manual	20

Annex A (informative) Example of a rating plate	21
Annex B (normative) Corrections for higher altitudes and cooling medium temperatures	22
Annex C (informative) Notes on physical concepts and comments on some definitions	23
Annex D (informative) Type code for single-phase transformers for alternating welding current	29
Bibliography	30