



**Instytut
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– NATIONAL RESEARCH INSTITUTE**
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AC 117

CERTIFICATE OF CONFORMITY

No. DZC.522.47.1.2024

Issue No. 02 of 2024.11.20

*Name and address of
the certificate holder:*

**BEZ Transformátory a.s.
Rybničná 40,
835 54 Bratislava, Slovak Republic**

Name of the product:

**Three phase hermetically sealed oil distribution transformers
in voltage class up to 24 kV**

Type:

**aTOHn, aTDHn, TOHn, TDHn from 50 kVA to 2000 kVA
aTUOHn, aTUDHn from 400 kVA to 2000 kVA**

Manufacturer:

**BEZ Transformátory a.s.
Rybničná 40,
835 54 Bratislava, Slovak Republic**

Parameters:

According to the appendix

Application of the product:

Distribution transformers to be installed in MV/LV power systems

*The product meets
requirements of:*

**IEC 60076-1:2011 in a range of routine tests, type tests and special tests,
EN 50588-1:2017 in a range of maximum value of no-load losses, load
losses and noise level, Commission Regulation (EU) No 548/2014 of 21
May 2014^{2a)}; Commission Regulation (EU) 2019/1783
of 1 October 2019 amending Regulation (EU) No 548/2014^{2b)}**

*According to the
report made by:*

Instytut Energetyki - Państwowy Instytut Badawczy

*Number of the
product evaluation report:*

DZC.522.47.1.2024

Period of validity:

from 20th of November 2024 until 15th of September 2027

The right to use the certificate of conformity within its validity period applies only to:

- these copies that meet the requirements specified above and have the same characteristics (parameters) as the model / product samples submitted for testing
- certificate holder or his authorized representative

The list of evidenced parameters is included in the appendices to the certificate of conformity.

Number of appendices: 1

**THE SYSTEM OF PRODUCT CERTIFICATION PC_1a (Program 1a acc. to PN-EN ISO/IEC 17067:2014-01)
(product parameters confirmed by type test)**



pp of the DIRECTOR OF
INSTITUTE OF POWER ENGINEERING
– NATIONAL RESEARCH INSTITUTE

Dariusz Zienkiewicz, M.Sc. Eng

Warsaw, 2024.11.20



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APPENDIX TO THE CERTIFICATE OF CONFORMITY**No. DZC.522.47.1.2024****Issue No. 02 of 2024.11.20****LIST OF EVIDENCED PARAMETERS**

Type	aTOHn, aTDHn, TOHn, TDHn: 50 ÷ 2000 kVA aTUOHn, aTUDHn: 400 ÷ 2000 kVA								
Rated voltage of the MV winding	6 kV ÷ 22 kV								
Tapping range	$\pm 2 \times 2,5\%$ or $\pm 3 \times 2,5\%$								
Tap-changer	No load								
Rated voltage of the LV winding	aTOHn, aTDHn, TOHn, TDHn: 0,4 kV aTUOHn, aTUDHn: 0,4 kV ÷ 0,8 kV								
Highest voltage for equipment applicable to the transformer LV winding - U_m	$\leq 1,1$ kV								
Highest voltage for equipment applicable to the transformer MV winding - U_m	up to 24 kV								
Rated insulation level of the MV windings - LI/AC	60/20 kV ÷ 150/50 kV								
Rated insulation level of the LV windings - AC	3kV								
Number of phases	3								
Number of windngs	2								
Rated frequency	50 Hz								
Material of windings	Al or Cu								
Insulating liquid	Mineral oil, Esters								
Winding connections group	Dyn or Yzn or Yyn phase displacement according to client's requirements								
Short circuit impedance(75°C)	4% ÷ 6% or according to client's requirements								
Cooling system	ONAN, KNAN								
Temperature rise limits of:	windings: 65 K, oil: 60 K								
Rated Power [kVA]	50	63	100	160	250	315	400	500	630
Maximum load losses (75°C) ¹⁾ [W] –Tier II	750	880	1 250	1 750	2 350	2 800	3 250	3 900	4 600
Maximum no-load losses (75°C) ¹⁾ [W] –Tier II	81	93	130	189	270	324	387	459	540
Sound power level LWA [dB(A)]	38	39	40	43	46	48	49	50	51



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LIST OF EVIDENCED PARAMETERS

Rated power [kVA]	800	1000	1250	1600	2000
Maximum load losses (75°C) ¹⁾ [W] –Tier II	6 000	7 600	9 500	12 000	15 000
Maximum no-load losses (75°C) ¹⁾ [W] –Tier II	585	693	855	1 080	1 305
Sound power level LWA [dB(A)]	52	54	55	57	59

NOTES:

- 1) The admissible tolerance for maximum losses is: +0%.
- 2) Full names of normative documents:
 - a. Commission Regulation (EU) No 548/2014 of 21 May 2014 on implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to small, medium and large power transformers;
 - b. Commission Regulation (EU) 2019/1783 of 1 October 2019 amending Regulation (EU) No 548/2014 on implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to small, medium and large power transformers (Text with EEA relevance).

