

2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.

3. ALL DIMENSIONS ARE IN MILLIMETERS [INCHES].

Δ4. A MINIMUM OF 1000mm [39.37 Inches] FRONT, 100mm [3.94 Inches] TOP CLEARANCE REQUIRED. 100mm [3.94 Inches] 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 16.5 kg [36.38 lb].

8. COLOR: RAL9003, GLOSS LEVEL 85%.

9. PROTECTION CLASS: IP20.

10. OPERATING TEMPERATURE: 18 - 28°C [64 - 82°F].

TO OPTIMIZE THE LIFE OF BATTERY, IT IS RECOMMENDED TO MAINTAIN 25°C [77°F].

△11. THIS INFORMATION PROVIDES APPROXIMATE CENTER OF GRAVITY CALCULATION.

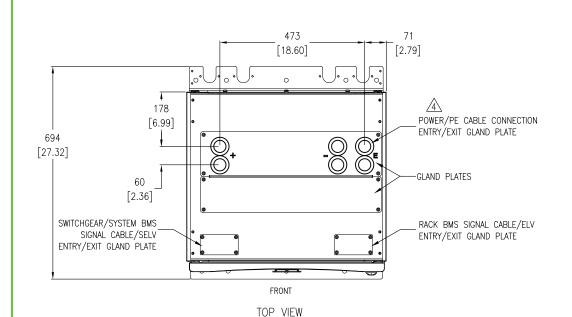
12. BATTERY RACKS CAN BE BAYED SIDE BY SIDE AND BACK TO BACK. REFER TO INSTALLATION MANUAL FOR DETAILS.

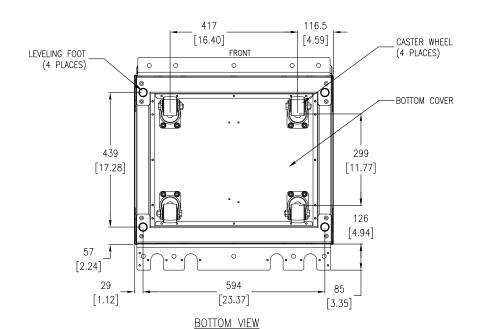
	SKU NUMBER	WEIGHT	IN kg [lb]	COG IN mm [Inch]					
		Empty Rack Fully loaded		Empty Rack			Fully loaded Rack		
		Emply Rack	Rack	X-diection	Y-direction	Z-direction	X-diection	Y-direction	Z-direction
	LIBSESMG13IEC LIBSESMG16IEC 211 [211 [465]	415 [915]	321.5 [12.66]	1031.5 [40.61]	311.2 [12.25]	317.8 [12.51]	1061.4 [41.79]	282.4 [11.12]
		211 [405]	470 [1036]	321.5 [12.66]	1031.5 [40.61]	311.2 [12.25]	324 [12.76]	990.7 [39.00]	279.9 [11.02]

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R RE IR	Schneider Electric

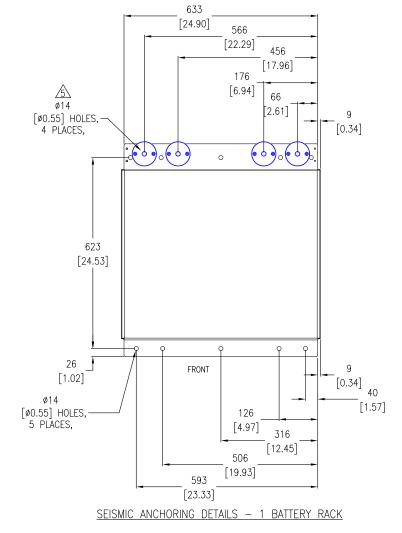
		DWG NO: LIBSESMGGVSIEC			REV.	
	Galaxy Lithium—ion Battery cabinet, GVS IEC GENERAL ARRANGEMENT		DRAWN:	JAYAPRAKASH	28-MAY-21	FIRST
		ENGINEER:	Fred XIA	02-JUN-21	ANGLE	
	PROJECT: SUBMITTAL DRAWINGS	SHEET 1 OF 10	APPROVED:	Rick ZHANG	02-JUN-21	PROJECTION

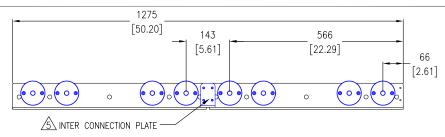




NOTES:

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- 3. ALL DIMENSIONS ARE IN MILLIMETERS [INCHES].
- △ 4. DO NOT DRILL/PUNCH HOLES WITH THE GLAND PLATES INSTALLED.
 - REMOVE THE CLAND PLATE FROM BATTERY RACK BEFORE DRILLING/PUNCHING. DRILL/PUNCH HOLES ACCORDING TO THE LABEL ON THE GLAND PLATE.
- Δ 5. USE ACCESSORY KIT (OM-95331) TO ANCHOR THE UNIT IN SEISMIC LOCATION.
 FOR SEISMIC ANCHORING, M12 SCREWS OF STRENGTH GRADE 8.8 HARDWARE ARE REQUIRED TO BE USED.

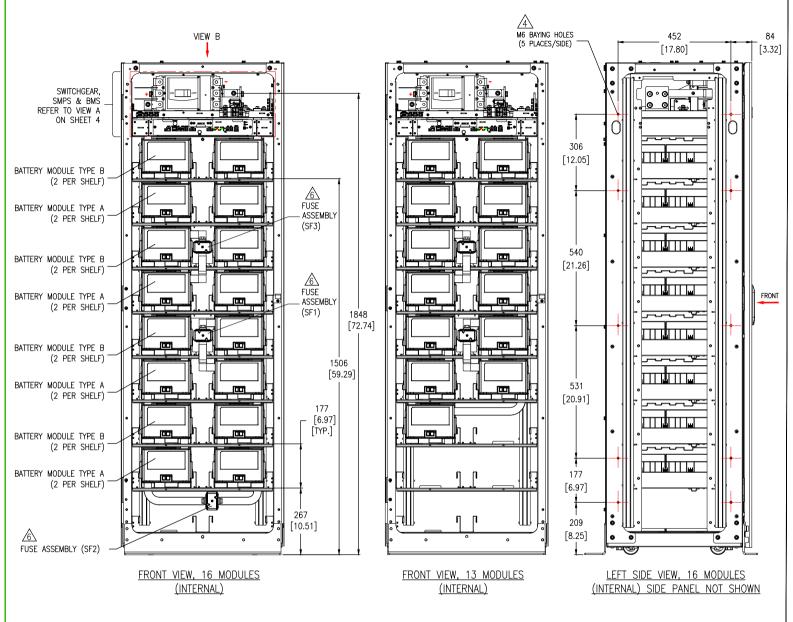


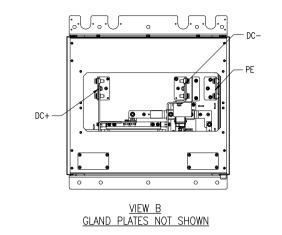


SEISMIC ANCHORING DETAILS FOR MORE THAN ONE BATTERY RACK

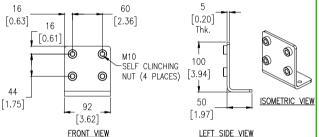


	DWG NO: LIBSESMGGVSIEC			REV. O
Galaxy Lithium—ion Battery cabinet, GVS IEC TOP/BOTTOM VIEW & ANCHORING DETAILS	DRAWN:	JAYAPRAKASH	28-MAY-21	FIRST
	ENGINEER:	Fred XIA	02-JUN-21	ANGLE
PROJECT: SUBMITTAL DRAWINGS SHEET 2 OF 10	APPROVED:	Rick ZHANG	02-JUN-21	PROJECTION
NOCEOT. SOBMITTAL DIVANINOS SHEET Z OF TO	ALLINOVED.	MICK ZITANO	02 0011 21	TROOLOHON

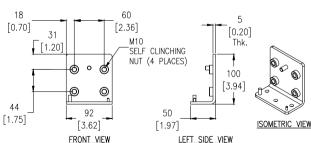




BUSBAR DETAILS



BUSBAR PE



BUSBAR DC+/DC-

NOTE: BOLT AND NUTS ARE PROVIDED WITH THE TERMINALS.

RECOMMENDED TORQUE FOR M10 BOLTS IS 30Nm [22.13 lb-ft].

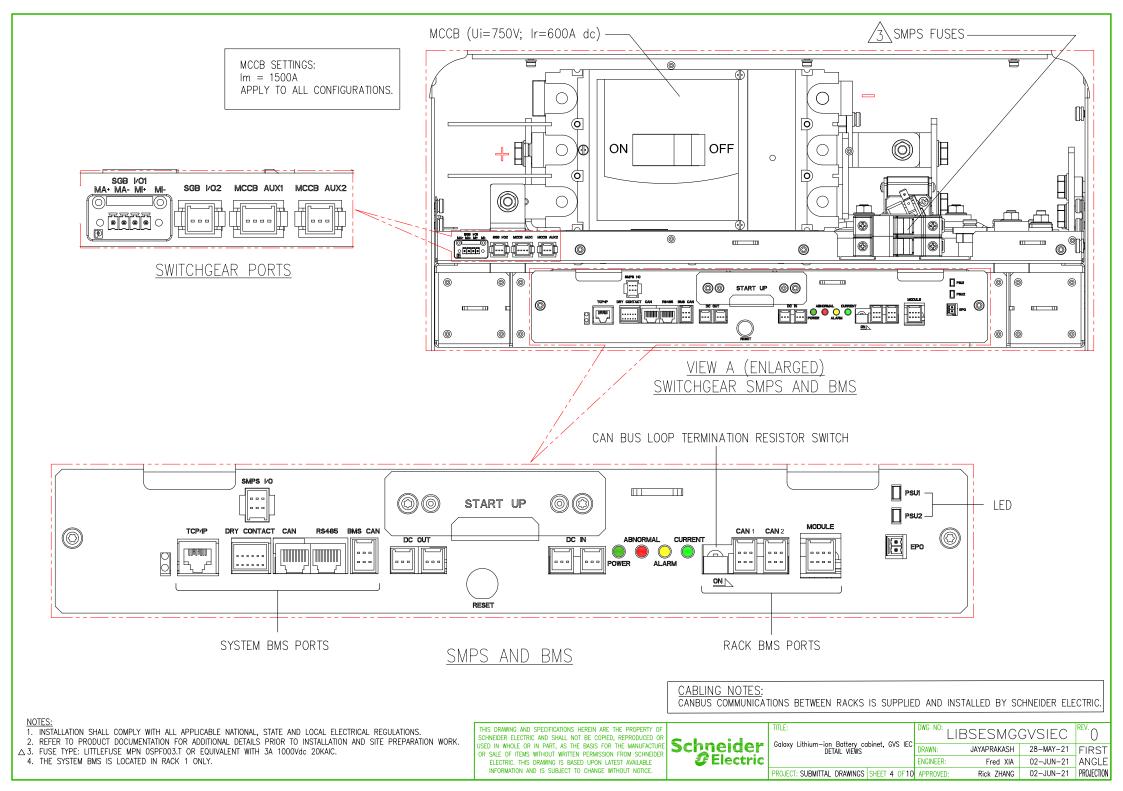
NOTES:

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

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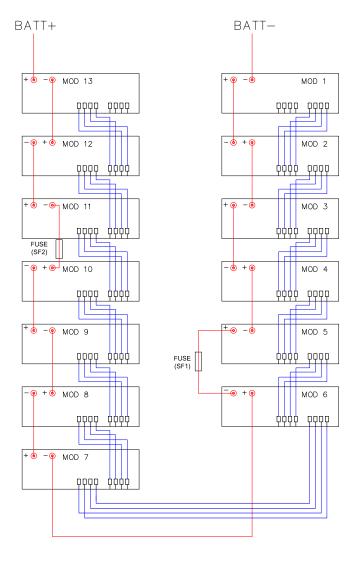


TITLE:	DWG NO: LIBSESMGGVSIEC			REV. 1
Galaxy Lithium—ion Battery cabinet, GVS IEC INTERNAL VIEW	DRAWN:	RANJITHA	22-MAY-23	FIRST
	ENGINEER:	SHERRY L E	24-MAY-23	ANGLE
PROJECT: SUBMITTAL DRAWINGS SHEET 3 OF 10	APPROVED:	Rick ZHANG	24-MAY-23	PROJECTION



16 MODULES/STRING BATT-BATT+ + **6** −**9** MOD 16 MOD 1 9999 9999 - 0 + **6** MOD 15 MOD 2 рррр фффф ффф **р**ррр + **6** − **●** MOD 14 MOD 3 9999 9999 рррр фффф (SF3) · ● + ● MOD 13 - **6** + **9** MOD 4 <u>ффф</u> рррр рррр рррр MOD 5 ффф **р**орр РРРР FUSE (SF1) - • + • MOD 11 MOD 6 рррр φφφφ φρφφ + 6 - 9 MOD 10 MOD 7 φφφφ φφφφ 9999 9999 - • + • MOD 9 - 6 + 9 MOD 8 рррр ффф **р**ррр

13 MODULES/STRING



LEGEND: CONTROL CABLE

BUS BAR

1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL REGULATIONS.

2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.

FUSE (SF2)

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TITLE:	DWG NO: LIBSESMGGVSIEC			REV.
Galaxy Lithium—ion Battery cabinet, GVS IEC CABLING DIAGRAM	DRAWN:	JAYAPRAKASH	28-MAY-21	FIRST
	ENGINEER:	Fred XIA	02-JUN-21	ANGLE
PROJECT: SUBMITTAL DRAWINGS SHEET 5 OF 10	APPROVED:	Rick ZHANG	02-JUN-21	PROJECTION

SYSTEM DIAGRAM 4 SWITCHGEAR OW13444 PSU2_IN- PSU1_IN-SG I/O 1 J6616 0W13442 SG 1/0 2 J6604 PSU1_IN+ 0W76929 J6603 MCCB AUX MCCB AUX 2 FH1 0W13445 J6602 0W76930 BATTERY J6611 STRING BAT+ UPS DC-BAT-DC-CS+ DC+ DC+ !GND_BATT MOD.1 PΕ PΕ MBMS PSU2_INPUT PSU1_INPUT PSU IO 0W76926 PSU_J1009 PSU_J1005 PSU_J1000 RBMS_MODULE SMPS & BMS

LEGEND:

CONTROL CABLE — POWER CABLE —

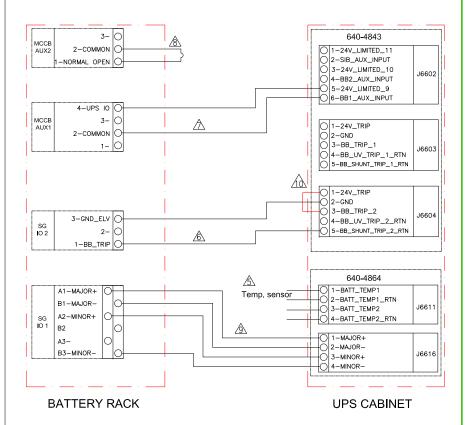
NOTES:

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- 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 LIBSEOPTOO1

 WITH 25 Meter CABLE LENGTH IS AVAILABLE FOR PROCUREMENT.
- △5. INSTALL THE TEMPERATURE SENSOR OM-1160 PROVIDED WITH THE UPS IN THE BATTERY ROOM.
- △ 6. USE THE PROVIDED OW13442 TO CONNECT UPS BB_TRIP CONTACT.
- △7. USE THE PROVIDED 0W76929 TO CONNECT MCCB AUX 1 TO UPS.
- △8. USE THE PROVIDED OW76930 TO CONNECT MCCB AUX 2 CONTACT FOR LAST RACK IN A BANK.
- △ 9. USE THE PROVIDED OW13444 TO CONNECT MAJOR AND MINOR FAULT CONTACTS.
- △10. SHORT PIN 1 AND 3 IN J6604.
- 11. THE SYSTEM BMS IS LOCATED IN BATTERY RACK 1 ONLY.

INTERFACE DETAILS FOR GALAXY VS WHEN ONE BATTERY RACK BAYED WITH UPS



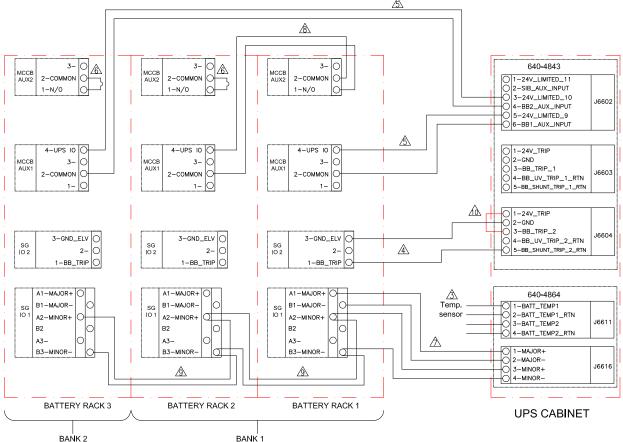
UPS	Type of installation	Maximum number of Racks	Recommended Cable Size
GVS	Ladder tray	3	150mm ² [300 kcmil]

For 4 Racks and above, a fuse is required. Li-ion Battery Rack's short circuit RMS value is 2.9kA per Rack and GVS limit is 10kA. The fuse protection shall cover the UPS short circuit limit.



TLE:	DWG NO: LIBSESMGGVSIEC			REV.
Galaxy Lithium—ion Battery cabinet, GVS IEC SYSTEM DIAGRAM &	DRAWN:	JAYAPRAKASH	28-MAY-21	FIRST
INTERFACE DETAILS-1 RACK	ENGINEER:	Fred XIA	02-JUN-21	ANGLE
ROJECT: SUBMITTAL DRAWINGS SHEET 6 OF 10	APPROVED:	Rick ZHANG	02-JUN-21	PROJECTION

INTERFACE DETAILS FOR GALAXY VS WHEN THREE BATTERY RACKS CONNECTED TO UPS <u></u>



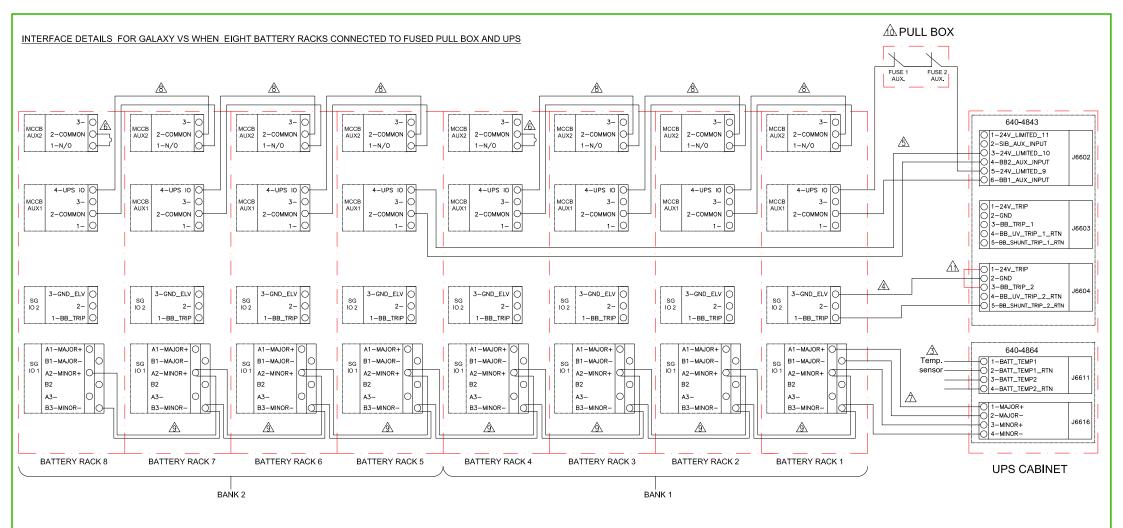
CONFIGURATION WITH 3 BATTERY RACKS SHOWN FOR ILLUSTRATION

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- 2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
- △ 3. INSTALL THE TEMPERATURE SENSOR OM-1160 PROVIDED WITH THE UPS IN THE BATTERY ROOM.
- △ 4. USE THE PROVIDED OW13442 TO CONNECT UPS BB_TRIP CONTACT
- △5. USE THE PROVIDED OW76929 TO CONNECT MCCB AUX 1 (THE FIRST ONE RACK OF A BANK) TO UPS.
- △ 6. USE THE PROVIDED 0W76930 TO CONNECT MCCB AUX 2 CONTACT FOR LAST RACK IN A BANK,
- △7. USE THE PROVIDED OW13444 TO CONNECT MAJOR AND MINOR FAULT CONTACTS.
- \triangle 8. USE THE PROVIDED 0W76934 TO CONNECT MCCB AUX SIGNALS IN SERIES.
- Δ 9. USE THE PROVIDED 0W76972 TO CONNECT MINOR FAULT ALARM CONTACTS
- △10. SHORT PIN 1 AND 3 IN J6604.
- 11. THE SYSTEM BMS IS LOCATED IN BATTERY RACK 1 ONLY.

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TITLE:	ium—ion Battery cabinet, GVS IEC IERFACE DETAILS—3 RACKS	DWG NO: LIE	BSESMG	GVSIEC	REV. O
INTERFACE DETAILS—3 RA	net, GVS IEC CKS	DRAWN:	JAYAPRAKASH	28-MAY-21	ANGLE
		ENGINEER:	Fred XIA	02-JUN-21	PROJECTION
PROJECT: SUBMITTAL DRAWINGS SH	HEET 7 OF 10	APPROVED:	Rick ZHANG	02-JUN-21	N.A



CONFIGURATION WITH 8 BATTERY RACKS SHOWN FOR ILLUSTRATION

NOTES

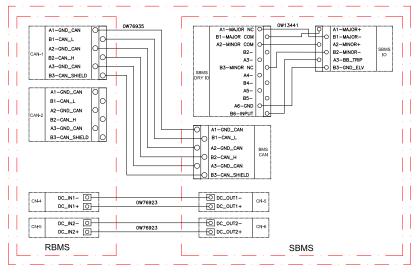
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- 2. REFER TO PRODUCT DOCUMENTATION FOR ADDITIONAL DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
- △ 3. INSTALL THE TEMPERATURE SENSOR OM-1160 PROVIDED WITH THE UPS IN THE BATTERY ROOM
- △ 4. USE THE PROVIDED OW13442 TO CONNECT UPS BB_TRIP CONTACT.
- △5. USE THE PROVIDED 0W76929 TO CONNECT MCCB AUX 1 (THE FIRST ONE RACK OF A BANK) TO UPS.
- △6. USE THE PROVIDED 0W76930 TO CONNECT MCCB AUX 2 CONTACT FOR LAST RACK IN A BANK.
- \triangle 7. USE THE PROVIDED 0W13444 TO CONNECT MAJOR AND MINOR FAULT CONTACTS.
- △8. USE THE PROVIDED 0W76934 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 AND 3 IN J6604.
- 12. THE SYSTEM BMS IS LOCATED IN BATTERY RACK 1 ONLY.

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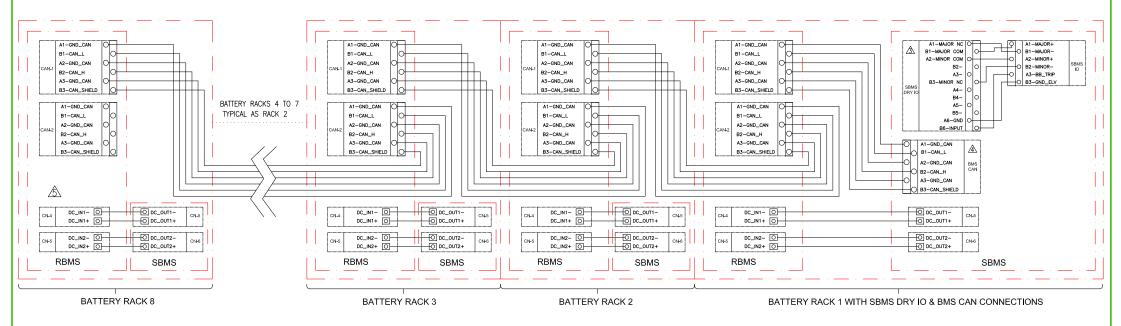
TLE:	DWG NO: LIBSESMGGVSIEC			REV.	
alaxy Lithium—ion Battery co INTERFACE DETAILS—WITH I	DRAWN:	JAYAPRAKASH	28-MAY-21	ANGLE	
	ENGINEER:	Fred XIA	02-JUN-21	PROJECTION	
ROJECT: SUBMITTAL DRAWINGS	SHEET 8 OF 10	APPROVED:	Rick ZHANG	02-JUN-21	N.A

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



NOTES

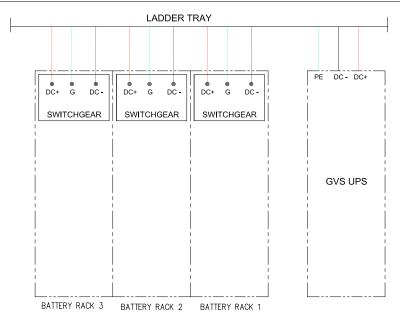
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- \triangle 3. SBMS DRY IO IS CONNECTED IN BATTERY RACK 1 ONLY.
- △ 4. BMS CAN IS CONNECTED IN BATTERY RACK 1 ONLY.
- △5. SLIDE THE CAN BUS LOOP TERMINATION RESISTOR SWITCH TO ON POSITION IN THE LAST ONE BATTERY RACK.

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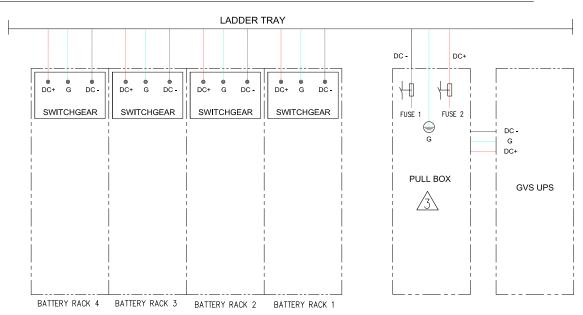


ITLE:		DWG NO: LIBSESMGGVSIEC			REV.
Galaxy Lithium—ion Battery ca INTERFACE DETAILS—SBMS	DRAWN:	JAYAPRAKASH	28-MAY-21	ANGLE	
		ENGINEER:	Fred XIA	02-JUN-21	PROJECTION
ROJECT: SUBMITTAL DRAWINGS	SHEET 9 OF 10	APPROVED:	Rick ZHANG	02-JUN-21	N.A

SCHEMATIC FOR GALAXY VS WHEN 3 BATTERY RACKS CONNECTED WITH LADDER TRAY TO UPS



SCHEMATIC FOR GALAXY VS WHEN 4 BATTERY RACKS CONNECTED WITH LADDER TRAY & PULL BOX TO UPS



ELECTRICAL DATA				
SKU Number/Model	LIBSESMG13IEC	LIBSESMG16IEC		
Number of Battery Modules	13	16		
Number of Type-A Battery Modules	6	8		
Number of Type-B Battery Modules	7	8		
Number of Battery cells in a string	104	128		
Nominal Energy (kWh)	26.5	32.6		
Nominal Battery Voltage (VDC)	395	486		
Nominal capacity (Ah)	67	67		
Charge current rate (CA rate)	0.7	0.7		
Float charge Voltage (VDC)	436	537		
End of discharge Voltage (VDC)	312	384		
Maximum continuous discharge power (kW)	140	173		
Peak current at end of discharge (A)	450	450		
Short circuit rating RMS value (kA)	2.9	2.9		
The recommended cable size is 150mm ² [300	kcmil]			

Galaxy VS LIB configuration						
Input/Output	UPS Rating (kW)	Modules per				
Voltage (VAC)	OF3 Natilig (KW)	string				
380/400/415	20	13/16				
	30	13/16				
	40	13/16				
	50	16				
	60	16				
	80	13/16				
	100	16				
	120	16				
	150	16				

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Δ3. FOR 4 RACKS AND ABOVE, PLEASE CONTACT APPLICATION ENGINEERING TEAM FOR THE REQUIRED CONNECTION METHODS. OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION FROM SCHNEIDER REFER TO PAGE-6 FOR MORE DETAILS REGARDING CONNECTIONS, CONFIGURATIONS AND RACK'S SHORT CIRCUIT RATING RMS VALUE.

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TLE:	DWG NO: LIBSESMGGVSIEC		REV.	
alaxy Lithium—ion Battery cabinet, GVS IEC SCHEMATIC DIAGARAM	DRAWN:	JAYAPRAKASH	28-MAY-21	ANGLE
	ENGINEER:	Fred XIA	02-JUN-21	PROJECTION
ROJECT: SUBMITTAL DRAWINGS SHEET 10 OF 10	APPROVED:	Rick ZHANG	02-JUN-21	N.A