

OM TECHNICAL SOLUTIONS

Electrical Safety, condition monitoring and testing solutions

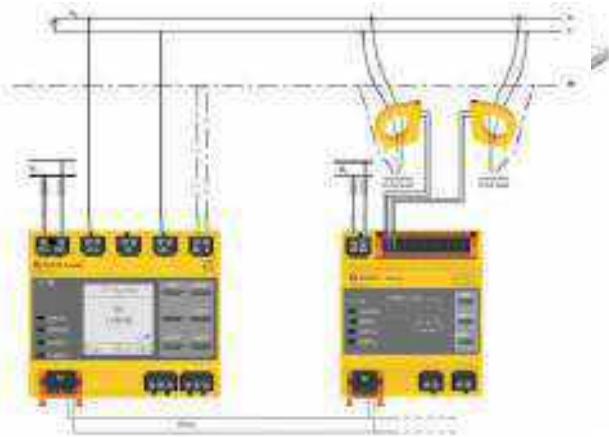


Online Insulation Monitoring with Automatic Fault Location System in Ungrounded (IT) Systems from 12V upto 12kV

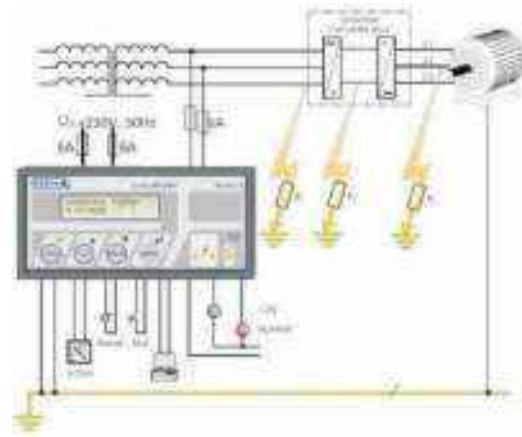


- Monitors the insulation resistance of the complete galvanically connected system using patented AMPPLUS technology.
- Displays the insulation resistance value in $k\Omega$ and gives an alarm when $k\Omega$ falls below critical alarm value. Pre-alarm function gives advance information about slowly developing fault.
- Automatically locates the faulty feeder for upto 800V.
- Gives accurate results without spurious alarms in AC/ 3AC/DC systems as well as mixed AC/DC systems like VFDs.
- Central administration via LAN/VAN, remote monitoring via PC or PLC, SCADA.
- Microprocessor based relay with History memory, failsafe Connection monitoring etc.

Insulation monitoring with fault location system in AC & 3AC system from 20V to 760V



Insulation monitoring in variable frequency drives



Suitable for monitoring and locating insulation resistance/ earth fault in all ungrounded applications particularly in Ungrounded 220V/48V DCDBs in Power generating stations/transmission/ Distribution; Ungrounded 110V/220V/48V/24V DCDBs in Oil& Gas plants/petrochemical plants; Ungrounded power supplies in PLC/SCADA applications, Ungrounded power distribution in ships and offshore vessels, ungrounded high voltage loads/motors, Ungrounded Variable frequency drives, Ungrounded DC Drives, Ungrounded generator excitation system, Ungrounded Generator rotor earth fault monitoring, ungrounded control and instrumentation systems, ungrounded wind turbines, ungrounded solar inverters, Insulation monitoring in standby loads etc.

System is recommended according to IEC60364-4-41, IEC61557-8, IEC61557-9.

Power quality analyzer and energy meter

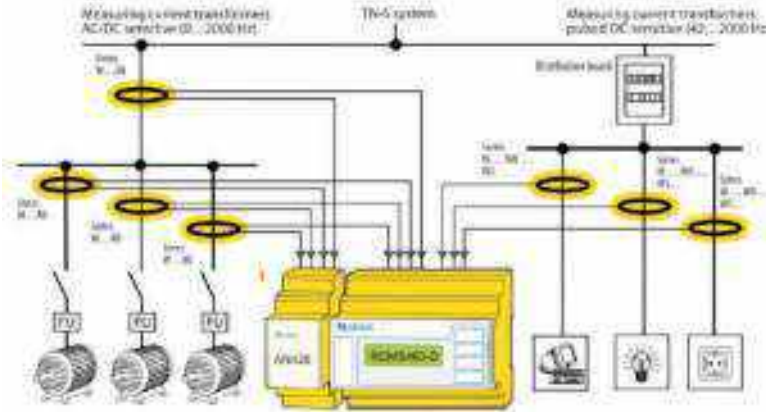


- Accuracies according to DIN VDE 62053-22, DIN EN 61557-12. Communication via Modbus, RTU, RS-485, Ethernet. Upto class 0.2S accuracy.
- Harmonics monitoring upto up to 63rd.
- transient detection, History memory and DATA logging, waveform and data-recordingsag/swell, 12,8kHz sampling rate
- Measured quantities Phase Voltage/Current/Angle, Line Voltage, Neutral current, Frequency, Total power, Displacement factor, Power factor, Voltage and Current unbalance, Harmonic distortion, K-factor.
- Modbus/RTU/PROFIBUS/ETHERNET communication.

Online Residual Current Monitoring System for grounded (TN) systems.

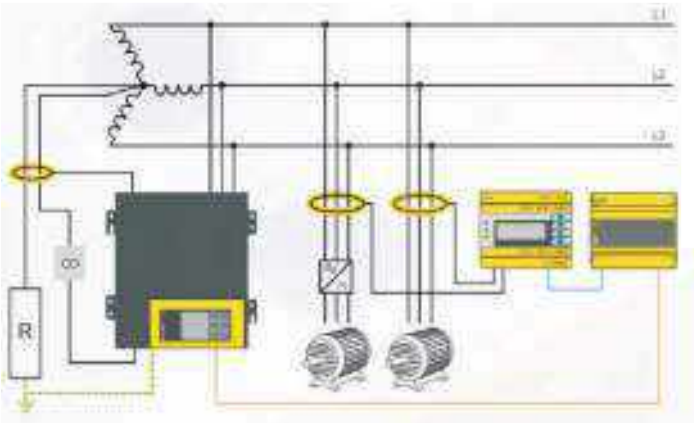
To be used in all grounded applications whenever safety, availability, quality & reliability of electrical power is of prime importance.

Example for a design of a - minimum system consisting of an RCMS460-D and 12 measuring points



- Monitors residual / leakage current using TRUE RMS measurement principle, displays the value in mA.
- Two separate adjustable alarm set-points for pre-alarm and critical alarm/tripping.
- Automatically locates the faulty feeder.
- Measurement range 5mA to 20A, 0Hz to 2000Hz.
- Monitors all harmonic components of leakage currents along with THD as well as DC component.
- Gives accurate results without spurious alarms in AC/ 3AC/DC systems as well as mixed AC/DC systems like VFDs.
- Central administration via LAN/VAN, remote monitoring via PC or PLC, SCADA.
- Microprocessor based relay with History memory, failsafe Connection monitoring etc.
- In confirmation with IEC60364-4-41, IEC62020, IEC61557-6

NGRM700 Neutral Grounding Resistor Monitor



The NGRM700 neutral grounding resistor monitor measures the resistance of the NGR for High Resistance Grounded Systems (HRG). Its monitoring capabilities include NGR current, voltage and continuity, phase-to-ground voltage. The ideal relay to protect the grounding system and to provide main or backup ground-fault detection. The relay can connect to a communications network and stores data onboard for local or remote viewing.

The NGRM indicates ground-fault occurrence and phase voltages. When a fault occurs it can be used to activate a pulsing ground-fault location system. Combining the NGRM700 with RCMS multi-channel ground-fault relays can provide a quick method of determining the location of the fault.

Measuring and monitoring relays



- Voltage monitors having functions such as Under-voltage /overvoltage, phase sequence, phase balance, phase asymmetry and frequency monitoring.
- Current monitors having functions under current and over current.
- TRUE RMS measurement principle, Digital display, 4 ... 20mA output of measured value.
- Two separate adjustable alarm set-points for pre-alarm and critical alarm/tripping. Or may be used for different parameters like under-frequency and over voltage in voltage monitors.
- Microprocessor based relay with History memory, failsafe Connection monitoring etc.
- High level of accuracy and reliability.

Portable Earth Fault locator system for Grounded and Ungrounded system



- Portable ground fault location system for ungrounded systems:AC 42...460Hz 0...790V / DC 0...960V
- Works while systems is online or offline
- Use in main and control circuits
- Backlit LCD display ,3*16 characters
- Test current from 1mA to 25mA
- Also suitable for measurement of leakage currents and locating earth faults in grounded systems.
- Measurement of harmonic components of leakage currents upto 8th harmonics along with total harmonic distortion

FIPRES

Fire prevention system



HOW IT WORKS

remote FIRE PREVENTION THERMOLABEL rFPT



1 Thermolabel must be wrapped around all the contacts and the gas sensor installed into the switchgear.



2 When heated above 50°C-90°C the indicator marks will irreversibly change their colors.



3 In emergency situations when the temperature rises above 80°C/100°C/130°C the sticker releases signal gas which is detected by the gas sensor.

FIRE PREVENTION ALARM FPA

4 FPA transmits alarm signals to FPC via RS-485 and to a circuit breaker via "dry contact" output to turn off power supply.



VIA RS-485 MODBUS



FIRE PREVENTION CONCENTRATOR FPC



5 FPC monitors the status of all FPA, displays and records signals.

When FPA is triggered, FPC can transmit information to the central fire alarm system, or to central control department.

or you can use a similar device which supports RS-485 Modbus instead of FPC (or even use light version of FIPRES: only rFPT + FPA)



CENTRAL CONTROL DEPARTMENT



SMS
FIRE CHIEF



FIRE ALARM SYSTEM

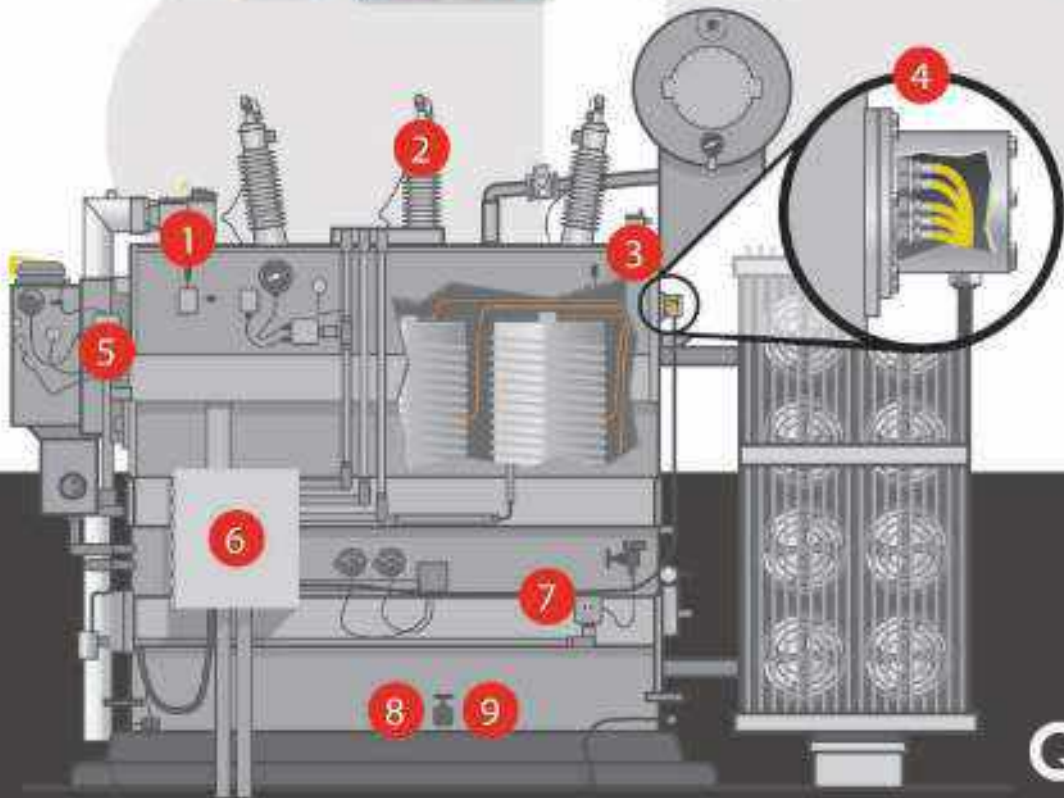
VIA ETHERNET RS-232, RS-485 MODBUS, GSM

QUALITROL TRANSFORMER MONITORING

- | | | |
|---|---|---|
| <p>1 </p> <p>Qualitrol XPRD
Extra Pressure Relief
Device</p> | <p>2 </p> <p>Qualitrol QBMS
On-line Bushing
Monitoring System</p> | <p>3 </p> <p>Qualitrol 900/910
Rapid Pressure
Rise Relays (RPRR)</p> |
| <p>4 </p> <p>Qualitrol T/Guard 408
and 408XT Fiber Optic
Temperature Monitor</p> | <p>5 </p> <p>Qualitrol STB000
Main Tank and LTC
Smart Transformer Breather</p> | <p>6 </p> <p>Qualitrol QTMS
On-line Transformer
Monitoring System</p> |
| <p>7 </p> <p>Qualitrol QPDM
UHF Partial Discharge
Monitoring System</p> | <p>8 </p> <p>Serveron TM8
On-line Gas Chromatography
Dissolved Gas Monitor</p> | <p>9 </p> <p>Serveron TM1
Single Gas On-line
Dissolved Gas Monitor</p> |




SmartSUB
Web Based Transformer
Trending, Diagnostics and
Reports



QUALITROL GAS INSULATED SWITCHGEAR MONITORING

1 
DMS PDMG-RH
Partial Discharge Monitor
for GIS

2 
Qualitrol iSGM
On-line Intelligent SF₆
Gas Monitoring System

3 
AKM 38 Series
Large SF₆
Gas Density Monitor

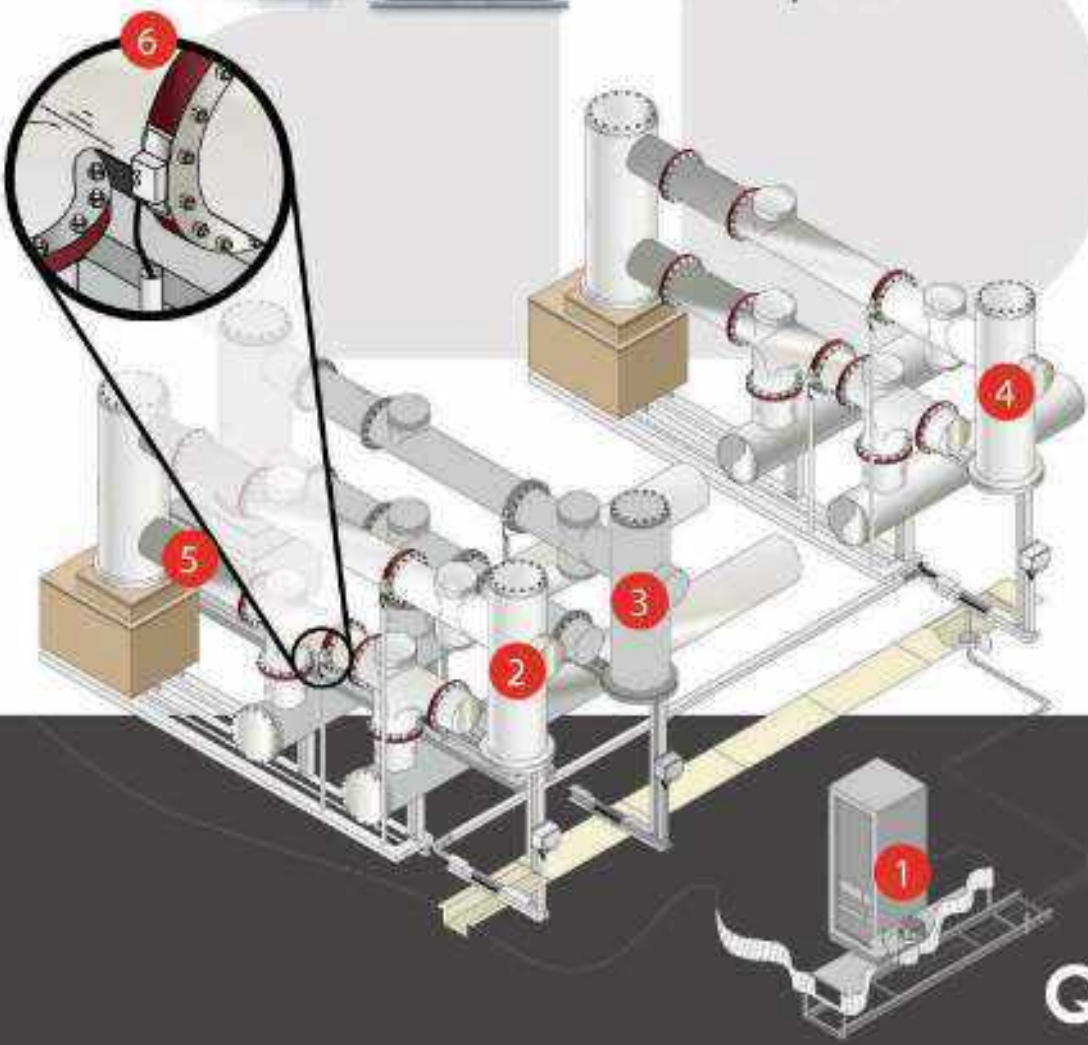
4 
Qualitrol 609 PDM
Transformer and GIS
Partial Discharge Monitor

5 
Qualitrol PPDM
Transformer and GIS Portable
Partial Discharge Monitor

6 
UHF PD Sensors
Barrier & Window (for Retrofit)
and Internal (for New GIS)



SmartSUB
Web Based GIS
Trending, Diagnostics
and Reports



EIG Power Quality Meters



Power Quality Meters : Nexus 1500+ & Nexus 1450

- Ideal for Smart Grid, Critical Metering and Power Quality Sensitive Applications.
- IEC 61000-4-30 Class A Edition 3 Power Quality Certification
- Sample Rate : 512/1024 Samples/Cycle
- 50 MHz High Speed Transients capture
- Memory : 512 MB/1GB/4GB
- Resilient Cyber Security
- Two Independent, separately Addressable Ethernet ports
- Multipoint Communication, I/O and Remote Displays
- Phasor Measurement Unit (PMU)
- Field Upgradeable with V-Switch™ Technology

Shark MP 200—Data Logging Multipoint Energy Meter

- 0.5% ACCURACY Class Energy measurements
- Save Space by Metering 8 Three Phase or 24 Single Phase circuits with One Unit.
- Reduce Energy Costs THROUGH Submetering, Peak Demand Alert and Detailed Usage Optimization.
- Two Historical logs provide up to 64 Parameters and up to 7 years of Logging.
- Communicate via Simultaneous Ethernet and WiFi, RS485, or USB
- Optional Touch Screen HMI Display for Remote Read
- Collect and Analyze Submetering Data in the Cloud, via optional software.
- Field Upgradeable with V-Switch™ Technology



Portable Online partial discharge monitoring equipment for Motors, Generators,

The durable Iris Power Epoxy Mica Capacitors (EMCs) are permanently installed (minimum one per phase) as close as possible to the equipment to be monitored to maximize sensitivity. They are designed to detect Partial Discharge (PD) activity in electrical equipment (AC motors, generators, switchgear and dry-type transformers) while not imposing on the machine’s operation or reliability in any way.

For testing The operator connects low voltage coaxial cable from the Iris Power TGA-B portable instrument to a coupler termination box. The TGA-B instrument is then connected to a control computer that runs the PDLight Pro and PDView software using a USB or Ethernet cable.

The test is initiated through the PDLight Pro software which automatically collects the partial discharge data while the machine is running and without any interference to normal operation of the generator.



Iris Power MDSP3 Current Signature analyzer

The Iris Power MDSP3 detects rotor cage winding faults i.e. broken rotor bars, cracked shorting rings, die-cast manufacturing faults, and unequal air gaps as they are the causes of many mechanical and electrical failure mechanisms in induction motors.

Iris Power MDSP3 is developed by combining advanced current signature analysis algorithms to accurately predict the operating slip from the measured current.



Underground cable route tracer, Precision Locators, cable and pipe locator

Damaging buried utilities can be dangerous very expensive. Radiodetection offers two ranges of cable and pipe locating tools to reflect the range of legislation and best-practice in different countries.

Precision Locators RD7200 and RD8200 ranges are designed to be used to accurately locate a wide range of buried utilities in a wide range of situations.

Cable Avoidance Tool is an easy-to-use but powerful tool to avoid cable strikes and thus preventing accidental damage to underground services when excavating.



Technology driven best on-site practise

- Encourage correct locator handling for improved detection
- Monitor field operations through the automatic usage logging feature
- Proof of work to differentiate your operations from your competition and add value to your clients

Ergonomic design, premium quality

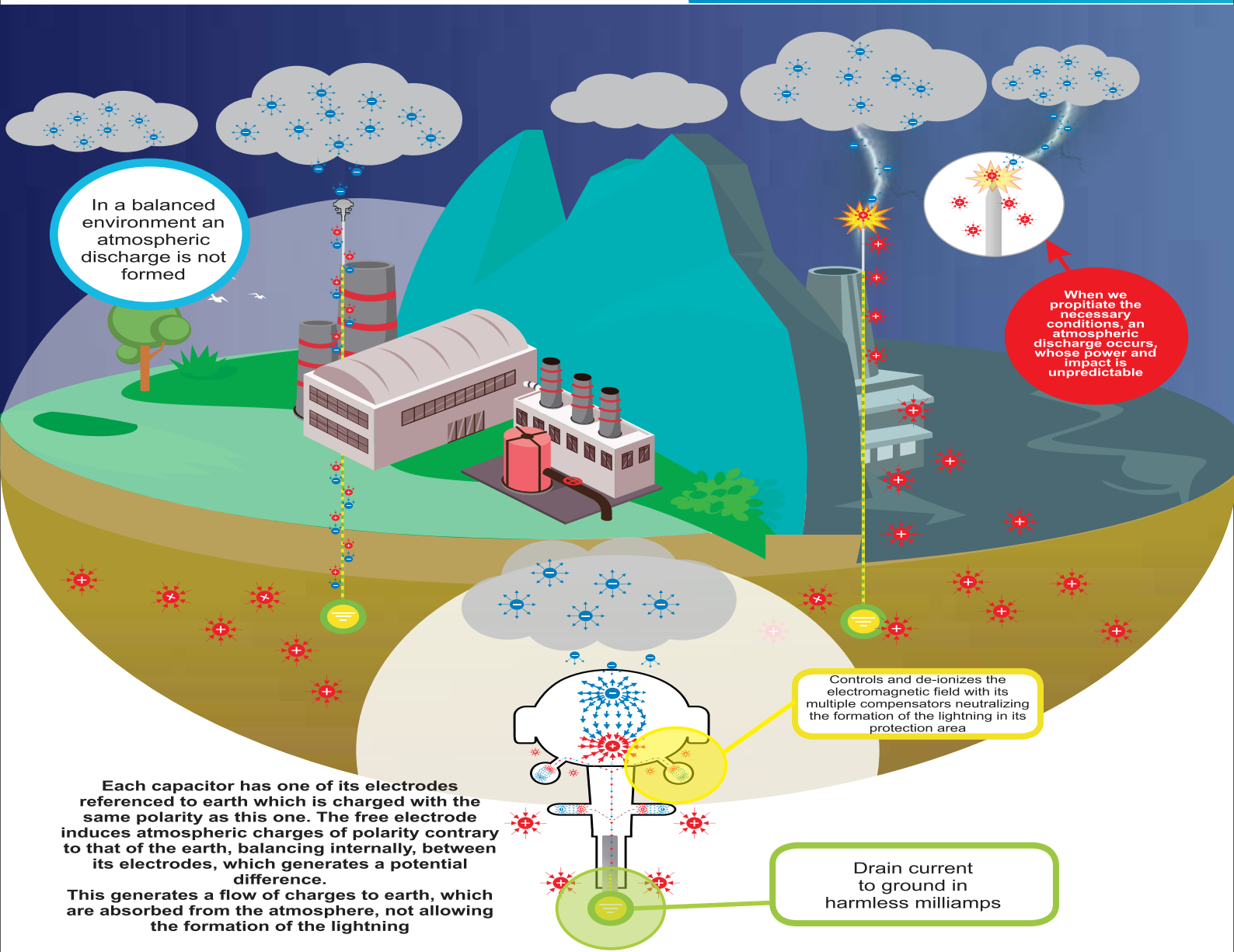
- Rugged yet light weight and ergonomic
- Designed and built to the highest standards in Great Britain
- Self Test for confidence and trust in your locator measurements



Advance Lightning Protection System



In 1916 Nikola Tesla in his patent No. operating principles of a 1,266,175 mentioned the primitive device based on the principles that underpin our developments, explaining the inconveniences caused by the lightning rods, which instead of protecting property and people, attracted the rays increasing the feasibility of electric discharges and consequently the risks that they entailed. New materials and designs, added to years of experience, have allowed us to improve the experiences of the undisputed scientist Nikola Tesla, evolving in the protection of atmospheric phenomena.



OUR CUSTOMERS



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