

Reserve Power SPB Batteries

Stand-By Applications



Reserve Power

As a member of a strong and developing business ecosystem, SUNLIGHT relies on its modern infrastructure, continuous innovation and its passion for excellence, to develop and supply reliable battery solutions.

At the core of the company's growth lies its state-of-the-art manufacturing plant in Northern Greece, covering an area of 142.000 m².

The company has consistently invested in developing one of the most advanced industrial plants in Europe, running highly specialized production and assembly lines. The plant is fully compliant with the strictest international standards and is certified for Quality, Occu-

pational Health & Safety and Environmental management systems.

The products are developed by SUNLIGHT's R&D team which constantly designs and evaluates new innovative solutions to better meet market needs based on the latest technological trends, industry developments and market feedback.

SUNLIGHT's products and services have gained international recognition by ensuring uninterrupted and reliable operations in a wide range of critical applications for a broad spectrum of industries, such as Telecom and Power networks.

The complete Reserve Power portfolio consists of:

OPzS OPzV	RES OPzS RES OPzV	RES SOPzS RES SOPzV	RES SLT RES SLT GEL	SP SERIES ACCUFORCE SVT/ SVT GEL FRONT ACCESS	OGI
--------------	----------------------	------------------------	------------------------	--	-----

SPB | Valve Regulated AGM Batteries

The SPB range of SUNLIGHT Valve Regulated Lead Acid batteries has been developed as an advanced series, to provide reliable performance in the Uninterruptible Power Supply, Telecom, Information Technology and Emergency Power Supply Systems.

The Valve Regulated Lead Acid (VRLA) battery is a rechargeable battery type with a safety valve, which allows the internal pressure to be released in case of overcharge. This battery type is maintenance free as there is no need for topping-up during the entire battery service life.

The SUNLIGHT SPB range of VRLA batteries features models with capacity from 33 up to 200Ah. SUNLIGHT SPB batteries have been developed to offer competitive solutions to the demanding market requirements, with specifications focused on high quality and reliability.



Security and fire alarm



Transportation signalling



UPS



Telecommunications

▶	UPS systems	Security and fire alarm systems
	Emergency power supply in power generation plants and substations	Broadcasting systems
	Telecommunications and electrical equipment	Various telemeter equipment
	Switchboards	Signalization
	Robots, control equipment and other factory automation equipment	



The ideal energy solution for stand-by applications

High Performance

With low internal resistance and efficient discharge characteristics, SUNLIGHT SPB batteries can be applied to many fields, both in stand-by applications.

Maintenance Free

During the battery service life, there is no need to check the level of the electrolyte or to add water. The gases produced during electrolysis are almost completely recombined to water (up to 99%) through an effective reaction between hydrogen and oxygen.

Safety Valve Design

Excessive gas produced by overcharge or an incorrect charging method is released through the safety valve, which detects rising internal pressure and allows gas to exit; then automatically reseals.

Separator Technology

The Absorbent Glass Mat (AGM) separator, used in the SUNLIGHT batteries, is a highly porous material, which achieves maximization of oxygen diffusion and facilitates the reaction of active materials in the plates. The separator also maintains a constant distance between the positive and the negative plates and immobilizes the electrolyte, so that the possibility of acid leakage is minimized.

Wide Temperature Range Performance

SUNLIGHT SPB batteries operate within a wide range of temperature while the optimum temperature for the operation of the battery is 20°C - 25°C.

Low Self-discharge Rate

Using a lead / calcium grid alloy, the self-discharge is the minimum. The battery can be stored for 6 months under normal conditions (20°C - 25°C) with no permanent effect on the capacity or the expected service life.

Leak and Spill Proof Container

The construction of the SUNLIGHT SPB battery guarantees that no electrolyte leakage can occur from the terminals or case. A highly resistant plastic material is used, available in either standard ABS (UL94 HB) or flame retardant type (UL94 V-0).

Float Service Life

The nominal service life is 12 years in float / stand-by applications (20°C).

Multi-position Placement

The sealed construction of the battery allows perfect operation in any position (vertical or horizontal but not in completely inverted position).



Features of SPB Range

- Capacity Range: 33Ah to 200Ah
- Design Life: 12 years at 20°C

- Classified as: "Very Long Life", according to EUROBAT guide 2015
- Configurations: 12V blocks available



The SUNLIGHT SPB 12V batteries are recognized by **UL (File No MH18852)**.

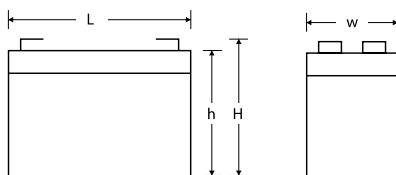
- The SUNLIGHT Manufacturing Plant is certified according to **ISO 9001, ISO 14001** and **BS OHSAS 18001**
- The SUNLIGHT SPB batteries comply with **IEC 60896 Part 21 & 22** and **BS6290 Part 4**.
- As a member of **EUROBAT** organization SYSTEMS SUNLIGHT S.A. closely monitors the latest developments in the battery industry.
- Products are 100% tested and checked prior to shipment.
- The SUNLIGHT SPB batteries are completely recyclable.

Battery Type	Nominal Voltage (V)	Nominal Capacity (Ah) at 1.80 Vpc (25°C)		Length (mm)	Width (mm)	Height (h) (mm)	Height (H) (mm)	Typical Weight (kg)	Terminal Position	Terminal Type	Maximum Current (25°C)		Internal Resistance (mOhm)	Short Circuit Current (A)
		20 h	10 h								Charging (A)	Discharging (A)		
SPB 12 - 33	12	34.6	33.0	195	130	155	166	10.00	A	M6/Ø14	9.90	330.0	11.0	1200
SPB 12 - 40	12	42.0	40.0	197	165	170	170	13.50	B	M6/Ø14	12.00	400.0	8.5	1400
SPB 12 - 55	12	57.8	55.0	229	138	208	211	17.00	A	M6/Ø14	16.50	550.0	6.5	1850
SPB 12 - 65	12	68.2	65.0	350	167	179	179	22.50	A	M6/Ø14	19.50	650.0	6.0	2000
SPB 12 - 75	12	75.6	75.0	260	168	211	214	24.00	A	M6/Ø14	22.50	750.0	6.5	2020
SPB 12 - 80	12	84.6	80.5	350	167	179	179	24.00	A	M6/Ø14	24.00	800.0	4.0	2600
SPB 12 - 100	12	105.0	100.0	330	171	214	220	31.50	A	M6/Ø14	30.00	800.0	4.5	2700
SPB 12 - 120	12	126.0	120.0	409	176	225	225	36.00	A	M8/Ø16	36.00	960.0	4.0	3020
SPB 12 - 150	12	157.6	150.0	485	172	240	240	45.50	A	M8/Ø16	45.00	1200.0	3.5	3450
SPB 12 - 200	12	210.0	200.0	522	238	218	221	64.00	D	M8/Ø16	60.00	1600.0	3.0	4030

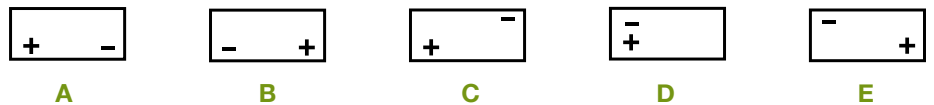
All dimensions and weights shown are subject to manufacturing tolerances

Drawings

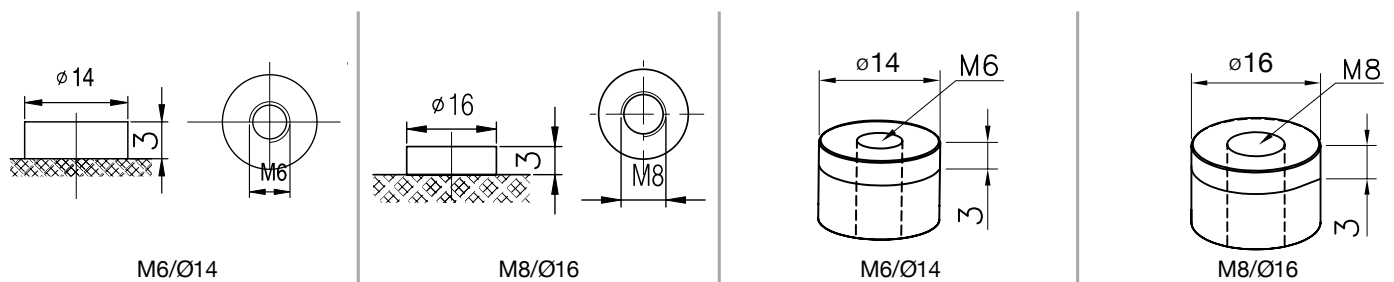
Case Dimensions



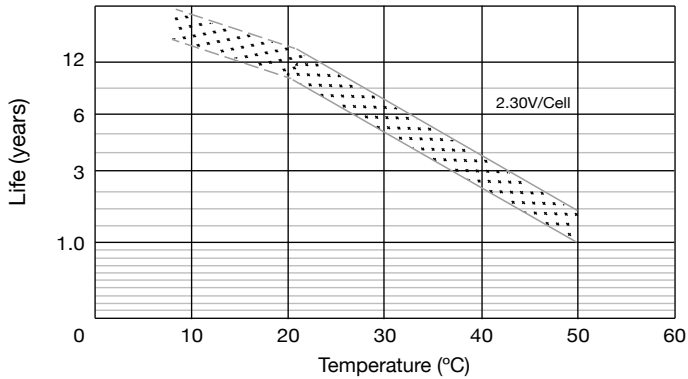
Terminal Positions



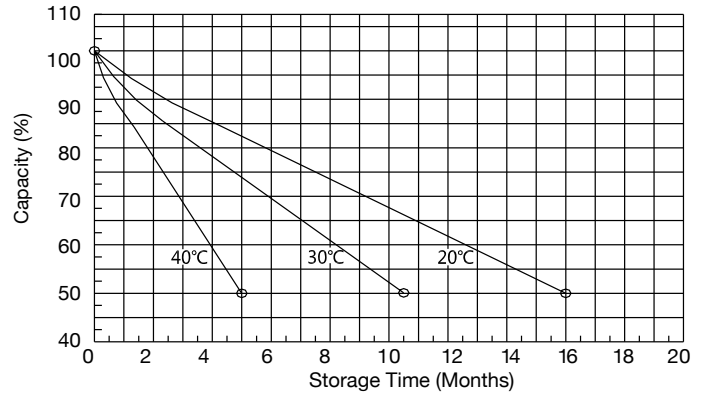
Terminals



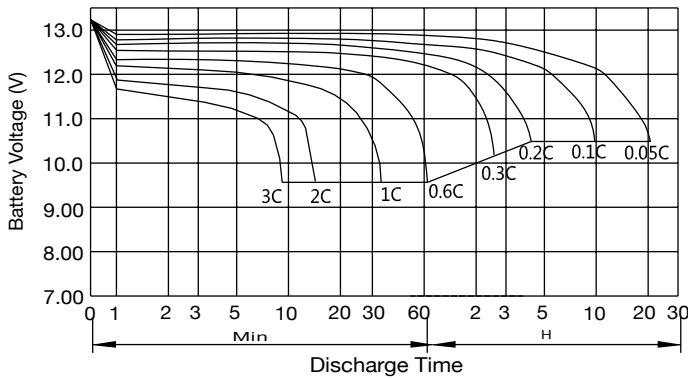
Temperature Effects on Float Life



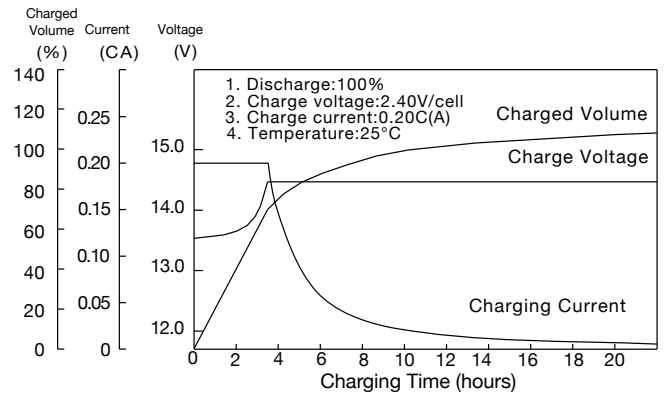
Self Discharge Characteristics



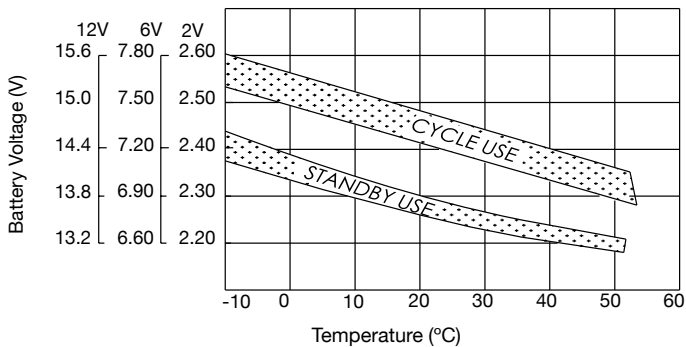
Discharge Characteristics (25°C)



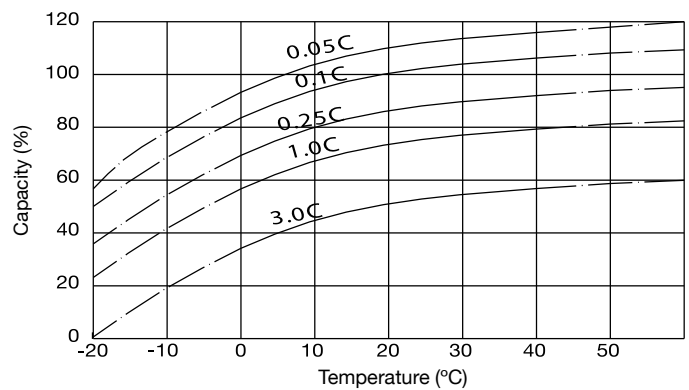
Charging Characteristics (25°C)



Relationship Between Charging Voltage and Temperature



Temperature Effects on Capacity



Discharge Constant Current at 25°C (Amperes)

End Voltage 1.80 V/cell													
	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
SPB 12 - 33	56.50	45.90	28.90	22.74	18.70	11.40	8.00	6.56	5.60	4.89	3.84	3.30	1.73
SPB 12 - 40	68.40	55.60	35.00	27.54	22.60	13.80	9.70	7.95	6.79	5.93	4.66	4.00	2.10
SPB 12 - 55	94.10	76.50	48.10	37.85	31.10	19.00	13.30	10.90	9.34	8.15	6.40	5.50	2.89
SPB 12 - 65	111.00	90.40	56.90	44.77	36.80	22.50	15.80	12.90	11.00	9.60	7.57	6.50	3.41
SPB 12 - 75	123.00	100.00	63.00	49.57	40.70	24.90	17.50	14.30	12.20	10.65	8.38	7.50	3.78
SPB 12 - 80	145.00	116.00	73.20	57.60	45.20	27.60	19.40	15.90	13.60	11.87	9.31	8.05	4.23
SPB 12 - 100	171.00	139.00	87.50	68.85	56.50	34.60	24.30	19.90	17.00	14.84	11.60	10.00	5.25
SPB 12 - 120	201.10	167.00	105.00	82.62	67.90	41.50	29.10	23.90	20.40	17.80	14.00	12.00	6.30
SPB 12 - 150	251.59	209.00	131.00	103.08	84.80	51.80	36.40	29.80	25.50	22.30	17.50	15.00	7.88
SPB 12 - 200	334.66	278.00	175.00	137.70	113.00	69.10	48.50	39.80	34.00	29.70	23.30	20.00	10.50

End Voltage 1.75 V/cell													
	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
SPB 12 - 33	59.80	48.50	30.00	23.54	19.30	11.70	8.25	6.77	5.78	5.05	3.96	3.32	1.74
SPB 12 - 40	72.50	58.70	36.30	28.48	23.30	14.20	10.00	8.20	7.00	6.12	4.80	4.03	2.11
SPB 12 - 55	99.70	80.80	50.00	39.23	32.10	19.50	13.80	11.30	9.63	8.42	6.60	5.54	2.91
SPB 12 - 65	118.00	95.40	59.00	46.30	37.90	23.00	16.30	13.30	11.40	9.97	7.80	6.55	3.44
SPB 12 - 75	131.00	106.00	65.40	51.32	42.00	25.50	18.00	14.80	12.60	11.02	8.64	7.55	3.81
SPB 12 - 80	153.00	123.00	76.00	59.64	46.70	28.40	20.00	16.40	14.00	12.24	9.60	8.10	4.25
SPB 12 - 100	181.00	147.00	90.80	71.25	58.30	35.50	25.00	20.50	17.50	15.30	12.00	10.10	5.29
SPB 12 - 120	212.71	176.00	109.00	85.53	70.00	42.60	30.00	24.60	21.00	18.40	14.40	12.10	6.34
SPB 12 - 150	265.80	220.00	136.00	106.72	87.50	53.20	37.50	30.80	26.30	23.00	18.00	15.10	7.93
SPB 12 - 200	355.21	294.00	182.00	142.81	117.00	70.90	50.00	41.00	35.00	30.60	24.00	20.10	10.60

End Voltage 1.70 V/cell													
	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
SPB 12 - 33	62.50	50.20	30.70	24.04	19.60	11.90	8.31	6.81	5.82	5.09	3.99	3.34	1.76
SPB 12 - 40	75.80	60.80	37.20	29.13	23.80	14.40	10.10	8.26	7.05	6.16	4.83	4.05	2.13
SPB 12 - 55	104.00	83.60	51.20	40.09	32.70	19.80	13.80	11.40	9.69	8.47	6.65	5.57	2.93
SPB 12 - 65	123.00	98.80	60.50	47.37	38.70	23.40	16.40	13.40	11.50	10.06	7.85	6.58	3.46
SPB 12 - 75	136.00	109.00	67.00	52.46	42.90	25.90	18.10	14.90	12.70	11.10	8.70	7.60	3.83
SPB 12 - 80	160.00	127.00	77.90	60.99	47.60	28.80	20.10	16.50	14.10	12.33	9.67	8.13	4.28
SPB 12 - 100	189.00	152.00	93.10	72.89	59.50	36.00	25.20	20.60	17.60	15.39	12.10	10.10	5.32
SPB 12 - 120	222.00	182.00	112.00	87.69	71.40	43.20	30.20	24.80	21.10	18.50	14.50	12.20	6.38
SPB 12 - 150	278.02	228.00	140.00	109.61	89.30	54.00	37.80	31.00	26.40	23.10	18.10	15.20	7.98
SPB 12 - 200	370.69	304.00	186.00	145.63	119.00	72.00	50.40	41.30	35.20	30.80	24.20	20.30	10.60

The above characteristics data can be obtained within three charge/discharge cycles.

Discharge Constant Current at 25°C (Amperes)

End Voltage 1.65 V/cell													
	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
SPB 12 - 33	65.20	52.10	31.70	24.77	20.20	12.00	8.37	6.86	5.86	5.13	4.02	3.35	1.76
SPB 12 - 40	79.00	63.10	38.40	30.01	24.40	14.50	10.10	8.31	7.10	6.21	4.87	4.06	2.13
SPB 12 - 55	109.00	86.80	52.80	41.26	33.60	20.00	13.90	11.40	9.76	8.54	6.69	5.59	2.93
SPB 12 - 65	128.00	103.00	62.40	48.76	39.70	23.60	16.50	13.50	11.50	10.07	7.91	6.60	3.47
SPB 12 - 75	142.00	114.00	69.10	53.99	44.00	26.20	18.30	15.00	12.80	11.20	8.76	7.62	3.84
SPB 12 - 80	167.00	132.00	80.40	62.82	48.90	29.10	20.30	16.60	14.20	12.43	9.73	8.14	4.29
SPB 12 - 100	198.00	158.00	96.00	75.01	61.10	36.30	25.40	20.80	17.70	15.49	12.20	10.20	5.33
SPB 12 - 120	231.57	189.00	115.00	89.86	73.30	43.60	30.40	24.90	21.30	18.60	14.60	12.20	6.40
SPB 12 - 150	290.29	237.00	144.00	112.52	91.60	54.50	38.00	31.20	26.60	23.30	18.30	15.20	8.00
SPB 12 - 200	387.06	316.00	192.00	150.03	122.00	72.60	50.70	41.60	35.50	31.00	24.30	20.30	10.70

End Voltage 1.60 V/cell													
	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
SPB 12 - 33	67.20	53.40	32.30	25.21	20.50	12.10	8.42	6.90	5.89	5.16	4.04	3.36	1.76
SPB 12 - 40	81.50	64.70	39.20	30.60	24.80	14.60	10.20	8.36	7.14	6.25	4.90	4.07	2.14
SPB 12 - 55	112.00	88.90	53.90	42.07	34.10	20.10	14.00	11.50	9.82	8.60	6.73	5.60	2.94
SPB 12 - 65	132.00	105.00	63.70	49.72	40.30	23.80	16.60	13.60	11.60	10.16	7.96	6.62	3.47
SPB 12 - 75	147.00	116.00	70.60	55.10	44.60	26.30	18.40	15.10	12.90	11.30	8.81	7.64	3.85
SPB 12 - 80	172.00	135.00	82.00	64.00	49.60	29.20	20.40	16.70	14.30	12.53	9.79	8.15	4.29
SPB 12 - 100	204.00	162.00	98.00	76.49	62.00	36.50	25.50	20.90	17.90	15.68	12.20	10.20	5.34
SPB 12 - 120	239.25	194.00	118.00	92.10	74.40	43.80	30.60	25.10	21.40	18.70	14.70	12.20	6.41
SPB 12 - 150	299.59	243.00	147.00	114.74	93.00	54.80	38.30	31.40	26.80	23.40	18.40	15.30	8.02
SPB 12 - 200	398.22	323.00	196.00	152.98	124.00	73.10	51.00	41.80	35.70	31.20	24.50	20.40	10.70

The above characteristics data can be obtained within three charge/discharge cycles.

Discharge Constant Power at 25°C (Watts/cell)

End Voltage 1.80 V/cell													
	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
SPB 12 - 33	101.67	84.00	54.00	42.51	35.50	22.00	15.68	12.87	11.03	9.59	7.60	6.57	3.47
SPB 12 - 40	123.17	101.83	65.50	51.54	43.00	26.67	19.00	15.58	13.38	11.64	9.22	7.97	4.20
SPB 12 - 55	169.33	140.00	90.00	70.85	59.17	36.67	26.17	21.50	18.33	15.94	12.68	10.95	5.78
SPB 12 - 65	200.17	165.33	106.33	83.68	69.83	43.33	30.83	25.33	21.67	18.84	14.98	12.93	6.83
SPB 12 - 75	221.83	183.17	117.83	92.70	77.33	48.00	34.17	28.00	24.00	20.87	16.67	14.93	7.57
SPB 12 - 80	260.33	213.00	137.00	105.93	86.00	53.33	38.00	31.17	26.83	23.33	18.50	15.92	8.40
SPB 12 - 100	308.00	254.50	163.67	128.80	107.50	66.67	47.50	39.00	33.50	29.13	23.00	19.83	10.50
SPB 12 - 120	367.67	305.33	196.33	154.53	129.00	80.00	57.00	46.83	40.17	35.17	27.67	23.83	12.60
SPB 12 - 150	459.45	381.67	245.50	193.17	161.17	100.00	71.33	58.50	50.17	43.83	34.50	29.83	15.75
SPB 12 - 200	612.74	509.00	327.33	257.53	214.83	133.33	95.00	78.00	66.83	58.50	46.17	39.83	21.00

End Voltage 1.75 V/cell													
	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
SPB 12 - 33	107.67	88.67	56.00	43.94	36.50	22.67	16.17	13.27	11.38	9.91	7.83	6.62	3.48
SPB 12 - 40	130.50	107.50	68.00	53.36	44.33	27.33	19.67	16.07	13.78	12.00	9.50	8.02	4.23
SPB 12 - 55	179.50	147.83	93.50	73.39	61.00	37.67	27.00	22.17	19.00	16.55	13.07	11.02	5.82
SPB 12 - 65	212.17	174.67	110.50	86.69	72.00	44.50	31.83	26.17	22.33	19.45	15.45	13.03	6.87
SPB 12 - 75	235.00	193.50	122.33	96.03	79.83	49.33	35.33	29.00	24.83	21.63	17.17	15.03	7.62
SPB 12 - 80	275.83	224.83	142.17	109.65	88.67	54.83	39.17	32.17	27.50	23.95	19.00	16.03	8.47
SPB 12 - 100	326.33	268.67	169.83	133.32	110.83	68.50	49.00	40.17	34.50	30.05	23.83	20.00	10.57
SPB 12 - 120	389.76	322.50	203.83	160.00	133.00	82.17	58.83	48.17	41.33	36.17	28.50	24.00	12.68
SPB 12 - 150	486.91	403.00	254.83	200.05	166.33	102.67	73.50	60.33	51.67	45.17	35.67	30.00	15.87
SPB 12 - 200	649.21	537.33	339.83	266.71	221.67	136.83	98.00	80.33	69.00	60.33	47.50	40.00	21.17

End Voltage 1.70 V/cell													
	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
SPB 12 - 33	112.50	91.83	57.50	45.05	37.33	23.00	16.28	13.35	11.45	9.97	7.90	6.65	3.52
SPB 12 - 40	136.33	111.33	69.67	54.55	45.17	27.83	19.67	16.18	13.88	12.09	9.57	8.07	4.25
SPB 12 - 55	187.50	153.00	95.83	75.05	62.17	38.17	27.17	22.33	19.17	16.69	13.17	11.08	5.85
SPB 12 - 65	221.67	180.83	113.17	88.67	73.50	45.17	32.00	26.33	22.50	19.60	15.55	13.10	6.92
SPB 12 - 75	245.50	200.33	125.33	98.25	81.50	50.00	35.50	29.17	25.00	21.77	17.17	15.12	7.65
SPB 12 - 80	288.33	232.67	145.67	112.18	90.50	55.67	39.50	32.33	27.83	24.24	19.17	16.13	8.52
SPB 12 - 100	341.00	278.17	174.17	136.48	113.17	69.50	49.33	40.50	34.67	30.19	24.00	20.17	10.63
SPB 12 - 120	407.19	333.83	208.83	163.64	135.67	83.33	59.17	48.50	41.67	36.50	28.67	24.17	12.77
SPB 12 - 150	508.69	417.17	261.17	204.65	169.67	104.17	74.00	60.67	52.00	45.50	35.83	30.17	15.95
SPB 12 - 200	678.39	556.33	348.17	272.81	226.17	139.00	98.67	81.00	69.50	60.67	47.83	40.33	21.33

The above characteristics data can be obtained within three charge/discharge cycles.

Discharge Constant Power at 25°C (Watts/cell)

End Voltage 1.65 V/cell													
	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
SPB 12 - 33	117.33	95.33	59.33	46.39	38.33	23.17	16.40	13.45	11.53	10.05	7.95	6.67	3.52
SPB 12 - 40	142.33	115.50	71.83	56.13	46.33	28.00	19.83	16.30	13.98	12.19	9.63	8.08	4.27
SPB 12 - 55	195.67	158.83	98.83	77.27	63.83	38.50	27.33	22.33	19.17	16.71	13.25	11.12	5.87
SPB 12 - 65	231.17	187.67	116.67	91.28	75.50	45.50	32.33	26.50	22.67	19.76	15.67	13.15	6.93
SPB 12 - 75	256.00	208.00	129.33	101.10	83.50	50.50	35.83	29.33	25.17	21.94	17.33	15.17	7.68
SPB 12 - 80	300.67	241.67	150.33	115.50	92.83	56.17	39.67	32.67	28.00	24.41	19.33	16.17	8.53
SPB 12 - 100	355.67	288.83	179.67	140.44	116.00	70.17	49.67	40.67	35.00	30.51	24.17	20.17	10.67
SPB 12 - 120	424.54	346.50	215.50	168.47	139.17	84.17	59.67	48.83	42.00	36.67	28.83	24.33	12.80
SPB 12 - 150	530.57	433.17	269.33	210.58	174.00	105.17	74.50	61.17	52.50	45.83	36.17	30.33	16.00
SPB 12 - 200	707.56	577.67	359.17	280.80	232.00	140.17	99.33	81.50	69.83	61.17	48.17	40.50	21.33

End Voltage 1.60 V/cell													
	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
SPB 12 - 33	121.00	97.67	60.50	47.18	38.83	23.33	16.50	13.52	11.60	10.12	8.00	6.68	3.53
SPB 12 - 40	146.67	118.33	73.33	57.24	47.17	28.17	20.00	16.40	14.07	12.27	9.70	8.10	4.28
SPB 12 - 55	201.67	162.83	100.83	78.69	64.83	38.83	27.50	22.50	19.33	16.87	13.33	11.15	5.88
SPB 12 - 65	238.33	192.33	119.17	92.94	76.50	45.83	32.50	26.67	22.83	19.92	15.75	13.17	6.95
SPB 12 - 75	264.00	213.00	132.00	103.00	84.83	50.83	36.00	29.50	25.33	22.10	17.50	15.20	7.70
SPB 12 - 80	310.00	247.67	153.33	117.56	94.17	56.50	40.00	32.83	28.17	24.57	19.33	16.20	8.55
SPB 12 - 100	366.67	295.83	183.33	143.05	117.83	70.50	50.00	41.00	35.17	30.68	24.17	20.33	10.68
SPB 12 - 120	438.01	355.17	219.83	171.55	141.33	84.67	60.00	49.17	42.17	36.83	29.00	24.33	12.83
SPB 12 - 150	547.19	443.83	274.83	214.46	176.67	105.83	75.00	61.50	52.67	46.17	36.33	30.33	16.03
SPB 12 - 200	729.65	591.83	366.50	286.03	235.67	141.00	100.00	82.00	70.33	61.50	48.50	40.50	21.33

The above characteristics data can be obtained within three charge/discharge cycles.



Manufactured in Europe
delivered in more than **100** countries

