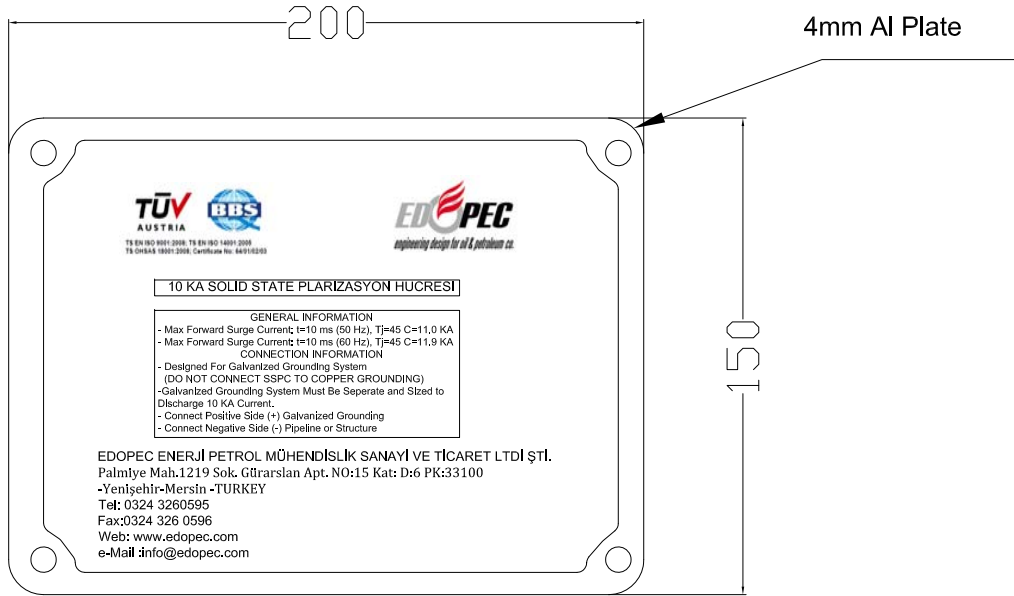
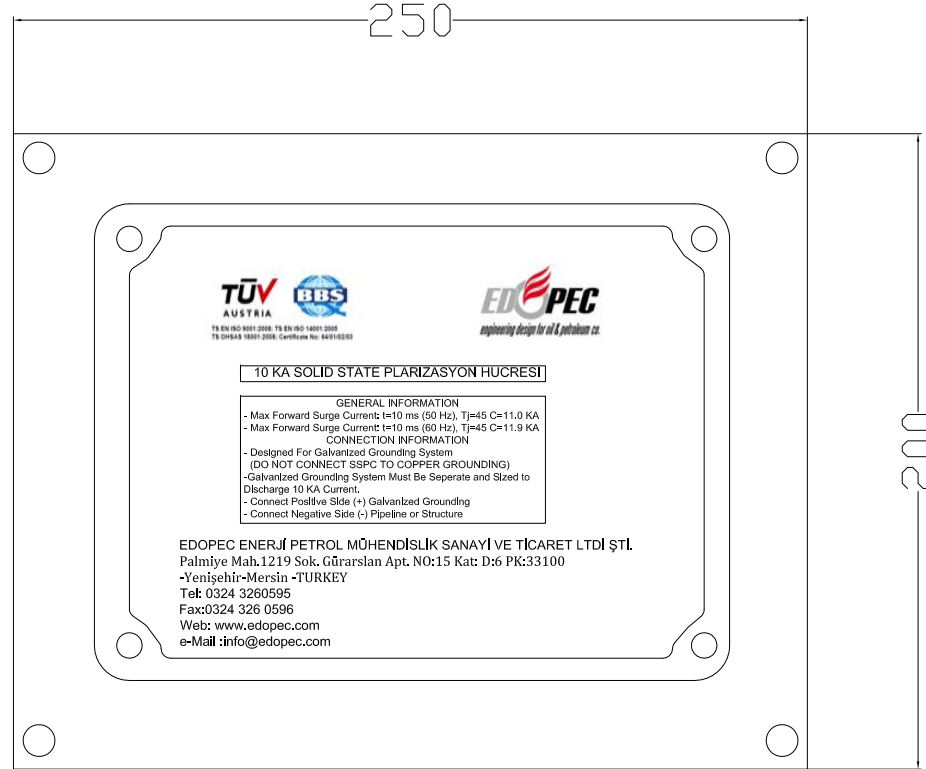


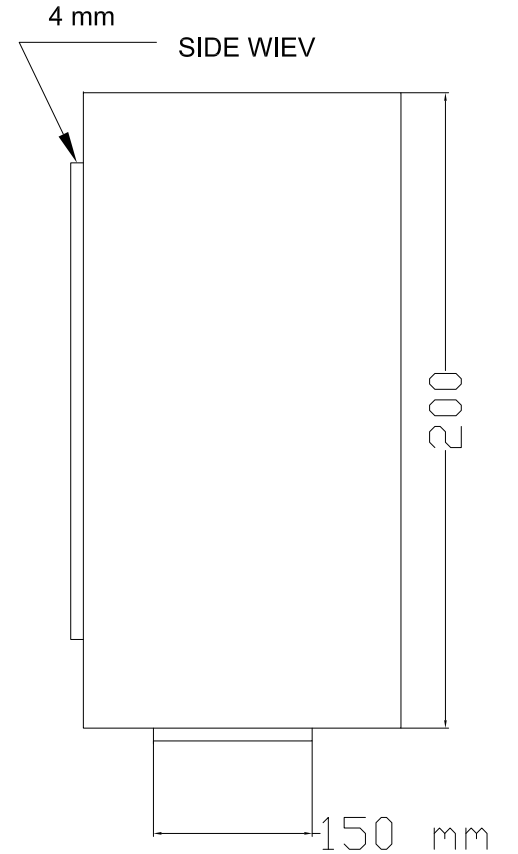
FRONT LABEL



LABEL



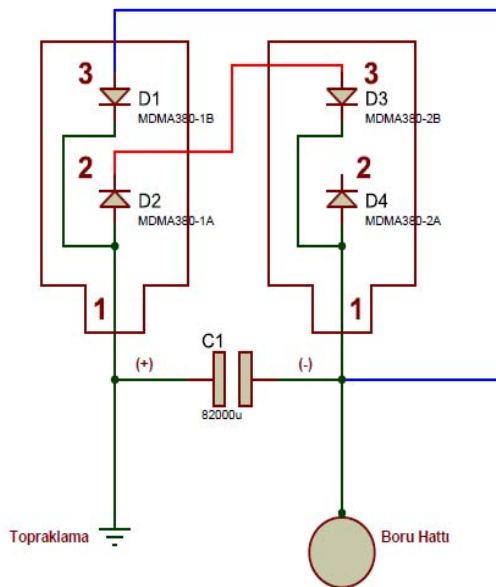
SIDE WIEV



POLARIZATION CELL CIRCUIT DIAGRAM



10 kA Polarization Cell



KOH TYPE POLARIZATION CELL

Polarization Cell

for Cathodic Protection DC Blocking and AC Bonding

A decoupling system for fault current service and removal of induced AC power from protected structures

If you need cathodic protection, you may need the Cathodic Isolator. It acts like an "electrochemical switch," blocking DC voltages in the cathodic protection range, while instantaneously shunting hazardous voltages to ground.


How the Polarization Cell works

The Cathodic Isolator based on Polarization Cell consists of multiple pairs of stainless steel plates immersed in a potassium hydroxide electrolyte solution. An oil seal floating on the electrolyte prevents evaporation, absorption of atmospheric gasses and excessive foaming under high current flow. DC current flow through the Cell causes a film of gas to form on the plates, offering high resistance to low voltage DC current. As the applied voltage across the cell increases, current flow through the cell increases, causing the thickness of the polarization gas film to increase. When the leakage threshold is exceeded, the film starts to break down, and the cell resistance quickly decreases as the applied voltage increases. AC voltages and higher DC voltages see the Cell as a dead short.



SOLID TYPE POLARIZATION CELL

Cathodic protection methods are utilized to prevent pipeline corrosion. Accurate implementation of cathodic protection is primarily based on the precision of calculations on the pipeline, preventing negative effects of environmental factors on the pipeline, and repressing the noise signals. The aim of this study is to improve a new polarization cell, which prevents perforation on pipelines caused by represses high voltage lines inducing 50Hz network frequency, lightning strikes and restrains the pipeline potential between the desired limits. Nowadays, this situation is solved with liquid polarization cell, which is made with %30 potassium hydroxide (KOH) electrolyte. The alternative polarization cell which is solid state had been formed with electronic component and the results had been compared to wipe out the disadvantages during the using of liquid polarization cell. In the end of the study it is measured that pipeline potential and alternative polarization cell had restrained 50Hz electromagnetic interference more than liquid polarization cell.

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<div>Head Office : Palmiye Mah. 1219 Sk. Gürarslan Apt. No:15 Kat: D:6 PK:33110 Yenişehir - Mersin - Turkey T: +90 324 3260595 F: +90 324 3260596 www.edopeccom info@edopeccom</div>				Document Title					
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