



36V & 48V Lithium Deep Cycle Battery



Navitas System’s Starlifter high energy active balancing lithium iron phosphate batteries are engineered to meet the demanding requirements of the industrial material handling market. This turnkey system is a plug and play replacement of lower-performance lead acid batteries, providing an ideal solution upgrade to meet the increased energy needs of higher performance operations.

PRIMARY APPLICATIONS



Fast Opportunity Charging

Capable of Charging in 1 Hour;
Lead Acid Charger Compatible



Superior Cold and Hot
Performance

40% Increased runtime of lead acid
in freezer warehouse temperature



Multi-Shift Operations

High Performance,
Long Run time, Long Life

Key Features & Benefits

Fast Charging

Significantly higher rate capability than lead acid, increasing up time. Amp Hour Capacity isn’t degraded by fast discharge/recharge rates, unlike lead acid.

Longer Life

Designed to deliver up to 10X longer cycle life than lead acid, resulting in lower total cost of ownership.

Greater Rate Acceptance

Rapid charge and discharge rate capable, reducing electric expenses

No Maintenance, No Battery Change Out

Reducing overall operating costs by removing the need to procure, maintain and store extra batteries

Integrated Battery Management System

On board calculation and record-keeping of state of charge, diagnostics, and precise current and voltage measurements.

Excellent Safety

Multiple layers of protection are deployed at the chemistry, cell, and system levels.

PACK SPECIFICATIONS	36V560Ah	36V700Ah	48V440Ah	48V550Ah
Pack Min Voltage (VDC)	30	30	40	40
Pack Max Voltage (VDC)	43.2	43.2	57.6	57.6
Pack Nominal Voltage (VDC)	38.4	38.4	51.2	51.2
Max Continuous Charge (Amp)	500	500	440	550
Max Continuous Discharge (Amp)	500	500	440	550
Max 10 Second Pulse Charge (Amp)	1000	1000	1000	1000
Max 10 Second Pulse Discharge (Amp)	1000	1000	1000	1000
Pack Capacity (Ah)	560	700	440	550
Pack Energy (0-100% SOC) (Wh)	21504	26880	22528	28160
Total Pack Self Discharge Rate (Per Month) - Storage Condition	1%			
Total Pack Self Discharge Rate (Per Month) - Sleep	6%			
Active Balancing	Yes			
CYCLE LIFE ESTIMATION				
Cycle life at 80% DoD to 80% of original capacity	3000 Cycles			
Cycle life at 50% DoD to 80% of original capacity	8000 Cycles			
TEMPERATURE AND STORAGE SPECIFICATIONS (°C)				
Operating Temperature Range - Charge	5 to 50			
Operating Temperature Range - Discharge	-30 to 50			
Limited Performance Temperature Range	-30 to 5			
Storage Temperature Range	-30 to 50			
PHYSICAL / INTERFACE SPECIFICATIONS				
Max Pack Weight (lbs.)	860	860	896	896
Max Dimensions - LxWxH (inch)	36.22 x 19.3 x 21.54		30.95 x 23.78 x 19.83	
Ingression Protection Rating	IP67			
PHYSICAL / INTERFACE SPECIFICATIONS				
BMS Over/Under Voltage Protection	Yes			
BMS Over/Under Temperature Protection	Yes			
BMS Over Current Protection	Yes			
Redundant Hardware Over Voltage Protection	Yes			
Redundant Hardware Over Current Protection	Yes			
Charging Management	Yes			
Active Cell Balancing	Yes			
Communications	J1939 CAN Bus			

Active Balance Battery Management System

