

FirePro.

Samsung SDI

Location: **Asia** Representative: **FirePro Korea** Application: **Energy Storage System** Industry: **Custom R&D**



SAMSUNG

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Samsung SDI Co. is a Korean multinational technology corporation. Samsung SDI operates through its Chemical, Electronic Materials and Energy segments while it thrives as one of the world's largest manufacturers of lithium ion batteries. Samsung SDI's Energy Storage Systems use differentiated design technology and innovate lithium-ion batteries for cutting-edge electric vehicles such as the BMW i3. Samsung SDI is listed in Forbes Global 2000 – Worlds Biggest Public Companies.

The Task

Design, supply, install and maintain bespoke automatic fire suppression systems for Samsung SDI's Energy Storage Systems (ESS) enclosed within standardized intermodal containers. The fire protection systems are commissioned to be compact, durable and dependable. They must have a long life span and be highly efficient and effective. These parameters must be met while remaining environmentally friendly. They must also be able to protect dissimilar materials and consequently various classes of fire. The extinguishing system must be designed according to both local and internationally recognized standards and regulations.

FirePro Systems Used

FP-4200

FP-5700

Risks Involved & Consequences

Samsung SDI's technology offers on demand power management, power dispatch and renewable energy smoothing for various applications including commercial and utility organizations. Because of all the sensitive equipment, even a small fire can escalate rapidly and have catastrophic consequences for the equipment and end client operations. It's thus imperative that the enclosures are protected from fire episodes with dependable and autonomous fire suppression systems. Possible accidents will cause collateral damages and might even claim human lives. Traditional fire protection systems can cause further damages to goods and thus continuity cannot be warranted.



Why FirePro?

The ESS enclosures are not airtight thus gaseous based systems would have had leakage concerns. Furthermore, the inner space is fully utilised thus large equipment (such as pressurised cylinders) are impractical. Samsung SDI's ESS containers are frequently placed in remote locations as they are designed to work without much attendance. The modularity, compactness and autonomy of the system were favourable factors in the selection process. Also, FirePro technology can tackle A, B, C, F classes of fire while it requires minimum maintenance and a 15 year lifetime. FirePro's environmentally friendly nature and compliance to both local and international standards were also favourable considerations.



Results & Implementation

Samsung SDI proceeded to implement the FirePro fire suppression solution since it combined all the operational, environmental and technical considerations required for the ESS containers. FirePro Korea personnel designed and completed the installation of the FirePro system and fire extinguishing units within a predetermined time frame. FirePro systems currently protect these assets and offer protection against various fire scenarios.

