SVENSK STANDARD SS-EN 61204

Fastställd	Utgåva	Sida	Ingår i
1995-09-29	1	1 (1+32)	SEK Område 96

Svenska Elektriska Kommissionen, SEK

Strömförsörjningsdon med likströmsutgång, för anslutning till lågspänning – Funktionsegenskaper

Low-voltage power supply devices, d.c. output – Performance characteristics

Som svensk standard gäller europastandarden EN 61204:1995. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61204:1995.

Nationellt förord

Europastandarden EN 61204:1995 *)

består av:

– **europastandardens ikraftsättningsdokument,** utarbatat inom CENELEC
– **IEC 61204, First edition, 1993 - Low-voltage power supply devices, d.c. output - Performance characteristics and safety requirements**

utarbetad inom International Electrotechnical Commission, IEC.

Standardens titel har ändrats i enlighet med Amendment A1, 2001, till IEC 6204, vilken fastställts separat i SS-EN 61204/A1, utgåva 1, 2001.

*) EN 61204:1995 ikraftsattes 1995-09-29 som SS-EN 61204 genom offentliggörande, d v s utan utgivning av något svenskt dokument.

ICS 29.160.40

Denna standard är fastställd av Svenska Elektriska Kommissionen, SEK,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61204

January 1995

ICS 29.160.40

Descriptors: Electrical power supply, low voltage, performance evaluation, safety, overvoltage protection, overcurrent protection, tests

English version

Low-voltage power supply devices, d.c. output Performance characteristics and safety requirements (IEC 1204:1993, modified)

Dispositifs d'alimentation à basse tension, à sortie en courant continu Caractéristiques de fonctionnement et prescriptions de sécurité (CEI 1204:1993, modifiée)

Stromversorgungsgeräte für Niederspannung mit Gleichstromausgang Eigenschaften und Sicherheitsanforderungen (IEC 1204:1993, modifiziert)

This European Standard was approved by CENELEC on 1994-12-06. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of the International Standard IEC 1204:1993, prepared by SC 22E, Stabilized power supplies, of IEC TC 22, Power electronics, together with common modifications prepared by CENELEC BTTF 64-2, was submitted to the formal vote and was approved by CENELEC as EN 61204 on 1994-12-06.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1995-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1995-12-01

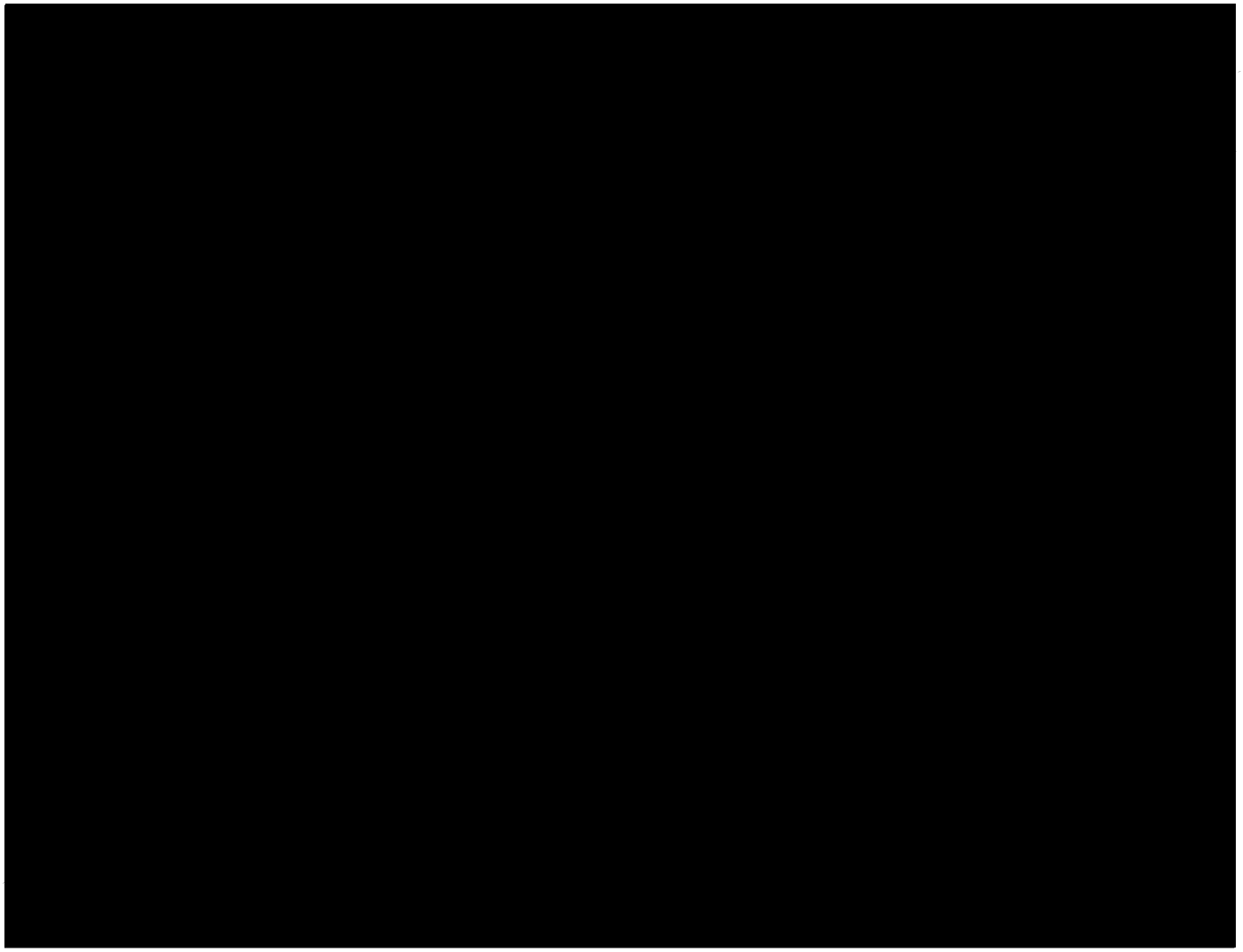
For products which have complied with the relevant national standard before 1995-12-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2000-12-01.

Annexes designated "normative" are part of the body of the standard.
In this standard, annexes A, B, C, D and ZA are normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 1204:1993 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS



ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

NOTE : When the international publication has been modified by CENELEC common modifications, indicated by (mod), the relevant EN/HD applies.

IEC Publication	Date	Title	EN/HD	Date
38 (mod)	1983	IEC standard voltages*	HD 472 S1	1989
68-2-1	1990	Environmental testing - Part 2: Tests Tests A: Cold	EN 60068-2-1	1993
68-2-2	1974	Test B: Dry heat	EN 60068-2-2*	1987
68-2-3	1969	Test Ca: Damp heat, steady state	HD 323.2.3 S2*	1987
68-2-6	1982	Test Fc and guidance: Vibration (sinusoidal)	HD 323.2.6 S2*	1988
68-2-27	1987	Test Ea and guidance	EN 60068-2-27	1993
68-2-29	1987	Test Eb and guidance: Bump	EN 60068-2-29*	1993
478-1	1974	Stabilized power supplies, d.c. output Part 1: Terms and definitions	-	-
478-2	1986	Part 2: Rating and performance	-	-
478-3	1989	Part 3: Reference levels and measurement of conducted electromagnetic interference (EMI)	-	-
478-4	1976	Part 4: Tests other than radio-frequency interference	-	-
478-5	1993	Part 5: Measurement of the magnetic component of the reactive near field	-	-
651	1979	Sound level meters	EN 60651	1994

* The title of HD 472 S1 is: Nominal voltages for low voltage public electricity systems
* EN 60068-2-2 includes supplement A:1976 to IEC 68-2-2
* HD 323.2.3 S2 includes A1:1984 to IEC 68-2-3
* HD 323.2.6 S2 includes A1:1983 + A2:1985 to IEC 68-2-6
* EN 60068-2-29 includes a corrigendum to IEC 68-2-29

IEC Publication	Date	Title	EN/HD	Date
664-1 (mod)	1992	Insulation coordination for equipment within low-voltage systems, Part 1: Principles, requirements and tests	-	-
721-3-1	1987	Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Storage	EN 60721-3-1*	1993
721-3-2	1985	Transportation	EN 60721-3-2*	1993
801-4	1988	Electromagnetic compatibility for industrial-process measurement and control equipment - Part 4: Electrical fast transient/burst requirements	-	-
950 (mod)	1991	Safety of information technology equipment, including electrical business equipment	EN 60950	1992

Other publication:

MIL-HDBK-217E:1974 - Reliability prediction of electronic equipment

* EN 60721-3-1 inlcudes A1:1991 to IEC 721-3-1
* EN 60721-3-2 includes A1:1991 to IEC 721-3-2

CONTENTS

Page

FOREWORD 7

INTRODUCTION 9

Clause

1 General 11
1.1 Scope and object 11
1.2 Normative references 11
1.3 Definitions 13

2 Presentation of performance characteristics 15

3 Performance 15
3.1 Rated outputs and total output power 15
3.2 Ambient operating temperature range 19
3.3 Ambient storage and transit temperature range 21
3.4 Source voltage and frequency 21
3.5 Source current 23
3.6 Source effect (source regulation) 23
3.7 Load effect (load regulation) 25
3.8 Output voltage tolerance (intrinsic error) – fixed outputs 25
3.9 Adjustability of output voltage 25
3.10 Periodic and random deviation 27
3.11 Interaction effects (cross regulation) 27
3.12 Temperature coefficient 29
3.13 Hold-up time (turn-off decay time) 29
3.14 Start-up time (turn-on delay time) 29
3.15 Turn-on (turn-off) overshoot 31
3.16 Transient response to load current changes 31
3.17 Output overvoltage protection 33
3.18 Output overcurrent protection 33
3.19 Mean time between failures (MTBF) 35

4 Requirements for safety 35
4.1 General 35
4.2 Creepage distances, clearances and distances through insulation 35
4.3 Electric strength 35
4.4 Earth leakage current 35
4.5 Flammability 35
4.6 Thermal requirements 37
4.7 Protective devices 37

Clause Page

5 Interference requirements 37
5.1 Noise level 37
5.2 Conducted EMI 37
5.3 Radiated EMI (magnetic component) 37
5.4 Input transient voltage 39

6 Additional requirements 39
6.1 Remote programming (remote control) 39
6.2 Remote sensing 39
6.3 Mechanical characteristics 41
6.4 Series operation 41
6.5 Parallel operation 41
6.6 Monitoring and control signals 41

7 Test requirements 41
7.1 General 41
7.2 Environmental tests 43

8 Miscellaneous requirements 43
8.1 Markings and instructions 43

ANNEXES

A Periodic and random deviation test methods 45

B Output overvoltage protection 51

C Overcurrent protection characteristics 53

D Parallel operation 55

INTERNATIONAL ELECTROTECHNICAL COMMISSION

LOW-VOLTAGE POWER SUPPLY DEVICES, D.C. OUTPUT – PERFORMANCE CHARACTERISTICS AND SAFETY REQUIREMENTS

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of the IEC on technical matters, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

This International Standard IEC 1204 has been prepared by sub-committee 22E: Stabilized power supplies, of IEC technical committee 22: Power electronics.

The text of this standard is based on the following documents:

DIS	Report on Voting
22E(CO)24	22E(CO)26

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

Annexes A to D form an integral part of this standard.

INTRODUCTION

This International Standard, based on the British Standard BS6688: 1986, has been reworked and extended to take into account existing and forthcoming IEC standards. With regard to safety, there was close collaboration with IEC technical committee 74, working group 6: Safety requirements for power supplies.

LOW-VOLTAGE POWER SUPPLY DEVICES, D.C. OUTPUT – PERFORMANCE CHARACTERISTICS AND SAFETY REQUIREMENTS

1 General

1.1 *Scope and object*

This international Standard describes a method for specifying requirements for low-voltage power supply devices (including switching types) providing d.c. output(s) up to 200 V d.c. at a power level of up to 30 kW, operating from a.c. or d.c. source voltages of up to 600 V. The devices are for use within class I equipment or for free-standing operation when used with adequate electrical and mechanical protection.

This standard is intended to cover all types of a.c. or d.c. driven units with any number of outputs including power supply devices used in military, industrial, telecommunications and commercial applications. Special considerations apply for medical applications and toys.

It permits to specify a power unit to meet a particular application by the specification of parameters at required performance levels, to establish the essential definitions related to this type of equipment, and to establish a selection of levels of performance. These levels are carefully graded to enable manufacturers and users to select and specify a range of power supply devices suitable for their application.

1.2 *Normative references*

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently International Standards.

IEC 38: 1983, *IEC standard voltages*

IEC 68: *Environmental testing*

IEC 68-2-1: 1990, *Environmental testing – Part 2: Tests – Test A: Cold*

IEC 68-2-2: 1974, *Environmental testing – Part 2: Tests – Test B: Dry heat*

IEC 68-2-3: 1985, *Environmental testing – Part 2: Tests – Test Ca: Damp heat, steady state*

IEC 68-2-6: 1982, *Environmental testing – Part 2: Tests – Test Fc and guidance: Vibration (sinusoidal)*