



LITHIUM-ION STORED PRESSURE FIRE EXTINGUISHERS

KANEX – EXTINGUISHER -AVD Lithium-ion batteries are popular because of how much power they can put out at a given size and weight in comparison to old lead type batteries. However, lithium-ion batteries are extremely sensitive to high temperatures and inherently flammable. These battery packs tend to degrade much faster than they normally would, due to heat. If a lithium-ion battery pack fails, it will burst into flames and can cause widespread damage.



Class A



Electrical



Li-Ion Battery

Ideal Use : factories, offices and other locations where lithium battery technologies are prominent.

Why lithium-ion batteries catch fire, let's look:

A. Manufacturing Defects

Flaws in production can cause metallic particles (impurities) to seep into the lithium-ion cell during the manufacturing process

B. Design Flaws

Compromising on the design can cause damage to the electrodes or the separator.

C. Abnormal or Improper Usage

External factors like keeping the battery very close to a heat source or near a fire can cause it to explode.

D. Charger Issues

If the charger shorts or generates heat near the battery, it can do enough damage to cause failure.

What to do when a battery catches fire?

Concerning Li-ion battery fires and their propensity to reignite subsequent to experiencing thermal runaway, the fundamental principal is "lots of cooling". Basically, all extinguishants that aim to suffocate such a battery fire may be able to succeed suppressing the flames but will have limited ability to provide the necessary cooling.

Aqueous Vermiculite Dispersion (AVD) fire extinguishing agent is an aqueous dispersion of chemically exfoliated vermiculite. It is applied to lithium battery fires as a mist, extinguishing them and preventing the propagation of the fire.

KANEX fire extinguisher with AVD agent provides effective lithium battery fire protection to prevent the propagation of heat when applied as a mist. The AVD coating also acts as a fire break. The vermiculite particles within the mist are deposited on the surface of the burning fuel to create a film over the top of the fire.

The film instantly dries and, because the high aspect ratio platelet particles overlap and bind together, a non-flammable oxygen barrier between the fuel and the atmosphere is produced. This process has a cooling effect on the fuel source and, as the water content in AVD is evaporated, the vermiculite platelets begin to build up and the fire is brought under control.

PERFORMANCE DATA

MODEL	KFLIHQ-1	KFLIHQ-2	KFLIHQ-6	KFLIHQ-9
Capacity	1 Ltr	2 Ltr	6 Ltr	9 Ltr
Design	Nozzle		Hose with Nozzle	
Fire Rating	3A	5A	13A	13A
Height (Approx.)	325 mm	370 mm	570 mm	640 mm
Diameter (Approx.)	86 ± 5 mm	106 ± 5 mm	150 ± 5 mm	180 ± 5 mm
Average Discharge time	25 Sec	50 Sec	120 Sec	170 Sec
Average Range of throw	1.5 - 2 m	1.5 - 2 m	1.5 - 2 m	1.5 - 2 m
Average % Discharge	97%	97%	97%	97%
Operating Temperature	+5 °C to +60 °C			
Service/Max. service/Test Pressure	15 / 18 / 35 bar			
Expelling Agent	Nitrogen (UHP Grade)			
Empty Weight (Approx.)	2.2 kg	2.7 kg	4.9 kg	5.5 kg
Full Weight (Approx.)	4.2 kg	5.7 kg	10.9 kg	14.5 kg
Shipping Weight (Approx.)	4.5 kg	6.1 kg	11.3 kg	15.0 kg
Mounting Bracket	VEHICLE MOUNTED / WALL MOUNTED		WALL MOUNTED	