




## Lithium-Ion Battery Charging Safety Cabinet

Justrite's Lithium-Ion battery Charging Safety Cabinet is engineered to charge and store lithium batteries safely. Made with a proprietary 9-layer ChargeGuard™ system that helps minimize potential losses from fire, smoke, and explosions caused by Lithium batteries.



# There are over 5,000 Lithium-Ion Battery fires per year.\*

The National Fire Protection Association (NFPA) estimates the direct and indirect costs for USA commercial business fires to be \$15.9 billion, annually.

\*According to the U.S. Consumer Product Safety Commission, over 25,000 fire incidents from failing lithium-ion batteries were recorded over five years.



## 4 Reasons Lithium Battery Fires are More Dangerous



### **Dangerously Explosive**

Thermal Runaway, a chemical reaction that can lead to a fire or explosion, and the combination of gases and pressure build-up unique to lithium-ion batteries make fires spread further and faster



### **Highly Toxic**

Hydrogen Fluoride fumes are emitted when a lithium-ion battery is ignited posing several short-term and chronic threats to people including respiratory and skin irritation, dizziness, headaches, and suffocation as well as a negative environmental impact.



### **Difficult to Extinguish**

Lithium-ion batteries can generate it's own heat and fuel, explode, have chemical reactions with water, and burn at higher than-typical temperatures that can melt concrete, steel, and water hoses, and can reignite after extinguishing.



### **Gives Little Warning**

The enclosed nature of lithium-ion batteries can mask potential indicators of battery failure and can create a fast-spreading fire or explosion without warning or notice.



## Justrite's Lithium-Ion Battery Charging Safety Cabinet

Most Lithium-ion battery fires occur while charging. Justrite's Lithium-Ion Battery Charging Safety Cabinet is made with a proprietary 9-layer ChargeGuard™ system that helps minimize potential losses.

Engineered with a pressure relief vent system and a double wall with air gap to help maintain a safe-to-touch temperature outer shell with color-changing tabs, and a filtration system to filter and absorb toxins emitted from Lithium-ion battery fires.

# 9-Layer ChargeGuard™ Containment System

## CONTAINMENT LAYERS

### EXPLOSIONS

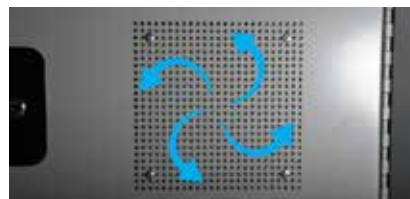


1



**Double-wall Cabinet Construction**  
Welded double-wall steel provides a solid structure that keeps potential explosions contained.

2



**Pressure Relief Vent System**  
Vented door panels dampen the explosive force from thermal runaway and battery failure.

3

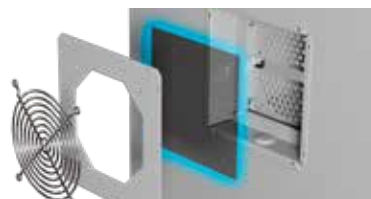


**Reinforced Steel Door Latch Plates**  
Steel latch rods made with reinforced latch cradle plates ensure the cabinet doors remain closed.

### FIRE



4



**Flame Arrestors**  
Double-layer wire-mesh flame arrestors absorb heat and stop flames from escaping the cabinet.

5



**Double Wall with Air Gap**  
Absorbent interior walls transfer the energy of high-temperature battery failures while a 1-1/2" air gap insulates, maintaining a surface temperature that is safe to touch.

6



**Door Hinge Flame Guards**  
Tight sealing door hinge with flame guard prevents fires escaping through the door hinges, preventing secondary fires outside the cabinet.

### SMOKE



7



**Spring Loaded Dampers**  
Automatic Damper flaps close when the cabinet temperature reaches 57°C to reduce the release of harmful smoke and gases by as much as 99%.

8



**Unique Filtration System**  
Pressure Relief Venting System with an integrated filter traps smoke and absorbs harmful toxins.

9



**Heat Activated Expanding Door Seals**  
Intumescent seals swell as temperatures rise to prevent smoke, fumes, and flames from escaping from the door frame.

## Additional Features



### Crossflow Fan Ventilation System

A constant supply of fresh air pulling into the cabinet helps keep the batteries cool while charging in their contained environment.



### Circuit Breaker

Automatic circuit breaker tripping feature in case of Thermal runaway



### Convenient Benchtop Design

Keep your batteries easily accessible while they charge in a safe and contained environment at a convenient counter height.



### Lockable Doors

Control the access to lithium-ion batteries, helping to prevent theft and enforce protocols with its lockable paddle latch handle.



### Small Footprint

Maintain safety and battery charging capacity without bulky storage units that consume valuable and limited space.



## Technical Specifications

- 75 kg. Total Unit Weight
- 220VAC/60Hz Input
- 8 Receptacles
- 61 cm x 109 cm x 46 cm

Justrite Part #

231703

## Options Comparison Chart

	Containment Solution									
	Made in the Italy	Flame Containment	3-Point Locking	Grounding	Safe Touch Exterior	Smoke Mitigation	Explosion Containment	Pressure Relief Filters	Charging Capable	Battery Cooling
Justrite Lithium-Ion	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Competition	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗
Standard Flammable Storage Cabinet	✓	✗	✓	✓	✗	✗	✓	✗	✗	✗
Storage Container	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗

## Total Energy Containment Rating (TECR) of 4kWh

The number of batteries that can be safely stored and charged in the cabinet will vary based on the amount of energy within each battery. Use the chart below to identify the energy of your batteries and how many can be in the Justrite lithium-ion battery charging cabinet at one time.



### Battery Containment Capacity Chart Per Shelf

Voltage (V)	Ah	# of Batteries
12	2.5	66
12	3	55
12	6	27
18	3	37
18	5	22
18	6	18
20	3	33
20	5	20
20	9	11
20	12	8
40	4	12
40	5	10
40	8	6

Disclaimer: Our charging cabinet accommodates the charging of up to 8 batteries at a time unless the capacity of your 8 batteries charging at a time exceed the safe TECR of the cabinet. Please be aware that charging capacity may vary depending on battery size and condition. Refer to the chart above or manual for guidelines. Overloading may affect performance or damage the cabinet.

### Property Damage Risk Exposure Chart

m <sup>2</sup> at Risk	m <sup>2</sup> Value	Exposure Value
2.323	£400	£10.4M
50,000	£500	£20.9M
100,000	£500	£41.7M
250,000	£500	£104.3M
500,000	£500	£208.7M
1,000,000	£500	£417.4M

### Warranty

- 10-year Structural
- 1-year Serviceable Parts



### MADE ITALY

Justrite Safety Group™, the pioneers of workplace fire prevention since 1894.

## Easy to Use

1



Remove Your Batteries from Tools

2



Store Your Batteries in the Cabinet

3



Securely Close the Cabinet Doors



Contact Your Local Rep to Start Charging Safely Today.



# LITHIUM-ION BATTERY CHARGING SAFETY CABINET

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