

INFORMATION ON REGULATION (EU) 2023/1542
 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
 Article 10 – Performance and Durability Requirements
 Flooded Motive Batteries (Electric Vehicle)



Flooded/Wet Batteries Normal Charging Parameters @25°C (77°F)							
Trojan Battery Line	Maximum Charge Current* (% of C ₂₀)	Absorption Voltage** (V/cell)	Maximum Absorption Phase Time (hours)	Finish Current (% of C ₂₀)	Equalization Voltage (V/cell)	Float Voltage (V/cell)	Temperature Compensation (V/cell)
Solar Premium and Signature	13%	2.45	4	1-3%	2.70	2.25	Fahrenheit: -2.8 mV x (T _{battery} -77) Celsius: -5 mV x (T _{battery} -25)



INFORMATION ON REGULATION (EU) 2023/1542
 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
 Article 10 – Performance and Durability Requirements
 Flooded Motive Batteries (Electric Vehicle)



Part A Parameters related to electrochemical performance and durability											
BCI Group Size	Model Name	Nominal Battery Voltage	Rated capacity (Ah) 10-Hr to 1.75vpc @ 27C	Rated capacity (Ah) 20-Hr to 1.75vpc @ 27C	Rated capacity (Ah) 100-Hr to 1.75vpc @ 27C	Capacity Fade (%) End of Life	100% SOC Voltage	Power (W) @ 20Hr	Internal Resistance (Milliohms)	Round Trip Efficiency %	Expected Cycle Life
GC2	T-605	6	193	210	232	50	6.37	1338	2.9	91	300
GC2	S-105	6	193	210	232	50	6.37	1338	2.9	91	300
GC2	6V BLACK	6	175	190	210	50	6.37	1210	2.9	91	300
GC2	T-105	6	207	225	250	50	6.37	1433	2.7	91	300
GC2	T-105 -HL	6	207	225	250	50	6.37	1433	2.7	91	300
GC2	T-105 PLUS	6	207	225	250	50	6.37	1433	2.7	91	300
GC2	T-125	6	221	240	266	50	6.37	1529	2.5	91	300
GC2	T-125 -HL	6	221	240	266	50	6.37	1529	2.5	91	300
GC2	T-125 PLUS	6	221	240	266	50	6.37	1529	2.5	91	300
GC2H	T-145	6	239	260	287	50	6.37	1656	2.3	91	300
GC2H	T-145 PLUS	6	239	260	287	50	6.37	1656	2.3	91	300
DIN	TE35	6	225	245	270	50	6.37	1561	2.4	91	300
901	J250G	6	218	235	261	50	6.37	1497	2.9	91	300
901	J250P	6	230	250	278	50	6.37	1593	2.9	91	300
902	J305E-AC	6	280	305	339	50	6.37	1943	2.9	91	300
902	S-305	6	280	305	339	50	6.37	1943	2.9	91	300
902	J305G-AC	6	290	315	350	50	6.37	2007	2.9	91	300
902	J305P-AC*	6	304	330	367	50	6.37	2102	2.5	91	300
902	J305PG-AC	6	304	330	367	50	6.37	2102	2.5	91	300
902	J305H-AC*	6	331	360	400	50	6.37	2293	2.3	91	300
902	J305HG-AC	6	331	360	400	50	6.37	2293	2.3	91	300
903	L16E-AC	6	340	370	411	50	6.37	2357	2.4	91	300
903	S-16	6	340	370	411	50	6.37	2357	2.4	91	300
903	L16G-AC	6	359	390	433	50	6.37	2484	3.1	91	300
903	L16G-4V/6V	6	359	390	433	50	6.37	2484	3.1	91	300
903	L16P-AC*	6	386	420	467	50	6.37	2675	2.4	91	300
903	L16PG-AC	6	386	420	467	50	6.37	2675	2.4	91	300
903	L16H-AC*	6	400	435	483	50	6.37	2771	2.2	91	300
903	L16HG-AC	6	400	435	483	50	6.37	2771	2.2	91	300
GC8	DC-8V	8	147	160	176	50	8.49	1358	4.5	91	300
GC8	S-875	8	147	160	176	50	8.49	1358	4.5	91	300
GC8	8V BLACK	8	147	160	176	50	8.49	1358		91	300
GC8	T-875	8	155	170	189	50	8.49	1443	4.1	91	300
GC8	T-875-HL	8	155	170	189	50	8.49	1443	4.1	91	300
GC8	T-890	8	175	190	211	50	8.49	1613	3.8	91	300
GC8H	RANGER 160	8	186	204	225	50	8.49	1732		91	300
24	24TMX	12	78	85	94	50	12.73	1082	9	91	300
27	27TMX	12	97	105	117	50	12.73	1337	7.6	91	300
27	27TMH	12	106	115	128	50	12.73	1464		91	300
30H	30XHS	12	120	130	144	50	12.73	1655	5.9	91	300
31	31XHS	12	120	130	144	50	12.73	1655	5.1	91	300
GC12	T-1260 PLUS	12	126	140	155	50	12.73	1782		91	300
GC12	12V BLK	12	126	140	155	50	12.73	1782		91	300
BCI Group Size	Model Name	Nominal Battery Voltage	Rated capacity (Ah) 10-Hr to 1.75vpc @ 27C	Rated capacity (Ah) 20-Hr to 1.75vpc @ 27C	Rated capacity (Ah) 100-Hr to 1.75vpc @ 27C	Capacity Fade (%) End of Life	100% SOC Voltage	Power (W) @ 20Hr	Internal Resistance (Milliohms)		Expected Cycle Life
GC12	T-1275	12	134	150	166	50	12.73	1910	6.4	91	300
GC12	T-1275 HL	12	134	150	166	50	12.73	1910	6.4	91	300
GC12	T-1275 BLACK	12	134	150	166	50	12.73	1910	6.4	91	300
GC12	S-1275	12	126	140	155	50	12.73	1782	6.4	91	300
GC12	T-1275 PLUS	12	134	150	166	50	12.73	1910	6.4	91	300
GC12	J150	12	134	150	166	50	12.73	1910	6.4	91	300
GC12	J150 PLUS	12	134	150	166	50	12.73	1910	6.4	91	300
921	J185E-AC	12	160	175	194	50	12.73	2228	8.1	91	300
921	J185G-AC	12	170	185	205	50	12.73	2355		91	300
921	J185P-AC*	12	189	205	226	50	12.73	2610	7	91	300
921	J185PG-AC	12	189	205	226	50	12.73	2610	7	91	300
921	J185H-AC*	12	207	225	249	50	12.73	2864	5.8	91	300
921	J185HG-AC	12	207	225	249	50	12.73	2864	5.8	91	300
24	SCS150	12	92	100	111	50	12.73	1273	8.8	91	300
27	SCS200	12	105	115	128	50	12.73	1464	5.9	91	300
30H	SCS225	12	118	130	144	50	12.73	1655	4.2	91	300
921	SPRE 12 225	12	179	204	225	50	12.73	2597	4.6	91	900
GC2H	SPRE 06 255	6	211	229	255	50	6.37	1459	2	91	900
903	SPRE 06 415	6	346	377	415	50	6.37	2401	2	91	900
903	SPRE 02 1255	2	1039	1130	1255	50	2.122	2398	0.8	91	900
GC12	SSIG 12 170	12	136	153	170	50	12.73	1948	6.4	91	300
921	SSIG 12 230	12	192	209	230	50	12.73	2661	7	91	300
921	SSIG 12 255	12	211	229	255	50	12.73	2915	5.8	91	450
GC2	SSIG 06 235	6	196	214	235	50	6.37	1363	2.9	91	450
GC2	SSIG 06 255	6	211	229	255	50	6.37	1459	2.7	91	450
GC2H	SSIG 06 290	6	243	265	290	50	6.37	1688	2.3	91	450
902	SSIG 06 375	6	309	336	375	50	6.37	2140	2.5	91	450
902	SSIG 06 405	6	337	366	405	50	6.37	2331	2.3	91	600
903	SSIG 06 475	6	393	428	475	50	6.37	2726	2.4	91	600
903	SSIG 06 490	6	407	443	490	50	6.37	2822	2.2	91	600
24	SSIG 12 95	12	79	87	95	50	12.73	1108	9	91	300
27	SSIG 12 120	12	99	107	120	50	12.73	1362	7.6	91	300



INFORMATION ON REGULATION (EU) 2023/1542
 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
 Article 10 – Performance and Durability Requirements
 Flooded Motive Batteries (Electric Vehicle)



Part B Elements to explain the measurements for parameters

BCI Group Size	Model Name	Nominal Battery Voltage	Rated capacity (Ah) 10-Hr to 1.75vpc @ 27C	Rated capacity (Ah) 20-Hr to 1.75vpc @ 27C	Rated capacity (Ah) 100-Hr to 1.75vpc @ 27C	80% SOC Voltage	Power Capability @ 80% SOC (W)	20% SOC Voltage	Power Capability @ 20% SOC (W)
GC2	T-605	6	193	210	232	6.25	1313	5.83	1224
GC2	S-105	6	193	210	232	6.25	1313	5.83	1224
GC2	6V BLACK	6	175	190	210	6.25	1188	5.83	1108
GC2	T-105	6	207	225	250	6.25	1406	5.83	1312
GC2	T-105 -HL	6	207	225	250	6.25	1406	5.83	1312
GC2	T-105 PLUS	6	207	225	250	6.25	1406	5.83	1312
GC2	T-125	6	221	240	266	6.25	1500	5.83	1399
GC2	T-125 -HL	6	221	240	266	6.25	1500	5.83	1399
GC2	T-125 PLUS	6	221	240	266	6.25	1500	5.83	1399
GC2H	T-145	6	239	260	287	6.25	1625	5.83	1516
GC2H	T-145 PLUS	6	239	260	287	6.25	1625	5.83	1516
DIN	TE35	6	225	245	270	6.25	1531	5.83	1428
901	J250G	6	216	235	261	6.25	1469	5.83	1370
901	J250P*	6	230	250	278	6.25	1563	5.83	1458
902	J305E-AC	6	280	305	339	6.25	1906	5.83	1778
902	S-305	6	280	305	339	6.25	1906	5.83	1778
902	J305G-AC	6	290	315	350	6.25	1969	5.83	1836
902	J305P-AC*	6	304	330	367	6.25	2063	5.83	1924
902	J305PG-AC	6	304	330	367	6.25	2063	5.83	1924
902	J305H-AC*	6	331	360	400	6.25	2250	5.83	2099
902	J305HG-AC	6	331	360	400	6.25	2250	5.83	2099
903	L16E-AC	6	340	370	411	6.25	2313	5.83	2157
903	S-16	6	340	370	411	6.25	2313	5.83	2157
903	L16G-AC	6	359	390	433	6.25	2438	5.83	2274
903	L16G-4V/6V	6	359	390	433	6.25	2438	5.83	2274
903	L16P-AC*	6	386	420	467	6.25	2625	5.83	2449
903	L16PG-AC	6	386	420	467	6.25	2625	5.83	2449
903	L16H-AC*	6	400	435	483	6.25	2719	5.83	2536
903	L16HG-AC	6	400	435	483	6.25	2719	5.83	2536
GC8	DC-8V	8	147	160	176	8.33	1333	7.77	1243
GC8	S-875	8	147	160	175	8.33	1333	7.77	1243
GC8	8V BLACK	8	147	160	175	8.33	1333	7.77	1243
GC8	T-875	8	155	170	189	8.33	1416	7.77	1321
GC8	T-875-HL	8	155	170	189	8.33	1416	7.77	1321
GC8	T-890	8	175	190	211	8.33	1583	7.77	1476
GC8H	RANGER 160	8	186	204	225	8.33	1699	7.77	1585
24	24T MX	12	78	85	94	12.5	1063	11.66	991
27	27T MX	12	97	105	117	12.5	1313	11.66	1224
27	27T MH	12	106	115	128	12.5	1438	11.66	1341
30H	30XHS	12	120	130	144	12.5	1625	11.66	1516
31	31XHS	12	120	130	144	12.5	1625	11.66	1516
GC12	T-1260 PLUS	12	126	140	155	12.5	1750	11.66	1632
GC12	12V BLK	12	126	140	155	12.5	1750	11.66	1632

BCI Group Size	Model Name	Nominal Battery Voltage	Rated capacity (Ah) 10-Hr to 1.75vpc @ 27C	Rated capacity (Ah) 20-Hr to 1.75vpc @ 27C	Rated capacity (Ah) 100-Hr to 1.75vpc @ 27C	80% SOC Voltage	Power Capability @ 80% SOC (W)	20% SOC Voltage	Power Capability @ 20% SOC (W)
GC12	T-1275	12	134	150	166	12.5	1875	11.66	1749
GC12	T-1275 HL	12	134	150	166	12.5	1875	11.66	1749
GC12	T-1275	12	134	150	166	12.5	1875	11.66	1749
GC12	S-1275	12	126	140	155	12.5	1750	11.66	1632
GC12	T-1275 PLUS	12	134	150	166	12.5	1875	11.66	1749
GC12	J150	12	134	150	166	12.5	1875	11.66	1749
GC12	J150 PLUS	12	134	150	166	12.5	1875	11.66	1749
921	J185E-AC	12	160	175	194	12.5	2188	11.66	2041
921	J185G-AC	12	170	185	205	12.5	2313	11.66	2157
921	J185P-AC*	12	189	205	226	12.5	2563	11.66	2390
921	J185PG-AC	12	189	205	226	12.5	2563	11.66	2390
921	J185H-AC*	12	207	225	249	12.5	2813	11.66	2624
921	J185HG-AC	12	207	225	249	12.5	2813	11.66	2624
24	SCS150	12	92	100	111	12.5	1250	11.66	1166
27	SCS200	12	105	115	128	12.5	1438	11.66	1341
30H	SCS225	12	118	130	144	12.5	1625	11.66	1516
921	SPRE 12 225	12	179	204	225	12.5	2550	11.66	2379
GC2H	SPRE 06 255	6	211	229	255	6.25	1431	5.83	1335
903	SPRE 06 415	6	346	377	415	6.25	2356	5.83	2198
903	SPRE 02 1255	2	1039	1130	1255	2.083	2354	1.943	2196
GC12	SSIG 12 170	12	136	153	170	12.5	1913	11.66	1784
921	SSIG 12 230	12	192	209	230	12.5	2613	11.66	2437
921	SSIG 12 255	12	211	229	255	12.5	2863	11.66	2670
GC2	SSIG 06 235	6	196	214	235	6.25	1338	5.83	1248
GC2	SSIG 06 255	6	211	229	255	6.25	1431	5.83	1335
GC2H	SSIG 06 290	6	243	265	290	6.25	1656	5.83	1545
902	SSIG 06 375	6	309	336	375	6.25	2100	5.83	1959
902	SSIG 06 405	6	337	366	405	6.25	2288	5.83	2134
903	SSIG 06 475	6	393	428	475	6.25	2675	5.83	2495
903	SSIG 06 490	6	407	443	490	6.25	2769	5.83	2583
24	SSIG 12 95	12	79	87	95	12.5	1088	11.66	1014
27	SSIG 12 120	12	99	107	120	12.5	1338	11.66	1248

