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**2CP550 BATTERY  
PRODUCT  
SPECIFICATION**

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Part Number 61340550

### TECHNOLOGY

VRLA-AGM Valve Regulated Lead-Acid and Absorbed Glass Mat

### ELECTRICAL DATA


Type	2CP550		
Nominal Voltage	2 volts (1 cell)		
Rated Capacity	552 Ah - C <sub>10</sub> to 1.80 Vpc at 20 °C 559 Ah - C <sub>100</sub> to 1.80 Vpc at 20 °C		
Current / Power			
0.5 hr back-up time	1.65 Vpc	20 °C	649 A 1161 W
1.0 hr back-up time	1.67 Vpc	20 °C	388 A 715 W
2.0 hr back-up time	1.80 Vpc	20 °C	210 A 399 W
4.0 hr back-up time	1.80 Vpc	20 °C	119 A 231 W
8.0 hr back-up time	1.80 Vpc	20 °C	67.2 A 129 W
10.0 hr back-up time	1.80 Vpc	20 °C	55.2 A 106 W
20.0 hr back-up time	1.80 Vpc	20 °C	29.2 A 54.4 W
Conversion to capacity at 25 °C (77 °F)	20° C Ah x 1.03 (t > 1 h)		
Internal resistance (± 10%) to IEC/EN 60896-21	0.22 mΩ		
Short circuit current (± 10%) to IEC/EN 60896-21	9.1 kA		
Self discharge at 20° C IEC/EN 60896-21	max. 3%/month		
Heat loss during float service at 20 °C	≈ 0.55 W		

### MECHANICAL DATA

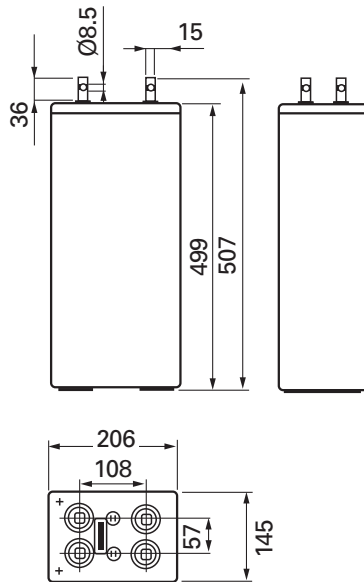
Weight ready for use	42.4 kg
Height of cell	507 mm
Height over terminal connector	512 mm
Width	206 mm
Depth	145 mm
Number of terminals	2 ⊕ / 2 ⊖
Terminals	∅ 8.5 mm (through hole M8)
Suggested/maximum cable cross-section	4.185 mm <sup>2</sup> *) up to 6.185 mm <sup>2</sup> / up to 4.240 mm <sup>2</sup> *)
Connection torque	25 Nm
Terminal insulation class according to IEC/EN 60529	IP20
Diameter of diagnostic hole for voltage probe	4.0 mm ∅
Connector (copper, tin-coated) rigid and insulated	4.90 mm <sup>2</sup>
Complete connector and terminal connection accessories	available

\*) for UPS duties the connecting cables must be dimensioned specially

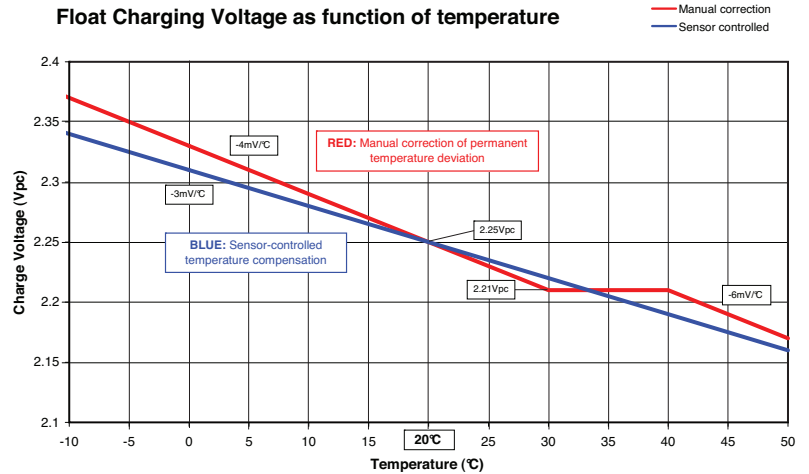
### ENVIRONMENTAL DATA

Installation	Vertically / horizontally
Distance for cooling and ventilation (preset with the rigid connectors)	12 mm
Flame retardancy rating case/cover according to Underwriters Laboratories (UL) USA	ABS - PC – UL 94 V-0 with LOI > 32%, halogen-free
Flame barriers at vents	Installed
UL file number 	MH 26065
Service life expected at 20 °C	15 years
Eurobat classification	12+ Long Life
Shelves, cabinets and racks	available upon request

### BATTERY DRAWINGS



### FLOAT VOLTAGE COMPENSATION AS A FUNCTION OF TEMPERATURE



### CAPACITY CORRECTION FACTORS AS A FUNCTION OF TEMPERATURE

Temperature	% of Rated Capacity
40 °C (104 °F)	104.8
35 °C (95 °F)	104.2
30 °C (86 °F)	103.6
25 °C (77 °F)	103.0
20 °C (68 °F)	100.0
15 °C (59 °F)	97.0
10 °C (50 °F)	94.0
5 °C (41 °F)	90.0
0 °C (32 °F)	84.7
-5 °C (23 °F)	77.7
-10 °C (14 °F)	69.4
-15 °C (5 °F)	60.0
-20 °C (-4 °F)	49.6
-25 °C (-13 °F)	38.4
-30 °C (-22 °F)	25.6
-35 °C (-31 °F)	14.1
-40 °C (-40 °F)	2.1

### INSTALLATION & OPERATION CHARACTERISTICS

Battery installation and operation	Stand-by mode with constant voltage float operation according to EN 50272-2:2001
Float voltage setting according to DIN 41773	2.25 Vpc ± 1% at 20 °C - 25 °C (68 °F - 77 °F)
Float voltage with daily discharge cycles	2.29 Vpc - 2.30 Vpc (no correction factor needed)
CC-CV charge current according to DIN 41773	unlimited, otherwise $3 \cdot I_{10}$ max. if temp > 25 °C
Float voltage compensation in function of temperature	-2 to -4 mV / °C or with profile as displayed in graph above
Boost charge	Not needed, if desirable then 2.35 Vpc and $I_{10}$ max. for 24 hr max. at temp < 30 °C
Air exchange	As a VRLA battery according to EN 50272-2:2001 $Q = 0.05 \cdot N_{\text{cells}} \cdot I_{\text{gas}} \cdot C_{\text{Ah C10}} \cdot 10^3$ [m³/h] $I_{\text{gas}} = 1$ (at 2.25 Vpc) $I_{\text{gas}} = 8$ (at 2.40 Vpc) e.g. 48 V: 0.6624 m³/hr = 23.39 cu.ft/hr (at 2.25 Vpc)
Preferred operating temperature range	Between 15 °C - 25 °C (59 °F - 77 °F)
Maximum long term operating temperature	+40 °C (104 °F) with ventilation assured (reduced service life)
Maximum short term operating temperature (for hours)	+50 °C (122 °F) with ventilation assured (reduced service life)
Minimum fully charged operating temperature	-40 °C (-40 °F)

## 2CP550 BATTERY PRODUCT SPECIFICATION

### DISCHARGE DATA

Constant current performance (in amps) to the defined end-of-discharge voltage

Voltage (Vpc)	Temp.	Discharge time [min]																						
		1-2	3	5	7	10	15	20	25	30	40	50	60	90	120	180	240	300	360	480	600	720	1200	1440
1.90	20 °C	638	629	610	588	556	508	467	432	402	353	315	285	223	185	134	109	92	81.4	64.3	53.3	45.5	28.6	24.0
	25 °C	657	648	628	606	573	523	481	445	414	364	324	294	230	191	138	112	95	83.8	66.2	54.9	46.9	29.5	24.7
1.87	20 °C	773	759	731	700	656	590	535	490	451	391	345	309	238	195	140	113	95	83.2	65.5	54.1	46.1	28.9	24.2
	25 °C	796	782	753	721	676	608	551	505	465	403	355	318	245	201	144	116	98	85.7	67.5	55.7	47.5	29.8	24.9
1.85	20 °C	866	849	814	776	722	643	578	526	482	413	362	323	246	200	143	115	96	84.2	66.1	54.5	46.4	29.0	24.3
	25 °C	892	874	838	799	744	662	595	542	496	425	373	333	253	206	148	118	99	86.7	68.1	56.1	47.8	29.9	25.0
1.84	20 °C	913	894	856	814	754	668	599	542	496	424	370	330	250	202	145	116	97	84.6	66.4	54.7	46.5	29.1	24.3
	25 °C	940	921	882	838	777	688	617	558	511	437	381	340	258	208	149	119	100	87.1	68.4	56.3	47.9	29.9	25.1
1.83	20 °C	960	939	896	851	786	693	619	559	509	433	378	336	253	205	146	117	98	85.0	66.6	54.9	46.7	29.1	24.3
	25 °C	989	967	923	877	810	714	638	576	524	446	389	346	261	211	151	120	101	87.6	68.6	56.5	48.1	30.0	25.1
1.82	20 °C	1006	984	937	887	817	717	638	574	522	443	385	341	256	207	147	117	98	85.4	66.8	55.0	46.8	29.1	24.4
	25 °C	1036	1013	965	914	841	739	657	591	538	456	396	351	264	213	152	121	101	87.9	68.8	56.6	48.2	30.0	25.1
1.80	20 °C	1097	1070	1015	957	875	762	673	602	545	459	397	351	262	210	150	119	99	86.0	67.2	55.2	46.9	29.2	24.4
	25 °C	1130	1102	1045	985	902	785	693	620	562	473	409	362	270	216	154	122	102	88.5	69.2	56.9	48.4	30.1	25.2
1.77	20 °C	1225	1192	1124	1053	955	822	719	639	575	480	413	363	268	214	155	122	101	86.7	67.6	55.5	47.2	29.3	24.5
	25 °C	1262	1227	1157	1084	984	846	741	658	593	495	426	374	276	221	159	126	104	89.3	69.6	57.2	48.6	30.1	25.2
1.75	20 °C	1304	1266	1190	1111	1003	857	746	660	592	492	422	370	272	217	156	123	102	87.0	67.8	55.7	47.3	29.3	24.5
	25 °C	1343	1304	1226	1144	1033	882	768	680	610	507	434	381	280	223	161	126	105	89.7	69.9	57.4	48.7	30.2	25.2
1.72	20 °C	1413	1369	1280	1189	1066	902	780	687	614	507	433	378	277	220	157	124	102	87.5	68.1	55.9	47.4	29.4	24.5
	25 °C	1455	1410	1318	1225	1098	929	803	708	632	522	446	389	285	226	162	127	105	90.1	70.1	57.6	48.8	30.3	25.3
1.70	20 °C	1479	1430	1333	1235	1103	929	800	702	626	515	439	383	279	221	158	124	103	87.7	68.3	56.0	47.5	29.4	24.6
	25 °C	1523	1473	1373	1272	1136	956	824	723	645	530	452	394	287	228	163	128	106	90.4	70.3	57.7	48.9	30.3	25.3
1.67	20 °C	1567	1513	1405	1296	1151	963	825	721	641	525	446	388	282	223	159	125	103	88.0	68.4	56.1	47.6	29.4	24.6
	25 °C	1614	1558	1447	1335	1185	991	850	743	660	541	459	400	290	230	164	128	106	90.7	70.5	57.8	49.0	30.3	25.3
1.65	20 °C	1619	1561	1446	1331	1179	982	839	732	649	531	450	391	284	224	160	125	103	88.2	68.5	56.2	47.6	29.4	24.6
	25 °C	1667	1608	1490	1371	1214	1011	864	754	669	547	464	403	292	231	164	129	106	90.8	70.6	57.8	49.0	30.3	25.3
1.63	20 °C	1665	1604	1483	1362	1203	999	851	741	657	536	454	394	285	225	160	125	103	88.3	68.6	56.2	47.6	29.4	24.6
	25 °C	1715	1652	1528	1403	1239	1029	877	764	677	552	467	406	293	232	165	129	107	91.0	70.7	57.9	49.1	30.3	25.3
1.60	20 °C	1727	1661	1532	1403	1235	1021	867	753	666	542	458	397	287	226	161	126	104	88.5	68.7	56.3	47.7	29.5	24.6
	25 °C	1779	1711	1578	1445	1272	1051	893	776	686	558	472	409	295	233	165	129	107	91.1	70.8	58.0	49.1	30.4	25.4

Constant power performance (in watt per cell) to the defined end-of-discharge voltage

Voltage (Vpc)	Temp.	Discharge time [min]																						
		1-2	3	5	7	10	15	20	25	30	40	50	60	90	120	180	240	300	360	480	600	720	1200	1440
1.90	20 °C	1226	1206	1166	1124	1061	968	889	821	764	672	601	544	427	354	267	216	182	157	124	102	87.0	54.0	45.0
	25 °C	1263	1242	1201	1158	1093	997	916	846	787	692	619	560	440	365	275	222	187	162	128	105	89.6	55.6	46.3
1.87	20 °C	1463	1435	1379	1320	1234	1110	1007	922	850	737	653	586	453	372	277	222	186	161	126	104	88.0	54.1	45.0
	25 °C	1507	1478	1420	1360	1271	1143	1037	950	876	759	673	604	467	383	285	229	192	166	130	107	90.6	55.7	46.3
1.85	20 °C	1622	1587	1520	1448	1346	1199	1080	982	902	776	682	610	467	381	282	225	188	162	127	105	89.0	54.1	45.0
	25 °C	1671	1635	1566	1491	1386	1235	1112	1011	929	799	702	628	481	392	290	232	194	167	131	108	91.7	55.8	46.3
1.84	20 °C	1701	1662	1588	1510	1399	1241	1114	1010	925	793	696	621	474	386	284	227	190	163	128	105	89.2	54.2	45.0
	25 °C	1752	1712	1636	1555	1441	1278	1147	1041	953	817	717	640	488	397	293	234	195	168	131	108	91.8	55.8	46.3
1.83	20 °C	1777	1736	1655	1570	1451	1282	1146	1037	947	809	708	631	479	389	286	228	190	164	128	106	89.3	54.3	45.0
	25 °C	1831	1788	1705	1617	1494	1320	1181	1068	976	834	730	650	494	401	295	235	196	169	132	109	92.0	55.9	46.3
1.82	20 °C	1852	1807	1720	1628	1500	1320	1177	1062	968	825	720	640	485	393	288	229	191	164	128	106	89.5	54.4	45.0
	25 °C	1908	1861	1772	1677	1545	1360	1212	1094	997	850	742	659	500	405	297	236	197	169	132	109	92.2	56.0	46.3
1.80	20 °C	1995	1942	1842	1738	1593	1391	1233	1108	1006	852	741	656	494	399	291	231	193	165	129	106	89.7	54.4	45.0
	25 °C	2055	2000	1897	1790	1641	1433	1270	1141	1036	878	763	676	509	411	300	238	199	170	133	109	92.4	56.1	46.3
1.77	20 °C	2189	2126	2006	1883	1714	1482	1304	1165	1053	885	766	676	505	406	295	234	194	167	129	106	89.8	54.5	45.0
	25 °C	2255	2190	2066	1939	1765	1526	1343	1200	1085	912	789	696	520	418	304	241	200	172	133	109	92.5	56.1	46.4
1.75	20 °C	2303	2234	2102	1967	1783	1534	1344	1196	1079	903	779	687	511	410	297	235	195	167	130	107	90.0	54.6	45.0
	25 °C	2372	2301	2165	2026	1836	1580	1384	1232	1111	930	802	708	526	422	306	242	201	172	134	110	92.7	56.2	46.4
1.72	20 °C	2455	2376	2227	2076	1873	1600	1394	1236	1111	926	796	700	518	414	300	237	196	168	130	107	90.2	54.6	45.0
	25 °C	2529	2447	2294	2138	1929	1648	1436	1273	1144	954	820	721	534	426	309	244	202	173	134	110	92.9	56.3	46.4
1.70	20 °C	2542	2457	2299	2139	1923	1637	1422	1258	1128	938	805	707	522	417	301	238	197	168	130	107	90.3	54.7	45.0
	25 °C	2618	2531	2368	2203	1981	1686	1465	1296	1162	966	829	728	538	430	310	245	203	173	134	110	93.0	56.4	46.4
1.67	20 °C	2653	2561	2389	2217	1986	1682	1456	1284	1150	953	816	715	526	420	302	238	197	168	131	107	90.5	54.8	45.0
	25 °C	2733	2638																					