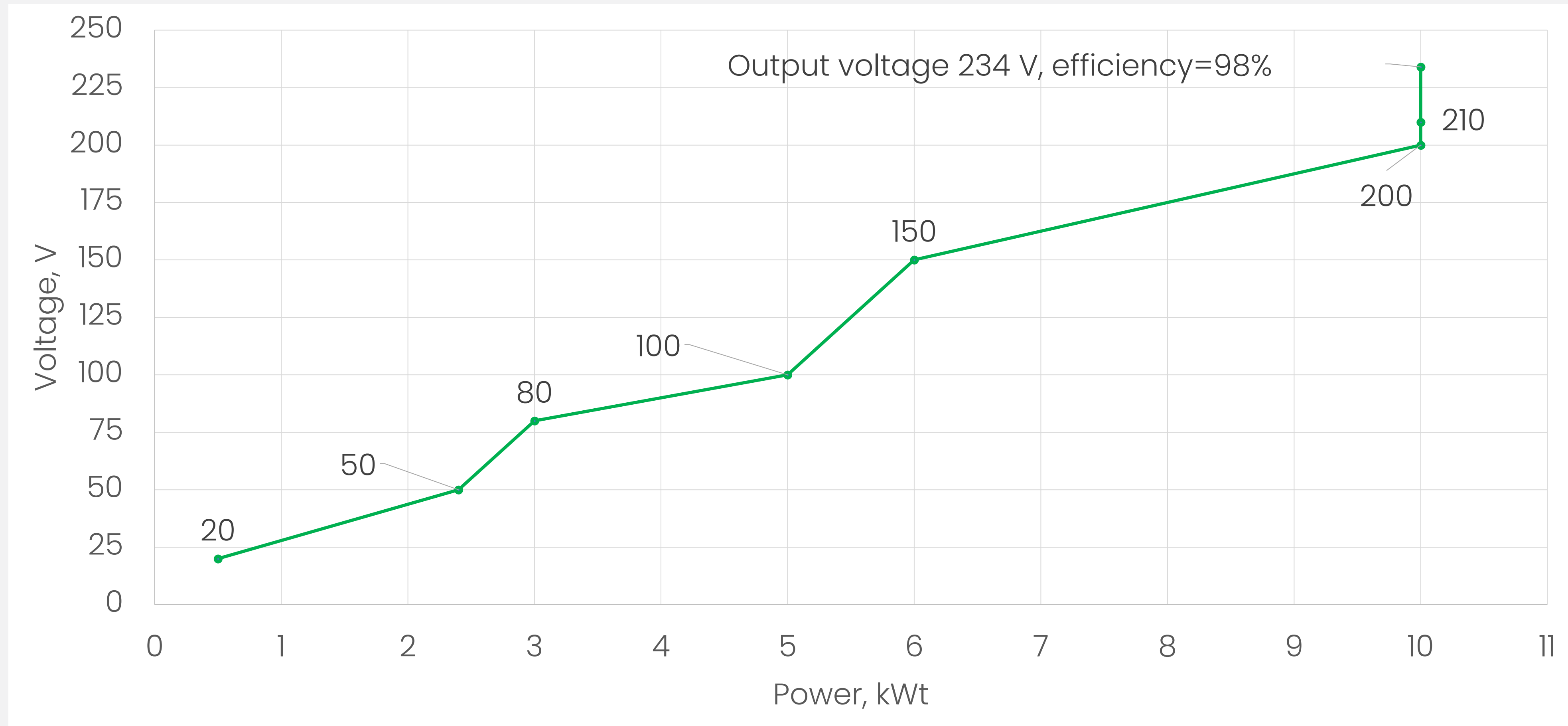


NEW GENERATION INVERTER VOLTAGE STABILIZER

We are a team that creates efficient energy-saving technologies

Project description



The graph of the dependence of the power of the stabilizer on the input voltage (for a 10 kW device)

Innovating Power

Organization of large-scale production of new generation inverter voltage stabilizers (single-phase and three-phase with various powers, including those with additional functions);

Expanding Markets

Organization of sales channels for devices in the domestic and foreign markets.

Methodology

1. Design method by creating drawings at a certain scale (sketch, technical design);
2. “Brainstorming”
3. Synectics;
4. Morphological analysis;
5. Deadlock elimination method;
5. Technical and economic analysis of processes;
7. Development of working documentation and production of a prototype;
8. Preliminary sample tests;
9. Adjusting the design of the device and manufacturing technology (if necessary) and working out the documentation based on the test results.

Problem

1

Voltage Woes: The Global Struggle with Unstable Low Voltage in Residential Buildings

Many individual and multi-apartment residential buildings in various territories around the world periodically have unstable low voltage, which significantly reduces the quality of life and makes it impossible to use household appliances;

2

Power Quality Challenges: Mitigating Losses from Reactive Components in Large Enterprise Fleets

Most enterprises with a large fleet of equipment, consuming a large amount of electricity incur huge losses due to the presence of reactive components in the network;

3

Chasing Stability: Voltage Challenges in Renewable Energy Systems

Renewable energy sources (solar panels, wind generators) are not able to guarantee a stable voltage;

4

Precise Machines, Unstable Voltage: The Costly Consequences for Organizations

Organizations using equipment that require the most stable voltage (for example, ultra-precision machines), with unstable voltage, incur losses of time and money for changeover and repair of equipment;

5

Voltage Challenges in Remote Tower Deployment for Mobile Operators

Mobile operators, placing towers in hard-to-reach places (for example, in the mountains) have problems with obtaining a stable voltage;

Innovative aspect

1. The stabilizer is guaranteed to keep from 30 volts of the incoming mains voltage (the best known inverter stabilizers keep the incoming voltage from 90 volts of the incoming mains voltage);
2. The stabilizer circuit contains additional functions for selection: UPS, the ability to connect solar panels, wind generators, batteries and any alternative energy sources;
3. Using this stabilizer at large enterprises, it is possible to achieve energy savings of 20 - 40% due to voltage filtering and complete (100%) elimination of reactive components in the network;
4. The response time to a change in input voltage is zero seconds (that is, the device stabilizes the voltage instantly, without a jump);
5. This stabilizer operates silently, having a very compact size and low weight due to features of construction;
6. The device provides smooth turn on / turn off, which increases the life of the equipment connected to the stabilizer.

Solution

The developed reliable inverter voltage stabilizers of a new generation are proposed for implementation. The devices are designed to supply a stable voltage of 230 / 380V 50Hz from a source of unstable voltage (any frequency, Hz), from an input AC voltage in the range from 30 to 310V (from 45 to 420V - line voltage), from an input DC voltage (for example: solar panels and storage batteries) in the range from 50 to 450V (from 85 to 680V - line voltage) and complete elimination of reactive components in the network.

The target audience

1. Individual and apartment buildings with unstable low voltage;
2. Enterprises with a large fleet of equipment that consume a large amount of electricity;
3. Renewable energy sources;
4. Organizations using equipment that requires the most stable voltage;
5. Cellular operators;
6. Medical, military and other institutions using special, complex equipment.



**ЕВРАЗИЙСКИЙ ПАТЕНТ
НА ИЗОБРЕТЕНИЕ**

№ 042322

Название изобретения:

«ИНВЕРТОРНЫЙ СТАБИЛИЗАТОР»

Патентовладельцы:

ГАДЖИОМАРОВ РУСЛАН ГАДЖИОМАРОВИЧ (RU);
ХАЛИЛОВ ДЖЕЙХУН МИРАЛИ ОГЛЫ (AZ)

Изобретатели:

Гаджиомаров Руслан Гаджиомарович (RU),
Халилов Джейхун Мирали оглы (AZ)

Заявка №: 202200065

Дата подачи заявки: 04 мая 2022 г.

Дата выдачи патента: 03 февраля 2023 г.

Настоящим удостоверяется, что евразийский патент выдан на изобретение с формулой, опубликованной в Бюллетене Евразийского патентного ведомства «Изобретения (евразийские заявки и патенты)» № 2 / 2023 год.

При уплате установленных годовых пошлин патент действует на территории государств-участников Евразийской патентной конвенции – Азербайджанской Республики, Кыргызской Республики, Республики Армения, Республики Беларусь, Республики Казахстан, Республики Таджикистан, Российской Федерации, Туркменистана.

ДОКУМЕНТ ПОДПИСАН ЭЛЕКТРОННОЙ ПОДПИСЬЮ

Сертификат:1650024017000

Владелец: Ивлиев Григорий Петрович

Действителен: с 15.04.2022 по 14.04.2027

ИВЛИЕВ Григорий Петрович
Президент Евразийского патентного ведомства



**ЕВРАЗИЙСКИЙ ПАТЕНТ
НА ИЗОБРЕТЕНИЕ**

№ 044341

Название изобретения:

«СПОСОБ СТАБИЛИЗАЦИИ СЕТЕВОГО БЫТОВОГО
НАПРЯЖЕНИЯ 220 ВОЛЬТ 50 ГЕРЦ»

Патентовладельцы:

ГАДЖИОМАРОВ РУСЛАН ГАДЖИОМАРОВИЧ (RU);
ХАЛИЛОВ ДЖЕЙХУН МИРАЛИ ОГЛЫ (AZ)

Изобретатели:

Гаджиомаров Руслан Гаджиомарович (RU),
Халилов Джейхун Мирали оглы (AZ)

Заявка №: 202200109

Дата подачи заявки: 04 мая 2022 г.

Дата выдачи патента: 17 августа 2023 г.

Настоящим удостоверяется, что евразийский патент выдан на изобретение с формулой, опубликованной в Бюллетене Евразийского патентного ведомства «Изобретения (евразийские заявки и патенты)» № 8 / 2023 год.

При уплате установленных годовых пошлин патент действует на территории государств-участников Евразийской патентной конвенции – Азербайджанской Республики, Кыргызской Республики, Республики Армения, Республики Беларусь, Республики Казахстан, Республики Таджикистан, Российской Федерации, Туркменистана.

ДОКУМЕНТ ПОДПИСАН ЭЛЕКТРОННОЙ ПОДПИСЬЮ

Сертификат:1650024017000

Владелец: Ивлиев Григорий Петрович

Действителен: с 15.04.2022 по 14.04.2027

ИВЛИЕВ Григорий Петрович
Президент Евразийского патентного ведомства



Eurasian Patent Organization (EAPO)

1- INVERTER STABILIZER

Patent Number: 042322

2 - METHOD OF STABILIZING MAINS HOUSEHOLD
VOLTAGE OF 220 VOLTS 50 HZ

Patent Number: 044341



ISIF 2023

In recognition of excellent and creative efforts to invent a New Generation Inverter Voltage Stabilizer.



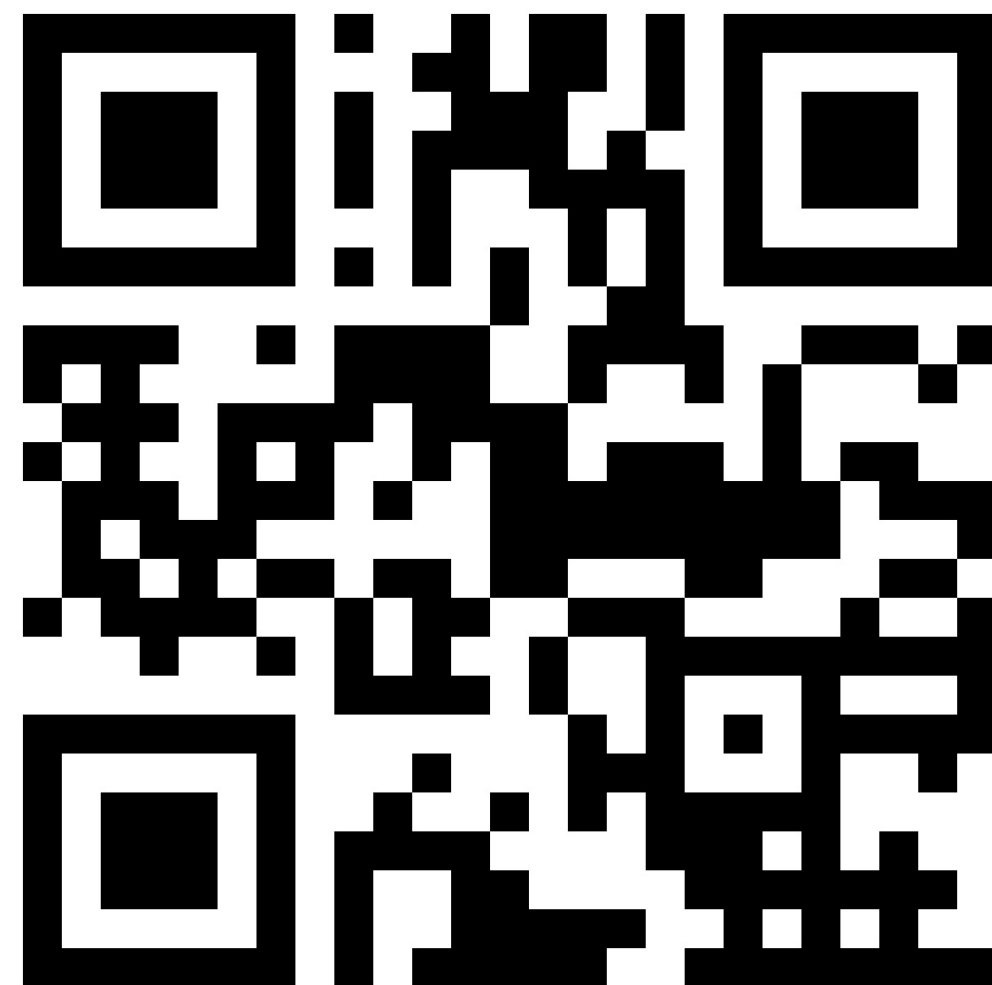
WIPO BEST INTERNATIONAL AWARD

Award Number: 2023/04/TUR#002

Thanks for your attention



English



Russian

NEW GENERATION INVERTER
VOLTAGE STABILIZER **VIDEO**

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