

Sonnenschein :

Proven know-how based c



Sonnenschein complete battery range :

standby batteries

traction batteries

automotive batteries

lithium batteries

Sonnenschein, a European battery energy leader.

Sonnenschein is a member of the EXIDE group, which is the world leader in lead-acid batteries. Our manufacturing capability is unequalled within our various battery plants.

Sonnenschein offers 80 years of experience in the design and production of lead-acid batteries with a commitment towards zero defect quality in accordance with ISO 9001.

Capitalise on our experience.

A suitable technology for every application.

Sonnenschein produces more than 6000 versions of lead-acid batteries with capacities from 1 to 12000 Ah involving a wide range of technologies : dryfit, AGM, and Classic.

With its very wide range of products Sonnenschein can respond to any battery market requirement – the right technology at an economical price for each application.



80 years of worldwide experience.



dryfit A 500.

Valve Regulated Lead Acid (VRLA) batteries with dryfit technology. The electrolyte is immobilised in a gel guaranteeing optimum reliability for all applications.

dryfit A 500 batteries are distinguished by their exceptionally long service life, high energy density and cost effective use. They are also very well suited for cyclic applications.

Applications :

dryfit A 500 batteries are designed for applications in various fields : telecommunications, power plants, signalling and remote control power supply, emergency energy production, data systems, UPS, alarm and security systems, emergency lighting

and cyclic applications (e.g. electrical wheelchairs, golf caddies).

Technical advantages :

- Maintenance free during the whole lifetime.
- Designed for 6 years service lifetime at an ambient temperature of 20°C (with 80% residual capacity).
- Eurobat classification : General Purpose.
- dryfit technology : the electrolyte is immobilised in a gel - no leaking can occur during service life.
- Very low gas emission due to gas recombination.
- Grid plates in monoblocks.
- Not restricted for air, rail and road transportation (in accordance to IATA).
- Good high cyclic capability.

dryfit A 500 batteries.

- Very low self-discharge rate : batteries can be stored up to 2 years at 20°C.
- Short recharge time.
- Good performance in high current discharge.
- Safe in case of deep discharges according to DIN 43539 part 5.
- Capacity range from 1.2 - 115 Ah.
- Installation guidelines : If dryfit A 500 batteries are installed in rooms, containers and cabinets, the installation specifications VDE 0510 part 2 and part 7 must be adhered to.
- Recycling : lead acid batteries can be recycled. By agreement Sonnenschein takes back your old dryfit A 500 batteries at the end of their service life for recycling.
- Economical : excellent performance/price ratio and very low service costs.
- VdS approval for alarm and security systems.
- International approvals :
USA : UL File No. MH 12547,
France : Bureau Veritas
No. 2891/2344/A0/0



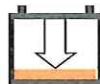
Maintenance free



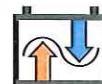
Nom. capacity 1.2 - 115 Ah



Lifetime 6 years



Deep discharge safe



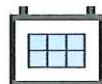
600 cycles to IEC



Valve regulated



Recyclable



Flat grid plates

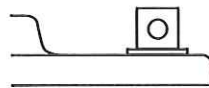


Monoblocks

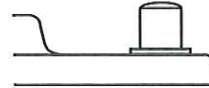
Type no.	Type	Nom. voltage	Nom. capacity (C 20) to 1.75 VPC	Dis-charge current (I 20)	Max. load*)	Max. permissible current over 5 sec.*)	Weight	Max. length in	Max. width in	Max. height to lid's upper edge in	Max. height over terminals cover in	Connections
		Volt	Ah	mA	appr. A	appr. A	appr. kg	mm	mm	mm	mm	
07 8 95502 00	A 502 / 10.0 S	2	10.0	500	80	300	0.7	52.9	50.5	94.5	98.4	Faston terminal 4.8
07 8 95302 00	A 504 / 3.5 S	4	3.5	175	60	300	0.5	90.5	34.5	60.5	64.4	Faston terminal 4.8
07 8 95182 00	A 506 / 1.2 S	6	1.2	60	40	240	0.33	97.3	25.5	51.0	54.9	Faston terminal 4.8
07 8 95312 00	A 506 / 3.5 S	6	3.5	175	60	300	0.7	134.5	34.8	60.5	64.4	Faston terminal 4.8
07 8 95391 00	A 506 / 4.2 S	6	4.2	210	60	300	0.9	62.3	52.0	98.0	101.9	Faston terminal 4.8
07 8 95465 00	A 506 / 6.5 S	6	6.5	325	80	300	1.3	152.0	34.5	94.5	98.4	Faston terminal 4.8
07 8 95523 00	A 506 / 10.0 S	6	10.0	500	80	300	2.1	152.0	50.5	94.5	98.4	Faston terminal 4.8
07 8 95322 00	A 508 / 3.5 S	8	3.5	175	60	300	0.97	178.5	34.1	60.5	64.4	Faston terminal 4.8
07 8 95185 00	A 512 / 1.2 S	12	1.2	60	40	240	0.65	97.5	49.5	51.0	54.9	Faston terminal 4.8
07 8 95202 00	A 512 / 2.0 S	12	2.0	100	40	240	1.0	178.5	34.1	60.5	64.4	Faston terminal 4.8
07 8 95315 00	A 512 / 3.5 S	12	3.5	175	60	300	1.5	134.0	66.8	60.0	64.4	Faston terminal 4.8
07 8 95432 00	A 512 / 6.5 S	12	6.5	325	80	300	2.6	152.0	65.5	94.5	98.4	Faston terminal 4.8
07 8 95436 00	A 512 / 6.5 SR	12	6.5	325	80	300	2.6	152.0	65.5	94.5	98.4	Faston terminal 6.3
07 8 95525 00	A 512 / 10.0 S	12	10.0	500	80	300	4.1	152.0	98.0	94.5	98.4	Faston terminal 4.8
07 8 95530 00	A 512 / 10.0 SR	12	10.0	500	80	300	4.1	152.0	98.0	94.5	98.4	Faston terminal 6.3
07 8 95565 00	A 512 / 16.0 G5	12	16.0	800	200	700	6.8	181.0	76.0	167.0	167.0	Screw 5
07 8 95560 00	A 512 / 16.0 SR	12	16.0	800	100	300	6.7	181.0	76.0	152.0	156.4	Faston terminal 6.3
08 8 95615 10	A 512 / 24.0 G5	12	24.0	1200	200	800	9.6	176.0	167.0	126.0	126.0	Screw 5
08 8 95615 00	A 512 / 25.0 G5	12	25.0	1250	200	800	9.6	176.0	167.0	126.0	126.0	Screw 5
08 8 95625 00	A 512 / 30.0 G6	12	30.0	1500	400	1500	11.7	197.0	132.0	160.0	184.0	Screw 6
08 8 95632 00	A 512 / 40.0 G6	12	40.0	2000	400	1500	14.8	210.0	175.0	175.0	175.0	Screw 6
08 8 95630 00	A 512 / 40.0 A	12	40.0	2000	400	1500	14.8	210.0	175.0	175.0	175.0	A DIN 72311
08 8 95660 00	A 512 / 55.0 A	12	55.0	2750	400	1500	19.0	261.0	135.0	208.0	230.0	A DIN 72311
08 8 95664 00	A 512 / 60.0 A	12	60.0	3000	400	1500	21.8	306.0	175.0	190.0	190.0	A DIN 72311
08 8 95668 00	A 512 / 65.0 G6	12	65.0	3250	440	1500	25.0	381.0	175.0	190.0	190.0	Screw 6
08 8 95666 00	A 512 / 65.0 A	12	65.0	3250	440	1500	25.0	381.0	175.0	190.0	190.0	A DIN 72311
08 8 95722 00	A 512 / 85.0 A	12	85.0	4250	600	2600	33.0	330.0	171.0	214.0	235.5	A DIN 72311
08 8 95750 00	A 512 / 115.0 A	12	115.0	5750	770	2600	40.3	284.0	267.0	208.0	230.0	A DIN 72311

*] Only with appropriate counter contacts. For installation, storage, transport or environment regulations please ask for operating instruction A 500 No. 7900.

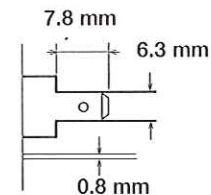
Connection types :



G terminal



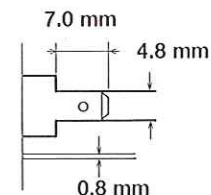
A terminal



SR terminal

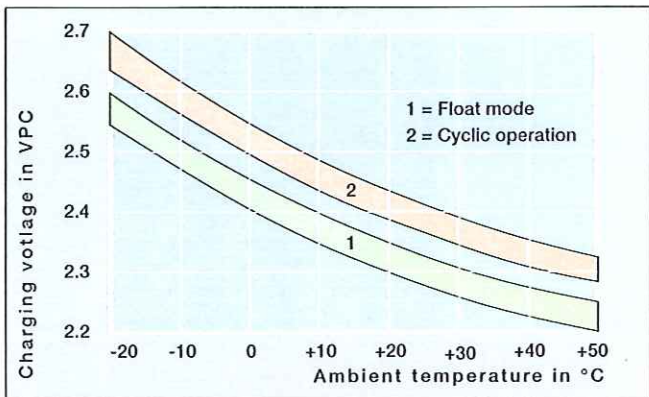


Sonnenschein

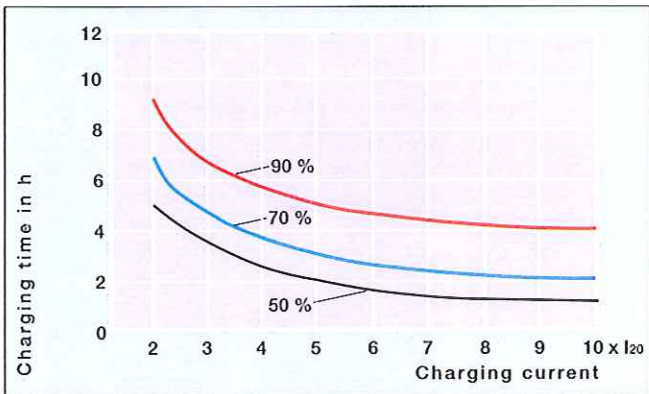


S terminal

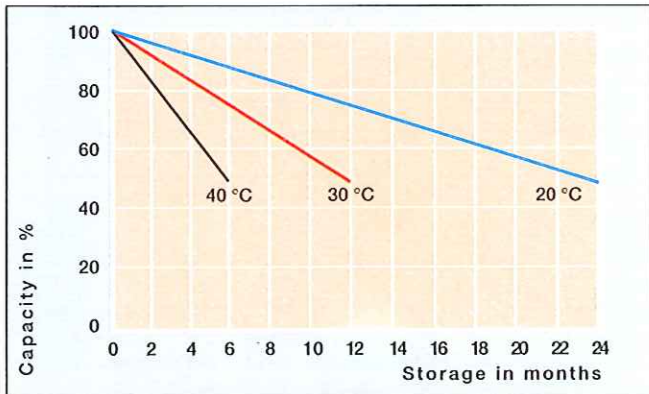
and data.



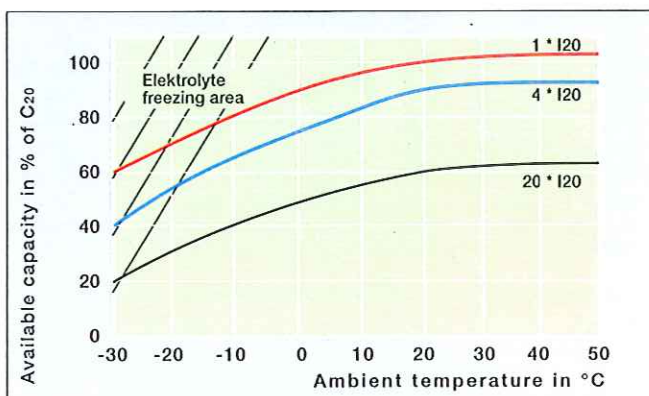
Constant charging voltages for various operating applications.
Constant voltage range of the charge voltage in float mode. When using charging voltages higher than 2.4 VPC the charging current is to be limited to 0.4 A/Ah. The charging voltage is 2.3 - 2.35 VPC (20°C ambient temperature), and 2.4 - 2.45 VPC for cyclic operation.



Recharging time in relation to the initial charge current (typical standard values) up to 50, 70 or 90% capacity and a charging voltage of 2.4 VPC.



Self-discharge in relation to the storage temperature.



Available capacity in relation to the ambient temperature.

Determination tables constant power.

Final voltage 1.85 VPC - power in W								
Type	3'	5'	10'	15'	20'	30'	45'	1 h
A 506/4.2	86	70	49	39	33	26	18	16
A 512/1.2	47	38	27	23	19	15	11	9
A 512/2.0	83	67	49	40	33	25	19	16
A 512/3.5	138	114	85	70	58	45	36	29
A 512/6.5	267	223	162	132	113	85	63	50
A 512/10.0	372	331	275	217	178	133	109	86
A 512/16.0	538	481	391	327	280	214	166	133
A 512/25.0	594	515	430	360	309	250	189	155
A 512/30.0	952	835	631	532	445	345	279	222
A 512/40.0	1064	943	782	642	545	439	334	270
A 512/55.0	1498	1302	1024	938	798	636	508	408
A 512/60.0	1798	1571	1218	1070	897	694	510	410
A 512/65.0	1303	1195	1015	842	737	617	468	384
A 512/85.0	2199	2002	1697	1456	1243	1006	767	628
A 512/115.0	3120	2812	2233	1894	1599	1284	969	780

Final voltage 1.80 VPC - power in W								
Type	3'	5'	10'	15'	20'	30'	45'	1 h
A 506/4.2	92	79	55	43	39	34	19	16
A 512/1.2	52	43	30	24	20	15	11	9
A 512/2.0	92	75	54	42	36	27	20	16
A 512/3.5	152	126	93	73	62	47	38	30
A 512/6.5	285	249	179	139	121	90	66	52
A 512/10.0	374	353	290	232	191	142	113	91
A 512/16.0	649	539	427	343	299	225	174	138
A 512/25.0	692	617	465	400	337	267	200	163
A 512/30.0	1151	945	707	574	481	367	294	233
A 512/40.0	1214	1119	842	718	598	462	353	283
A 512/55.0	1728	1513	1127	986	863	673	532	424
A 512/60.0	2172	1815	1312	1157	970	743	543	433
A 512/65.0	1603	1388	1163	948	810	670	501	408
A 512/85.0	2533	2368	1871	1652	1384	1077	822	667
A 512/115.0	3543	3192	2433	2098	1744	1344	1029	822

Final voltage 1.75 VPC - power in W								
Type	3'	5'	10'	15'	20'	30'	45'	1 h
A 506/4.2	99	85	58	44	40	35	19	16
A 512/1.2	56	46	31	25	21	16	12	9
A 512/2.0	101	83	58	44	37	28	21	16
A 512/3.5	162	137	99	77	65	49	39	31
A 512/6.5	308	270	190	146	126	93	68	54
A 512/10.0	402	384	300	243	199	147	114	92
A 512/16.0	707	593	453	358	311	232	177	140
A 512/25.0	766	685	505	428	356	276	205	166
A 512/30.0	1242	1056	767	598	504	379	301	238
A 512/40.0	1362	1193	914	768	632	480	363	290
A 512/55.0	1998	1662	1225	1019	904	695	543	432
A 512/60.0	2519	2041	1415	1190	1017	770	561	445
A 512/65.0	1777	1612	1231	1023	860	693	518	419
A 512/85.0	2846	2547	2053	1730	1477	1131	854	690
A 512/115.0	4047	3445	2637	2207	1837	1395	1062	844

Final voltage 1.70 VPC - power in W								
Type	3'	5'	10'	15'	20'	30'	45'	1 h
A 506/4.2	107	90	60	45	40	35	19	16
A 512/1.2	60	49	32	25	21	16	12	9
A 512/2.0	110	88	59	45	38	28	21	16
A 512/3.5	177	146	102	80	67	50	39	31
A 512/6.5	333	280	196	151	128	94	69	54
A 512/10.0	428	400	309	251	205	149	115	93
A 512/16.0	765	636	464	367	316	235	178	141
A 512/25.0	863	724	536	439	367	281	208	168
A 512/30.0	1348	1152	807	620	516	386	304	240
A 512/40.0	1545	1285	967	799	652	491	367	293
A 512/55.0	2124	1804	1293	1039	927	707	548	435
A 512/60.0	2673	2247	1498	1209	1044	785	571	451
A 512/65.0	1950	1740	1284	1068	889	702	526	424
A 512/85.0	3222	2763	2214	1786	1534	1162	873	705
A 512/115.0	4562	3734	2790	2256	1892	1423	1079	856

Final voltage 1.65 VPC - power in W								
Type	3'	5'	10'	15'	20'	30'	45'	1 h
A 506/4.2	114	91	61	46	40	35	19	16
A 512/1.2	63	50	33	25	21	16	12	9
A 512/2.0	115	91	60	46	38	28	21	17
A 512/3.5	189	152	104	81	68	50	39	31
A 512/6.5	355	287	201	153	130	95	69	55
A 512/10.0	455	413	315	254	207	151	115	94
A 512/16.0	823	668	470	373	319	237	179	142
A 512/25.0	949	770	557	445	373	283	209	169
A 512/30.0	1456	1217	829	632	523	389	306	241
A 512/40.0	1682	1372	1002	810	664	496	370	294
A 512/55.0	2227	1918	1338	1050	938	714	551	437
A 512/60.0	2831	2418	1560	1220	1060	794	576	454
A 512/65.0	2149	1820	1331	1092	905	706	529	426
A 512/85.0	3461	3021	2343	1847	1567	1178	885	714
A 512/115.0	4782	3980	2892	2285	1924	1440	1088	862

Final voltage 1.60 VPC - power in W								
Type	3'	5'	10'	15'	20'	30'	45'	1 h
A 506/4.2	118	92	62	46	41	35	19	16
A 512/1.2	65	51	33	25	21	16	12	9
A 512/2.0	117	94	61	46	38	28	21	17
A 512/3.5	198	154	105	82	68	50	39	31
A 512/6.5	373	292	204	155	131	96	69	55
A 512/10.0	486	423	319	257	209	152	115	94
A 512/16.0	870	690	473	375	321	238	180	142
A 512/25.0	1008	806	571	448	376	284	210	169
A 512/30.0	1548	1246	839	640	527	391	307	242
A 512/40.0	1753	1443	1026	816	670	499	371	295
A 512/55.0	2342	2000	1368	1064	946	717	553	439
A 512/60.0	2978	2533	1599	1227	1070	799	580	456
A 512/65.0	2332	1904	1359	1104	912	708	531	428
A 512/85.0	3626	3248	2434	1889	1586	1188	894	720
A 512/115.0	4963	4172	2961	2304	1945	1451	1094	866

All data has been measured including block connectors on 12V blocks, but without connections to consuming devices (exception : A 506/4.2).

These are typical standard values at 20°C, which vary according to application and/or ambient temperature.

The rapid determination constant power for the type 2V, 4V, 6V and 8V batteries with identical capacity data must be converted with the following formula :

$$\frac{\text{Tab. value}}{6} \times n \quad (n = \text{no. of cells, 1 cell} = 2 \text{ V}).$$

dryfit A 500 :

Determination tables constant current.

Final voltage 1.85 VPC - current in A							
Type	30'	1 h	3 h	5 h	8 h	10 h	20 h
A 506/4.2	3.8	2.6	1.36	0.84	0.54	0.43	0.21
A 512/1.2	1.20	0.75	0.34	0.21	0.13	0.10	0.05
A 512/2.0	2.20	1.60	0.62	0.38	0.23	0.19	0.09
A 512/3.5	3.80	2.40	1.06	0.67	0.43	0.36	0.18
A 512/6.5	6.80	4.00	1.70	1.12	0.77	0.64	0.34
A 512/10.0	12.40	7.10	2.90	1.88	1.24	1.02	0.55
A 512/16.0	16.90	10.90	4.58	2.92	1.90	1.55	0.82
A 512/25.0	22.80	14.50	6.10	4.10	2.74	2.26	1.25
A 512/30.0	31.10	20.00	8.00	5.20	3.40	2.83	1.53
A 512/40.0	38.10	23.90	9.80	6.40	4.30	3.50	1.90
A 512/55.0	51.60	36.40	15.00	9.90	6.63	5.43	2.94
A 512/60.0	60.20	37.50	16.10	10.50	6.90	5.70	3.10
A 512/65.0	51.90	38.10	16.80	11.40	7.70	6.30	3.40
A 512/85.0	87.10	58.90	24.10	15.80	10.50	8.60	4.60
A 512/115.0	110.60	66.90	27.50	18.00	11.60	10.10	5.70

Final voltage 1.80 VPC - current in A							
Type	30'	1 h	3 h	5 h	8 h	10 h	20 h
A 506/4.2	3.8	2.7	1.38	0.86	0.55	0.44	0.22
A 512/1.2	1.26	0.77	0.35	0.22	0.13	0.10	0.05
A 512/2.0	2.40	1.70	0.64	0.40	0.24	0.19	0.09
A 512/3.5	4.10	2.50	1.09	0.69	0.44	0.37	0.17
A 512/6.5	7.20	4.20	1.76	1.17	0.79	0.66	0.35
A 512/10.0	13.20	7.50	3.10	1.96	1.29	1.06	0.57
A 512/16.0	18.20	11.40	4.74	3.02	1.97	1.60	0.84
A 512/25.0	23.70	15.30	6.40	4.20	2.82	2.33	1.28
A 512/30.0	33.40	21.20	8.40	5.40	3.50	2.94	1.58
A 512/40.0	39.90	25.30	10.20	6.70	4.40	3.60	2.00
A 512/55.0	55.80	38.00	15.40	10.12	6.76	5.55	3.00
A 512/60.0	64.50	39.50	16.70	10.80	7.10	5.90	3.20
A 512/65.0	56.20	41.10	17.60	11.90	8.00	6.50	3.50
A 512/85.0	94.70	62.50	25.10	16.40	10.80	8.90	4.80
A 512/115.0	118.50	70.70	28.60	17.70	13.00	10.40	5.80

Final voltage 1.75 VPC - current in A							
Type	30'	1 h	3 h	5 h	8 h	10 h	20 h
A 506/4.2	3.8	2.7	1.39	0.87	0.56	0.45	0.22
A 512/1.2	1.30	0.79	0.35	0.22	0.14	0.11	0.06
A 512/2.0	2.40	1.70	0.66	0.40	0.25	0.20	0.10
A 512/3.5	4.20	2.50	1.11	0.69	0.45	0.37	0.19
A 512/6.5	7.50	4.30	1.80	1.18	0.80	0.66	0.36
A 512/10.0	13.70	7.70	3.10	2.00	1.32	1.08	0.58
A 512/16.0	18.90	11.60	4.81	3.06	1.99	1.62	0.85
A 512/25.0	24.40	15.70	6.50	4.30	2.85	2.35	1.29
A 512/30.0	34.70	21.90	8.60	5.50	3.60	2.99	1.60
A 512/40.0	41.60	26.20	10.40	6.80	4.50	3.70	2.00
A 512/55.0	58.30	38.90	15.60	10.24	6.84	5.61	3.03
A 512/60.0	67.20	40.50	16.90	10.90	7.20	5.90	3.20
A 512/65.0	58.50	42.80	18.00	12.00	8.10	6.60	3.60
A 512/85.0	99.70	64.50	25.60	16.60	11.00	9.00	4.80
A 512/115.0	124.10	73.00	29.20	19.00	13.00	10.50	5.80

Final voltage 1.70 VPC - current in A							
Type	30'	1 h	3 h	5 h	8 h	10 h	20 h
A 506/4.2	3.8	2.7	1.4	0.88	0.56	0.45	0.22
A 512/1.2	1.31	0.79	0.36	0.22	0.14	0.11	0.06
A 512/2.0	2.40	1.70	0.67	0.41	0.25	0.20	0.10
A 512/3.5	4.30	2.60	1.12	0.70	0.45	0.37	0.19
A 512/6.5	7.70	4.40	1.82	1.19	0.80	0.66	0.36
A 512/10.0	13.90	7.80	3.10	2.02	1.32	1.08	0.58
A 512/16.0	19.40	11.70	4.84	3.08	1.99	1.62	0.85
A 512/25.0	24.90	16.00	6.50	4.30	2.85	2.35	1.29
A 512/30.0	35.50	22.20	8.70	5.60	3.60	2.99	1.60
A 512/40.0	42.70	26.60	10.50	6.80	4.50	3.70	2.00
A 512/55.0	59.80	39.50	15.80	10.30	6.84	5.61	3.03
A 512/60.0	68.40	41.00	17.00	11.00	7.20	5.90	3.20
A 512/65.0	59.60	43.60	18.20	12.10	8.10	6.60	3.60
A 512/85.0	102.80	65.70	25.90	16.80	11.00	9.00	4.80
A 512/115.0	127.10	74.40	29.50	19.00	13.00	10.50	5.80

Final voltage 1.65 VPC - current in A							
Type	30'	1 h	3 h	5 h	8 h	10 h	20 h
A 506/4.2	3.9	2.7	1.41	0.88	0.56	0.45	0.22
A 512/1.2	1.32	0.80	0.36	0.22	0.14	0.11	0.06
A 512/2.0	2.50	1.70	0.67	0.41	0.25	0.20	0.10
A 512/3.5	4.30	2.60	1.12	0.70	0.45	0.37	0.19
A 512/6.5	7.80	4.40	1.82	1.19	0.80	0.66	0.36
A 512/10.0	14.10	7.90	3.20	2.02	1.32	1.08	0.58
A 512/16.0	19.70	11.80	4.85	3.08	1.99	1.62	0.85
A 512/25.0	25.20	16.00	6.50	4.30	2.85	2.35	1.29
A 512/30.0	36.00	22.30	8.70	5.60	3.60	2.99	1.60
A 512/40.0	43.30	26.70	10.50	6.80	4.50	3.70	2.00
A 512/55.0	60.80	39.70	15.80	10.30	6.84	5.61	3.03
A 512/60.0	68.60	41.20	17.10	11.00	7.20	5.90	3.20
A 512/65.0	60.50	43.90	18.20	12.10	8.10	6.60	3.60
A 512/85.0	104.50	65.50	26.50	16.80	11.00	9.00	4.80
A 512/115.0	129.00	74.80	29.60	19.00	13.00	10.50	5.80

Final voltage 1.60 VPC - current in A							
Type	30'	1 h	3 h	5 h	8 h	10 h	20 h
A 506/4.2	3.9	2.7	1.41	0.88	0.56	0.45	0.22
A 512/1.2	1.33	0.81	0.36	0.22	0.14	0.11	0.06
A 512/2.0	2.50	1.70	0.67	0.41	0.25	0.20	0.10
A 512/3.5	4.40	2.60	1.12	0.70	0.45	0.37	0.19
A 512/6.5	7.80	4.50	1.83	1.19	0.80	0.66	0.36
A 512/10.0	14.20	7.90	3.20	2.02	1.32	1.08	0.58
A 512/16.0	19.80	11.90	4.86	3.08	1.99	1.62	0.85
A 512/25.0	25.40	16.10	6.50	4.30	2.85	2.35	1.29
A 512/30.0	36.20	22.40	8.70	5.60	3.60	2.99	1.60
A 512/40.0	43.80	26.80	10.50	6.80	4.50	3.70	2.00
A 512/55.0	61.30	39.80	15.80	10.30	6.84	5.61	3.03
A 512/60.0	68.70	41.30	17.10	11.00	7.20	5.90	3.20
A 512/65.0	61.00	44.10	18.20	12.10	8.10	6.60	3.60
A 512/85.0	105.50	66.30	26.00	16.80	11.00	9.00	4.80
A 512/115.0	130.40	75.10	29.60	19.00	13.00	10.50	5.80

All data has been measured including block connectors on 12V blocks, but without connections to consuming devices (exception : A 506/4.2).

These are measured average values at 20°C, which vary according to application and/or ambient temperature.

The table values are also valid for batteries with identical capacity for block voltages of 2V - 8V.

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