DIN EN ISO 5826:2014-07 (E)

Resistance welding equipment - Transformers - General specifications applicable to all transformers (ISO 5826:2014)

Contents

Page

Foreword 4

1 Scope 5

2 Normative references 5

3 Terms and definitions 5

4 Symbols and abbreviated terms 7

5 Construction, additional equipment 8
5.1 Thermal protection 8
5.2 Output current sensing coil 8

6 Physical environment and operating conditions 9
6.1 General 9
6.2 Ambient air temperature 9
6.3 Humidity 9
6.4 Altitude 9
6.5 Transportation and storage 9
6.6 Provisions for handling 9
6.7 Cooling liquid temperature 10

7 Tests 10
7.1 Test conditions 10
7.2 Type tests 10
7.3 Routine tests 11

8 Protection against electric shock 11
8.1 Insulation resistance 11
8.2 Dielectric strength 11
8.3 Calibration of output current sensing coil 12
8.4 Protection against electric shock in normal service (direct contact) 13
8.5 Protection against electric shock in case of fault condition (indirect contact) 13
8.6 Class II transformer insulation requirements 13

9 Thermal rating 13
9.1 General 13
9.2 Limits of temperature rise 14
9.3 Heating test conditions 15
9.4 Methods of temperature measurements 17

10 Rated output voltage 19
10.1 General 19
10.2 a.c. no-load voltage (U20) 19
10.3 d.c. no-load voltage (U2d) 19

11 No-load input current (I10) 19
11.1 General 19
11.2 Measurement procedure 20

12 Short-circuit voltage (Ucc) 20

13 Output current under load condition 20

14 Cooling liquid circuit 21

15 Dynamic behaviour 21

16 Rating plate 21
16.1 General 21
16.2 Description 22

17 Instruction manual 24

Annex A (informative) Example of a rating plate 25

Annex B (normative) Corrections for higher altitudes and cooling medium temperatures 26

Annex C (informative) Notes on physical concepts and comments on some definitions 27

Annex D (informative) Type code for single-phase transformers for alternating welding current 33

Bibliography 34