TECHIMP SpA
Italy

TECHIMP **HV CABLES** CASE STUDIES

Luglio 2014
Testati solo i giunti di transizione ed i sei terminali

LOCATION	**THAILAND**
EUT	**HV NEXANS CABLES**
RATED VOLTAGE	**115kV**
INSULATION	**XLPE-PILC**
LENGTH	
VINTAGE	
TYPE OF TEST	**ON-LINE**

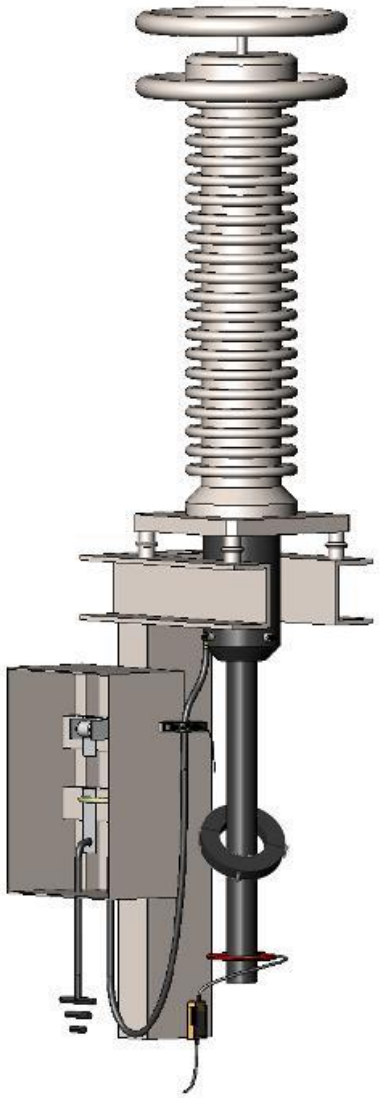
CASE STUDY

Internal PD detected inside a transition joint

GIS Termination

High Frequency PD pulses were achieved by means of Clamp HFCT placed around the ground connection of the GIS Termination (39mm version) and around the HV cable (140mm version).

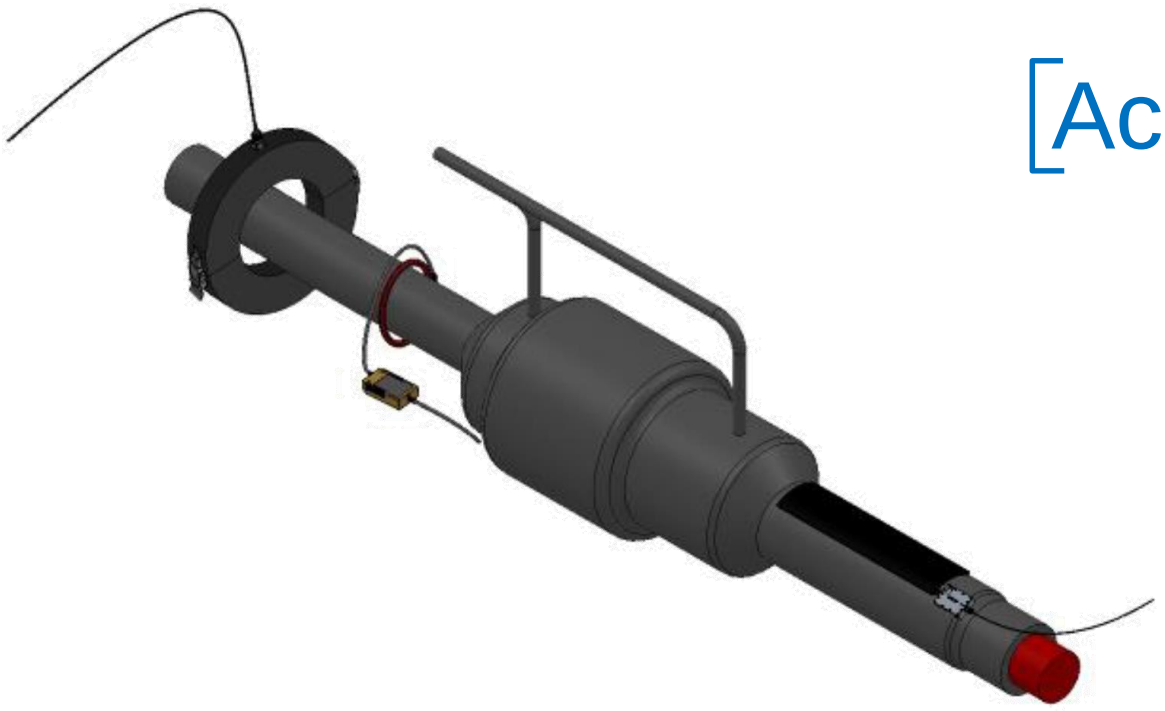
Thanks to the Clamp version of the HFCT it is possible to perform on-line PD measurements without ground lead disconnection or out of service of the EUT.



ODSE Termination

High Frequency PD pulses were achieved by means of Clamp HFCT placed around the ground connection of the ODSE Termination (39mm version) and around the HV cable (140mm version).

Thanks to the Clamp version of the HFCT it is possible to perform on-line PD measurements without ground lead disconnection or out of service of the EUT.



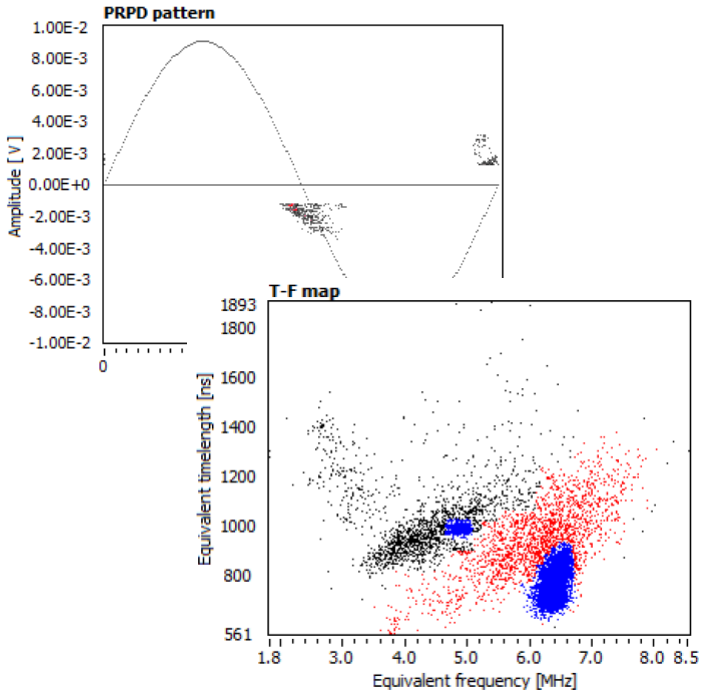
[Accessible Joint]

High Frequency PD pulses were achieved by means of Clamp HFCT 140mm placed around the HV cable close to the Joint.

Thanks to the Clamp version of the HFCT it is possible to perform on-line PD measurements without ground lead disconnection or out of service of the EUT.

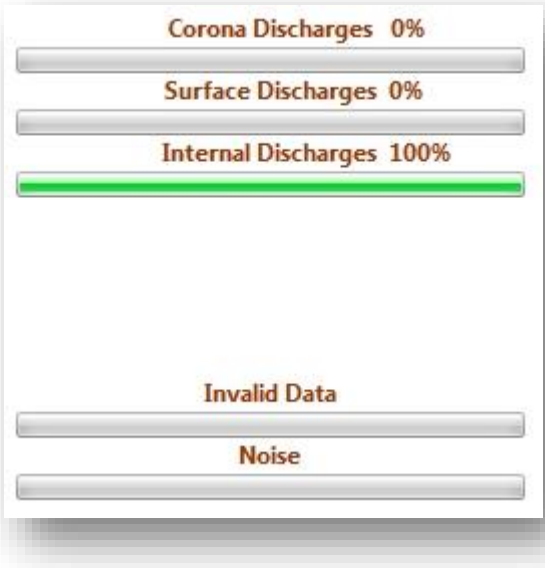
PD measurement results on Red Phase

RED PHASE



IDENTIFICATION

Y



Equivalent Frequency analysis for the Internal PD activity detected on the TF Classification Map (Red Cluster) allows to conclude:

PD activity inside Transition Joint of the phase under test

Considering amplitude and repetition rate of detected PD it was suggested to:

1 – Monitoring the PD's Trend

in order to verify that Internal PD activity in the Joint does not increase too quickly. In this way the customer have to do maintenance only when really necessary.

2 – Regular basis PD Measurements

in order to avoid unexpected failures and consequent explosion during service due to aging of the cable.

Ti SOLUTION

PD Measurement on/off-line with
Techimp PPDC +
PD sensors

TECHIMP SpA

Settembre 2012
Testati solo tre terminali

LOCATION	**SOUTH AFRICA**
EUT	**HV CABLES**
RATED VOLTAGE	**88kV**
INSULATION	**XLPE**
LENGTH	**5000 m**
VINTAGE	
TYPE OF TEST	**ON-LINE**

CASE STUDY

Internal PD detected inside the GIS termination.

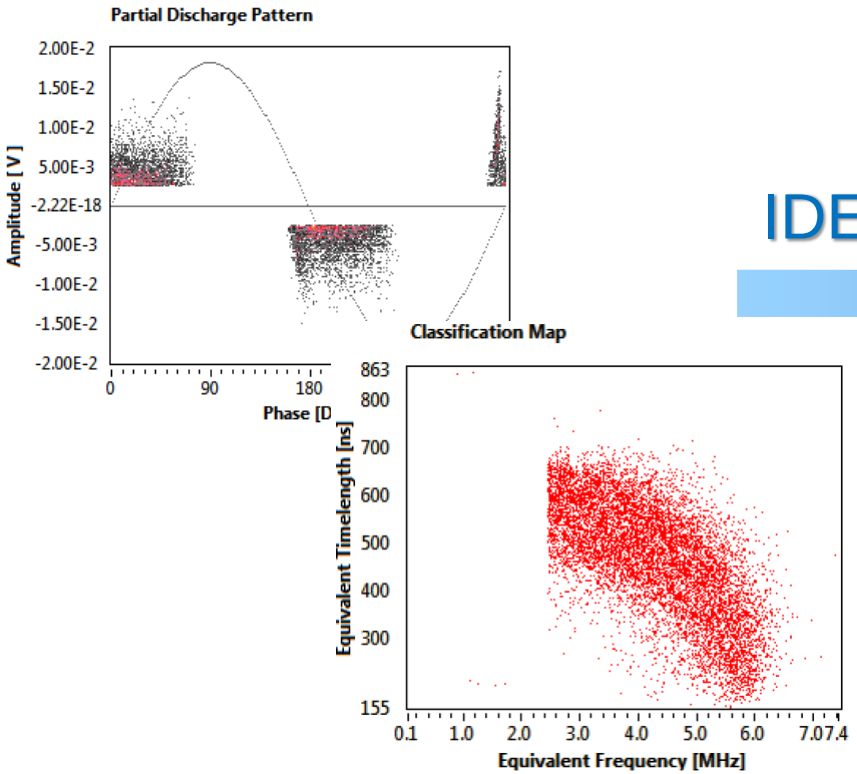
GIS Termination

High Frequency PD pulses were achieved by means of Clamp HFCT placed around the ground connection of the GIS Termination (39mm version).

Thanks to the Clamp version of the HFCT it is possible to perform on-line PD measurements without ground lead disconnection or out of service of the EUT.

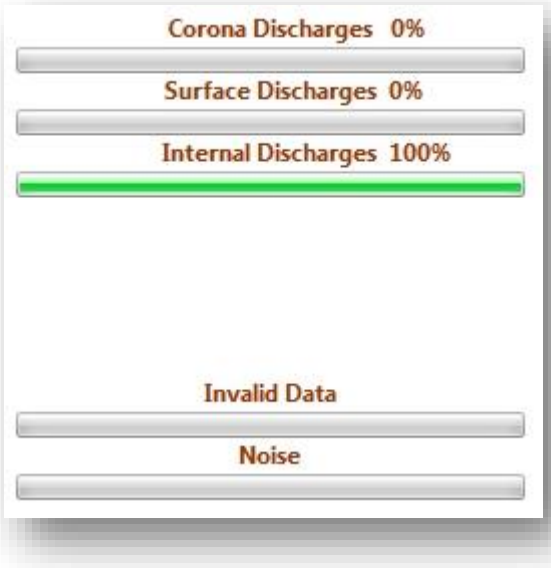
PD measurement results on Red Phase

R PHASE



IDENTIFICATION

Y



Equivalent Frequency analysis for the Internal PD activity detected on the TF Classification Map (Red Cluster) allows to conclude:

PD activity inside GIS Termination of the phase under test

Considering amplitude and repetition rate of detected PD it was suggested to:

1 – Monitoring the PD's Trend

in order to verify that Internal PD activity in the Joint does not increase too quickly. In this way the customer have to do maintenance only when really necessary.

2 – Regular basis PD Measurements

in order to avoid unexpected failures and consequent explosion during service due to aging of the cable.

Ti SOLUTION

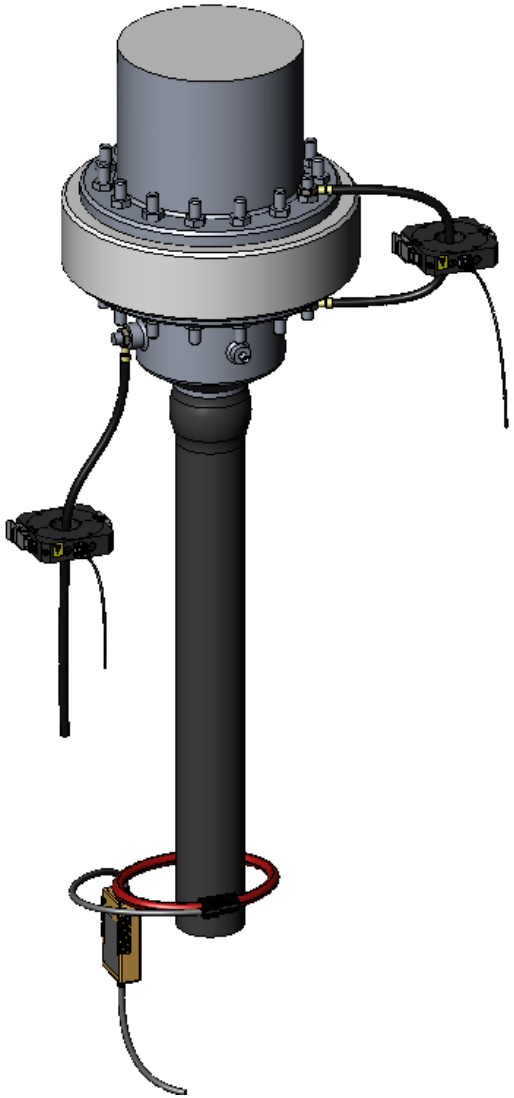
PD Measurement on/off-line with
Techimp PPDC +
PD sensors

LOCATION	**ABU DHABI**
EUT	**HV PRYSMIAN CABLES**
RATED VOLTAGE	**220kV**
INSULATION	**XLPE**
LENGTH	
VINTAGE	
TYPE OF TEST	**ON-LINE**

Marzo 2014
Testati solo i terminali GIS
È stato suggerito di ripetere la misura con la Horn per confermare la localizzazione ed in seguito rimpiazzare il terminale

CASE STUDY

Internal PD detected inside a GIS termination



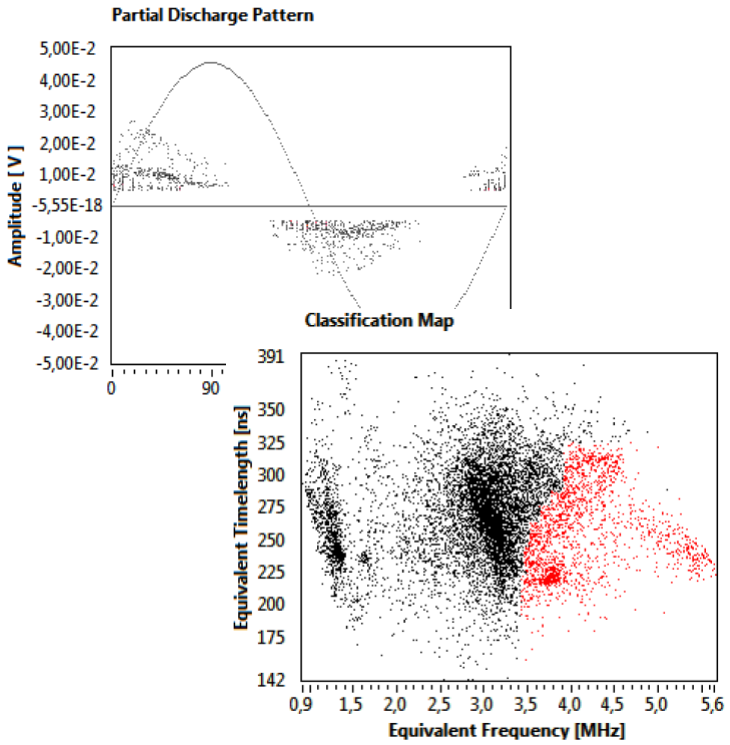
GIS Termination

High Frequency PD pulses were achieved by means of Clamp HFCT placed around the ground connection of the GIS Termination (39mm version) and around the jumper cable (39mm version).

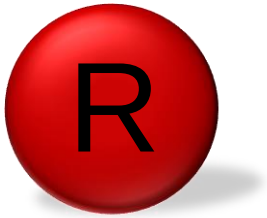
Thanks to the Clamp version of the HFCT it is possible to perform on-line PD measurements without ground lead disconnection or out of service of the EUT.

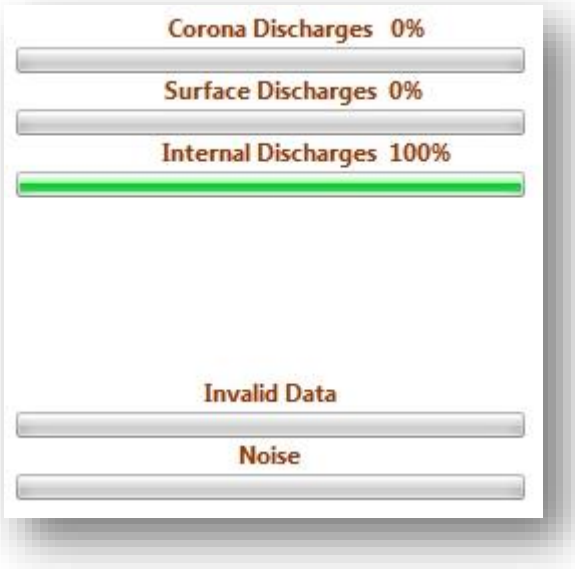
PD measurement results on Blue Phase

BLUE PHASE



IDENTIFICATION





Equivalent Frequency analysis for the Internal PD activity detected on the TF Classification Map (Red Cluster) allows to conclude:

PD activity inside GIS termination of the phase under test

Considering amplitude and repetition rate of detected PD it was suggested to:

1 – Replace the HV termination