



LIGHTNING PERFORMANCE SOFTWARE FOR OVERHEAD LINES



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INTRODUCTION

GROZA software has been designed to calculate annual lightning resulted outages of 6-115 kV overhead power lines with possible implementation of Streamer Electric AG Line Lightning Protection Devices (LLPDs) with different options of installation on poles as well as identification of reasonable LLPDs installation options in accordance with maximal allowed amount of lightning resulted trips or number LLPDs on hand.

Welcome to Groza

Start Design

Latest Design

Use Templates

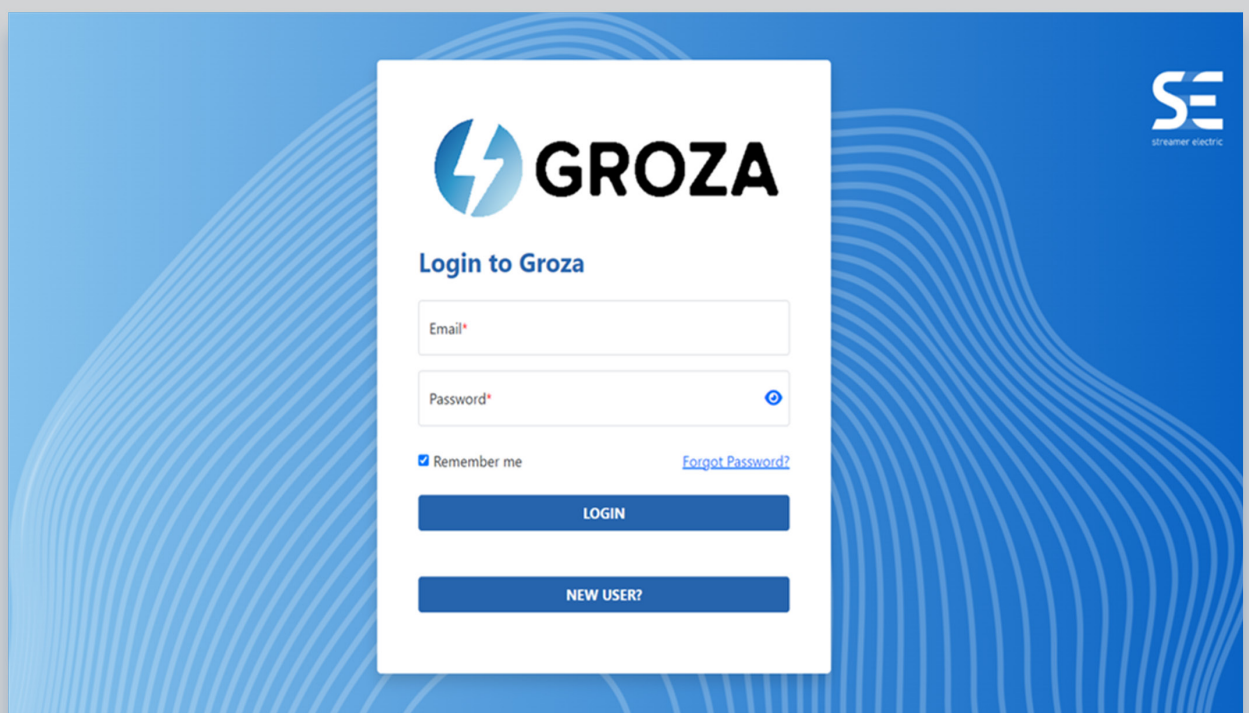
or [check the manual before](#) you begin

REGISTRATION

Link for registration:

<https://groza.app>

Link is used for registration
of new users and for LOGIN



The image shows a login form for Groza. The form is centered on a blue background with a white card. At the top left of the card is the Groza logo, which consists of a blue lightning bolt icon inside a circle, followed by the word "GROZA" in bold black letters. Below the logo is the text "Login to Groza". The form contains two input fields: "Email*" and "Password*", both with asterisks indicating they are required. The "Password*" field has a blue eye icon to its right for toggling visibility. Below the input fields is a checkbox labeled "Remember me" and a blue link "Forgot Password?". At the bottom of the form are two blue buttons: "LOGIN" and "NEW USER?". In the top right corner of the blue background, there is a logo for "SE streamer electric".



DESCRIPTION

GROZA software allows to create lines and substations design according to existence technical parameters and to make following calculations:

DESCRIPTION

SHORT-CIRCUIT CURRENT AND AVAILABILITY OF LLPD INSTALLATION

The software includes an option to calculate distribution of phase to ground fault current values along the power line.

There are two options to calculate fault current:

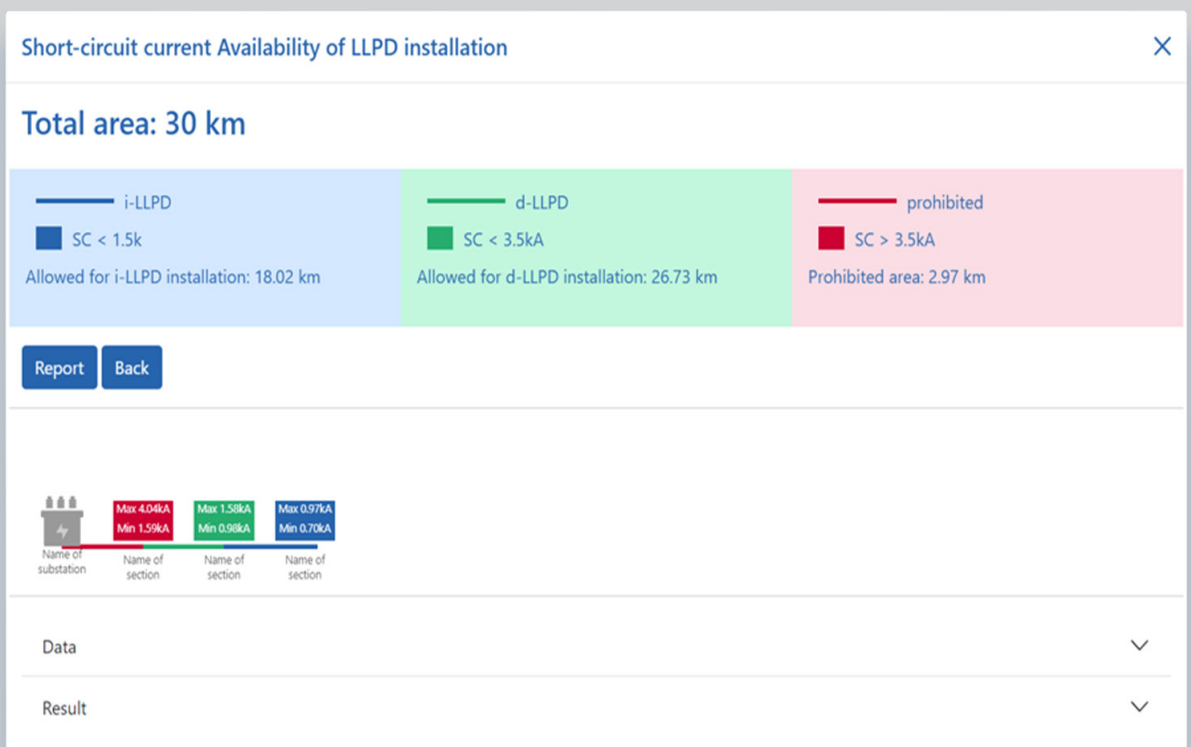
- In accordance with power of transformer

Total capacity of transformers supplying the analyzed line and short-circuit current losses in percentage are required.

- Measured short-circuit on busbars

Set the current value of the calculated or measured current at the substation.

The calculation shows the value of single phase fault current for the line and allowed area of LLPD installation. (see example below)



EVALUATION OF LIGHTNING PERFORMANCE

Evaluation of lightning performance is suitable for calculating the overhead power line lightning performance considering or not considering LLPDs at their different installation on section poles (see example below).

Evaluation of Lightning performance ✕

Outages	DLS*
No LLPD	2.78
1 LLPD per pole	2.05 -26.32%
2 LLPDs per pole	1.42 -48.94%
3 LLPDs per pole	1.00 -64.11%

[Report](#) [Section Detail](#) [Back](#)

Data ∨

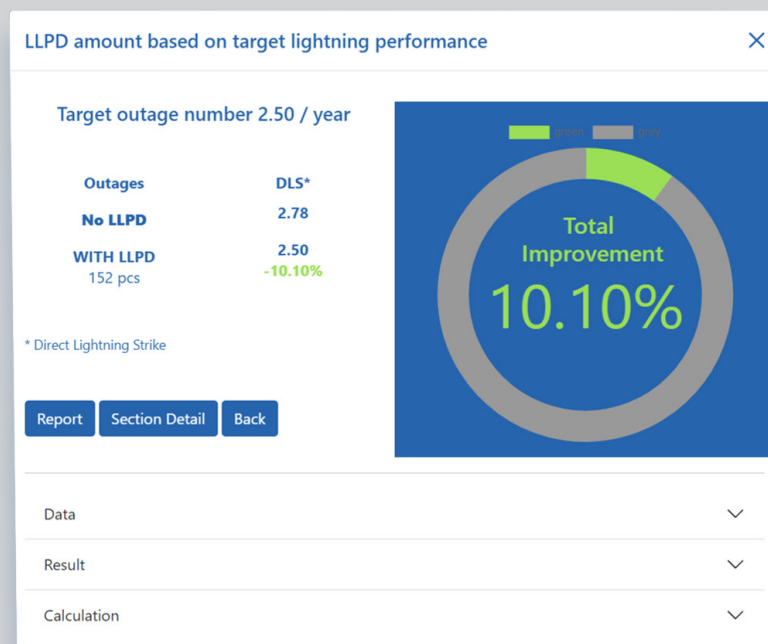
Result ∨

Error ∨

DESCRIPTION

LLPD AMOUNT BASED ON TARGET LIGHTNING PERFORMANCE

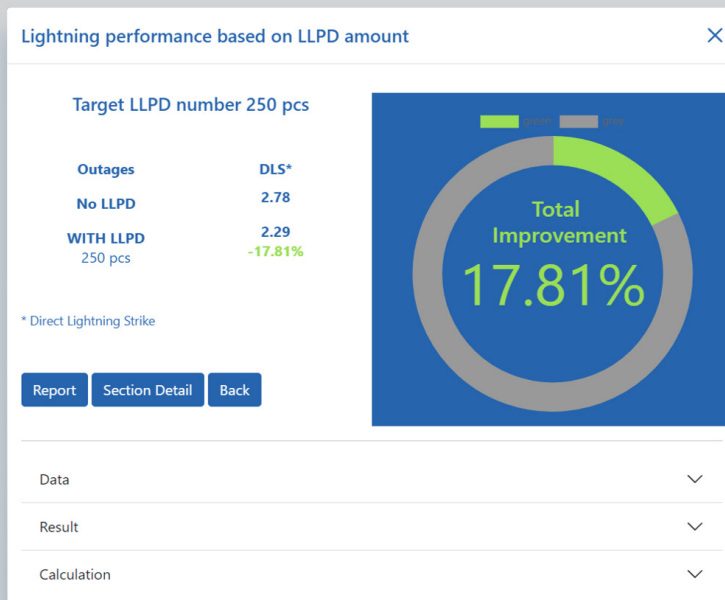
LLPD amount based on target lightning performance is suitable to determine the optimal LLPD number for achieving the required values of per annual outages (see example below).



DESCRIPTION

LIGHTNING PERFORMANCE BASED ON LLPD AMOUNT

Lightning performance based on LLPD amount is suitable to define an appropriate installation of available LLPDs to achieve the minimum value of per annual outages.



OPTIONS

Two versions are available:

- Free version
- Paid version (with enhanced capabilities)

Versions	FREEMIUM	PAID
Data base	Common data base from all customers will be hosted in the same data base	Independent separated data base – can be stored on the country/location of customer choice
Multi users	NO	YES
Store line parameters	NO	YES
Store line models	Only 1 it's possible to store only 1 project. For creating new one need to modify the current project	Unlimited
Add branches	YES	YES
Limit of sections	Limit of sections	Unlimited
«Latest» Lightning data	NO	YES
Technical support	NO	YES
Languages	English/Russian	On demand
Price	Free	Contact us

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