STRYTEN ENERGY

E-SERIES

Flooded PDQ

Stryten Energy Flooded PDQ batteries are ideal choices for applications requiring a large amount of power for relatively short periods of time and are recommended for computer or a data center UPS systems and similar applications. These High Rate batteries are available with nominal ratings ranging from 1609 to 4217 watts per cell. The grids and separators are design-optimized to allow current to flow out of the battery with near instantaneous response to application demands.

THE ENERGY TO CHALLENGE

FLOODED PDQ – LEAD CALCIUM HIGH RATE QUICK RESPONSE BATTERY SPECIFICATIONS

CLASSIC - THE PREFERRED CHOICE

Stryten Energy has been manufacturing economical, long-lasting flooded batteries for over a century. Tested and proven in the toughest field conditions, Stryten Energy Flooded batteries offer maximum efficiency and reliability for the widest variety of applications.

APPLICATION READY

High Rate

Stryten Energy manufactures batteries for applications requiring a large amount of power for relatively short periods of time (e.g. computer or data center UPS system). Stryten Energy's high rate batteries are available with nominal ratings ranging from 1609 to 4217 watts per cell.

The grids and separators in the high rate batteries are design-optimized to allow current to flow out of the battery as quickly as the application demands. Solid copper terminal posts add to the improved high rate performance while increasing connection integrity.

FLOOD BATTERY SELECTOR GUIDE

APPLICATION	CAPACITY	TYPE
Long Duration	192-480 AH	MCT
Long Duration	2504-4000 AH	H1T
High Rate	1609-4217 WPC	PDQ
General Purpose	176-608 AH	MCX
General Purpose	621-2620 AH	NXT
Nuclear	552-2552 AH	NCN

SIMPLY THE BEST

Whatever your application, Stryten Energy's comprehensive product offering makes it easy to select the flooded battery that meets your needs.

STRYTEN ENERGY FLOODED CLASSIC PDQ

MODEL NUMBER#	CAPACITY - WATTS PER CELL (WPC)			LENGTH		WIDTH		HEIGHT*		NOMINAL WT**		ELECTROLYTE PER CELL	
	VOLTAGE	15 MIN. TO 1.67 VPC @ 25°C (77°F) 1.250 SG	15 MIN. TO 1.67 VPC @ 25°C (77°F) 1.215 SG	IN	MM	IN	MM	IN	MM	LBS	KG	GAL	LITERS
4-PDQ11	8	1780	1609	17.00	432	14.45	367	22.88	581	488	221	3.2	12.1
4-PDQ13	8	2094	1893	17.00	432	14.45	367	22.88	581	532	241	3.0	11.4
4-PDQ15	8	2413	2182	17.00	432	14.45	367	22.88	581	580	263	2.8	10.6
4-PDQ17	8	2692	2433	17.00	432	14.45	367	22.88	581	624	283	2.7	10.2
2-PDQ19	4	2982	2708	12.15	309	14.50	368	22.62	575	400	181	5.6	21.2
2-PDQ21	4	3295	2992	12.15	309	14.50	368	22.62	575	425	193	5.3	20.1
2-PDQ23	4	3604	3271	12.15	309	14.50	368	22.62	575	451	205	5.1	19.3
2-PDQ25	4	3913	3551	12.15	309	14.50	368	22.62	575	471	214	4.9	18.5
2-PDQ27	4	4217	3840	12.15	309	14.50	368	22.62	575	503	228	4.7	17.8

4-PDQ = 4 cells per unit; 2-PDQ = 2 cells per unit
* Height to top of posts
** Multiply by 1.03 to obtain estimated domestic packed shipping weight

HIGH RATE FLOODED STATIONARY BATTERY FOR UNINTERRUPTIBLE POWER SUPPLY (UPS) APPLICATIONS

Capacities – 1609 WPC to 4217 WPC

20-year design life in float applications @ 77°F (25°C)

Recyclable to world standards

SPECIFICATIONS

Grid Alloy – Positive: Lead Calcium; Negative: Lead Calcium

Electrolyte – **Standard:** 1.250 specific gravity
Optional: 1.215 specific gravity

Electrolyte Withdrawal Tubes – 1 per cell minimum

Level Lines – High and Low

Posts – Solid Copper, Lead Plated
One positive and one negative per cell (1.75" x 0.5")

Post Seals – Floating "O" Ring - Seal Nut

Container – **Standard:** Styrene Acrylonitrile (SAN) Plastic
Optional: Polycarbonate: UL-94 V-0
PVC: UL-94 V-0 (2-PDQ only)

Cover – **Standard:** Acrylonitrile Butadiene Styrene (ABS) Plastic
Optional: Polycarbonate: UL-94 V-0
PVC: UL-94 V-0 (2-PDQ only)

Safety Vent – Stryten Energy "Pre-Vent" Flame Arrestor

Float Voltage Range –
2.23 to 2.33 Volts per Cell for 1.250 specific gravity @ 25°C (77°F)
2.17 to 2.25 Volts per Cell for 1.215 specific gravity @ 25°C (77°F)

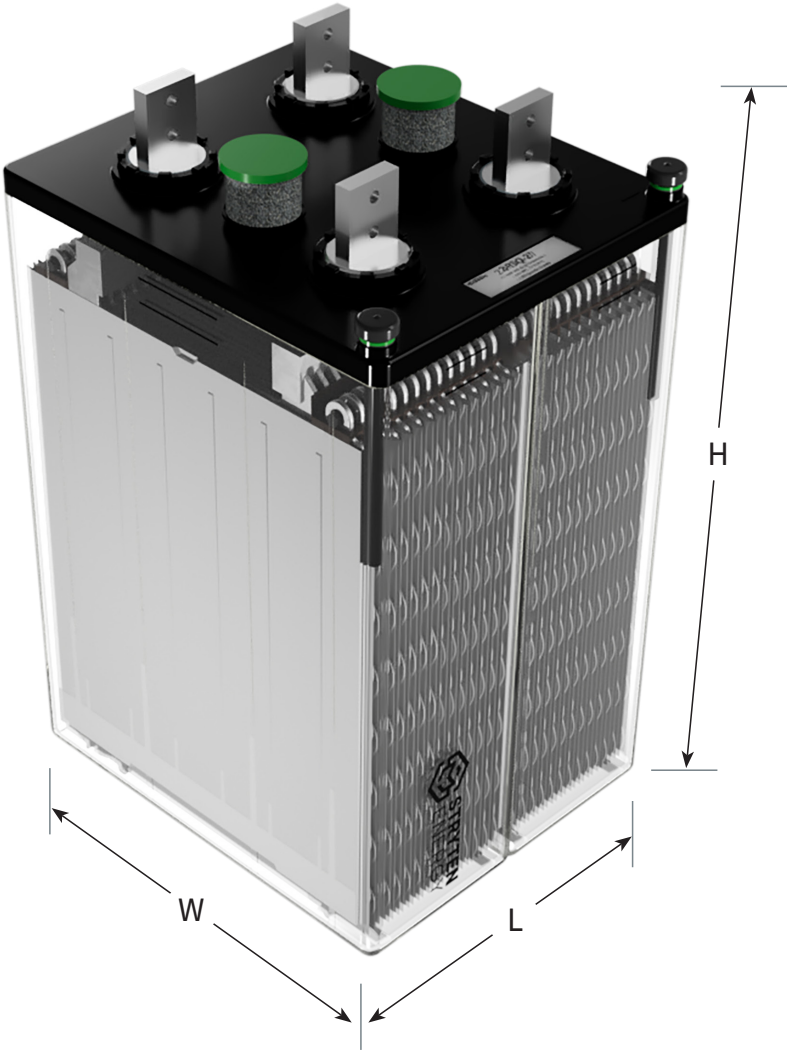

PLATE DIMENSIONS	HEIGHT	WIDTH	THICKNESS
Positive Plate	15.50 in 393.7 mm	12.75 in 317.5 mm	.175 in 5.00 mm
Negative Plate	15.50 in 393.7 mm	12.75 in 317.5 mm	.130 in 3.43 mm

WATTS PER CELL (1.250 SPECIFIC GRAVITY)
PDQ PERFORMANCE SPECIFICATIONS @ 25°C (77°F)

MODEL NUMBER	MINUTES													
	5	10	11	12	13	14	15	16	17	18	19	20	30	60
1.75 FINAL VPC														
PDQ-11	2113	1737	1706	1641	1597	1563	1515	1477	1430	1409	1370	1312	1110	767
PDQ-13	2451	2065	2027	1935	1896	1819	1790	1732	1699	1650	1597	1544	1288	878
PDQ-15	2818	2364	2345	2268	2229	2152	2118	2064	2016	1969	1920	1843	1523	979
PDQ-17	3088	2663	625	2548	2470	2422	2355	2319	2246	2220	2142	2075	1710	1066
PDQ-19	3455	2963	900	2823	2745	2683	2606	2560	2496	466	2369	2292	1888	1182
PDQ-21	3797	3271	3209	3122	3030	2967	2881	2830	2755	2726	2620	2528	2085	1308
PDQ-23	4154	3580	3508	3416	3320	3247	3151	3094	3014	2982	2866	2770	2282	1433
PDQ-25	4507	3884	3807	3706	3599	3522	3421	3359	3274	3238	3107	3006	2479	1554
PDQ-27	4859	4188	4106	3995	3884	3797	3686	3619	3528	3488	3353	3238	2671	1674
1.70 FINAL VPC														
PDQ-11	2364	1891	1838	1785	1732	1679	1626	1572	1519	1466	1413	1359	1121	791
PDQ-13	2745	2248	2184	2119	2054	1989	1924	1859	1795	1730	1665	1600	1297	902
PDQ-15	3156	2577	2510	2444	2377	2311	2244	2178	2111	2045	1978	1912	1539	1008
PDQ-17	3460	2905	2829	2754	2679	2604	2528	2453	2378	2302	2227	2152	1725	1100
PDQ-19	3788	3297	3199	3115	3033	2953	2870	2794	2720	2643	2574	2511	1976	1245
PDQ-21	4188	3647	3532	3443	3354	3261	3172	3088	3005	2922	2844	2775	2186	1375
PDQ-23	4584	3988	3870	3771	3669	3569	3470	3382	3290	3200	3114	3035	2395	1505
PDQ-25	4975	4329	4198	4089	3980	3872	3768	3667	3570	3474	3379	3294	2595	1631
PDQ-27	5361	4665	4526	4412	4291	4175	4062	3952	3846	3743	3644	3549	2799	1761
1.67 FINAL VPC														
PDQ-11	2417	2027	1988	1920	1877	1816	1780	1729	1682	1628	1561	1551	1226	809
PDQ-13	2808	2388	2321	2248	2220	2129	2094	2031	1985	1914	1870	1827	1440	935
PDQ-15	3199	2750	2663	2581	2552	2447	2413	2344	2278	2215	2145	2107	1659	1050
PDQ-17	3551	3093	2996	2914	2861	2770	2692	2637	2557	2492	2411	2364	1845	1156
PDQ-19	3947	3435	3315	3238	3160	3074	2982	2906	2831	2755	2681	2607	2041	1277
PDQ-21	4362	3797	3667	3575	3488	3396	3295	3213	3129	3041	2961	2883	2255	1411
PDQ-23	4777	4154	4019	3913	3821	3719	3604	3515	3427	3332	3241	3154	2465	1546
PDQ-25	5182	4507	4449	4251	4145	4037	3913	3818	3715	3614	3516	425	2679	1676
PDQ-27	5587	4859	4690	4579	4468	4350	4217	4116	4004	3896	3791	3691	2884	1806

WATTS PER CELL (1.250 SPECIFIC GRAVITY)
PDQ PERFORMANCE SPECIFICATIONS @ 25°C (77°F)

MODEL NUMBER	MINUTES													
	5	10	11	12	13	14	15	16	17	18	19	20	30	60
1.65 FINAL VPC														
PDQ-11	2461	2055	2002	1944	1896	1838	1796	1752	1707	1637	1599	1564	1225	823
PDQ-13	2866	2441	2359	2321	2263	2186	2136	2089	2029	1964	1927	1868	1460	866
PDQ-15	3295	2818	2736	2668	2581	2499	2443	2387	2341	2244	2202	2143	1668	1063
PDQ-17	3628	3098	3025	2958	2876	2794	2740	2661	2606	2514	2444	2395	1872	1160
PDQ-19	4029	3455	3353	3276	3180	3098	3037	2955	2870	2794	2719	2642	2061	1285
PDQ-21	4449	3817	3710	3619	3513	3426	3357	3263	3173	3088	3004	2923	2278	1420
PDQ-23	4868	4178	4058	3961	3846	3749	3674	3571	3471	3382	3288	3199	2491	1554
PDQ-25	5283	4536	4405	4299	4174	4067	3985	3874	3769	3667	3568	3469	2704	1684
PDQ-27	5698	4888	4748	4637	4497	438	4296	4177	4063	3952	3844	3740	2916	1814
1.63 FINAL VPC														
PDQ-11	2533	2094	2041	1978	1930	1872	1830	1786	1740	1665	1628	1587	1234	828
PDQ-13	2953	2490	2408	2364	2306	2229	2179	2127	2067	2002	1965	1887	1470	958
PDQ-15	3392	2876	2789	2721	2630	2548	2491	2397	2385	2287	2244	2162	1678	1068
PDQ-17	3735	3160	3069	2996	2909	2818	2768	2705	2630	2524	2472	2419	1886	1165
PDQ-19	4183	3551	3435	3397	3295	3180	3113	3051	2952	2832	2814	2799	2117	1299
PDQ-21	4622	3928	3797	3754	3643	3513	3444	3374	3260	3131	3113	3094	2339	1434
PDQ-23	5061	4299	4154	4106	3985	3846	3769	3691	3567	3425	3402	3389	2560	1574
PDQ-25	5491	4666	4507	4458	4328	4174	4090	4004	3870	3719	3696	3674	2778	1704
PDQ-27	5920	5028	4859	4806	4666	4497	4406	4317	4173	4009	3981	3959	2995	1838
1.60 FINAL VPC														
PDQ-11	2543	2152	2084	2027	1969	1916	1882	1821	1785	1732	1674	1598	1224	832
PDQ-13	2963	2504	2437	2379	2321	2253	2224	2139	2099	2046	1958	1875	1462	954
PDQ-15	3402	2890	2794	2760	2673	2596	2548	2477	2422	2345	2242	2158	1650	1072
PDQ-17	3778	3209	3107	3054	2977	2881	2808	2761	2688	2610	2531	2473	1852	1152
PDQ-19	4265	3619	3503	3464	3358	3242	3199	3113	3020	2938	2862	2783	2004	1293
PDQ-21	4709	4005	3870	3826	3715	3580	3537	3445	3334	3247	3164	3075	2313	1429
PDQ-23	5158	4381	4236	4188	4063	3918	3870	3768	3648	3551	3458	3366	2533	1570
PDQ-25	5597	4753	4593	4545	4410	4256	4203	4086	3961	3855	3756	3649	2748	1697
PDQ-27	6031	5124	4955	4897	4757	4584	4526	4404	4270	4154	4044	3931	2964	1834

WATTS PER CELL (1.215 SPECIFIC GRAVITY)
PDQ PERFORMANCE SPECIFICATIONS @ 25°C (77°F)

MODEL NUMBER	MINUTES													
	5	10	11	12	13	14	15	16	17	18	19	20	30	60
1.75 FINAL VPC														
PDQ-11	1911	1573	1544	1486	1448	1414	1370	1335	1294	1253	1240	1187	1003	695
PDQ-13	2214	1872	1834	1751	1718	1645	1621	1565	1534	1471	1448	1399	1166	796
PDQ-15	2546	2142	2123	2055	2017	1949	1916	1863	1821	1751	1737	1669	1378	888
PDQ-17	2792	2413	2374	2306	2239	2195	2133	2093	2032	1978	1940	1877	1546	965
PDQ-19	3114	2692	2639	2567	2495	2441	2369	2319	2262	2206	2152	2080	1714	1076
PDQ-21	3442	2972	2914	2837	2755	2697	2620	2564	2502	2439	2379	2302	1896	1192
PDQ-23	3769	3257	3189	3102	3016	2953	2866	2809	2737	2666	2606	2519	2074	1303
PDQ-25	4087	3532	3464	3368	3276	3204	3107	3049	2972	2894	2827	2731	2251	1414
PDQ-27	4409	3807	3730	3628	3527	3455	3353	3284	3202	3122	3045	2943	2424	1525
1.70 FINAL VPC														
PDQ-11	2143	1713	1664	1616	1568	1519	1471	1422	1374	1325	1277	1229	1013	714
PDQ-13	2480	2041	1981	1922	1862	1803	1743	1684	1624	1565	1505	1445	1175	820
PDQ-15	2851	2335	2275	2214	2153	2092	2031	1971	1910	1849	1788	1728	1389	912
PDQ-17	3130	2630	2561	2492	2423	2354	2285	2216	2147	2078	2009	1940	1561	994
PDQ-19	3438	2993	2905	2833	2749	2679	2606	2536	2467	2403	2339	2274	1798	1129
PDQ-21	3799	3304	3213	3127	3040	2958	2879	2801	2722	2652	2584	2514	1983	1250
PDQ-23	4161	3620	3517	3426	3327	3241	3153	3066	2983	2902	2825	2754	2174	1365
PDQ-25	4512	3927	3817	3715	3613	3515	3421	3326	3234	3152	3066	2990	2360	1486
PDQ-27	4864	4233	4111	4004	3895	3789	3685	3586	3489	3397	3307	3220	2541	1597
1.67 FINAL VPC														
PDQ-11	2183	1831	1800	1737	1697	1640	1609	1563	1519	1472	1412	1402	1106	731
PDQ-13	2540	2158	2099	2036	2005	1923	1893	1836	1793	1730	1692	1653	1302	846
PDQ-15	2892	2486	2413	2335	2309	2212	2182	2119	2056	2001	1938	1905	1497	947
PDQ-17	3210	2794	2712	2639	2589	2500	2433	2383	2306	2249	2180	2138	1664	1043
PDQ-19	3586	3117	3016	2943	2868	2789	2708	2637	2569	2497	2431	2366	1850	1159
PDQ-21	3962	3445	3329	3252	3172	3082	2992	2915	2838	2764	2687	2618	2045	1279
PDQ-23	4338	3772	3648	3561	3471	3376	3271	3193	3106	3021	2943	2865	2236	1380
PDQ-25	4704	4090	3957	3865	3765	3664	3551	3466	3370	3278	3194	3107	2426	1519
PDQ-27	5070	4413	4265	4164	4059	3948	3840	3735	3633	3536	3440	3350	2617	1640

WATTS PER CELL (1.215 SPECIFIC GRAVITY)
PDQ PERFORMANCE SPECIFICATIONS @ 25°C (77°F)

MODEL NUMBER	MINUTES													
	5	10	11	12	13	14	15	16	17	18	19	20	30	60
1.65 FINAL VPC														
PDQ-11	2221	1858	1814	1761	1718	1665	1620	1581	1541	1495	1444	1413	1107	744
PDQ-13	2592	2210	2137	2099	2046	1978	1930	1888	1834	1774	1737	1687	1319	859
PDQ-15	2978	2548	2475	2413	2335	2263	2207	2157	2117	2025	1988	1934	1508	960
PDQ-17	3282	2803	2736	2678	2601	2528	2475	2402	2352	2271	2206	2161	1688	1046
PDQ-19	3657	3141	3049	2977	2890	2818	2752	2681	2606	2536	2466	2398	1868	1162
PDQ-21	4038	3469	3373	3291	3194	3112	3043	2959	2880	2801	2722	2650	2066	1286
PDQ-23	4424	3797	3691	3604	3493	406	3330	3243	3154	3066	2982	2901	2260	1426
PDQ-25	4799	4121	4005	3908	3792	3696	3617	3517	3422	3326	3233	3147	2453	1526
PDQ-27	5170	4444	4318	4212	4087	3985	3899	3791	3686	3586	3488	3394	2647	1646
1.63 FINAL VPC														
PDQ-11	2236	1896	1853	1800	1751	1698	1653	1614	1574	1523	1472	1427	1116	749
PDQ-13	2670	2253	2181	2137	2084	2017	1968	1926	1867	1807	1770	1702	1328	864
PDQ-15	3065	2596	2523	2461	2379	2306	2250	2200	2155	2063	2026	1953	1517	965
PDQ-17	3378	2861	2789	2726	2644	2562	2508	2455	2386	2304	2244	2180	1697	1051
PDQ-19	3730	3160	3088	3016	2924	2837	2771	2714	2640	2536	2480	2451	1886	1171
PDQ-21	4120	3488	3411	3329	3233	3131	3063	3003	2918	2801	2745	2707	2084	1296
PDQ-23	4510	3821	3735	3648	3537	3431	3354	3286	3197	3066	3001	2963	2283	1416
PDQ-25	4891	4145	4053	3957	3841	3720	3641	3565	3466	3326	3257	3219	2476	1536
PDQ-27	5272	4468	4367	4265	4140	4010	3922	3843	3739	3586	3512	3465	2670	1656
1.60 FINAL VPC														
PDQ-11	2292	1949	1887	1834	1780	1732	1703	1650	1616	1568	1539	1468	1127	767
PDQ-13	2683	2268	2205	2152	2099	2041	2012	1940	1901	1853	1804	1723	1347	882
PDQ-15	3078	2615	2528	2499	2417	2350	2306	2244	2191	2123	2063	1986	1520	988
PDQ-17	3421	2905	2813	2765	2692	2606	2543	2504	2432	2364	2328	227	1707	1064
PDQ-19	3802	3228	3122	3088	2996	2890	2852	2779	2692	2620	2592	2523	1903	1175
PDQ-21	4203	3571	3450	3411	3310	3194	3151	3074	2972	2895	2867	2786	2100	1299
PDQ-23	4603	3908	3778	3735	3624	3493	3450	3363	3257	3170	3136	3050	2301	1424
PDQ-25	4994	4241	4096	4053	3932	3792	3744	3653	3532	3440	3405	3309	2497	1544
PDQ-27	5385	4569	4420	4367	4241	4087	4039	3937	3807	3706	3670	3568	2688	1664

E-SERIES | PDQ | FLOODED ESSENTIAL POWER

The Energy to Challenge

Stryten Energy helps solve the world's most pressing energy challenges with a broad range of energy storage solutions and components across the Essential Power, Motive Power, Transportation, Military and Government sectors. Headquartered in Alpharetta, Georgia, we partner with some of the world's most recognized companies to meet the growing demand for reliable and sustainable energy storage capacity. Stryten powers everything from submarines to subcompacts, microgrids, warehouses, distribution centers, cars, trains and trucks. Our stored energy technologies include advanced lead, lithium and vanadium redox flow batteries, intelligent chargers and energy performance management software that keep people on the move and supply chains running.

Learn more at ***www.stryten.com***

STRYTEN ENERGY