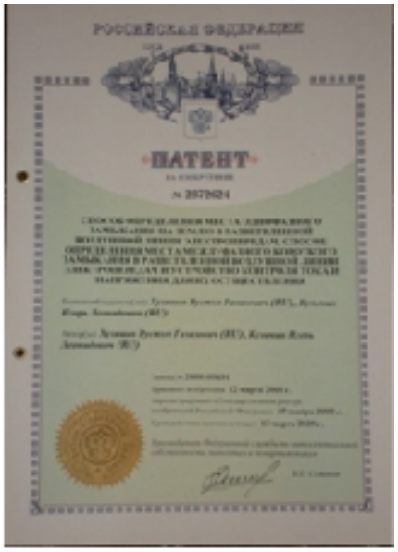
R. Huzyashev, PhD, senior researcher, associate professor
I. Kuzmin, PhD, associate professor

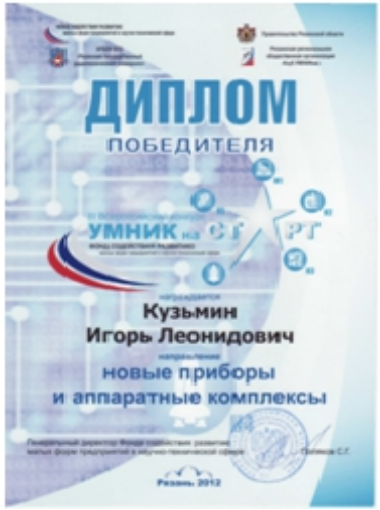
The device is intended for operation in the grid companies and used to determine the areas of damage and measurement of emergency and normal parameters of a mode in air networks of 6-35 kV. It consists of a power supply block from phase current of the high voltage line, the block of measurement of phase current, phase tension and transient signals at normal and emergency kommutation in the controlled power supply network and managements of operation of the device, GPS module and GSM modem blocks. It powered by the energy of the live current, the measured data with the desired frequency to Desktop Manager.

We use a wave method of definition of a place of the damage, based on measurement of a difference of time of arrival of switching splash in current/tension to the devices mounted in nodal points of the high voltage line. The device functions on the high voltage line of 10 kV in a test mode. As the SmartGrid system element the device is installed in any point and solves a problem of control of a technical condition and an electric mode of the high voltage line, has no analogs on the volume of solved tasks. The device is protected by patents for the invention and useful model.



Estimated retail cost of one device is o 1 thousand dollars. The device is not subject to obligatory certification.

The main russian and foreign analogs of the device are supplied with battery power supply and visually observed indexes that demands their personal round. Addition of a GSM modem option to analogs for direct informing of a dispatch on indicator alarm operation, demands more powerful batteries or their frequent replacement that repeatedly increases the cost of analogs.



We suppose to attract additional financial resources on expansion of volume of solved tasks by carrying out research and development the production.

Contact information:

Kazan State Power Engineering University:
420066, Kazan
Krasnoselskaya Street, 51

Phone/Fax:
+7(843) 519-43-55 - reception
of vice-rector in science
kgeunauka@mail.ru
+7(843) 527-92-04 - department on science & technology information
onti-kgeu@mail.ru

Contact person
Rustem Huzyashev
+7 (905) 026-87-14
142892@mail.ru

KAZAN
WHERE EUROPE MEETS ASIA

UNIVERSIADE KAZAN 2013 RUSSIA

Kazan State Power Engineering University

The self-contained unit for definition of a site of damage and control of parameters of a mode in a distributive grid 6-35kB

www.kgeu.ru