FirePro.

Kokam Co.

Location: **Asia** Dealer: **FirePro Korea** Application: **Energy Storage Systems, High Voltage Rooms** Industry: **Renewable Energy**

Kokam

Kokam Co. is a global leader in the design and manufacturing of rechargeable battery solutions. It currently holds over 150 patent listings and it was the first company to develop high capacity lithium-ion polymer batteries worldwide. With the rise of grid-connected renewable energy sources, Kokam's Energy Storage Systems have been recognized as the most effective solution.

The Task

Design, supply, install and maintain tailor-made fire detection and suppression systems for the high voltage energy storage Power Conversion Systems (PCS) and Energy Storage Systems (ESS). PCS are electric power conversion systems located inside 40-foot mobile containers which can convert and/or distribute the surplus from similar size Energy Storage Systems (ESS) enclosures. The fire protection systems must be compact, reliable, long lasting and efficient. They must also be able to protect dissimilar combustible materials and thus classes of fire. The extinguishing system must be designed according to both local and internationally recognized standards and regulations.

FirePro Systems Used

FP-80

FP-3000

Why FirePro?

The modularity and compactness of the FirePro fire extinguishing system were two of the decisive factors in its selection for the protection of the equipment within the 40-foot container enclosures. Also pivotal in equal measure of importance for the selection process were firstly the ability of the FirePro system to tackle A, B, C, F classes of fire - since the PCS equipment is different in nature to the ESS banks of D/C LiPo batteries and A/C power grid - and secondly the minimal maintenance costs required over its long lifetime. Lastly and completing the FP system's contract clinching attributes were its UL listing its environmentally friendly nature.

Risks Involved & Consequences

The demand for electricity along with the need to stabilize power grids and the efficient use of renewable energy sources are ever increasing. Inevitably there is, in tandem, an increase in fire risks originating in electrical equipment due to some form of malfunctioning; this fact is corroborated by statistical data showing that besides human error electrical malfunctions are amongst the most common causes of fire. Failure to adequately protect against fire in these situations can cause serious damage and have dire consequences

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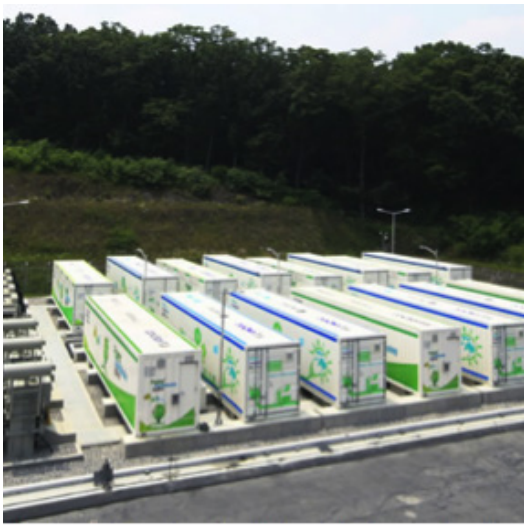
Results & Implementation

FirePro total flooding fire suppression systems installed in both Power Conversion Systems (PCS) and Energy Storage Systems (ESS) to protect mission critical high-voltage electrical equipment offer peace of mind to operators in case of a fire emergency. With no piping required and no pressurized cylinders the systems were easily and quickly installed to protect the at-the-cutting-edge-of- technology Kokam equipment without posing a threat to personnel or the environment. In short FirePro then, has effectively reduced operational hazards and financial losses due to down times for all stakeholders.



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