

TC3P SERIES TRANSFORMERS

TC3P series transformers (three-phase, dry-type, protected, isolating), rating 1.6...40 kVA, and TC3P(A) (three-phase, dry-type, protected, isolating with aluminium windings), rating 16 ... 40 kV·A, are intended for supply of three-phase voltage to rectifier circuits, semiconductor converters of machine-tools and elevators, electrically operated tools and others devices, where separation of circuits by means of reinforced insulation and not less than IP21 protection degree against external influence for power supply is required.



Transformers comply with the requirements of STB IEC 61558-1-2007 standard.

Isolating transformers of general use with secondary rated voltage over 50 V comply with the requirements of IEC 6158-2-4 standard.

Safety isolating transformers – the transformers with secondary rated voltage up to 50 V – shall comply with the requirements of STB IEC 61558-2-6-2006.

Winding connection / vector group – Yn/Yn-0.

Climatic version – C as in accordance with IEC 60721-2-1:2002 standard.

Nominal working values for externally induced mechanical stresses – in accordance with GOST 30631 for M1 mechanical performance group, however, the requirements for vibration resistance, vibration strength and shock resistance are only for vertical direction.

Operable altitude elevation above sea level is not more than 1000 m.

Transformers versions: as to the installation conditions on worksite the transformers are **independent** ones, as to the short-circuit withstandability they are **non-short-circuit proof** transformers.

Insulation thermal-endurance class – in accordance with GOST 8865-93:

– for transformers rating 1,6 up to 10 kVA – B class;

– for transformers rating 16 up to 40 kVA – F class.

As to protection against electric-shock hazard the transformers belong to I class in accordance with GOST 12.2.007.0-75 and have IP21 protection degree in accordance with GOST 14254-96.

For transformers of 1.6 to 4.0 kVA power, of 220-400 V primary voltage, and with fuse amperage up to 6.3 A inclusive as protective devices shall be used slow-action fuse-links with “T” symbol as in accordance with IEC 60127 – miniature fuse-links of high breaking capacity.

For transformers with fuse amperage over 6.3 A as protective devices should be used time delay fuse-links with breaking capacity within “gD”-type range in accordance with IEC 60269-1. The fuse-link current rating and time-current characteristic should correspond to the ratings indicated by the transformer marking.

Corrected sound power level of transformers both under no-load run and under rated load shall not exceed 60 dBA.

Basic specifications of the transformers

Transformer type	P rated	Voltage of winding, V		Short-circuit voltage, %	Efficiency factor, %	
		U _{HV}	U _{LV}			
TC3P-1,6 YXLJ2	1,6	220; 230; 380; 400	12; 19; 22; 24; 36; 42; 85; 127; 133; 170; 220; 230*; 380**; 400***	4,5	94,5	
TC3P-2,5 YXLJ2	2,5		19; 22; 24; 36; 42; 85; 127; 133; 170; 220; 230*; 380**; 400***	3,4	94,0	
TC3P-4,0 YXLJ2	4,0		36; 42; 85; 127; 133; 170; 220; 230*; 380**; 400***	2,8	95,5	
TC3P-6,3 YXLJ2	6,3		220****; 230*; 380**; 400***	2,4	96,0	
TC3P-10 YXLJ2	10		220; 230; 380; 400	1,9	97,0	
TC3P-16 YXLJ2	16		220; 230; 380; 400	2,6	97,0	
TC3P-25 YXLJ2	25		220; 230; 380; 400	2,34	97,2	
TC3P-40 YXLJ2	40		220; 230; 380; 400	2,0	97,8	
TC3P-16(A) YXLJ2	16		380	220	3,5	97,0
TC3P-25(A) YXLJ2	25			220	2,6	97,2
TC3P-40(A) YXLJ2	40	220		2,2	97,8	

*Only by rated voltages of primary winding 230 and 400 V
 ** Only by rated voltages of primary winding 380 V
 *** Only by rated voltages of primary winding 400 V
 **** Only by rated voltages of primary winding 220 and 380 V

Overall, mounting dimensions and mass of the transformers

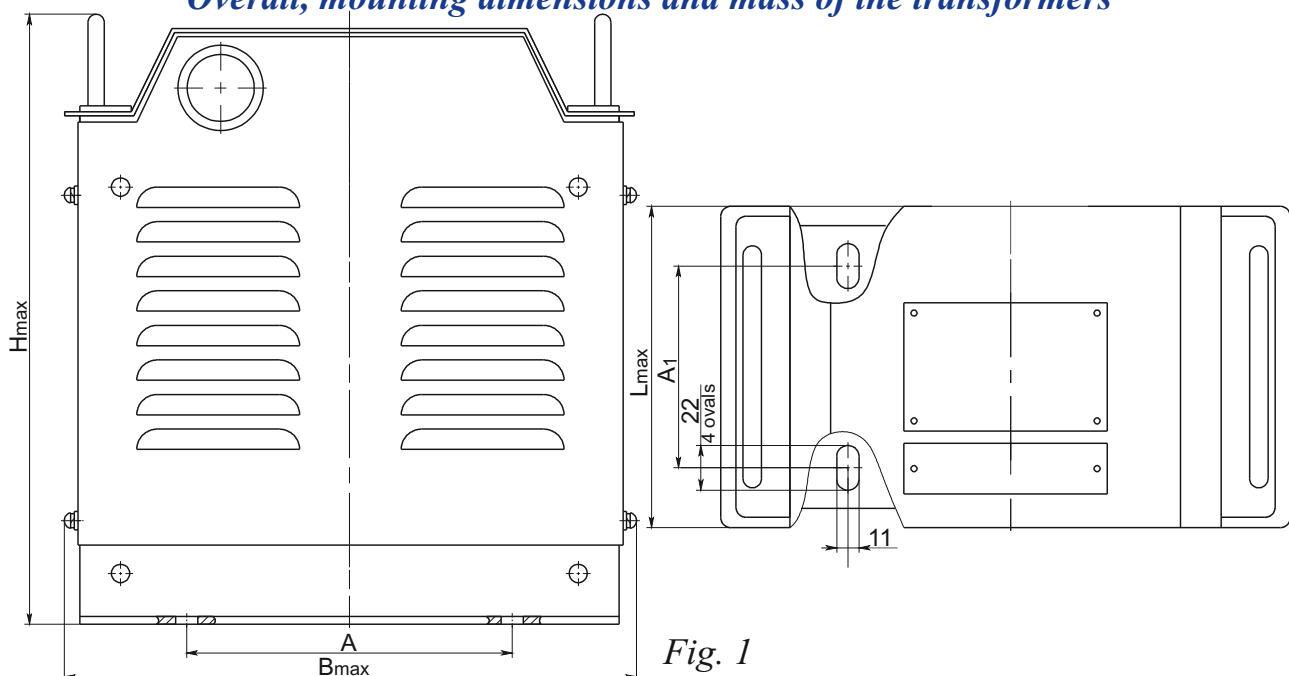


Fig. 1

Overall, mounting dimensions and mass of the transformers

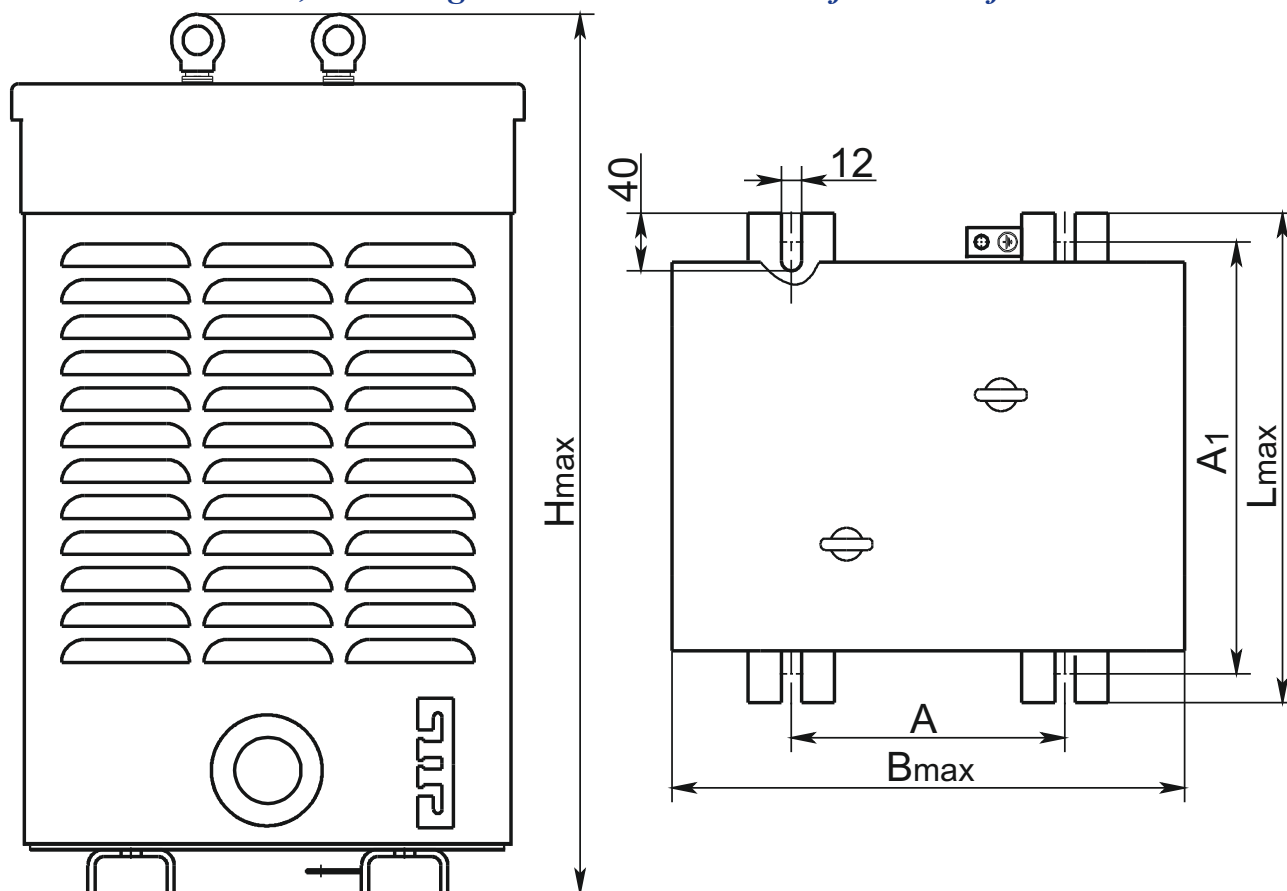


Fig. 2

dimensions in millimeters

Transformer type	Fig.	B_{max}	L_{max}	H_{max}	A	A_1	Mass, kg
TC3P-1,6 YXJ2	1	290	177	305	160	112	24
TC3P-2,5 YXJ2			205			140	33
TC3P-4,0 YXJ2		365	200	335	220	143	47
TC3P-6,3 YXJ2		355		380		152	61
TC3P-10 YXJ2		380	230	400		181	85
TC3P-16 YXJ2	2	357	342	620	190	300	114
TC3P-25 YXJ2		420		755	214		160
TC3P-40 YXJ2		521		810	276		238
TC3P-16(A) YXJ2		420		755	214		114
TC3P-25(A) YXJ2		521		810	276		155
TC3P-40(A) YXJ2				186			

Sample of notation (to place an order, or to refer to) for TC3P transformer of 25 kVA power rating, of 220 V primary winding voltage, of 36 V secondary winding voltage, with Yn/Yn-0 winding connection/vector group:

Transformer TC3P-25 YXJ2 220/36 Y_H/Y_H-0 TY PB 100211261.060-2008

The same, but with aluminum windings:

Transformer TC3P-25(A) YXJ2 220/36 Y_H/Y_H-0 TY BY 100211261.060-2008.

(where TY PB = Technical Specifications of the Republic of Belarus).



TSU®

**СЕРТИФИКАТ СООТВЕТСТВИЯ
CERTIFICATE OF CONFORMITY**

№./No. 131299003

**для производителя
to the manufacturer**

**УП «МЭТЗ ИМ.В.И. КОЗЛОВА»
220037, Республика Беларусь,
г. Минск,
ул. Уральская, 4**

**UP "METZ IM.V.I. KOZLOVA"
4 Uralskaya st.,
220037 Minsk,
Republic of Belarus**

Наименование изделия и обозначение типа
Трансформаторы
Типа: ТСП-(0,16÷40); ТСЗР – (2,5÷40)
(спецификация на второй странице)

Product and designation of type
Transformers
TCP- (0,16÷40); TC3P – (2,5÷40)
(specification – on second page)

Продукт соответствует основным требованиям безопасности следующих Директив ЕС Нового Подхода:

The product meets the essential safety requirements of the following European New Approach Directives:

2006/95/EC Директива низковольтная
2004/108/EC Электромагнитная совместимость

2006/95/EC **Low Voltage Directive**
2004/108/EC **Electromagnetic compatibility**

Для оценки соответствия был применен следующий документ:

For conformity assessment the following documents was used:

Сводный протокол №. 110300053/2 от 15. 02. 2013

Final report No. 110300053/2 of 15. 02. 2013

CE маркировку можно применять только в случае проведения оценки соответствия требованиям всех надлежащих Директив ЕС, предоставления технической документации и декларации о соответствии.

CE marking can be used only in the case of conformity assessment according to all relevant EC Directives, after working-out of the necessary technical documentation and after issuing of the conformity declaration.

Дата оформления: 18. 02. 2013

Date of issue: 18. 02. 2013



Ing. Janka LEVICKÁ

**Руководитель отдела сертификации продуктов
Head of Product Certification Body**

Правила для применения сертификата соответствия
The rules for use of this conformity certificate

Запрещено изменять, дополнять или переписывать данные в сертификате соответствия.

Действие сертификата не распространяется на продукцию, в которую без согласия TSÚ Piešťany, š.p. были внесены изменения, важные с точки зрения соответствия указанным нормативным документам. Все существенные изменения в технологии изготовления или конструкции продукции, системы качества и дополнения к вышеуказанным техническим и правовым документам могут привести к прекращению действия сертификата соответствия. Ответственность за соответствие продукции несет изготовитель или его уполномоченный представитель в ЕС.

It is forbidden to modify, amend or rewrite the data in the conformity certificate.

This certificate cannot be used as a conformity certificate for products, where a change influencing conformity with the applied normative documents and regulations was done without approval of the TSÚ Piešťany, š.p. Any significant change in product's form or construction, system of quality and supplements to above mentioned technical and legal provisions can result in invalidity of the certificate. Producer or his authorized representative is responsible for the product.

Спецификация:
Specification:

- TSP-0,16
- TSP-0,25
- TSP-0,4
- TSP-0,63
- TSP-1,0
- TSP-1,6
- TSP-2,5
- TSP-4,0
- TSP-6,3
- TSP-10
- TSP-16
- TSP-25
- TSP-40
- TC3P-2,5
- TC3P-4,0
- TC3P-6,3
- TC3P-10
- TC3P-16
- TC3P-25
- TC3P-40

