

Micro Thermal Aerosol Extinguishing Device

Autonomous Electrical Panel Fire Protection | Standard DIN-Rail & 3M Surface Mount

Strategic Proposition for Control Panel Manufacturers & Switchboard Builders

Enhance panel safety, differentiate your bidding specification, and deliver plug-and-play internal fire safety without adding wiring, relays, or pressure piping to your enclosure.



Compact DIN-rail form factor with dual thermal sensing cord triggers.

100% Autonomous — Zero External Power or PLC I/O Needed

Self-activates at $170^{\circ}\text{C} \pm 10^{\circ}\text{C}$ or direct flame via heat-sensing lines. Completely operational even during power blackouts or main breaker trips.

Ultra-Rapid Installation on Standard 35 mm DIN Rail

Snap directly alongside MCBs, contactors, and terminal blocks. Zero assembly labor overhead; saves valuable cabinet space compared to bulky gas cylinders.

Safe for Electronics (Non-Conductive & Non-Corrosive)

Discharges condensed potassium/strontium dry aerosol. Extinguishes class A, B, C, and E fires in under 5 seconds without conductive residues damaging sensitive relays.

Maintenance-Free with 10-Year Service Life

Non-pressurized solid propellant matrix. Eliminates pressure gauge monitoring, annual refilling, and leakage risks associated with gas cylinders.

≤ 5 sec

DISCHARGE TIME

170°C

AUTO-TRIGGER TEMP

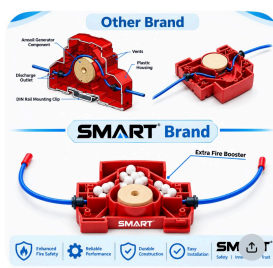
1000 V

DIELECTRIC SAFE

10 Yrs

OPERATIONAL LIFESPAN

Internal Architecture & Suppression Mechanism



Internal Generator & Booster Design

Flame retardant ABS housing with dual-axis discharge ports and high-density chemical aerosol generation core.



Modular Integration in Panel Train

Standard 35mm DIN-rail profile fits seamlessly between standard MCB, Surge Protection Device (SPD), and energy meters.

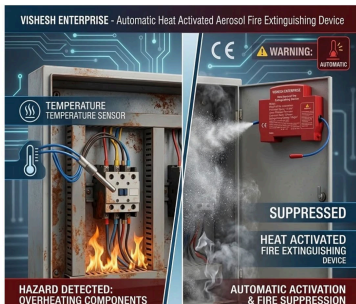
Technical Specifications & Applications

Model Series: QRR0.01G / QRR0.015G / QRR0.03G Condensed Aerosol Systems

Electrical & Chemical Performance Specifications

TECHNICAL PARAMETER	STANDARD SPECIFICATION VALUE
Product Model Series	QRR0.01G (10g) / QRR0.015G (15g) / QRR0.03G (30g)
Suppression Agent Type	Solid Condensed S-Type / Strontium Nitrate + Potassium Nitrate formulation
Protected Enclosure Volume	0.10 m ³ (10g unit) 0.15 m ³ (15g unit) 0.30 m ³ (30g unit)
Extinguishing Density	≤ 100 g / m ³ (rapid volumetric total-flooding behavior)
Activation Mechanism	Thermal detection cord (170°C ± 10°C) / Direct electrical arcing flame
Fire Extinguishing Classes	Class A (Combustible solids), Class B (Liquids), Class C (Gases), Class E (Electrical up to 1 kV)
Mounting Method	Standard 35 mm DIN Rail (EN 50022 / TH35) & Industrial 3M High-Bond Thermal Tape
Operating Ambient Conditions	Temperature: -50°C to +90°C Relative Humidity: ≤ 95% non-condensing
Housing Flame Retardancy	UL94 V-0 flame-retardant engineered polycarbonate / ABS polymer
Electrical Insulation	Non-conductive discharge; no residual tracking or circuit bridging

Field Performance & In-Cabinet Suppression



Rapid flash suppression inside industrial starter and contactor cabinet.



Thermal line routes directly through high-risk wire bundles and glands.

Primary Application Enclosures for Panel Builders

Motor Control Centers (MCC)

- VFD inverter drives
- Soft starter compartments
- Contactor clusters & thermal relays

Power Distribution Panels

- LT/HT Breaker panels & bus ducts
- Main DBs & sub-distribution boards
- Capacitor bank (APFC) panels

Solar & Telecom Cabinets

- Solar AC/DC Combiner boxes (AJB/SCB)
- BESS & battery storage enclosures
- Outdoor telecom rectifier cabinets

Commercial & Competitive Advantages for Panel Builders

Value-Add Margin Elevation

Transform standard electrical panels into "Fire-Safe Certified Enclosures," allowing you to capture higher project margins and premium tender evaluations.

Zero Post-Commissioning Liability

Prevents isolated wire overheating from escalating into catastrophic panel blowouts, protecting your brand reputation and client uptime.

OEM Sampling & Direct Factory Supply Inquiries

Contact SME Supply for technical test reports, volume samples, and OEM panel integration specs.

Contact: +91 - 9867761322

DIN RAIL PANEL MOUNTED HOT AEROSOL FIRE EXTINGUISHING DEVICE

FAST ACTION & REACTION ⚡

Smart Energy Hot Aerosol Fire Extinguishing Device is a compact, automatic, maintenance-free solution designed to protect electrical & enclosed spaces from fire hazards instantly.



FAST ACTION
Suppresses fire in seconds



CLEAN & SAFE
Non-toxic aerosol, no residue



RELIABLE PROTECTION
Active fire suppression 24/7



EASY INSTALLATION
DIN rail mount, plug & play



WIDE OPERATING RANGE
-50°C to +90°C



SAVE THE FUTURE
PROTECT WHAT MATTERS



REAL TIME APPLICATIONS



RAILWAYS

Control Panels, Signal Cabinets, Battery Boxes



PANEL BUILDERS

Distribution Boards, Control Panels, PLC Panels



MACHINE BUILDERS

CNC Machines, Automation Panels, Robotic Cells



TELECOM & IT CABINETS

Server Racks, Communication Panels, Network Cabinets

HOW IT WORKS



SPECIFICATIONS

Mounting Type	DIN Rail Panel Mounted
Extinguishing Medium	Hot Aerosol
Activation	Automatic
Response Time	Fast Action & Reaction
Operating Temperature	-50°C to +90°C
Storage Temperature	-55°C to +95°C
Service Life	10 Years
Weight of Preparation	10g
Protected Volume	Up to 0.1 m ³
Installation	DIN Rail (35mm)
Maintenance	Maintenance Free
Certifications	CE RoHS REACH

WHY CHOOSE SMART ENERGY?

