

Primary batteries —

Part 2: Specification sheets

The European Standard EN 60086-2:1997, with the incorporation of amendment A1:1999, has the status of a British Standard.

ICS 29.220.10

National foreword

This British Standard is the English language version of EN 60086-2:1997, including amendment A1:1999. It is identical with IEC 60086-2:1997, including amendment A1:1999. It supersedes BS EN 60086-2:1996 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CPL/35, Primary cells and batteries, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

From 1 January 1997, all IEC publications have the number 60000 added to the old number. For instance, IEC 27-1 has been renumbered as IEC 60027-1. For a period of time during the change over from one numbering system to the other, publications may contain identifiers from both systems.

Cross-references

Attention is drawn to the fact that CEN and CENELEC Standards normally include an annex which lists normative references to international publications with their corresponding European publications. The British Standards which implement these international or European publications may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

This British Standard, having been prepared under the direction of the Electrotechnical Sector Board, was published under the authority of the Standards Board and comes into effect on 15 October 1998
© BSI 07-2000

Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 55 and a back cover.

The BSI copyright notice displayed in this document indicates when the document was last issued.

Amendments issued since publication

Amd. No.	Date	Comments
10849	July 2000	Changed datasheets indicated by an extension (/A1:1999) to shoulder heading

Descriptors: Primary batteries, specification sheets, dimensions, terminals, discharge tests

English version

Primary batteries Part 2: Specification sheets (includes amendment A1:1999)

(IEC 60086-2:1997 + A1:1999)

Piles électriques Partie 2: Feuilles de
spécifications (inclut l'amendement A1:1999)
(CEI 60086-2:1997 + A1:1999)

Primärbatterien Teil 2: Spezifikationsblätter
(enthält änderung A1:1999)
(IEC 60086-2:1997)

This European Standard was approved by CENELEC on 1997-07-01: amendment A1 was approved by CENELEC on 1999-08-01. 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 amendment 2:1996 to the International Standard IEC 60086-2:1994, prepared by IEC TC 35, Primary cells and batteries, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A2 to EN 60086-2:1996 on 1997-07-01 without any modification.

The text of document 35/1027/FDIS, future amendment to IEC 60086-2, prepared by the same IEC Technical Committee, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A3 to EN 60086-2:1996 on 1997-07-01.

The text of this document, together with that of IEC 60086-2:1994 and its amendments 1:1995 and 2:1996, was published by IEC as the 9th edition of IEC 60086-2 in July 1997. According to a decision of principle taken by the Technical Board of CENELEC, the approval of EN 60086-2:1996/A3 has been converted into the approval of a new EN 60086-2.

This European Standard supersedes EN 60086-2:1996 and its amendment A1:1997.

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) 1998-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1998-04-01

Endorsement notice

The text of the International Standard IEC 60086-2:1997 was approved by CENELEC as a European Standard without any modification.

Foreword to amendment A1

The text of document 35/1073A/FDIS, future amendment 1 to IEC 60086-2, prepared by IEC TC 35, Primary cells and batteries, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60086-2:1997 on 1999-08-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2000-05-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2002-08-01

Endorsement notice

The text of amendment 1:1999 to the International Standard IEC 60086-2:1997 was approved by CENELEC as an amendment to the European Standard without any modification.

Contents

	Page
Foreword	2
General	4
1 Battery specification table	4
2 Drawings	4
3 Order of specification tables	4
4 Tabulation of batteries by application	5
5 Battery specification tables	8
Round batteries	Figure 1A and Figure 1B of IEC 60086-1
	9
Round batteries	R14250 R17335 R17345 R17450
	15
Round batteries	Figure 2 and Figure 3 of IEC 60086-1
	17
Round batteries	Figure 4 of IEC 60086-1 (with gauge)
	18
Round batteries	Figure 4 of IEC 60086-1
	19
Round batteries	2R9 R40 4R42 4R44 2R11108
	28
Non-round batteries	3R12 3R20X 3R25 4R25X 4R25Y 4R25-2
	32
	R25-4 5R40 4LR61 2R5 R-P2
	10F15 15F15 10F20 15F20 20F20
	6F22(6R61) 6F24 6F50-2 6F100
	S4 6S4 6S6
Table I — Road warning lamps	5
Table II — Industrial equipment	5
Table III — Electric fence controllers	5
Table IV — Transistor radios	5
Table V — Electronic equipment	5
Table VI — Paging test	6
Table VII — Hearing aids	6
Table VIII — Photo test	6
Table IX — Portable lighting	6
Table X — Pocket calculators	7
Table XI — Toys (Motor)	7
Table XII — Accelerated application test for automatic camera	7
Table XIII — Tape recorders (Personal cassette player)	7

General

1 Battery specification table

This specification sheet is prepared in accordance with the following procedures :

1.1 Batteries are categorized into several groups according to their shapes.

1.2 One common shape drawing of these batteries which fall into the same group is exhibited.

1.3 Designation, nominal voltage, dimension, gauge, discharge conditions, minimum average duration, application and date of issue for these batteries which fall into the same group are summarized in one table.

1.4 When a drawing represents only one type of battery, the dimensions of the relevant battery are directly shown in the drawing.

1.5 Batteries are categorized into the following groups :

- a) Category 1: Round batteries Figure 1A and Figure 1B of IEC 60086-1
- b) Category 2: Round batteries R14250, R17335, R17345 and R17450
- c) Category 3: Round batteries Figure 2 and Figure 3 of IEC 60086-1
- d) Category 4: Round batteries Figure 4 of IEC 60086-1 (with gauge)
- e) Category 5: Round batteries Figure 4 of IEC 60086-1 (without gauge)
- f) Category 6: Other round batteries
Four types: 2R9, R40, 4R42, 4R44 and 2R11108
- g) Category 7: Non-round batteries
23 types: 3R12, 3R20X, 3R25, 4R25X, 4R25Y, 4R25-2, R25-4, 5R40, 4R61, 2R5, R-P2, 10F15, 15F15, 10F20, 15F20, 20F20, 6F22(6R61), 6F24, 6F50-2, 6F100, S4, 6S4 and 6S6

2 Drawings

Drawings of round batteries which correspond to the examples of subclause 4.3 in IEC 60086-1 are prepared by reduction or enlargement of the relevant original drawings. The other drawings are prepared by reduction or enlargement of conventional specification drawings.

In each case the drawings show the shape of the relevant batteries. Dimensions for each battery are shown in the table.

3 Order of specification tables

Order of specification table is according to 1.5 a) through g).

4 Tableaux des piles par application

Chacun des tableaux suivants donne la liste de toutes les piles pour lesquelles il y a, dans cette spécification, un essai de décharge pour une application donnée.

Dans chaque tableau, les piles sont classées par ordre croissant de tension nominale et, pour une même tension nominale, par ordre croissant de volume.

Tableau I — Lanternes de signalisation routière

Table I — Road warning lamps

Désignation Designation	Tension nominale Nominal voltage (V)
4R25X	6,0
4LR25X	6,0
4R25Y	6,0
4R25-2	6,0
4LR25-2	6,0

Tableau II — Equipements industriels

Table II — Industrial equipment

Désignation Designation	Tension nominale Nominal voltage (V)
S4	1,5
R40	1,5

4 Tabulation of batteries by application

Each of the following tables lists all the batteries for which there is a discharge test given in this specification for that application.

Within each table the batteries are listed in ascending order of nominal voltage and, within each nominal voltage, in ascending order of volume.

Tableau III — Appareils de clôture électrique

Table III — Electric fence controllers

Désignation Designation	Tension nominale Nominal voltage (V)
R40	1,5
5AR40	7,0
6AS4	8,4
6AS6	8,4

Tableau IV — Postes à transistors

Table IV — Transistor radios

Désignation Designation	Tension nominale Nominal voltage (V)
R03	1,5
LR03	1,5
R6C	1,5
R6P	1,5
R6S	1,5
LR6	1,5
R14C	1,5
R14P	1,5
R14S	1,5
LR14	1,5
R20C	1,5
R20P	1,5
R20S	1,5
LR20	1,5
3R12C	4,5
3R12P	4,5
3R12S	4,5
3LR12	4,5
6F22	9,0
6LR61	9,0
6F24	9,0
6F50-2	9,0
6F100	9,0

Tableau V — Equipement électronique
Table V — Electronic equipment

Désignation Designation	Tension nominale Nominal voltage (V)
4LR61	6,0

Tableau VI — Recherche de personnes
Paging test
Table VI — Paging test

Désignation Designation	Tension nominale Nominal voltage (V)
LR1	1,5

**Tableau VII — Appareils de correction
auditive Hearing aids**
Table VII — Hearing aids

Désignation Designation	Tension nominale Nominal voltage (V)
R1	1,5
LR1	1,5
PR41	1,4
PR44	1,4
PR48	1,4
PR70	1,4
SR48	1,55

Tableau VIII — Essai de photo Photo test
Table VIII — Photo test

Désignation Designation	Tension nominale Nominal voltage (V)
CR17345	3,0
BR-P2	6,0
CR-P2	6,0
2CR5	6,0

Tableau IX — Eclairage portatif
Table IX — Portable lighting

Désignation Designation	Tension nominale Nominal voltage (V)
R1	1,5
LR1	1,5
R03	1,5
LR03	1,5
R14C	1,5
R14P	1,5
R14S	1,5
LR14	1,5
R20C	1,5
R20P	1,5
R20S	1,5
LR20	1,5
2R10	3,0
3R12C	4,5
3R12P	4,5
3R12S	4,5
3LR12	4,5
3R20X	4,5
4R25X	6,0
LR25X	6,0
4R25Y	6,0
4R25-2	6,0
4LR25-2	6,0

Tableau X — Calculatrices de poche
Table X — Pocket calculators

Désignation Designation	Tension nominale Nominal voltage (V)
6F22	9,0
6LR61	9,0

Tableau XI — Jouets (Moteur)
Table XI — Toys (Motor)

Désignation Designation	Tension nominale Nominal voltage (V)
R6C	1,5
R6P	1,5
LR6	1,5
R14C	1,5
R14P	1,5
R14S	1,5
LR14	1,5
R20C	1,5
R20P	1,5
R20S	1,5
LR20	1,5
6F22	9,0
6LR61	9,0

**Tableau XII — Essai d'application
accélééré pour appareils photographiques
automatiques**
**Table XII — Accelerated application test
for automatic camera**

Désignation Designation	Tension nominale Nominal voltage (V)
SR44	1,55

**Tableau XIII — Magnétophones
(Lecteurs de cassette individuels)**
**Table XIII — Tape recorders (Personal
cassette player)**

Désignation Designation	Tension nominale Nominal voltage (V)
R03	1,5
LR03	1,5
R6C	1,5
R6P	1,5
LR6	1,5
R14C	1,5
R14P	1,5
R14S	1,5
LR14	1,5
R20C	1,5
R20P	1,5
R20S	1,5
LR20	1,5

5 Tableaux de spécifications des piles

5 Battery specification tables

SPÉCIFICATIONS PHYSIQUE ET DU COUPLE
PHYSICAL AND SYSTEM SPECIFICATIONS

Figure 1A is a technical drawing of a battery cell cross-section. It shows a central negative contact area (Surface négative de contact) with a diameter ϕ and a height C . The positive contact (Contact positif) is at the top, with a diameter F and a height G . The overall height of the cell is A , and the width of the main body is B . The distance from the top of the main body to the positive contact is E . A dimension D is shown for the width of the negative contact area. A note indicates that the profile over the dotted line sections is not specified. A small detail view at the top shows the positive contact with dimensions F , N , and G . A dimension of $0,4 \text{ max.}$ is shown for the distance from the top of the main body to the positive contact.

FIGURE 1A

Figure 1B is a technical drawing of a battery cell cross-section, similar to Figure 1A. It shows a central negative contact area (Surface négative de contact) with a diameter ϕ and a height C . The positive contact (Contact positif) is at the top, with a diameter F and a height G . The overall height of the cell is A , and the width of the main body is B . The distance from the top of the main body to the positive contact is E . A note indicates that the profile over the dotted line sections is not specified. A small detail view at the top shows the positive contact with dimensions F and G . A dimension of $0,4 \text{ max.}$ is shown for the distance from the top of the main body to the positive contact.

FIGURE 1B

Désignation Designation	Tension nominale Nominal voltage (V)	Dimensions (en millimètres)						Dimensions (in millimetres)				Conditions Discharge	
		A	B	C	E	F	G	ϕ		ϕ P	Résistance Resistance (Ω)	Cycle journalier Daily period	
		Max.	Min.	Min.	Max.	Max.	Min.	Max.	Min.	Max.			
R03	1,5	44,5	43,3	4,3	0,5	3,8	0,8	10,5	9,5	0,4	5,1 10 75 3,6	a 1 h 4 h b	
LR03	1,5	44,5	43,3	4,3	0,5	3,8	0,8	10,5	9,5	0,4	5,1 10 75 3,6	a 1 h 4 h b	
R1	1,5	30,2	29,1	5,0	0,2	4,0	0,5	12,0	10,9	0,5	300	12 h	

a 4 min commençant à des intervalles horaires pendant 8 h par jour.

4 min beginning at hourly intervals for 8 h per day.

b 15 s de décharge, 45 s de repos pendant 24 h par jour.

15 s on, 45 s off for 24 h per day.

PILES CYLINDRIQUES Round batteries		FIGURE 1A ET FIGURE 1B DE LA CEI 60086-1 FIGURE 1A AND FIGURE 1B OF IEC 60086-1	
FIGURE 1A		FIGURE 1B	
Le contact négatif C ne peut pas être plat sur la totalité de la surface de contact. Negative contact C may not be flat over the whole surface area. Pour la définition des dimensions, voir le paragraphe 4.1. For the definition of the dimensions, see subclause 4.1. La surface cylindrique est isolée des contacts. The cylindrical surface is insulated from the contacts. Pour information générale, voir la CEI 60086-1. For general information, see IEC 60086-1. Les piles correspondant à cette feuille de spécification physique sont: Batteries complying with this physical specification are: R03 LR03 R1 CR12600 R6C R6P R6S LR6 2R10 R14C R14P R14S LR14 R20C R20P R20S LR20		Le contact négatif C doit être essentiellement plat sur la totalité de la surface de contact. Negative contact C shall be essentially flat over the whole surface area. Pour la définition des dimensions, voir le paragraphe 4.1. For the definition of the dimensions, see subclause 4.1. La surface cylindrique est isolée des contacts. The cylindrical surface is insulated from the contacts. Pour information générale, voir la CEI 60086-1. For general information, see IEC 60086-1. Les piles correspondant à cette feuille de spécification physique sont: Batteries complying with this physical specification are: R03 LR03 R1 CR12600 R6C R6P R6S LR6 2R10 R14C R14P R14S LR14 R20C R20P R20S LR20	
de décharge conditions	Durées moyennes minimales ^a (Initiales)	Applications	Date d'émission
Tension d'arrêt End point (V)	Minimum average duration ^a Initial)	(Essais de conformité— Conformance test)	Date of issue
0,9	45 min	Eclairage portatif Portable lighting	Juillet 1995 July 1995
0,9	1,4 h	Lecteurs de cassette individuels et magnétophones Personal cassette players and tape recorders	
0,9	20 h	Postes à transistors Transistor radios	
0,9	120 cycle pulse	Essai d'impulsions Pulse test	
0,9	130 min	Eclairage portatif Portable lighting	Juillet 1995 July 1995
0,9	5,0 h	Lecteurs de cassette individuels et magnétophones Personal cassette players and tape recorders	
0,9	44 h	Postes à transistors Transistor radios	
0,9	350 cycle pulse	Essai d'impulsions Pulse test	
0,9	76 h	Prothèse auditive Hearing aids	Juillet 1995 July 1995
^a Conditions normales. Standard conditions			

SPÉCIFICATIONS PHYSIQUE ET DU COUPLE
PHYSICAL AND SYSTEM SPECIFICATIONS

Désignation Designation	Tension nominale Nominal voltage (V)	Dimensions (en millimètres)					Dimensions (in millimetres)				Conditions Discharge	
		A	B	C	E	F	G	ϕ		ϕ P	Résistance Resistance (Ω)	Cycle journalier Daily period
		Max.	Min.	Min.	Max.	Max.	Min.	Max.	Min.	Max.		
R1	1,5	30,2	29,1	5,0	0,2	4,0	0,5	12,0	10,9	0,5	5,1	5 min
LR1	1,5	30,2	29,1	5,0	0,2	4,0	0,5	12,0	10,9	0,5	300 5,1 3 000	12 h 5 min a
CR12600 ^b	3	60,4	58,0	4,8	—	4,5	0,3	12,0	10,7		2 000	24 h
R6C (grande capacité) (high capacity)	1,5	50,5	49,2	7,0	0,5	5,5	1,0	14,5	13,5	0,5	43 3,9 10 1,8	4 h 1 h 1 h c
R6P (forte puissance) (high power)	1,5	50,5	49,2	7,0	0,5	5,5	1,0	14,5	13,5	0,5	43 3,9 10 1,8	4 h 1 h 1 h c
R6S (normale) (standard)	1,5	50,5	49,2	7,0	0,5	5,5	1,0	14,5	13,5	0,5	43	4 h
LR6	1,5	50,5	49,2	7,0	0,5	5,5	1,0	14,5	13,5	0,5	43 3,9 10 1,8	4 h 1 h 1 h c
2R10	3,0	74,6	71,5	9,0	0,8	6,8	1,0	21,8	20,0		6,8	5 min
R14C (grande capacité) (high capacity)	1,5	50,5	48,6	13,0	0,9	7,5	1,5	26,2	24,9	1,0	3,9 6,8 20 3,9	d 1 h 4 h 1 h

^a 24 h par jour, plus 10 Ω pendant 5 s à des intervalles horaires pendant 24 h par jour.

24 h per day, plus 10 Ω for 5 s at hourly intervals for 24 h per day.

^b Marquage, le paragraphe 6.2 est applicable.

Marking, subclause 6.2 is applicable.

^c 15 s de décharge, 45 s de repos pendant 24 h par jour.

15 s on, 45 s off for 24 h per day.

^d 4 min commençant à des intervalles horaires pendant 8 h par jour.

4 min beginning at hourly intervals for 8 h per day.

PILES CYLINDRIQUES ROUND BATTERIES		FIGURE 1A ET FIGURE 1B DE LA CEI 60086-1 FIGURE 1A AND FIGURE 1B OF IEC 60086-1	
de décharge conditions	Durées moyennes minimales ^a (Initiales)	Applications	Date d'émission
Tension d'arrêt End point (V)	Minimum average duration ^a (Initial)		Date of issue
0,9	57 min	Eclairage portatif Portable lighting	Juillet 1997 July 1997
0,9	130 h	Prothèse auditive Hearing aids	Juillet 1997 July 1997
0,9	94 min	Eclairage portatif Portable lighting	
0,9	888 h	Recherche de personnes Paging test	
2,0	840 h	Essai de service utile Service output test	Juillet 1997 July 1997
0,9		Postes à transistors Transistor radios	Juillet 1995 July 1995
0,8	40 min	Moteur/jouet Motor/toy	
0,9	3,5 h	Lecteurs de cassette individuels et magnétophones Personal cassette players and tape recorders	
0,9	46 cycle pulse	Essai d'impulsions Pulse test	
0,9	27 h	Postes à transistors Transistor radios	Juillet 1995 July 1995
0,8	60 min	Moteur/jouet Motor/toy	
0,9	4,0 h	Lecteurs de cassette individuels et magnétophones Personal cassette players and tape recorders	
0,9	75 cycle pulse	Essai d'impulsions Pulse test	
0,9	22 h	Postes à transistors Transistor radios	Juillet 1997 July 1997
0,9	60 h	Postes à transistors Transistor radios	Juillet 1995 July 1995
0,8	4,0 h	Moteur/jouet Motor/toy	
0,9	11 h	Lecteurs de cassette individuels et magnétophones Personal cassette players and tape recorders	
0,9	320 cycle pulse	Essai d'impulsions Pulse test	
1,8	85 min	Eclairage portatif Portable lighting	Août 1984 August 1984
0,9	250 min	Eclairage portatif Portable lighting	Juillet 1997 July 1997
0,9	7 h	Magnétophones Tape recorders	
0,9	25 h	Postes à transistors Transistor radios	
0,8	2,5 h	Jouets Toys	

^a Conditions normales.
Standard conditions

SPÉCIFICATIONS PHYSIQUE ET DU COUPLE
PHYSICAL AND SYSTEM SPECIFICATIONS

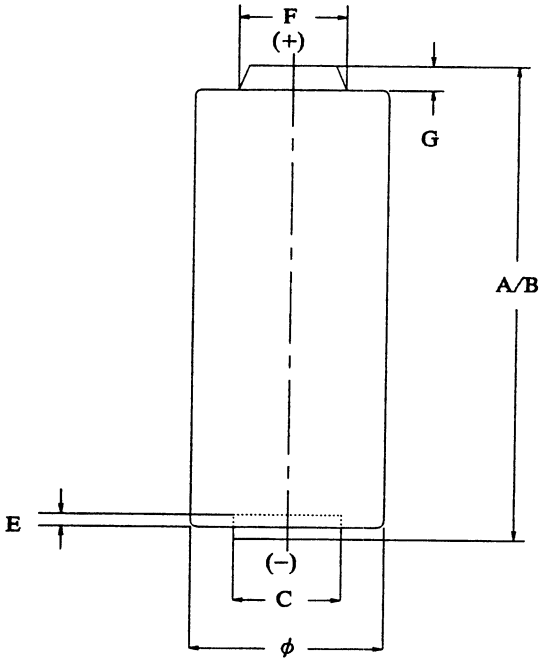
Désignation Designation	Tension nominale Nominal voltage (V)	Dimensions (en millimètres)					Dimensions (in millimetres)				Conditions Discharge	
		A	B	C	E	F	G	ϕ		ϕ P	Résistance	Cycle journalier
		Max.	Min.	Min.	Max.	Max.	Min.	Max.	Min.	Max.	Resistance (Ω)	Daily period
R14P (forte puissance) (high power)	1,5	50,0	48,6	13,0	0,9	7,5	1,5	26,2	24,9	1,0	3,9 6,8 20 3,9	^a 1 h 4 h 1 h
R14S (normale) (standard)	1,5	50,0	48,6	13,0	0,9	7,5	1,5	26,2	24,9	1,0	3,9 6,8 20 3,9	^a 1 h 4 h 1 h
LR14	1,5	50,0	48,6	13,0	0,9	7,5	1,5	26,2	24,9	1,0	3,9 6,8 20 3,9	^a 1 h 4 h 1 h
R20C (grande capacité) (high capacity)	1,5	61,5	59,5	18,0	1,0	9,5	1,5	34,2	32,3	1,0	2,2 3,9 10 2,2	^a 1 h 4 h 1 h
R20P (forte puissance) (high power)	1,5	61,5	59,5	18,0	1,0	9,5	1,5	34,2	32,3	1,0	2,2 3,9 10 2,2	^a 1 h 4 h 1 h
R20S (normale) (standard)	1,5	61,5	59,5	18,0	1,0	9,5	1,5	34,2	32,3	1,0	2,2 3,9 10 2,2	^a 1 h 4 h 1 h
LR20	1,5	61,5	59,5	18,0	1,0	9,5	1,5	34,2	32,3	1,0	2,2 3,9 10 2,2	^a 1 h 4 h 1 h

^a 4 min commençant à des intervalles horaires pendant 8 h par jour.
4 min beginning at hourly intervals for 8 h per day.

PILES CYLINDRIQUES ROUND BATTERIES		FIGURE 1A ET FIGURE 1B DE LA CEI 60086-1 FIGURE 1A AND FIGURE 1B OF IEC 60086-1	
de décharge conditions	Durées moyennes minimales ^a (Initiales)	Applications	Date d'émission
Tension d'arrêt End point (V)	Minimum average duration ^a (Initial)		Date of issue
0,9	300 min	Eclairage portatif	Juillet 1997 July 1997
0,9	9 h	Portable lighting	
0,9	30 h	Magnétophones	
0,8	4,8 h	Tape recorders	
		Postes à transistors	Juillet 1997 July 1997
		Transistor radios	
		Jouets	
		Toys	
0,9	120 min	Eclairage portatif	Juillet 1997 July 1997
0,9	3,0 h	Portable lighting	
0,9	15 h	Magnétophones	
0,8	1,5 h	Tape recorders	
		Postes à transistors	Juillet 1997 July 1997
		Transistor radios	
		Jouets	
		Toys	
0,9	750 min	Eclairage portatif	Juillet 1997 July 1997
0,9	23 h	Portable lighting	
0,9	75 h	Magnétophones	
0,8	12 h	<i>Tape recorders</i>	
		Postes à transistors	Juillet 1997 July 1997
		Transistor radios	
		Jouets	
		Toys	
0,9	300 min	Eclairage portatif	Juillet 1997 July 1997
0,9	9 h	Portable lighting	
0,9	28 h	Magnétophones	
0,8	3,5 h	Tape recorders	
		Postes à transistors	Juillet 1997 July 1997
		Transistor radios	
		Jouets	
		Toys	
0,9	320 min	Eclairage portatif	Juillet 1997 July 1997
0,9	13 h	Portable lighting	
0,9	35 h	Magnétophones	
0,8	6 h	Tape recorders	
		Postes à transistors	Juillet 1997 July 1997
		Transistor radios	
		Jouets	
		Toys	
0,9	100 min	Eclairage portatif	Juillet 1997 July 1997
0,9	4 h	Portable lighting	
0,9	18 h	Magnétophones	
0,8	2 h	Tape recorders	
		Postes à transistors	Juillet 1997 July 1997
		Transistor radios	
		Jouets	
		Toys	
0,9	786 min	Eclairage portatif	Juillet 1997 July 1997
0,9	25 h	Portable lighting	
0,9	80 h	Magnétophones	
0,8	15 h	Tape recorders	
		Postes à transistors	Juillet 1997 July 1997
		Transistor radios	
		Jouets	
		Toys	

^a Conditions normales.
Standard conditions.

SPECIFICATIONS PHYSIQUE ET DU COUPLE
PHYSICAL AND SYSTEM SPECIFICATIONS



Désignation	Tension nominale	Dimensions (en millimètres)					Dimensions (in millimetres)				Conditions
Designation	Nominal voltage (V)	A/B		C	E		F	G	ϕ		Résistance Resistance (k Ω)
		Max.	Min.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
CR14250	3	25,0	23,5	5,0			8,0	0,4	14,5	13,5	3
BR17335	3	33,5	32,0	5,0			8,0	0,1	17,0	16,0	
BR17345 CR17345	3	34,5	33,5	11,0	0,9	0,5	9,6	1,0	17,0	16,0	0,1 Courant de décharge Current drain 900 mA
CR17450	3	45,0	43,5	5,0			8,0	0,4	17,0	16,0	1

PILES CYLINDRIQUES	R14250, R17335 ET R17450
ROUND BATTERIES	R14250, R17335 and R17450

Pour la définition des dimensions, voir le paragraphe 4.1.

For the definition of the dimensions, see subclause 4.1.

La surface cylindrique est isolée des contacts.

The cylindrical surface is insulated from the contacts.

Pour information générale, voir la CEI 60086-1.

For general information, see IEC 60086-1.

de décharge		Discharge conditions	Durées moyennes minimales ^a (Initiales)	Applications	Date d'émission	
Cycle journalier	Daily period	Tension d'arrêt End point (V)	Minimum average duration ^a (Initial)		Date of issue	
24 h		2,0	750 h	Essai de service utile Service output test	Juillet 1997	July 1997
					Février 1992	February 1992
24 h		2,0	40 h	Essai de service utile Service output test	Juillet 1997	July 1997
3 s marche 27 s arrêt d'une manière continue		1,55	(BR17345) 1 200 cycle Pulse	Essai de photo Photo test		
3 s on 27 s off continuously			(CR17345) 1 400 cycle pulse			
24 h		2,0	710 h	Essai de service utile Service output test	Juillet 1997	July 1997
^a Conditions normales. Standard conditions.						

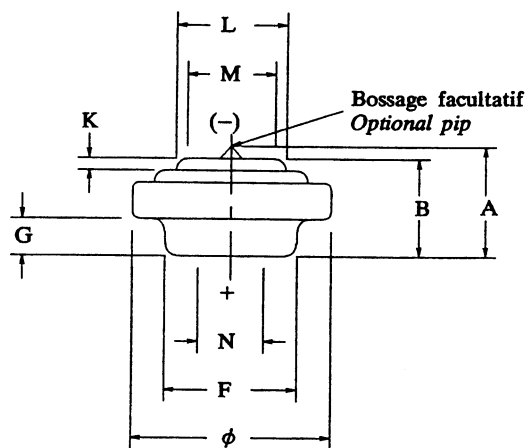


FIGURE 3

Marking, subclause **6.2** is applicable

AVA Documents
Document Sharing Hub
© BSI 07-2000