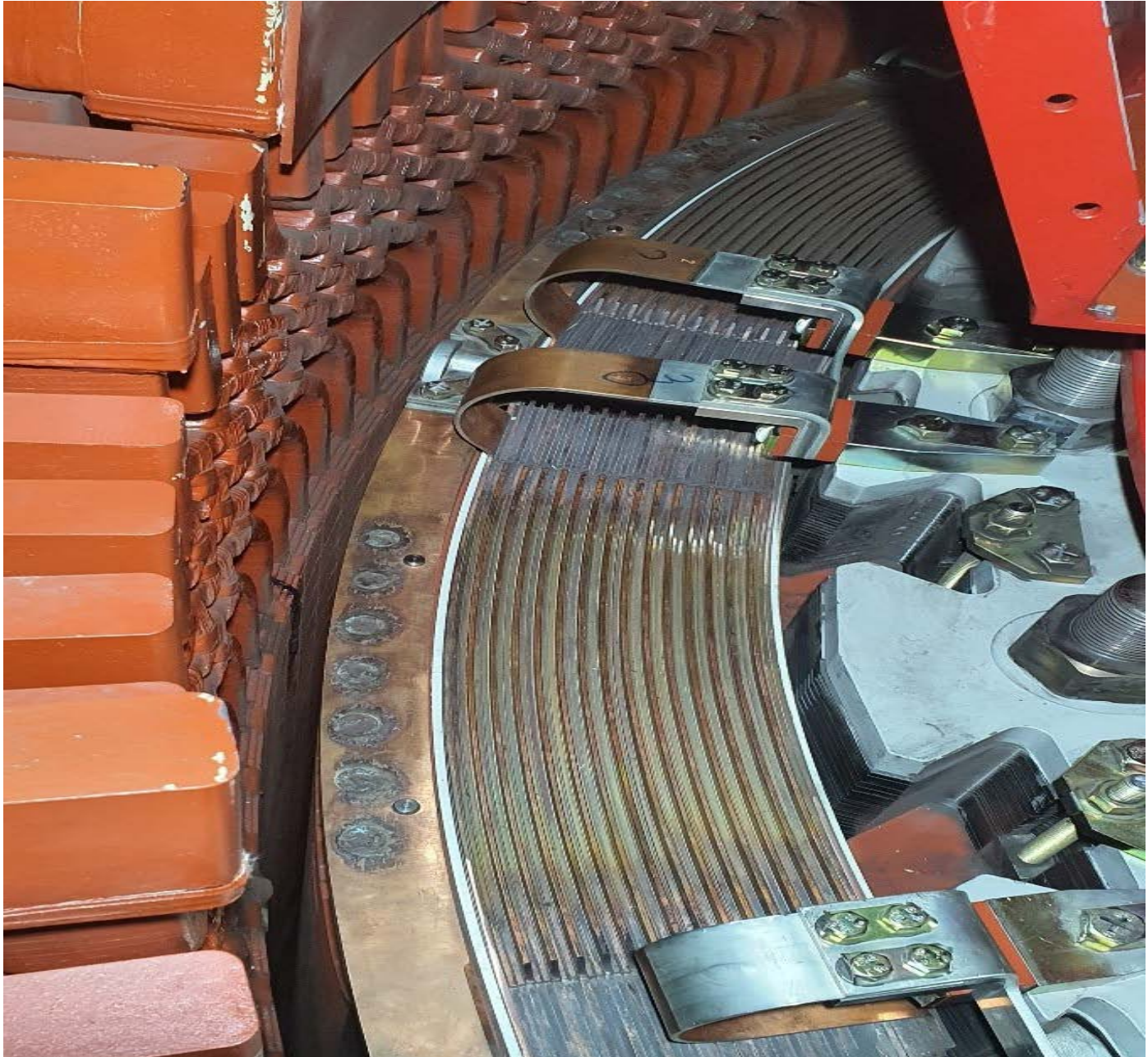


# Generator Rotor Flux Monitoring

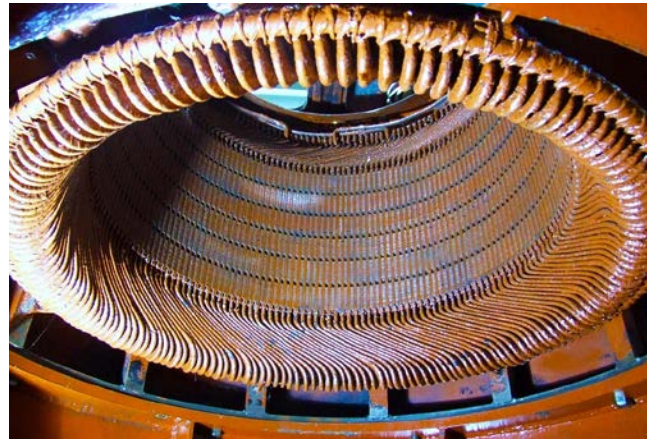


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*Pioneering the future of power testing and monitoring*

# Generator Rotor Flux Monitoring



## Generator Winding Faults

The Generator Rotor Flux Monitoring detects the magnetic field of each pole of the generator. This measurement is used to detect electrical failures (that is shorted windings) and mechanical faults (of center rotor, imbalance, loose poles). This faults can lead to power losses, higher mechanical damages, and generator shutdown.



## Description

The sensor used for this monitoring is in a form of a probe that is installed in the generators air gap. It can be installed for hydrogenators air gap size less than 50 mm and turbogenerators with an air gap size more than 50 mm. The other dimensions are customized according the specific generator.

The probe is connected to high-speed data acquisition hardware that is used for measurement, signal processing, data analyzing and visualization.



<b>SCADA connectivity</b>	<b>RS-232, RS-485, MODBUS</b>
<b>Protection</b>	IP 65
<b>Operating Temperature</b>	-20 °C-50 °C
<b>Relative Humidity</b>	< 90%
<b>Diagnostics</b>	Shorted windings, mechanical rotor damages



## Easy Fault Management

An advance software algorithm is integrated with the high-speed hardware that performs the diagnostics. This algorithm classifies the fault and locates the specific pole where the fault occurred.



## Installation

The sensor is installed on a stator wedge using special adhesive epoxy in the air gap of an open generator. Then the probe is connected to the signal processing unit. DC power supply is needed for the signal processing unit. Also, the connectivity outputs are gathered from the signal processing units.

A profile of the generator is created on our web application where the data is presented on an online SCADA.

<b>Air Gap Dimensions</b>	<b>&lt; 50 mm (Hydrogenators)</b> <b>&gt; 50 mm (Turbogenerators),</b> <b>Adjustable Height</b>
<b>Probe Signal Range</b>	0.3-43 V
<b>Impedance</b>	10 kΩ
<b>Consumption</b>	< 100 W
<b>Power Supply</b>	24 V DC, 5 V DC
<b>Electrical protection</b>	Overvoltage, overcurrent, voltage stabilization



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