

# Damped AC (DAC) Test Unit



- Delivering 24/7 support our people and equipment available at short notice
- Experienced in house team of technicians and support staff
- Provides confidence in assets integrity & healthcare Offers AC Withstand test in line with IEEE 400.4
- Partial Discharge (PD) analysis of your asset (Cable and accessories) with localisation (To IEC 60270, IEEE 400.3 & IEC 60885-3)
- Capable of testing 30km of 66KV cable @ 2U0

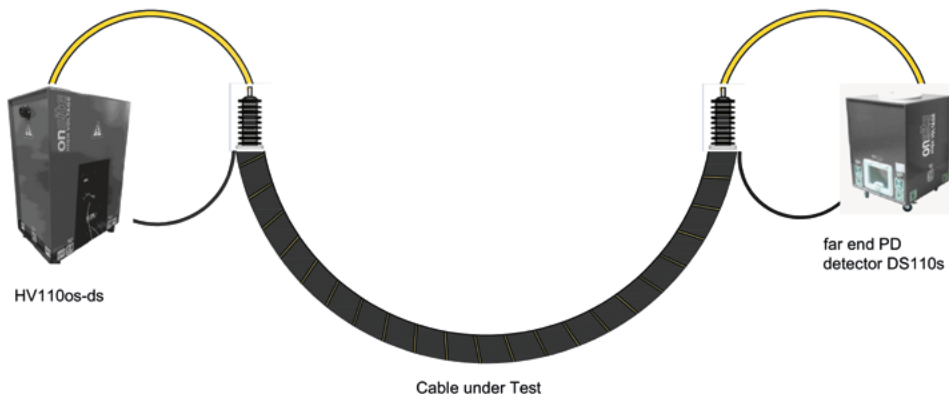


Renewables  
Offshore Services

JDR's Damped AC (DAC) Test Set, provides the market with a viable alternative to VLF & resonance testing offshore. Whether testing newly installed cables, asset fingerprint analysis or fault finding, this test set's design limits impact on of offshore logistics. The introduction of PD detectors at both ends of the cable make finding faults quick and accurate. This enables any issues to swiftly discovered, so rectification can be carried out swiftly improving asset uptime.

The DAC unit fully compliant with

- IEEE 400.4
- PD detection under IEC 60270, IEEE 400.3 & IEC 60885-3



# HV110DS Data Sheet

## Offshore 78kV RMS DAC test Set

System parameters DAC HV110os

Max. output voltage	6 ... 110 kVpeak/ 78 kVrms Precision +/- 1% Resolution 0.1 kV
Coil inductance	approx. 1.4 Henry
Coil resistance	approx. 25 Ohm
Frequency range Damped AC	20 Hz ... 300 Hz in compliance 20 Hz ... 800 Hz system capability
Test object capacitance range	0.03 ... 5 µF at 110 kVpeak, max. 12 µF
HV energizing current	10 mA
HV Switch	LTT, (Light Triggered Thyristor)
Calibration mode	Automatic, wireless controlled calibrator / manual
PD measuring range	1 pC... 150 nC, displayed in 17 ranges of: 1, 2, 5 10, 20, 50, 100, 200, 500, 1 000, 2 000, 5000, 10 000, 20 000, 50 000, 100 000, 1050 000 pC
PD measurement bandwidth	acc. to IEC 60270
PD localisation bandwidth	150 kHz ... 20 MHz, typical 150 kHz ... 50 MHz, system capabilitywide range, automatic bandwidth adaptation for short and long cables
PD measuring accuracy	1 pC
PD location accuracy	1.0 m down to 0.1 m
TDR joint location in calibration mode	Integrated
Dissipation factor estimation range	1 × 10 <sup>-3</sup> ... 10 × 10 <sup>-2</sup> / 0.1 ... 10.0 %
User interface	Remote client (Notebook)
Analysis software	DAC Explorer package: comprehensive viewing, processing, analysis and reporting of DAC measurement data
Operating temperature	-25°C ... 65°C non condensing
Power Supply	single phase AC 200 ... 240 V, 50 Hz, 1500 VA

### DACMaster Unit

HV110DS Offshore System	
Weight	199 kg
Dimensions (LxWxH)	1290 mm × 830 mm × 1770 mm

HV110DS Offshore System	
Weight	129 kg
Dimensions (LxWxH)	1130 mm × 730 mm × 50 mm

### DACSlave Unit\*

DS110 Offshore System	
Weight	46 kg
Dimensions (LxWxH)	685 mm × 630 mm × 1150 mm

HV110DS Accessory Flight Case	
Weight	109 kg
Dimensions (LxWxH)	1130 mm × 730 mm × 550 mm

\*For testing cable length longer than 15 km. This unit measured PD from fanned of the cable to give greater results.

For more information regarding  
JDR Services, please email:

US [service.support@jdr cables.com](mailto:service.support@jdr cables.com)

UK [sales.support@jdr cables.com](mailto:sales.support@jdr cables.com)

[jdr cables.com](http://jdr cables.com)

**Houston Service Center**  
2012 S Persimmon St.  
Tomball, Texas 77375, USA  
T | +1.832.448.3500

**JDR Newcastle**  
Neptune Energy Park,  
Neptune Road, Walker  
Newcastle upon Tyne  
NE6 4LU, UK  
T | +44 (0) 191 917 7000

**Hartlepool,  
Maritime House,**  
County Durham

**Hartlepool,  
Victoria Dock,**  
County Durham

**Littleport,**  
Cambridgeshire, UK



JDR is a leading provider of technology connecting the global energy industry. Our products and services enable vital control and power delivery for offshore oil & gas and renewable energy systems. The world's energy companies depend on high performing control umbilical and/or power cable systems to operate in the world's harshest environments. JDR invests in state of the art manufacturing facilities, technology and people to deliver these world class energy connection/control products and services. We have a proven track record of delivering client expectations and are totally committed to full lifecycle customer services. We achieve this through our specialist engineering teams, experienced project managers, integrated safety systems and global service network which ensures 24/7 aftermarket support.