



CALCULATION REPORT ACCORDING TO NFPA 68-2023 Chapter 7

Project Information:

Study ref :	752056_EN-S4-37-F2A1_V1_0.5	Study version :	Date	21-May-26
Customer ref :	STIF (Suzhou) Components Co., Ltd	V01	Performed by	PY/PH

Enclosure Information:

Type (Enclosure)/Model	20 Feet
Length of Enclosure	3.12 m
Width of Enclosure	2.23 m
Height of Enclosure	2.60 m
Quantity of Battery Racks	12
Quantity of module per Racks	8
L/D ratio (NFPA 68, L/D<=5)	1.03
External surface of internal structure and equipment (Aobs)	59.67
Global Volume of Enclosure	18.08 m3
Effective Volume of Air/Free Volume	9.48 m3
Xr(fill fraction) >T	1

Chemistry Information:

Battery Chemistry	LFP
Su, Fundamental Burning velocity	1.043 m/s
ρu, Mass density of unburned gas-air mixture	0.564 kg/m3
Pmax, Explosion Pressure (bar-g)	7.710 barg

Explosion Vent Parameters:

Reduced Pressure (bar-g), Pred	0.500 barg
Static Activation Pressure (bar-g), Pstat	0.100 barg
Vent area for panel include Panele Inertia effect	1.1788 m²
Max KG allowed	300 bar.m/s
Explosion Panel Model	Arc-Vent INS-A

Results:

Explosion Panel Size (mm)	610x610
Number of Panels	4
Total installed vent surface	1.4780 m²
Vent panel efficiency	88%
Design factor	110.3%

Additional Information:

Value from UL report : UL9540A_Report: 80122570 - 11/03/2022

Values of **Pred 0.5 barg** taken as per customer request

Calculation Recommendation: Use of **4 Panels of size 610 X 610**

Notes:

The results are contingent upon the customer's information, making it imperative to thoroughly review all parameters prior to placing the order. The customer must provide approval and confirmation of the values, as there may be assumptions inherent in the calculations.

Calculation Engineer Sign

5.1.2e


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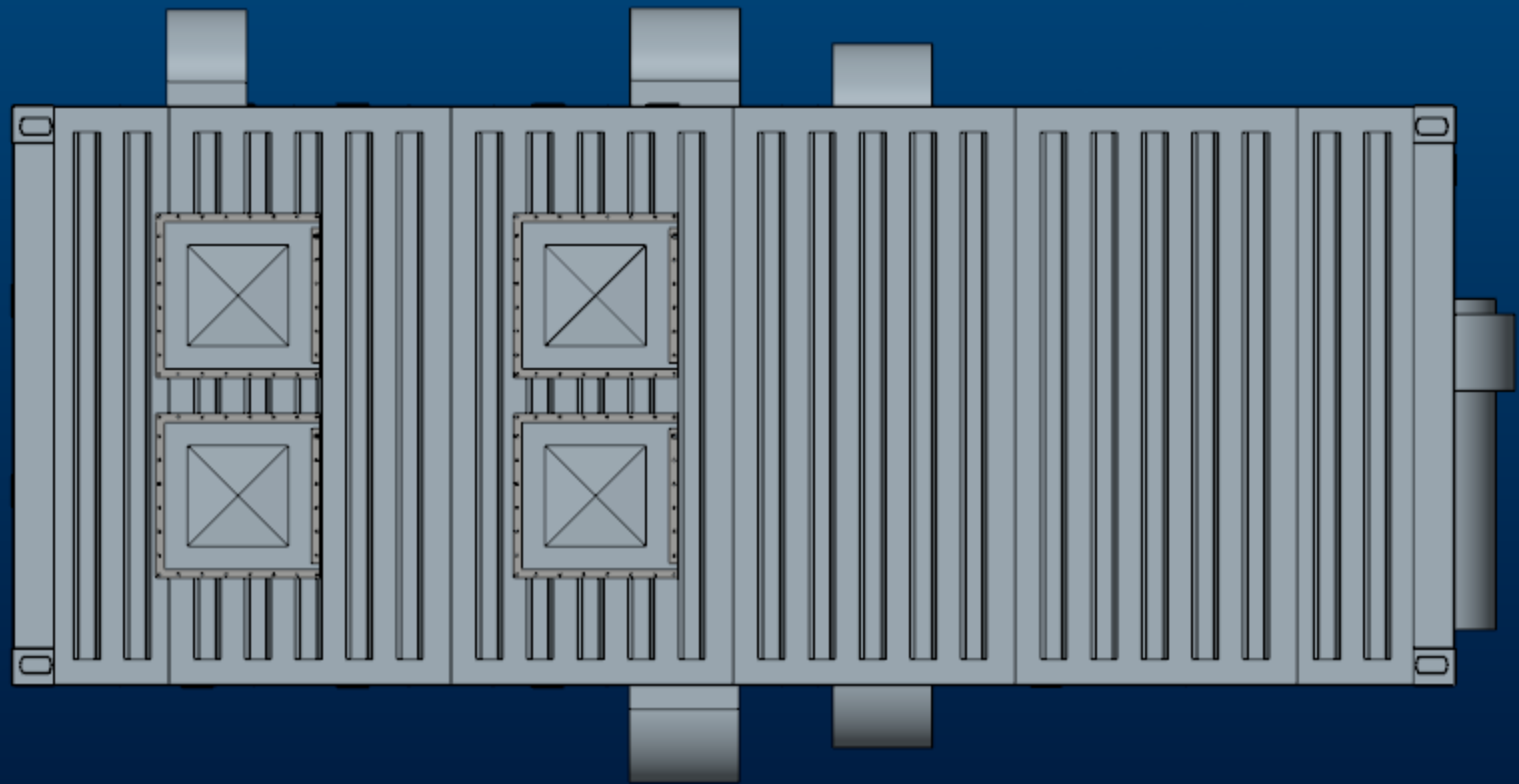
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Customer approval sign



Legenda toegepaste uitzonderingsgrondslagen

In dit document zijn gegevens definitief geanonimiseerd op grond van:

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