

# RTD Partial Discharge Module for Motors and Generators

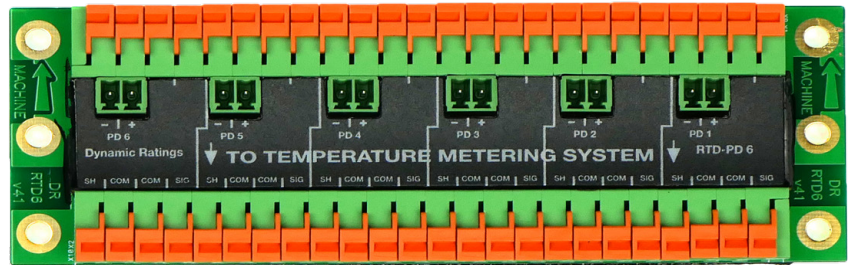
## See Deeper Into the Windings

### Design Advantages

Dynamic Ratings Resistive Temperature Detector Partial Discharge (RTD-PD) Module is specifically designed to detect partial discharges that occur deep within the windings of motors and generators. Line-side coupling capacitors only identify PD levels close to the equipment terminals. When the RTD-PD sensor is used in conjunction with the coupling capacitors, the detection zone is increased by the number of RTDs monitored. This allows a more comprehensive view of the true condition of the machine's insulation system.

### Features

The machine resistive temperature detectors (RTDs) act as RF-antennas placed into a winding and are sensitive to the high frequency component of electromagnetic pulses caused by PD. PD pulses are decoupled from the RTD sensor by the Dynamic Ratings RTD-PD module. RTDs improves data interpretation, helping determine if partial discharge activity exists throughout the winding or is localized in one area. Additionally the RTD-PD module was designed to suppress noise interference and provide noise filtration plus signal amplification for proper data analysis.



Additionally the RTD-PD module was designed to suppress noise interference and provide noise filtration plus signal amplification for proper data analysis.

### Benefits

- Increases sensitivity to PD deep in the winding.
- Aids in determining the strength and location of partial discharges in rotating equipment.
- A great companion sensor to an RFCT or Coupling Capacitor.
- Non-intrusive installation does not require outage.

### Applications

- Generators
- Motors

### Technical Data

Most medium voltage machines have 6 to 12 RTDs embedded into the winding by the manufacturer. These typically provide PD monitoring coverage of three slots with high voltage potential, and three slots nearer the neutral end of winding where the voltage potential is lower. Larger machines are typically equipped with 12 or more RTDs embedded into the winding, providing a wealth of PD information. Detecting PD at lower potential slots provides accurate information as to which part of the winding is deteriorated. The module is installed in series with the existing RTD circuit, often replacing the terminal block that is located at the machine enclosure. It is important that the sensor be mounted as close to the machine as possible. Each sensor is designed to handle six RTDs and does not interfere with the temperature measurement.

## Product Specifications

**Power Requirements:** None (this is a passive device)

**Temp Range:** -40° to 85°C / -40°F to 185°F

**Frequency Range:** 500kHz to 75MHz

## How to Order

Part Number	Description
RTD-PD	RTD-PD Sensor Module with 6 RTD sensing inputs, 6 RTD signal outputs and 6 PD signal outputs.



An ISO 9001, ISO 14001, ISO 27001, ISO 45001 Certified Company.

**Americas**  
+1 262 746-1230  
sales.us@dynamicratings.com

**Europe/ Africa**  
+44 1617 681111  
sales.eu@dynamicratings.com

**Asia / Oceania**  
+61 3 9574-7722  
sales.asia@dynamicratings.com

[www.dynamicratings.com](http://www.dynamicratings.com)

Request a quote from your regional office.

