



Battery 19" 4U / 150Ah

SLB48-150-145-5
15s Series, Generation 5

770-00345 Rev 5.0



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	Iron based
Rated Voltage	48 V
Rated Capacity (0.2 C, 25 °C to LVBD)	150 Ah
Rated Energy (0.2 C, 25 °C to LVBD)	7200 Wh
Calendar Life @ 80 % SOC	15 years
Cycle life:	6000 cycles@0.5C, 25 °C, 80% SOH
Peak Discharge Power	6 kW for 60 seconds
Discharge Cutoff Current	100 A
End-of-Discharge Voltage (LVBD)*	40.0 V
Charge Current Limitation (CLD)**	100 A
Charge Voltage for 100 % SOC	54.75 V
Min charging voltage:	52.5 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	58.6 kg (129 lbs)
Dimensions	W 440 D 475 H 177.4 mm (W 17.3" D 18.7" H 7.0")
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, 15 cells in series whatever comes first.

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.

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Constant Current / A @ 25 °C

Duration / Hours

End of Discharge Voltage		1	2	3	4	5	6	7	8	9	10	12	14	16	20	24
	50	86.8	53.0	37.7	29.2	23.7	20.0	17.3	15.2	13.6	12.3	10.3	8.8	7.7	6.2	5.1
	49	97.7	57.0	40.0	30.7	24.9	21.0	18.1	15.9	14.2	12.9	10.7	9.2	8.0	6.4	5.4
	48	N/A	60.8	42.2	32.2	26.1	21.9	18.9	16.6	14.8	13.3	11.1	9.5	8.3	6.7	5.6
	47	N/A	64.4	44.2	33.6	27.1	22.7	19.5	17.2	15.3	13.8	11.5	9.9	8.6	6.9	5.7
	46	N/A	67.6	45.9	34.8	28.0	23.4	20.2	17.7	15.8	14.2	11.8	10.1	8.9	7.1	5.9
	45	N/A	70.5	47.5	35.9	28.8	24.1	20.7	18.1	16.1	14.5	12.1	10.4	9.1	7.3	6.1
	44	N/A	72.8	48.8	36.7	29.5	24.6	21.1	18.5	16.5	14.8	12.4	10.6	9.3	7.4	6.2
	43	N/A	74.7	49.8	37.4	30.0	25.0	21.5	18.8	16.7	15.1	12.5	10.8	9.4	7.5	6.3
	42	N/A	76.0	50.5	37.9	30.3	25.3	21.7	19.0	16.9	15.2	12.7	10.9	9.5	7.6	6.3

Constant Power / W @ 25 °C

Duration / Hours

End of Discharge Voltage		1	2	3	4	5	6	7	8	9	10	12	14	16	20	24
	50	4231	2587	1844	1427	1163	980	847	747	668	604	503	431	378	302	252
	49	4736	2773	1950	1501	1219	1025	885	779	696	629	524	449	393	314	262
	48	N/A	2949	2050	1569	1271	1068	920	809	722	652	543	466	408	326	272
	47	N/A	3112	2141	1632	1318	1106	952	836	746	673	561	481	421	336	280
	46	N/A	3260	2223	1688	1361	1140	981	861	767	692	576	494	432	346	288
	45	N/A	3389	2294	1736	1397	1169	1005	882	785	707	590	505	442	354	295
	44	N/A	3496	2353	1776	1427	1193	1025	899	800	721	601	515	450	360	300
	43	N/A	3579	2398	1807	1450	1212	1041	912	811	731	609	522	457	365	304
	42	N/A	3636	2430	1828	1466	1225	1051	921	819	738	615	527	461	369	307

Energy / Wh @ 25 °C

Duration / Hours

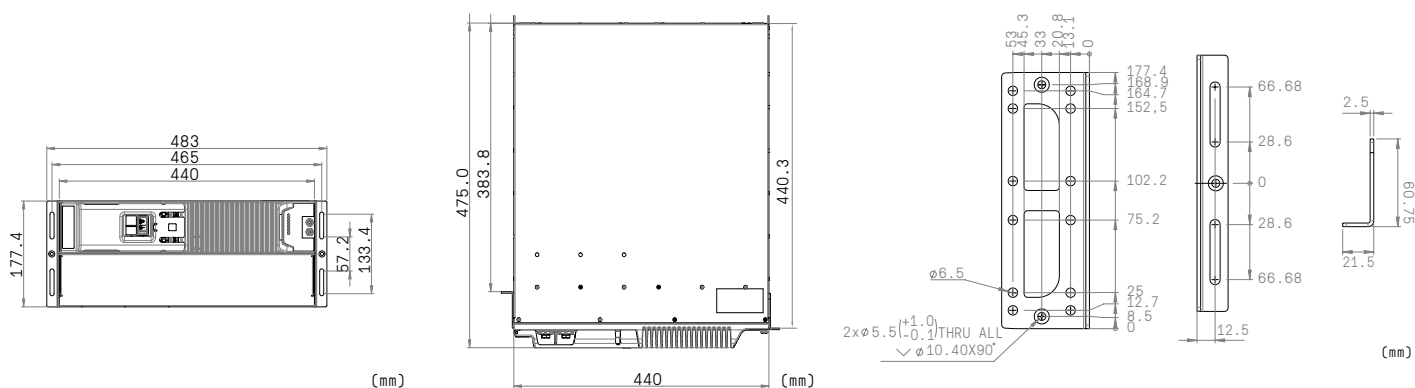
End of Discharge Voltage		1	2	3	4	5	10
	50	4231	5174	5532	5709	5813	6040
	49	4736	5545	5850	6003	6093	6289
	48	N/A	5898	6149	6277	6354	6520
	47	N/A	6225	6424	6528	6592	6730
	46	N/A	6520	6670	6752	6803	6915
	45	N/A	6778	6883	6945	6986	7075
	44	N/A	6992	7059	7104	7136	7206
	43	N/A	7158	7195	7227	7252	7307
	42	N/A	7272	7290	7313	7332	7378

State of Charge vs Discharge Voltage

Current / C-rate

State of Charge		0.2 C	0.5 C	1.0 C
	100 %	52.1	51.4	N/A
	90 %	49.3	48.3	N/A
	80 %	49.2	48.2	N/A
	70 %	48.9	48	N/A
	60 %	48.8	47.9	N/A
	50 %	48.7	47.8	N/A
	40 %	48.5	47.5	N/A
	30 %	48.2	47.3	N/A
	20 %	47.8	46.8	N/A
	10 %	47.1	46.1	N/A
	0 %	40.0	40.0	N/A

Technical Drawings



Authorised, valued-added distributor

Australia & New Zealand



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