

# EnerSys®

Power/Full Solutions



SuperSafe®  
**SBSXL**

2 V DIN-SIZE SERIES

## Performance Data

# Constant Current Discharge Performance Data



## Discharge Currents (Amperes) to 1.60Vpc at 20°C

Battery Type	Standby Time (Minutes)										Standby Time (Hours)									
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	456.7	415.4	382.4	355.0	330.9	310.0	290.6	272.8	256.5	216.7	128.3	91.4	71.5	59.0	50.3	43.9	39.0	35.1	32.0	17.0
SBS XL 400	570.9	519.2	478.0	443.7	413.6	387.5	363.2	341.0	320.6	270.9	160.3	114.3	89.4	73.7	62.8	54.9	48.7	43.9	40.0	21.2
SBS XL 480	685.1	623.1	573.6	532.5	496.4	465.0	435.8	409.2	384.7	325.1	192.4	137.2	107.3	88.5	75.4	65.8	58.5	52.7	48.0	25.5
SBS XL 580	720.0	719.9	693.1	643.4	599.8	561.8	526.6	494.4	464.9	392.8	232.5	165.7	129.7	107.0	91.1	79.6	70.7	63.7	58.0	30.8
SBS XL 680	720.0	720.0	719.9	719.9	703.2	658.7	617.4	579.7	545.0	460.6	272.6	194.3	152.0	125.4	106.9	93.3	82.9	74.7	68.0	36.1
SBS XL 780	720.0	720.0	719.9	719.9	719.9	719.9	708.2	664.9	625.2	528.3	312.6	222.9	174.4	143.9	122.6	107.1	95.1	85.6	78.0	41.4
SBS XL 900	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	609.6	360.7	257.2	201.2	166.0	141.5	123.5	109.8	98.8	90.0	47.8
SBS XL 970	1150	1150	1150	1137	1044	963.4	893.9	832.1	775.8	629.7	364.8	264.1	208.6	173.5	149.1	131.1	117.2	106.2	97.0	49.9
SBS XL 1200	2056	1814	1624	1477	1356	1251	1161	1081	1008	818.0	473.8	343.0	270.9	225.4	193.7	170.3	152.2	137.9	126.0	64.8
SBS XL 1500	2300	2246	2011	1828	1678	1549	1438	1338	1248	1013	586.6	424.7	335.4	279.1	239.8	210.8	188.4	170.7	156.0	80.3
SBS XL 1800	2300	2300	2300	2192	2012	1857	1723	1604	1496	1214	703.2	509.1	402.1	334.6	287.5	252.7	225.9	204.7	187.0	96.2
SBS XL 2700	3450	3450	3450	3164	2905	2682	2488	2316	2159	1753	1015	735.0	580.5	483.0	415.1	364.8	326.1	295.5	270.0	139.0
SBS XL 3100	4600	4464	3996	3633	3335	3079	2857	2659	2479	2012	1166	843.9	666.6	554.6	476.5	418.9	374.4	339.3	310.0	159.6
SBS XL 3900	4600	4600	4599	4571	4196	3873	3594	3345	3119	2532	1467	1062	838.6	697.7	599.5	527.0	471.0	426.8	390.0	200.8

## Discharge Currents (Amperes) to 1.63Vpc at 20°C

Battery Type	Standby Time (Minutes)										Standby Time (Hours)									
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	431.7	394.7	364.6	339.2	317.4	298.1	280.7	264.4	249.6	212.3	128.3	91.4	71.5	59.0	50.3	43.9	39.0	35.1	32.0	17.0
SBS XL 400	539.7	493.3	455.8	424.0	396.7	372.7	350.8	330.5	312.0	265.3	160.3	114.3	89.4	73.7	62.8	54.9	48.7	43.9	40.0	21.2
SBS XL 480	647.6	592.0	546.9	508.8	476.1	447.2	421.0	396.6	374.4	318.4	192.4	137.2	107.3	88.5	75.4	65.8	58.5	52.7	48.0	25.5
SBS XL 580	720.0	715.3	660.9	614.8	575.3	540.4	508.7	479.2	452.3	384.7	232.5	165.7	129.7	107.0	91.1	79.6	70.7	63.7	58.0	30.8
SBS XL 680	720.0	720.0	719.9	719.9	674.5	633.5	596.4	561.8	530.3	451.0	272.6	194.3	152.0	125.4	106.9	93.3	82.9	74.7	68.0	36.1
SBS XL 780	720.0	720.0	719.9	719.9	719.9	719.9	684.1	644.5	608.3	517.4	312.6	222.9	174.4	143.9	122.6	107.1	95.1	85.6	78.0	41.4
SBS XL 900	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	701.9	597.0	360.7	257.2	201.2	166.0	141.5	123.5	109.8	98.8	90.0	47.8
SBS XL 970	1150	1150	1150	1103	1017	941.5	875.9	817.7	764.3	629.7	364.8	264.1	208.6	173.5	149.1	131.1	117.2	106.2	97.0	49.9
SBS XL 1200	1966	1747	1572	1433	1321	1223	1138	1062	992.8	818.0	473.8	343.0	270.9	225.4	193.7	170.3	152.2	137.9	126.0	64.8
SBS XL 1500	2300	2163	1946	1775	1635	1514	1409	1315	1229	1013	586.6	424.7	335.4	279.1	239.8	210.8	188.4	170.7	156.0	80.3
SBS XL 1800	2300	2300	2300	2127	1960	1815	1689	1576	1473	1214	703.2	509.1	402.1	334.6	287.5	252.7	225.9	204.7	187.0	96.2
SBS XL 2700	3450	3450	3368	3071	2830	2621	2438	2276	2127	1753	1015	735.0	580.5	483.0	415.1	364.8	326.1	295.5	270.0	139.0
SBS XL 3100	4600	4298	3867	3526	3249	3009	2799	2613	2443	2012	1166	843.9	666.6	554.6	476.5	418.9	374.4	339.3	310.0	159.6
SBS XL 3900	4600	4600	4599	4436	4088	3785	3522	3288	3073	2532	1467	1062	838.6	697.7	599.5	527.0	471.0	426.8	390.0	200.8

# Constant Current Discharge Performance Data



## Discharge Currents (Amperes) to 1.65Vpc at 20°C

Battery Type	Standby Time (Minutes)										Standby Time (Hours)									
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	414.9	380.6	352.5	328.7	307.9	289.7	273.4	258.3	244.3	208.7	128.3	91.4	71.5	59.0	50.3	43.9	39.0	35.1	32.0	17.0
SBS XL 400	518.6	475.8	440.6	410.9	384.9	362.2	341.7	322.9	305.3	260.9	160.3	114.3	89.4	73.7	62.8	54.9	48.7	43.9	40.0	21.2
SBS XL 480	622.3	570.9	528.7	493.1	461.8	434.6	410.1	387.4	366.4	313.0	192.4	137.2	107.3	88.5	75.4	65.8	58.5	52.7	48.0	25.5
SBS XL 580	720.0	689.9	638.9	595.8	558.0	525.1	495.5	468.2	442.7	378.3	232.5	165.7	129.7	107.0	91.1	79.6	70.7	63.7	58.0	30.8
SBS XL 680	720.0	719.9	719.9	698.5	654.3	615.7	580.9	548.9	519.0	443.5	272.6	194.3	152.0	125.4	106.9	93.3	82.9	74.7	68.0	36.1
SBS XL 780	720.0	720.0	719.9	719.9	719.9	706.2	666.4	629.6	595.4	508.7	312.6	222.9	174.4	143.9	122.6	107.1	95.1	85.6	78.0	41.4
SBS XL 900	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	687.0	586.9	360.7	257.2	201.2	166.0	141.5	123.5	109.8	98.8	90.0	47.8
SBS XL 970	1150	1150	1150	1079	996.2	924.6	861.7	805.9	754.1	625.4	364.8	264.1	208.6	173.5	149.1	131.1	117.2	106.2	97.0	49.9
SBS XL 1200	1902	1700	1534	1402	1294	1201	1119	1047	979.5	812.3	473.8	343.0	270.9	225.4	193.7	170.3	152.2	137.9	126.0	64.8
SBS XL 1500	2300	2105	1899	1736	1602	1487	1386	1296	1213	1006	586.6	424.7	335.4	279.1	239.8	210.8	188.4	170.7	156.0	80.3
SBS XL 1800	2300	2300	2276	2081	1921	1782	1661	1554	1454	1206	703.2	509.1	402.1	334.6	287.5	252.7	225.9	204.7	187.0	96.2
SBS XL 2700	3450	3450	3287	3004	2773	2574	2399	2243	2099	1741	1015	735.0	580.5	483.0	415.1	364.8	326.1	295.5	270.0	139.0
SBS XL 3100	4600	4183	3774	3450	3184	2955	2754	2575	2410	1999	1166	843.9	666.6	554.6	476.5	418.9	374.4	339.3	310.0	159.6
SBS XL 3900	4600	4599	4599	4340	4006	3717	3465	3240	3032	2514	1467	1062	838.6	697.7	599.5	527.0	471.0	426.8	390.0	200.8

## Discharge Currents (Amperes) to 1.67Vpc at 20°C

Battery Type	Standby Time (Minutes)										Standby Time (Hours)									
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	397.8	366.2	339.8	317.5	298.3	281.1	265.7	251.7	238.5	204.8	128.3	91.4	71.5	59.0	50.3	43.9	39.0	35.1	32.0	17.0
SBS XL 400	497.3	457.7	424.7	396.9	372.9	351.3	332.1	314.6	298.2	256.0	160.3	114.3	89.4	73.7	62.8	54.9	48.7	43.9	40.0	21.2
SBS XL 480	596.7	549.3	509.6	476.3	447.5	421.6	398.6	377.6	357.8	307.2	192.4	137.2	107.3	88.5	75.4	65.8	58.5	52.7	48.0	25.5
SBS XL 580	720.0	663.7	615.8	575.5	540.7	509.4	481.6	456.2	432.3	371.1	232.5	165.7	129.7	107.0	91.1	79.6	70.7	63.7	58.0	30.8
SBS XL 680	720.0	719.9	719.9	674.7	633.9	597.3	564.6	534.9	506.9	435.1	272.6	194.3	152.0	125.4	106.9	93.3	82.9	74.7	68.0	36.1
SBS XL 780	720.0	720.0	719.9	719.9	719.9	685.1	647.7	613.6	581.4	499.1	312.6	222.9	174.4	143.9	122.6	107.1	95.1	85.6	78.0	41.4
SBS XL 900	720.0	720.0	720.0	720.0	720.0	720.0	720.0	707.9	670.9	575.9	360.7	257.2	201.2	166.0	141.5	123.5	109.8	98.8	90.0	47.8
SBS XL 970	1150	1150	1150	1055	974.4	906.1	845.7	792.4	741.5	617.8	364.8	264.1	208.6	173.5	149.1	131.1	117.2	106.2	97.0	49.9
SBS XL 1200	1833	1651	1494	1370	1266	1177	1099	1029	963.2	802.5	473.8	343.0	270.9	225.4	193.7	170.3	152.2	137.9	126.0	64.8
SBS XL 1500	2270	2044	1850	1696	1567	1457	1360	1274	1192	993.6	586.6	424.7	335.4	279.1	239.8	210.8	188.4	170.7	156.0	80.3
SBS XL 1800	2300	2300	2217	2033	1879	1747	1630	1528	1429	1191	703.2	509.1	402.1	334.6	287.5	252.7	225.9	204.7	187.0	96.2
SBS XL 2700	3450	3450	3201	2935	2712	2522	2354	2206	2064	1720	1015	735.0	580.5	483.0	415.1	364.8	326.1	295.5	270.0	139.0
SBS XL 3100	4510	4062	3676	3370	3114	2896	2703	2532	2370	1975	1166	843.9	666.6	554.6	476.5	418.9	374.4	339.3	310.0	159.6
SBS XL 3900	4600	4600	4600	4240	3918	3643	3400	3186	2981	2484	1467	1062	838.6	697.7	599.5	527.0	471.0	426.8	390.0	200.8

# Constant Current Discharge Performance Data



## Discharge Currents (Amperes) to 1.70Vpc at 20°C

Battery Type	Standby Time (Minutes)										Standby Time (Hours)									
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	371.2	344.0	320.5	300.3	282.9	267.3	253.5	240.8	229.1	198.0	127.3	91.4	71.5	59.0	50.3	43.9	39.0	35.1	32.0	17.0
SBS XL 400	463.9	429.9	400.7	375.3	353.6	334.1	316.9	301.0	286.4	247.5	159.1	114.3	89.4	73.7	62.8	54.9	48.7	43.9	40.0	21.2
SBS XL 480	556.7	515.9	480.8	450.4	424.4	400.9	380.2	361.2	343.7	297.0	191.0	137.2	107.3	88.5	75.4	65.8	58.5	52.7	48.0	25.5
SBS XL 580	672.7	623.4	580.9	544.2	512.8	484.5	459.4	436.4	415.3	358.9	230.8	165.7	129.7	107.0	91.1	79.6	70.7	63.7	58.0	30.8
SBS XL 680	720.0	720.0	681.1	638.1	601.2	568.0	538.7	511.7	486.9	420.8	270.5	194.3	152.0	125.4	106.9	93.3	82.9	74.7	68.0	36.1
SBS XL 780	720.0	720.0	720.0	720.0	689.6	651.5	617.9	586.9	558.5	482.7	310.3	222.9	174.4	143.9	122.6	107.1	95.1	85.6	78.0	41.4
SBS XL 900	720.0	720.0	720.0	720.0	720.0	720.0	712.9	677.2	644.4	557.0	358.1	257.2	201.2	166.0	141.5	123.5	109.8	98.8	90.0	47.8
SBS XL 970	1150	1150	1101	1013	938.8	875.1	818.9	767.5	718.3	603.4	364.8	264.1	208.6	173.5	149.1	131.1	117.2	106.2	97.0	49.9
SBS XL 1200	1729	1570	1430	1316	1219	1137	1064	996.9	933.0	783.8	473.8	343.0	270.9	225.4	193.7	170.3	152.2	137.9	126.0	64.8
SBS XL 1500	2140	1944	1770	1629	1510	1407	1317	1234	1155	970.4	586.6	424.7	335.4	279.1	239.8	210.8	188.4	170.7	156.0	80.3
SBS XL 1800	2300	2300	2122	1953	1810	1687	1579	1480	1385	1163	703.2	509.1	402.1	334.6	287.5	252.7	225.9	204.7	187.0	96.2
SBS XL 2700	3450	3365	3063	2819	2613	2436	2279	2136	1999	1680	1015	735.0	580.5	483.0	415.1	364.8	326.1	295.5	270.0	139.0
SBS XL 3100	4253	3863	3517	3237	3000	2797	2617	2453	2296	1928	1166	843.9	666.6	554.6	476.5	418.9	374.4	339.3	310.0	159.6
SBS XL 3900	4600	4600	4425	4073	3775	3519	3292	3086	2888	2426	1467	1062	838.6	697.7	599.5	527.0	471.0	426.8	390.0	200.8

## Discharge Currents (Amperes) to 1.75Vpc at 20°C

Battery Type	Standby Time (Minutes)										Standby Time (Hours)									
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	318.2	305.4	286.6	270.2	255.6	243.0	231.2	220.5	210.3	184.3	122.0	90.7	71.5	59.0	50.3	43.9	39.0	35.1	32.0	17.0
SBS XL 400	397.7	381.7	358.2	337.7	319.5	303.8	289.0	275.6	262.9	230.4	152.4	113.4	89.4	73.7	62.8	54.9	48.7	43.9	40.0	21.2
SBS XL 480	477.3	458.1	429.9	405.3	383.4	364.5	346.9	330.7	315.5	276.4	182.9	136.1	107.3	88.5	75.4	65.8	58.5	52.7	48.0	25.5
SBS XL 580	576.7	553.5	519.5	489.7	463.2	440.5	419.1	399.6	381.2	334.0	221.0	164.5	129.7	107.0	91.1	79.6	70.7	63.7	58.0	30.8
SBS XL 680	676.1	649.0	609.0	574.1	543.1	516.4	491.4	468.5	447.0	391.6	259.1	192.8	152.0	125.4	106.9	93.3	82.9	74.7	68.0	36.1
SBS XL 780	720.0	720.0	698.6	658.6	623.0	592.3	563.6	537.4	512.7	449.2	297.3	221.2	174.4	143.9	122.6	107.1	95.1	85.6	78.0	41.4
SBS XL 900	720.0	720.0	720.0	720.0	718.8	683.5	650.3	620.1	591.6	518.3	343.0	255.2	201.2	166.0	141.5	123.5	109.8	98.8	90.0	47.8
SBS XL 970	1148	1095	1007	932.6	869.2	813.9	763.2	713.9	670.3	569.3	357.7	264.1	208.6	173.5	149.1	131.1	117.2	106.2	97.0	49.9
SBS XL 1200	1492	1422	1308	1211	1129	1057	991.4	927.4	870.7	739.4	464.6	343.0	270.9	225.4	193.7	170.3	152.2	137.9	126.0	64.8
SBS XL 1500	1847	1761	1620	1500	1398	1309	1227	1148	1078	915.5	575.2	424.7	335.4	279.1	239.8	210.8	188.4	170.7	156.0	80.3
SBS XL 1800	2214	2111	1942	1798	1676	1569	1471	1376	1292	1097	689.6	509.1	402.1	334.6	287.5	252.7	225.9	204.7	187.0	96.2
SBS XL 2700	3196	3048	2803	2596	2419	2266	2124	1987	1866	1585	995.6	735.0	580.5	483.0	415.1	364.8	326.1	295.5	270.0	139.0
SBS XL 3100	3670	3500	3219	2980	2778	2601	2439	2282	2142	1819	1143	843.9	666.6	554.6	476.5	418.9	374.4	339.3	310.0	159.6
SBS XL 3900	4600	4403	4049	3750	3495	3272	3069	2871	2695	2289	1438	1062	838.6	697.7	599.5	527.0	471.0	426.8	390.0	200.8

## Constant Current Discharge Performance Data

### Discharge Currents (Amperes) to 1.80Vpc at 20°C

Battery Type	Standby Time (Minutes)										Standby Time (Hours)									
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	264.4	264.3	250.6	237.8	226.3	215.5	205.7	196.7	188.4	167.2	113.9	86.2	69.5	58.4	50.3	43.9	39.0	35.1	32.0	17.0
SBS XL 400	330.4	330.4	313.3	297.2	282.9	269.4	257.1	245.8	235.5	209.0	142.3	107.9	86.9	73.0	62.8	54.9	48.7	43.9	40.0	21.2
SBS XL 480	396.5	396.5	375.9	356.7	339.5	323.3	308.5	295.0	282.6	250.8	170.8	129.4	104.3	87.6	75.4	65.8	58.5	52.7	48.0	25.5
SBS XL 580	479.2	479.1	454.2	431.0	410.2	390.6	372.8	356.4	341.5	303.0	206.4	156.4	126.0	105.9	91.1	79.6	70.7	63.7	58.0	30.8
SBS XL 680	561.8	561.7	532.6	505.3	481.0	458.0	437.1	417.9	400.4	355.2	242.0	183.4	147.8	124.2	106.9	93.3	82.9	74.7	68.0	36.1
SBS XL 780	644.4	644.3	610.9	579.6	551.7	525.3	501.4	479.4	459.2	407.5	277.6	210.3	169.5	142.5	122.6	107.1	95.1	85.6	78.0	41.4
SBS XL 900	720.0	720.0	704.9	668.7	636.6	606.1	578.5	553.1	529.9	470.2	320.3	242.7	195.6	164.4	141.5	123.5	109.8	98.8	90.0	47.8
SBS XL 970	957.6	957.6	900.1	838.2	784.4	733.5	687.1	646.5	610.7	525.5	340.9	254.1	204.2	171.7	148.7	131.1	117.2	106.2	97.0	49.9
SBS XL 1200	1244	1244	1169	1089	1019	952.8	892.6	839.7	793.3	682.7	442.8	330.1	265.3	223.0	193.1	170.3	152.2	137.9	126.0	64.8
SBS XL 1500	1540	1540	1448	1348	1262	1180	1105	1040	982.2	845.2	548.3	408.7	328.4	276.1	239.1	210.8	188.4	170.7	156.0	80.3
SBS XL 1800	1846	1846	1735	1616	1512	1414	1325	1246	1177	1013	657.2	489.9	393.7	331.0	286.6	252.7	225.9	204.7	187.0	96.2
SBS XL 2700	2666	2665	2505	2333	2183	2042	1913	1799	1700	1463	949.0	707.3	568.4	478.0	413.8	364.8	326.1	295.5	270.0	139.0
SBS XL 3100	3061	3060	2877	2679	2507	2344	2196	2066	1952	1680	1090	812.1	652.6	548.8	475.1	418.9	374.4	339.3	310.0	159.6
SBS XL 3900	3850	3850	3619	3370	3154	2949	2763	2599	2456	2113	1371	1022	821.1	690.4	597.7	527.0	471.0	426.8	390.0	200.8

### Discharge Currents (Amperes) to 1.85Vpc at 20°C

Battery Type	Standby Time (Minutes)										Standby Time (Hours)									
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	210.9	210.9	210.9	202.2	193.2	184.8	177.2	170.3	163.7	146.7	102.9	79.1	64.5	54.5	47.3	41.8	37.6	34.1	31.3	17.0
SBS XL 400	263.7	263.7	263.6	252.8	241.6	231.0	221.6	212.8	204.6	183.4	128.7	98.9	80.6	68.1	59.1	52.3	47.0	42.6	39.1	21.2
SBS XL 480	316.4	316.4	316.4	303.3	289.9	277.2	265.9	255.4	245.5	220.1	154.4	118.7	96.7	81.8	70.9	62.8	56.4	51.2	46.9	25.5
SBS XL 580	382.3	382.3	382.3	366.5	350.3	334.9	321.3	308.6	296.7	266.0	186.6	143.4	117.0	98.8	85.7	75.8	68.1	61.8	56.7	30.8
SBS XL 680	448.2	448.2	448.2	429.7	410.6	392.7	376.7	361.8	347.8	311.8	218.7	168.1	137.1	115.9	100.6	88.9	79.9	72.5	66.5	36.1
SBS XL 780	514.2	514.1	514.1	492.9	471.0	450.4	432.0	415.0	399.0	357.7	250.9	192.9	157.3	133.0	115.4	102.1	91.6	83.2	76.2	41.4
SBS XL 900	593.3	593.2	593.2	568.7	543.5	519.7	498.5	478.9	460.4	412.7	289.5	222.5	181.5	153.4	133.1	117.8	105.7	96.0	88.0	47.8
SBS XL 970	773.1	773.1	773.0	724.4	676.5	634.6	599.8	568.5	540.0	470.7	315.2	239.1	192.9	162.5	140.8	124.6	112.1	102.0	93.3	48.9
SBS XL 1200	1004	1004	1004	941.0	878.7	824.3	779.2	738.4	701.4	611.4	409.4	310.6	250.6	211.0	182.9	161.9	145.6	132.5	121.2	63.5
SBS XL 1500	1243	1243	1243	1165	1088	1021	964.7	914.2	868.4	756.9	506.9	384.6	310.2	261.3	226.5	200.4	180.3	164.0	150.1	78.7
SBS XL 1800	1490	1490	1490	1397	1304	1223	1156	1096	1041	907.3	607.6	461.0	371.9	313.2	271.5	240.2	216.1	196.6	179.9	94.3
SBS XL 2700	2152	2152	2152	2016	1883	1766	1670	1582	1503	1310	877.3	665.6	536.9	452.2	392.0	346.8	312.0	283.9	259.7	136.2
SBS XL 3100	2471	2471	2470	2315	2162	2028	1917	1817	1726	1504	1007	764.2	616.5	519.2	450.1	398.2	358.2	326.0	298.2	156.4
SBS XL 3900	3108	3108	3108	2913	2720	2551	2412	2286	2171	1892	1267	961.4	775.6	653.2	566.2	501.0	450.7	410.1	375.2	196.8

# Constant Power Discharge Performance Data



## Constant Power (Watts per cell) to 1.60Vpc at 20°C

Battery Type	Standby Time (Minutes)										Standby Time (Hours)									
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	728.6	665.8	617.9	575.8	539.0	507.4	479.9	454.1	430.7	372.2	236.1	172.4	136.9	113.8	97.7	85.8	76.5	69.1	62.9	33.8
SBS XL 400	910.8	832.3	772.3	719.7	673.8	634.3	599.9	567.6	538.4	465.3	295.1	215.5	171.2	142.3	122.2	107.4	95.7	86.3	78.7	42.3
SBS XL 480	1093	998.7	926.8	863.7	808.6	761.1	719.9	681.1	646.1	558.3	354.1	258.6	205.4	170.8	146.6	128.8	114.9	103.7	94.4	50.8
SBS XL 580	1202	1172	1120	1044	977.1	919.7	869.9	823.0	780.7	674.6	427.9	312.5	248.2	206.3	177.2	155.7	138.8	125.2	114.1	61.3
SBS XL 680	1244	1228	1204	1178	1146	1078	1019	964.9	915.2	790.9	501.6	366.4	291.0	241.9	207.8	182.5	162.7	146.8	133.8	71.9
SBS XL 780	1273	1267	1249	1230	1209	1186	1160	1107	1050	907.3	575.4	420.3	333.8	277.5	238.3	209.3	186.7	168.4	153.5	82.5
SBS XL 900	1300	1300	1289	1275	1260	1243	1225	1205	1181	1047	663.9	485.0	385.1	320.2	275.0	241.5	215.4	194.4	177.1	95.2
SBS XL 970	2011	1986	1930	1857	1734	1616	1510	1418	1336	1123	693.8	504.8	402.2	336.1	289.5	255.3	228.8	207.4	190.0	99.4
SBS XL 1200	3294	2937	2655	2432	2252	2099	1962	1842	1735	1459	901.3	655.7	522.4	436.5	376.1	331.7	297.2	269.4	246.8	129.1
SBS XL 1500	3825	3637	3287	3011	2788	2598	2429	2281	2149	1807	1116	811.9	646.8	540.5	465.6	410.6	368.0	333.6	305.6	159.9
SBS XL 1800	3996	3930	3802	3610	3342	3115	2911	2734	2576	2166	1338	973.2	775.3	647.9	558.1	492.2	441.1	399.9	366.4	191.7
SBS XL 2700	5954	5824	5604	5212	4826	4497	4203	3948	3719	3127	1931	1405	1119	935.4	805.8	710.7	636.8	577.3	529.0	276.7
SBS XL 3100	7633	7227	6531	5983	5541	5164	4826	4533	4270	3591	2217	1613	1285	1074	925.2	816.0	731.2	662.9	607.3	317.7
SBS XL 3900	8051	7957	7734	7450	6973	6496	6072	5702	5372	4517	2790	2030	1617	1351	1164	1027	919.9	833.9	764.1	399.7

## Constant Power (Watts per cell) to 1.63Vpc at 20°C

Battery Type	Standby Time (Minutes)										Standby Time (Hours)									
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	701.3	645.0	598.8	558.3	524.0	494.4	468.4	445.2	423.1	367.4	236.1	172.4	136.9	113.8	97.7	85.8	76.5	69.1	62.9	33.8
SBS XL 400	876.5	806.3	748.5	697.9	654.9	618.0	585.5	556.5	528.9	459.2	295.1	215.5	171.2	142.3	122.2	107.4	95.7	86.3	78.7	42.3
SBS XL 480	1052	967.1	898.2	837.5	785.9	741.6	702.7	667.8	634.6	551.1	354.1	258.6	205.4	170.8	146.6	128.8	114.9	103.7	94.4	50.8
SBS XL 580	1202	1169	1085	1012	949.6	896.1	849.0	806.9	766.9	665.9	427.9	312.5	248.2	206.3	177.2	155.7	138.8	125.2	114.1	61.3
SBS XL 680	1244	1228	1204	1178	1113	1051	995.4	946.0	899.1	780.7	501.6	366.4	291.0	241.9	207.8	182.5	162.7	146.8	133.8	71.9
SBS XL 780	1273	1267	1249	1230	1209	1186	1142	1085	1031	895.5	575.4	420.3	333.8	277.5	238.3	209.3	186.7	168.4	153.5	82.5
SBS XL 900	1300	1300	1289	1275	1260	1243	1225	1205	1181	1033	663.9	485.0	385.1	320.2	275.0	241.5	215.4	194.4	177.1	95.2
SBS XL 970	2011	1986	1930	1842	1709	1595	1494	1405	1326	1120	693.8	504.8	402.2	336.1	289.5	255.3	228.8	207.4	190.0	99.4
SBS XL 1200	3209	2873	2605	2392	2220	2072	1940	1825	1722	1455	901.3	655.7	522.4	436.5	376.1	331.7	297.2	269.4	246.8	129.1
SBS XL 1500	3825	3557	3225	2962	2749	2566	2402	2260	2132	1801	1116	811.9	646.8	540.5	465.6	410.6	368.0	333.6	305.6	159.9
SBS XL 1800	3996	3930	3802	3550	3295	3076	2880	2709	2556	2159	1338	973.2	775.3	647.9	558.1	492.2	441.1	399.9	366.4	191.7
SBS XL 2700	5954	5824	5582	5126	4758	4441	4158	3912	3691	3118	1931	1405	1119	935.4	805.8	710.7	636.8	577.3	529.0	276.7
SBS XL 3100	7633	7070	6409	5885	5463	5098	4774	4491	4238	3580	2217	1613	1285	1074	925.2	816.0	731.2	662.9	607.3	317.7
SBS XL 3900	8051	7957	7734	7404	6872	6414	6006	5650	5331	4503	2790	2030	1617	1351	1164	1027	919.9	833.9	764.1	399.7

# Constant Power Discharge Performance Data



## Constant Power (Watts per cell) to 1.65Vpc at 20°C

Battery Type	Standby Time (Minutes)									Standby Time (Hours)										
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	682.2	630.3	583.9	545.5	513.1	485.1	460.2	437.8	417.2	363.4	236.1	172.4	136.9	113.8	97.7	85.8	76.5	69.1	62.9	33.8
SBS XL 400	852.8	787.8	729.9	681.8	641.4	606.3	575.2	547.3	521.5	454.2	295.1	215.5	171.2	142.3	122.2	107.4	95.7	86.3	78.7	42.3
SBS XL 480	1024	945.7	875.9	818.2	769.7	727.6	690.3	656.7	625.9	545.1	354.1	258.6	205.4	170.8	146.6	128.8	114.9	103.7	94.4	50.8
SBS XL 580	1202	1142	1059	988.8	930.0	879.2	834.1	793.5	756.2	658.7	427.9	312.5	248.2	206.3	177.2	155.7	138.8	125.2	114.1	61.3
SBS XL 680	1244	1228	1204	1159	1091	1031	977.9	930.3	886.6	772.2	501.6	366.4	291.0	241.9	207.8	182.5	162.7	146.8	133.8	71.9
SBS XL 780	1273	1267	1249	1230	1209	1183	1122	1067	1017	885.8	575.4	420.3	333.8	277.5	238.3	209.3	186.7	168.4	153.5	82.5
SBS XL 900	1300	1300	1289	1275	1260	1243	1225	1205	1174	1022	663.9	485.0	385.1	320.2	275.0	241.5	215.4	194.4	177.1	95.2
SBS XL 970	2011	1986	1930	1819	1690	1579	1480	1394	1317	1114	693.8	504.8	402.2	336.1	289.5	255.3	228.8	207.4	190.0	99.4
SBS XL 1200	3143	2827	2567	2363	2196	2051	1922	1811	1710	1447	901.3	655.7	522.4	436.5	376.1	331.7	297.2	269.4	246.8	129.1
SBS XL 1500	3825	3500	3179	2925	2718	2539	2380	2242	2117	1791	1116	811.9	646.8	540.5	465.6	410.6	368.0	333.6	305.6	159.9
SBS XL 1800	3996	3930	3802	3506	3258	3044	2853	2687	2538	2147	1338	973.2	775.3	647.9	558.1	492.2	441.1	399.9	366.4	191.7
SBS XL 2700	5954	5824	5501	5063	4705	4395	4119	3880	3665	3100	1931	1405	1119	935.4	805.8	710.7	636.8	577.3	529.0	276.7
SBS XL 3100	7633	6955	6317	5813	5402	5046	4730	4454	4208	3559	2217	1613	1285	1074	925.2	816.0	731.2	662.9	607.3	317.7
SBS XL 3900	8051	7957	7734	7314	6796	6348	5950	5604	5293	4478	2790	2030	1617	1351	1164	1027	919.9	833.9	764.1	399.7

## Constant Power (Watts per cell) to 1.67Vpc at 20°C

Battery Type	Standby Time (Minutes)									Standby Time (Hours)										
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	662.3	612.2	568.3	532.2	501.4	474.9	451.3	429.9	410.5	358.7	235.7	172.4	136.9	113.8	97.7	85.8	76.5	69.1	62.9	33.8
SBS XL 400	827.9	765.2	710.4	665.3	626.8	593.6	564.1	537.3	513.1	448.4	294.6	215.5	171.2	142.3	122.2	107.4	95.7	86.3	78.7	42.3
SBS XL 480	993.8	918.2	852.5	798.3	752.2	712.4	676.9	644.8	615.8	538.1	353.5	258.6	205.4	170.8	146.6	128.8	114.9	103.7	94.4	50.8
SBS XL 580	1202	1110	1030	964.6	908.9	860.8	817.9	779.2	744.1	650.2	427.2	312.5	248.2	206.3	177.2	155.7	138.8	125.2	114.1	61.3
SBS XL 680	1244	1228	1204	1131	1066	1009	958.9	913.5	872.3	762.3	500.8	366.4	291.0	241.9	207.8	182.5	162.7	146.8	133.8	71.9
SBS XL 780	1273	1267	1249	1230	1209	1158	1100	1048	1001	874.4	574.4	420.3	333.8	277.5	238.3	209.3	186.7	168.4	153.5	82.5
SBS XL 900	1300	1300	1289	1275	1260	1243	1225	1205	1155	1009	662.8	485.0	385.1	320.2	275.0	241.5	215.4	194.4	177.1	95.2
SBS XL 970	2011	1986	1930	1793	1668	1558	1463	1380	1305	1105	693.8	504.8	402.2	336.1	289.5	255.3	228.8	207.4	190.0	99.4
SBS XL 1200	3062	2774	2525	2329	2166	2024	1901	1792	1695	1436	901.3	655.7	522.4	436.5	376.1	331.7	297.2	269.4	246.8	129.1
SBS XL 1500	3791	3435	3126	2884	2682	2506	2354	2219	2098	1777	1116	811.9	646.8	540.5	465.6	410.6	368.0	333.6	305.6	159.9
SBS XL 1800	3996	3930	3747	3456	3215	3004	2821	2660	2515	2131	1338	973.2	775.3	647.9	558.1	492.2	441.1	399.9	366.4	191.7
SBS XL 2700	5954	5824	5410	4991	4642	4338	4073	3840	3632	3076	1931	1405	1119	935.4	805.8	710.7	636.8	577.3	529.0	276.7
SBS XL 3100	7534	6824	6213	5731	5330	4981	4677	4409	4170	3532	2217	1613	1285	1074	925.2	816.0	731.2	662.9	607.3	317.7
SBS XL 3900	8051	7957	7734	7210	6705	6266	5884	5547	5246	4444	2790	2030	1617	1351	1164	1027	919.9	833.9	764.1	399.7

# Constant Power Discharge Performance Data



## Constant Power (Watts per cell) to 1.70Vpc at 20°C

Battery Type	Standby Time (Minutes)									Standby Time (Hours)										
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	628.8	583.2	543.7	511.0	483.2	458.6	436.9	417.1	399.2	350.2	232.8	172.4	136.9	113.8	97.7	85.8	76.5	69.1	62.9	33.8
SBS XL 400	786.0	729.0	679.7	638.8	604.0	573.3	546.1	521.4	499.0	437.8	291.0	215.5	171.2	142.3	122.2	107.4	95.7	86.3	78.7	42.3
SBS XL 480	943.4	874.8	815.6	766.5	724.8	688.0	655.3	625.6	598.8	525.3	349.2	258.6	205.4	170.8	146.6	128.8	114.9	103.7	94.4	50.8
SBS XL 580	1141	1057	985.2	926.2	875.8	831.3	791.9	756.0	723.5	634.8	421.9	312.5	248.2	206.3	177.2	155.7	138.8	125.2	114.1	61.3
SBS XL 680	1244	1228	1155	1086	1027	974.6	928.4	886.3	848.3	744.2	494.7	366.4	291.0	241.9	207.8	182.5	162.7	146.8	133.8	71.9
SBS XL 780	1273	1267	1249	1230	1178	1118	1065	1017	973.0	853.7	567.4	420.3	333.8	277.5	238.3	209.3	186.7	168.4	153.5	82.5
SBS XL 900	1300	1300	1289	1275	1260	1243	1225	1173	1122	985.0	654.7	485.0	385.1	320.2	275.0	241.5	215.4	194.4	177.1	95.2
SBS XL 970	2011	1986	1888	1748	1627	1523	1433	1353	1276	1086	693.8	504.8	402.2	336.1	289.5	255.3	228.8	207.4	190.0	99.4
SBS XL 1200	2940	2678	2452	2270	2113	1978	1862	1758	1658	1410	901.3	655.7	522.4	436.5	376.1	331.7	297.2	269.4	246.8	129.1
SBS XL 1500	3640	3316	3036	2811	2617	2449	2305	2177	2053	1746	1116	811.9	646.8	540.5	465.6	410.6	368.0	333.6	305.6	159.9
SBS XL 1800	3996	3930	3639	3369	3137	2936	2763	2609	2461	2093	1338	973.2	775.3	647.9	558.1	492.2	441.1	399.9	366.4	191.7
SBS XL 2700	5954	5741	5253	4864	4529	4239	3989	3767	3553	3022	1931	1405	1119	935.4	805.8	710.7	636.8	577.3	529.0	276.7
SBS XL 3100	7234	6589	6033	5585	5200	4867	4580	4326	4079	3469	2217	1613	1285	1074	925.2	816.0	731.2	662.9	607.3	317.7
SBS XL 3900	8051	7957	7588	7027	6541	6123	5762	5442	5132	4365	2790	2030	1617	1351	1164	1027	919.9	833.9	764.1	399.7

## Constant Power (Watts per cell) to 1.75Vpc at 20°C

Battery Type	Standby Time (Minutes)									Standby Time (Hours)										
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	551.4	530.7	499.2	471.9	448.4	427.8	409.0	391.9	374.9	331.4	225.3	170.4	136.9	113.8	97.7	85.8	76.5	69.1	62.9	33.8
SBS XL 400	689.2	663.4	624.0	589.9	560.6	534.7	511.2	489.9	468.6	414.3	281.6	213.1	171.2	142.3	122.2	107.4	95.7	86.3	78.7	42.3
SBS XL 480	827.1	796.0	748.8	707.8	672.7	641.6	613.4	587.9	562.3	497.1	337.9	255.7	205.4	170.8	146.6	128.8	114.9	103.7	94.4	50.8
SBS XL 580	999.3	962.0	904.8	855.3	812.8	775.3	741.2	710.4	679.5	600.7	408.3	308.9	248.2	206.3	177.2	155.7	138.8	125.2	114.1	61.3
SBS XL 680	1172	1129	1060	1003	952.9	909.0	869.0	832.9	796.6	704.2	478.7	362.2	291.0	241.9	207.8	182.5	162.7	146.8	133.8	71.9
SBS XL 780	1273	1267	1217	1150	1093	1043	996.8	955.3	913.8	807.8	549.1	415.5	333.8	277.5	238.3	209.3	186.7	168.4	153.5	82.5
SBS XL 900	1300	1300	1289	1275	1260	1203	1150	1103	1054	932.1	633.6	479.4	385.1	320.2	275.0	241.5	215.4	194.4	177.1	95.2
SBS XL 970	2005	1919	1775	1647	1539	1448	1367	1286	1212	1041	679.2	503.8	402.2	336.1	289.5	255.3	228.8	207.4	190.0	99.4
SBS XL 1200	2604	2493	2305	2139	1999	1880	1776	1670	1574	1353	882.2	654.4	522.4	436.5	376.1	331.7	297.2	269.4	246.8	129.1
SBS XL 1500	3225	3086	2853	2649	2475	2328	2199	2068	1949	1675	1092	810.2	646.8	540.5	465.6	410.6	368.0	333.6	305.6	159.9
SBS XL 1800	3865	3699	3420	3175	2967	2791	2636	2478	2336	2007	1309	971.3	775.3	647.9	558.1	492.2	441.1	399.9	366.4	191.7
SBS XL 2700	5580	5341	4938	4584	4284	4029	3806	3579	3373	2898	1891	1402	1119	935.4	805.8	710.7	636.8	577.3	529.0	276.7
SBS XL 3100	6408	6133	5670	5263	4919	4626	4370	4109	3873	3328	2171	1610	1285	1074	925.2	816.0	731.2	662.9	607.3	317.7
SBS XL 3900	8051	7716	7137	6621	6188	5820	5498	5169	4872	4186	2731	2026	1617	1351	1164	1027	919.9	833.9	764.1	399.7



# Constant Power Discharge Performance Data



## Constant Power (Watts per cell) to 1.80Vpc at 20°C

Battery Type	Standby Time (Minutes)									Standby Time (Hours)										
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	471.7	471.6	449.4	428.0	409.0	390.5	372.9	357.5	343.0	306.2	213.1	163.4	133.0	112.3	97.5	85.8	76.5	69.1	62.9	33.8
SBS XL 400	589.6	589.5	561.8	535.0	511.3	488.1	466.2	446.9	428.7	382.7	266.4	204.3	166.2	140.3	121.9	107.4	95.7	86.3	78.7	42.3
SBS XL 480	707.5	707.4	674.1	642.0	613.5	585.8	559.4	536.2	514.5	459.3	319.7	245.1	199.5	168.4	146.3	128.8	114.9	103.7	94.4	50.8
SBS XL 580	854.9	854.8	814.6	775.7	741.3	707.8	675.9	647.9	621.6	554.9	386.3	296.2	241.0	203.5	176.7	155.7	138.8	125.2	114.1	61.3
SBS XL 680	1002	1002	955.0	909.4	869.1	829.9	792.5	759.6	728.8	650.6	452.9	347.3	282.6	238.6	207.2	182.5	162.7	146.8	133.8	71.9
SBS XL 780	1149	1149	1095	1043	997.0	951.9	909.0	871.4	836.0	746.3	519.5	398.4	324.2	273.7	237.7	209.3	186.7	168.4	153.5	82.5
SBS XL 900	1300	1300	1264	1204	1150	1098	1049	1005	964.6	861.1	599.4	459.7	374.0	315.8	274.2	241.5	215.4	194.4	177.1	95.2
SBS XL 970	1721	1721	1623	1516	1425	1338	1257	1187	1124	979.8	652.3	486.7	394.0	332.1	287.9	255.1	228.8	207.4	190.0	99.4
SBS XL 1200	2236	2235	2108	1969	1852	1738	1633	1541	1460	1273	847.4	632.2	511.8	431.3	374.0	331.4	297.2	269.4	246.8	129.1
SBS XL 1500	2768	2768	2610	2438	2292	2152	2022	1908	1808	1576	1049	782.7	633.7	534.0	463.1	410.3	368.0	333.6	305.6	159.9
SBS XL 1800	3318	3318	3129	2922	2748	2579	2424	2287	2167	1889	1258	938.2	759.6	640.1	555.1	491.9	441.1	399.9	366.4	191.7
SBS XL 2700	4791	4790	4518	4219	3968	3724	3499	3303	3129	2727	1816	1355	1097	924.3	801.5	710.2	636.8	577.3	529.0	276.7
SBS XL 3100	5500	5500	5187	4844	4556	4275	4018	3792	3593	3131	2085	1555	1259	1061	920.2	815.4	731.2	662.9	607.3	317.7
SBS XL 3900	6920	6919	6526	6094	5731	5379	5055	4771	4520	3939	2623	1957	1584	1335	1158	1026	919.9	833.9	764.1	399.7

## Constant Power (Watts per cell) to 1.85Vpc at 20°C

Battery Type	Standby Time (Minutes)									Standby Time (Hours)										
	5	10	15	20	25	30	35	40	45	1	2	3	4	5	6	7	8	9	10	20
SBS XL 320	388.8	388.8	388.8	374.0	357.8	342.3	328.8	316.2	304.7	274.5	195.6	151.9	124.6	105.9	92.4	82.0	73.7	67.0	61.4	33.8
SBS XL 400	486.0	486.0	486.0	467.5	447.2	427.9	411.0	395.2	380.9	343.1	244.6	189.9	155.8	132.3	115.5	102.5	92.2	83.8	76.8	42.3
SBS XL 480	583.3	583.2	583.2	561.1	536.6	513.5	493.2	474.3	457.1	411.7	293.5	227.9	187.0	158.8	138.6	123.0	110.7	100.6	92.2	50.8
SBS XL 580	704.8	704.7	704.7	677.9	648.4	620.5	595.9	573.1	552.3	497.5	354.6	275.4	225.9	191.9	167.5	148.7	133.7	121.5	111.4	61.3
SBS XL 680	826.3	826.2	826.2	794.8	760.2	727.5	698.7	671.9	647.5	583.2	415.7	322.8	264.9	225.0	196.3	174.3	156.8	142.5	130.6	71.9
SBS XL 780	947.8	947.7	947.7	911.7	872.0	834.4	801.4	770.7	742.7	669.0	476.9	370.3	303.8	258.1	225.2	200.0	179.8	163.4	149.8	82.5
SBS XL 900	1094	1094	1093	1052	1006	962.8	924.7	889.3	857.0	771.9	550.2	427.3	350.6	297.8	259.9	230.7	207.5	188.6	172.9	95.2
SBS XL 970	1430	1430	1430	1345	1259	1185	1123	1067	1017	894.4	607.5	462.9	375.9	316.9	275.4	244.3	219.7	200.2	183.9	97.4
SBS XL 1200	1857	1857	1857	1747	1635	1539	1458	1386	1322	1162	789.2	601.3	488.3	411.6	357.7	317.4	285.3	260.0	238.9	126.6
SBS XL 1500	2299	2299	2299	2164	2025	1906	1806	1716	1636	1438	977.1	744.5	604.6	509.6	442.9	392.9	353.3	321.9	295.7	156.7
SBS XL 1800	2756	2756	2756	2594	2427	2284	2164	2058	1962	1724	1171	892.4	724.7	610.9	530.9	471.0	423.5	385.9	354.5	187.9
SBS XL 2700	3980	3979	3979	3745	3504	3298	3125	2971	2832	2489	1691	1289	1046	882.1	766.5	680.0	611.4	557.1	511.9	271.2
SBS XL 3100	4569	4569	4569	4299	4023	3787	3588	3411	3252	2858	1942	1479	1201	1013	880.1	780.8	702.0	639.7	587.7	311.4
SBS XL 3900	5748	5748	5748	5409	5061	4764	4514	4291	4091	3596	2443	1861	1511	1274	1107	982.3	883.2	804.7	739.4	391.8



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