FirePro. Reinventing Fire Suppression

LITHIUM-ION BATTERY RISK

22/02/2024

Rev: 23.5

CLIENT NAME	MTU Battery Pack
Risk Description	Battery Compartment
Constructed from	Steel
Classes of Fire	☑ Class A ☑ Class B ☑ Class E ☑ Class D ☐ Class F

GROSS DIMENSIONS	Length		Width		Height		Not Used	
	1.40	x	1.10	x	2.30	=		m³
Deductions from Gross Volume - m³						=		m³
Leakage Allowance without additional Agent						=	0.10	m³
NET Volume used for Calculation						=	3.54	m³
PRIMARY AGENT DISCHARGE						=	460	g
Secondary Agent Discharge						=	-	g

Model	L2 (mm)	L3 (mm)	Stream (mm)	Agent Qty	Concentration Primary	Concentration Secondary	Primary Quantity	Secondary Quantity
FP-20T	0	100	1000	14	-	-		
FP-40T	0	100	1000	25	-	-		
FP-80T	0	100	1000	48	-	-		
FP-100	0	100	1000	61	-	-		
FP-200	100	400	2000	118	-	-		
FP-500	300	1000	3500	330	660	-	2	
FP-1200	0	1500	3500	756	-	-		
FP-2000	0	1500	3500	1,200	-	-		
FP-3000	600	2000	3500	1,830	-	-		
FP-5700	600	2000	8400	3,363	-	-		
				Total Concentration	660	-		
				Required Concentration	460	-		
				% Required Concentration	143%			

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

- ☑ 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

APPROVED

System Design is Complete

Prepared By:	Company
PM	FSE

- L2 Clearance to ensure discharge temperature is less than 200° C
- L3 Clearance to ensure discharge temperature is less than 75° C