



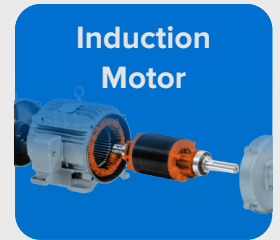
**Manage and Reduce Your Risk  
with Condition Monitoring  
for Motors**

Constantly monitor the critical parameters of  
your rotating machines now from anywhere

# RM's Solution for Motors

Condition Monitoring of high rating motors which are in continuous operation is very important. Any fluctuation in voltage or frequency may lead to damage of the rotating machine and unplanned outages as well as cost and resources. Continuous monitoring and tracking the performance of heavy-duty motors are important for an efficient and increased asset lifetime.

Rugged Monitoring offers an advanced comprehensive condition monitoring solution for your motors. The solution includes from precisely designed sensors, monitors to software which displays the values in graphical or numerical form as per the requirement. Depending on specific operating requirements and application, we customize our condition monitoring solutions for Induction Motor & Synchronous Motor.



## What Can Be Monitored

### Cooling Monitoring/Control

- Inlet Temperature
- Outlet Temperature
- Intelligent Cooling Control
- Cooling Efficiency

### Partial Discharge Monitoring

- PD Detection
- PD Localization
- PD Severity Analysis

### Temperature Monitoring

- Bearing Temperature
- Ambient Temperature
- Winding Temperature
- Cooling Air Temperature

### Load, Power

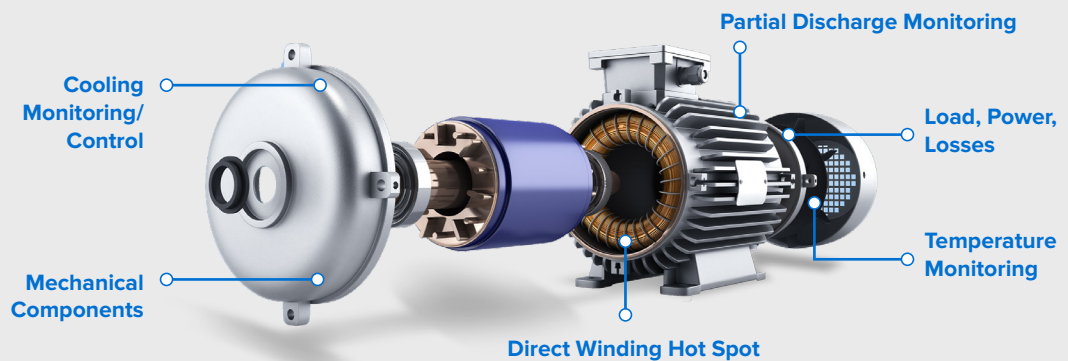
- Load/ Over Current
- Active/ Reactive Power
- Power Factor

### Direct Winding Hot Spot

- Stator Winding Hot Spot
- Rotor Air Gap Temperature

### Mechanical Components

- Machine Vibration
- End Winding Vibration
- Current Signature Analysis
- Flux Monitoring



## Features

- Intelligent and customizable solution
- Unique and Reliable Prediction
- Alarms and Alerts for any potential mechanical problems
- Built on well-established remote and cloud-based monitoring technology
- Realtime Process parameters monitoring

## Benefits

- Extended Asset Lifecycles
- Turnkey solution with Remote Condition Monitoring
- Capture Trends and Increase Return on Investment
- Different dashboards for different user roles and levels
- Greater diagnostic capability
- Ability to monitor multiple rotating machines with one software

# R501 Rack Mount Comprehensive and Customizable Asset Monitoring Solution

R501, the customizable, rack mount, comprehensive electrical asset condition monitor is designed to monitor multiple electrical assets and its parameters enables a simple and user-friendly interface. R501 provides condition monitoring of electrical assets by focusing on preventing asset failures and reduce downtime. With our comprehensive monitoring solution, the health of assets can be determined, and maintenance activities can be scheduled. The R501, our versatile rack-mounted monitor, with its customizable features allow you to monitor multiple assets simultaneously, providing a user-friendly interface and an extensive range of parameters to track. The R501 focuses on preventing asset failures and minimizing downtime, empowering you to take proactive maintenance actions.



## Features of R501

- Expandable with daisy chain & Field Upgradable to add different monitoring modules.
- Highly secure, web server-based visualization and configuration software
- Simple visualization & easy to configure.
- Equipped with most accurate & advance health assessment analytics.
- Range of communication options and protocol support; ethernet redundancy (PRP)

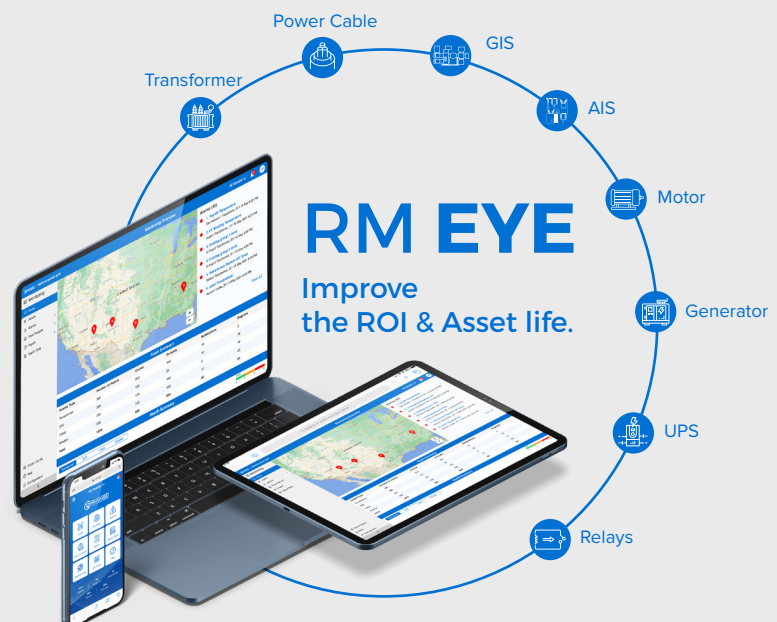
## Benefits of R501

- Improved asset reliability
- Accurate predictive analysis
- Access asset data from anywhere
- One monitoring solution for multiple assets
- Increased asset lifetime
- Highest return on investment
- Field upgradable with no device downtime

## RMEYE: Multi Site, Multi Asset Condition Monitoring Solutions

We at Rugged Monitoring have developed an AI based comprehensive electrical asset condition monitoring system “RMEYE” with multiple analytical capabilities in asset condition monitoring that stands way apart in technological advancement.

RMEYE is a versatile condition monitoring solution that can offer comprehensive analysis on various electrical assets spread across multiple industries. It considers every aspect in condition monitoring of different assets like transformer, cable, GIS, AIS, motor, generator, UPS, VFD, MV panel, battery, relays, etc and users to give the best recommendation for longer and better health of the assets.









## Features

- **Advanced asset health monitoring** with analysis and recommendations to increase asset effectiveness in addition to maximizing equipment uptime
- **Modern remote monitoring solutions** provide valuable insights to Multiple Assets at Multiple Sites from time to time
- **Establish a real time and consistent monitoring** by getting the right information into right hands
- **Simple and user-friendly interface** providing easy and fast access to all the features
- **Everything about the asset at one place**  
The raw data, analysis and recommendations
- **Advanced asset algorithms** for electrical assets to evaluate asset health
- **Advanced reporting technology with automated alerts**
- **An efficient, reliable partial discharge monitoring for all the assets**
- **A detailed comprehensive DGA analysis**
- **Built on well-established remote and cloud-based monitoring technology**
- **Quick configuration** so that you are not required to configure separately.
- **Protocols: IEC 61850, MODBUS, MQTT**
- **Robust integration with 3rd party systems and devices** with industry standard protocols
- **Bulk configuration imports for fast deployment**
- **Encompasses a secure access to data and configuration**
- **QR code scanner on mobile devices**
- **Accessible on web browser and mobile app**
- **Historical data storage and on demand access** via export feature
- **Extended multilingual support** to handle product inquires or troubleshoot problems proactively
- **Systematic fleet management analysis**
- **Offline test data integration and analysis**

## Benefits

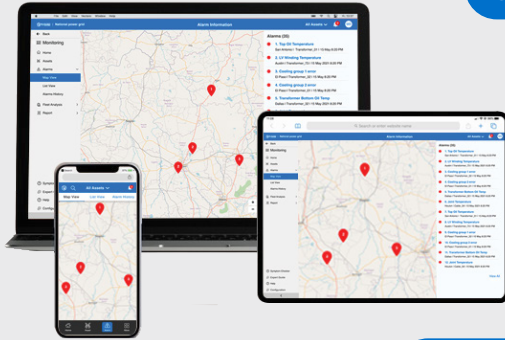
- |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Company</b> <ul style="list-style-type: none"><li>✓ Single monitoring solutions for multiple assets</li><li>✓ Avoid unscheduled outages and increase asset utilization</li><li>✓ Extend asset life, with proper maintenance</li><li>✓ Reduce insurance premium with most advanced monitoring</li><li>✓ 24 x 7 remote monitoring, accessible from anywhere</li></ul> |  <b>Manager</b> <ul style="list-style-type: none"><li>✓ Decision support system for short term and long term planning</li><li>✓ Company, region, substation analysis on your fingertips</li><li>✓ Effective management and tracking of monitoring KPIs</li><li>✓ Identify problem areas with interactive dashboards</li><li>✓ Advanced and automatic management/regulatory reports</li></ul> |
|  <b>Asset Experts</b> <ul style="list-style-type: none"><li>✓ Deep analysis of diagnosed faults with advanced analytical tools</li><li>✓ Complete asset data at one location</li><li>✓ Customise and generate automatic reports for subscribed assets</li><li>✓ Ready access to historical data for root cause analysis</li></ul>                                       |  <b>Operators</b> <ul style="list-style-type: none"><li>✓ Quick identification of problematic assets in the network</li><li>✓ Get real time alarm/ alert notifications</li><li>✓ Realtime updates about the assets on mobile, desktop and emails</li><li>✓ Quick access to assets with QR code scan on handheld devices</li></ul>                                                            |



# Asset Monitoring : Enterprise Architecture

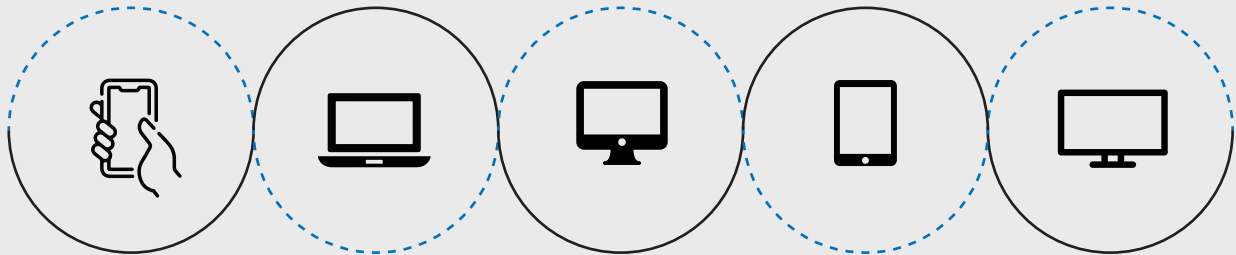
Compatible with Rugged Monitoring Enterprise Solution

## UI UX



- Data Layer
- Analytics
- User Interface
- Custom Dashboards
- Reporting
- Email/SMS Notifications

## RM EYE



Private Cloud (Customer Cloud),  
Rugged Monitoring Cloud

**IEC 60870-104**

**IEC 61850**

**FTP/SFTP**

- XML, JSON

- CSV, COMTRADE

**Data Collection**

**ODBC**

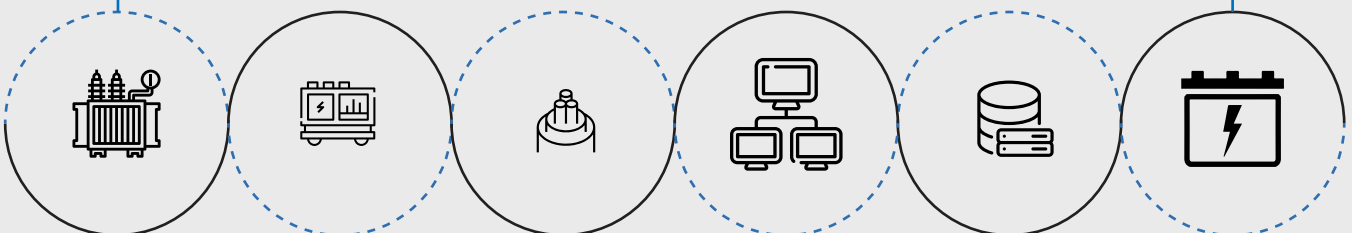
**MODBUS**

**DNP 3.0**

**HTTPS**

**MQTT**

## Asset Data



Transformer  
Monitoring  
System

Switchgear  
Monitoring  
System

Power Cable  
Monitoring  
System

- Offline Test Results  
- Inspection Records  
- Name Plate

- Historian  
- CMMS  
- SCADA/ DCS

Power Electronics  
(Battery, UPS,  
VFD, Relay)

# Why Customers Choose Us?

RM solution, the trusted monitoring solution for over 10000+ assets across 50+ countries. We are a leading High Value Electrical Asset Monitoring Company integrating fibre optic technology to the assets.



## Attention to Details

It's our attention to the small stuff, scheduling of timelines and keen project management that makes us stand out from the rest.



## A plan for Success

Our Customers are well satisfied with the advisory services that we offer to help them with best in class technological performance and a long durable life.



## Experts only

We bring in our diversified experienced team with over 100+ years of experience in Asset Monitoring



## Meeting Deadlines

Work with us, and you'll work with seasoned professionals – vigilant of deadlines, and committed to exceeding client expectations.



## Money Matters

We protect you against currency fluctuation with competitive and fair market prices





## Rugged Monitoring Services

Rugged Monitoring provides customization of sensors, monitors & software. In addition we offer on-site commissioning services, maintenance contracts and technical support to all customers worldwide.

## About Rugged Monitoring

Industry's leading team of asset condition monitoring experts with 100+ years of combined experience committed to delivering customizable solutions for challenging applications. We offer a range of reliable, high performance, customizable sensors and monitoring solutions that are immune to external influence.

# Certification



ISO 9001



ISO 14001



ISO 45001/  
OHSAS 18000



Lloyd's  
Register



ATEX  
Certification



# Our Presence Across the Globe



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