

Image shown may not reflect actual configuration.

Features

Intelligent Central Fire Alarm System

- Class A wiring with redundancy
- The intelligent fire alarm control panel may be used in stand-alone or network configurations. Features include:
 - Alarm verification selection per point, with automatic counter.
 - Pre-signal/Positive Alarm Sequence (PAS).
 - Silence inhibit and Auto Silence timer options.
 - NAC coding functions:
 - March time.
 - Temporal.
 - California two-stage coding.
 - Canadian two-stage.
 - Strobe synchronization.
 - Field-programmable with program check, compare, simulate.
 - Full QWERTY keypad.
 - Battery charger supports 18 – 200 AH batteries.
 - Extensive, built-in transient protection.
 - Powerful Boolean logic equations.

Aerosol generators

Electrically operated aerosol suppression systems may be used in critical applications across a wide range of industries due to their fast response time, low fire extinguishing concentration and these other characteristics:

- Environmentally friendly -Ozone depletion potential (ODP) = 0 - No global warming potential
- Ease of installation – no pressure vessels or installation piping
- Very low maintenance
- Compact
- Provides reliable, effective protection for a wide range of fire hazards
- Listed for Class A, B, C fires by UL, ULC, CSIRO, ECB, and many others
- Favorably reviewed by EPA for SNAP listing
- Suitable for enclosed facilities and local applications

Fire Suppression System (FSS)

The Energy Storage System (ESS) module is designed with a Fire Suppression System (FSS) comprised of three different product offerings. Depending on the ESS application, a single FSS product or a combination of the FSS products may be ordered for added protection. The FSS is fully integrated into the ESS module at the Caterpillar factory prior to shipment.

- Safe for personnel - non-harmful to personnel at design application rates.
- Safe for equipment -will not harm electronic equipment
- Minimal cleanup - aerosol suspends in air for quick and easy venting after discharge.

Gas Detection System (Optional Equipment)

The Gas detection system monitors lithium-ion batteries for increased safety. The Rack Monitoring system consists of three primary components:

- The Controller
- The Li ion Off Gas Sensors
- and the cables for connecting the sensors to the controller, controller to power, and signal distribution.

The Off Gas Detection System sensors are installed near or at the battery rack and are aggregated at the Controller which also distributes power to the sensors. The Controller contains logic to diagnose when and where single cell off gas events have happened. The Gas Detection System is integrated to the Bi-Directional Energy Storage Inverter (BDP) which allows the power conversion to cease if gas is detected.

Water Lines (Optional Equipment)

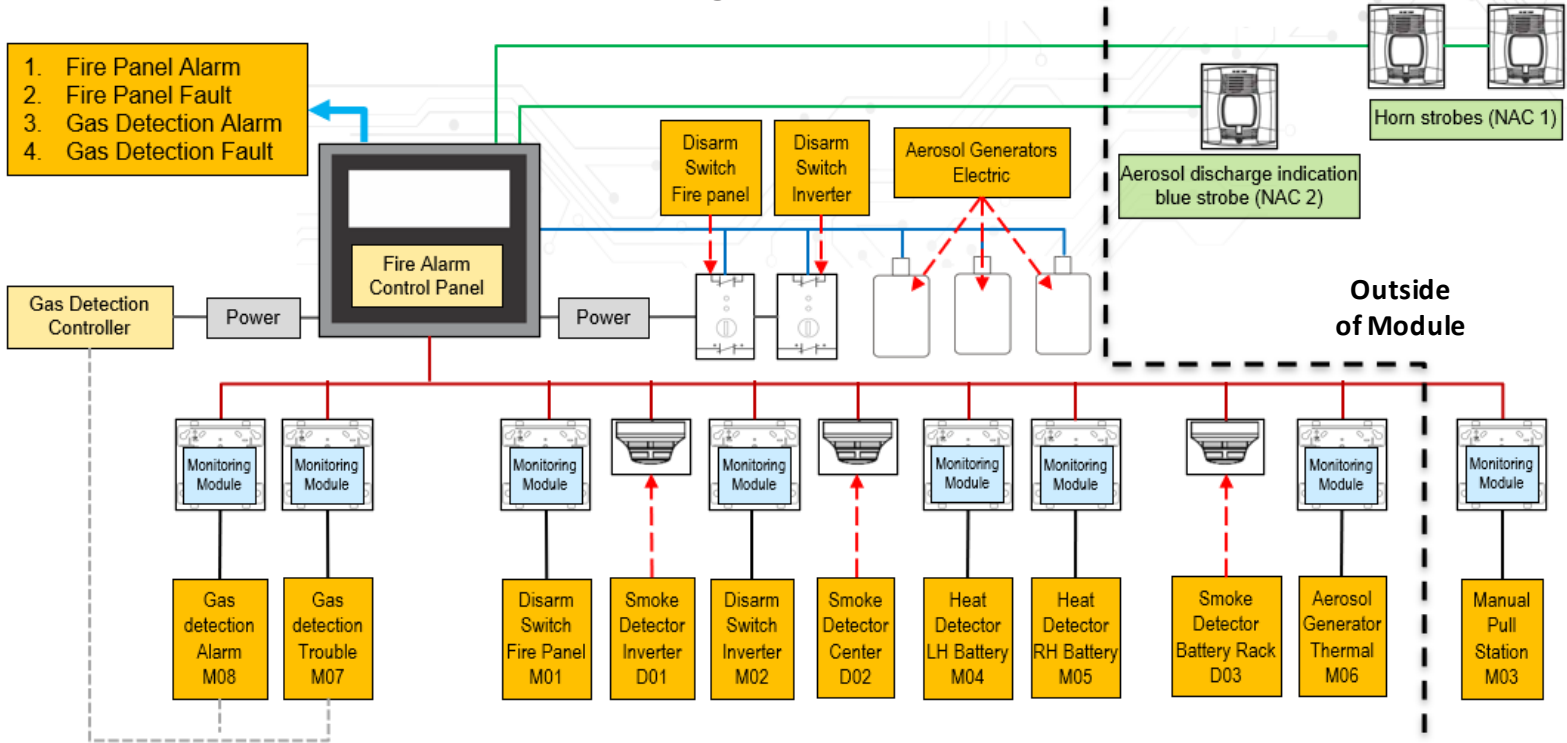
The ESS design can incorporate an optional dry pipe water distribution system. The water lines are equipped with nozzle/sprinkler with melting head(s) of 123°C (254°F). System water supply working pressure is not to exceed 150psi.

Horn and Strobes

Outdoor horn, strobes with red plastic housing, wall mounting with FIRE-printed devices that meet virtually any application requirement, including indoor, outdoor, wet, and dry applications in temperatures from -40°C to 66°C (-40°F to 151°F).

- Strobe Flash Rate 1 flash per second
- Nominal Voltage Regulated 12 DC/FWR or regulated 24 DC/FWR1
- Operating Voltage Range 8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
- Operating Voltage with MLD3 Sync Module
- 8.5 to 17.5 V (12 V nominal) or 16.5 to 33 V (24 V nominal)

Technical Specifications (Intelligent Fire Alarm Control Panel)



Technical Specifications (Aerosol Generators)

Operation /Description

Upon detection of a fire, aerosol generators will be activated automatically from a suitable listed releasing device. All auxiliary system components (release panel, detection, remote pull stations, etc.) are listed/approved by UL, ULC, FM, New York City MEA, and California State Fire Marshall. Upon activation, the generators produce an exceptionally effective, ultra-fine, potassium-based aerosol. Unlike gaseous systems, aerosol generators are very effective to install and maintain - as they do not require the pressure vessels, piping or installation associated with other extinguishing systems. Space and weight requirements are minimal. On an agent weight basis, aerosol is ten times more effective than gaseous agent alternatives. The aerosol generator's effectiveness is a function of its patented design, aerosol composition, and ultra-fine particle size. Fire suppression is rapidly achieved through interference between the ultra-fine aerosol particulate and the flame's free radicals – terminating propagation of the fire. Aerosol generators are virtually maintenance free and have a service life of over 10 years. This makes them an extremely effective fire protection solution.

Applicable Standards and Certifications*

- UL Listed to the following standards
 - cUL_{US} mark
- Declarations (pending):
 - CE Declaration of Conformity

*(Contributes to Energy Storage System (ESS) level UL 9540 compliance)

Worldwide Product Support

- Cat® dealers provide extensive post-sale support including maintenance and repair agreements.
- Cat dealers have over 1,800 dealer branch stores operating in 200 countries.

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