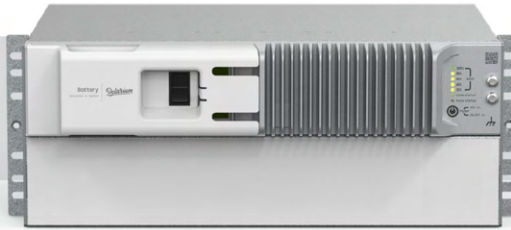


# Battery 19" 4U / 250Ah

SLB48-250-146-2

14s Series, Generation 5



Polarium Battery is an advanced power backup system. Its rechargeable smart lithium-ion battery provides reliable power backup for hybrid, off-grid and grid-connected sites worldwide.

## Safe

All our products are designed with your safety in mind - thoroughly verified and certified for safe operation.

## Simple

Advanced technology made super easy to use, easy to install, maintenance free, charge control.

## Strong

Works in all conditions and environments. Extra protection against dust and moisture for prolonged life.

## Smart

Automatic balancing, automatic reconnect, remote monitoring options and much more.

## Secure

Our unique, patented Anti-Theft Device disables function of batteries if removed from site. It's prepared for optional GPS tracker.

## Sustainable

The lifetime is extraordinary long. It's small, light, maintenance free and can be remotely controlled.

## Technical Specification

Enclosure Size	19" 4U
Lithium Chemistry	Nickel based
Rated Voltage	48 V
Rated Capacity (0.2 C, 25 °C to LVBD)	250 Ah
Rated Energy (0.2 C, 25 °C to LVBD)	12954 Wh
Calendar Life @ 80 % SOC	20 years
Peak Discharge Power	6 kW for 60 seconds
Discharge Cutoff Current	100 A
End-of-Discharge Voltage (LVBD)*	35 V
Charge Current Limitation (CLD)**	100 A
Charge Voltage for 100 % SOC	58.8 V
Charge Voltage for 80 % SOC	56 V
Operating Temperature Charging	0 to +55 °C (32 to 131 °F)
Operating Temperature Discharging	-20 to +60 °C (-4 to 140 °F)
Operating Relative Humidity	According to ETSI 300 019-1-3 class 3.2 (0-95 %)
Storage Temperature	-20 to +60 °C (-4 to 140 °F)
Weight	Approx 66 kg (145.5 lbs)
Dimensions	W 440 D 557 H 173 mm (W 17.3" D 21.9" H 6.9")
Circuit Breaker	100 A, BMS Controlled, single pole
IP Class	IP20
Communication Protocols	RS485, RJ45 (2) ports, Modbus
Safety Standards	IEC62619, IEC62368, UN38.3
Management & Monitoring	Software for PC (Studio) included for full local monitoring and management. Remote connection via Modbus.

\*Cut off when one cell reaches 2.5 V, 14 cells in series.

Data subject to change without notice

\*\*If the charge current is 100 A or higher, the battery will automatically reduce the charge current to 6-12 A temporarily.

Data subject to change without notice



Polarium Energy Solutions AB

# Battery 19" 4U / 250Ah



SLB48-250-146-2

14s Series, Generation 5

## Constant Current / A @ 25 °C

Duration / Hours

End of Discharge Voltage	Duration / Hours														
	1	2	3	4	5	6	7	8	9	10	12	14	16	20	24
51	N/A	58.9	41.0	31.5	25.5	21.4	18.4	16.2	14.4	12.9	10.7	9.1	7.9	6.2	5.1
49	N/A	72.3	49.9	38.2	30.9	26.0	22.4	19.6	17.5	15.7	13.1	11.2	9.7	7.7	6.3
47	N/A	85.9	58.9	45.0	36.3	30.5	26.3	23.0	20.5	18.5	15.4	13.2	11.5	9.2	7.6
45	N/A	98.8	67.4	51.2	41.4	34.7	29.9	26.2	23.4	21.1	17.6	15.1	13.2	10.5	8.7
43	N/A	N/A	74.5	56.5	45.6	38.2	32.9	28.9	25.7	23.2	19.4	16.6	14.6	11.7	9.7
41	N/A	N/A	79.9	60.4	48.7	40.8	35.1	30.8	27.4	24.7	20.7	17.8	15.6	12.5	10.4
39	N/A	N/A	82.9	62.6	50.3	42.1	36.2	31.8	28.3	25.5	21.3	18.3	16.1	12.9	10.7
37	N/A	N/A	83.2	62.8	50.4	42.2	36.2	31.8	28.3	25.5	21.3	18.3	16.1	12.9	10.7
35	N/A	N/A	83.2	62.8	50.4	42.2	36.2	31.8	28.3	25.5	21.3	18.3	16.1	12.9	10.7

## Constant Power / W @ 25 °C

Duration / Hours

End of Discharge Voltage	Duration / Hours														
	1	2	3	4	5	6	7	8	9	10	12	14	16	20	24
51	N/A	3162	2225	1720	1401	1179	1016	890	791	710	586	496	428	332	267
49	N/A	3785	2643	2038	1658	1397	1205	1058	941	847	703	598	518	405	329
47	N/A	4405	3055	2348	1910	1609	1389	1221	1088	981	816	697	606	478	391
45	N/A	N/A	3435	2634	2139	1802	1556	1369	1222	1102	920	788	687	545	448
43	N/A	N/A	3760	2874	2331	1962	1695	1491	1331	1202	1005	862	754	600	496
41	N/A	N/A	4004	3052	2471	2078	1794	1578	1409	1272	1064	914	800	639	530
39	N/A	N/A	N/A	3153	2548	2139	1845	1622	1447	1306	1093	939	822	658	547
37	N/A	N/A	N/A	3170	2555	2142	1845	1622	1447	1306	1093	939	822	658	547
35	N/A	N/A	N/A	3170	2555	2142	1845	1622	1447	1306	1093	939	822	658	547

## Energy / Wh @ 25 °C

Duration / Hours

End of Discharge Voltage	Duration / Hours					
	1	2	3	4	5	10
51	N/A	6325	6675	6880	7003	7097
49	N/A	7569	7929	8150	8291	8468
47	N/A	8810	9164	9394	9548	9806
45	N/A	9971	10306	10535	10697	11019
43	N/A	N/A	11279	11497	11656	12017
41	N/A	N/A	12011	12207	12355	12718
39	N/A	N/A	12447	12612	12739	13062
37	N/A	N/A	12551	12679	12776	13062
35	N/A	N/A	12551	12679	12776	13062

## State of Charge vs Discharge Voltage

Current / C-rate

State of Charge	Current / C-rate		
	0.2 C	0.5 C	1.0 C
100 %	58.5	N/A	N/A
90 %	56.6	N/A	N/A
80 %	55.4	N/A	N/A
70 %	53.9	N/A	N/A
60 %	52.6	N/A	N/A
50 %	51.2	N/A	N/A
40 %	50.1	N/A	N/A
30 %	49.0	N/A	N/A
20 %	47.6	N/A	N/A
10 %	44.2	N/A	N/A
0 %	35.0	N/A	N/A

## Technical Drawings

