

Potential contour report

Station Name 33/11kV SUBSTATION
Project
Study EARTHING DESIGN CALCULATION

Parameters

Title Potential contour plot #01

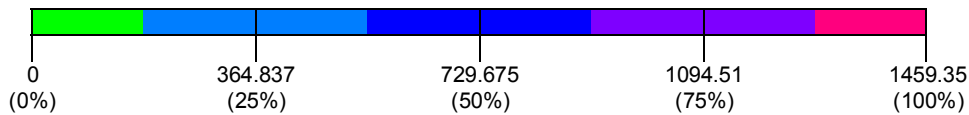
Bus ID 36
LG Fault Current 25000 amps
Remote Contribution 100 %
Return Electrode Current 0 amps
Nominal Frequency 50 hz
Upper Layer Thickness 16.53 meters
Upper Layer Resistivity 121.77 ohm-m
Lower Layer Resistivity 0.01 ohm-m
Equal Potentials (Distinct) Yes

X1 -1 meters
Y1 -1 meters
X2 46 meters
Y2 41 meters

X Intervals 60
Y Intervals 60

Potential Thresholds

Maximum Permissible Touch 1459.35 volts



Minimum

Touch Potential At Point(s) 56.1824 volts

X (meters)	Y (meters)
28.7667	20

Maximum

Touch Potential At Point(s) 1451.21 volts Allowable LG Current 6163.11 amps

X (meters)	Y (meters)
15.45	29.1

Potential profile report

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Parameters

Title Potential profile plot #01
Bus ID 36
LG Fault Current 25000 amps
Remote Contribution 100 %
Return Electrode Current 0 amps
Nominal Frequency 50 hz
Upper Layer Thickness 16.53 meters
Upper Layer Resistivity 121.77 ohm-m
Lower Layer Resistivity 0.01 ohm-m
Equal Potentials (Distinct) Yes
X1 -1 meters
Y1 -1 meters
X2 46 meters
Y2 41 meters
Step Interval 3 meters

Potential Thresholds

Ground Potential Rise 3860.69 volts
Maximum Permissible Step 5489.4 volts
Maximum Permissible Touch 1459.35 volts

Maximum

Surface Potentials 3655.32 volts
Step Potentials 385.97 volts
Touch Potentials 994.851 volts