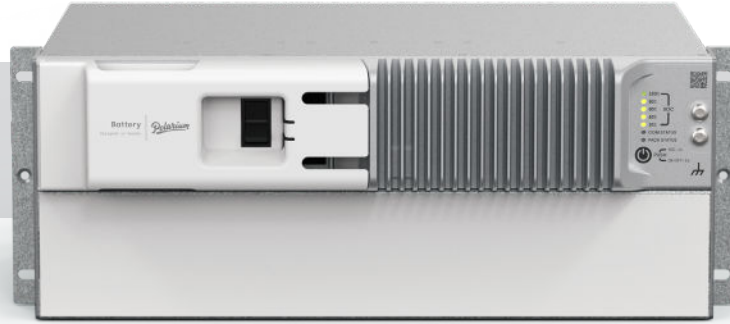




Battery 19" 4U / 150Ah

SLB48-150-146-2
14S Series, Generation 5



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

DS1501462-Rev 1.0



Technical Specification

Enclosure Size	19" 4U
Lithium Chemistry	NMC
Rated Voltage	48 V
Rated Capacity Ah (0.2C, 25°C to 42 V)	150 Ah
Rated Energy Wh (0.2C, 25°C to 42 V)	7623 Wh
Calendar Life @ 80% SOC	20 years
Peak Discharge Power	6kW for 60 seconds
Discharge Cutoff Current	100 A
End-of-Discharge Voltage (LVBD)**	42 V
Charge Current Limitation (CLD)*	50 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. 46 Kg (101.4 lbs)
Dimensions mm (in")	W 440 D 557 H 173 (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

*If the charge current is 50A or higher, the battery will automatically reduce the charge current to 6-12A temporarily
** Cut off when one cell reaches 3.0V, 14 cells in series
Data subject to change without notice

Polarium Energy Solutions AB

Jan Stenbecks Torg 17 | PO Box 1037 | SE-164 21, Kista, Sweden
Phone: +46 8 5454 4000 | info@polarium.com | www.polarium.com



Battery 19" 4U / 150Ah

SLB48-150-146-2
14S Series, Generation 5

Constant Current (A) @ 25°C
Duration (Hours)

End of Discharge Voltage	Constant Current (A) @ 25°C														
	1	2	3	4	5	6	7	8	9	10	12	14	16	20	24
50	64.4	35.3	24.5	18.7	15.2	12.7	11.0	9.6	8.6	7.7	6.5	5.5	4.8	3.9	3.2
49	80.1	43.7	30.1	23.0	18.6	15.6	13.4	11.8	10.5	9.5	7.9	6.8	5.9	4.8	4.0
48	96.3	52.1	35.8	27.2	22.0	18.4	15.9	13.9	12.4	11.2	9.3	8.0	7.0	5.6	4.7
47	N/A	60.0	41.0	31.1	25.1	21.0	18.1	15.8	14.1	12.7	10.6	9.1	8.0	6.4	5.4
46	N/A	66.7	45.3	34.3	27.6	23.1	19.8	17.4	15.5	14.0	11.7	10.0	8.8	7.1	5.9
45	N/A	71.5	48.3	36.5	29.3	24.5	21.0	18.4	16.4	14.8	12.3	10.6	9.3	7.5	6.3
44	N/A	74.0	49.7	37.4	30.0	25.0	21.4	18.8	16.7	15.0	12.6	10.8	9.5	7.6	6.4
43	N/A	74.0	49.7	37.4	30.0	25.0	21.4	18.8	16.7	15.0	12.6	10.8	9.5	7.6	6.4
42	N/A	74.0	49.7	37.4	30.0	25.0	21.4	18.8	16.7	15.0	12.6	10.8	9.5	7.6	6.4

Constant Power (W) @ 25°C
Duration (Hours)

End of Discharge Voltage	Constant Power (W) @ 25°C														
	1	2	3	4	5	6	7	8	9	10	12	14	16	20	24
50	3461	1916	1333	1022	829	696	599	525	467	420	349	298	259	205	168
49	4224	2327	1614	1236	1001	841	724	635	565	509	424	363	317	252	208
48	N/A	2735	1890	1445	1169	982	845	742	661	596	497	426	373	297	247
47	N/A	3111	2142	1634	1320	1108	954	838	746	673	562	483	423	339	282
46	N/A	3425	2347	1786	1441	1208	1040	913	814	734	614	527	462	371	310
45	N/A	3648	2487	1888	1521	1274	1096	962	857	773	646	555	487	391	327
44	N/A	3761	2549	1929	1552	1298	1116	979	872	786	656	564	494	397	332
43	N/A	3761	2549	1929	1552	1298	1116	979	872	786	656	564	494	397	332
42	N/A	3761	2549	1929	1552	1298	1116	979	872	786	656	564	494	397	332

Energy / Wh @ 25°C
Duration (Hours)

End of Discharge Voltage	Energy / Wh @ 25°C					
	1	2	3	4	5	10
50	3461	3831	3998	4089	4143	4202
49	4224	4654	4842	4944	5005	5092
48	4999	5470	5671	5780	5847	5958
47	N/A	6222	6425	6534	6602	6729
46	N/A	6849	7040	7143	7207	7339
45	N/A	7296	7461	7550	7606	7728
44	N/A	7522	7648	7717	7760	7856
43	N/A	7522	7648	7717	7760	7856
42	N/A	7522	7648	7717	7760	7856

State of Charge vs Voltage
Voltage (V)

State of Charge	State of Charge vs Voltage		
	0.2 C	0.5 C	1.0 C
100%	58.1	58.1	58.1
90%	56.1	46.0	55.4
80%	54.6	54.5	53.7
70%	53.2	53.1	52.3
60%	51.8	51.7	51.0
50%	50.8	50.7	50.0
40%	50.2	50.0	49.3
30%	49.6	49.4	48.7
20%	48.9	48.8	48.0
10%	47.6	47.6	47.1
0%	42.9	42.8	42.4

Technical Drawings

