

- NOTES:**
- △ 1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
  2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
  3. ALL DIMENSIONS ARE IN INCHES [MILLIMETERS].
  - △ 4. A MINIMUM OF 39.37 Inches [1000mm] FRONT, 7.87 Inches [200mm] TOP CLEARANCE REQUIRED. 3.94 Inches [100mm] REAR CLEARANCE IS REQUIRED ONLY FOR SEISMIC ANCHORING INSTALLATION. CLEARANCE DIMENSIONS ARE FOR AIRFLOW AND SERVICE ACCESS ONLY.
  - △ 5. ALL DIMENSIONS EXCLUDES SCREW PROJECTION OUTSIDE THE ENCLOSURE.
  6. CABLE ENTRY IS FROM TOP OF THE UNIT.
  - △ 7. REFER TO TABLE FOR APPLICABLE SKUs & WEIGHT DETAILS. WEIGHT OF ONE BATTERY MODULE IS 36.38 lb [16.5 kg].
  8. COLOR: RAL9003, GLOSS LEVEL 85%.
  9. PROTECTION CLASS: IP20.
  10. OPERATING TEMPERATURE: 64 - 82°F [18 - 28°C]. TO OPTIMIZE THE LIFE OF BATTERY, IT IS RECOMMENDED TO MAINTAIN 77°F [25°C].
  - △ 11. THIS INFORMATION PROVIDES APPROXIMATE CENTER OF GRAVITY CALCULATION.
  12. BATTERY RACKS CAN BE CONNECTED SIDE BY SIDE AND BACK TO BACK. REFER TO INSTALLATION MANUAL FOR DETAILS.

△ 7 △ 11

SKU NUMBER	WEIGHT IN lb [kg]		COG IN Inch [mm]					
	Empty Rack	Fully loaded	Empty Rack			Fully loaded Rack		
			X-diection	Y-direction	z-direction	X-diection	Y-direction	Z-direction
LIBSESMG17UL	465 [211]	1080 [490]	12.66 [321.5]	40.61 [1031.5]	12.25 [311.2]	12.56 [319]	39.89 [962.3]	10.99 [279.2]

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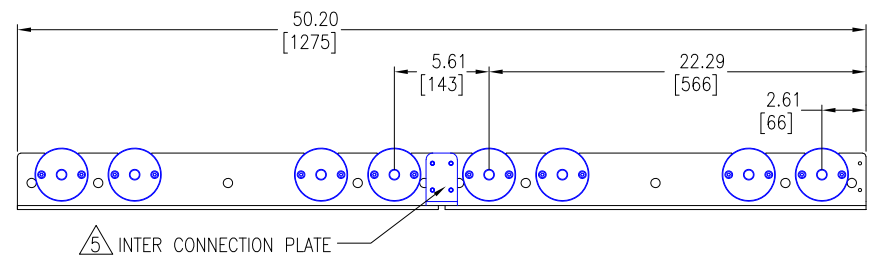
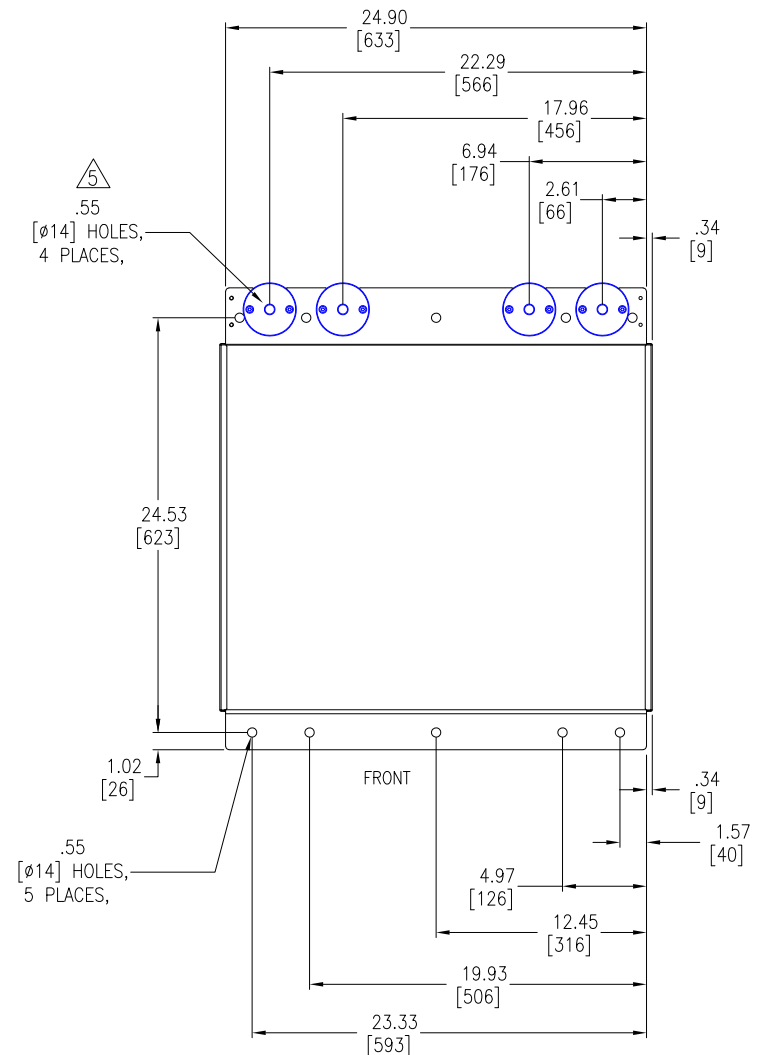
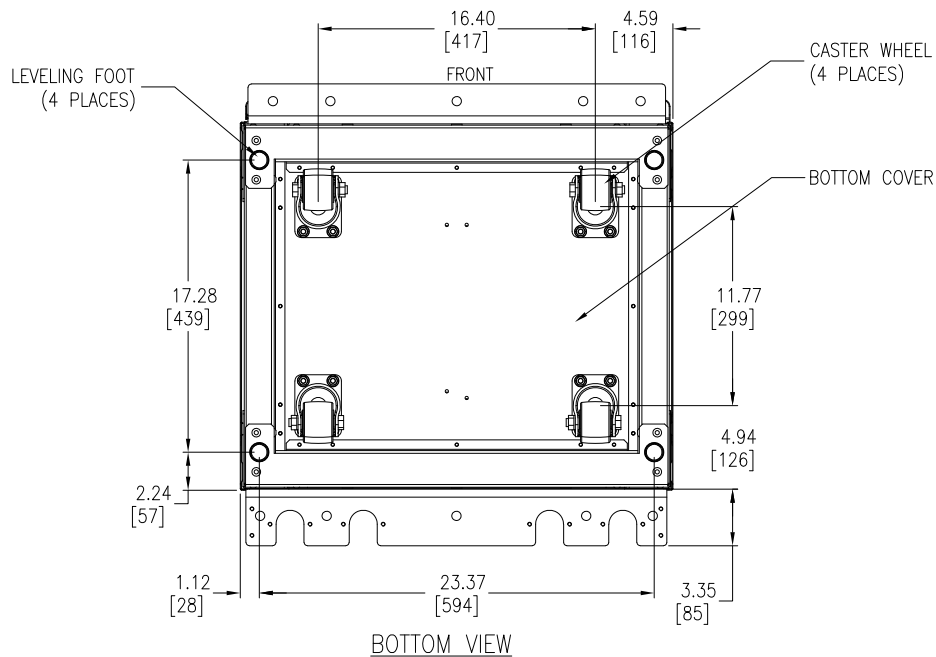
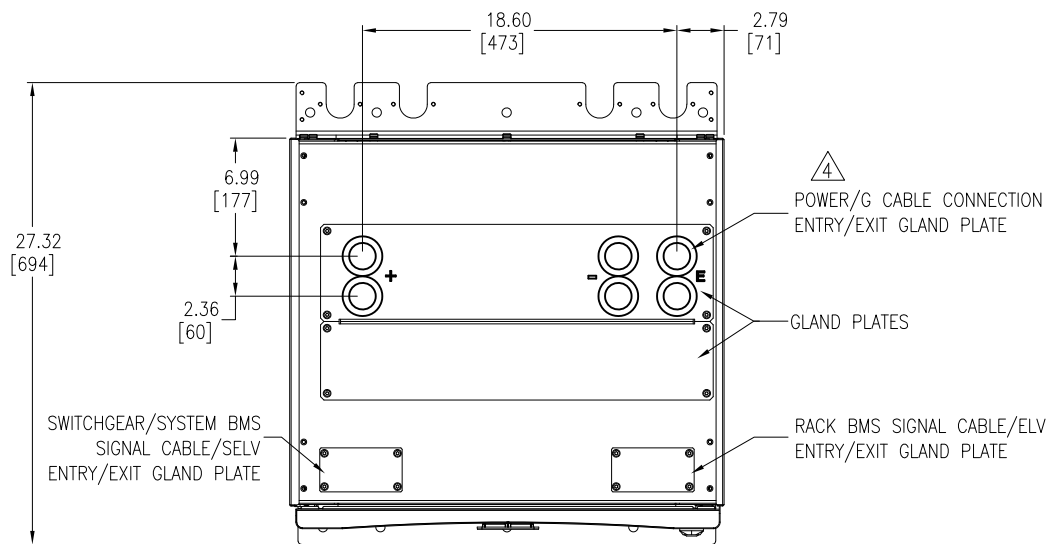
**Schneider Electric**

**TITLE:**  
Galaxy Lithium-ion Battery cabinet, GVX UL GENERAL ARRANGEMENT

**PROJECT:** SUBMITTAL DRAWINGS **SHEET** 1 OF 13

**DWG NO:** LIBSESMGCVXUL **REV.** 0

<b>DRAWN BY:</b> JAYAPRAKASH	27-MAY-21	THIRD
<b>ENGINEER:</b> Fred XIA/PAUL J	27-MAY-21	ANGLE
<b>APPROVED BY:</b> Fred XIA/JEFFREY P	27-MAY-21	PROJECTION



- NOTES:
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  2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
  3. ALL DIMENSIONS ARE IN INCHES [MILLIMETERS].
  4. DO NOT DRILL/PUNCH HOLES WITH THE GLAND PLATES INSTALLED. REMOVE THE GLAND PLATE FROM BATTERY RACK BEFORE DRILLING/PUNCHING. DRILL/PUNCH HOLES ACCORDING TO THE LABEL ON THE GLAND PLATE. REMOVE THESE GLAND PLATES FOR TOP HAT CABLE ENTRY INSTALLATION.
  5. USE ACCESSORY KIT (0M-95331) TO ANCHOR THE UNIT IN SEISMIC LOCATION. FOR SEISMIC ANCHORING, M12 SCREWS OF STRENGTH GRADE 8.8 HARDWARE ARE REQUIRED TO BE USED.

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**Schneider Electric**

TITLE:  
Galaxy Lithium-ion Battery cabinet, GVX UL  
TOP/BOTTOM VIEW & ANCHORING DETAILS

PROJECT: SUBMITTAL DRAWINGS SHEET 2 OF 13

DWG NO: LIBSESMGCVXUL

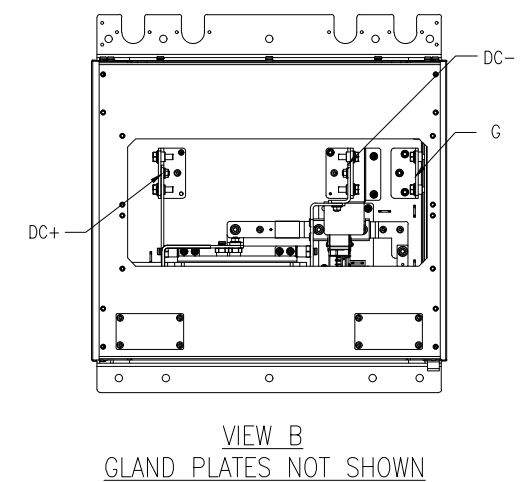
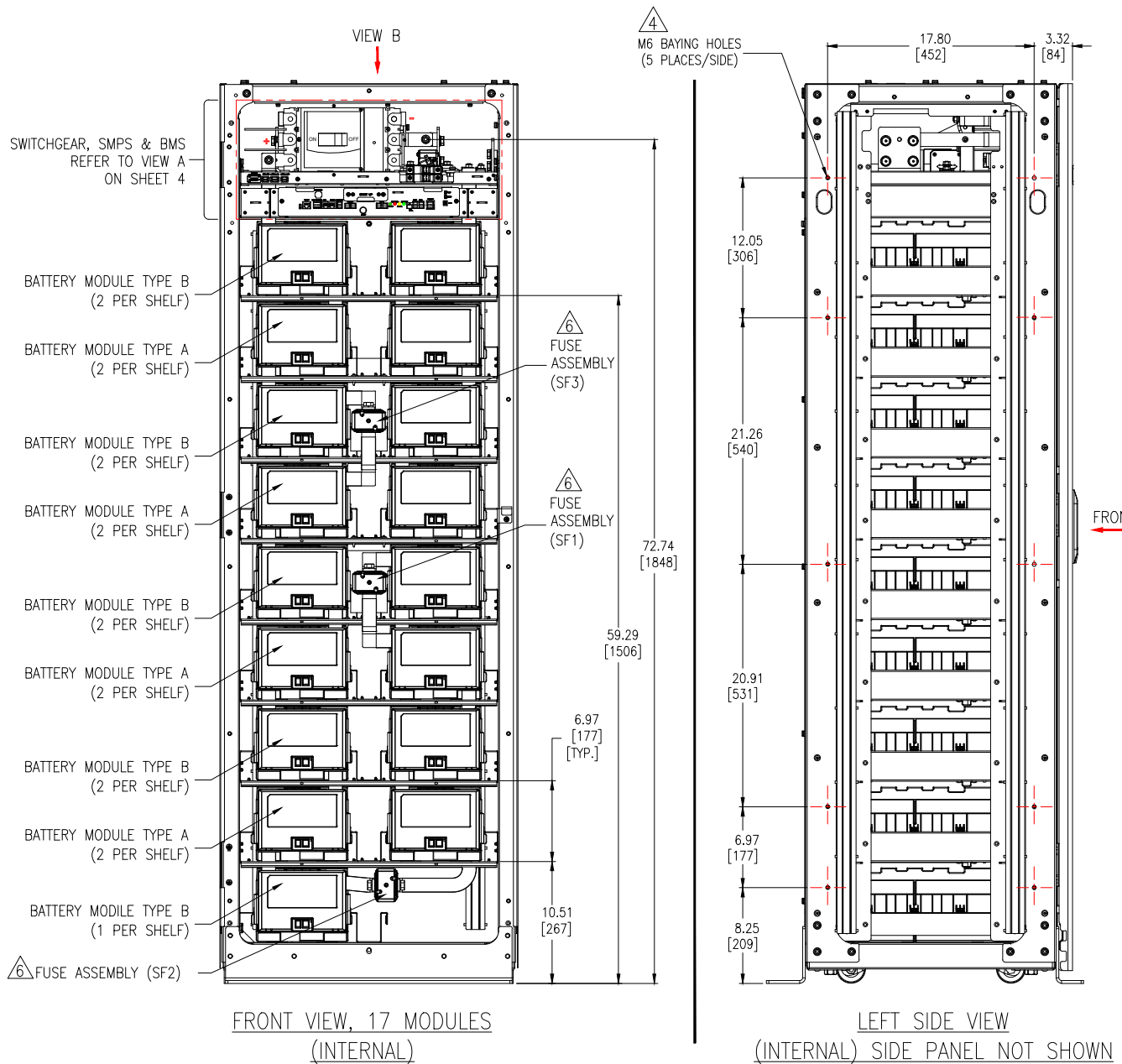
DRAWN BY: JAYAPRAKASH 27-MAY-21

ENGINEER: Fred XIA/PAUL J 27-MAY-21

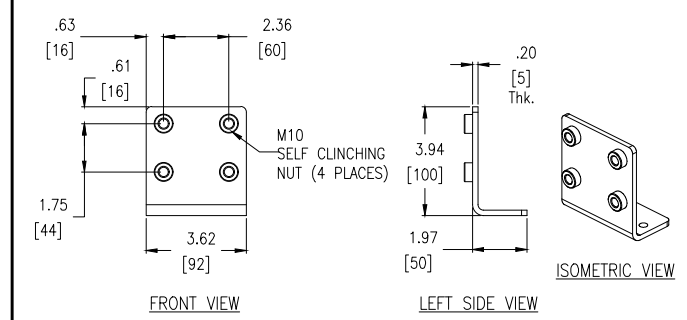
APPROVED BY: Fred XIA/JEFFREY P 27-MAY-21

REV. 0

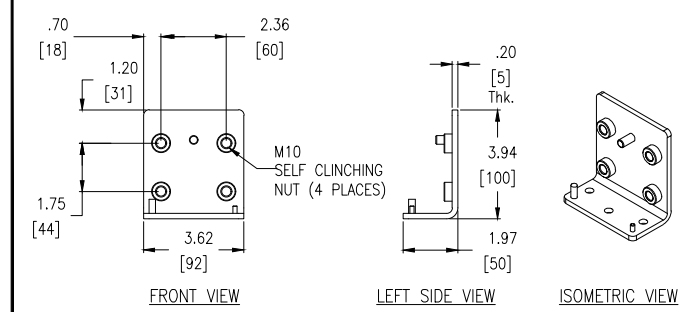
THIRD ANGLE PROJECTION



BUSBAR DETAILS



BUSBAR GROUND



BUSBAR DC+/DC-

NOTE: BOLT AND NUTS ARE PROVIDED WITH THE TERMINALS.  
RECOMMENDED TORQUE FOR M10 BOLTS IS 22.13 lb-ft [30Nm]

- NOTES:
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  - REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
  - ALL DIMENSIONS ARE IN INCHES [MILLIMETERS].
  - USE M6x16 SCREWS FOR MOUNTING MULTIPLE RACKS SIDE BY SIDE. REMOVE SIDE PANELS OF ADJACENT BATTERY RACKS WHILE BAYING.
  - THE SYSTEM BMS IS LOCATED IN BATTERY RACK 1 ONLY.
  - FUSE TYPE: Merson MPN PC33UD69V500TF OR LITTLEFUSE MPN PSR033FL0500Z WITH 500A 600Vdc 100KA.
  - SOME STRUCTURAL DETAILS HAVE BEEN OMITTED FOR THE PURPOSE OF CLARITY.

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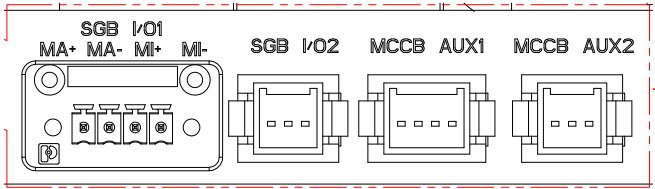


TITLE:		DWG NO:	REV.
Galaxy Lithium-ion Battery cabinet, GVX UL INTERNAL VIEWS		LIBSESMGGVXUL	1
PROJECT: SUBMITTAL DRAWINGS	SHEET 3 OF 13	DRAWN BY:	THIRD
		ENGINEER:	ANGLE
		APPROVED BY:	PROJECTION

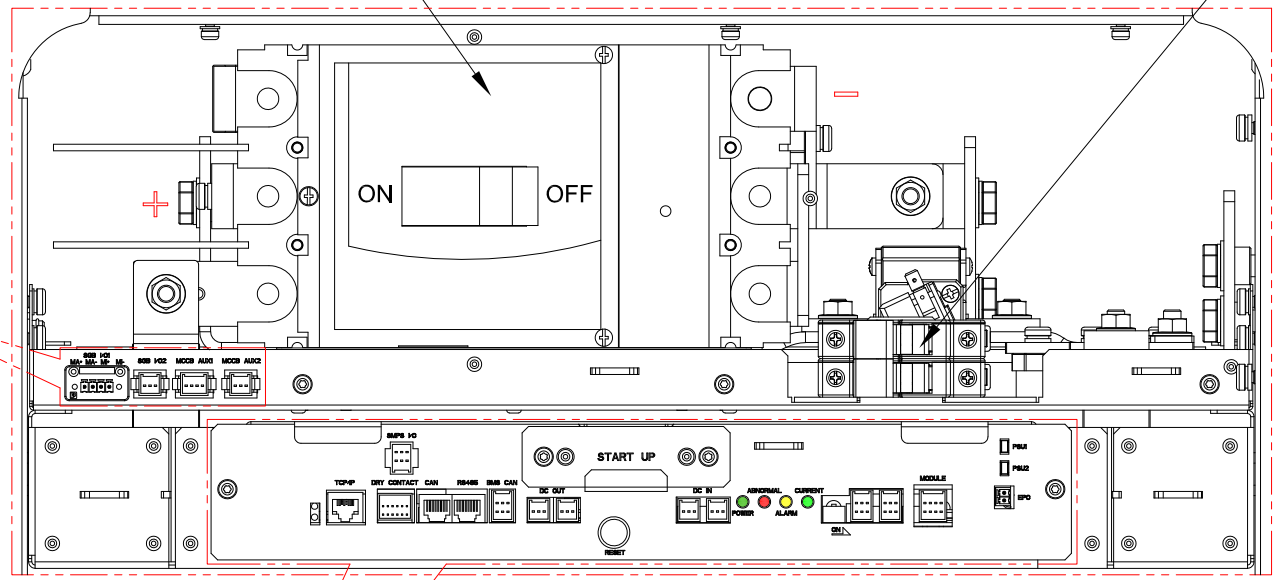
MCCB SETTINGS:  
 $I_m = 1500A$   
 APPLY TO ALL CONFIGURATIONS.

MCCB ( $U_i=750V$ ;  $I_n=600A$  dc)

3 SMPS FUSES

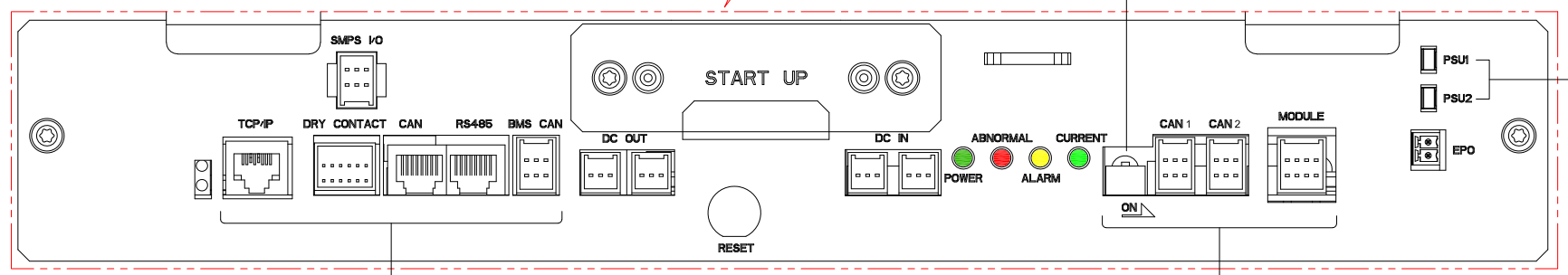


SWITCHGEAR PORTS



VIEW A (ENLARGED)  
 SWITCHGEAR SMPS AND BMS

CAN BUS LOOP TERMINATION RESISTOR SWITCH



SYSTEM BMS PORTS

SMPS AND BMS

RACK BMS PORTS

NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. FUSE TYPE: LITTLEFUSE MPN OSPF003.T OR EQUIVALENT WITH 3A 1000Vdc 20KAIC.
4. THE SYSTEM BMS IS LOCATED IN BATTERY RACK 1 ONLY.

CABLING NOTES:  
 CANBUS COMMUNICATIONS BETWEEN RACKS IS SUPPLIED AND INSTALLED BY SCHNEIDER ELECTRIC.

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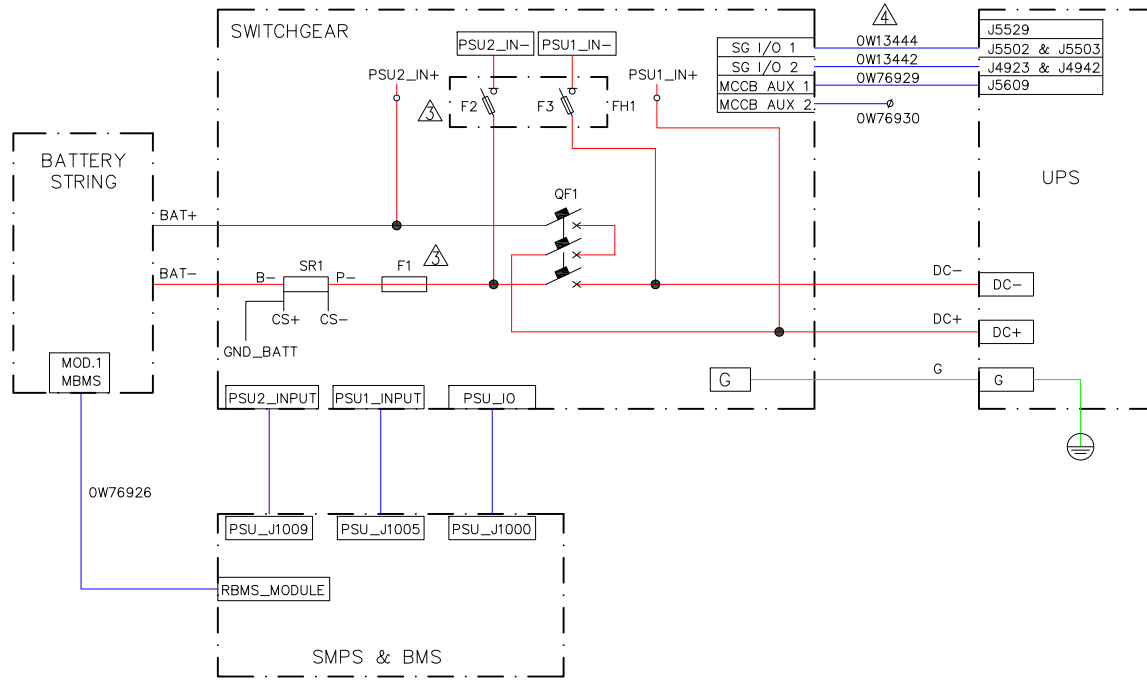


TITLE:  
 Galaxy Lithium-ion Battery cabinet, GVX UL  
 INTERNAL VIEWS

PROJECT: SUBMITTAL DRAWINGS SHEET 4 OF 13

DWG NO:	LIBSESMGCVXUL	REV:	0
DRAWN BY:	JAYAPRAKASH	DATE:	27-MAY-21
ENGINEER:	Fred XIA/PAUL J	DATE:	27-MAY-21
APPROVED BY:	Fred XIA/JEFFREY P	DATE:	27-MAY-21
PROJECTION:			N.A.

**SYSTEM DIAGRAM**



**LEGEND:**  
 CONTROL CABLE —————  
 POWER CABLE —————

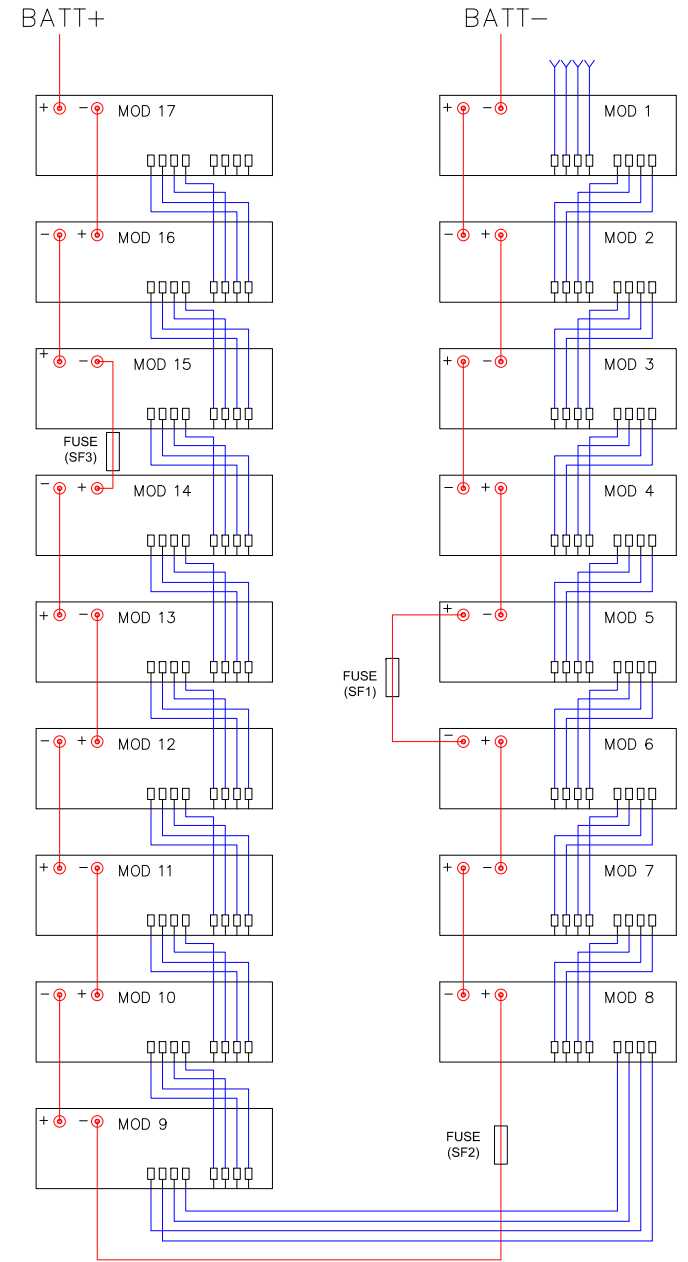
**NOTES:**

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
- △ 3. F1 FUSE TYPE: Merson MPN PC33UD69V500A or LITTLEFUSE MPN PSR033DS0500X WITH 500A 600Vdc 100KAIC.  
 F2 & F3 FUSE TYPE: LITTLEFUSE MPN OSPF003.T OR EQUIVALENT WITH 3A 1000Vdc 20KAIC.
- △ 4. COMMUNICATION CABLES OF 5 Meter LENGTH ARE PROVIDED WITH THE BATTERY RACK. FOR REQUIREMENT OF ANY ADDITIONAL LENGTH OF CABLES, OPTIONAL COMMUNICATION CABLE KIT LIBSEOPT001 WITH 25 Meter CABLE LENGTH IS AVAILABLE FOR PROCUREMENT.

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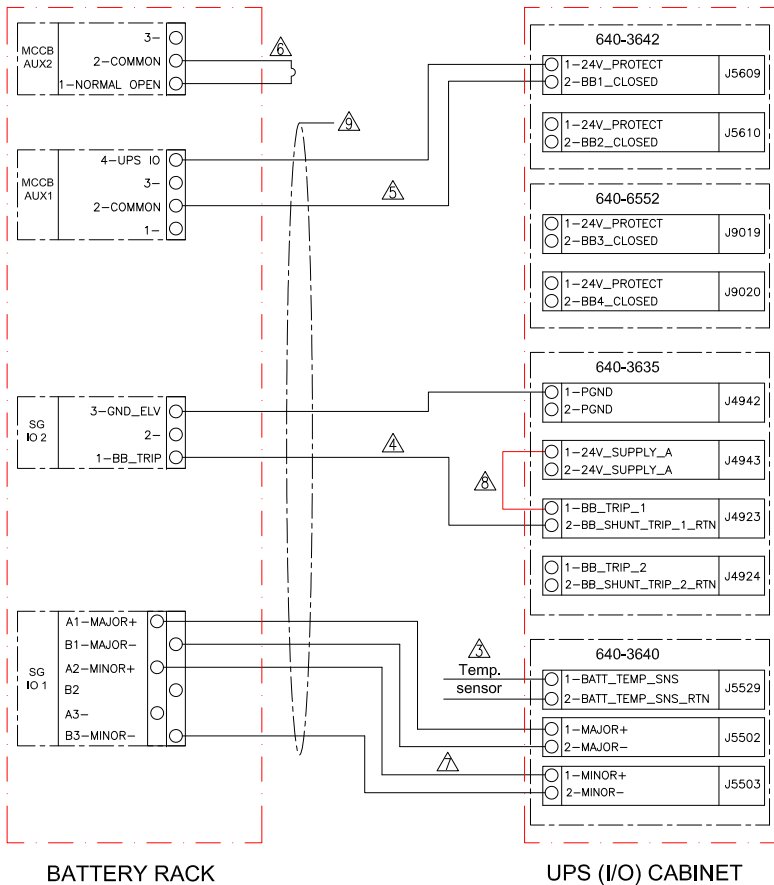
**CABLING DIAGRAM, 17 MODULES/STRING**



**LEGEND:**  
 CONTROL CABLE —————  
 BUS BAR —————

<b>TITLE:</b> Galaxy Lithium-ion Battery cabinet, GVX UL SYSTEM/CABLING DIAGRAM		<b>DWG NO:</b> LIBSESMGCVXUL	<b>REV.</b> 0
<b>DRAWN BY:</b> JAYAPRAKASH	27-MAY-21	<b>ANGLE</b>	
<b>ENGINEER:</b> Fred XIA/PAUL J	27-MAY-21	<b>PROJECTION</b>	
<b>APPROVED BY:</b> Fred XIA/JEFFREY P	27-MAY-21		
<b>PROJECT:</b> SUBMITTAL DRAWINGS	<b>SHEET:</b> 5 OF 13		

INTERFACE DETAILS FOR GALAXY VX WHEN ONE BATTERY RACK CONNECTED TO UPS



UPS(I/O) CABINET	Cable Tray Installation		Conduit Connection	
	Recommended Cable Size	Max Number of LIB Racks connected directly	Recommended Cable Size	Max Number of LIB Racks connected directly
GVX with 750kW IOC (obsolete-for LIB retrofit)	350kcmil (pos, neg, ground)	Max 8 Racks	Parallel 250kcmil at 75°C for conduit connection with ETO Top Hat Option	Max 4 Racks(*)
GVX with 1000kW IOC		Max 12 Racks		Max 6 Racks(*)
GVX with 1250kW IOC		Max 12 Racks (**)		Max 7 Racks(*) (**)
GVX with 1500kW IOC		Max 17 Racks (***)		Max 10 Racks(*)

\* With the parallel conductors and ETO Top Hat Option.

\*\* With Copper bypass cables selected (It will decrease by 1 string if Aluminium bypass cables are selected).

\*\*\*Fuse is required when more than 17 cabinets are connected directly; Li-ion Battery rack's short circuit rating RMS value is 2.9kA per rack and GVX limit is 50kA, the fuse protection shall cover the UPS short circuit limit.

MCCB's AUX contacts are wired in series when there are more than 4 strings and distributed according to the table below

Number of Strings	Strings per Bank			
	MCCB's AUX contact serialized on AUX in Bank1	MCCB's AUX contact serialized on AUX in Bank2	MCCB's AUX contact serialized on AUX in Bank3	MCCB's AUX contact serialized on AUX in Bank4
5	2	1	1	1
6	2	2	1	1
7	2	2	2	1
8	2	2	2	2
9	3	2	2	2
10	3	3	2	2
11	3	3	3	2
12	3	3	3	3
13	4	3	3	3
14	4	4	3	3
15	4	4	4	3
16	4	4	4	4
17	5	4	4	4

CONTACT APPLICATION TEAM FOR CONFIGURATION WITH MORE THAN 17 RACKS

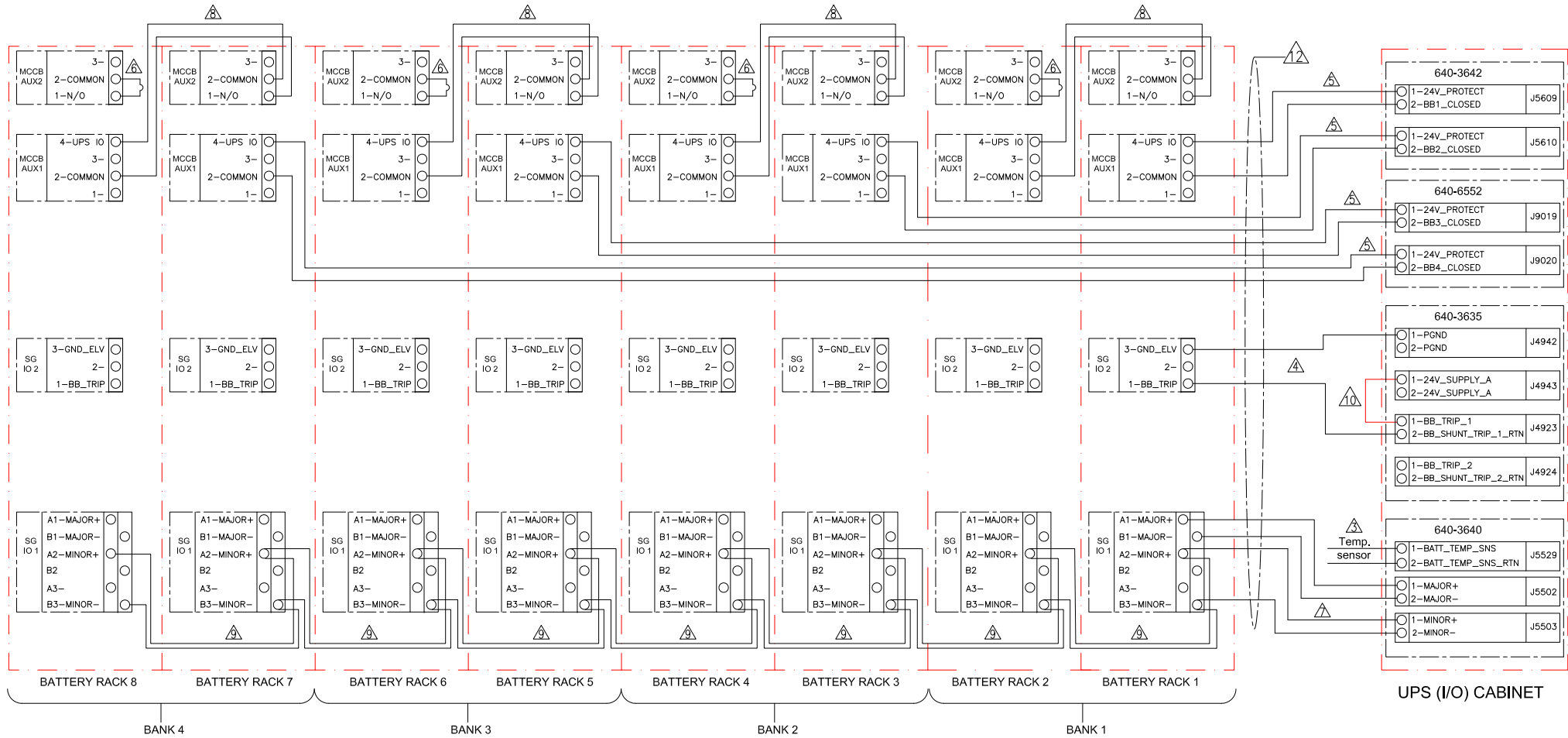
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  - REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
  - INSTALL THE TEMPERATURE SENSOR 0M-1160 PROVIDED WITH THE UPS IN THE BATTERY ROOM.
  - USE THE PROVIDED 0W13442 CABLE KIT TO CONNECT SG IO 2 AND UPS BB\_TRIP CONTACTS TO FIELD WIRING FROM UPS.
  - USE THE PROVIDED 0W76929 CABLE KIT TO CONNECT MCCB AUX 1 TO FIELD WIRING FROM UPS.
  - USE THE PROVIDED 0W76930 TO CONNECT MCCB AUX 2 CONTACT.
  - USE THE PROVIDED 0W13444 CABLE KIT TO CONNECT MAJOR & MINOR FAULT CONTACTS TO FIELD WIRING FROM UPS.
  - SHORT PIN 1 IN J4923 AND J4943.
  - FIELD WIRING IS PROVIDED BY OTHERS AND SHALL CONNECT TO TERMINAL BLOCKS BY SE FIELD SERVICE. CONDUCTORS SHALL BE CAREFULLY LABELED & PULLED WITHIN 6 inches [152.4mm] OF FINAL TERMINATION.

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TITLE: Galaxy Lithium-ion Battery cabinet, GVX UL INTERFACE DETAILS FOR 1 RACK		DWG NO: LIBSESMGCVXUL	REV. 1
PROJECT: SUBMITTAL DRAWINGS	SHEET 6 OF 13	DRAWN BY: JAYAPRAKASH	19-OCT-21 ANGLE
		ENGINEER: Fred XIA/PAUL J	15-NOV-21 PROJECTION
		APPROVED BY: Fred XIA/JEFFREY P	15-NOV-21 N.A.

INTERFACE DETAILS FOR GALAXY VX WHEN EIGHT BATTERY RACKS CONNECTED TO UPS



CONFIGURATION WITH 8 BATTERY RACKS (2 RACK/BANK) SHOWN FOR ILLUSTRATION

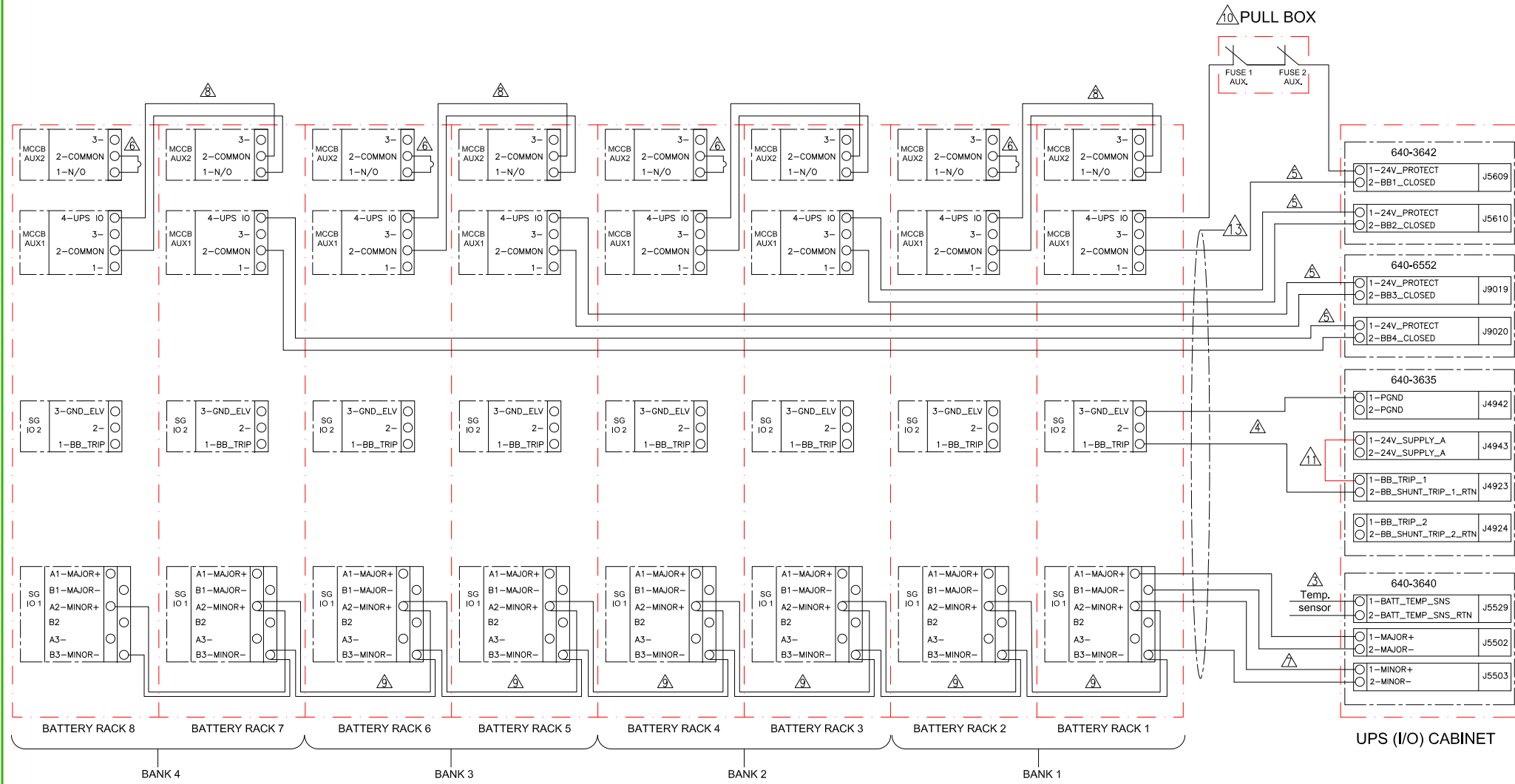
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  3. INSTALL THE TEMPERATURE SENSOR OM-1160 PROVIDED WITH THE UPS IN THE BATTERY ROOM.
  4. USE THE PROVIDED OW13442 CABLE KIT TO CONNECT SG IO 2 AND UPS BB\_TRIP CONTACTS TO FIELD WIRING FROM UPS.
  5. USE THE PROVIDED OW76929 CABLE KIT TO CONNECT MCCB AUX 1 (THE FIRST ONE RACK OF A BANK) TO FIELD WIRING FROM UPS.
  6. USE THE PROVIDED OW76930 TO CONNECT MCCB AUX 2 CONTACT FOR LAST RACK IN A BANK.
  7. USE THE PROVIDED OW13444 CABLE KIT TO CONNECT MAJOR & MINOR FAULT CONTACTS TO FIELD WIRING FROM UPS.
  8. USE THE PROVIDED OW76934 TO CONNECT MCCB AUX SIGNALS IN SERIES.
  9. USE THE PROVIDED OW76972 TO CONNECT MINOR FAULT ALARM CONTACTS.
  10. SHORT PIN 1 IN J4923 AND J4943.
  11. THE SYSTEM BMS IS LOCATED IN BATTERY RACK 1 ONLY.
  12. FIELD WIRING IS PROVIDED BY OTHERS AND SHALL CONNECT TO TERMINAL BLOCKS BY SE FIELD SERVICE. CONDUCTORS SHALL BE CAREFULLY LABELED & PULLED WITHIN 6 inches [152.4mm] OF FINAL TERMINATION.

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<b>TITLE:</b> Galaxy Lithium-ion Battery cabinet, GVX UL INTERFACE DETAILS-8 RACK		<b>DWG NO:</b> LIBSESMGCVXUL	<b>REV.</b> 1
<b>DRAWN BY:</b> JAYAPRAKASH	19-OCT-21	ANGLE	
<b>ENGINEER:</b> Fred XIA/PAUL J	15-NOV-21	PROJECTION	
<b>APPROVED BY:</b> Fred XIA/JEFFREY P	15-NOV-21	N. A.	
<b>PROJECT:</b> SUBMITTAL DRAWINGS	<b>SHEET:</b> 7 OF 13		

INTERFACE DETAILS FOR GALAXY VX WHEN EIGHT BATTERY RACKS CONNECTED TO FUSED PULL BOX AND UPS



CONFIGURATION WITH 8 BATTERY RACKS (2 RACK/BANK) SHOWN FOR ILLUSTRATION

- NOTES:**
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  2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
  - △ 3. INSTALL THE TEMPERATURE SENSOR OM-1160 PROVIDED WITH THE UPS IN THE BATTERY ROOM.
  - △ 4. USE THE PROVIDED OW13442 CABLE KIT TO CONNECT SG IO 2 AND UPS BB\_TRIP CONTACTS TO FIELD WIRING FROM UPS.
  - △ 5. USE THE PROVIDED OW76929 CABLE KIT TO CONNECT MCCB AUX 1 (THE FIRST ONE RACK OF A BANK) TO FIELD WIRING FROM UPS.
  - △ 6. USE THE PROVIDED OW76930 TO CONNECT MCCB AUX 2 CONTACT FOR LAST RACK IN A BANK.
  - △ 7. USE THE PROVIDED OW13444 CABLE KIT TO CONNECT MAJOR & MINOR FAULT CONTACTS TO FIELD WIRING FROM UPS.
  - △ 8. USE THE PROVIDED OW76934 TO CONNECT MCCB AUX SIGNALS IN SERIES.
  - △ 9. USE THE PROVIDED OW76972 TO CONNECT MINOR FAULT ALARM CONTACTS.
  - △ 10. PLEASE CONTACT APPLICATION ENGINEERING TEAM FOR THE REQUIRED CONNECTION METHODS WITH PULL BOX, FUSED PULL BOX AND etc.
  - △ 11. SHORT PIN 1 IN J4923 AND J4943.
  12. THE SYSTEM BMS IS LOCATED IN BATTERY RACK 1 ONLY.
  - △ 13. FIELD WIRING IS PROVIDED BY OTHERS AND SHALL CONNECT TO TERMINAL BLOCKS BY SE FIELD SERVICE. CONDUCTORS SHALL BE CAREFULLY LABELED & PULLED WITHIN 6 inches [152.4mm] OF FINAL TERMINATION.

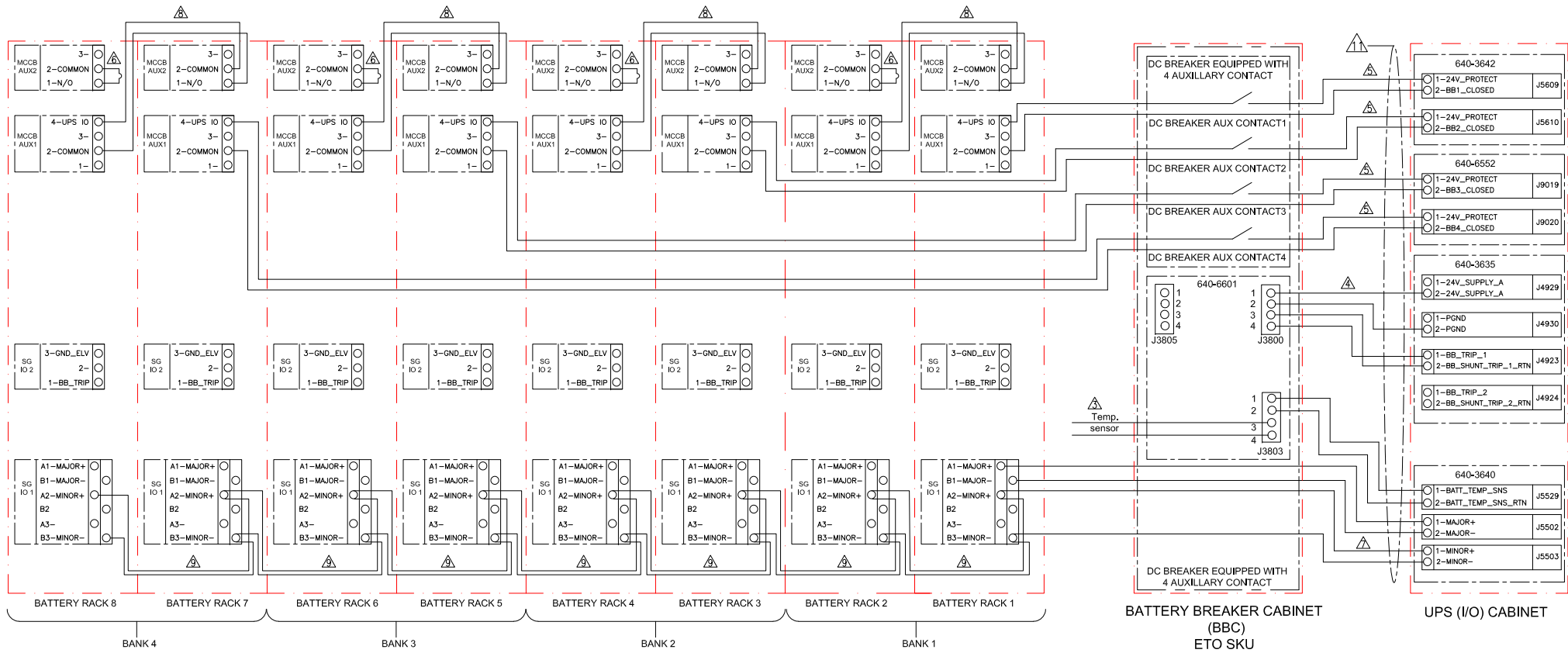
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<b>TITLE:</b> Galaxy Lithium-ion Battery cabinet, GVX UL INTERFACE DETAILS WITH PULL BOX		<b>DWG NO:</b> LIBSESMGCVXUL	<b>REV.</b> 1
<b>PROJECT:</b> SUBMITTAL DRAWINGS	<b>SHEET:</b> 8 OF 13	<b>DRAWN BY:</b> JAYAPRAKASH	19-OCT-21
		<b>ENGINEER:</b> Fred XIA/PAUL J	15-NOV-21
		<b>APPROVED BY:</b> Fred XIA/JEFFREY P	15-NOV-21
			ANGLE PROJECTION N. Δ



INTERFACE DETAILS FOR GALAXY VX WHEN EIGHT BATTERY RACKS CONNECTED TO BBC AND UPS



CONFIGURATION WITH 8 BATTERY RACKS (2 RACK/BANK) SHOWN FOR ILLUSTRATION

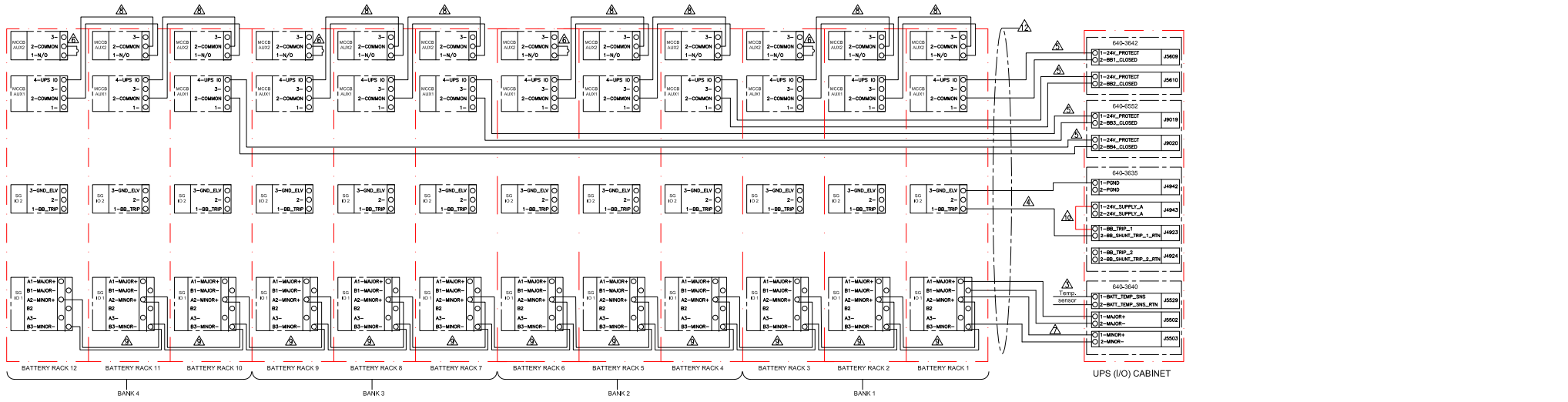
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  2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
  - △ 3. INSTALL THE TEMPERATURE SENSOR 0M-1160 PROVIDED WITH THE UPS IN THE BATTERY ROOM.
  - △ 4. USE THE PROVIDED 0W13442 CABLE KIT TO CONNECT SG IO 2 AND UPS BB\_TRIP CONTACTS TO FIELD WIRING FROM UPS.
  - △ 5. USE THE PROVIDED 0W76929 CABLE KIT TO CONNECT MCCB AUX 1 (THE FIRST ONE RACK OF A BANK) TO FIELD WIRING FROM UPS.
  - △ 6. USE THE PROVIDED 0W76930 TO CONNECT MCCB AUX 2 CONTACT FOR LAST RACK IN A BANK.
  - △ 7. USE THE PROVIDED 0W13444 CABLE KIT TO CONNECT MAJOR & MINOR FAULT CONTACTS TO FIELD WIRING FROM UPS.
  - △ 8. USE THE PROVIDED 0W76934 TO CONNECT MCCB AUX SIGNALS IN SERIES.
  - △ 9. USE THE PROVIDED 0W76972 TO CONNECT MINOR FAULT ALARM CONTACTS.
  10. THE SYSTEM BMS IS LOCATED IN BATTERY RACK 1 ONLY.
  - △ 11. FIELD WIRING IS PROVIDED BY OTHERS AND SHALL CONNECT TO TERMINAL BLOCKS BY SE FIELD SERVICE. CONDUCTORS SHALL BE CAREFULLY LABELED & PULLED WITHIN 6 inches [152.4mm] OF FINAL TERMINATION.

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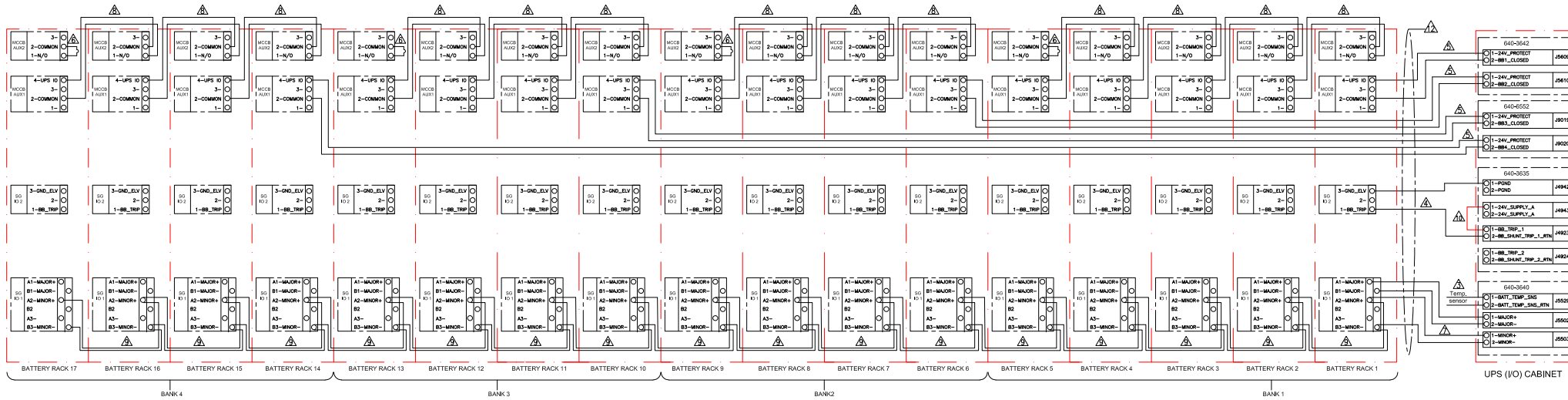


<b>TITLE:</b> Galaxy Lithium-ion Battery cabinet, GVX UL INTERFACE DETAILS WITH BBC		<b>DWG NO:</b> LIBSESMGCVXUL	<b>REV.</b> 1
<b>PROJECT:</b> SUBMITTAL DRAWINGS	<b>SHEET:</b> 9 OF 13	<b>DRAWN BY:</b> JAYAPRAKASH	19-OCT-21
		<b>ENGINEER:</b> Fred XIA/PAUL J	15-NOV-21
		<b>APPROVED BY:</b> Fred XIA/JEFFREY P	15-NOV-21
			ANGLE PROJECTION N. Δ

INTERFACE DETAILS FOR GALAXY VX WHEN TWELVE BATTERY RACKS CONNECTED TO UPS



INTERFACE DETAILS FOR GALAXY VX WHEN SEVENTEEN BATTERY RACKS CONNECTED TO UPS



NOTES:

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
- △ 3. INSTALL THE TEMPERATURE SENSOR OM-1160 PROVIDED WITH THE UPS IN THE BATTERY ROOM.
- △ 4. USE THE PROVIDED OW13442 CABLE KIT TO CONNECT SG IO 2 AND UPS BB\_TRIP CONTACTS TO FIELD WIRING FROM UPS.
- △ 5. USE THE PROVIDED OW76929 CABLE KIT TO CONNECT MCCB AUX 1 (THE FIRST ONE RACK OF A BANK) TO FIELD WIRING FROM UPS.
- △ 6. USE THE PROVIDED OW76930 TO CONNECT MCCB AUX 2 CONTACT FOR LAST RACK IN A BANK.
- △ 7. USE THE PROVIDED OW13444 CABLE KIT TO CONNECT MAJOR & MINOR FAULT CONTACTS TO FIELD WIRING FROM UPS.
- △ 8. USE THE PROVIDED OW76934 TO CONNECT MCCB AUX SIGNALS IN SERIES.
- △ 9. USE THE PROVIDED OW76972 TO CONNECT MINOR FAULT ALARM CONTACTS.
- △ 10. SHORT PIN 1 IN J4923 AND J4943.
11. THE SYSTEM BMS IS LOCATED IN BATTERY RACK 1 ONLY.
- △ 12. FIELD WIRING IS PROVIDED BY OTHERS AND SHALL CONNECT TO TERMINAL BLOCKS BY SE FIELD SERVICE. CONDUCTORS SHALL BE CAREFULLY LABELED & PULLED WITHIN 6 inches [152.4mm] OF FINAL TERMINATION.

CONFIGURATION WITH 12 & 17 BATTERY RACKS SHOWN FOR ILLUSTRATION . REFER TO PAGE-6 FOR MORE DETAILS REGARDING CONNECTIONS & CONFIGURATIONS.

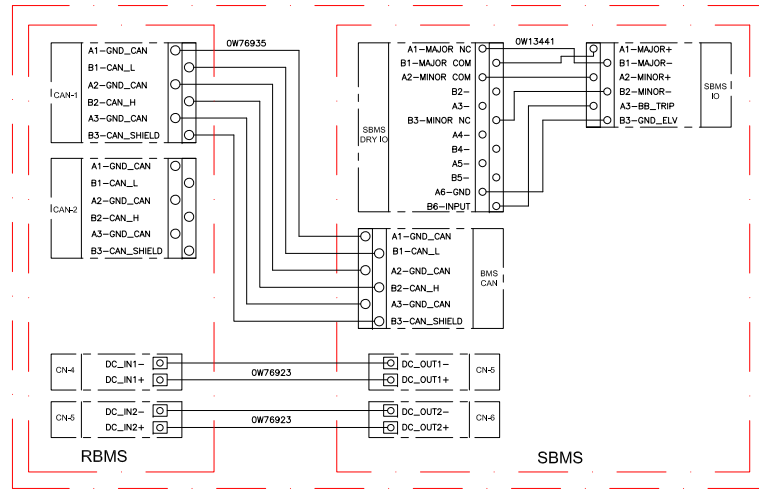
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TITLE: Galaxy Lithium-ion Battery cabinet, GVX UL INTERFACE DETAILS WITH BBC  
PROJECT: SUBMITTAL DRAWINGS SHEET 10 OF 13

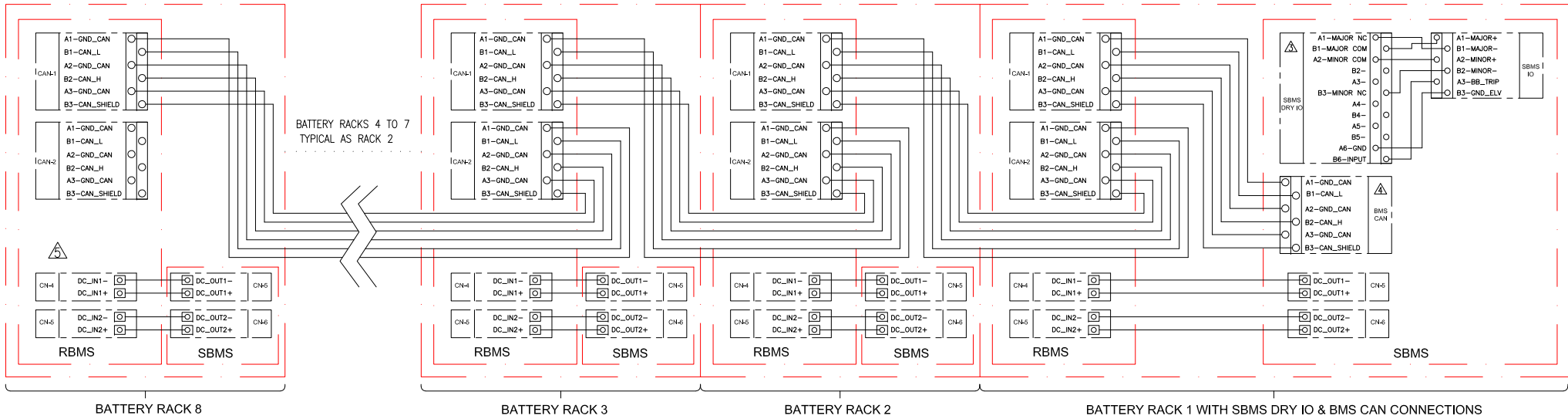
DWG NO:	LIBSESMGCVXUL	REV:	1
DRAWN BY:	JAYAPRAKASH	19-OCT-21	ANGLE
ENGINEER:	Fred XIA/PAUL J	15-NOV-21	PROJECTION
APPROVED BY:	Fred XIA/JEFFREY P	15-NOV-21	N. Δ

**BMS WIRING DETAILS FOR ONE BATTERY RACK**



**BATTERY RACK 1 WITH SBMS DRY IO & BMS CAN CONNECTIONS**

**BMS WIRING DETAILS UP TO EIGHT BATTERY RACKS**



**CONFIGURATION WITH 8 BATTERY RACKS SHOWN FOR ILLUSTRATION**

**NOTES:**

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
- △ 3. **SBMS DRY IO** IS CONNECTED IN BATTERY RACK 1 ONLY.
- △ 4. **BMS CAN** IS CONNECTED IN BATTERY RACK 1 ONLY.
- △ 5. SLIDE THE CAN BUS LOOP TERMINATION RESISTOR SWITCH TO ON POSITION IN THE LAST ONE BATTERY RACK.

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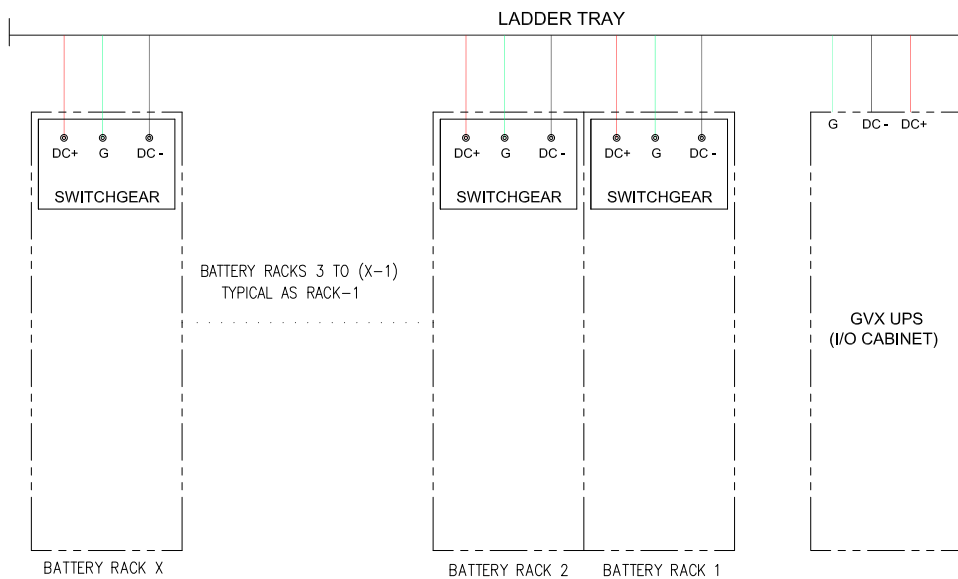


**TITLE:**  
Galaxy Lithium-ion Battery cabinet, CVX UL  
INTERFACE DETAILS-SBMS TO RBMS

**PROJECT:** SUBMITTAL DRAWINGS **SHEET** 11 OF 13

<b>DWG NO:</b>	LIBSESMGCVXUL	<b>REV.</b>	0
<b>DRAWN BY:</b>	JAYAPRAKASH	27-MAY-21	ANGLE
<b>ENGINEER:</b>	Fred XIA/PAUL J	27-MAY-21	PROJECTION
<b>APPROVED BY:</b>	Fred XIA/JEFFREY P	27-MAY-21	N. A.

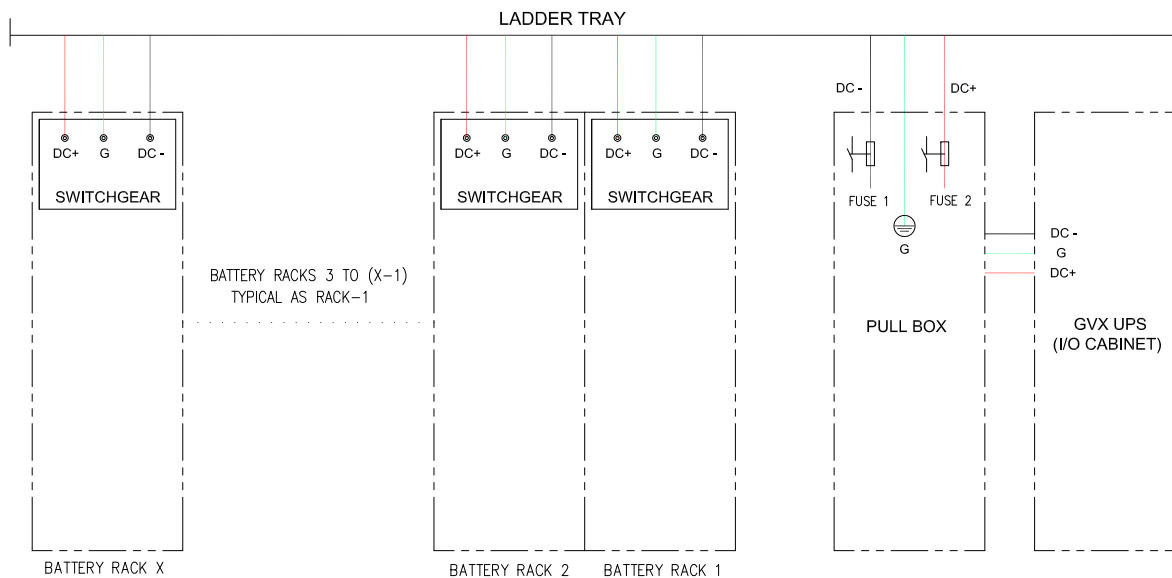
**SCHEMATIC FOR GALAXY VX WHEN BATTERY RACKS CONNECTED WITH LADDER TRAY TO UPS I/O CABINET**



ELECTRICAL DATA	
SKU Number/Model	LIBSESMG17UL
Number of Battery Modules	17
Number of Type-A Battery Modules	8
Number of Type-B Battery Modules	9
Number of Battery cells in a string	136
Nominal Energy (kWh)	34.6
Nominal Battery Voltage (VDC)	517
Nominal capacity (Ah)	67
Charge current rate (CA rate)	0.7
Float charge Voltage (VDC)	571
End of discharge Voltage (VDC)	408
Maximum continuous discharge power (kW)	184
Peak current at end of discharge (A)	450
Short circuit rating RMS value (kA)	2.9

The maximum allowable cable size is 350kcmil/185mm<sup>2</sup>  
Refer to applicable UPS installation manual for recommended cable sizes

**SCHEMATIC FOR GALAXY VX WHEN BATTERY RACKS CONNECTED WITH LADDER TRAY & PULL BOX TO UPS**



**NOTES:**

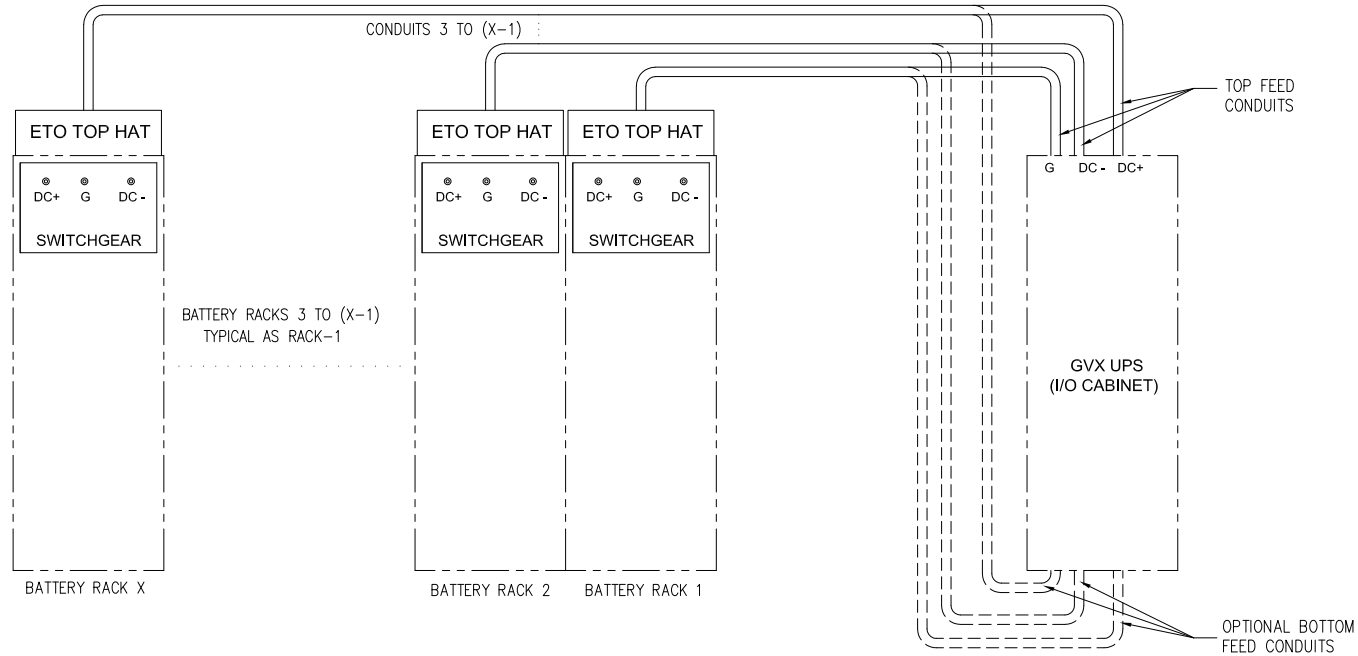
1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. REFER TO PAGE-6 FOR MORE DETAILS REGARDING CONNECTIONS, CONFIGURATIONS AND RACK'S SHORT CIRCUIT RATING RMS VALUE.

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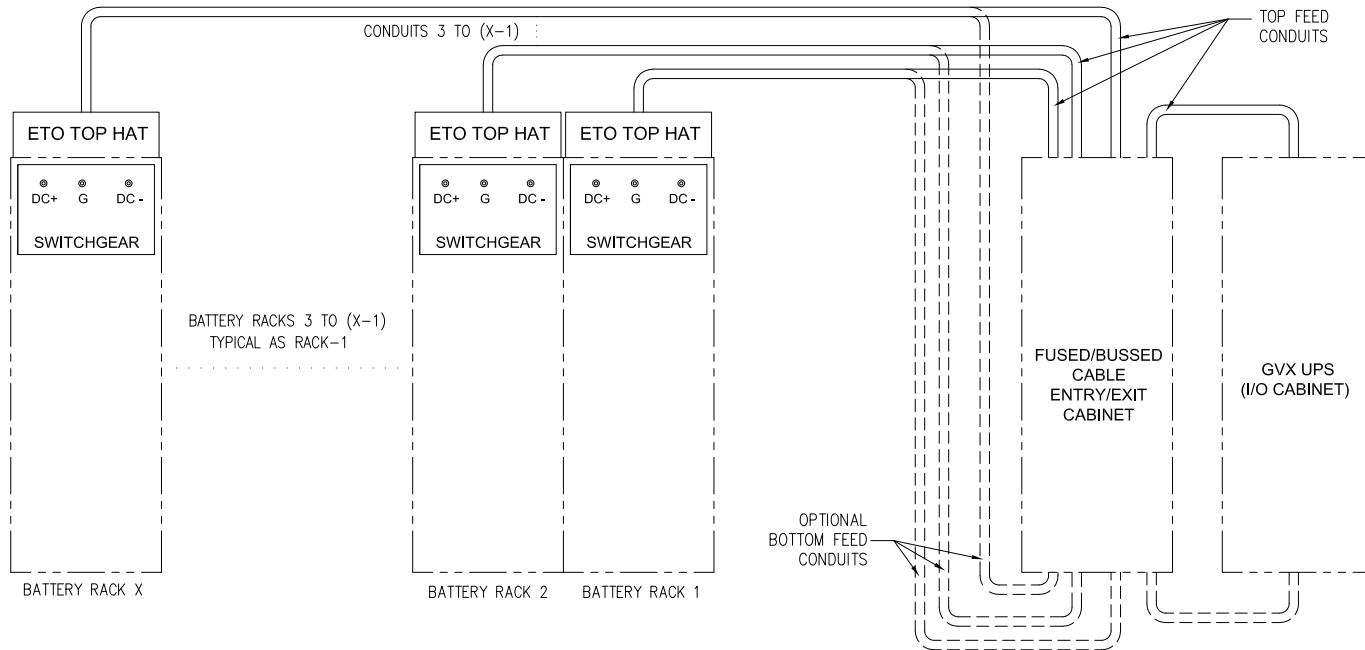


TITLE:		DWG NO:	REV.
Galaxy Lithium-ion Battery cabinet, GVX UL SCHEMATIC DIAGRAM WITH LADDER		LIBSESMGCVXUL	0
DRAWN BY:	JAYAPRAKASH	27-MAY-21	ANGLE
ENGINEER:	Fred XIA/PAUL J	27-MAY-21	PROJECTION
PROJECT: SUBMITTAL DRAWINGS	SHEET 12 OF 13	APPROVED BY: Fred XIA/JEFFREY P	27-MAY-21

**SCHEMATIC FOR GALAXY VX WHEN BATTERY RACKS CONNECTED WITH TOP HAT & CONDUITS TO UPS I/O CABINET**



**SCHEMATIC FOR GALAXY VX WHEN BATTERY RACKS CONNECTED WITH TOP HAT, CONDUITS, BUSSED CABINET TO UPS I/O CABINET**



**NOTES:**

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES.
2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
3. REFER TO PAGE-6 FOR MORE DETAILS REGARDING CONNECTIONS, CONFIGURATIONS AND RACK'S SHORT CIRCUIT RATING RMS VALUE.

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<b>TITLE:</b> Galaxy Lithium-ion Battery cabinet, GVX UL SCHEMATIC DIAGRAM WITH CONDUITS		<b>DWG NO:</b> LIBSESMGCVXUL	<b>REV.</b> 0
<b>DRAWN BY:</b> JAYAPRAKASH	27-MAY-21	ANGLE	
<b>ENGINEER:</b> Fred XIA/PAUL J	27-MAY-21	PROJECTION	
<b>APPROVED BY:</b> Fred XIA/JEFFREY P	27-MAY-21	N.A.	
<b>PROJECT:</b> SUBMITTAL DRAWINGS	<b>SHEET:</b> 13 OF 13		