SLOVENSKI STANDARD
SIST EN 50464-1:2007/A1:2012

01-april-2012

Trifazni oljni distribucijski transformatorji od 50 do 2500 kVA, 50 Hz z najvišjo napetostjo naprave do 36 kV - 1. del: Splošne zahteve - Dopolnilo AA

Three-phase oil-immersed distribution transformers 50 Hz, from 50 kVA to 2 500 kVA with highest voltage for equipment not exceeding 36 kV - Part 1: General requirements

Ölgefüllte Drehstrom- Verteilungstransformatoren 50 Hz, 50 kVA bis 2 500 kVA, mit einer höchsten Spannung für Betriebsmittel bis 36 kV - Teil 1: Allgemeine Anforderungen

Transformateurs triphasés de distribution immergés dans l'huile, 50 Hz, de 50 kVA à 2 500 kVA, de tension la plus élevée pour le matériel ne dépassant pas 36 kV - Partie 1: Prescriptions générales

Ta slovenski standard je istoveten z: **EN 50464-1:2007/A1:2012**

ICS:

29.180	Transformatorji. Dušilke	Transformers. Reactors

SIST EN 50464-1:2007/A1:2012 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

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EN 50464-1/A1

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English version

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

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Foreword

This document (EN 50464-1:2007/A1:2012) has been prepared by CLC/TC 14, "Power transformers".

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)	2012-10-31
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2014-10-31

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3 Electrical characteristics

3.8.1 Load losses, no load losses and sound power level for $U_m \leq 24$ kV

Replace *the text as follows:*

In the following tables, column A values correspond to the lowest losses as commonly used in EU for electrical devices.

Transformers can be requested and offered with L_{wA} lower than the tabled values.

A "low noise" series with no load losses D_o, C_o or B_o can be proposed with the L_{wA} from the tabled values of D_o, C_o, B_o or A_o respectively.

Table 2 – Load losses P_k (W) at 75 °C for $U_m \leq 24$ kV

Rated power kVA	C_k W	B_k W	A_k W	Short circuit impedance %
50	1 100	875	750	4
100	1 750	1 475	1 250	
160	2 350	2 000	1 700	
250	3 250	2 750	2 350	
315	3 900	3 250	2 800	
400	4 600	3 850	3 250	
500	5 500	4 600	3 900	
630	6 500	5 400	4 600	
630	6 750	5 600	4 800	6
800	8 400	7 000	6 000	
1 000	10 500	9 000	7 600	
1 250	13 500	11 000	9 500	
1 600	17 000	14 000	12 000	
2 000	21 000	18 000	15 000	
2 500	26 500	22 000	18 500	

Table 3 – No load losses P_0 (W) and sound power level (L_{wA}) for $U_m \leq 24$ kV

Rated power	D_0		C_0		B_0		A_0		Short circuit impe-dance
	P_0	L_{wA}	P_0	L_{wA}	P_0	L_{wA}	P_0	L_{wA}	
kVA	W	dB(A)	W	dB(A)	W	dB(A)	W	dB(A)	%
50	145	50	125	47	110	42	90	39	4
100	260	54	210	49	180	44	145	41	
160	375	57	300	52	260	47	210	44	
250	530	60	425	55	360	50	300	47	
315	630	61	520	57	440	52	360	49	
400	750	63	610	58	520	53	430	50	
500	880	64	720	59	610	54	510	51	
630	1 030	65	860	60	730	55	600	52	
630	940	65	800	60	680	55	560	52	6
800	1 150	66	930	61	800	56	650	53	
1 000	1 400	68	1 100	63	940	58	770	55	
1 250	1 750	69	1 350	64	1 150	59	950	56	
1 600	2 200	71	1 700	66	1 450	61	1 200	58	
2 000	2 700	73	2 100	68	1 800	63	1 450	60	
2 500	3 200	76	2 500	71	2 150	66	1 750	63	

NOTE P_0 = no load losses.
L_{wA} = sound power level.

3.8.2 Load losses, no load losses and sound power level for U_m = 36 kV

Replace *the text as follows:*

Transformers can be requested and offered with L_{wA} lower than the tabled values.

A “low noise” series with no load losses B_{036} can be proposed with the L_{wA} from the tabled values of B_{036}, A_{036}, respectively.

Table 4 – Load losses P_{k36} (W) at 75 °C for U_m = 36 kV

Rated power kVA	B_{k36} W	A_{k36} W	Short-circuit impedance %
50	1 250	1 050	4 or 4,5
100	1 950	1 650	
160	2 550	2 150	
250	3 500	3 000	
400	4 900	4 150	
630	6 500	5 500	
800	8 400	7 000	6
1 000	10 500	8 900	
1 250	13 500	11 500	
1 600	17 000	14 500	
2 000	21 000	18 000	
2 500	26 500	22 500	

Table 5 – No load losses P_{036} (W) and sound power level (L_{wA}) for U_m = 36 kV

Rated power	B_{036}		A_{036}		Short-circuit impedance
kVA	P_0 W	L_{wA} dB(A)	P_0 W	L_{wA} dB(A)	% 4 or 4,5
50	190	52	160	50	
800	1 500	68	1 300	66	
1 000	1 700	68	1 450	67	
1 250	2 100	70	1 750	68	
1 600	2 600	71	2 200	69	
630	1 300	67	1 100	65	
2 000	3 150	73	2 700	71	
2 500	3 800	76	3 200	73	

NOTE P_0 = no load losses.
L_{wA} = sound power level.

5 Accessories

Replace *Table 6 as follows:*

Table 6 – Accessories

Accessories	Free breathing		Hermetically sealed	
	Gas cushion	Conservator	Gas cushion	Totally filled
Rating plate	X	X	X	X
2 earthing terminals	X	X	X	X
Lifting lugs	X	X	X	X
Oil level indicator	X	X	[a]	[a] [b]
Filling hole and plug	X	X	X	X
Drain and sampling plug or valve	[a]	X	[a]	[a]
Dehydrating breather	X	X		
Thermometer pocket (EN 50216-4)	X	X	[a]	[a]

[a] If requested.

[b] An equivalent device may be provided.