

ST 50.4V 24AH Data Sheet

SoluThium

NOMINAL VOLTAGE / CAPACITY / ENERGY

50.4V / 24Ah / 1209.6Wh

TYPE & CHEMISTRY

Lithium Battery / Lithium-Ion (NMC)

DIMENSIONS

15.8" (L) x 6.15" (W) x 3.35" (H)



BATTERY SPECIFICATIONS

Model No.	ST 50.4V 24AH		
Chemistry	LiNiMnCoO ₂	Pack Configuration	14S6P
Nominal Voltage	50.4 V	Charge/Discharge Connector	Anderson SBS75XBLK-BK
Capacity	24 Ah	Pairing Charger	Available
Energy	1209.6Wh	Case	Aluminum
Weight	8.6kg ± 5%	Indicators	N/A
Nominal Dimensions	L 15.8" (401.5mm)	Charging Current	7A (max. 24A)
	W 6.15" (156.1mm)	Cont. Discharge Current	50A (max. 70A, 10s)
	H 3.35" (85mm)		
IP Rating	IP66	Communication	CANBus (500K bps)
Certification	UN38.3		

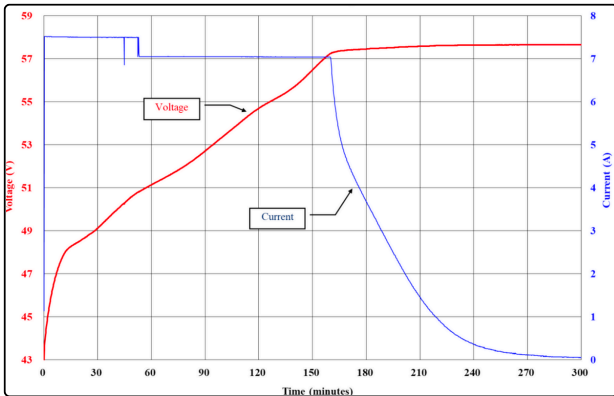
BMS SPECIFICATIONS

Over Charge Voltage Threshold	4.2V ± 0.025V/cell
Over Charge Voltage Release	4.0V ± 0.025V/cell
Over Discharge Voltage Threshold	2.8V ± 0.025V/cell
Over Discharge Voltage Release	3.3V ± 0.025V/cell
Over Discharge Current Protection	70A ± 2A
Over Discharge Current Release	10s
Short Circuit Protection	200A ± 2A
Balance Function	Yes
BMS Gauge	Read with CANBus: Voltage / Current / Temperature / Full Charge Capacity / Cycle Count

MECHANICAL DESIGN



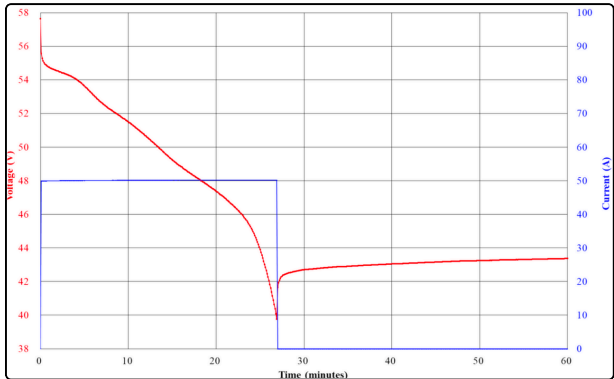
CHARGING CURVES



Charge Current: 7A
Charge Time: 5 hrs

DISCHARGING CURVES

Constant current discharge at 50A until protection cutoff triggered by BMS



Discharge Current: 50A (2C)
Discharge Time: 0.45 hr
Temperature: 27.4°C increases to 50.7°C (23.3°C rise)