

## **Solid State/capacitive AC Discharge Device. SSD**

### **No DC leak! Perfect for new precoated pipelines!**

- Mitigates pipeline AC voltages
- Decouples lightning transients
- Protects operating personel
- Inhibits AC influenced corrosion
- Completely neutral to DC pipe/soil potential



Solid state polarization cells or SSD is a AC discharge devices, used to mitigate pipeline AC voltages resulting from induction from overhead power lines sharing the same right-of-way.

A main purpose of the AC discharge devices is to protect operating personnel from hazardous touch voltages.

### ***Balanced AC discharge***

An increasingly important task for the AC discharge device is to inhibit AC influenced corrosion by lowering the pipe to soil AC voltage. CP experts throughout have reached agreement that excessive cathodic protection combined with AC voltage is a non-tolerated mixture, likely to cause accelerated AC corrosion. The AC discharge devise has been designed and developed for the purpose of being completely neutral to the DC thus to maintain the rectifier in full control of the cathodic protection level. Unlike other known solid state polarization cells it does not produce additional cathodic polarization by rectifying the AC voltage.



## Solid State AC Discharge Device or SSD.

No DC leak current!

Electrical properties:

Model	421	422	423
Capacitance ( $\mu\text{F}$ )	2500 $\pm$ 5%	5000 $\pm$ 5%	10000 $\pm$ 5%
Continuous AC drain (A)	20	30	50
Lightning impulse current (10/350 $\mu\text{s}$ )	100kA	100kA	100kA
Impedance, 50Hz ( $\Omega$ )	1,3	0,7	0,35
AC Current 0,6 Sec. (A)	5000	5000	5000
DC Leak current ( $\mu\text{A}$ )	< 0.01	< 0.01	< 0.01
DC Blocking Voltage (V)	$\pm$ 26V	$\pm$ 21V	$\pm$ 17
AC voltage, limiting (V)	18.2 rms	14.4 rms	11.9 rms

Information within this sheet subject to change without notice

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## Physical properties:

Dimensions: 250mm x 255mm x 120mm

Weight: 3-7kg

Operating temperature: -40to +60°C.

## Mounting options:



Mounting Brackets, set of two.

Stainless steel. Incl. 4 screws.

## Unit connections:

