



Uninterruptible Power Supply

Battery Performance Specifications



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Power/Full Solutions

RESERVE
POWER

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Features and Benefits

- Capacity range 0.626 - 5.446 kW per cell
- Suitable for Uninterrupted Power Supply (UPS) and switchgear applications
- Multi-cell constructions
- Cover made from flame retardant PVC
- Container made from Styrene Acrylonitrile (SAN); optional flame retardant Polycarbonate (PC)

Construction

- Plate thickness: Positive 0.20 in (5.0 mm); Negative 0.12 in (3.1 mm)
- Plate suspension type: Positive Bridge hung; Negative Bottom supported
- Cover - Flame retardant PVC, UL94-VO/L.O.I. 28%
- Container - SAN or optional flame retardant PC
- Electrolyte over plates 2.88 in. (73.1mm)
- Sediment space 1.04 in. (26.4 mm)
- Long life Slide-Lock™ post seal design
- Specific gravity 1.215 standard; 1.250 (B) available upon request

Installation and Operation

- Float voltage settings (1.215) - Acceptable min/max 2.17/2.26 Vpc recommended average - 2.21 v/c @ 77°F (25°C); Float voltage settings (1.250): Acceptable min/max 2.21/2.30 Vpc recommended average = 2.25 v/c @ 77°F (25°C)
- Vent type - Flame Arrestor, Fused Alumina
- Bolt Connectors - 316 Stainless Steel, English measure, Hex-head
- Intercell connectors - Tin plated copper, optional lead plated copper

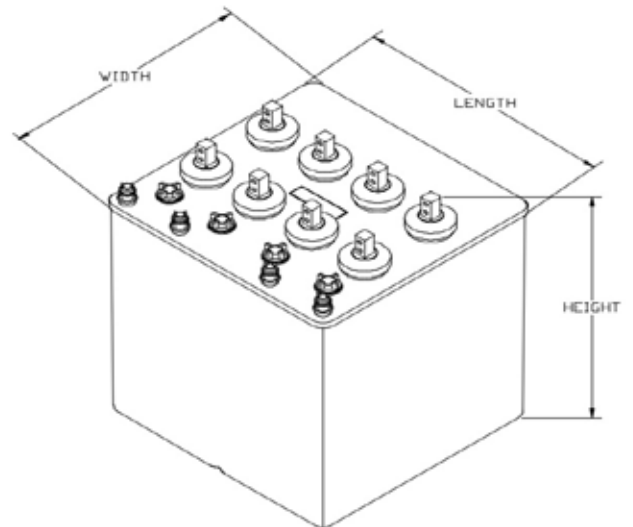
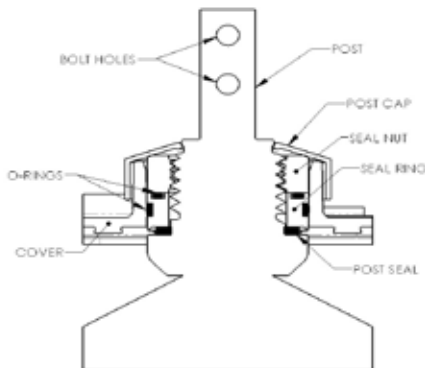
Standards

- The management systems governing the manufacture of this product are ISO 9001:2008 and ISO 14001:2004 certified
- Available testing to IEEE 450 standards as well as customer specific applications

General Specifications

Battery Type	# of Cells	Nominal Voltage	Watts/ Cell				Nominal Dimensions			Weights and Volumes										
			15 min. rate to 1.67Vpc @ 77° (25°C) (1.215 S.G.)	15 min. rate to 1.67Vpc @ 77° (25°C) (1.250 S.G.)	8 hr. rate to 1.75Vpc @ 77° (25°C) (1.215 S.G.)	8 hr. rate to 1.75Vpc @ 77° (25°C) (1.250 S.G.)	Length* in	mm	Width in	mm	Height in	mm	Unpacked Weight lb	kg	Packed Weight lbs	kg	Electrolyte Only (1.215 S.G.)			
																lbs	kg	gal	lit	
4DX-5	4	8	626	702	265	300	9.5	241	16.0	406	22.0	558	256	116	263	119	76.2	34.6	7.5	28.4
4DX-7	4	8	937	1034	360	400	9.5	241	16.0	406	22.0	558	303	137	312	141	68.1	30.9	6.7	25.4
4DX-9	4	8	1212	1353	415	465	9.5	241	16.0	406	22.0	558	353	160	363	152	61.0	27.7	6.0	22.7
4DX-11	4	8	1527	1732	650	730	16.7	424	16.0	406	22.6	576	507	230	522	237	142.0	64.5	14.0	53.0
4DX-13	4	8	1838	2035	715	800	16.7	424	16.0	406	22.6	576	557	253	573	260	132.0	59.0	13.0	49.2
4DX-15	4	8	2121	2334	790	865	16.7	424	16.0	406	22.6	576	606	275	624	283	127.0	57.6	12.5	47.3
4DX-17	4	8	2381	2639	820	915	16.7	424	16.0	406	22.6	576	656	298	675	306	120.0	54.4	11.8	44.7
4DX-19	4	8	2635	2920	990	1105	20.2	513	16.0	406	22.6	576	781	354	800	363	138.0	62.7	13.6	51.5
4DX-21	4	8	3003	3290	1050	1180	20.2	513	16.0	406	22.6	576	830	376	849	385	131.0	59.5	12.9	48.8
2DX-23	2	4	3235	3577	1175	1325	12.1	308	16.0	406	22.6	576	473	215	489	222	87.4	39.6	8.6	32.6
2DX-25	2	4	3501	3852	1225	1375	12.1	308	16.0	406	22.6	576	499	227	515	234	83.4	37.8	8.2	31.0
2DX-27	2	4	3896	4283	1530	1715	16.7	424	16.0	406	22.6	576	587	266	604	274	139.0	63.2	13.7	51.9
2DX-29	2	4	4162	4584	1580	1785	16.7	424	16.0	406	22.6	576	613	278	632	287	135.0	61.3	13.3	50.3
2DX-31	2	4	4417	4873	1610	1835	16.7	424	16.0	406	22.6	576	638	290	657	298	131.0	59.5	12.9	48.8
2DX-33	2	4	4672	5164	1640	1880	16.7	424	16.0	406	22.6	576	663	301	682	310	127.0	57.6	12.5	47.3
2DX-35	2	4	4920	5448	1660	1915	16.7	424	16.0	406	22.6	576	680	309	700	318	123.0	55.8	12.1	45.8

* 0.25 inches must be added between units for spacing purposes when calculating total battery length.





Constant Power Discharge Performance Data Continued

1.250 Specific Gravity Discharge Rates (kW per cell*) to 1.63Vpc at 77°F (25°C)**

Battery Type	Minutes																			
	5	10	11	12	13	14	15	16	17	18	19	20	25	30	45	60	90	120	180	240
DX-05B	1.125	0.875	0.840	0.806	0.776	0.748	0.721	0.697	0.675	0.655	0.635	0.617	0.543	0.486	0.375	0.311	0.237	0.196	0.147	0.121
DX-07B	1.623	1.286	1.235	1.188	1.144	1.103	1.065	1.030	0.997	0.966	0.937	0.909	0.797	0.711	0.543	0.445	0.335	0.274	0.203	0.165
DX-09B	2.085	1.680	1.616	1.556	1.500	1.447	1.398	1.351	1.307	1.266	1.227	1.191	1.040	0.924	0.696	0.565	0.419	0.338	0.246	0.198
DX-11B	2.585	2.109	2.035	1.965	1.902	1.842	1.785	1.732	1.683	1.636	1.592	1.550	1.376	1.238	0.961	0.795	0.603	0.494	0.367	0.298
DX-13B	3.030	2.483	2.396	2.315	2.238	2.167	2.100	2.037	1.978	1.922	1.870	1.820	1.610	1.445	1.113	0.915	0.688	0.560	0.412	0.333
DX-15B	3.465	2.851	2.751	2.658	2.570	2.487	2.409	2.337	2.268	2.203	2.142	2.085	1.839	1.647	1.260	1.031	0.769	0.623	0.454	0.364
DX-17B	3.900	3.213	3.101	2.997	2.899	2.806	2.720	2.638	2.561	2.487	2.418	2.353	2.075	1.856	1.414	1.153	0.855	0.688	0.498	0.396
DX-19B	4.333	3.541	3.417	3.301	3.194	3.092	2.995	2.907	2.822	2.742	2.666	2.594	2.290	2.053	1.583	1.302	0.978	0.794	0.582	0.468
DX-21B	4.915	4.020	3.878	3.745	3.619	3.501	3.390	3.287	3.191	3.098	3.012	2.930	2.585	2.315	1.771	1.448	1.078	0.870	0.633	0.505
DX-23B	5.310	4.368	4.216	4.072	3.937	3.810	3.691	3.580	3.475	3.376	3.282	3.194	2.818	2.523	1.931	1.580	1.179	0.954	0.696	0.558
DX-25B	5.574	4.665	4.516	4.376	4.243	4.119	4.001	3.885	3.778	3.675	3.577	3.485	3.085	2.766	2.112	1.720	1.274	1.026	0.743	0.589
DX-27B	6.395	5.244	5.064	4.897	4.738	4.590	4.448	4.316	4.191	4.074	3.963	3.855	3.409	3.054	2.343	1.920	1.442	1.178	0.870	0.708
DX-29B	6.830	5.609	5.417	5.239	5.069	4.911	4.760	4.619	4.485	4.360	4.241	4.126	3.647	3.266	2.500	2.044	1.530	1.246	0.917	0.743
DX-31B	7.242	5.960	5.756	5.568	5.387	5.220	5.061	4.911	4.769	4.635	4.510	4.387	3.874	3.468	2.648	2.160	1.610	1.305	0.955	0.770
DX-33B	7.656	6.312	6.096	5.897	5.707	5.530	5.362	5.203	5.053	4.912	4.779	4.648	4.103	3.670	2.797	2.276	1.690	1.365	0.994	0.798
DX-35B	8.059	6.655	6.429	6.220	6.020	5.834	5.658	5.490	5.331	5.182	5.042	4.905	4.326	3.868	2.941	2.388	1.765	1.420	1.029	0.822

1.250 Specific Gravity Discharge Rates (kW per cell*) to 1.60Vpc at 77°F (25°C)**

Battery Type	Minutes																			
	5	10	11	12	13	14	15	16	17	18	19	20	25	30	45	60	90	120	180	240
DX-05B	1.165	0.895	0.857	0.821	0.789	0.759	0.731	0.706	0.683	0.661	0.641	0.622	0.545	0.486	0.375	0.311	0.237	0.196	0.147	0.121
DX-07B	1.680	1.317	1.262	1.212	1.165	1.122	1.081	1.044	1.009	0.977	0.947	0.918	0.801	0.711	0.543	0.445	0.335	0.274	0.203	0.165
DX-09B	2.160	1.723	1.653	1.589	1.529	1.473	1.420	1.371	1.325	1.282	1.242	1.204	1.046	0.924	0.696	0.565	0.419	0.338	0.246	0.198
DX-11B	2.672	2.157	2.078	2.005	1.935	1.871	1.810	1.754	1.702	1.654	1.608	1.564	1.383	1.240	0.961	0.795	0.603	0.494	0.367	0.298
DX-13B	3.138	2.544	2.450	2.363	2.281	2.204	2.132	2.065	2.002	1.944	1.889	1.837	1.619	1.447	1.113	0.915	0.688	0.560	0.412	0.333
DX-15B	3.596	2.925	2.817	2.715	2.621	2.532	2.448	2.371	2.298	2.230	2.165	2.104	1.850	1.649	1.260	1.031	0.769	0.623	0.454	0.364
DX-17B	4.034	3.290	3.170	3.058	2.953	2.854	2.760	2.673	2.592	2.516	2.443	2.374	2.084	1.856	1.414	1.153	0.855	0.688	0.498	0.396
DX-19B	4.477	3.613	3.480	3.357	3.241	3.132	3.030	2.933	2.843	2.760	2.680	2.606	2.294	2.053	1.583	1.302	0.978	0.794	0.582	0.468
DX-21B	5.087	4.117	3.964	3.820	3.685	3.560	3.441	3.332	3.230	3.134	3.044	2.958	2.600	2.319	1.771	1.448	1.078	0.870	0.633	0.505
DX-23B	5.510	4.482	4.315	4.160	4.016	3.879	3.750	3.632	3.521	3.417	3.318	3.224	2.834	2.526	1.931	1.580	1.179	0.954	0.696	0.558
DX-25B	5.775	4.802	4.640	4.489	4.345	4.209	4.081	3.959	3.844	3.734	3.631	3.532	3.112	2.776	2.112	1.720	1.274	1.026	0.743	0.589
DX-27B	6.624	5.399	5.206	5.025	4.853	4.692	4.543	4.403	4.269	4.144	4.025	3.913	3.442	3.072	2.343	1.920	1.442	1.178	0.870	0.708
DX-29B	7.075	5.775	5.569	5.375	5.192	5.021	4.861	4.712	4.569	4.435	4.307	4.188	3.682	3.285	2.500	2.044	1.530	1.246	0.917	0.743
DX-31B	7.505	6.136	5.917	5.713	5.519	5.337	5.168	5.010	4.858	4.715	4.579	4.452	3.912	3.488	2.648	2.160	1.610	1.305	0.955	0.770
DX-33B	7.936	6.497	6.266	6.051	5.847	5.655	5.475	5.308	5.147	4.996	4.852	4.717	4.143	3.692	2.797	2.276	1.690	1.365	0.994	0.798
DX-35B	8.354	6.851	6.607	6.381	6.168	5.966	5.777	5.600	5.431	5.272	5.119	4.977	4.369	3.891	2.941	2.388	1.765	1.420	1.029	0.822

*kW values listed represent 100% of the initial capacity.

** At 77°F (25°C) includes intercell connector drop.

Constant Power Discharge Performance Data Continued

1.215 Specific Gravity Discharge Rates (kW per cell*) to 1.63Vpc at 77°F (25°C)**

Battery Type	Minutes																			
	5	10	11	12	13	14	15	16	17	18	19	20	25	30	45	60	90	120	180	240
DX-05	0.933	0.766	0.739	0.713	0.689	0.666	0.645	0.625	0.606	0.588	0.571	0.555	0.488	0.435	0.332	0.273	0.209	0.172	0.129	0.106
DX-07	1.386	1.145	1.105	1.068	1.032	0.998	0.967	0.937	0.909	0.883	0.858	0.834	0.731	0.650	0.495	0.405	0.303	0.247	0.182	0.148
DX-09	1.767	1.465	1.416	1.370	1.327	1.286	1.247	1.209	1.173	1.138	1.106	1.075	0.941	0.834	0.630	0.512	0.376	0.304	0.222	0.178
DX-11	2.274	1.870	1.803	1.741	1.681	1.626	1.574	1.525	1.480	1.436	1.395	1.356	1.194	1.065	0.812	0.670	0.515	0.426	0.319	0.262
DX-13	2.735	2.251	2.171	2.097	2.026	1.960	1.899	1.842	1.787	1.735	1.686	1.639	1.443	1.290	0.984	0.806	0.603	0.492	0.362	0.294
DX-15	3.162	2.599	2.506	2.419	2.336	2.259	2.187	2.119	2.055	1.994	1.937	1.882	1.655	1.475	1.122	0.916	0.684	0.556	0.408	0.330
DX-17	3.560	2.922	2.817	2.718	2.625	2.537	2.454	2.377	2.305	2.236	2.171	2.109	1.851	1.647	1.245	1.011	0.749	0.603	0.438	0.350
DX-19	3.983	3.247	3.129	3.016	2.910	2.812	2.722	2.637	2.557	2.483	2.412	2.345	2.069	1.851	1.419	1.161	0.867	0.703	0.514	0.413
DX-21	4.521	3.703	3.571	3.449	3.334	3.226	3.126	3.029	2.939	2.854	2.774	2.697	2.375	2.121	1.614	1.310	0.967	0.776	0.561	0.447
DX-23	4.945	4.008	3.858	3.720	3.589	3.466	3.353	3.247	3.147	3.053	2.963	2.879	2.529	2.256	1.713	1.396	1.038	0.840	0.612	0.492
DX-25	5.360	4.341	4.178	4.028	3.886	3.752	3.628	3.513	3.404	3.302	3.205	3.113	2.732	2.435	1.845	1.499	1.110	0.895	0.650	0.520
DX-27	5.931	4.817	4.639	4.474	4.318	4.172	4.037	3.911	3.792	3.680	3.574	3.473	3.058	2.732	2.087	1.710	1.283	1.046	0.771	0.626
DX-29	6.348	5.151	4.960	4.783	4.615	4.458	4.314	4.178	4.051	3.930	3.816	3.708	3.262	2.912	2.220	1.814	1.356	1.102	0.809	0.654
DX-31	6.749	5.471	5.267	5.078	4.900	4.732	4.578	4.433	4.296	4.168	4.046	3.931	3.454	3.081	2.341	1.908	1.419	1.149	0.839	0.675
DX-33	7.152	5.792	5.576	5.375	5.185	5.007	4.842	4.688	4.543	4.407	4.277	4.155	3.647	3.251	2.463	2.003	1.483	1.196	0.869	0.695
DX-35	7.546	6.106	5.877	5.663	5.464	5.274	5.099	4.937	4.783	4.638	4.502	4.372	3.834	3.414	2.579	2.092	1.542	1.239	0.894	0.712

1.215 Specific Gravity Discharge Rates (kW per cell*) to 1.60Vpc at 77°F (25°C)**

Battery Type	Minutes																			
	5	10	11	12	13	14	15	16	17	18	19	20	25	30	45	60	90	120	180	240
DX-05	0.965	0.786	0.756	0.728	0.702	0.677	0.654	0.633	0.613	0.594	0.577	0.560	0.489	0.435	0.332	0.273	0.209	0.172	0.129	0.106
DX-07	1.434	1.175	1.132	1.091	1.053	1.017	0.983	0.951	0.921	0.894	0.867	0.842	0.735	0.650	0.495	0.405	0.303	0.247	0.182	0.148
DX-09	1.828	1.498	1.445	1.395	1.349	1.305	1.264	1.224	1.186	1.151	1.116	1.084	0.943	0.834	0.630	0.512	0.376	0.304	0.222	0.178
DX-11	2.354	1.919	1.846	1.778	1.714	1.655	1.599	1.546	1.498	1.453	1.410	1.369	1.197	1.065	0.812	0.670	0.515	0.426	0.319	0.262
DX-13	2.834	2.313	2.226	2.145	2.069	1.998	1.931	1.869	1.811	1.757	1.705	1.657	1.451	1.290	0.984	0.806	0.603	0.492	0.362	0.294
DX-15	3.273	2.667	2.565	2.471	2.382	2.299	2.221	2.148	2.080	2.017	1.957	1.900	1.661	1.475	1.122	0.916	0.684	0.556	0.408	0.330
DX-17	3.683	2.997	2.882	2.775	2.676	2.582	2.493	2.410	2.334	2.262	2.194	2.129	1.857	1.647	1.245	1.011	0.749	0.603	0.438	0.350
DX-19	4.138	3.331	3.201	3.080	2.967	2.862	2.765	2.675	2.592	2.514	2.440	2.371	2.082	1.858	1.419	1.161	0.867	0.703	0.514	0.413
DX-21	4.706	3.817	3.674	3.541	3.416	3.301	3.191	3.088	2.992	2.902	2.817	2.737	2.399	2.136	1.614	1.310	0.967	0.776	0.561	0.447
DX-23	5.141	4.124	3.960	3.809	3.669	3.538	3.416	3.301	3.196	3.096	3.003	2.914	2.548	2.261	1.713	1.396	1.038	0.840	0.612	0.492
DX-25	5.572	4.466	4.289	4.124	3.972	3.829	3.697	3.572	3.458	3.349	3.248	3.152	2.753	2.440	1.845	1.499	1.110	0.895	0.650	0.520
DX-27	6.170	4.957	4.762	4.581	4.415	4.259	4.112	3.975	3.850	3.732	3.620	3.515	3.080	2.738	2.087	1.710	1.283	1.046	0.771	0.626
DX-29	6.602	5.300	5.091	4.898	4.719	4.552	4.394	4.247	4.113	3.986	3.866	3.754	3.286	2.919	2.220	1.814	1.356	1.102	0.809	0.654
DX-31	7.018	5.629	5.407	5.200	5.009	4.831	4.663	4.507	4.363	4.227	4.100	3.980	3.480	3.088	2.341	1.908	1.419	1.149	0.839	0.675
DX-33	7.435	5.959	5.723	5.503	5.300	5.110	4.933	4.767	4.614	4.469	4.334	4.206	3.675	3.258	2.463	2.003	1.483	1.196	0.869	0.695
DX-35	7.844	6.281	6.031	5.799	5.584	5.383	5.196	5.020	4.858	4.705	4.562	4.427	3.864	3.421	2.579	2.092	1.542	1.239	0.894	0.712

*kW values listed represent 100% of the initial capacity.

** At 77°F (25° C) includes intercell connector drop.

