

SLOVENSKI STANDARD

SIST EN 4635:2009

01-oktober-2009

Aeronavtika - Vijaki, 100° ugrezna glava, šestzoba vdolbina, kratek navoj, iz toplotnoodporne zlitine na nikljevi osnovi NI-PH2601 (Inconel 718) - Klasifikacija: 1270 MPa (pri temperaturi okolice)/650 °C

Aerospace series - Screws, 100° countersunk head, six lobes recess, short thread, in heat resisting nickel base alloy NI-PH2601 (Inconel 718) - Classification: 1270 MPa (at ambient temperature)/650 °C

Luft- und Raumfahrt – 100° Senkschrauben, kurzes Gewinde, Sechs-Bogenzahn, aus hochwarmfester Nickelbasislegierung NI-PH2601 (Inconel 718) - Klasse: 1270 MPa (bei Raumtemperatur)/650° C

Série aéronautique - Vis, 100° à tête fraisée, à filetage court, à empreinte six lobes, en alliage résistant à chaud à base de nickel NI-PH2601 (Inconel 718) - Classification : 1270 Mpa (à température ambiante)/650°C

Ta slovenski standard je istoveten z: EN 4635:2009

ICS:

49.030.20 Sorniki, vijaki, stebelni vijaki Bolts, screws, studs

SIST EN 4635:2009

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 4635

July 2009

ICS 49.030.20

English Version

**Aerospace series - Screws, 100° countersunk head, six lobes
recess, short thread, in heat resisting nickel base alloy NI-
PH2601 (Inconel 718) - Classification: 1 270 MPa (at ambient
temperature) / 650 °C**

Série aérospatiale - Vis, 100° à tête fraisée, à filetage
court, à empreinte six lobes, en alliage résistant à chaud à
base de nickel NI-PH2601 (Inconel 718) - Classification : 1
270 Mpa (à température ambiante) / 650 °C

Luft- und Raumfahrt – 100° Senkschrauben, kurzes
Gewinde, Sechsbogenzahn, aus hochwarmfester
Nickelbasislegierung NI-PH2601 (Inconel 718) - Klasse: 1
270 MPa (bei Raumtemperatur) / 650 °C

This European Standard was approved by CEN on 12 March 2009.

CEN 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 Management Centre or to any CEN 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 CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

[SIST EN 4635:2009](https://standards.iteh.ai/catalog/standards/sist/4ac6fc3-cf56-496e-9069-187498333333/en-4635-2009)

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Contents

Page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Required characteristics	4
3.1 Configuration – Dimensions – Tolerances – Masses.....	4
3.2 Materials	4
3.3 Surface treatment	4
3.4 Tolerances of form and position	5
4 Designation	6
5 Marking	7
6 Technical specification	7

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Foreword

This document (EN 4635:2009) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2010, and conflicting national standards shall be withdrawn at the latest by January 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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EN 4635:2009 (E)

1 Scope

This standard specifies the characteristics of screws with 100° countersunk head, with six lobe recess, short thread, in heat resisting nickel base alloy NI-PH2601 (Inconel 718), for aerospace applications.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 2424, *Aerospace series — Marking of aerospace products.*

EN 2516, *Aerospace series — Passivation of corrosion resisting steels and decontamination of nickel base alloys.*

EN 2583, *Aerospace series — Bolts, MJ threads, in heat resisting nickel base alloy NI-PH2601 (Inconel 718) — Classification : 1 275 MPa (at ambient temperature) / 650 °C — Technical specification.*

EN 2952, *Aerospace series — Heat resisting alloy NI-PH2601 — Solution treated and cold worked — Bar for forged fasteners — $D \leq 50$ mm — $1270 \text{ MPa} \leq R_m \leq 1550 \text{ MPa}$.¹⁾*

EN 3219, *Aerospace series — Heat resisting nickel base alloy (Ni-P100HT) — Cold worked and softened — Bar and wire for continuous forging or extrusion for fasteners — $3 \leq D \leq 30$ mm.¹⁾*

EN 3911, *Aerospace series — Six lobe recess — Geometrical definition.¹⁾*

ISO 3353-1, *Aerospace — Lead and runout threads — Part 1: Rolled external threads.*
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ISO 5855-2, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts.*

ISO 7913, *Aerospace — Bolts and screws, metric — Tolerances of form and position.*

3 Required characteristics

3.1 Configuration – Dimensions – Tolerances – Masses

See Figure 1 and Table 1.

Dimensions and tolerances are in millimetres and apply after surface treatment.

3.2 Materials

EN 2952, EN 3219

3.3 Surface treatment

EN 2516

1) Published as ASD Prestandard at the date of publication of this standard.

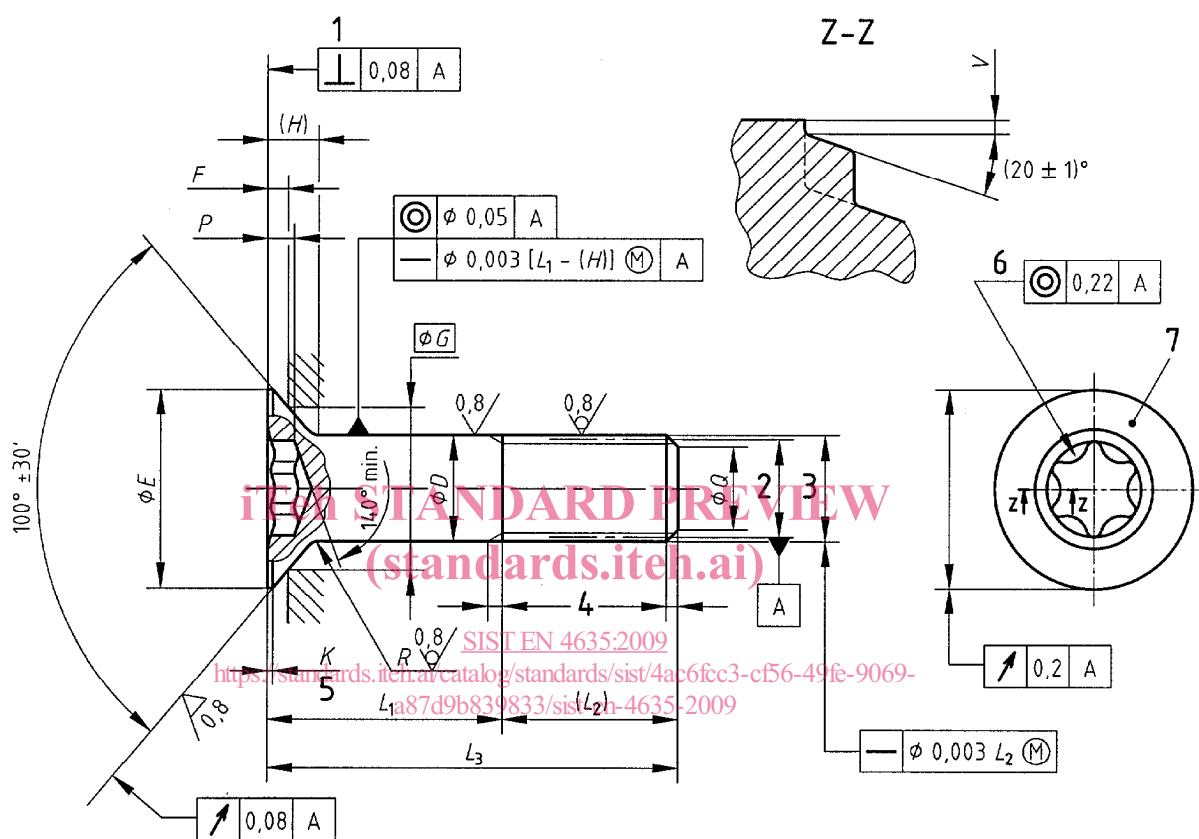
3.4 Tolerances of form and position

ISO 7913

 $\sqrt{3,2} \quad \left[\sqrt{0,8} \right]$

Values in micrometres apply prior to surface treatment.

Break sharp edges 0,1 to 0,4.



Key

- 1 Not concave
- 2 Pitch diameter
- 3 Thread
- 4 Conforms to ISO 3353-1
- 5 The rounded angle accepted
- 6 Six lobe recess conforms to EN 3911
- 7 Marking

Figure 1

EN 4635:2009 (E)

Table 1

Code	Thread	D	$\varnothing E$	F	G	H	K	$L_1 \pm 0,2$		L_2
	Designation	h12	min.	$\begin{smallmatrix} 0 \\ -0,08 \end{smallmatrix}$	Ref.	Ref.	min.	Length code	min.	
030	MJ3×0,5-4h6h	3	5,6	0,63	4,50	1,3	0,06	003 to 030	3	6
040	MJ4×0,7-4h6h	4	7,5	0,93	5,78	1,7	0,08	003 to 040	3	7,5
050	MJ5×0,8-4h6h	5	9,5	0,96	7,71	2,1	0,1	004 to 050	4	9
060	MJ6×1-4h6h	6	11,5	1,26	9,00	2,6	0,1	005 to 060	5	10
080	MJ8×1-4h6h	8	15,4	1,60	12,21	3,4	0,1	006 to 080	6	11,5
100	MJ10×1,25-4h6h	10	19,3	1,93	15,43	4,2	0,1	008 to 100	8	14,5
120	MJ12×1,25-4h6h	12	23	2,53	18,00	5	0,1	010 to 100	10	16

Code	Thread ^a	P		Q		R		V	Recess code ^b
	Designation	nom.	Tol.	nom.	Tol.	max.	min.	mm	
030	MJ3×0,5-4h6h	0,8	$\begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$	2,3	$\begin{smallmatrix} 0 \\ -0,5 \end{smallmatrix}$	0,4	0,2	0,13	EN3911-09
040	MJ4×0,7-4h6h	1		2,9					EN3911-15
050	MJ5×0,8-4h6h	1,1	$\begin{smallmatrix} 0 \\ -0,2 \end{smallmatrix}$	3,8					EN3911-20
060	MJ6×1-4h6h	1,5		4,5					EN3911-27
080	MJ8×1-4h6h	2	$\begin{smallmatrix} 0 \\ -0,3 \end{smallmatrix}$	6,2	$\pm 0,5$	0,7	0,5	0,25	EN3911-40
100	MJ10×1,25-4h6h	2,3	$\begin{smallmatrix} 0 \\ -0,5 \end{smallmatrix}$	7,9		0,7	0,5		EN3911-45
120	MJ12×1,25-4h6h	2,8		9,9		0,8	0,6		EN3911-50

^aConforms to ISO 5855-2.^bSee EN 3911.

4 Designation

EXAMPLE

Description block

Identity block

SCREW

EN4635-040003

Number of this standard

Diameter code (see Table 1)

Length code (see Table 1)

NOTE If necessary, the code I9005 shall be placed between the description block and the identity block.