

# ILNAS

Institut luxembourgeois de la normalisation  
de l'accréditation, de la sécurité et qualité  
des produits et services

## ILNAS-EN IEC 60601-2-28:2019

### **Medical electrical equipment - Part 2-28: Particular requirements for the basic safety and essential performance of X-ray tube assemblies for medical**

Medizinische elektrische Geräte - Teil  
2-28: Besondere Festlegungen für die  
Sicherheit einschließlich der  
wesentlichen Leistungsmerkmale von

Appareils électromédicaux - Partie 2-28 :  
Exigences particulières pour la sécurité  
de base et les performances essentielles  
des gaines équipées pour diagnostic

09/2019



## National Foreword

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ILNAS-EN IEC 60601-2-28:2019  
EUROPEAN STANDARD **EN IEC 60601-2-28**  
NORME EUROPÉENNE  
EUROPÄISCHE NORM  
September 2019

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Supersedes EN 60601-2-28:2010 and all of its  
amendments and corrigenda (if any)

English Version

**Medical electrical equipment - Part 2-28: Particular requirements  
for the basic safety and essential performance of X-ray tube  
assemblies for medical diagnosis  
(IEC 60601-2-28:2017)**

Appareils électromédicaux - Partie 2-28 : Exigences  
particulières pour la sécurité de base et les performances  
essentiels des gaines équipées pour diagnostic médical  
(IEC 60601-2-28:2017)

Medizinische elektrische Geräte - Teil 2-28: Besondere  
Festlegungen für die Sicherheit einschließlich der  
wesentlichen Leistungsmerkmale von Röntgenstrahlern für  
die medizinische Diagnostik  
(IEC 60601-2-28:2017)

This European Standard was approved by CENELEC on 2019-08-07. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## European foreword

The text of document 62B/1040/FDIS, future edition 3 of IEC 60601-2-28, prepared by SC 62B "Diagnostic imaging equipment" of IEC/TC 62 "Electrical equipment in medical practice" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60601-2-28:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-05-07
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-08-07

This document supersedes EN 60601-2-28:2010.

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The text of the International Standard IEC 60601-2-28:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60601-1-9	NOTE	Harmonized as EN 60601-1-9
IEC 60601-1-10	NOTE	Harmonized as EN 60601-1-10
IEC 61010-1:2010	NOTE	Harmonized as EN 61010-1:2010 (not modified)
ISO 13732-1	NOTE	Harmonized as EN ISO 13732-1

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

*The annex ZA of EN 60601-1:2006 applies, except as follows:*

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
<i>Addition</i>				
IEC 60336	-	Medical electrical equipment - X-ray tube assemblies for medical diagnosis - Characteristics of focal spots	EN 60336	-
IEC 60522	-	Determination of the permanent filtration of X-ray tube assemblies	EN 60522	-
IEC TR 60788	2004	Medical electrical equipment - Glossary of defined terms		-
<i>Replacement</i>				
IEC 60601-1-3	2008	Medical electrical equipment - Part 1-3: General requirements for basic safety and essential performance - Collateral Standard: Radiation protection in diagnostic X-ray equipment	EN 60601-1-3	2008
			+EN 60601-1-2010 3:2008/corrigendum Mar. 2010	
			+A11	2016



# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Medical electrical equipment –  
Part 2-28: Particular requirements for the basic safety and essential performance  
of X-ray tube assemblies for medical diagnosis**

**Appareils électromédicaux –  
Partie 2-28: Exigences particulières pour la sécurité de base et les performances  
essentielles des gaines équipées pour diagnostic médical**



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