

REFERENCES



Power Generation

Thermal, nuclear and hydro energy



Power Transmission

Long distance, regional, municipal power lines



Power Consumption

Industry, transportation oil and gas

MISSION. VISION. SOCIAL RESPONSIBILITY







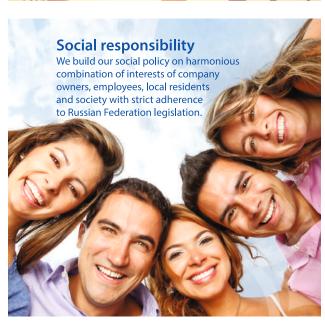
The history of high-voltage bushings development in Russia is inseparably associated with Izolyator plant. In its century-long history, the plant has produced over 620 thousand high-voltage bushings, operating at the overwhelming majority of power facilities in Russia and neighboring countries as well as 30 more countries in the world.

One of the key events for Izolyator was receipt of the leading science and technology partner to the Russian National Committee (RNC) of the International Council on Large Electric Systems — CIGRE (Conseil International des Grands Réseaux Électriques) status. That is the largest international nongovernment and noncommercial organization in power industry.

Today Izolyator has become a research base for CIGRE National Study Committee D1 "Materials and Emerging Test Techniques". Collaboration with RNC CIGRE allows us to bring Izolyator's work to a whole new level in the interests of all global market players and for Russia's energy system development in general.

All Izolyator's success became possible thanks to the well-coordinated work of our highly professional team and a strong support from our partners. We shall do our best to fulfill the obligations in high-voltage bushings production and after sales support of our customers.

Century-old traditions — state-of-the-art technologies — these words have become a motto for those employed at the plant, which is justly considered a global leader in development and production of high-voltage bushings.



Dr. Alexander Slavinsky

Chief Executive Officer of Zavod Izolyator LLC
Chairman of Board of Massa Izolyator Mehru
Pvt. Ltd.

Head of CIGRE National Study Committee D1 Vice-President of TRAVEK

Vice-President of AFS RF

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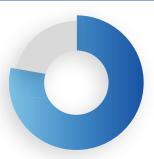




12 000 BUSHINGS PER YEAR



MARKET SHARE
IN RUSSIA AND NEIGHBORING
COUNTRIES















Over 120 years of EXPERIENCE



THE MOST EXPERIENCED
HIGH-VOLTAGE BUSHINGS
MANUFACTURER
IN THE WORLD

DESIGNING. PRODUCTION. MAINTENANCE

R&D Center

- · creation of new designs of insulating equipment
- development of new production technologies
- · carrying out research activities and prototyping
- serial products upgrades
- highly qualified technical service
- complex diagnostics
- · warranty and post-warranty repair
- · consulting technical services of customers

Production of Bushings

- the most technologically advanced production equipment from the top OEMs of the world
- patented production technology of RIP and RIN insulation
- · patented technology of polymer external insulation making
- making of the internal insulation up to 12 m long and 750 mm in diameter

High-Voltage Cable Accessories Production

- proprietory design of stress cones and actuating bodies of cable sleeves
- · modern hi-tech equipment from the leading global OEMs
- complete cycle including production, testing, training in installation and maintenance of cable accessories
- manufacture of cable accessories for a wide range of copper and aluminum cables for 240 to 3000 mm² conductor cross-section

Test Center

- · testing under alternating current up to 1200 kV
- testing under direct current up to ±1600 kV
- testing by full and chopped lightning impulse 1.2/50 μs
- testing by switching impulse 250/2500 μs
- · testing of insulation materials and prototypes

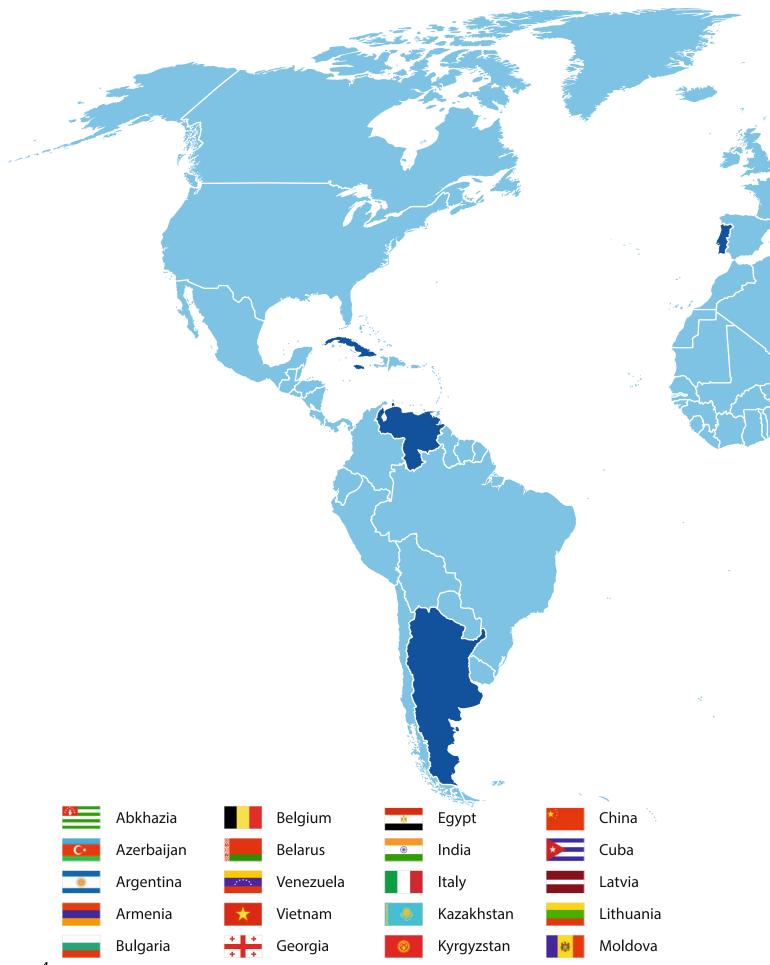


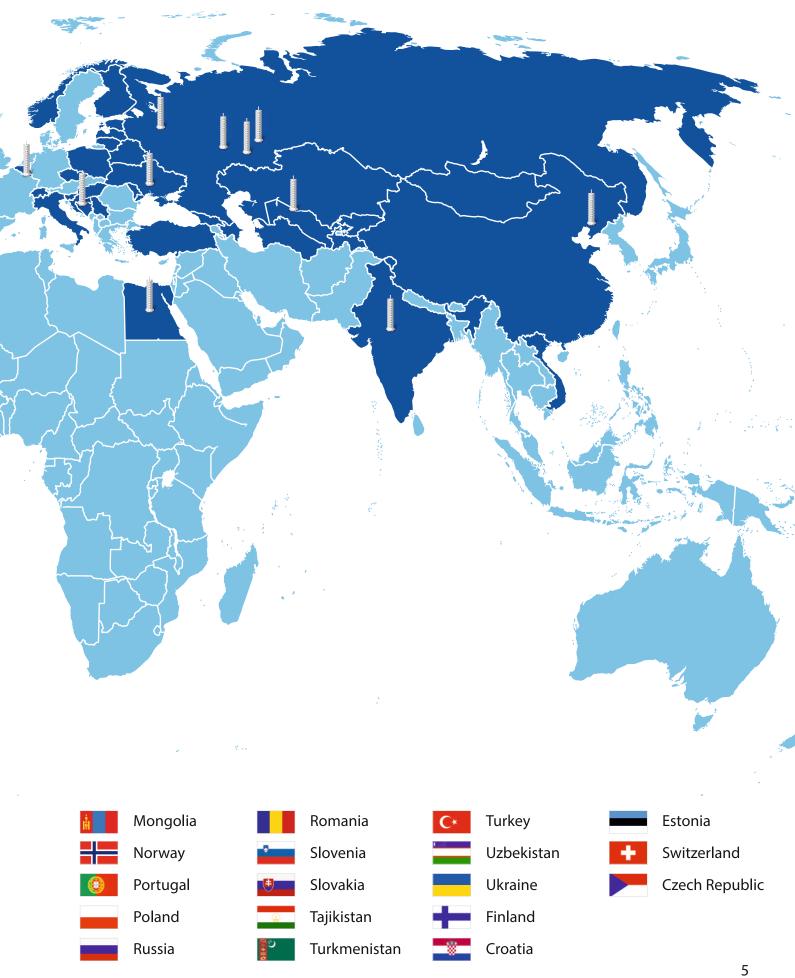






GEOGRAPHY OF DELIVERIES







REFERENCES OF POWER GRID SYSTEMS IN RUSSIAN FEDERATION



Rosseti Group is a power grid operator in Russia and one of the largest grid companies in the world.



Rosseti Group is a holding company that manages subsidiaries and affiliated Interregional distribution grid companies (IDGC) and Rosseti FGC UES company.



Rosseti FGC UES company manages and develops the Unified national (all-Russia) power grid. The unified power system of Russia is a national asset and guarantee of energy security. Rosseti FGC UES is the largest in the world public grid company



IDGC — is a foundation of power distribution structure in Russia. MRSK competences include power supply to the public, large industrial consumers, transport, agriculture and social facilities including technological connection of consumers to power grids











Conclusions of the attestation commission on the compliance of bushings with RIN-insulation with the requirements of the Rosseti Group

Equipment:

- RIN bushings for the highest operating voltage up to 172 kV inclusive for transformers, climatic version O, location category 1 according to TU 3493-014-31317133-2017;
- RIN bushings for the highest operating voltage from 252 up to 550 kV inclusive for transformers, climatic version O, location category 1 according
- to TU 3493-015-31317133-2017;
- RIN bushings for the highest operating voltage from 40.5 up to 252 kV inclusive for switches, climatic version O, location category 1 according to TU 3493-016-31317133-2017;
- wall RIN bushings for the highest operating voltage from 73 up to 252 kV inclusive, climatic version O, location category 1 according to TU 3493-017-31317133-2017.

Applicant:

Massa LLC (77, Lenin street, Pavlovskaya Sloboda, Istra municipality, Moscow region, Russian Federation, 143581).

Manufacturer:

Massa LLC (77, Lenin street, Pavlovskaya Sloboda, Istra municipality, Moscow region, Russian Federation, 143581).

Meet the technical requirements of Rosseti PJSC.

Recommended for use at the facilities of subsidiaries and dependent companies of Rosseti PJSC.

Head of the Office for Coordination of Construction Control and Procurement of the Capital Construction Department of Rosseti PJSC

A. V. Yuriev







Rosseti Group, certificate for GKT type bushings for 24–172 kV voltage range

№ 13-4/15

Manufacturer/Applicant

Izolyator plant / Massa Ltd (Moscow Region, Pavlovskaya Sloboda)

Equipment

High-voltage GKT bushings for high voltages from 24 to 172 kV, in O-type climatic execution, 1 application category compliant to TU 3493-001-31317133-2008 (except 27 kV GKT type bushings) Complies with Technical requirements and is recommended for application on subsidiaries and branches facilities of ROSSETI Plc (approved by attestation board on 14 January 2015 #I3-4/15).

First Deputy General Director **R.N. Berdnikov**



Rosseti Group, certificate for GK type bushings for 252–550 kV voltage range

№ 13-7/15

Manufacturer/Applicant

Izolyator plant / Massa Ltd (Moscow Region, Pavlovskaya Sloboda)

Equipment

High-voltage GK bushings for high voltages from 252 to 550 kV, in O-type climatic execution, 1 application category compliant to TU 3493-002-31317133-2008 Complies with Technical requirements and is recommended for application on subsidiaries and branches facilities of ROSSETI Plc (approved by attestation board on 14 January 2015 #I3-7/15).

First Deputy General Director **R.N. Berdnikov**







Rosseti Group, certificate for GKV type bushings for 40.5–252 kV voltage range

№ 13-6/15

Manufacturer/Applicant

zolyator plant / Massa Ltd (Moscow Region, Pavlovskaya Sloboda))

Equipment

High-voltage GKV bushings for high voltages from 40.5 to 252 kV, in O-type climatic execution, 1 application category compliant to TU 3493-003-31317133-2008 Complies with Technical requirements and is recommended for application on subsidiaries and branches facilities of ROSSETI Plc (approved by attestation board on 14 January 2015 #I3-6/15).

First Deputy General Director **R.N. Berdnikov**



Rosseti Group, certificate for GKL type bushings for 72.52–252 kV voltage range

№ 13-5/15

Manufacturer/Applicant

Izolyator plant / Massa Ltd (Moscow Region, Pavlovskaya Sloboda)

Equipment

High-voltage GKL bushings for high voltages from 72.5 to 252 kV, in O-type climatic execution, 1 application category compliant to TU 3493-005-31317133-2009 Complies with Technical requirements and is recommended for application on subsidiaries and branches facilities of ROSSETI Plc (approved by attestation board on 14 January 2015 #I3-5/15).

First Deputy General Director **R.N. Berdnikov**









FGC UES Reference Letter on 252 kV RIP Bushings

For many decades, since the inception of the electric power industry in Russia to the present day, Massa LLC — Izolyator plant has been a regular supplier of high-voltage bushings for the needs of our company.

Below, please see for your information the list of high-voltage bushings 252 kV / 2000 A, 252 kV / 2500 A with internal solid RIP-insulation, which were developed, designed, manufactured and supplied by Massa LLC in the period from 2005 to December 2011 to branches of Federal Grid Company of the Unified Energy System (FGC UES): MPS North-West, MPS Ural, MPS East, MPS Center, MPS Volga, MPS Siberia, MPS Western Siberia, MPS South, and operate satisfactorily to the present time.

We hereby confirm the high quality of the products, supplied by Massa LLC, full compliance with the requirements of IEC 60137, GOST 10693 and regulatory documents. All of the above high-voltage bushings have passed all tests and are successfully operating to the present day. We observed no problems with installation, commissioning and maintenance.

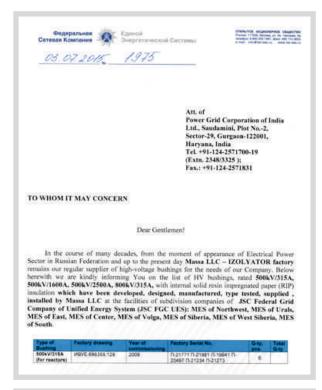
Successful experience in the development of partner relations between Massa LLC and FGC UES PJSC allows us to recommend Massa LLC — Izolyator plant as a reliable partner in the production and supply of high-voltage bushings for high (110, 220, 330 kV) and extra-high voltage levels (420, 550 kV etc.).

FGC UES PJSC confirms that LLC Massa — Izolyator plant is a strategic partner and sends wishes of further prosperity and innovative growth in order to develop Power Distribution and Transmission sector on the territory of the Russian Federation and other countries of the world!

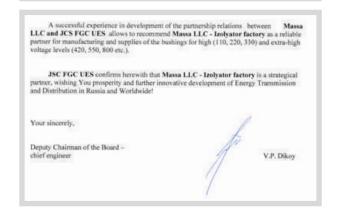
Deputy Chairman of the Board — Chief Engineer V. P. Dikoy











FGC UES Reference Letter on 500 and 800 kV RIP Bushings

For many decades, since the inception of the electric power industry in Russia to the present day, Massa LLC — Izolyator plant has been a regular supplier of high-voltage bushings for the needs of our company.

Below, please see for your information the list of high-voltage bushings 500 kV / 315 A, 500 kV / 1600 A, 500 kV / 2500 A, 800 kV / 315 A with internal solid RIP-insulation, which were developed, designed, manufactured and supplied by Massa LLC to branches of Federal Grid Company of the Unified Energy System (FGC UES): MPS North-West, MPS Ural, MPS East, MPS Center, MPS Volga, MPS Siberia, MPS Western Siberia, MPS South, and operate satisfactorily to the present time.

We hereby confirm the high quality of the products, supplied by Massa LLC, full compliance with the requirements of IEC 60137, GOST 10693 and regulatory documents. All of the above high-voltage bushings have passed all tests and are successfully operating to the present day. We observed no problems with installation, commissioning and maintenance.

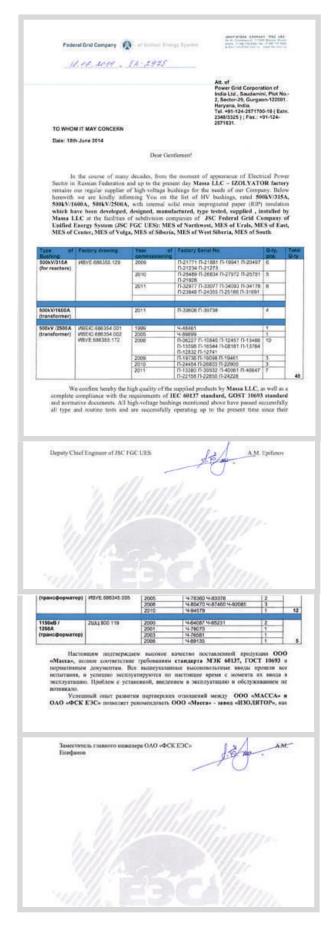
Successful experience in the development of partner relations between Massa LLC and FGC UES PJSC allows us to recommend Massa LLC — Izolyator plant as a reliable partner in the production and supply of high-voltage bushings for high (110, 220, 330 kV) and extra-high voltage levels (420, 550, 800 kV etc).

FGC UES PJSC confirms that LLC Massa — Izolyator plant is a strategic partner and sends wishes of further prosperity and innovative growth in order to develop Power Distribution and Transmission sector on the territory of the Russian Federation and other countries of the world!

Deputy Chairman of the Board — Chief Engineer V. P. Dikoy







FGC UES Reference letter on oil impregnated paper insulated bushings

In the course of many decades from the moment of appearance of Electrical Power Sector in Russian Federation and up to the present day Massa LLC – Izolyator factory – remains our regular supplier of high-voltage bushings for the needs of our Company. Below herewith we are kindly informing You on the list of HV bushings, rated 500kV/315A, 500kV/1600A, 500kV/2500A, with internal solid resin impregnated paper (RIP) insulation which have been developed, designed, manufactured, type tested, supplied, installed by Massa LLC at the facilities of subdivision companies of JSC Federal Grid Company of Unified Energy System (JSC FGC UES): MES of North West, MES of Urals, MES of East, MES of Center, MES of Volga, MES of Siberia, MES of West Siberia, MES of South.

We confirm hereby the high quality of the supplied products by Massa LLC as well as complete compliance with the requirements of IEC 60137 standard, GOST 10693 standard and normative

documents. All high-voltage bushings mentioned above have passed successfully all type and routine tests and are successfully operating up to the present time since their commissioning. There have not been occurred any problem with installation, commissioning and maintenance.

A successful experience in development of the partnership relations between Massa LLC and JSC FGC UES allows to recommend Massa LLC – Izolyator factory as a reliable partner for manufacturing and supplies of the bushings for high (110, 220, 330) and extra-high voltage levels (420, 550, etc.).

JSC FGC UES confirms herewith that Massa LLC – Izolyator factory is a strategical partner, wishing You prosperity and further innovative development of Energy Transmission and Distribution in Russia and Worldwide!

Deputy Chief Engineer of JSC FGC UES **A.M. Epifanov**







Reference of Federal Grid Company

As result of our announced tender for long-term high-voltage bushings supply agreement under the maintenance efficiency programs and reserve stock replenishment at FGC UES PJSC's branches, Izolyator (Massa Ltd) was named the winner.

In connection with signed agreements, Izolyator carried out shipments of 35 - 500 kV transformer and wall HV bushings to the branches of FGC UES PJSC.

All the above mentioned equipment was timely delivered in full as pertains to the agreement. The product quality of Izolyator fully meets all state and sectoral standards and is supported with an affirmative statement of the attestation board of Rosseti PJSC. Over our cooperation, Izolyator has proved a reliable partner and supplier of domestic power equipment.

Let me express our gratitude for timely and quality fulfilment of all obligations in delivery of equipment for the needs of FGC UES PJSC to you and the whole team.

Our long-standing successful experience of interaction allows FGC UES PJSC to recommend Izolyator as a reliable partner in production and delivery of high and ultra-high voltage HV bushings.

Acting Deputy Chairman of the Board Chief Engineer

S. V. Popov







Thank-you letter of FGC UES

Hereby, I wish to experess gratitude for Massa Ltd - Izolyator for the organization of workshop in the frame of Interregional Contests of 220 - 1150 kV substation technical maintenance staff in the city of Zheleznovodsk.

I am confident that the successful experience of our joint activities will strengthen our well-established business relations and ensure our further mutually benefitial cooperation.

With wishes of successful development,

Deputy Chief Engineer **A. N. Zhukov**



Izolyator's master class during Interregional FGC UES technical staff contest on technical maintenance of 220–1150 kV substation equipment





Main power system of Western Siberia (MPS Western Siberia) is a branch of Rosseti FGC UES operating on the territory of Ural Federal District. 3 federal states with 3.5 mln population enter the service area of the company





Reference Letter of Main power system of Western Siberia

In response to the letter dated 28.10.2019 No. 07/616, I would like to inform you that the branch of FGC UES PJSC — Main power system of Western Siberia purchased high-voltage RIP bushings with up to 500 kV voltage class from Izolyator.

During the period of operation at the enterprises of Main power system of Western Siberia, the equipment has proved reliable and capable of operating in different climate conditions. There are no complaints about the manufacturing quality.

First Deputy General Director — Chief Engineer

V. V. Konishevsky





Main power system of the Centre (MPS Centre) is a branch of Rosseti FGC UES operating in Central, North-Western and Southern federal states. There are 19 federal subjects of Russian Federation with over 40 mln population in the service area of the branch.





Reference Letter of Main power system of the Centre

On your request dated October 22, 2019 No. 07/603, I hereby confirm that we have a positive experience of operating bushings up to 750 kV with RIP insulation manufactured by Massa LLC.

First Deputy General Director — Chief Engineer **A. V. Gorbunov**





Main power system of South (MPS of South) is a branch of Rosseti FGC UES operating in Southern and North Caucasus federal states. There are 11 subjects of Russian Federation with over 19 mln population in the service area of the branch.





Reference Letter of Main power system of South

MES South has purchased Izolyator's (Mass Itd) modern technology HV bushings with RIP insulation for implementation of our maintenance and replacement programs and emergency reserves replenishment.

From 2012 to 2014 our purchase volumes totaled 214 pcs in various voltage classes within 110–500 kV intended for transformer/ reactor equipment and oil switches with large oilvolumes.

During operation time at PS MES South the above listed equipment proved reliable and able to perform in varying climatic conditions. We have no quality claims to this date.

This equipment has a high operational reliability and we see no obstacles for using it in our programs in future. MES South expects to purchase 10 bushings of various voltage classes in 2015.

First Deputy General Director Chief Engineer **G.N. Kovtun**





Main power system of North-West (MPS of North-West) is a branch of Rosseti FGC UES operating in North Western federal state.

There are 11 federal subjects of Russian Federation with over 14 mln population in the service area of the branch.





Reference Letter of Main power system of North-West

Under the long-term contract #1930/c dated 20 March 2012 Massa Ltd supplied HV bushings for the maintenance and replacement program and emergency reserves replenishment to the branch of FGC UES – MPS of North-West.

By 18 October 2013, in accordance with the agreement the supplier delivered 129 transformer/switch bushings of 110–330 kV voltage classes.

All shipments met strict delivery deadlines; Massa Ltd (Izolyator plant) products quality corresponds our requirements and has been certified by FGC UES.

Massa Itd has proved a reliable partner throughout our cooperation.

Deputy General Director on Economy and Finance **O.E. Shakirov**





There are 3 technical centers and 22 ETL areas within the structure of **Kuzbassenergo-RES**, **branch of Rosseti Siberia company**. They ensure power supply to almost 3 million people on the territory of 96.5 square kilometers.





Reference Letter of Kuzbassenergo-RES

In reply to your letter #073 of 7 February 2013 concerning feedback on product quality please be informed that Kuzbassenergo-RES purchased Massa Ltd-made HV bushings from Innovations and Business in Power Industry CJSC:

- GKVIII-60-126/2000 01 (IVUE.686352.132) bushing 4 pcs
- GKTIII-60-126/800 01 (IVUE.686352.103) bushing 3 pcs

We have no quality claims on the above mentioned equipment.

Deputy General Director – Branch Director

A.Yu. Grin





Today Kranoyarskenergo, branch of Rosseti Siberia company, is the largest regional grid company in Siberia. The company services territory of one of the largest federal subjects of Russian Federation – Krasnoyarsky kray with 2 339.7 thousand square kilometers (1/7 of Russia) area and 3 mln population.



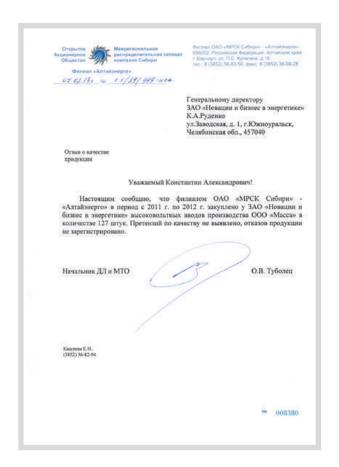






Altaienergo – branch of Rosseti Siberia company is a regional power company that ensures power supply in Altai Region and the Republic of Altai. Altai power system is almost 800 MW of power and 3500 Gcal of thermal capacity, about 70 000 km ETLs of all voltage classes (one of the lengthiest in Russia).





Reference Letter of Altaienergo

Herewith please be informed that Altaienergo, branch of IDGC of Siberia, purchased 127 Massa Ltd-made high-voltage bushings from Innovations and Business in Power Industry CJSC within 2011–212:

We have not registered equipment failure or any quality claims on the equipment as of today.

Head of Logistics and Procurement Division **O.V. Tubolets**





IDGC of Centre and Volga Region is one of Russia's largest Interregional distribution grid companies – a natural monopoly with pricing regulated by Federal Tariff Service and local Regulatory Bodies.





Reference letter of IDGC of Centre and Volga Region

Massa Ltd has been a regular supplier of 35–110 kV bushings to the branches of IDGC of Centre and Volga Region in a number of years.

The products delivered by the plant of Massa Ltd are of invariably high quality and meet modern standards and requirements of normative and technical documentation having passed all necessary testing and certification.

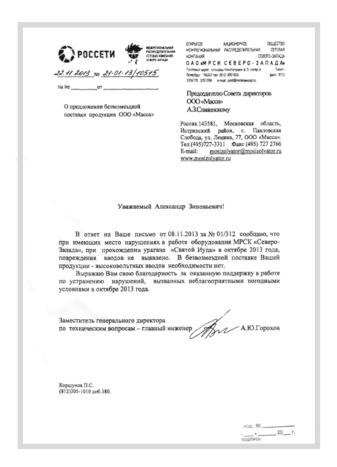
Deputy Chief Engineer on Maintenance **V.A. Gorev**





IDGC of North West manages distribution complex of seven territories of the North Western Federal District of Russia: Republic of Karelia, Republic of Komi, Arkhangelsk region, Vologda region, Murmansk region, Novgorod region, Pskov region.





Reference Letter of IDGC of North West

In response to Your letter ref. No. 01/312 of 08.11.2013, I inform You that disturbances in work of IDGC of North-West equipment during St. Jude storm in October of 2013 were not accompanied by damage of the bushings. There is no necessity in free supply of Your products, i.e. high-voltage bushings.

I'd like to express our gratitude for Your help in work aimed to eliminate disturbances caused by adverse weather condition in October of 2013.

Deputy General Director for technical matters, Chief Engineer **A.Yu. Gorokhov**

References of transformer-building plants in Russia and in neighboring countries





Togliatti Transformer is one of the largest designers and makers of electric engineering equipment in Russia and the CIS countries. As of today, the company's main business is high-voltage power transformers production.



Reference Letter of Togliatti Transformer

Togliatti Transformer Ltd would like to thank Massa Ltd - Izolyator for the fruitful cooperation and confirms the high quality of high-voltage bushings made by Massa Ltd as well as their full conformity to all the technical requirements.

The successful experience of partner relations development between our companies allows us to recommend Massa Ltd as a reliable partner, manufacturer and supplier of high-voltage bushings.

We express our sincere gratitude for you personally and for all Izolyator plant divisions for an efficient and prompt service.

> First Dpty General Director Commercial Director **A. V. Roslyakov**



PMTT. High-voltage Solutions manufactures 126–800 kV power transformers and ATs of over 25 MVA capacity including units in three-phase arrangement.

The production capacity of PMTT is more than 10 000 MVA annually. Headcount — about 350 staff members.



Reference Letter of PMTT. High-voltage Solutions

Power Machines - Toshiba. High-voltage transformers Ltd has enjoyed a successful and longstanding cooperation between our two companies in respect to high-voltage equipment supply. During our joint activities, Massa Ltd - Izolyator has proved a reliable partner and a successful manufacturer and supplier of high-voltage bushings both for serial and custom-made designs of our equipment.

We would like to thank you for the high quality of high-voltage bushings, well-coordinated and prompt response from your sales department and wish you a contingued growth and prosperity both in Russian Federation and far beyond.

Acting General Director **K. G. Stafeev**







SVEL Group is a leading power equipment manufacturer in Russia. The company boasts one of the impressive growth modernization rates in the industry. The production of SVEL Group meets the requirements and the highest world standards; and also develops new prospective directions under the common brand.

Reference letters of SVEL Group

SVEL Group thanks Massa Ltd for a positive cooperation experience concerning supply of high quality transformer bushings.

All Izolyator products met technical characteristics of the manufacturer's certificate of quality and came without defects. We confirm the smooth running of the commissioned facilities.

Within cooperation timeframe, our partners have promptly coordinated any issues concerning technical features, contract specifications, which proves a high professionalism of Massa Ltd team.

We sincerely hope to develop our cooperation and see our equipment production volumes grow.

General Director of HC of SVEL Group **A. Yu. Kishko**

For several years, OOO Massa is a regular supplier of high-voltage bushings for SVEL – Power Transformers.

The products supplied by Your company always have high quality, comply with requirements of GOST, international standards and specifications.

We don't have any complaints regarding delivery terms, configuration and quality of high-voltage bushings made by Your company.

Head of material and equipment procurement department.

Head of material and equipment procurement department **S. A. Skorinov**







Manufacturing complex of Elektrozavod

is specialized in design and manufacture of transformer and reactor equipment which is traditional for the plant and has been manufactured for 80 years, for power utilities, industry and transport. The production area of the plant is approximately 95 thousand square meters.

Reference letters of Manufacturing complex of Elektrozavod

The successful partnership experience that has developed for decades between MC HC ELECTROZAVOD JSC and Izolyator plant allows us to recommend you as a successul manufacturer of high-voltage bushings of consistenly high quality that meet modern standards and requirement.

Throughout its over century-long history, Massa Ltd - Izolyator plant has shown leadership on the power equipment market and gained trust as a reliable and experienced partner.

The management of MC HC ELECTROZAVOD JSC marks the high professional level, timely and good service delivery by the commercial and technical divisions of Izolyator plant. We would also like to emphasize the successful experience of installation, putting into operation and maintenance of high-voltage bushings of your plant.

We look forward to continuing our successful and mutually beneficial cooperation.

Sincerely,
General Director **A. Yu. Andrianov**HC ELECTROZAVOD JSC

For many years, MC HC ELECTROZAVOD JSC has purchased 24 – 750 kV HV bushings made by Massa Ltd – Izolyator. All products that the company delivered meet the strictest quality and technical requirements.

The management of MC HC ELECTROZAVOD JSC would like to thank the staff of Massa Ltd – Izolyator plant for the high level of professionalism and concerted efforts of the sales team.

We look forward to our continued successful and mutually beneficial cooperation.

Sincerely,
General Director
A. Yu. Andrianov
HC ELECTROZAVOD JSC



ООО «Масса»

Уважаемый Сергей Борисович!

ОП УТЗ ОАО «ЭЛЕКТРОЗАВОД»

ОКООСЬТЕННОЕ ПОДТА ВЕТЕНИЕ «ЭФИНЬКОЙ ТАНСКОРМАТОРНЫЙ ЗАВОД»

ООО «Масса»

Генеральному директору

Моисееву С. Б.

Уважаемый Сергей Борисович!

ОП УТЗ ОАО «ЭЛЕКТРОЗАВОД» благодарит ООО «Масса» за положительный и продуктивный опыт сотрудничества в части поставки высококачественных трансформаторных вюдов.

За все время нашего сотрудничества, вопросы касаемо производства и поставок высоковольтных вводов проводились оперативно, что указывает на высокий профессионализм всех служб ООО «Масса».

Мы надеемся на дальнейшего развития.

С уважением,
Директор

Ю.П. Вертяков

О.А. Куклин

(347) 2990-29 (34-05)

Ufa Transformer Plant is a modern enterprise with specialization in development and production of power and distribution transformers.

The plant was built by Electrozavod JSC in 2009 and today is the largest power equipment building facility in Russia.

Thank-you letter of Ufa Transformer Plant

BU UTP of ELECTROZAVOD JSC would like to thank Massa Ltd for the successful and productive cooperation experience in regard to high quality transformer HV bushings delivery.

During our cooperation, all issues of high-voltage bushings production and supply were promptly addressed, which speaks for the high professionalism of all divisions of Massa Ltd.

We look forward to our further cooperation and wish you continued growth and development.

Sincerely, Director **Yu. P. Vertyakov**



Uralelectrotyazhmash (UETM) is the biggest Russian developer and producer of electric power equipment for generation, transmission, distribution and consumption of energy. High-voltage equipment, transformers and reactors, converter equipment and electric machines of UETM brand are world known and enjoy a good reputation.



Reference letter of Uralelectrotyazhmash

Uralelectrotyazhmash JSC would like to express a sincere gratitude for all divisions of Izolyator plant for a responsible and conscientious approach to work.

This year's delivery volume has surpassed the figures of the previous years. We stick by high-voltage bushings of your brand. Over the years of cooperation, Izolyator has proved a reliable partner.

We recommend Izolyator high-voltage bushings as products that have won trust from our company.

Chief Designer **A. A. Borisenko**





ПО-3 депрежиранногранично до до на при том по по до на по д

Zaporozhtransformator is a largest manufacturer in CIS and Europe of oil power transformers and electric reactors, with plant capacity on single site of 60 ths. MVA per year.

Reference letters

Zaporozhtransformator JSC would like to express its sincere gratitude for Massa Ltd - Izolyator plant for a responsible and contientious approach to work.

The longstanding experience of partnership development between Massa Ltd - Izolyator plant and Zaporozhtransformator JSC allows us the recommend Massa Ltd as a reliable partner, manufacturer and supplier of high-voltage bushings.

We highly appreciate our partnership with Massa Ltd - Izolyator plant and would like to highlight the high professionalism of the company staff, good teamwork, promptness and professionalism as well as consistently high quality of products, delivered to us.

We look forward to developing further our cooperation.

Sincerely, **A. O. Maksimenko**Director of Procurement and Logistics

We can confirm hereby that OOO Massa (IZOLYATOR plant) is for many years one of the principal suppliers of high-voltage bushings for transformers produced by PAO Zaporozhtransformator.

Products of OOO Massa, as integral parts of the equipment made by PAO Zaporozhtransformator, is widely presented both in Russia and CIS countries. Operating experience of Izolyator products included into equipment made by PAO Zaporozhtransformator in recent years allowed OOO Massa to reach higher technical level and greatly improve characteristics of their items.

In recent years, Massa demonstrates their willingness to improve and develop products taking into account recommendations from PAO Zaporozhtransformator, which fact characterizes Massa as responsible and reliable partner.

Best regards,
Director for procurement
and logistics **S.N. Yeryomin**



Kentau Transformer Plant (KTP) is known as the leading Kazakhstan producer of the transformer equipment of wide application delivered for all branches of economy, including power industry, metallurgy, mechanical engineering, transport, oil and gas complex, housing and communal sector.



Reference letter

Kentau Transformer Plant JSC would like to thank Massa Ltd for cooperation in supply of transformer high-voltage bushings.

Hereby, we confirm that the partner relations between our companies have successfully developed since the start of production by Kentau Transformer Plant JSC 100 kV transformers.

Izolyator has remained a leading supplier of high voltage bushings for the needs of Kentau Transformer Plant JSC. During our cooperation, Massa Ltd has delivered over 1000 transformer high-voltage bushings that fully met technical specifications and came with no defects. We have no complaints and reclamations on the operating equipment.

The supplier has always met delivery terms strictly, promptly addressed issues of technical characteristics coordination and approval, which speaks for the high professionalism of Massa Ltd's management, sales and technical specialists.

Our longstanding cooperation allows us to recommend Massa Ltd as a trustworthy, reliable partners and a highly qualified high-voltage equipment supplier.

> Sincerely, Chairman of the Board of Directors KTP JSC **Kh.B. Kozhabaev**





JSC «Chirchik transformer plant» more than 70 years successfully operated at the market of machine building, with producing of power transformers and unitized transformer substations of voltage class 10, 35, 110 and 220 kV, with power from 25 to 63000 kVA and execute repair of different difficulty power transformers of voltage class to 500 kV included, with power to 125000 kVA. Chirchik transformer plant is leading enterprise of electrical industry of the Republic of Uzbekistan.

Thank-you letter of Chirchik transformer plant

AO Chirchiq transformator zavodi appreciates Massa Ltd for cooperation in supply of transformer high-voltage bushings.

Power transformers of AO Chirchiq transformator zavodi completed with Izolyator high-voltage bushings are successfully operating on the territory of the Republic of Uzbekistan and exported to more than 30 countries in the world: India, Pakistan, China, Mongolia, Egypt, Turkey, Vietnam, Korea, Greece, Bolgaria, Poland, Iraq, Iran, Cuba, Guinea, etc.

During our partnership with Massa Ltd, transformer highvoltage bushings, delivered to AO Chirchiq transformator zavodi, have always met declared technical characteristics.

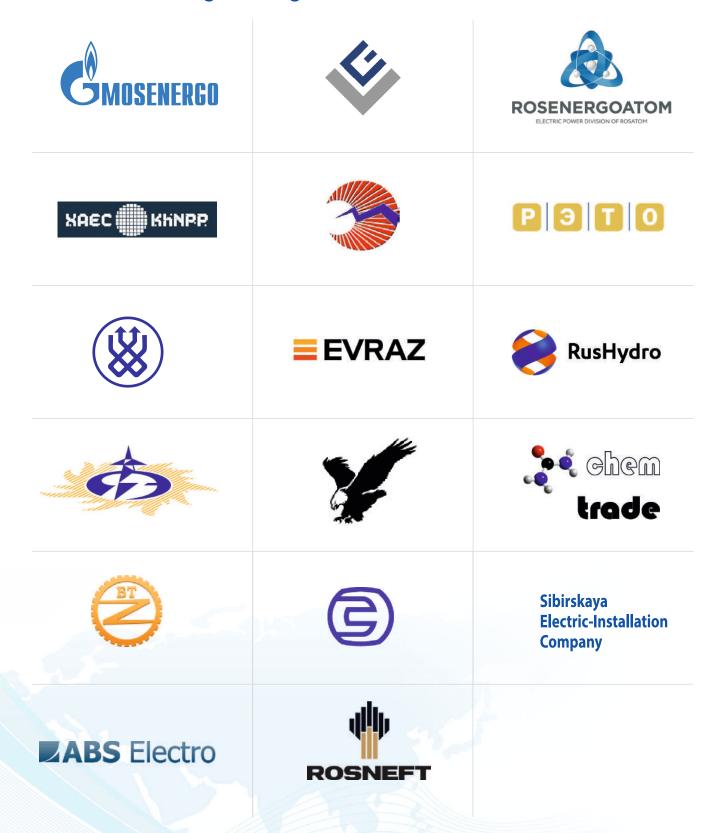
Massa Ltd has proved a stable and responsible partner that always meets delivery terms and conditions.

We hereby confirm that the longstanding cooperation experience of our companies allows us to recommend Massa Ltd as a reliable partner and a highly qualified supplier of high-voltage equipment.

We look forward to our continued fruitful cooperation.

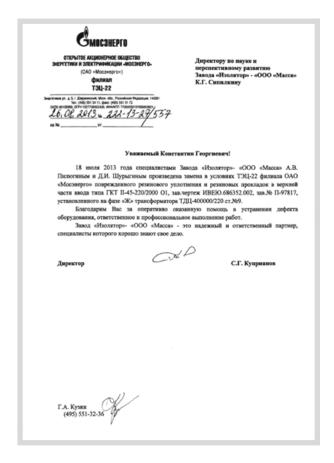
Sincerely, General Director **A. O. Nazarov**

References of Power Industry and Heavy Industry enterprises of Russia and neighboring countries





PAO Mosenergo is the largest regional generation company in Russian Federation and integral technological part of Russian Unified Energy System. The company is one of the world's largest producer of heat.



Reference Letter of TETs-22

Dear Konstantin Georgievich,

On 18 July 2013, A.V. Pilyugin and D.I. Shurygin, specialists of Izolyator plant — OOO Massa, have replaced on site of TETs-22, branch establishment of OAO Mosenergo, the damaged rubber sealing and rubber gaskets in upper part of the bushing of type ΓΚΤ II-45-220/2000 O1, dwg. $\rm MBEIO.686352.002$, serial No. $\rm \Pi$ -97817, installed on phase «Zh» of transformer ΤДЦ- 400000/220 No. 9.

We are grateful to You for promptly rendered assistance in elimination of equipment defect, responsible and professional execution of works.

Izolyator plant — OOO Massa is reliable and responsible partner, personnel of which is highly competent in their field of business.

Director **S.G. Kupriyanov**



Leningrad NPP is a major producer of electrical power in the Russian North-West. The plant meets more than 50 % of the power needs of St. Petersburg and the Leningrad Oblast. Leningrad NPP accounts for 28 % of the fuel and power balance of the entire North-West region.



Reference letter of Leningradskaya NPP

Hereby please be informed that starting from 2011 our company has ordered and purchased 10 high-voltage bushings with oil-in-paper insulation for 750 kV voltage class made by Massa Ltd (Izolyator plant).

Massa Ltd has been a regular supplier of high-voltage bushings to Leningradskaya NPP.

The products of your company are of a high quality, meet all GOST requirements, international standards and TU technical requirements.

We have no complaints concerning delivery terms, equipment configuration, quality and operation of high-voltage bushings made by Izolyator.

Chief Engineer **K.G. Kudryavtsev**



Smolensk NPP is a town-forming enterprise located in the Smolensk region, the largest contributor to the fuel and energy balance in the region. Annually, the power plant produces 20 bln kWhr of power on average, which makes over 75 % of the total generation of the Smolensk region. Smolensk NPP is a branch of Rosenergoatom Concern.



Reference letter of Smolensk NPP

During our maintenance program in 2013, we installed high-voltage bushings of Massa Ltd (2 pcs of GKTIII-60-550/2500 O1 drawing IVEU.686355.172) on AODCTN-417000/750/500 disp.No.3AT-11 and 4AT-22 autotransformers at Smolensk NPP.

Over the period of operation of the above bushings, we have not registered deviations from normal operation and defects.

Deputy General Director Smolensk Nuclear power plant branch of Rosenergoatom Concern **A. I. Vasilyev**



Volzhskaya HPP is the largest hydropower plant in Volzhsko-Kamsky cascade and Europe. The station's capacity is 2671 MW. The power plant is an important unit in the unified power grid of Russia linked in with 220 and 500 kV high-voltage lines of alternating current.



Reference letter of Volzhskaya HPP

I am pleased to inform you that in August 2016, we completed replacement works of an oil-filled 400 kV HV bushing for a GKTIII-60-(+/-)400/1250 O1 IVUE.686354.704 Massa Ltd - Izolyator bushing with solid RUP insulation.

Taking into account all available experience of installation and operation of Izolyator's GKTIII-60-(+/-)400/1250 O1 IVUE.686354.704 type bushing, we have no complaints.

Branch Director **S. N. Bologov**





Vilyuiskaya HPP named after E. N. Batenchuk is a hydraulic power plants complex in Russia, located on the Vilyui river in Sakha Republic (Yakutia).

The cascade is the only guaranteed power supply ensuring uninterruptible delivery of electricity to the Western Yakutia.

Vilyuiskaya HPP named after E. N. Batenchuk is part of Yakutskenergo PJSC.

Reference of Vilyuiskaya HPP cascade named after E.N. Batenchuk

OTE

Dear Sirs, Herewith, we confirm that beginning from 2012, our company purchased high-voltage bushings with polymer external insulation, made by Izolyator plant: 23 pcs of GKLP III-90/252/2000, IVUE 6862353.235.

These bushings were installed on an indoor switch gear ZRU-220 of HPP-1 of Vilyuiskaya HPP cascade as a replacement of GMLA-90-200/1000 U1, manufacturer's drawing 415-0-0. We have not registered any faults and have no complaints about operation of the equipment in severe climate conditions (temperature range from +40 to -65 dg Celsius).

Director Vilyuiskaya HPP cascade named after E.N. Batenchuk **A. V. Goryainov** UNQTE



Пенеральному діректору ЗАО «Западнія проскта роставу діректору ЗАО «Западнія просктаву діректору за се за продуміння как продуміння діректору за се ставу діректору за се за продуміння діректору за се ставу діректору за се за продуміння діректору за се ставу діректору за се за продуміння діректору за се ставу діректору за се ставу діректору за се за продуміння діректору за за продуміння діректору за за пада за продуміння діректору за за продуміння діректору за за за за за продуміння діректору за за

State enterprise providing electric power to consumers in Minsk and Minskaya region, heat supply in cities Minsk, Molodechno, Zhodino, Borisov, Vileyka, Soligorsk, Slutsk and settlements Rudensk, Druzhny, Svisloch. Part of State Production Association Belenergo.

Reference Letter of Minskenergo

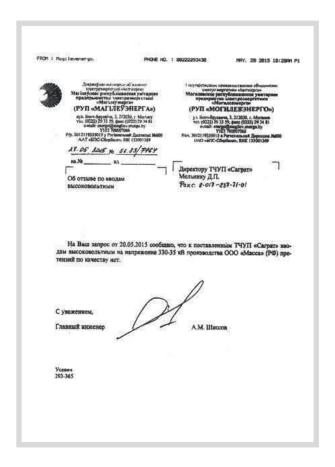
Over a period of years, ZAO Zapadny proyekt supplies the highvoltage bushings of various voltage classes made by OOO Massa to branch establishments of RUP Minskenergo: Slutsk Electric Grid, Stolbtsy Electric Grid, Molodechno Electric Grid, Borisov Electric Grid, Minsk Heat and Power Plant No.4, Zhodino Heat and Power Plant.

All delivered products have necessary data sheets and certificates. The delivery is carried out in strict compliance with technical documents. There are no claims regarding quality of the products.

Deputy Chief Engineer **A.A. Goranin**



Mogilev power system provides generation, transmission, distribution and selling of electric and heat energy, with operative-dispatch control of these processes. **RUP Mogilevenergo** includes 12 branches.

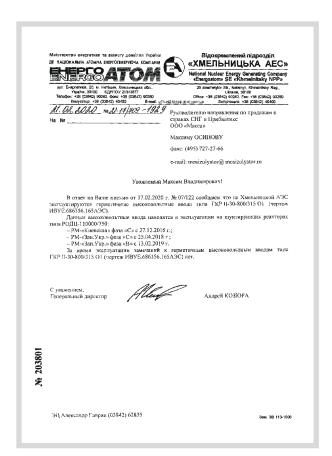


Reference Letter of Mogilevenergo

In response to Your inquiry of 20.05.2015, I can advise You that we don't have complaints regarding quality of highvoltage bushings for 330–35 kV made by OOO Massa (Russian Federation) and delivered by TChUP Sagrat.

Chief Engineer **A.M. Shishov**





Khmelnitsky Nuclear Power Plant is engaged in production of electric energy and located in the central part of Western Ukraine. Satellite town — Netishin, Khmelnitsky region.

Khmelnitsky Nuclear Power Plant is a division of the National power generating company Energoatom.

Reference Letter of Khmelnitsky NPP

In response to your letter dated February 17, 2020 No. 07/122, please be informed that sealed high-voltage bushings of the GKRII-30-800/315 O1 type are operated at the Khmelnitsky NPP (drawing IVUE.686356.165 NPP).

These high-voltage bushings are in operation at shunt reactors of the RODTs-100000/750 type:

- RM- 'Kiev' phase 'C' from 27.12.2016;
- RM-'West Ukr.' phase 'C' from 25.04.2018;
- RM- 'West Ukr.' phase 'B' from 13.02.2019.

Throughout the operation, we have no critical comments on the performance of the sealed high-voltage bushings of the GKRII-30-800/315 O1 type (drawing IVUE.686356.165 NPP).

General Director **Andrey Kozyura**





Barki Tochik JSC is a state-owned national electric power company of the Republic of Tajikistan based in the republic's capital – Dushanbe. The company and its assets are a property of the Republic of Tajikistan. The company's mission is to produce, transport, transmit, distribute and sell electricity and heat primarily on local market of Tajikistan.

Reference letter of Barki Tochik

Tajikenergosnab, subsidiary of Barki Tochik JSC informs that it is a principal supplier of power equipment for the needs of power grid operation at the Republic of Tajikistan.

For many years, our company has cooperated with the manufacturer of 35-500 kV high-voltage bushings Izolyator, based in Moscow, Russian Federation. The high-voltage bushings of this manufacturer have gained a good reputation for reliable operation in high mountain regions with hot climate of the Republic of Tajikistan. Over 80% of 35 - 500 kV bushings operating in our country are the products of Mosizolyator.

Director **S. A. Boboev**





The state unitary enterprise of the Republic of the Crimea Krimenergo (GUP RK Krimenergo) is the largest power company of the Crimea that was created to ensure stability of the power grid operation and energy security in the region. The company combines activities in operational dispatch management of the power network, power transmission via 220–330 kV main power transmission lines and distribution networks, power supply to users (as last-resort supplier).

Reference letter of Krimenergo

In reply to your inquiry, we are pleased to inform that presently, we have three GKRII-60-330/1000 IVUE.686353.171 type 330 kV HV bushings of Izolyator in operation at RC Krymenergo.

Current operating time is 3 years.

During the testing, installation on the equipment and putting in operation of the units we recorded no faults. All necessary requirements to technical specification, complete set, quality of high-voltage bushings and the volume of attached documentation we fully met.

During the operation of high-voltage bushings of that type, we have not registered any faults. The products operate in a normal mode.

Deputy Technical Director ETL 220 - 330 kV **N. V. Fedorov**





JSC Georgian State Electrosystem (GSE) is a 100 % stateowned joint stock company providing transmission and exclusive dispatch services to about 50 eligible companies in Georgia. Based on the transmission and dispatch tariffs established by the independent regulator (GNERC-Georgian National Energy and Water Regulatory Commission) GSE carries out technical control over the entire power system to ensure the availability of the system for uninterrupted and reliable power supply

Reference letter of Georgian State Electrosystem

In reply to your inquiry No.07/671 dated 2 October 2017 we are pleased to inform that in 2014 - 2016, the State Electrosystem of Georgia JSC has purchased and put in operation 20 pcs of high-voltage bushings of Massa Ltd. under the corresponding agreements (No.60-7-114-331; No.60-7-115-178; No.60-7-116-64).

With this letter, the State Electrosystem of Georgia JSC confirms that the products of Massa Ltd meet all required standards have no complaints throughout operation.

Sulkhan Zumburidze Chairman of the Board



Aetos Ltd is an importer of electrical equipment of world's leading OEMs for the needs of power industry companies in Georgia.



Letter of Gratitude from Aetos Ltd.

Aetos Ltd. appreciates Massa Ltd. for the positive experience of cooperation in the supply of high-voltage bushings.

All the products supplied by the plant were strictly in line with the technical specifications of the quality certificate and had no defects. No complaints on quality.

During our cooperation at the negotiation stage and further work on settlement of technical characteristics and specifications, all issues were resolved promptly, which indicates the high professionalism of all departments of Massa Ltd

With hope for further success of mutual business and steady increase in shipments.

Director of Aetos Ltd. **Tamaz Sharikadze**



Chemtrade Estonia OÜ is an importer of electrical equipment of world's leading OEMs for the needs of power industry companies.



Thank-you Letter from Chemtrade Estonia OÜ

Att: Commercial Director of Massa Ltd. Ivan Panfilov

Chemtrade Estonia Ltd. appreciates Massa Ltd. for the positive experience of cooperation in the supply of 750 kV high-voltage bushings.

All the products supplied by the plant were strictly in line with the technical specifications of the quality certificate and had no defects. No complaints on quality.

During our cooperation at the negotiation stage and further work on settlement of technical characteristics and specifications, all issues were resolved promptly, which indicates the high professionalism of all departments of Massa Ltd.

We wish you successful development and achievement of new heights in business.

Member of the Board of Directors **Dmitry Nikulin**





The Electroshield Samara Group is an advanced technology industrial company, boasting 70 years of history, and the largest domestic manufacturer 0.4–220 kV distribution equipment. This is one of the leading engineering companies comprising two design institutes, construction company, several manufacturing sites in Russia and the CIS and a well-developed regional offices network.

Thank-you letter of Electroshield Samara Group

In 2016, we received 18 pcs of 110 kV GKLP-type HV bushings made by Izolyator under the contract No.07/53-114 dated 22 March 2016. We received the order in the shortest available time. All necessary requirements to technical specification and product quality as well as technical documentation were fully met by the manufacturer.

During our cooperation, Massa Ltd - Izolyator has proved a reliable partner.

Thank you for your cooperation.

Vice President Supply Chain **Tierry Comptes**



Electrical equipment maintenance factory (RETO).

Today the plant's main activity is service of high-voltage equipment: 6–500 kV power transformers, bushings, oil arc-suppression coils, electric motors.



Reference letter from RETO

Massa Ltd has been a supplier of 20-220kV bushings to our company in a number of years.

The company products are of high quality, adhere to modern standards and normative and technical documentation with all certificates available.

Mass Ltd has always met delivery time for supply of their products.

Chief Engineer **A.A. Zhukov**



Uralenergoremont JSC is one of the leading specialized maintenance companies on power equipment market.



Reference letter from Uralenergoremont JSC

For several years Massa Ltd has manufactured and supplied through dealers 35, 110, 220kV bushings for the needs of Uralenergoremont JSC.

All products meet high quality standards and have required certificates and technical documentation. All deliveries were executed within schedule in strict compliance with technical specifications.

Uralenergoremont JSC management marks professionalism of the partners and looks forward to continue cooperation.

General Director **I.Ya. Guryev**

Sibirskaya Electric-Installation Company



is specialized in power equipment diagnostics, safety and residual operation life expertise as well as electrical equipment installation, commissioning and construction services.



Reference Letter from Sibirskaya Electric-Installation Company

In the second half 2013, Sibirskaya Electric-Installation Company purchased 2 sets of IVUE 686352.103-03 bushings with RIP insulation made by Izolyator for servicing TDTN-10000/110kV power transformers.

The purchase was preceded by a detailed analysis of the supplier market for this product. The bushings were delivered to the installation facility on time. The HV tests run upon commissioning showed excellent quality of your products.

We would like to express our gratitude for the high product quality and professional sales department delivery – it is a pleasure to work with your team!

We expect to continue cooperation!

General Director **V.V. Berezovsky**



ABS Electro is a group of companies that provides customers with profitable advanced solutions in several diverse fields: electric power industry, shipbuilding, housing maintenance and utilities, oil, gas, metal, mining and others.



Thank-you letter of ABS Electro

In April 2016, VNIIR JSC purchased a high-voltage bushing GKTIII-60-(+-)400/1250 O1, IVEU.686354.704 from Massa Ltd - Izolyator, which we used on Volga HPP of RusHydro PJSC during the replacement works under the program of transformer HV bushings complex replacement in July 2016.

Until this moment, we have received no complaints about the quality of manufacture and operation of the highvoltage bushing from Volga HPP in the address of VNIIR JSC.

I would like to thank you and the entire Massa Ltd - Izolyator staff for the timely and quality delivery of the high-voltage equipment.

Deputy General Director on projects execution **N. V. Lobanov**



VNIIR Hydroelectroautomation JSC offers its customers a complete services range in design, configuration, supply, installation, commissioning and putting into operation of power facilities. The enterprise operates as a full cycle engineering company from identification of customer requirements and feasibility study to putting the facility into operation.



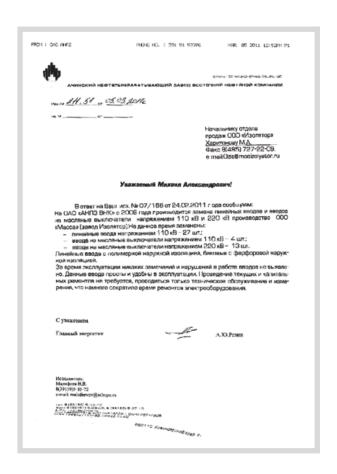
Reference letter of VNIIR Hydroelectroautomation

The limited liability company Massa has been a reliable partner to us since 2016. During our cooperation, Massa Ltd has proved a reliable and a highly professional partner that met all obligations in time, kept spoken and written arrangements and observed requirements of the RF legislation, taking care of the interests of its partners. We appreciate Massa Ltd as a stable and reliable partner and intend to develop our close partner relations, based on trust, understanding and compromise.

General Director
VNIIR Hydroelectroautomation JSC **D. S. Fomichev**



Achinsky Refinery makes 100 petroleum products. The plant focuses on motor aircraft fuels.



Reference letter from Achinsky Refinery

Bln response to your letter #07/166 dated 24 February 2011 we are pleased to inform:

Since 2006 we have replaced for Massa Ltd-made (Izolyator) 110 kV and 220kV line and oil switch bushings:

- 110kV line bushings 27 pcs
- 110kV bushings for oil switches 4 pcs
- 220kV bushings for oil switches 13 pcs

The line bushings are polymer insulated, tank-type bushings – with ceramic external insulation.

We have not identified any faults in the equipment operation. The bushings are reliable and easy to operate: no running repair or overhaul is required – only minimal maintenance and measurements are done significantly cutting time on electrical equipment repairs

Chief Power Engineer **A.Yu. Razin**



РЕВРАЗ

Уважаемые господа!

Настоящим письмом подтверждаем, что в 2017 г. нашим предприятием были приобретены в/докатные иневіные вюды производства 000 - Масса- завод 4/молятор марки ТКЛ Н89-052/2000 (л. МВС 68633.350 к може в 1 (гры) шт. Указанные вюдым былье ведшей за приобратные и подстанции АО - сВРАЗ 30МК - ОП 9 (объект с высокой степенье ведшей за ряженнечногі упажке 2017 г. Камичий парежання за период эксплуатиции обордования ин поступамо.

Отмечаем готовность изотовитим» — 000 - Масса- у не поставщима водоо в - фирмы 000 - объегоны и заготворима и поставщима водоо в приобрамными габаритами для упрощения и удещемення моготовичення заготов степенносто сокращения просма поставки, изотования работ, босбо отмечаем высокой уровень чаготовення продуман нового пожимене — «нейеные вюдам 220 кд с RP-изолиция», с фарароровой внешней покрышкой и гелевым напочиваться за нертении предприятий металургической и химической промышленности с повышенной степенью загрязненности.

Главный электрик АО - ЕВРАЗ ЗСМК»

А.П. Кузнецов

* Аминивроп объекто объекта покрышающим закомет в ш. Косическия, а 18 г. Незурник, конеровая сбысь, покры быть за втанургической и химической промышленности с повышенной степенью загрязненности.

А.П. Кузнецов

* Аминивроп объекто объекта в моготовку в покрыченности в ш. косической долженности.

В Аминивроп объекта за предоставленности за втанургической и химической промышленности с повышенной степенью загрязненности.

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EVRAZ Consolidated West-Siberian Metallurgical Plant (EVRAZ ZSMK) is the largest steel manufacturer in Siberia and the easternmost in the Russian Federation.

In terms of production capacity and volume, EVRAZ ZSMK hits top five largest in Russia and top thirty of the world's largest steel foundries. It is one of the five largest rail manufacturers in the world.

Reference of EVRAZ West Siberian Metallurgical Complex

Hereby, we confirm that our enterprise purchased 3 pcs GKL III-90-252/2000 01, IVUE.686353.335 high-voltage bushings from Izolyator in 2017.

Those bushings were installed at SS OP-9 of EVRAZ ZSMK JSC (facility operating in conditions of high pollution) in the same year. We have not registered any complaints with the performance of that equipment.

We would like to mention the preparedness of the manufacturer – Massa Ltd. and the supplier of the bushings — Osteron Ltd to meet the customer's requirements of a significant delivery upgrade, execution of the bushings in custom-made dimensions in order to have cost effective and simplified installation works. We would like to point out the highest level of the product execution — new generation 220 kV RIP wall bushings with porcelain external housing and gel filler.

We find it possible to recommend that equipment for application at power facilities of metallurgical and chemical industries that operate in conditions of high pollution.

Chief Power Engineer EVRAZ ZSMK JSC **A. P. Kuznetsov**

References of foreign customers

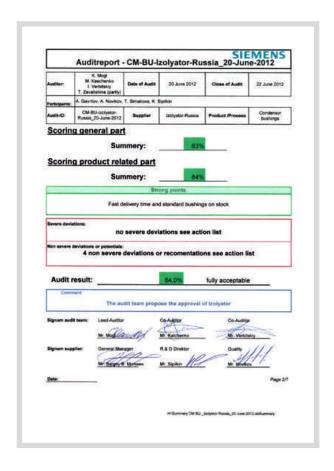




SIEMENS

Siemens is a German multinational conglomerate company headquartered in Berlinand Munich. It is the largest engineering company in Europe. The principal divisions of the company are Industry, Energy, Healthcare, and Infrastructure & Cities, which represent the main activities of the company.

The company is a prominent maker of medical diagnostics equipment and its medical health-care division, which generates about 12 percent of the company's total sales, is its second-most profitable unit, after the industrial automation division.



Izolyator company is an official bushing supplier certified by SIEMENS AG



GE Grid Solutions is serving customers globally with over 20,000 employees in approximately 80 countries. GE Grid Solutions helps enable utilities and industry to effectively manage electricity from the point of generation to the point of consumption, helping to maximize the reliability, efficiency and resiliency of the grid.



GE Grid Solutions audits Izolyator plant

On 2016 GE Grid Solutions audited Izolyator plant. Health and safety systems, environmental management, chemicals handling were audited. The audit resulted in receipt of Certified GE Grid Solutions supplier status by Izolyator. The status is valid for all branches of GE Grid Solutions around the world.







CG Power and Industrial Solutions Limited (formerly Crompton Greaves Limited) – Indian based multinational with expertise in development and production of power equipment for generation, transmission and distribution of electricity headquartered in Mumbai.

Reference letter from Crompton Greaves Limited

Transformer division (TI) of Crompton Greaves Ltd., Mumbai, India has installed IZOLYATOR MAKE 3 NOS 600 KV 800 AMP, RIP bushings with Serial Nos. 30016, 30519 and 30622 manufactured by OOO Massa as per IEC 60137 on reactor testing transformer since April 2013.

We have tested 9 Reactors using this reactor testing transformer at 476 KV for total duration of approx. 9 to 10 hours till date.

Hereby we certify that performance of these RIP bushings on reactor testing transformer is satisfactory.

Gemeral Manager & Plant Head. Power Transformer Div.T1 Mumbai, India.

Certificate of Official Supplier to Crompton Greaves Limited



Koncar Power Transformers Ltd. is a company that specializes in equipment and devices production for power generation, transmission and distribution as well as transportation and industry.





Reference Letter from Koncar Power Transformers Ltd.

Koncar Power Transformers Ltd have purchased 53 bushings for projects in Russia in 2011 and 2012 year from Izolyator factory – OOO Massa for large power transformators (80, 125 and 200 MVA).

All the bushings were delivered on time and with the agreed terms.

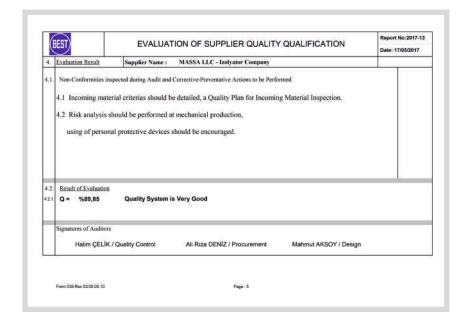
According to past experience in working with OOO Massa we can confirm quality of products and all other standards regulation.

Purchasing Dpt, **Ivan Puk**



Balıkesir Elektromekanik Sanayi Tesisleri A.S. (BEST)

is a manufacturer of high-quality and reliable distribution and power transformers. BEST is the largest national transformer producer in Turkey. Power transformers from BEST have a reputation for quality and reliability in more than 50 countries.



Evaluation Result and the official report on the audit

The audit ended with the quality management system, scoring 89.85 % ("very good")



Power Grid Corporation of India Limited (PowerGrid) is

an Indian state-owned electric utilities company headquartered in Gurgaon, India. PowerGrid transmits about 50% of the total power generated in India on its transmission network.

Its subsidiary company, Power System Operation Corporation Limited (POSOCO) handles power management for Power Grid.

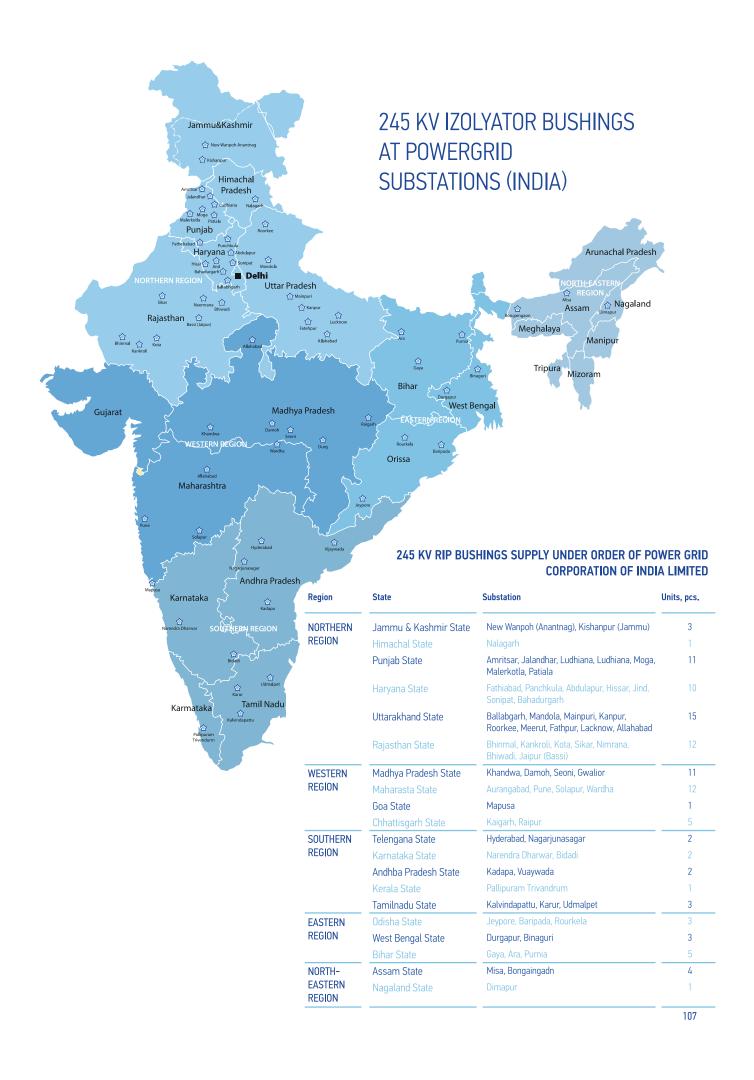
PowerGrid also operates a telecom business under the name POWERTEL.



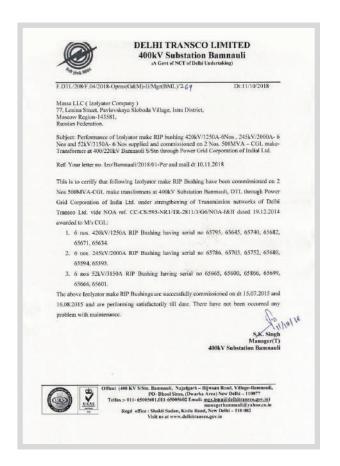
Internet application Inspection Call Management System on the official website of Power Grid Corporation of India Limited

Izolyator is an official supplier of OIP and RIP bushings for the needs of Power Grid Corporation of India Limited.

Izolyator enters the official supplier list of completing parts to transformers (9-A and 9-B) in the Inspection Call Management System application of Power Grid Corporation of India Limited.







Delhi Transco Limited (DTL) as a State Transmission Utility of Capital city of Delhi is transmitting Power from Central Sector Generating Stations as well as from Intra-State Generating Stations and making it available for Delhi DISCOMs which in turn makes it available for the citizens of Delhi at consumer end.

The existing network of DTL consists of a 400 KV ring around the periphery of Delhi interlinked with the 220 KV network spread all over the city.

Reference letter from Delhi Transco Limited

This is to certify that following Izolyator make RIP Bushing have been commissioned on 2 Nos 500MVA-CGL make transformers at 400kV Substation Bamnauli, DTL through Power Grid Corporation of India Ltd. under strengthening of Transmission networks of Delhi Transco Ltd. vide NOA ref. CC-CS/595-NR1/TR-2811/3/G6/NOA-I&II dated 19.12.2014 awarded to M/s CGL:

1. 6 nos. 420kV/1250A RIP Bushing having serial no 65795, 65645, 65740, 65682, 65671, 65634. 2. 6 nos. 245kV/2000A RIP Bushing having serial no 65786, 65703, 65752, 65680, 65594, 65595. 3. 6 nos 52kV/3150A RIP Bushing having serial no 65665, 65600, 65866, 65699, 65666, 65601.

The above Izolyator make RIP Bushings are successfully commissioned on dt 15.07.2015 and 16.08.2015 and are performing satisfactorily till date. There have not been occurred any problem with maintenance.

Manager (T) 400KV Substation Bamnauli **S.K. Singh**



Elering AS (former name: Pohivork) is an electric power transmission system operator in Estonia. Elering was established on 1 November 1998 under the name of Pohivork as an operating unit of the Estonian national power company Eesti Energia.

В начале 2007 года компания Elering AS, закупила для ремонта силовых трансформаторов 150 и 220 иВ на территории Эстонии 5 компансктов введов с RIP изолящией производства завода «Изолятор» (ООО «Масса»). Закупке предшествоват тизательный выявля ранки поставилена разменой продукции. Все вводы были поставлены на место производства работ в договорной срок. После монтажа были просведив высокововляные испкатания выподов, которые показами отличное качество Вашей продукции и полное соотпетствие нормам МЭК-60137. Все установленные вводы нахолится в эксплуатации по настоящее время, сбоев в работе или иных несостветствий выявленое не быль состоящее время, сбоев в работе или иных несостветствий выявленое не быль тродукции завода «Изолятор» и надеемся в дальнейшем на доптосрочное извимовыгодное сотрудничество.

Half С уважением, Anton Moltsar ELERING AS, Estonia Power Transformers Expert

Reference letter from Elering AS

At the beginning of 2007, Elering AS purchased 5 sets of bushings with RIP insulation made by Izolyator (Massa Ltd) for servicing 150kV and 220kV power transformers in Estonia.

The deal was forerun by a detailed analysis of the supplier market for this product. The bushings were delivered to the installation facility on time.

Tests run upon commissioning showed excellent quality of your products and full adherence to IEC-60137 standard.

All installed bushings are currently in operation with no failures or non-compliance identified.

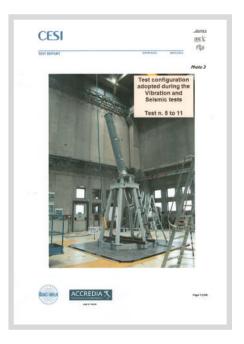
Based on the above we confirm a high quality of Izolyator products and look forward to longterm cooperation.

Anton Moltsar

Elering AS Estonia Power Transformers Expert

CESI





CESI is an independent center of expertise and a global provider of technical and engineering services to customers throughout the energy value chain, including business and technical consultancy, engineering and operational support. The center acts as owner's engineer and provides qualified third-party opinion to power utilities worldwide.

Test Report from CESI

A protocol of successful seismic tests of a 420 kV transformer bushing, made by Izolyator, came from CESI laboratory in Italy.

The busing was designed under the order of the Indian state power grid company Power Grid Corporation of India Limited.



Fanavaran Pooya Sanat Vafa (PSV) provides industrial equipment, particularly equipment needed in the Iran power and electricity industry, providing engineering services for domestic manufacturers and educational services for their employees.



Thank You Letter of Fanavaran Pooya Sanat Vafa

During 2010–2018 year, Fanavaran Pooya Sanat Vafa (PSV Co.) purchased almost 214 high-voltage bushings of different ratings up to 252 kV from Massa LLC — Izolyator Company, which we were selling to major Iranian transformer producer Iran Transfo Ltd. and indirectly to IGMC (Iranian Grade Management Company) and Iranian power plants management companies.

Until this moment, we have not received any complaints about the quality of manufacture and operation of the high voltage bushing from end used of the bushing or transformer producers.

I would like to thank you and the entire Massa LLC — Izolyator staff for high level of service, quality of the product and timely delivery of the high-voltage equipment.

Masoud Davoodi Directing Manager

We are always in touch



Ivan Panfilov

Commercial Director
1st Deputy CEO



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THINKING OF BECOMING OUR PARTNER?

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We will submit all information in hard copy or by email on your first request.

WOULD YOU LIKE TO VISIT OUR PLANT?

We will arrange for an informative plant tour to show all production stages to you.

Izolyator sales contacts:

Massa LLC 77, Lenin street, Pavlovskaya Sloboda, Istra municipality, Moscow region, Russian Federation, 143581

Tel +7 495 727 3311 Fax +7 495 727 2766 mosizolyator@mosizolyator.ru

For more details on our products and services visit <u>www.mosizolyator.com</u>

