2 Volt
GEL Range

Haze Battery Company Ltd

The Haze HZY - GEL range covers Ah capacities from 50Ah to 3850Ah (C_{10}) with dimensions suitable for racking systems for maximum space utilisation, or vertical orientation.
Specially designed cables and connectors are available to suit.
GEL is especially suited for non-premium sites with medium to frequent outage rates and non-climate controlled environments, for less extreme temperature variations and reduced cyclic demands please consult the Haze HZB - AGM range.
Haze facilities are fully accredited to ISO 14001 and the management system fully accredited to ISO 9001.

QUALITY ASSURED FIRM
ISO 9001
SGS

UKAS
QUALITY
MANAGEMENT
005

Specifications

Nominal Voltage	2 Volts
Design Life	15 Years
Operating Temperature	-20 ˚C to 50 ˚C
Grid alloy	Calcium / Tin lead alloy
Plates	Flat Pasted
Separator	Microporous Duroplastic
Active material	Very high purity lead
Case and cover	ABS (VO on request)
Charge Voltage	Float 2.27 - 2.30 VPC @20 ˚C Cycling 2.41 @20 ˚C Max. 2.7 VPC Max ripple 3.5% Charge V
Electrolyte	Sulphuric acid Analytical grade purity
Venting Valve	EPDM Rubber 1.5 to 2 psi (10.5 - 14 KPa) release pressure. Resealing at 1 psi (7 KPa)
Terminal	Various types Epoxy sealed by extended mechanical paths
Torque setting	The recommended torque value for all types is 7-10 Nm
Cables	Insulated cables / connectors supplied on request.

Haze Battery Company keenly encourages environmental awareness; PLEASE follow guidelines for the recycling /disposal of lead.

SYSTEM CERTIFICATION
ISO 14001:2004
SGS

Applications

- Cycling / Float service
- Residential
- Telecommunications
- Refrigeration
- Photovoltaic
- Solar
- Wind
- Engine Starting
- Electric Vehicle
- Water Pumping
- Cathodic Protection
- Boats
- General Marine
- Navigation Aids

Many other deep cycle applications

Gel Vs AGM

Each battery has its advantages and disadvantages, it is therefore important to choose the right battery for the application. Advantages of Gel Batteries:

- Full recovery from deep discharge, even when the battery is not recharged immediately.
- Ideal for repeat cycling daily use.
- Excellent performance over long discharges
- Good tolerance to higher temperature applications
- Suitable where mains power is unstable
- Zero stratification due to immobilized electrolyte
- No equalization charge necessary
- Reduced self-discharge
- Limiting design protects the positive plates to greatly improve cycle life
- Thicker plates for reduced grid corrosion and increased cycle life
- Improved charge acceptance due to low internal resistance
- High resistance to water loss with the right charging set up
- Ultra stable polymer separator with glass mat for increased performance
- High resistance to shorting due to superior mechanical strength of the polymer separator
- Increased tolerance to poor charging parameters
- Can be discharged even when full recharge has not been achieved, without loss of battery capacity

CHARGING CHARACTERISTICS

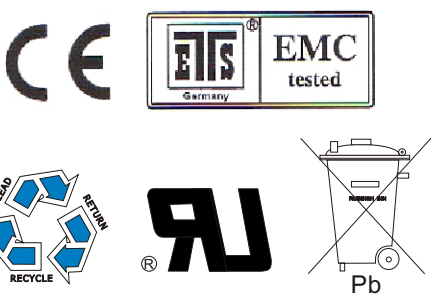
Floating - The optimum float voltage for a battery is temperature dependant, at 15 - 24°C the recommended value is 2.27 - 2.30V. It is recommended that battery installation sites are temperature controlled, however float voltage can be increased or decreased to compensate for temperature variations. Adjustment is calculated at +/- 3 mV per degree C.

Operating Temperature	Recommended Applied Float Voltage VPC
0-9	2.33 - 2.35
10-14	2.30 - 2.33
15-19	2.27 - 2.30
20-24	2.27 - 2.30
25-29	2.25 - 2.27
30-34	2.23 - 2.25
35-40	2.21 - 2.23

The most suitable charging method for battery life and performance is the constant voltage method with a limited initial current, usually limited to a maximum of $C_{20}/4$.

For cyclic use we specify a short constant current phase is added to the standard charge profile - consult Haze for more details.

Temperature	Shelf Life
0 °C - 20 °C (32 °F - 68 °F)	12 Months
21 °C - 30 °C (69 °F - 86 °F)	9 Months
31 °C - 40 °C (87 °F - 104 °F)	5 Months
41 °C - 50 °C (105 °F - 1122 °F)	2.5 Months



Innovative Features

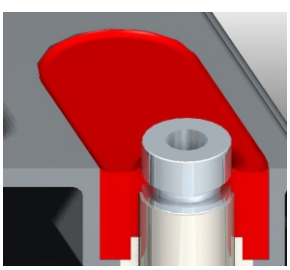
- Completely maintenance free, sealed
- Construction eliminates the need for watering
- Electrolyte will not stratify, equalization charge recommended but not compulsorily required
- Increased durability and deep cycle ability for heavy demand applications
- Special formation process
- Gelled thixotropic electrolyte
- Spill proof / leak proof
- Valve regulated Max internal pressure 2.5 psi
- Multi-position usage
- Multi-cell container
- ABS Case and cover - V0 on request
- Low self discharge
- Utilising the latest in German technology
- FAA and IATA approved as non-hazardous
- Built to comply with IEC 896-2, DIN 43534, BS 6290 Pt4, Eurobat.

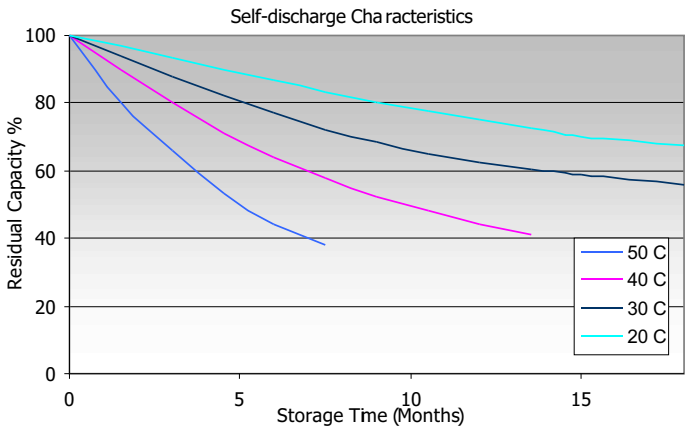
	Capacity temperature correction Factor to be applied to Data at 20 Degrees C												
Discharge Time	-30 °C	-20 °C	-10 °C	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C	50 °C
5 minutes to 59 minutes	0.23	0.417	0.605	0.778	0.86	0.91	0.96	1	1.037	1.063	1.085	1.1	1.116
1 Hour to 100 Hours	0.277	0.464	0.647	0.816	0.886	0.93	0.97	1	1.028	1.05	1.063	1.07	1.078

Applications

- Float service
- Telecommunications
- Poor charging applications
- Wind
- Higher ambient temperature applications
- Road side cabinets
- Residential
- Refrigeration
- Frequent use applications
- Engine Starting
- Water Pumping
- Cathodic Protection

Many other extreme applications





End of Discharge Voltage = 1.85	DISCHARGE CURRENT in A																20 - 25 °C	
Model	**15'**	**20'**	**25'**	**30'**	**45'**	**1 hr**	**90'**	**2 hr**	**3 hr**	**4 hr**	**5 hr**	**6 hr**	**8 hr**	**10 hr**	**12 hr**	**24 hr**	**48 hr**	**100 hr**
HZY2-50	65.6	57.3	51.1	45.4	34.4	27.8	20.1	16.2	12.0	9.7	8.20	7.10	5.66	4.70	4.00	2.18	1.16	0.79
HZY2-100	137	117	103	92.8	70.5	56.9	41.2	32.8	24.2	19.5	16.4	14.2	11.3	9.40	7.99	4.30	2.28	1.57
HZY2-150	193	166	146	130	98.8	80.8	59.6	48.6	36.2	29.2	24.7	21.3	17.1	14.1	12.0	6.45	3.38	2.32
HZY2-200	209	189	175	161	129	108	80.5	65.3	48.0	38.8	32.9	28.5	22.7	18.9	16.1	8.67	4.58	3.15
HZY2-250	254	236	218	202	162	135	100	81.6	60.5	48.9	41.1	35.6	28.2	23.6	20.1	10.8	5.73	3.92
HZY2-300	301	276	254	236	193	161	121	97.9	72.5	58.4	49.3	42.7	33.9	28.3	24.1	12.9	6.83	4.71
HZY2-375	380	347	319	296	240	199	149	122	90.0	72.9	61.8	53.5	42.3	35.3	30.1	16.1	8.60	5.96
HZY2-400	411	374	347	320	258	216	162	131	96.5	77.8	65.8	56.8	44.8	37.5	32.0	17.1	9.1	6.32
HZY2-450	470	428	392	360	290	243	181	147	109	87.0	73.7	63.9	50.7	42.2	36.0	19.2	10.2	7.01
HZY2-500-1	522	478	441	407	323	267	201	163	122	97.8	82.4	71.2	56.6	47.2	40.1	21.4	11.3	7.81
HZY2-500-2	522	478	441	407	323	267	201	163	122	97.8	82.4	71.2	56.6	47.2	40.1	21.4	11.3	7.81
HZY2-575	572	532	495	460	368	302	228	186	137	110	93.3	81.3	64.4	53.8	45.7	24.5	12.9	8.85
HZY2-600	603	559	518	482	387	323	241	196	146	117	98.6	85.3	67.3	56.3	48.1	26.0	13.7	9.36
HZY2-625	644	584	542	503	403	337	251	204	150	121	102	88.6	70.5	59.0	50.2	27.0	14.1	9.68
HZY2-750	748	702	653	606	489	405	303	245	182	146	124	107	85.1	70.7	60.1	32.1	17.0	11.8
HZY2-800	808	748	695	646	516	427	321	261	194	157	133	115	91.4	75.8	64.2	34.4	18.2	12.6
HZY2-1000-1	1004	927	866	800	645	534	402	325	240	194	164	142	113	94.3	80.2	43.2	22.6	15.5
HZY2-1000-2	1004	927	866	800	645	534	402	325	240	194	164	142	113	94.3	80.2	43.2	22.6	15.5
HZY2-1250	1280	1169	1082	996	807	669	502	407	303	245	207	179	142	118	100	53.6	28.3	19.4
HZY2-1500	1532	1406	1303	1202	968	805	607	489	362	293	247	214	170	140	120	64.4	33.9	23.3
HZY2-1875	1931	1767	1615	1488	1193	997	746	612	453	364	308	267	212	177	150	80.6	42.4	29.1
HZY2-2000	2008	1847	1703	1582	1290	1078	802	652	482	390	330	287	228	189	161	86.8	46.2	31.6
HZY2-2500	2420	2241	2083	1956	1600	1333	1011	815	602	486	410	354	283	236	201	108	56.5	38.3
HZY2-3000	2916	2718	2529	2348	1915	1591	1209	978	721	583	493	428	340	283	241	130	67.8	46.1
HZY2-3850	3760	3474	3215	2984	2432	2040	1539	1256	931	751	633	549	437	363	309	165	87.0	59.3

End of Discharge Voltage = 1.80	DISCHARGE CURRENT in A																20 - 25 °C	
Model	**15'**	**20'**	**25'**	**30'**	**45'**	**1 hr**	**90'**	**2 hr**	**3 hr**	**4 hr**	**5 hr**	**6 hr**	**8 hr**	**10 hr**	**12 hr**	**24 hr**	**48 hr**	**100 hr**
HZY2-50	71.1	61.6	54.5	48.3	37.0	29.8	21.6	17.3	12.8	10.3	8.73	7.55	5.98	5.00	4.26	2.29	1.21	0.83
HZY2-100	147	126	110	97.7	74.0	59.3	43.3	34.5	25.7	20.7	17.4	15.1	12.0	9.94	8.48	4.57	2.43	1.67
HZY2-150	208	178	157	140	106	85.8	63.7	51.9	38.2	30.9	26.2	22.7	18.0	15.0	12.8	6.83	3.59	2.47
HZY2-200	229	203	187	173	139	114	85.1	69.4	51.2	41.3	35.0	30.4	24.2	20.1	17.1	9.13	4.82	3.31
HZY2-250	281	255	236	217	174	143	107	86.8	64.4	51.6	43.7	37.8	29.9	24.8	21.2	11.4	6.01	4.12
HZY2-300	337	303	277	256	208	172	128	104	76.9	62.0	52.1	45.0	35.6	29.7	25.2	13.5	7.15	4.94
HZY2-375	418	379	343	316	255	212	159	129	96.1	77.7	65.5	56.5	44.6	37.1	31.7	16.9	9.02	6.25
HZY2-400	449	408	375	344	276	228	171	139	103	82.9	70.0	60.5	47.8	40.0	34.2	18.1	9.64	6.65
HZY2-450	520	472	432	393	312	257	193	156	116	93.1	78.4	67.9	53.6	44.5	37.8	20.3	10.8	7.46
HZY2-500-1	586	521	474	437	347	285	214	174	128	103	87.5	75.8	60.3	50.2	42.7	22.7	12.0	8.30
HZY2-500-2	586	521	474	437	347	285	214	174	128	103	87.5	75.8	60.3	50.2	42.7	22.7	12.0	8.30
HZY2-575	639	582	532	490	396	325	244	198	146	118	100	86.5	68.7	57.2	48.6	26.0	13.7	9.46
HZY2-600	671	612	560	520	416	344	255	207	154	124	105	90.8	71.6	59.6	50.9	27.4	14.4	9.86
HZY2-625	709	642	591	545	433	357	267	216	160	129	108	93.7	74.5	62.2	53.1	28.5	15.0	10.3
HZY2-750	852	774	710	656	521	427	318	260	193	155	131	114	90.3	75.2	63.9	34.0	18.0	12.5
HZY2-800	898	819	754	694	555	456	340	277	206	166	140	122	96.9	80.6	68.3	36.3	19.3	13.4
HZY2-1000-1	1122	1020	941	866	694	569	427	346	256	206	175	152	120	100	85.3	45.8	24.0	16.5
HZY2-1000-2	1122	1020	941	866	694	569	427	346	256	206	175	152	120	100	85.3	45.8	24.0	16.5
HZY2-1250	1408	1272	1169	1068	859	710	530	433	321	259	219	190	150	126	106	56.5	30.1	20.7
HZY2-1500	1684	1533	1408	1294	1041	857	642	520	382	309	263	227	179	149	127	67.8	35.8	24.8
HZY2-1875	2116	1902	1757	1606	1283	1058	789	650	481	387	327	284	225	188	160	85.6	45.1	31.0
HZY2-2000	2245	2016	1831	1702	1379	1145	848	689	514	413	350	304	241	199	169	90.5	48.1	32.9
HZY2-2500	2806	2529	2316	2142	1734	1423	1067	864	642	519	439	379	302	250	213	114	60.1	40.8
HZY2-3000	3367	3024	2779	2562	2053	1699	1278	1040	771	619	525	455	361	300	255	137	71.8	49.0
HZY2-3850	4308	3886	3550	3290	2651	2181	1643	1335	994	799	673	584	460	384	327	174	92.3	62.8

End of Discharge Voltage = 1.75	DISCHARGE CURRENT in A																20 - 25 °C	
Model	**15'**	**20'**	**25'**	**30'**	**45'**	**1 hr**	**90'**	**2 hr**	**3 hr**	**4 hr**	**5 hr**	**6 hr**	**8 hr**	**10 hr**	**12 hr**	**24 hr**	**48 hr**	**100 hr**
HZY2-50	74.4	64.4	56.7	50.6	38.4	30.8	22.2	17.6	13.0	10.5	8.89	7.70	6.13	5.10	4.34	2.35	1.25	0.86
HZY2-100	154	131	114	103	77.6	62.0	44.9	35.9	26.8	21.6	18.2	15.8	12.5	10.4	8.85	4.74	2.51	1.73
HZY2-150	220	188	166	147	112	91.0	67.0	54.0	40.1	32.2	27.1	23.6	18.6	15.5	13.2	7.07	3.73	2.57
HZY2-200	248	219	200	184	148	121	89.6	72.3	53.6	43.1	36.4	31.6	25.2	20.9	17.8	9.46	5.00	3.44
HZY2-250	304	276	251	230	184	151	112	90.3	66.6	53.8	45.5	39.2	31.0	25.8	22.0	11.8	6.25	4.29
HZY2-300	367	325	295	269	216	179	133	108	79.3	64.2	54.1	46.8	37.0	30.7	26.2	14.0	7.43	5.12
HZY2-375	452	404	367	335	270	223	166	135	100	80.5	67.8	58.3	45.9	38.0	32.5	17.4	9.38	6.50
HZY2-400	492	442	399	364	291	239	179	145	108	86.6	72.8	63.0	49.7	41.5	35.4	18.9	10.0	6.91
HZY2-450	560	501	454	412	328	272	201	163	120	97.0	81.8	70.8	56.2	46.7	39.9	21.2	11.2	7.76
HZY2-500-1	627	559	502	458	364	301	223	181	134	108	91.3	78.9	62.7	52.3	44.4	23.5	12.5	8.64
HZY2-500-2	627	559	502	458	364	301	223	181	134	108	91.3	78.9	62.7	52.3	44.4	23.5	12.5	8.64
HZY2-575	692	618	566	522	419	342	253	205	153	123	104	90.0	71.4	59.6	50.6	27.2	14.2	9.79
HZY2-600	718	652	597	549	439	361	269	217	161	130	109	94.5	74.4	61.8	52.8	28.4	15.0	10.4
HZY2-625	763	683	622	566	448	371	277	225	167	134	113	98.2	77.6	64.8	55.2	29.6	15.7	10.8
HZY2-750	916	822	751	690	552	452	336	271	202	163	137	119	94.3	78.3	66.5	35.3	18.7	13.0
HZY2-800	968	870	797	734	584	482	357	289	215	173	146	126	100	83.1	70.4	37.6	20.0	13.8
HZY2-1000-1	1228	1098	1002	918	729	600	446	360	268	215	182	158	125	104	88.7	47.0	24.8	17.0
HZY2-1000-2	1228	1098	1002	918	729	600	446	360	268	215	182	158	125	104	88.7	47.0	24.8	17.0
HZY2-1250	1508	1347	1224	1122	903	745	554	451	337	272	229	198	157	131	111	58.7	31.3	21.5
HZY2-1500	1792	1620	1488	1362	1087	893	668	541	402	325	274	237	187	155	132	70.2	37.2	25.8
HZY2-1875	2268	2046	1858	1696	1359	1118	837	677	507	407	342	296	235	196	167	88.5	46.9	32.3
HZY2-2000	2404	2157	1968	1806	1448	1200	888	721	536	431	364	315	248	206	175	93.8	49.8	34.2
HZY2-2500	3048	2730	2479	2270	1817	1494	1112	900	670	541	455	395	312	259	220	118	62.5	42.5
HZY2-3000	3624	3249	2959	2712	2179	1795	1344	1083	807	649	549	473	374	311	265	142	75.0	51.3
HZY2-3850	4560	4098	3718	3430	2757	2277	1707	1390	1032	833	701	608	479	399	340	182	95.7	65.3

End of Discharge Voltage = 1.70	DISCHARGE CURRENT in A																	20 - 25 °C
Model	**15'**	**20'**	**25'**	**30'**	**45'**	**1 hr**	**90'**	**2 hr**	**3 hr**	**4 hr**	**5 hr**	**6 hr**	**8 hr**	**10 hr**	**12 hr**	**24 hr**	**48 hr**	**100 hr**
HZY2-50	77.8	66.7	58.2	51.6	39.1	31.3	22.7	18.0	13.2	10.7	9.03	7.86	6.22	5.17	4.38	2.38	-	-
HZY2-100	159	134	117	104	78.8	63.1	45.8	36.6	27.1	21.9	18.4	16.1	12.7	10.6	8.97	4.80	-	-
HZY2-150	227	193	169	151	114	92.8	68.3	55.1	40.8	32.8	27.7	24.0	19.0	15.7	13.4	7.15	-	-
HZY2-200	260	227	206	190	151	123	91.4	73.7	54.4	43.8	36.9	32.0	25.5	21.1	17.9	9.53	-	-
HZY2-250	319	286	258	236	188	154	115	92.1	67.9	54.9	46.2	39.8	31.4	26.1	22.2	11.9	-	-
HZY2-300	388	341	307	279	223	183	136	109	81.1	65.4	55.0	47.6	37.6	31.3	26.7	14.2	-	-
HZY2-375	479	423	385	348	279	230	171	138	102	81.7	68.5	59.0	46.5	38.6	32.9	17.6	-	-
HZY2-400	519	457	414	378	300	246	183	147	110	88.1	74.2	64.2	50.5	42.2	36.1	19.3	-	-
HZY2-450	591	523	468	425	335	277	205	166	122	98.5	83.2	72.2	57.2	47.5	40.4	21.5	-	-
HZY2-500-1	661	579	523	472	374	306	228	184	136	110	92.8	80.1	63.6	52.9	45.0	23.9	-	-
HZY2-500-2	661	579	523	472	374	306	228	184	136	110	92.8	80.1	63.6	52.9	45.0	23.9	-	-
HZY2-575	732	646	589	539	428	349	258	210	157	126	106	91.8	73.0	60.5	51.5	27.7	-	-
HZY2-600	762	685	621	568	449	371	274	221	164	132	111	95.7	75.5	62.6	53.6	28.8	-	-
HZY2-625	802	710	643	582	458	379	283	230	171	137	115	100	78.7	65.6	56.0	30.0	-	-
HZY2-750	960	852	779	710	563	461	342	276	205	166	140	121	96.0	79.8	67.9	35.9	-	-
HZY2-800	1028	913	828	756	600	491	364	295	219	176	149	129	102	84.3	71.4	38.3	-	-
HZY2-1000-1	1280	1134	1039	945	744	610	455	367	275	221	186	161	127	106	90.6	47.8	-	-
HZY2-1000-2	1280	1134	1039	945	744	610	455	367	275	221	186	161	127	106	90.6	47.8	-	-
HZY2-1250	1568	1392	1253	1150	919	758	565	460	344	277	234	201	159	133	113	59.7	-	-
HZY2-1500	1876	1686	1529	1392	1105	911	681	552	413	332	280	241	190	158	134	71.3	-	-
HZY2-1875	2376	2118	1910	1746	1391	1142	854	690	517	416	349	301	238	198	169	89.8	-	-
HZY2-2000	2512	2220	2009	1848	1484	1224	906	736	545	439	371	320	252	209	178	95.3	-	-
HZY2-2500	3184	2832	2551	2336	1863	1537	1141	920	684	553	466	403	317	263	224	120	-	-
HZY2-3000	3860	3408	3060	2786	2236	1841	1371	1104	823	663	560	483	380	316	269	144	-	-
HZY2-3850	4760	4227	3818	3494	2808	2331	1749	1418	1054	850	712	617	486	404	344	185	-	-

End of Discharge Voltage = 1.65	DISCHARGE CURRENT in A																	20 - 25 °C
Model	**15'**	**20'**	**25'**	**30'**	**45'**	**1 hr**	**90'**	**2 hr**	**3 hr**	**4 hr**	**5 hr**	**6 hr**	**8 hr**	**10 hr**	**12 hr**	**24 hr**	**48 hr**	**100 hr**
HZY2-50	80.1	68.6	59.8	53.0	40.0	32.0	23.1	18.3	13.5	10.9	-	-	-	-	-	-	-	-
HZY2-100	163	138	120	107	80.3	64.5	46.8	37.5	27.6	22.3	-	-	-	-	-	-	-	-
HZY2-150	234	198	175	155	116	94.6	69.5	56.2	41.4	33.1	-	-	-	-	-	-	-	-
HZY2-200	275	238	214	196	154	126	92.4	74.7	55.1	44.3	-	-	-	-	-	-	-	-
HZY2-250	332	296	268	243	193	157	116	93.3	68.6	55.6	-	-	-	-	-	-	-	-
HZY2-300	409	356	318	288	229	188	139	111	82.4	66.4	-	-	-	-	-	-	-	-
HZY2-375	506	445	401	363	288	236	173	140	103	82.5	-	-	-	-	-	-	-	-
HZY2-400	546	477	427	391	308	252	186	151	112	89.6	-	-	-	-	-	-	-	-
HZY2-450	618	545	485	437	342	283	209	169	124	100	-	-	-	-	-	-	-	-
HZY2-500-1	688	600	538	489	382	311	231	187	139	112	-	-	-	-	-	-	-	-
HZY2-500-2	688	600	538	489	382	311	231	187	139	112	-	-	-	-	-	-	-	-
HZY2-575	772	675	610	556	438	357	264	215	159	128	-	-	-	-	-	-	-	-
HZY2-600	800	713	645	588	462	379	281	226	166	134	-	-	-	-	-	-	-	-
HZY2-625	832	728	658	596	468	386	288	234	174	140	-	-	-	-	-	-	-	-
HZY2-750	1004	891	804	730	575	472	347	282	209	169	-	-	-	-	-	-	-	-
HZY2-800	1060	936	853	778	616	502	371	300	222	179	-	-	-	-	-	-	-	-
HZY2-1000-1	1332	1173	1065	964	761	622	462	373	279	224	-	-	-	-	-	-	-	-
HZY2-1000-2	1332	1173	1065	964	761	622	462	373	279	224	-	-	-	-	-	-	-	-
HZY2-1250	1624	1434	1289	1180	936	770	572	465	347	280	-	-	-	-	-	-	-	-
HZY2-1500	1944	1731	1574	1426	1132	930	695	565	421	338	-	-	-	-	-	-	-	-
HZY2-1875	2464	2172	1954	1782	1415	1160	871	704	526	422	-	-	-	-	-	-	-	-
HZY2-2000	2604	2292	2074	1900	1515	1246	921	748	555	447	-	-	-	-	-	-	-	-
HZY2-2500	3268	2907	2630	2399	1896	1567	1163	938	696	562	-	-	-	-	-	-	-	-
HZY2-3000	4008	3514	3151	2872	2279	1881	1393	1123	836	673	-	-	-	-	-	-	-	-
HZY2-3850	4932	4341	3910	3558	2853	2363	1775	1436	1066	860	-	-	-	-	-	-	-	-

IMPORTANT NOTE: GEL batteries do not deliver full capacity on the first cycle, in fact they take approx. 15 to 20 cycles to reach full capacity. This reduced initial capacity effect is due to the extremely durable crystal structure employed in the Haze GEL range.The capacity quoted in this catalogue is full capacity.

End of Discharge Voltage = 1.85	DISCHARGE IN WATTS PER CELL															20 - 25 °C		
Model	**15'**	**20'**	**25'**	**30'**	**45'**	**1 hr**	**90'**	**2 hr**	**3 hr**	**4 hr**	**5 hr**	**6 hr**	**8 hr**	**10 hr**	**12 hr**	**24 hr**	**48 hr**	**100 hr**
HZY2-50	120	105	93.4	84.5	65.8	53.3	39.3	31.7	23.6	19.0	16.1	14.0	11.2	9.4	8.00	4.37	2.32	1.60
HZY2-100	251	216	189	169	130	107	79.5	64.0	47.7	38.5	32.6	28.4	22.7	18.9	16.1	8.62	4.57	3.15
HZY2-150	339	300	267	243	189	153	114	93.5	70.5	57.2	48.6	42.2	33.5	28.0	23.9	12.9	6.81	4.69
HZY2-200	382	348	326	302	247	206	155	126	93.6	76.0	64.9	56.5	45.0	37.7	32.2	17.4	9.2	6.32
HZY2-250	467	435	402	372	302	252	193	158	117	95.3	80.6	70.4	56.3	47.1	40.2	21.7	11.5	7.88
HZY2-300	551	509	470	442	364	304	231	189	141	115	97.4	84.8	67.3	56.4	48.2	25.9	13.7	9.4
HZY2-375	684	630	590	555	463	387	292	236	175	142	121	106	84.6	70.6	60.2	32.3	17.3	11.9
HZY2-400	764	697	638	598	489	409	310	252	188	153	128	112	89.2	74.7	64.0	34.2	18.3	12.7
HZY2-450	860	787	727	680	549	461	348	284	212	171	145	126	101	84.5	72.0	38.4	20.4	14.0
HZY2-500-1	940	867	806	756	616	516	386	315	237	192	162	141	113	94.1	80.2	42.8	22.7	15.7
HZY2-500-2	940	867	806	756	616	516	386	315	237	192	162	141	113	94.1	80.2	42.8	22.7	15.7
HZY2-575	1060	979	914	852	703	589	440	360	267	215	184	161	128	107	91.4	49.2	25.8	17.8
HZY2-600	1104	1022	947	878	731	611	463	379	284	229	194	169	135	113	96.2	51.8	27.3	18.5
HZY2-625	1148	1053	974	908	760	637	482	393	296	237	202	175	140	117	100	54.3	28.7	19.7
HZY2-750	1380	1291	1206	1128	912	761	582	473	354	286	243	212	170	141	120	64.4	34.1	23.7
HZY2-800	1452	1376	1285	1192	973	812	616	505	377	307	261	227	180	151	128	68.9	37.0	25.5
HZY2-1000-1	1876	1734	1599	1492	1232	1021	771	629	468	380	324	281	225	188	160	86.5	45.4	31.2
HZY2-1000-2	1876	1734	1599	1492	1232	1021	771	629	468	380	324	281	225	188	160	86.5	45.4	31.2
HZY2-1250	2348	2150	2004	1866	1528	1273	963	787	590	481	408	352	281	235	200	107	56.7	39.0
HZY2-1500	2828	2610	2443	2276	1860	1540	1165	948	708	574	486	424	340	283	240	129	68.0	46.7
HZY2-1875	3480	3219	2988	2780	2279	1910	1445	1182	882	714	603	527	424	353	300	162	85.0	58.1
HZY2-2000	3716	3441	3197	2990	2441	2031	1539	1260	940	760	651	568	455	377	320	172	92.7	63.6
HZY2-2500	4528	4262	3953	3690	3019	2545	1941	1575	1173	948	807	705	562	471	400	215	113	77.1
HZY2-3000	5216	4920	4672	4400	3663	3070	2307	1891	1405	1143	972	845	673	564	482	261	137	93.5
HZY2-3850	7000	6470	5940	5560	4600	3890	2973	2427	1832	1480	1246	1084	866	724	618	336	175	119

End of Discharge Voltage = 1.80	DISCHARGE IN WATTS PER CELL															20 - 25 °C		
Model	**15'**	**20'**	**25'**	**30'**	**45'**	**1 hr**	**90'**	**2 hr**	**3 hr**	**4 hr**	**5 hr**	**6 hr**	**8 hr**	**10 hr**	**12 hr**	**24 hr**	**48 hr**	**100 hr**
HZY2-50	130	114	101	90.8	69.9	56.8	41.5	33.4	25.0	20.2	17.2	14.9	11.9	10.0	8.51	4.65	2.46	1.69
HZY2-100	266	231	204	182	140	113	83.1	66.9	50.0	40.5	34.4	29.9	23.9	19.9	17.0	9.11	4.82	3.34
HZY2-150	374	325	287	259	199	163	122	99	74.5	60.7	51.6	44.9	35.6	29.8	25.5	13.8	7.24	4.98
HZY2-200	417	379	352	325	266	219	163	134	100	81.1	68.9	60.0	47.6	39.9	34.1	18.4	9.73	6.72
HZY2-250	513	467	437	403	320	267	205	168	125	101	86.2	75.0	59.5	49.8	42.5	22.8	12.1	8.28
HZY2-300	616	554	511	478	388	326	247	201	150	122	104	89.9	71.1	59.6	50.8	27.3	14.5	10.0
HZY2-375	771	699	643	598	485	404	307	251	187	152	128	112	89.1	74.2	63.3	33.8	18.1	12.5
HZY2-400	833	750	689	640	517	437	329	268	201	163	138	120	95.1	79.4	68.1	36.5	19.4	13.4
HZY2-450	952	858	782	732	584	488	370	302	226	183	155	134	107	89.9	76.6	40.5	21.7	15.0
HZY2-500-1	1044	945	876	813	663	546	410	335	250	203	172	150	119	100	85.3	45.5	24.1	16.7
HZY2-500-2	1044	945	876	813	663	546	410	335	250	203	172	150	119	100	85.3	45.5	24.1	16.7
HZY2-575	1170	1062	984	910	749	622	469	383	285	231	196	171	137	114	97	52.0	27.5	19.0
HZY2-600	1232	1119	1032	952	779	654	493	401	300	243	206	179	143	120	102	54.9	28.9	19.8
HZY2-625	1285	1170	1075	994	815	678	510	418	313	254	214	186	149	125	106	57.6	30.3	20.8
HZY2-750	1540	1404	1297	1208	972	807	611	503	376	303	259	225	180	149	127	68.1	36.1	25.1
HZY2-800	1600	1480	1381	1280	1037	871	653	537	401	325	276	240	191	160	137	72.7	38.9	26.7
HZY2-1000-1	2068	1872	1720	1592	1305	1091	819	669	499	404	343	300	239	200	171	91.7	48.2	33.1
HZY2-1000-2	2068	1872	1720	1592	1305	1091	819	669	499	404	343	300	239	200	171	91.7	48.2	33.1
HZY2-1250	2596	2337	2159	2000	1624	1359	1018	834	626	508	432	375	300	250	213	114	60.3	41.4
HZY2-1500	3081	2814	2601	2406	1956	1629	1233	1005	748	607	514	449	360	301	255	137	71.8	49.3
HZY2-1875	3800	3504	3245	3006	2451	2027	1526	1250	938	759	644	561	448	375	319	171	90.4	62.2
HZY2-2000	4108	3750	3482	3228	2607	2168	1643	1340	1001	811	689	600	479	398	338	180	96.5	66.5
HZY2-2500	4928	4582	4251	3966	3221	2700	2053	1667	1251	1013	858	749	597	496	423	225	119	81.1
HZY2-3000	6064	5577	5184	4826	3913	3277	2453	2011	1503	1215	1035	899	718	600	513	275	145	98.9
HZY2-3850	7908	7150	6576	6080	5000	4180	3154	2575	1938	1568	1326	1154	917	770	657	356	186	127

End of Discharge Voltage = 1.75	DISCHARGE IN WATTS PER CELL															20 - 25 °C		
Model	**15'**	**20'**	**25'**	**30'**	**45'**	**1 hr**	**90'**	**2 hr**	**3 hr**	**4 hr**	**5 hr**	**6 hr**	**8 hr**	**10 hr**	**12 hr**	**24 hr**	**48 hr**	**100 hr**
HZY2-50	137	119	105	94.1	71.3	58.2	42.7	34.1	25.4	20.5	17.5	15.2	12.2	10.2	8.72	4.74	2.51	1.72
HZY2-100	276	238	210	188	144	117	85.8	69.2	51.7	41.9	35.7	31.1	24.7	20.6	17.5	9.41	5.01	3.47
HZY2-150	391	341	304	272	208	171	129	104	78.1	63.2	53.5	46.5	36.9	30.8	26.4	14.4	7.56	5.21
HZY2-200	447	402	366	337	274	228	172	140	104	84.6	71.7	62.3	49.4	41.1	35.2	18.9	10.0	6.93
HZY2-250	552	496	458	423	337	281	213	174	130	106	89.7	78.0	61.9	51.7	44.2	23.7	12.6	8.65
HZY2-300	670	603	550	505	407	342	258	209	156	127	108	93.5	73.8	61.8	52.5	28.0	14.9	10.3
HZY2-375	835	748	680	628	505	424	319	261	194	158	133	116	91.7	76.5	65.3	35.0	18.8	13.0
HZY2-400	904	809	732	676	541	456	344	279	210	170	143	124	99.0	82.5	70.4	37.6	20.1	13.9
HZY2-450	1036	913	828	766	613	510	386	314	233	189	161	140	112	93.6	79.7	42.0	22.6	15.6
HZY2-500-1	1136	1018	936	861	685	567	426	348	260	211	179	156	124	104	88.8	47.1	25.0	17.3
HZY2-500-2	1136	1018	936	861	685	567	426	348	260	211	179	156	124	104	88.8	47.1	25.0	17.3
HZY2-575	1264	1140	1044	962	780	646	485	398	299	241	205	178	142	119	101	53.9	28.6	19.6
HZY2-600	1336	1203	1104	1018	822	687	516	419	313	255	215	187	149	125	107	57.6	30.4	20.8
HZY2-625	1360	1242	1135	1044	851	711	533	435	325	263	222	193	154	130	111	60.0	31.7	21.8
HZY2-750	1680	1520	1395	1280	1021	851	640	524	390	317	269	234	186	156	132	70.0	37.4	25.9
HZY2-800	1736	1584	1459	1344	1087	911	685	559	421	340	287	249	197	164	140	75.3	40.1	27.7
HZY2-1000-1	2212	1986	1814	1674	1360	1138	852	696	522	421	357	312	249	208	178	95.1	50.1	34.5
HZY2-1000-2	2212	1986	1814	1674	1360	1138	852	696	522	421	357	312	249	208	178	95.1	50.1	34.5
HZY2-1250	2804	2514	2285	2094	1700	1418	1063	870	657	534	451	392	312	260	221	118	62.7	43.3
HZY2-1500	3248	2979	2731	2514	2035	1700	1282	1045	782	635	535	467	375	313	266	141	74.6	51.4
HZY2-1875	4096	3735	3425	3152	2565	2124	1593	1300	988	799	674	584	464	391	332	177	94.0	64.7
HZY2-2000	4412	4011	3665	3392	2732	2265	1707	1395	1044	846	718	625	496	411	350	186	100	69.1
HZY2-2500	5368	4896	4510	4172	3369	2817	2144	1744	1307	1062	898	783	621	517	440	234	124	84.9
HZY2-3000	6652	6015	5520	5086	4105	3440	2580	2093	1572	1271	1076	935	741	615	524	281	149	102
HZY2-3850	8400	7590	6912	6380	5173	4350	3293	2686	2017	1634	1380	1201	958	801	684	368	193	132

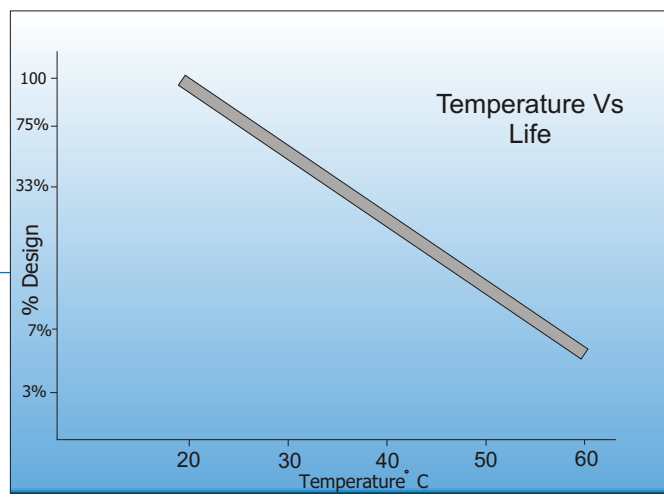
End of Discharge Voltage = 1.70	DISCHARGE IN WATTS PER CELL															20 - 25 °C	
Model	**15'**	**20'**	**25'**	**30'**	**45'**	**1 hr**	**90'**	**2 hr**	**3 hr**	**4 hr**	**5 hr**	**6 hr**	**8 hr**	**10 hr**	**12 hr**	**24 hr**	**48 hr**	**100 hr**
HZY2-50	141	122	107	96.0	72.8	59.2	43.5	34.8	25.8	20.9	17.8	15.5	12.4	10.3	8.82	4.80	-	-
HZY2-100	284	246	217	194	148	120	87.4	70.5	52.6	42.7	36.3	31.5	25.0	20.8	17.7	9.50	-	-
HZY2-150	404	351	310	278	212	175	131	106	79.5	64.3	54.5	47.2	37.3	31.2	26.7	14.6	-	-
HZY2-200	470	419	381	350	280	233	175	142	106	86.0	72.6	63.2	49.9	41.5	35.5	19.1	-	-
HZY2-250	578	520	475	435	347	288	218	178	132	107	90.8	79.0	62.9	52.5	44.8	23.9	-	-
HZY2-300	698	623	561	515	415	345	260	212	159	129	109	94.8	74.8	62.4	53.1	28.4	-	-
HZY2-375	872	778	710	649	520	435	326	266	198	161	136	117	92.9	77.4	65.9	35.4	-	-
HZY2-400	939	834	756	693	553	463	349	285	214	172	145	126	101	84.0	71.5	38.3	-	-
HZY2-450	1084	951	855	790	628	520	393	321	238	193	164	143	114	94.9	80.8	42.7	-	-
HZY2-500-1	1172	1047	955	879	699	582	436	356	266	215	183	159	126	106	90.3	47.8	-	-
HZY2-500-2	1172	1047	955	879	699	582	436	356	266	215	183	159	126	106	90.3	47.8	-	-
HZY2-575	1340	1188	1078	988	795	662	495	406	305	247	208	181	144	121	103	54.7	-	-
HZY2-600	1416	1265	1147	1050	846	705	524	427	319	259	218	190	151	126	108	58.4	-	-
HZY2-625	1420	1287	1171	1072	872	728	546	444	333	270	227	197	157	132	113	61.3	-	-
HZY2-750	1763	1566	1423	1308	1047	867	651	532	397	322	273	238	188	158	134	71.0	-	-
HZY2-800	1832	1662	1522	1390	1116	933	700	570	427	346	292	252	200	167	142	76.8	-	-
HZY2-1000-1	2312	2061	1869	1724	1395	1160	873	710	533	433	365	318	253	211	180	96.9	-	-
HZY2-1000-2	2312	2061	1869	1724	1395	1160	873	710	533	433	365	318	253	211	180	96.9	-	-
HZY2-1250	2908	2583	2336	2140	1731	1440	1085	886	670	544	459	398	317	265	225	120	-	-
HZY2-1500	3376	3087	2844	2608	2090	1741	1308	1066	797	645	545	476	380	318	270	143	-	-
HZY2-1875	4256	3858	3511	3234	2616	2168	1631	1332	1007	816	687	596	474	399	339	180	-	-
HZY2-2000	4588	4158	3782	3490	2793	2306	1739	1422	1065	862	729	636	503	416	355	189	-	-
HZY2-2500	5644	5079	4675	4296	3455	2871	2191	1779	1333	1084	919	798	631	526	448	238	-	-
HZY2-3000	6944	6251	5712	5234	4187	3505	2632	2135	1611	1301	1096	952	754	626	533	288	-	-
HZY2-3850	8720	7830	7128	6560	5333	4450	3359	2740	2053	1663	1409	1225	975	817	698	376	-	-

End of Discharge Voltage = 1.65	DISCHARGE IN WATTS PER CELL															20 - 25 °C	
Model	**15'**	**20'**	**25'**	**30'**	**45'**	**1 hr**	**90'**	**2 hr**	**3 hr**	**4 hr**	**5 hr**	**6 hr**	**8 hr**	**10 hr**	**12 hr**	**24 hr**	**48 hr**	**100 hr**
HZY2-50	143	125	109	97.0	74.4	60.2	44.3	35.5	26.3	21.3	-	-	-	-	-	-	-	-
HZY2-100	292	251	222	198	151	122	88.7	71.3	53.1	43.0	-	-	-	-	-	-	-	-
HZY2-150	414	359	317	283	218	177	133	108	80.4	65.0	-	-	-	-	-	-	-	-
HZY2-200	494	434	394	359	287	237	178	144	107	86.9	-	-	-	-	-	-	-	-
HZY2-250	604	541	492	449	356	293	221	180	134	109	-	-	-	-	-	-	-	-
HZY2-300	718	639	578	530	425	351	265	216	162	131	-	-	-	-	-	-	-	-
HZY2-375	907	804	734	668	531	443	333	271	202	163	-	-	-	-	-	-	-	-
HZY2-400	973	862	779	712	564	471	354	290	217	175	-	-	-	-	-	-	-	-
HZY2-450	1144	989	890	812	642	530	401	327	241	196	-	-	-	-	-	-	-	-
HZY2-500-1	1212	1080	979	896	711	590	440	360	270	218	-	-	-	-	-	-	-	-
HZY2-500-2	1212	1080	979	896	711	590	440	360	270	218	-	-	-	-	-	-	-	-
HZY2-575	1396	1236	1114	1012	815	678	507	415	310	251	-	-	-	-	-	-	-	-
HZY2-600	1468	1302	1174	1070	863	718	537	434	324	263	-	-	-	-	-	-	-	-
HZY2-625	1488	1320	1198	1098	893	743	555	453	338	275	-	-	-	-	-	-	-	-
HZY2-750	1816	1614	1465	1340	1072	885	663	541	402	328	-	-	-	-	-	-	-	-
HZY2-800	1912	1729	1565	1430	1145	954	715	580	433	350	-	-	-	-	-	-	-	-
HZY2-1000-1	2384	2124	1922	1760	1424	1180	885	720	541	440	-	-	-	-	-	-	-	-
HZY2-1000-2	2384	2124	1922	1760	1424	1180	885	720	541	440	-	-	-	-	-	-	-	-
HZY2-1250	3012	2657	2395	2184	1756	1458	1099	898	677	552	-	-	-	-	-	-	-	-
HZY2-1500	3480	3174	2904	2666	2133	1776	1331	1084	807	653	-	-	-	-	-	-	-	-
HZY2-1875	4400	3966	3600	3293	2655	2207	1667	1360	1026	831	-	-	-	-	-	-	-	-
HZY2-2000	4696	4254	3847	3554	2840	2347	1771	1442	1081	876	-	-	-	-	-	-	-	-
HZY2-2500	5864	5247	4759	4391	3524	2933	2241	1814	1356	1100	-	-	-	-	-	-	-	-
HZY2-3000	7172	6456	5870	5348	4267	3571	2667	2171	1629	1318	-	-	-	-	-	-	-	-
HZY2-3850	9080	8130	7320	6720	5427	4530	3427	2793	2083	1688	-	-	-	-	-	-	-	-

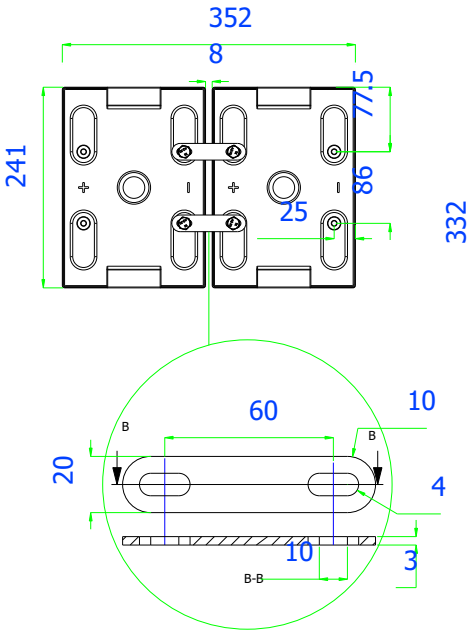
IMPORTANT NOTE: GEL batteries do not deliver full capacity on the first cycle, in fact they take approx. 15 to 20 cycles to reach full capacity. This reduced initial capacity effect is due to the extremely durable crystal structure employed in the Haze GEL range.The capacity quoted in this catalogue is full capacity.

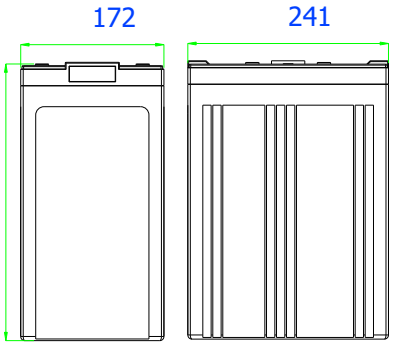
Battery Model	Dimensions (mm) & weight (Kg)				Dimensions (Inches) & weight (lbs)				No. of Terminals	Internal Resistance mOhms	Maximum Charge Current	Short Circuit Current
	Length	Width	Height	Weight	Length	Width	Height	Weight				
HZY2-50	161	50	166	3.1	6.34	1.97	6.54	6.9	2	1.13	10	509
HZY2-100	171	72	205	6.4	6.73	2.83	8.07	14.2	2	0.6	20	1080
HZY2-150	172	102	205	8.2	6.77	4.02	8.07	18.1	2	0.6	30	1550
HZY2-200	173	111	329	14	6.81	4.37	12.95	30.9	2	0.61	40	1600
HZY2-250	173	111	329	16.3	6.81	4.37	12.95	36.0	2	0.57	50	2000
HZY2-300	171	151	330	18.7	6.73	5.94	12.99	41.3	2	0.55	60	2400
HZY2-375	171	151	330	21.8	6.73	5.94	12.99	48.2	2	0.46	75	3000
HZY2-400	211	176	329	26.2	8.31	6.93	12.95	57.9	4	0.52	80	3200
HZY2-450	223	187	351	30.3	8.78	7.36	13.82	67.0	4	0.48	90	3600
HZY2-500-1	211	176	329	32	8.31	6.93	12.95	70.7	4	0.46	100	4000
HZY2-500-2	241	172	331	30.9	9.49	6.77	13.03	68.3	4	0.46	100	4000
HZY2-575	223	187	351	36	8.78	7.36	13.82	79.6	4	0.46	115	4600
HZY2-600	301	175	331	38.8	11.85	6.89	13.03	85.7	4	0.49	120	4800
HZY2-625	241	172	331	37.2	9.49	6.77	13.03	82.2	4	0.4	125	5000
HZY2-750	301	175	331	45.3	11.85	6.89	13.03	100.1	4	0.32	130	6000
HZY2-800	410	175	330	52	16.14	6.89	12.99	114.9	8	0.3	160	6400
HZY2-1000-1	410	175	330	60.9	16.14	6.89	12.99	134.6	8	0.23	200	7900
HZY2-1000-2	475	175	328	64.6	18.70	6.89	12.91	142.8	8	0.23	200	7900
HZY2-1250	475	175	328	71.6	18.70	6.89	12.91	158.2	8	0.23	250	10050
HZY2-1500	401	351	342	100.3	15.79	13.82	13.46	221.7	8	0.2	300	11950
HZY2-1875	401	351	342	118	15.79	13.82	13.46	260.8	8	0.2	375	15050
HZY2-2000	491	351	344	133	19.33	13.82	13.54	293.9	8	0.2	400	16100
HZY2-2500	491	351	344	149.5	19.33	13.82	13.54	330.4	8	0.2	500	19850
HZY2-3000	762	353	341	203.3	30.00	13.90	13.43	449.3	8	0.2	600	24100
HZY2-3850	762	353	341	256.1	30.00	13.90	13.43	566.0	8	0.2	770	30800

The graph shows extrapolated Service Life condition for Haze batteries at different ambient temperatures. Clearly higher ambient temperatures will reduce service life.

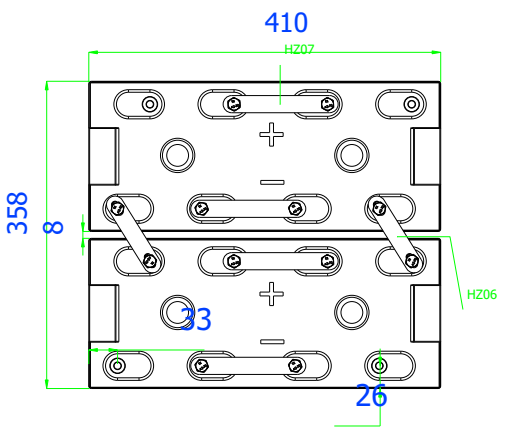


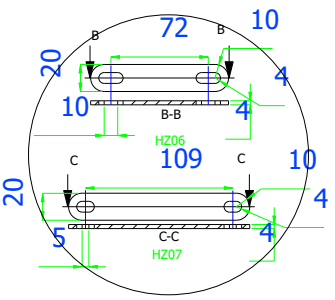
Typical Battery Layouts

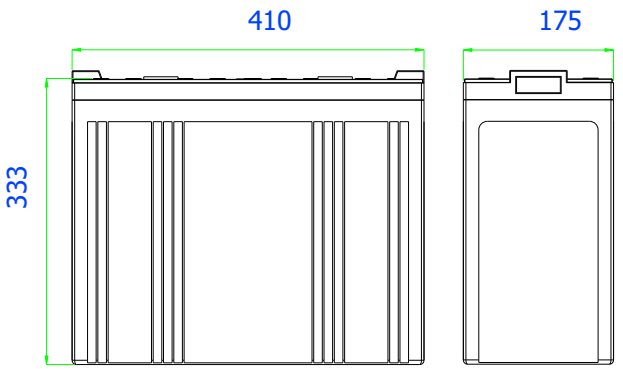


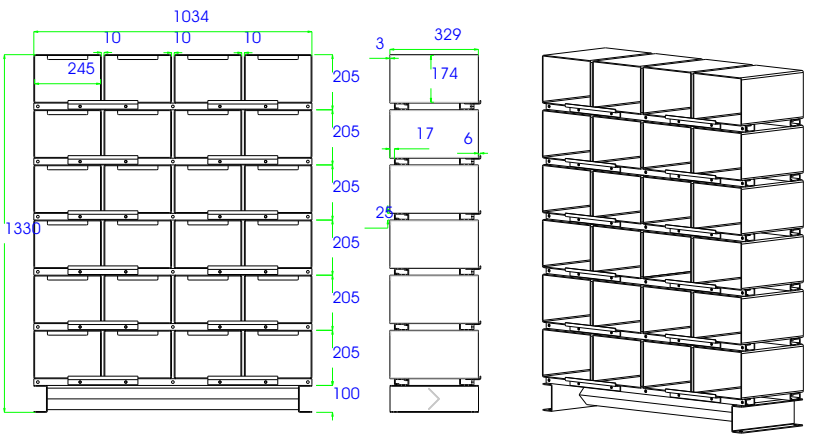


The sample battery layout drawings shown are available for all models showing terminal locations and intercell and inter battery connections. We can provide custom layouts to customers with an existing installation or footprint limitations.
Battery spacing is flexible to allow greater or smaller spacing between the cells, indeed our standard connector has 10mm of travel allowing battery spacing from 3 to 13 mm. Close spacing is only recommended in temperature controlled environments with forced cooling.
Connectors and terminal covers are supplied as standard.





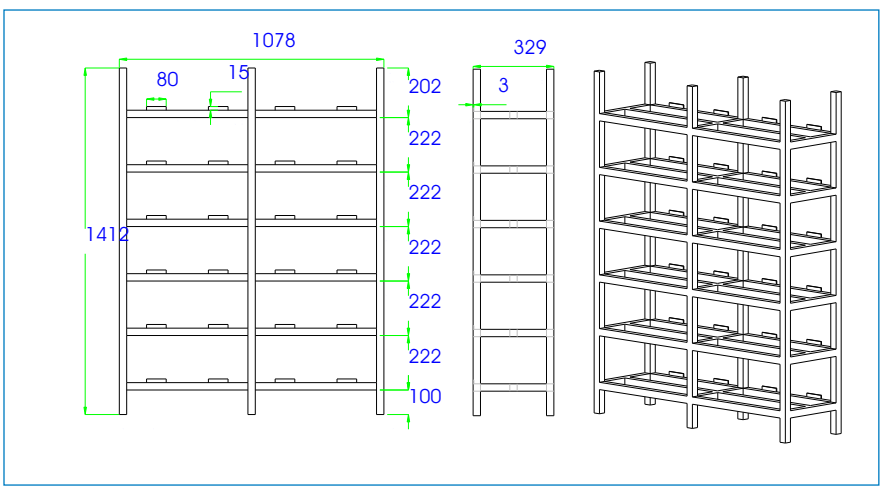




RACKING OPTIONS - Many racking options are available from Haze Battery Company. The favored style in Europe is the open rack, which can be designed to suit an existing foot print or minimised to fit the minimum possible space. Rack construction is from heavy duty steel section with welded joints or alternatively made in kit form for remote assembly.

A modular rack is also available for models HZY2-200 up to HZY2-1250. Box construction is from 3mm steel sheet, interlocking modules are slotted together and bolted in place, bolted front retainers hold the batteries in place resulting in a seismic zone 4 classified rack.

HZY2-1500 and above, due to their size and weight are more suited to vertical orientation - racking can be supplied to minimise the footprint by the use of multiple tiers. Battery retainers can be utilised to allow seismic zone 4 classification. Racks can be supplied with welded joints or as kit form for remote assembly.



Haze Battery Company Ltd

Product Range

4, 6 & 12 Volt AGM 1.3 to 230AH
6 & 12 Volt Gel 7.5 to 230AH
12 Volt Front Access AGM
12 Volt Front Access Gel
2 Volt AGM & Gel 50 to 3850AH
EV Gel
EV AGM
Marine Gel
Solar
OPzV
OPzS

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Haze Battery Company keenly encourages environmental awareness; PLEASE follow guidelines for the recycling /disposal of lead.