

IEC/PAS 62323

Edition 1.0
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**Dimensions of half pot cores
made of magnetic oxides
for inductive proximity switches**

PUBLICLY AVAILABLE SPECIFICATION



INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

Reference number
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FOREWORD

A PAS is a technical specification not fulfilling the requirements for a standard, but made available to the public.

IEC-PAS 62323 has been processed by IEC technical committee 51: Magnetic components and ferrite materials.

The text of this PAS is based on the following document:

This PAS was approved for publication by the P-members of the committee concerned as indicated in the following document:

Draft PAS	Report on voting
51/657/PAS	51/674/RVD

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DIMENSIONS OF HALF POT CORES MADE OF MAGNETIC OXIDES FOR INDUCTIVE PROXIMITY SWITCHES

1 Scope

This PAS lays down the important dimensions for the mechanical interchangeability of a preferred half pot-core series of magnetic oxides, intended to be used in inductive proximity switches.

2 Normative references

The following normative document contains provisions which, through references in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, 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. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

IEC 60424-1:1999, *Ferrite cores – Guide on the limit of surface irregularities – Part 1: General specification*

3 Dimensions

3.1 Nomenclature of dimensions

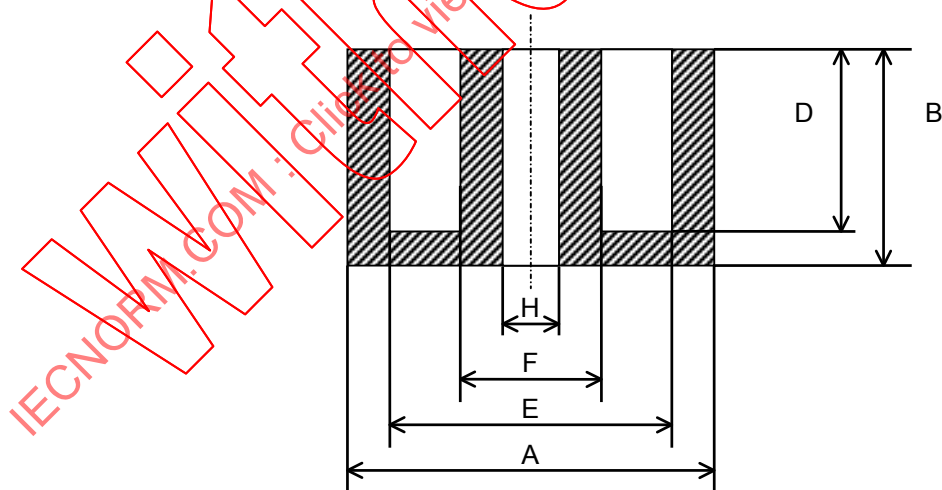


Figure 1 – Nomenclature of dimensions

3.2 Dimensions and tolerance

The main dimensions and tolerances shall be as given in table 1.

Table 1 – Dimensions and tolerances

Dimensions in millimetres

Core type	Dimensions	A		E		F		B		D	
		Dim.	Tol.	Dim.	Tol.	Dim.	Tol.	Dim.	Tol.	Dim.	Tol.
PS 3,3	3,3 x 1,3	3,35	-0,15	2,5	+0,1	1,20	-0,1	1,3	-0,2	0,85	+0,2
PS 5,6	5,6 x 1,7	5,6	-0,25	4,5	+0,15	2,5	-0,1	1,7	-0,2	1,1	+0,2
PS 7,35	7,35 x 3,6	7,35	-0,25	5,8	+0,2	3,0	-0,15	3,6	-0,2	2,8	+0,2
PS 9,0	9,0 x 3,5	9,0	-0,4	7,3	+0,3	3,9	-0,25	3,5	-0,2	2,6	+0,2
PS 11	11,3 x 3,3	11,3	-0,4	9,0	+0,4	4,7	-0,2	3,3	-0,1	2,2	+0,15
PS 14	14,3 x 4,25	14,3	-0,5	11,6	+0,4	6,0	-0,2	4,25	-0,15	2,8	+0,2
PS 25	24,8 x 8,9	24,8	-1,0	20,5	+0,8	11,3	-0,5	8,9	-0,2	5,9	+0,3
PS 30,5	30,5 x 10,2	30,5	-1,0	25	+0,8	13,5	-0,4	10,2	-0,3	7,0	+0,35
PS 35	35 x 10,8	35	-1,0	29,4	+0,8	15,7	-0,5	10,8	-0,35	7,2	+0,4
PS 47	47 x 14	47	-1,3	39	+1,1	20	-0,6	14	-0,5	9,5	+0,5
PS 68	68 x 14,5	68	-2,2	57,5	+1,8	29,5	-1,0	14,5	-0,6	9,0	+0,6
NOTE 1 The core may have up to two slots in order to realise the wire connection feed through holes. NOTE 2 A centre hole (H) is allowable. NOTE 3 Chamfers are allowable as long as they do not limit the winding space.											

4 Requirements

In order to avoid damages of the coils and their connection wires, the core shall be delivered without burrs. Flashes according to 3.3 of IEC 60424-1 shall not be present either on the winding area limiting surfaces including edges or on the wire connection feed through holes.

5 Marking

A manufacturer specific marking is mandatory from PS 7,35 and larger, preferably on the bottom of the core.

Annex A (informative)

Bibliography

The following literature gives additional information.

IEC 60133:2000, *Dimensions of pot-cores made of magnetic oxides and associated parts*

IEC 60424-2 :1997, *Ferrite cores - Guide on the limit of surface irregularities – Part 2: RM-cores*

IEC 61332 :1995, *Soft ferrite material classification*

IEC 60367-1:1982, *Cores for inductors and transformers for telecommunications – Part 1: Measuring methods*

IEC 60367-2 :1974, *Cores for inductors and transformers for telecommunications – Part 2: Guides for the drafting of performance specifications*

IEC 62044: *Cores made of soft magnetic materials – Measuring methods*

Part 1: Generic specification

Part 2¹⁾ : Measurement of magnetic properties at low excitation levels

Part 3 : Measurement of magnetic properties at high excitation levels

1) To be published.

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