FirePro. Reinventing Fire Suppression

LITHIUM-ION BATTERY RISK

2/09/2020
Rev: 21.4

CLIENT NAME Sample Calculation

Risk Description Sample

Constructed from Sample

☑ Class A ☑ Class B ☑ Class E ☑ Class D ☐ Class F

	Length		Width		Height		Not Used	
GROSS DIMENSIONS	4.00	x	3.00	x	2.50	=		m³

Deductions from Gross Volume - m³ = - m³

Leakage Allowance without additional Agent = 0.10 m²

NET Volume used for Calculation = 30.00 m³

PRIMARY AGENT DISCHARGE = 3,900 g

Secondary Agent Discharge = Not Required

Model	L2 (mm)	L3 (mm)	Stream (mm)	Agent Qty	Concentration Primary	Concentration Secondary	Primary Quantity	Secondary Quantity
FP-0020	0	100	300	14	-	-		
FP-0040	0	100	1200	25	-	-		
FP-0080	0	100	2000	48	-	-		
FP-0100	0	100	1000	61	-	-		
FP-0200	100	400	1500	118	-	-		
FP-0500	300	1000	2500	330	-	-		
FP-1200	0	1500	3500	756	-	-		
FP-2000	0	1500	3500	1,200	-	-		
FP-3000	600	2000	4000	1,830	5,490	-	3	
FP-5700	600	2000	8000	3,363	-	-		

Total Concentration	5,490	-
Required Concentration	3,900	-
% Required Concentration	140%	

☑ Design Calculation has been Confirmed

☑ FirePro Units have suitable STREAM length for Risk Area Coverage

☑ Leakage compensation made in Primary Discharge

☐ Additional HOLD time Required for the risk

Lithium-Ion Battery Room Design Notes

Pre-Engineered Design Calculation

CALCULATION OF VOLUME : Calculation is based on NET Volume with deductions for any Objects that occupy volume within the protected space. This covers fixed condensed aerosol extinguishing system units intended for total flooding applications. AS 4487 and KIWA Test 161000995.

Minimum Extinguishing Factors (mef) 130 X 1 = 130

- L2 is the thermal clearance required where the temperature of the discharge is less than 200° C
- L3 is the thermal clearance required where the temperature of the discharge is less than 75° C

APPROVED

Prepared By:	Company
Test	FSE