

1. BRIEF DESCRIPTION OF GOODS PURCHASED

1.1. Name and volume of purchased goods

№	Product Description	Q-ty, unit
1	2	3
1	Power transformer ТМГ-250 6/0.4	See Schedule №1
2	Power transformer ТМГ-250 10/0.4	See Schedule №1
3	Power transformer ТМГ-400 6/0.4	See Schedule №1
4	Power transformer ТМГ-400 10/0.4	See Schedule №1
5	Power transformer ТМГ-630 6/0.4	See Schedule №1
6	Power transformer ТМГ-630 10/0.4	See Schedule №1
7	Power transformer ТМГ-1000 6/0.4	See Schedule №1
8	Power transformer ТМГ-1000 10/0.4	See Schedule №1
9	Power transformer ТМГ-1250 6/0.4	See Schedule №1
10	Power transformer ТМГ-1250 10/0.4	See Schedule №1
11	Power transformer ТМГ-1600 6/0.4	See Schedule №1
12	Power transformer ТМГ-1600 10/0.4	See Schedule №1

1.2. Dates of Deliveries

Delivery – as per Schedule №1.

1.3. Procurement justification: Adjusted Annual Comprehensive Procurement Program – 2021, C3 №0914/096/20., Adjusted by the CEO's Order.

1.4. Possibility of supply of similar goods.

It is allowed to supply similar products according to the definition of "analogue" specified in the note.

The possibility of supplying component parts similar to the product, provided that the functional, technical characteristics and conditions of use are not lower than those required in the ToR, as well as the use of the proposed analogue should not lead to a change in the main parameters.

*** Note:

Definition of “**Analogue**” - Products that are similar or comparable to the product, having identical functional purpose, weight, size and installation characteristics and conditions of use.

2. 2. GENERAL REQUIREMENTS

2.1. Product application and use point.

Electric network of JSC "Telasi". Georgia Tbilisi.

2.2. Product Requirements:

The product must be new, put into circulation for the first time, previously unused / brand-new (in new condition) of factory production (commercially prepared/ not counterfeit or handicraft), with production period not more than 12 months (pointed where necessary) (not stale) and comply with all ToR requirements and provisions of the contract.

The transformer must comply with the requirements of the established standards GOST 16555-75, GOST 11677-85, GOST R 52719-2007, STO 34.01-3.2-011-2017 or the requirements of similar regulatory documents of the country of origin of the product in relation to the requested type of product.

The transformer must have the following characteristics:

Parameter name	Parameter value	Parameter value	Parameter value	Parameter value	Parameter value	Parameter value
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Rated power, kVA.	1600	1250	1000	630	400	250
High voltage, kV	6 and 10 as per s/p №1.1 of ToR	6 and 10 as per s/p №1.1 of ToR	6 and 10 as per s/p №1.1 of ToR	6 and 10 as per s/p №1.1 of ToR	6 and 10 as per s/p №1.1 of ToR	6 and 10 as per s/p №1.1 of ToR
Low voltage, kV	0.4	0.4	0.4	0.4	0.4	0.4
Scheme and winding connection group	Д/Y _H - 11	Д/Y _H - 11	Д/Y _H - 11	Д/Y _H - 11	Д/Y _H - 11	Д/Y _H - 11
Frequency, Hz	50	50	50	50	50	50
Voltage regulation	Switching branches without excitation (OCTC) ± 2x2.5%	Switching branches without excitation (OCTC) ± 2x2.5%	Switching branches without excitation (OCTC) ± 2x2.5%	Switching branches without excitation (OCTC) ± 2x2.5%	Switching branches without excitation (OCTC) ± 2x2.5%	Switching branches without excitation (OCTC) ± 2x2.5%
No-load losses (XX), W not more than, limit deviation according to GOST R 11677-85)	1478	1350	957	696	565	425
Short circuit losses (short circuit), W, max, maximum deviation according to GOST R 11677-85)	15455	13250	9545	6136	4182	2955
Short circuit voltage, % max (GOST 16555-75, limit deviation according to GOST R 11677-85)	6.0	6.0	5.5	5.5	4.5	4.5
No-load current,% no more / maximum deviation according to GOST R	1.0	1.2	1.2	1.6	1.8	1.9

11677-85)						
Gross weight, kg no more (GOST 16555-75, maximum deviation in accordance with GOST R 11677-85)	4800	4800	3250	2600	1800	1400
Overall dimensions, no more than (LKSHSHKH V) mm	2120X1450X2500	2120X1450X2500	2000X1320X2000	1900X1280X1850	1850X1250X1800	1800X1220X1750
Performance	Y1	Y1	Y1	Y1	Y1	Y1

Requirements for the functional characteristics of the transformer:

The transformer must be supplied with:

- Oil level indicator;
- Thermometric signaling device;
- Electrocontact manovacuummeter;
- Hook for lifting the transformer assembled with filled oil;
- Smooth rollers (4pcs) for longitudinal and transverse movement;
- Crane for draining oil;
- Safety valve;
- High-voltage and low-voltage inputs located in one row according to GOST 16555-75. Provide low-voltage bushings with a contact clamp with a spade;
- Permissible sound levels of transformers - according to GOST 12.2.024;

Transformer marking requirements:

The marking of the inputs must be applied in a way that ensures its durability and resistance to atmospheric action;

Each transformer must be affixed in a conspicuous place with a plate indicating the following data:

- Trademark of the manufacturer;
- Product name;
- Factory number;
- Symbol type;
- Date of manufacture;
- Scheme and group of winding connection symbol;
- Rated frequency;
- Rated power in kVA;
- Rated voltage and current;
- Short circuit voltage in percent;
- Transformer total weight;
- Mass of oil;
- The value of no-load losses measured during acceptance tests (P0, W) - Desirable;
- The value of short circuit losses, measured during acceptance tests (Rkz, W) - Desirable;
- Energy efficiency class.

2.3. Requirements for materials and equipment used in production

The materials used must be new, not being in use, date of manufacture not earlier than the previous year, of the latest or advanced model, as well as take into account the latest developments in the field of structures and materials.

2.4. Requirements for the conformity.

2.4. Requirements for the conformity of the goods with the mandatory requirements of the legislation on technical regulation

Procurement participants in their proposals must submit certificates of conformity of the proposed goods with the requirements established by GOST 16555-75, GOST 11677-85, GOST P 52719-2007 or the requirements of similar regulatory documents of the country of origin of the product in relation to the requested type of product. Certificate ISO IEC 17025:2005 - General requirements for the competence of testing and calibration laboratories (or equivalent);

2.4.1. Voluntary certification requirements:

ISO 9001-2015 Quality Management System Certificate; ISO 14001-2015 Environmental Management System Certificate;

2.5. Requirements for the warranty period and (or) the volume of quality assurance for the supplied goods.

The warranty period for the supplied goods must be at least the warranty period established by the manufacturer in the product passport, but not less than 36 months from the date of receipt of the goods against the invoice.

If error or defects are established in the delivered goods during the warranty period, the supplier is obliged, within 3 days from the date of receipt of the written notice from the customer, to send his/her authorized representative to participate in the commission to investigate the damage that has occurred.

All costs associated with the elimination of defects in the delivered equipment caused by a violation of the technology of design, manufacture, delivery, including the costs of dismantling, transportation, elimination of defects and subsequent installation, are borne by the supplier of this

2.6. Requirements for the costs of operation and maintenance of the delivered goods.

The supplied equipment must be completed in accordance with the operation manual and s/ p №2.2.