

High Temperature Battery Series
Modular plus MAX Range VRLA
Unique performance against high temperature



Premium quality for uninterruptible application
20 years of design life



How our High Temperature battery (HTB) solution is the best?

Excellent high temperature performance

EverExceed Modular Plus MAX batteries are special designed for application that have high-temperature environment above 35°C. Modular Plus MAX batteries use five advanced key technologies to ensure it excellent performance in high temperature: Advanced Corrosion-resistant battery plate alloy technology; Anti-high-temperature casing materials technology; Special lead paste formula and plate formation technology; Unique hydrogen & oxygen composite technology; Advanced battery structure design;

Applicable Operating temperature range:

-40°C (-40°F) to + 80°C (+176°F)

Ideal Operating temperature range:

+15°C (+59°F) to + 35°C (+95°F)

Storage time from a fully charged condition:

12 months at 20°C~25°C / 68°F~77°F.

for each 9°C / 15°F rise, reduce the storage time by half.

Modular Plus Max Range VRLA



200-3000Ah

Applications

Modular Plus MAX range batteries incorporate EverExceed advanced VRLA technology designed for long life and high performance in:

- Uninterruptible Power Supply (UPS)
- Switchgear
- Emergency lighting
- Standby Power supply
- Telecom
- Navigation Aids
- Photovoltaic/ Solar

Innovative Features

- Thick optimized positive plate design for maximum service life - 20 years @ 35°C(95°F),
- Nano-Carbon enhanced for improved durability.
- Advanced Corrosion-resistant lead high-tin (1.5%) low-calcium alloy;
- Double floating life more than traditional VRLA battery@35°C;
- High-Compression Absorbed Glass Mat technology (AGM) for greater than 99% recombination efficiency. Using special AGM only for extreme high temperature applications.
- Advanced triple stage unique terminal sealing design to ensure leak free operation, one-way relief valve, Explosion Resistant;
- Advanced deep cycle high tin lead alloy, reduces grid corrosion and promotes long battery life.
- Heavy duty M6/M8 Female copper plated terminals provide maximum performance and easy installation, reduce maintenance and increase safety;
- Less than 1 year payback period depend on environment;
- Anti-high-temperature casing materials:
 - Standard: Reinforced anti-high-temperature ABS container and cover;
 - Optional: Flame-retardant U.L.94 V-0;
- Up to 100% air conditioner maintenance saving;

Designed in Quality Manufacturing

Quality manufacturing processes for the Modular Plus MAX Range batteries incorporate the industry most advanced technologies including: an automated sealing detection system, a computer controlled "fill by weight" acid filler, and a temperature controlled water bath formation process. Each and every unit is capacity tested.

No transport restrictions

Surface transport: Classified as non-hazardous material as related to DOT-CFR Title 49 parts 171-189.

Marine transport: Classified as non-hazardous material as per IMDG amendment 27.

Air transport: Complies with IATA/ICAO, Special provision A67.

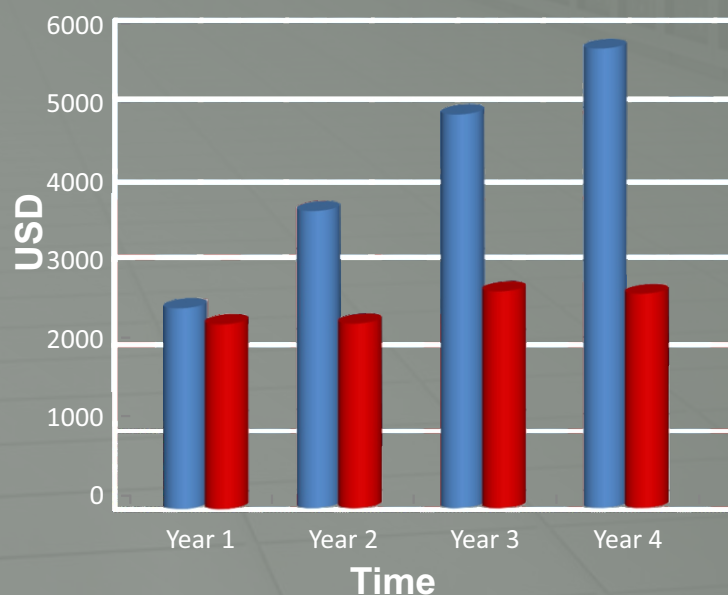
Compliant Standards

- o IEC 60896-21/22-2004
- o JISC 8704-2
- o BS 6290 PART 4
- o IEC 61427
- o YD/T 2657

Why choose our High Temperature **Modular Plus Max Range** battery over regular Lead-acid Battery?

Item		Max Range battery	Regular VRLA battery
Technologies		AGM	AGM
Expected Service Life (35°C)		20 Years	6 Years
Operating temperature		-40°C to 80°C	-40°C to 55°C
Fast charge performance		◆◆◆	◆◆
PSOC performance		◆◆◆	◆
Water loss performance		◆◆◆	◆◆
Avoid thermal runaway		◆◆◆	◆◆
Cycle life	>80% DOD	◆◆	◆
	<80% DOD	◆◆◆	◆◆
Float life		◆◆◆	◆◆

Cost comparison between our High Temperature **Max Range** battery over regular Lead-acid Battery



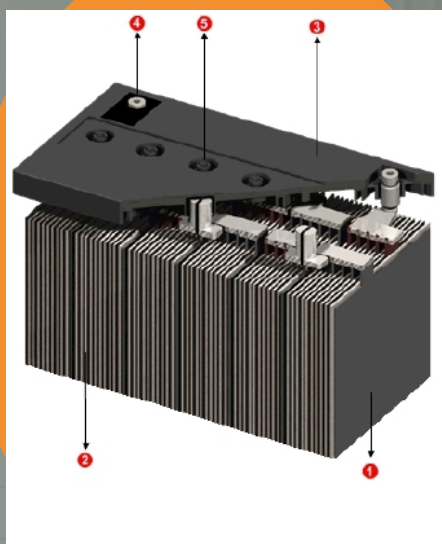
■ 2KW Outdoor site with AC cabinet in Spain with traditional VRLA battery

■ 2KW Outdoor site in Spain with EverExceed Max VRLA battery

Initially the CAPEX of **HTB** series batteries are little higher than the regular VRLA Batteries, but user need to invest on additional air-condition system for the regular VRLA batteries to keep the site temperature as standard. Whereas our **HTB** series batteries only need a ventilation system with a fan which is a very low investment in compare to the air-condition system. Also the additional monthly cost of electricity adds up with the total cost of lead acid battery which is very high compare to the electricity cost for a ventilation fan.

Electrical Specifications & Dimensions

Battery Model	Nom. Voltage (V)	Capacity C10 to 1.80VPC (Ah)	Short Circuit (A)	Internal Resistance Milli-ohms	No. of Term.	Max. Charge Current (A)	Terminal Type	Battery Weight (kg / lb)	Outline Dimensions (mm / inch)			
									Length	Width	Height	Total Height
MP 2-200 Max	2	200	1620	0.70	2	30	F-M8	13.5 / 29.7	171 / 6.74	111 / 4.18	330 / 13.0	365 / 14.4
MP 2-300 Max	2	300	2410	0.60	2	45	F-M8	18.6 / 40.9	171 / 6.74	151 / 5.95	330 / 13.0	365 / 14.4
MP 2-400 Max	2	400	3220	0.53	4	60	F-M8	26.5 / 58.3	210 / 8.27	173 / 6.82	330 / 13.0	365 / 14.4
MP 2-500 Max	2	500	4100	0.42	4	75	F-M8	31 / 68.2	241 / 9.50	171 / 6.74	330 / 13.0	365 / 14.4
MP 2-600 Max	2	600	4860	0.39	4	90	F-M8	38 / 83.6	302 / 11.9	175 / 6.90	330 / 13.0	365 / 14.4
MP 2-800 Max	2	800	6400	0.37	8	120	F-M8	53 / 116	410 / 16.2	175 / 6.90	330 / 13.0	365 / 14.4
MP 2-1000 Max	2	1000	7900	0.36	8	150	F-M8	63 / 138	475 / 19.0	175 / 6.90	330 / 13.0	365 / 14.4
MP 2-1200 Max	2	1200	9900	0.34	8	180	F-M8	66 / 145	475 / 19.0	175 / 6.90	330 / 13.0	365 / 14.4
MP 2-1500 Max	2	1500	11950	0.30	8	225	F-M8	100 / 220	400 / 15.8	350 / 13.8	345 / 13.6	383 / 15.1
MP 2-2000 Max	2	2000	16200	0.22	16	300	F-M8	128 / 281	490 / 19.3	350 / 13.8	345 / 13.6	383 / 15.1
MP 2-2500 Max	2	2500	20250	0.20	16	375	F-M8	135 / 297	490 / 19.3	350 / 13.8	345 / 13.6	383 / 15.1
MP 2-3000 Max	2	3000	24300	0.18	16	450	F-M8	189 / 416	710 / 28.0	350 / 13.8	345 / 13.6	383 / 15.1



- Plates: High Tin Pb alloy, optimized for high corrosion resistance and deep cycle use.
- Separator: Highly porous glass micro-fibre separator, optimized for low internal resistance, for maximum Absorption of the electrolyte and for electrical separation.
- Standard housing: Reinforced special high temperature resistant ABS container and cover adopted.
- Terminals: Silver plated Copper female insert for easy and safe assembly and maintenance free connection with excellent conductivity.
- Valves: Release gas in case of excess pressure and protects the cell against atmosphere.

ModularPlus Max Range Cell Discharge Ampere Data @ 25°C

Battery Model	End VPC	Discharge Data Amps @ 25°C				End VPC	Discharge Data Amps @ 25°C									
		Discharge Time In Minutes					Discharge Time In Hours									
		15	30	45	60		1.5	2	3	4	5	6	8	10	12	24
MP 2-200 Max	1.8	244	188	148	122	1.85	81.9	68.0	50.4	39.2	32.5	28.4	22.9	18.9	16.2	8.77
	1.75	277	200	157	130	1.8	86.7	72.0	53.3	41.5	34.4	30.0	24.3	20.0	17.0	9.28
	1.67	308	207	161	132	1.75	90.6	75.2	55.7	43.4	35.9	31.4	25.3	21.0	17.8	9.70
MP 2-300 Max	1.8	366	283	222	183	1.85	123	102	75.5	58.7	48.8	42.5	34.3	28.3	24.1	13.1
	1.75	415	299	235	194	1.8	130	108	80.0	62.3	51.6	45.0	36.4	30.0	25.5	14.0
	1.67	461	310	241	198	1.75	136	113	83.5	64.9	53.8	47.0	38.0	31.3	26.6	14.5
MP 2-400 Max	1.8	488	376	295	244	1.85	163	136	101	78.2	64.8	56.6	45.7	37.7	32.0	17.5
	1.75	553	398	313	259	1.8	173	144	107	83.0	68.8	60.0	48.5	40.0	34.0	18.6
	1.67	615	412	321	263	1.75	181	150	111	86.5	71.7	62.6	50.6	42.0	35.4	19.4
MP 2-500 Max	1.8	610	470	370	305	1.85	205	170	126	98.0	81.2	70.8	57.2	47.2	40.1	22.0
	1.75	693	498	392	324	1.8	217	180	133	104	86.0	75.0	60.6	50.0	42.5	23.3
	1.67	770	516	401	329	1.75	226	189	139	108	89.8	78.3	63.3	52.2	44.4	24.2
MP 2-600 Max	1.8	732	564	443	366	1.85	245	204	151	117	97.4	84.9	68.6	56.6	48.1	26.3
	1.75	831	598	470	388	1.8	260	216	160	125	103	90.0	72.8	60.0	51.0	28.0
	1.67	923	619	481	395	1.75	271	225	167	130	108	93.9	75.9	62.6	53.2	29.1
MP 2-800 Max	1.8	976	752	590	488	1.85	327	272	201	157	130	113	91.5	75.5	64.2	35.0
	1.75	1108	797	626	518	1.8	347	288	213	166	138	120	97.0	80.0	68.0	37.1
	1.67	1231	826	642	526	1.75	362	301	223	173	144	125	101	83.5	71.0	38.8
MP 2-1000 Max	1.8	1220	939	738	610	1.85	409	339	251	196	162	141	114	94.3	80.2	43.8
	1.75	1384	996	782	647	1.8	433	360	267	208	172	150	121	100	85.0	46.4
	1.67	1538	1032	802	657	1.75	452	375	278	216	179	156	126	104	88.7	48.5
MP 2-1200 Max	1.8	1464	1126	886	732	1.85	491	407	301	235	194	169	137	113	96.2	52.6
	1.75	1661	1195	938	776	1.8	520	432	320	250	206	180	145	120	102.0	55.7
	1.67	1846	1238	962	788	1.75	542	450	334	259	215	187	151	125	106.4	58.2
MP 2-1500 Max	1.8	1830	1409	1107	915	1.85	613	509	377	294	243	212	172	142	121	65.7
	1.75	2072	1491	1172	968	1.8	650	540	400	311	258	225	182	150	128	69.6
	1.67	2303	1545	1201	984	1.75	677	562	417	326	269	234	189	156	133	72.5
MP 2-2000 Max	1.8	2440	1879	1476	1220	1.85	818	679	503	393	325	283	229	189	161	88.0
	1.75	2769	1993	1566	1294	1.8	867	720	533	415	344	300	243	200	170	92.8
	1.67	3077	2064	1604	1315	1.75	904	751	557	433	359	313	253	209	177	96.9
MP 2-2500 Max	1.8	3050	2348	1845	1525	1.85	1023	849	629	491	406	354	286	236	201	110
	1.75	3461	2491	1958	1618	1.8	1084	900	666	519	430	375	304	250	213	116
	1.67	3846	2580	2005	1644	1.75	1130	939	696	541	449	391	316	261	221	121
MP 2-3000 Max	1.8	3050	2348	1845	1525	1.85	1227	1019	755	590	488	425	344	284	242	132
	1.75	3461	2491	1958	1618	1.8	1301	1080	800	623	516	450	365	300	255	139
	1.67	3846	2580	2005	1644	1.75	1356	1127	836	650	539	470	380	314	266	145

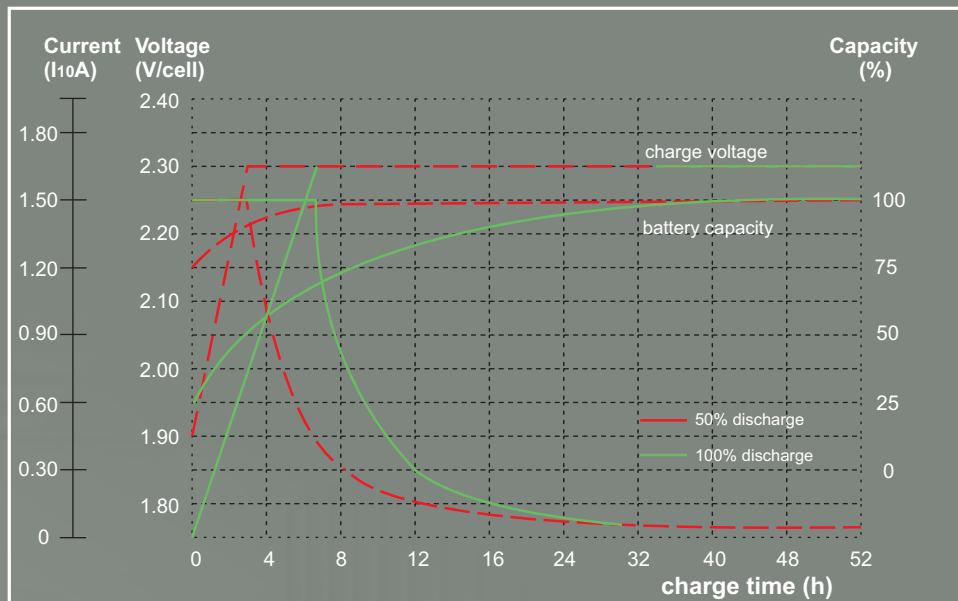
ModularPlus Max Range Cell Discharge Ampere Hours Data @ 25°C

Battery Model	End VPC	Discharge Data Amps @ 25°C				End VPC	Discharge Data Ampere Hours @ 25°C									
		Discharge Time In Minutes					Discharge Time In Hours									
		15	30	45	60		1.5	2	3	4	5	6	8	10	12	24
MP 2-200 Max	1.8	244	188	148	122	1.85	123	136	151	157	163	170	183	189	194	210
	1.75	277	200	157	130	1.8	130	144	160	166	172	180	194	200	204	223
	1.67	308	207	161	132	1.75	136	150	167	174	180	188	202	210	214	233
MP 2-300 Max	1.8	366	283	222	183	1.85	185	204	227	235	244	255	274	283	289	314
	1.75	415	299	235	194	1.8	195	216	240	249	258	270	291	300	306	336
	1.67	461	310	241	198	1.75	204	226	251	260	269	282	304	313	319	348
MP 2-400 Max	1.8	488	376	295	244	1.85	245	272	303	313	324	339	366	377	384	420
	1.75	553	398	313	259	1.8	260	288	321	332	344	360	388	400	408	446
	1.67	615	412	321	263	1.75	272	300	333	346	359	375	405	420	425	466
MP 2-500 Max	1.8	610	470	370	305	1.85	308	340	378	392	406	425	458	472	481	528
	1.75	693	498	392	324	1.8	326	360	399	416	430	450	485	500	510	559
	1.67	770	516	401	329	1.75	339	378	417	432	449	470	506	522	533	581
MP 2-600 Max	1.8	732	564	443	366	1.85	368	408	453	468	487	509	549	566	577	631
	1.75	831	598	470	388	1.8	390	432	480	500	515	540	582	600	612	672
	1.67	923	619	481	395	1.75	407	450	501	520	540	563	607	626	638	698
MP 2-800 Max	1.8	976	752	590	488	1.85	491	544	603	628	650	680	732	755	770	840
	1.75	1108	797	626	518	1.8	521	576	639	664	690	720	776	800	816	890
	1.67	1231	826	642	526	1.75	543	602	669	692	720	752	810	835	852	931
MP 2-1000 Max	1.8	1220	939	738	610	1.85	614	679	754	784	811	850	915	943	962	1051
	1.75	1384	996	782	647	1.8	650	720	801	832	860	900	970	1000	1020	1114
	1.67	1538	1032	802	657	1.75	678	751	834	866	897	940	1012	1040	1064	1164
MP 2-1200 Max	1.8	1464	1127	886	732	1.85	737	815	905	941	973	1020	1098	1132	1154	1261
	1.75	1661	1195	938	776	1.8	780	864	961	998	1032	1080	1164	1200	1224	1337
	1.67	1846	1238	962	788	1.75	814	901	1001	1039	1076	1128	1214	1248	1277	1397
MP 2-1500 Max	1.8	1830	1409	1107	915	1.85	920	1019	1132	1176	1217	1274	1376	1420	1452	1577
	1.75	2072	1491	1172	968	1.8	975	1080	1200	1245	1290	1350	1456	1500	1536	1670
	1.67	2303	1545	1201	984	1.75	1015	1125	1251	1300	1345	1406	1515	1562	1596	1740
MP 2-2000 Max	1.8	2440	1879	1476	1220	1.85	1227	1358	1509	1572	1625	1698	1832	1890	1932	2112
	1.75	2769	1993	1566	1294	1.8	1301	1440	1599	1660	1720	1800	1944	2000	2040	2227
	1.67	3077	2064	1604	1315	1.75	1356	1502	1671	1732	1795	1878	2024	2090	2124	2326
MP 2-2500 Max	1.8	3050	2349	1845	1525	1.85	1534	1698	1886	1965	2031	2123	2290	2363	2415	2640
	1.75	3461	2491	1958	1618	1.8	1626	1800	1999	2075	2150	2250	2430	2500	2550	2784
	1.67	3846	2580	2005	1644	1.75	1695	1878	2089	2165	2244	2348	2530	2613	2655	2908
MP 2-3000 Max	1.8	3660	2819	2214	1830	1.85	1841	2037	2264	2358	2438	2547	2748	2835	2898	3168
	1.75	4154	2990	2349	1941	1.8	1952	2160	2399	2490	2580	2700	2916	3000	3060	3341
	1.67	4616	3096	2406	1973	1.75	2034	2253	2507	2598	2693	2817	3036	3135	3186	3489

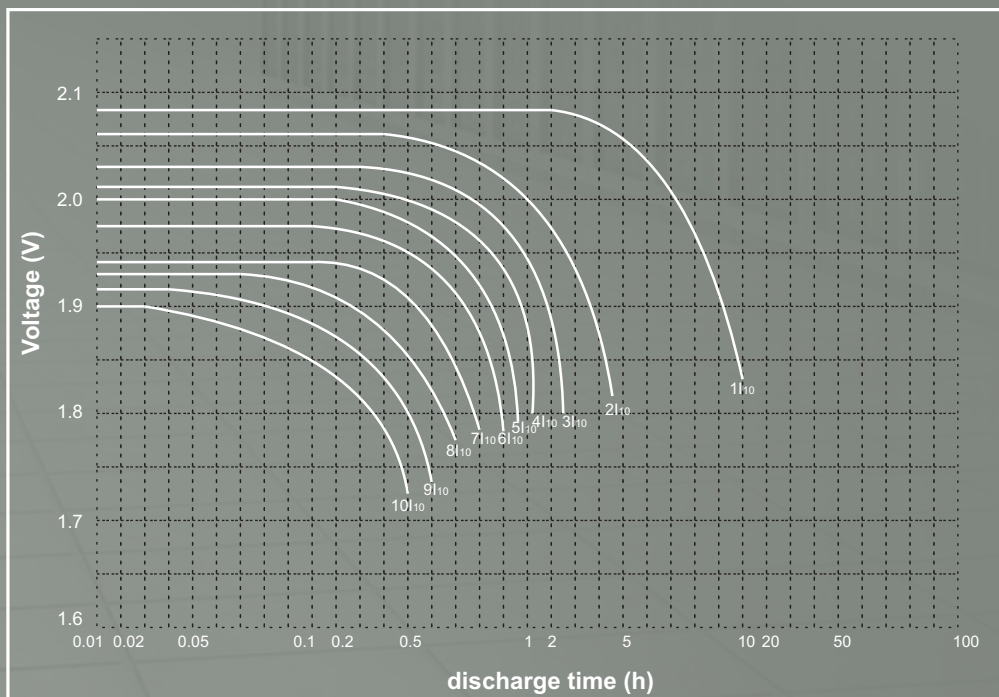
ModularPlus Max Range Cell Discharge Watts Data @ 25°C

Battery Model	End VPC	Discharge Data Watts @ 25°C				End VPC	Discharge Data Watts @ 25°C									
		Discharge Time In Minutes					Discharge Time In Hours									
		15	30	45	60		1.5	2	3	4	5	6	8	10	12	24
MP 2-200 Max	1.8	448	348	280	234	1.85	158	132	96.2	76.9	64.0	56.0	45.5	37.7	32.1	17.7
	1.75	502	369	292	249	1.8	165	138	103	80.9	67.4	59.0	47.9	39.7	33.8	18.6
	1.67	552	378	299	251	1.75	171	143	107	83.8	69.8	61.1	49.7	41.3	35.2	19.3
MP 2-300 Max	1.8	672	521	421	351	1.85	236	197	147	115	95.9	83.9	68.2	56.4	48.1	26.4
	1.75	752	553	437	373	1.8	248	207	155	121	101	88.5	71.9	59.5	50.7	28.0
	1.67	826	567	447	377	1.75	256	214	160	125	105	91.5	74.4	61.6	52.5	28.9
MP 2-400 Max	1.8	895	695	561	468	1.85	314	262	196	153	128	112	90.8	75.2	64.1	35.1
	1.75	1001	737	582	496	1.8	331	276	207	162	135	118	95.9	79.4	67.6	37.1
	1.67	1100	755	596	502	1.75	341	285	213	167	139	122	99.1	82.1	69.9	38.4
MP 2-500 Max	1.8	1119	869	701	586	1.85	394	328	245	192	160	140	114	94.1	80.2	44.0
	1.75	1254	922	728	621	1.8	414	346	258	202	168	147	120	99.2	84.5	46.4
	1.67	1377	945	746	628	1.75	426	357	267	209	174	153	124	103	87.5	48.1
MP 2-600 Max	1.8	1343	1043	841	703	1.85	472	394	294	230	192	168	136	113	96.2	52.7
	1.75	1503	1106	874	745	1.8	496	415	310	243	202	177	144	119	101	55.7
	1.67	1652	1133	895	753	1.75	511	428	320	251	209	183	149	123	105	57.7
MP 2-800 Max	1.8	1791	1390	1122	937	1.85	629	525	392	307	256	224	182	151	128	70.3
	1.75	2005	1475	1165	994	1.8	662	553	413	324	270	236	192	159	135	74.3
	1.67	2203	1511	1194	1005	1.75	682	571	427	335	279	244	198	165	140	77.0
MP 2-1000 Max	1.8	2239	1738	1402	1171	1.85	786	656	490	384	320	280	227	188	160	87.8
	1.75	2505	1842	1455	1242	1.8	827	691	517	405	337	295	240	198	169	92.8
	1.67	2750	1888	1491	1255	1.75	852	713	533	418	348	305	248	205	175	96.1
MP 2-1200 Max	1.8	2687	2086	1682	1405	1.85	943	787	588	461	384	336	272	226	192	105
	1.75	3006	2210	1746	1490	1.8	992	829	620	486	404	354	288	238	203	111
	1.67	3300	2266	1789	1506	1.75	1022	856	640	502	418	366	298	246	210	115
MP 2-1500 Max	1.8	3358	2607	2104	1757	1.85	1180	985	735	576	479	420	341	282	240	132
	1.75	3751	2759	2180	1859	1.8	1241	1037	775	607	505	442	360	298	254	139
	1.67	4122	2827	2233	1880	1.75	1276	1067	799	626	522	457	371	307	262	144
MP 2-2000 Max	1.8	4477	3476	2805	2342	1.85	1573	1313	981	768	639	560	455	376	321	176
	1.75	5012	3686	2912	2484	1.8	1654	1382	1033	809	674	590	479	397	338	186
	1.67	5507	3778	2984	2511	1.75	1705	1426	1067	837	697	610	496	411	350	192
MP 2-2500 Max	1.8	5596	4345	3506	2928	1.85	1966	1641	1226	960	799	700	569	470	401	220
	1.75	6265	4608	3640	3105	1.8	2068	1728	1291	1011	843	738	599	496	423	233
	1.67	6884	4723	3730	3139	1.75	2131	1783	1334	1046	871	763	620	514	438	240
MP 2-3000 Max	1.8	6716	5214	4208	3513	1.85	2360	1970	1472	1152	959	840	683	564	482	264
	1.75	7518	5529	4368	3726	1.8	2481	2073	1550	1214	1011	885	719	596	507	279
	1.67	8261	5667	4476	3767	1.75	2558	2139	1601	1256	1046	915	744	617	525	288

Characteristic Curves for Modular plus MAX Range battery

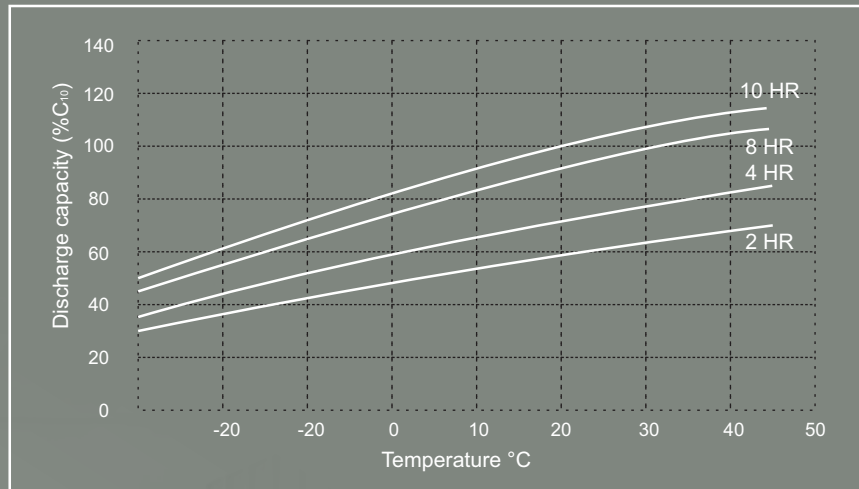


Constant voltage charge characteristics @ 35°C

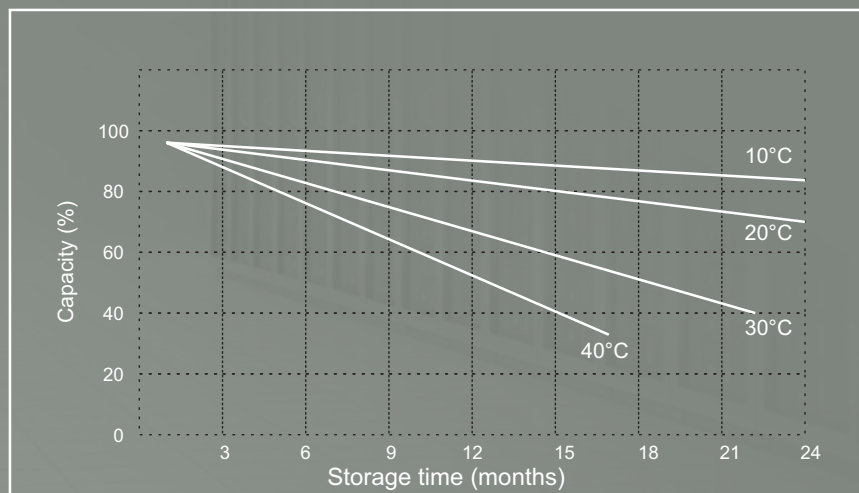


Discharge performance at different discharge rate

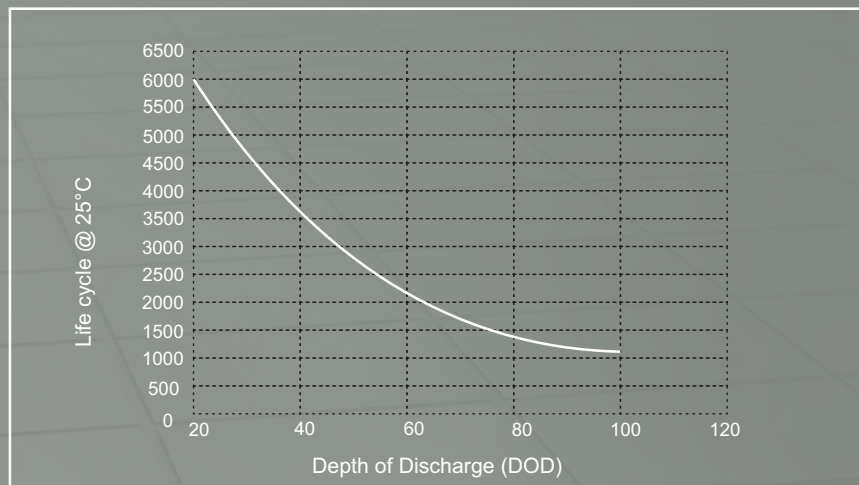
Characteristic Curves for Modular plus MAX Range battery



Capacity at different temperature



Curve of self discharge at different temperature



Life cycle in relation to the depth of discharge @25°C.

High Temperature Battery Series
Modular plus MAX Range VRLA
Unique performance against high temperature



**Supplied Worldwide
by EverExceed Corporation**

