



Industrial Batteries – Network Power
Sonnenschein A600
Premium quality for uninterrupted
communication.

Specifications

Highest capacity and reliability for limited space.

Specifications

- Extraordinary energy-saving features in addition with robust reliability
- Horizontal mounting possible
- Maintenance-free (no topping up) during the whole service life due to the Sonnenschein dryfit technology
- Nominal capacity 91 – 3286 Ah C₁₀
- Design life: 15 years for 6/12 V blocks and 18 years for 2 V cells at 20 °C (80% remaining capacity from C₁₀)
- Robust tubular plate technology
- Container material: blocks = ABS; optional ABS, UL 94-V0
cells = ABS; optional ABS, UL 94-V0
- Very low gassing due to internal gas recombination
- Long shelf life up to 2 years at 20 °C without recharge due to the very low self discharge rate
- Proof against deep discharge
- Cells in compliance with DIN 40 742
- Completely recyclable
- Designed in accordance with IEC 60896-21/-22



Applications

In the first place, batteries of the Sonnenschein A600 series care for undisturbed connection in telecommunication fields such as telephone exchanges or mobile phone base stations. Further applications include emergency lighting, security, railways, utility and other power supplies for safety systems.



			
Design life in years: 15 for blocks 18 for cells	Nominal capacity 91 – 3286 Ah	Block battery / single cell	Tubular plate
			
Valve regulated lead-acid batteries	Recyclable	Proof against deep discharge	Maintenance- free (no topping- up)

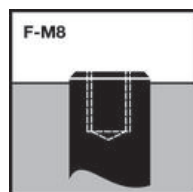
Type acc. to 1 DIN 40 742 2 DIN 40 744	Part number	Exide type designation	Nom. voltage V	Nominal capacity C ₁₀ 1.80 Vpc 20 °C Ah	Length (l) max. mm	Width (b/w) max. mm	Height (h1) max. mm	Height* (h2) max. mm	Installed length (L) mm	Weight approx. kg	Internal resistance mOhm	Short circuit current A	Ter- minal	Pole pairs
4 OPzV 200 ¹	NGA6020200HS0FC	A602/200	2	224	105	208	357	399	113	18.0	0.95	2200	F-M8	1
5 OPzV 250 ¹	NGA6020250HS0FC	A602/250	2	280	126	208	357	399	134	22.0	0.79	2700	F-M8	1
6 OPzV 300 ¹	NGA6020300HS0FC	A602/300	2	337	147	208	357	399	155	25.0	0.61	3340	F-M8	1
5 OPzV 350 ¹	NGA6020350HS0FC	A602/350	2	416	126	208	473	515	134	32.0	0.62	3310	F-M8	1
6 OPzV 420 ¹	NGA6020420HS0FC	A602/420	2	499	147	208	473	515	155	37.0	0.53	3930	F-M8	1
7 OPzV 490 ¹	NGA6020490HS0FC	A602/490	2	582	168	208	473	515	176	42.0	0.47	4370	F-M8	1
6 OPzV 600 ¹	NGA6020600HS0FC	A602/600	2	748	147	208	648	690	155	50.0	0.48	4290	F-M8	1
8 OPzV 800 ¹	NGA6020800HS0FC	A602/800	2	998	212	193	648	690	220	68.0	0.38	4830	F-M8	2
10 OPzV 1000 ¹	NGA6021000HS0FC	A602/1000	2	1248	212	235	648	690	220	82.0	0.33	6260	F-M8	2
12 OPzV 1200 ¹	NGA6021200HS0FC	A602/1200	2	1497	212	277	648	690	220	98.0	0.29	7840	F-M8	2
12 OPzV 1500 ¹	NGA6021500HS0FC	A602/1500	2	1643	212	277	798	840	220	112	0.19	10500	F-M8	2
16 OPzV 2000 ¹	NGA6022000HS0FC	A602/2000	2	2190	216	400	774	816	223	153	0.15	14000	F-M8	3
20 OPzV 2500 ¹	NGA6022500HS0FC	A602/2500	2	2738	214	489	774	816	222	196	0.12	17500	F-M8	4
24 OPzV 3000 ¹	NGA6023000HS0FC	A602/3000	2	3286	214	578	774	816	222	225	0.10	21000	F-M8	4
6V 4 OPzV 200 ²	NGA6060200HS0FA	A606/200	6	182	273	204	320	358	281	43.0	2.31	2550	F-M8	1
6V 6 OPzV 300 ²	NGA6060300HS0FA	A606/300	6	274	381	204	320	358	389	62.0	1.80	3300	F-M8	1
12V 2 OPzV 100 ²	NGA6120100HS0FA	A612/100	12	91.0	273	204	320	358	281	43.0	8.28	1400	F-M8	1
12V 3 OPzV 150 ²	NGA6120150HS0FA	A612/150	12	137	381	204	320	358	389	63.0	5.88	2000	F-M8	1

* Includes installed connector

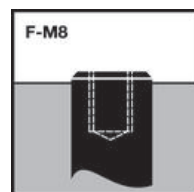
Data are also valid for UL 94-V0 version.
Change "H" to "V" in the part number.

E.g.:
Standard NGA6120100 H S0FA
UL 94-V0 NGA6120100 V S0FA

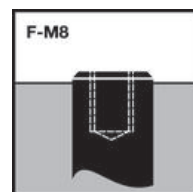
Container, approval, terminal and torque



blocks – 12 Nm



cells – 20 Nm

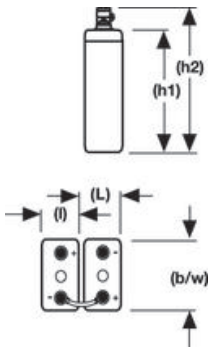


20 Nm

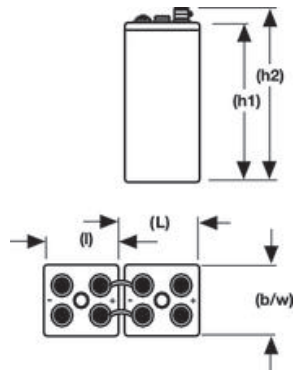
Container: Standard = ABS
UL 94-V0 = ABS

Approval: Blocks:
 ■ DIN/Gost/TÜV, Russia
 Cells:
 ■ Underwriters Laboratories (UL), USA
 ■ Germanischer Lloyd (GL)
 ■ DIN/Gost/TÜV, Russia
 ■ By many Telecom organisations worldwide

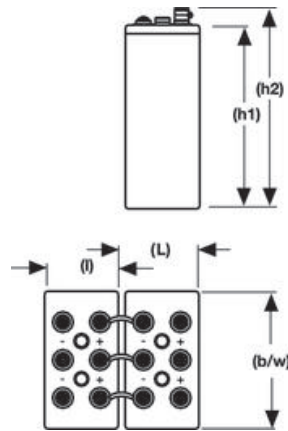
A602/200
-
A602/600



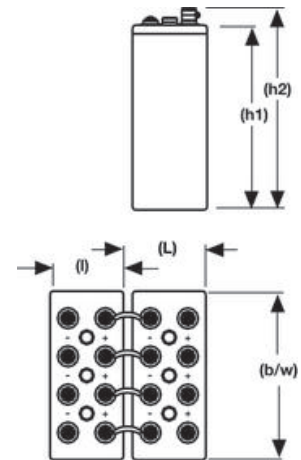
A602/800
-
A602/1500



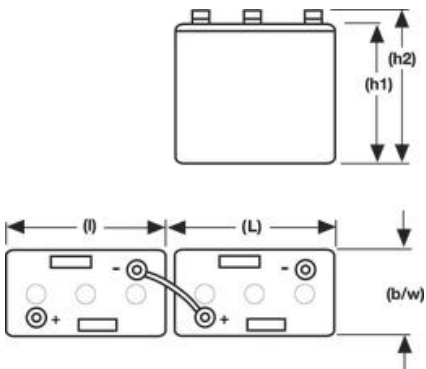
A602/2000



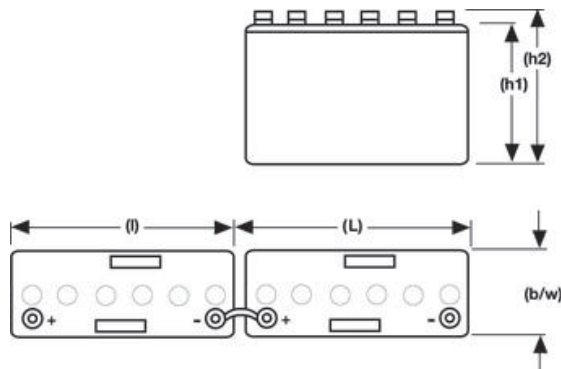
A602/2500
-
A602/3000



A606/200
-
A606/300



A612/100
-
A612/150



A600 blocks

1.87 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 744	Part number	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h
6V 4 OPzV 200	NGA6060200HS0FA	177	162	137	116	81.7	55.9	42.6	34.5	29.3	20.1	16.7
6V 6 OPzV 300	NGA6060300HS0FA	266	238	214	163	120	83.2	63.8	51.7	43.9	30.2	25.1
12V 2 OPzV 100	NGA6120100HS0FA	96.9	86.7	75.8	64.6	42.8	28.5	21.3	17.2	14.6	10.1	8.40
12V 3 OPzV 150	NGA6120150HS0FA	139	126	108	91.8	62.7	42.5	31.9	25.8	21.9	15.1	12.5

1.83 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 744	Part number	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h
6V 4 OPzV 200	NGA6060200HS0FA	205	181	162	91.2	45.2	36.4	30.8	21.3	17.5		
6V 6 OPzV 300	NGA6060300HS0FA	281	249	221	134	67.8	54.6	46.2	31.3	26.2		
12V 2 OPzV 100	NGA6120100HS0FA	112	96.9	88.5	47.5	22.6	18.2	15.4	10.6	8.70		
12V 3 OPzV 150	NGA6120150HS0FA	162	141	126	69.8	33.9	27.3	23.1	16.0	13.1		

1.80 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 744	Part number	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h
6V 4 OPzV 200	NGA6060200HS0FA	231	201	181	101	47.9	38.1	31.9	22.0	18.2		
6V 6 OPzV 300	NGA6060300HS0FA	314	281	249	148	71.8	57.2	47.9	33.1	27.4		
12V 2 OPzV 100	NGA6120100HS0FA	126	109	96.9	52.3	23.9	19.0	16.0	11.0	9.10		
12V 3 OPzV 150	NGA6120150HS0FA	181	157	141	76.9	35.9	28.5	23.9	16.5	13.7		

1.75 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 744	Part number	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h
6V 4 OPzV 200	NGA6060200HS0FA	253	227	187	108	49.8	39.6	33.1	22.4	18.6		
6V 6 OPzV 300	NGA6060300HS0FA	346	319	259	160	74.7	59.3	49.6	33.6	27.9		
12V 2 OPzV 100	NGA6120100HS0FA	139	124	105	56.1	24.9	19.7	16.5	11.2	9.30		
12V 3 OPzV 150	NGA6120150HS0FA	200	179	148	82.7	37.3	29.6	24.8	16.8	14.0		

1.70 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 744	Part number	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h
6V 4 OPzV 200	NGA6060200HS0FA	277	253	223	114	50.9	40.4	33.8	22.8	18.6		
6V 6 OPzV 300	NGA6060300HS0FA	395	357	314	168	76.4	60.4	50.4	34.2	27.9		
12V 2 OPzV 100	NGA6120100HS0FA	151	137	123	58.9	25.5	20.2	16.9	11.4	9.30		
12V 3 OPzV 150	NGA6120150HS0FA	219	198	176	86.9	38.2	30.4	25.4	17.1	14.0		

1.65 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 744	Part number	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h
6V 4 OPzV 200	NGA6060200HS0FA	313	273	240	114	50.9	40.4	33.8	22.8	18.6		
6V 6 OPzV 300	NGA6060300HS0FA	440	389	340	168	76.4	60.4	50.4	34.2	27.9		
12V 2 OPzV 100	NGA6120100HS0FA	167	149	131	58.9	25.5	20.2	16.9	11.4	9.30		
12V 3 OPzV 150	NGA6120150HS0FA	243	216	190	86.9	38.2	30.4	25.4	17.1	14.0		

A600 cells

1.90 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 742	Part number	10 min	15 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
4 OPzV 200	NGA6020200HS0FC	144	126	107	76,2	59,6	45,7	31,2	21,4	18,3
5 OPzV 250	NGA6020250HS0FC	180	158	134	95,3	74,5	57,2	39,0	26,8	22,9
6 OPzV 300	NGA6020300HS0FC	216	190	161	114	89,4	68,6	46,8	32,2	27,5
5 OPzV 350	NGA6020350HS0FC	244	231	187	143	114	93,3	65,3	44,6	36,6
6 OPzV 420	NGA6020420HS0FC	293	277	224	171	137	112	78,3	53,5	43,9
7 OPzV 490	NGA6020490HS0FC	342	323	262	200	160	130	91,4	62,4	51,2
6 OPzV 600	NGA6020600HS0FC	265	258	243	214	167	143	100	71,7	60,3
8 OPzV 800	NGA6020800HS0FC	353	345	324	286	222	191	135	95,6	81,1
10 OPzV 1000	NGA6021000HS0FC	442	431	405	357	278	239	168	119	100
12 OPzV 1200	NGA6021200HS0FC	530	517	486	429	334	281	201	143	120
12 OPzV 1500	NGA6021500HS0FC	518	502	479	436	352	286	209	152	133
16 OPzV 2000	NGA6022000HS0FC	691	669	639	582	470	381	278	203	177
20 OPzV 2500	NGA6022500HS0FC	864	837	799	728	587	476	348	254	221
24 OPzV 3000	NGA6023000HS0FC	1037	1004	958	873	705	572	418	305	266

1.87 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 742	Part number	10 min	15 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
4 OPzV 200	NGA6020200HS0FC	173	156	124	83,9	64,7	49,5	34,9	24,2	20,5
5 OPzV 250	NGA6020250HS0FC	216	195	155	104	80,8	61,9	43,6	30,3	25,6
6 OPzV 300	NGA6020300HS0FC	259	234	186	125	97,0	74,3	52,4	36,4	30,7
5 OPzV 350	NGA6020350HS0FC	332	284	239	163	123	99,1	69,4	47,8	39,0
6 OPzV 420	NGA6020420HS0FC	399	341	287	196	147	118	83,3	57,4	46,8
7 OPzV 490	NGA6020490HS0FC	465	398	334	228	172	138	97,2	66,9	54,6
6 OPzV 600	NGA6020600HS0FC	335	327	305	248	194	156	112	78,0	65,5
8 OPzV 800	NGA6020800HS0FC	448	436	407	330	260	208	149	104	87,3
10 OPzV 1000	NGA6021000HS0FC	560	546	509	413	324	260	187	130	109
12 OPzV 1200	NGA6021200HS0FC	672	655	611	497	388	312	224	156	131
12 OPzV 1500	NGA6021500HS0FC	624	613	595	474	401	328	228	164	145
16 OPzV 2000	NGA6022000HS0FC	832	818	794	632	535	438	305	219	194
20 OPzV 2500	NGA6022500HS0FC	1040	1022	993	790	669	547	381	273	242
24 OPzV 3000	NGA6023000HS0FC	1248	1227	1191	948	802	657	457	328	291

1.85 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 742	Part number	10 min	15 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
4 OPzV 200	NGA6020200HS0FC	194	171	137	91,5	68,1	52,0	36,3	24,8	21,3
5 OPzV 250	NGA6020250HS0FC	242	214	171	114	85,1	65,0	45,4	31,1	26,6
6 OPzV 300	NGA6020300HS0FC	291	257	205	137	102	78,0	54,4	37,3	32,0
5 OPzV 350	NGA6020350HS0FC	332	291	249	176	124	104	72,8	49,9	40,4
6 OPzV 420	NGA6020420HS0FC	399	349	299	212	149	125	87,3	59,9	48,5
7 OPzV 490	NGA6020490HS0FC	465	407	349	247	174	146	101	69,8	56,6
6 OPzV 600	NGA6020600HS0FC	399	368	336	269	200	165	119	82,1	68,6
8 OPzV 800	NGA6020800HS0FC	532	490	449	359	268	220	159	110	91,5
10 OPzV 1000	NGA6021000HS0FC	665	613	561	449	334	275	198	137	114
12 OPzV 1200	NGA6021200HS0FC	798	736	673	538	401	330	238	164	137
12 OPzV 1500	NGA6021500HS0FC	773	729	612	488	416	342	239	169	148
16 OPzV 2000	NGA6022000HS0FC	1031	972	816	651	555	456	319	226	197
20 OPzV 2500	NGA6022500HS0FC	1289	1215	1020	814	694	570	399	283	247
24 OPzV 3000	NGA6023000HS0FC	1547	1459	1224	977	832	684	479	339	296

A600 cells

1.83 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 742	Part number	10 min	15 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
4 OPzV 200	NGA6020200HS0FC	209	182	148	95,2	71,4	54,1	38,0	26,0	22,2
5 OPzV 250	NGA6020250HS0FC	261	228	185	119	89,2	67,6	47,5	32,5	27,8
6 OPzV 300	NGA6020300HS0FC	314	274	222	142	107	81,2	57,1	39,0	33,4
5 OPzV 350	NGA6020350HS0FC	350	297	265	187	126	106	74,7	50,8	40,9
6 OPzV 420	NGA6020420HS0FC	420	356	318	225	152	127	89,7	61,0	49,1
7 OPzV 490	NGA6020490HS0FC	490	416	372	262	177	148	104	71,1	57,3
6 OPzV 600	NGA6020600HS0FC	421	404	365	290	221	175	125	87,3	71,1
8 OPzV 800	NGA6020800HS0FC	561	539	487	386	295	234	167	116	94,8
10 OPzV 1000	NGA6021000HS0FC	692	673	609	483	369	293	209	145	118
12 OPzV 1200	NGA6021200HS0FC	831	808	731	580	443	351	250	174	142
12 OPzV 1500	NGA6021500HS0FC	842	808	708	535	442	373	260	178	153
16 OPzV 2000	NGA6022000HS0FC	1123	1077	944	714	589	497	346	238	205
20 OPzV 2500	NGA6022500HS0FC	1404	1346	1180	892	737	622	433	298	256
24 OPzV 3000	NGA6023000HS0FC	1684	1616	1416	1071	884	746	520	357	307

1.80 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 742	Part number	10 min	15 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
4 OPzV 200	NGA6020200HS0FC	232	207	157	99,9	74,5	58,0	39,2	26,6	22,4
5 OPzV 250	NGA6020250HS0FC	291	259	197	124	93,1	72,6	49,0	33,2	28,0
6 OPzV 300	NGA6020300HS0FC	349	311	236	149	111	87,1	58,8	39,9	33,6
5 OPzV 350	NGA6020350HS0FC	418	374	280	201	136	109	79,5	51,2	41,6
6 OPzV 420	NGA6020420HS0FC	501	448	336	242	163	131	95,4	61,5	49,9
7 OPzV 490	NGA6020490HS0FC	585	523	393	282	190	152	111	71,7	58,2
6 OPzV 600	NGA6020600HS0FC	488	458	388	314	227	185	130	89,4	74,8
8 OPzV 800	NGA6020800HS0FC	652	611	518	419	303	247	173	119	99,8
10 OPzV 1000	NGA6021000HS0FC	815	764	648	524	379	308	217	149	124
12 OPzV 1200	NGA6021200HS0FC	978	917	778	629	455	370	261	179	149
12 OPzV 1500	NGA6021500HS0FC	959	898	807	647	466	398	271	186	164
16 OPzV 2000	NGA6022000HS0FC	1279	1198	1076	863	622	531	361	248	219
20 OPzV 2500	NGA6022500HS0FC	1599	1497	1345	1079	778	663	452	310	273
24 OPzV 3000	NGA6023000HS0FC	1919	1797	1614	1295	933	796	542	372	328

1.75 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 742	Part number	10 min	15 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
4 OPzV 200	NGA6020200HS0FC	259	241	178	114	79,9	60,3	40,2	27,2	22,9
5 OPzV 250	NGA6020250HS0FC	323	302	222	143	99,9	75,4	50,3	34,0	28,6
6 OPzV 300	NGA6020300HS0FC	388	362	267	172	119	90,5	60,3	40,8	34,4
5 OPzV 350	NGA6020350HS0FC	423	389	300	227	136	112	81,2	52,7	42,4
6 OPzV 420	NGA6020420HS0FC	508	467	360	273	163	135	97,4	63,2	50,9
7 OPzV 490	NGA6020490HS0FC	592	544	420	318	190	158	113	73,8	59,4
6 OPzV 600	NGA6020600HS0FC	561	534	463	333	240	192	135	92,5	76,9
8 OPzV 800	NGA6020800HS0FC	748	712	618	445	320	255	179	123	101
10 OPzV 1000	NGA6021000HS0FC	936	890	773	556	400	320	224	154	127
12 OPzV 1200	NGA6021200HS0FC	1123	1068	928	667	480	384	269	186	153
12 OPzV 1500	NGA6021500HS0FC	1016	985	928	759	490	425	289	189	164
16 OPzV 2000	NGA6022000HS0FC	1354	1314	1238	1012	654	567	385	252	219
20 OPzV 2500	NGA6022500HS0FC	1693	1643	1547	1265	818	708	481	315	273
24 OPzV 3000	NGA6023000HS0FC	2032	1971	1857	1518	981	850	578	378	328

A600 cells

1.70 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 742	Part number	10 min	15 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
4 OPzV 200	NGA6020200HS0FC	285	258	201	118	81,6	61,2	40,2	27,2	22,9
5 OPzV 250	NGA6020250HS0FC	356	322	251	148	102	76,5	50,3	34,0	28,6
6 OPzV 300	NGA6020300HS0FC	428	387	302	178	122	91,8	60,3	40,8	34,4
5 OPzV 350	NGA6020350HS0FC	468	425	334	232	140	116	81,8	53,0	42,8
6 OPzV 420	NGA6020420HS0FC	562	510	401	279	168	139	98,2	63,6	51,4
7 OPzV 490	NGA6020490HS0FC	656	595	468	326	196	163	114	74,2	59,9
6 OPzV 600	NGA6020600HS0FC	639	615	527	393	252	195	136	92,5	76,9
8 OPzV 800	NGA6020800HS0FC	852	820	703	524	336	261	180	123	101
10 OPzV 1000	NGA6021000HS0FC	1066	1025	878	655	421	326	226	154	127
12 OPzV 1200	NGA6021200HS0FC	1279	1230	1054	786	505	392	272	186	153
12 OPzV 1500	NGA6021500HS0FC	1168	1110	1024	861	540	445	296	189	164
16 OPzV 2000	NGA6022000HS0FC	1558	1480	1365	1148	721	593	395	252	219
20 OPzV 2500	NGA6022500HS0FC	1948	1851	1707	1435	901	741	494	315	273
24 OPzV 3000	NGA6023000HS0FC	2337	2221	2048	1722	1081	890	592	378	328

1.65 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 742	Part number	10 min	15 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
4 OPzV 200	NGA6020200HS0FC	314	278	212	123	82,5	61,2	40,2	27,2	22,9
5 OPzV 250	NGA6020250HS0FC	393	348	265	153	103	76,5	50,3	34,0	28,6
6 OPzV 300	NGA6020300HS0FC	472	418	318	184	123	91,8	60,3	40,8	34,4
5 OPzV 350	NGA6020350HS0FC	528	488	368	236	140	116	81,8	53,0	42,8
6 OPzV 420	NGA6020420HS0FC	633	586	442	283	168	139	98,2	63,6	51,4
7 OPzV 490	NGA6020490HS0FC	739	683	516	330	196	163	114	74,2	59,9
6 OPzV 600	NGA6020600HS0FC	705	696	583	419	255	195	136	92,5	76,9
8 OPzV 800	NGA6020800HS0FC	940	928	777	559	341	261	180	123	101
10 OPzV 1000	NGA6021000HS0FC	1175	1160	972	698	426	326	226	154	127
12 OPzV 1200	NGA6021200HS0FC	1410	1392	1166	838	511	392	272	186	153
12 OPzV 1500	NGA6021500HS0FC	1256	1206	1107	916	548	447	299	190	166
16 OPzV 2000	NGA6022000HS0FC	1675	1608	1476	1221	730	596	399	253	221
20 OPzV 2500	NGA6022500HS0FC	2093	2010	1846	1527	913	745	499	317	277
24 OPzV 3000	NGA6023000HS0FC	2512	2412	2215	1832	1096	894	599	380	332

1.60 Vpc – Discharge in A at 20 °C

Type acc. to DIN 40 742	Part number	10 min	15 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
4 OPzV 200	NGA6020200HS0FC	348	302	222	123	82,5	61,2	40,2	27,2	22,9
5 OPzV 250	NGA6020250HS0FC	435	377	277	154	103	76,5	50,3	34,0	28,6
6 OPzV 300	NGA6020300HS0FC	523	453	333	185	123	91,8	60,3	40,8	34,4
5 OPzV 350	NGA6020350HS0FC	552	508	382	239	140	116	81,8	53,0	42,8
6 OPzV 420	NGA6020420HS0FC	662	610	459	287	168	139	98,2	63,6	51,4
7 OPzV 490	NGA6020490HS0FC	773	711	535	335	196	163	114	74,2	59,9
6 OPzV 600	NGA6020600HS0FC	786	767	632	437	255	195	136	92,5	76,9
8 OPzV 800	NGA6020800HS0FC	1048	1023	843	583	341	261	180	123	101
10 OPzV 1000	NGA6021000HS0FC	1310	1279	1054	729	426	326	226	154	127
12 OPzV 1200	NGA6021200HS0FC	1572	1535	1265	874	511	392	272	186	153
12 OPzV 1500	NGA6021500HS0FC	1544	1404	1248	958	560	455	303	191	166
16 OPzV 2000	NGA6022000HS0FC	2059	1872	1664	1278	747	607	404	255	221
20 OPzV 2500	NGA6022500HS0FC	2574	2340	2080	1598	934	759	506	318	277
24 OPzV 3000	NGA6023000HS0FC	3088	2808	2496	1917	1121	911	607	382	332

A600 blocks

1.87 Vpc – Discharge in W/block at 20 °C

Type acc. to DIN 40 744	Part number	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h
6V 4 OPzV 200	NGA6060200HS0FA	999	915	774	654	468	324	247	201	171	118	98.0
6V 6 OPzV 300	NGA6060300HS0FA	1500	1341	1206	918	687	480	372	300	256	177	147
12V 2 OPzV 100	NGA6120100HS0FA	1092	978	858	726	490	329	247	200	170	118	98.0
12V 3 OPzV 150	NGA6120150HS0FA	1566	1422	1218	1032	720	491	370	301	255	177	146

1.83 Vpc – Discharge in W/block at 20 °C

Type acc. to DIN 40 744	Part number	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h
6V 4 OPzV 200	NGA6060200HS0FA	1131	999	900	729	516	342	261	211	179	124	102
6V 6 OPzV 300	NGA6060300HS0FA	1551	1374	1227	1056	756	507	393	315	268	183	153
12V 2 OPzV 100	NGA6120100HS0FA	1236	1068	984	792	536	347	261	211	179	124	101
12V 3 OPzV 150	NGA6120150HS0FA	1788	1554	1398	1146	786	517	392	316	268	187	153

1.80 Vpc – Discharge in W/block at 20 °C

Type acc. to DIN 40 744	Part number	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h
6V 4 OPzV 200	NGA6060200HS0FA	1254	1098	993	816	567	363	277	220	185	128	106
6V 6 OPzV 300	NGA6060300HS0FA	1704	1533	1368	1188	831	537	414	330	277	192	159
12V 2 OPzV 100	NGA6120100HS0FA	1368	1188	1062	834	587	364	276	215	185	127	106
12V 3 OPzV 150	NGA6120150HS0FA	1968	1716	1548	1212	864	542	415	329	277	191	159

1.75 Vpc – Discharge in W/block at 20 °C

Type acc. to DIN 40 744	Part number	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h
6V 4 OPzV 200	NGA6060200HS0FA	1335	1206	999	834	597	372	280	224	189	129	106
6V 6 OPzV 300	NGA6060300HS0FA	1827	1695	1383	1221	882	549	420	333	284	193	159
12V 2 OPzV 100	NGA6120100HS0FA	1470	1314	1122	894	618	377	280	223	188	128	106
12V 3 OPzV 150	NGA6120150HS0FA	2112	1902	1578	1296	912	562	419	335	283	193	159

1.70 Vpc – Discharge in W/block at 20 °C

Type acc. to DIN 40 744	Part number	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h
6V 4 OPzV 200	NGA6060200HS0FA	1428	1314	1170	918	627	390	284	225	190	129	106
6V 6 OPzV 300	NGA6060300HS0FA	2037	1854	1650	1347	921	582	426	336	284	193	159
12V 2 OPzV 100	NGA6120100HS0FA	1560	1422	1290	972	648	400	284	226	190	129	106
12V 3 OPzV 150	NGA6120150HS0FA	2262	2058	1848	1410	948	593	427	339	285	193	159

1.65 Vpc – Discharge in W/block at 20 °C

Type acc. to DIN 40 744	Part number	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h
6V 4 OPzV 200	NGA6060200HS0FA	1575	1386	1230	933	627	390	284	225	190	129	106
6V 6 OPzV 300	NGA6060300HS0FA	2211	1974	1743	1368	921	582	426	336	284	193	159
12V 2 OPzV 100	NGA6120100HS0FA	1686	1512	1344	990	648	400	284	226	190	129	106
12V 3 OPzV 150	NGA6120150HS0FA	2454	2196	1944	1422	948	593	427	339	285	193	159

A600 cells

1.90 Vpc – Discharge in W/cell at 20 °C												
Type acc. to DIN 40 742	Part number	3 min	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	4 h	5 h
4 OPzV 200	NGA6020200HS0FC	265	258	248	236	219	197	156	122	101	83.2	69.6
5 OPzV 250	NGA6020250HS0FC	331	324	310	295	274	247	195	153	127	104	87.3
6 OPzV 300	NGA6020300HS0FC	398	388	373	354	329	296	234	184	152	124	105
5 OPzV 350	NGA6020350HS0FC	481	473	463	410	384	343	273	205	158	137	111
6 OPzV 420	NGA6020420HS0FC	578	567	556	492	461	411	328	247	189	164	133
7 OPzV 490	NGA6020490HS0FC	673	662	648	575	538	480	382	288	221	192	156
6 OPzV 600	NGA6020600HS0FC	743	683	606	535	513	495	436	357	294	248	211
8 OPzV 800	NGA6020800HS0FC	991	911	808	714	684	660	582	476	392	330	280
10 OPzV 1000	NGA6021000HS0FC	1238	1138	1009	893	855	825	728	595	489	413	351
12 OPzV 1200	NGA6021200HS0FC	1487	1366	1212	1072	1026	991	873	714	588	496	421
12 OPzV 1500	NGA6021500HS0FC	1058	1049	1030	1008	992	965	864	681	549	447	383
16 OPzV 2000	NGA6022000HS0FC	1411	1399	1373	1345	1322	1286	1152	908	732	596	511
20 OPzV 2500	NGA6022500HS0FC	1764	1749	1717	1681	1653	1608	1440	1135	915	745	639
24 OPzV 3000	NGA6023000HS0FC	2117	2099	2060	2017	1984	1930	1728	1362	1098	894	767

1.87 Vpc – Discharge in W/cell at 20 °C												
Type acc. to DIN 40 742	Part number	3 min	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	4 h	5 h
4 OPzV 200	NGA6020200HS0FC	315	300	292	277	258	229	166	130	107	90.4	76.9
5 OPzV 250	NGA6020250HS0FC	394	376	366	347	324	288	208	162	133	112	96.7
6 OPzV 300	NGA6020300HS0FC	473	451	438	417	388	345	249	194	160	135	115
5 OPzV 350	NGA6020350HS0FC	534	509	468	437	413	370	295	226	180	146	120
6 OPzV 420	NGA6020420HS0FC	641	611	561	525	497	444	354	272	217	175	144
7 OPzV 490	NGA6020490HS0FC	748	713	655	612	579	517	413	317	253	204	168
6 OPzV 600	NGA6020600HS0FC	772	757	735	707	680	604	504	405	332	276	229
8 OPzV 800	NGA6020800HS0FC	1030	1009	980	943	906	804	671	540	443	369	306
10 OPzV 1000	NGA6021000HS0FC	1288	1262	1226	1179	1133	1006	840	676	554	461	383
12 OPzV 1200	NGA6021200HS0FC	1546	1515	1471	1415	1360	1207	1007	811	664	554	460
12 OPzV 1500	NGA6021500HS0FC	1125	1110	1082	1067	1047	1018	938	769	632	523	442
16 OPzV 2000	NGA6022000HS0FC	1500	1480	1443	1422	1396	1357	1250	1026	843	697	589
20 OPzV 2500	NGA6022500HS0FC	1875	1851	1804	1778	1745	1696	1563	1282	1053	871	736
24 OPzV 3000	NGA6023000HS0FC	2250	2221	2165	2134	2094	2036	1876	1539	1264	1046	884

1.85 Vpc – Discharge in W/cell at 20 °C												
Type acc. to DIN 40 742	Part number	3 min	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	4 h	5 h
4 OPzV 200	NGA6020200HS0FC	343	326	301	279	267	236	172	134	111	94.6	78.0
5 OPzV 250	NGA6020250HS0FC	429	408	377	350	334	294	216	167	138	117	97.7
6 OPzV 300	NGA6020300HS0FC	514	489	452	420	401	353	258	200	166	141	117
5 OPzV 350	NGA6020350HS0FC	612	569	528	489	457	393	304	234	188	153	128
6 OPzV 420	NGA6020420HS0FC	735	684	634	587	549	472	366	280	225	185	154
7 OPzV 490	NGA6020490HS0FC	858	797	739	685	640	550	426	327	263	215	180
6 OPzV 600	NGA6020600HS0FC	788	772	748	717	686	616	514	410	341	283	238
8 OPzV 800	NGA6020800HS0FC	1050	1029	998	956	915	821	686	547	454	378	317
10 OPzV 1000	NGA6021000HS0FC	1313	1287	1248	1196	1144	1027	858	684	567	473	396
12 OPzV 1200	NGA6021200HS0FC	1575	1544	1497	1435	1372	1232	1029	820	682	567	476
12 OPzV 1500	NGA6021500HS0FC	1205	1175	1125	1095	1076	1052	976	826	687	568	479
16 OPzV 2000	NGA6022000HS0FC	1607	1566	1500	1460	1435	1403	1302	1102	916	758	639
20 OPzV 2500	NGA6022500HS0FC	2008	1958	1875	1825	1794	1754	1627	1378	1145	948	799
24 OPzV 3000	NGA6023000HS0FC	2410	2350	2250	2190	2152	2104	1953	1653	1374	1137	958

A600 cells

1.83 Vpc – Discharge in W/cell at 20 °C												
Type acc. to DIN 40 742	Part number	3 min	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	4 h	5 h
4 OPzV 200	NGA6020200HS0FC	354	342	331	305	290	265	179	137	113	96.7	82.1
5 OPzV 250	NGA6020250HS0FC	444	428	413	382	361	334	224	171	141	120	101
6 OPzV 300	NGA6020300HS0FC	532	513	497	458	434	397	269	205	169	144	122
5 OPzV 350	NGA6020350HS0FC	636	603	561	520	491	431	338	240	196	159	130
6 OPzV 420	NGA6020420HS0FC	763	723	673	624	590	517	405	288	236	191	156
7 OPzV 490	NGA6020490HS0FC	891	844	786	728	688	604	473	335	275	222	182
6 OPzV 600	NGA6020600HS0FC	846	819	790	748	725	666	541	424	357	300	249
8 OPzV 800	NGA6020800HS0FC	1128	1092	1053	998	967	888	722	565	477	400	332
10 OPzV 1000	NGA6021000HS0FC	1410	1365	1316	1248	1209	1110	903	707	596	500	416
12 OPzV 1200	NGA6021200HS0FC	1693	1638	1580	1497	1450	1332	1084	848	716	601	499
12 OPzV 1500	NGA6021500HS0FC	1523	1493	1445	1388	1255	1138	1007	862	724	605	511
16 OPzV 2000	NGA6022000HS0FC	2031	1991	1927	1851	1673	1518	1343	1149	966	807	682
20 OPzV 2500	NGA6022500HS0FC	2539	2489	2409	2314	2092	1898	1679	1436	1208	1008	852
24 OPzV 3000	NGA6023000HS0FC	3047	2986	2891	2776	2510	2277	2015	1724	1449	1210	1023

1.80 Vpc – Discharge in W/cell at 20 °C												
Type acc. to DIN 40 742	Part number	3 min	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	4 h	5 h
4 OPzV 200	NGA6020200HS0FC	393	367	358	335	306	283	190	140	115	99.8	84.2
5 OPzV 250	NGA6020250HS0FC	491	459	448	436	395	364	237	175	143	124	105
6 OPzV 300	NGA6020300HS0FC	589	551	537	503	459	426	284	211	172	149	125
5 OPzV 350	NGA6020350HS0FC	710	669	603	572	540	480	364	249	199	166	140
6 OPzV 420	NGA6020420HS0FC	852	803	723	686	648	576	436	299	239	199	168
7 OPzV 490	NGA6020490HS0FC	994	938	844	800	757	672	509	349	279	232	196
6 OPzV 600	NGA6020600HS0FC	994	939	888	833	810	744	588	439	372	314	267
8 OPzV 800	NGA6020800HS0FC	1324	1252	1184	1110	1079	993	785	586	496	419	355
10 OPzV 1000	NGA6021000HS0FC	1656	1565	1480	1388	1349	1241	981	733	619	524	445
12 OPzV 1200	NGA6021200HS0FC	1987	1878	1777	1666	1619	1490	1178	879	744	629	533
12 OPzV 1500	NGA6021500HS0FC	1528	1528	1494	1471	1427	1382	1076	907	768	650	546
16 OPzV 2000	NGA6022000HS0FC	2038	2038	1992	1962	1903	1842	1435	1210	1024	866	728
20 OPzV 2500	NGA6022500HS0FC	2548	2548	2490	2452	2379	2303	1794	1513	1280	1083	910
24 OPzV 3000	NGA6023000HS0FC	3057	3057	2988	2943	2855	2764	2152	1815	1537	1300	1092

1.75 Vpc – Discharge in W/cell at 20 °C												
Type acc. to DIN 40 742	Part number	3 min	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	4 h	5 h
4 OPzV 200	NGA6020200HS0FC	454	442	410	390	372	312	219	144	121	102	87.3
5 OPzV 250	NGA6020250HS0FC	568	552	512	486	465	390	273	179	151	127	109
6 OPzV 300	NGA6020300HS0FC	682	662	615	584	558	468	328	216	182	153	131
5 OPzV 350	NGA6020350HS0FC	764	743	676	624	583	526	395	265	206	171	143
6 OPzV 420	NGA6020420HS0FC	917	892	811	748	699	631	474	318	248	205	172
7 OPzV 490	NGA6020490HS0FC	1070	1041	946	873	816	736	553	371	290	240	200
6 OPzV 600	NGA6020600HS0FC	1069	1048	1007	955	918	848	659	457	383	329	275
8 OPzV 800	NGA6020800HS0FC	1425	1397	1343	1274	1224	1131	878	609	511	439	367
10 OPzV 1000	NGA6021000HS0FC	1782	1747	1679	1592	1529	1414	1098	762	639	550	458
12 OPzV 1200	NGA6021200HS0FC	2139	2096	2015	1911	1836	1697	1318	914	767	660	551
12 OPzV 1500	NGA6021500HS0FC	1859	1844	1801	1668	1578	1459	1253	951	816	689	582
16 OPzV 2000	NGA6022000HS0FC	2479	2459	2401	2224	2104	1945	1670	1268	1088	919	776
20 OPzV 2500	NGA6022500HS0FC	3099	3074	3002	2780	2631	2431	2088	1586	1360	1149	970
24 OPzV 3000	NGA6023000HS0FC	3719	3689	3602	3336	3157	2918	2506	1903	1632	1379	1164

A600 cells

1.70 Vpc – Discharge in W/cell at 20 °C												
Type acc. to DIN 40 742	Part number	3 min	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	4 h	5 h
4 OPzV 200	NGA6020200HS0FC	479	462	454	430	390	346	249	148	123	105	88.4
5 OPzV 250	NGA6020250HS0FC	600	579	568	538	487	433	312	186	153	131	111
6 OPzV 300	NGA6020300HS0FC	719	694	682	645	585	520	374	223	185	157	133
5 OPzV 350	NGA6020350HS0FC	849	811	764	696	632	583	421	275	209	173	143
6 OPzV 420	NGA6020420HS0FC	1019	973	917	836	759	699	505	330	250	208	172
7 OPzV 490	NGA6020490HS0FC	1189	1135	1070	975	885	816	589	385	292	243	200
6 OPzV 600	NGA6020600HS0FC	1208	1173	1120	1060	1006	913	713	479	395	338	280
8 OPzV 800	NGA6020800HS0FC	1610	1564	1493	1414	1342	1216	951	639	526	450	374
10 OPzV 1000	NGA6021000HS0FC	2013	1955	1866	1768	1678	1521	1189	799	658	562	468
12 OPzV 1200	NGA6021200HS0FC	2416	2346	2240	2121	2014	1825	1427	959	789	676	561
12 OPzV 1500	NGA6021500HS0FC	1970	1970	1929	1861	1816	1666	1391	969	834	707	600
16 OPzV 2000	NGA6022000HS0FC	2627	2627	2572	2482	2422	2221	1855	1292	1112	942	800
20 OPzV 2500	NGA6022500HS0FC	3284	3284	3215	3102	3028	2776	2319	1615	1390	1178	1000
24 OPzV 3000	NGA6023000HS0FC	3941	3941	3858	3723	3633	3332	2783	1938	1668	1414	1200

1.65 Vpc – Discharge in W/cell at 20 °C												
Type acc. to DIN 40 742	Part number	3 min	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	4 h	5 h
4 OPzV 200	NGA6020200HS0FC	636	579	521	464	416	372	252	148	123	105	90.4
5 OPzV 250	NGA6020250HS0FC	795	724	652	580	520	465	316	186	153	132	112
6 OPzV 300	NGA6020300HS0FC	954	869	782	696	624	558	378	223	185	158	135
5 OPzV 350	NGA6020350HS0FC	954	915	821	748	732	598	430	275	210	173	143
6 OPzV 420	NGA6020420HS0FC	1146	1098	985	898	878	717	516	330	251	208	172
7 OPzV 490	NGA6020490HS0FC	1336	1281	1150	1048	1025	837	603	385	294	243	200
6 OPzV 600	NGA6020600HS0FC	1386	1313	1243	1173	1110	1023	785	482	395	338	280
8 OPzV 800	NGA6020800HS0FC	1848	1751	1657	1564	1480	1364	1046	642	526	450	374
10 OPzV 1000	NGA6021000HS0FC	2309	2189	2072	1955	1851	1705	1308	803	658	562	468
12 OPzV 1200	NGA6021200HS0FC	2772	2627	2486	2346	2221	2046	1569	964	789	676	561
12 OPzV 1500	NGA6021500HS0FC	2154	2108	2030	1972	1910	1806	1486	999	853	713	609
16 OPzV 2000	NGA6022000HS0FC	2873	2810	2706	2630	2547	2408	1981	1332	1138	951	812
20 OPzV 2500	NGA6022500HS0FC	3591	3513	3383	3288	3184	3010	2476	1665	1423	1189	1015
24 OPzV 3000	NGA6023000HS0FC	4309	4216	4060	3945	3820	3612	2972	1998	1707	1426	1218

1.60 Vpc – Discharge in W/cell at 20 °C												
Type acc. to DIN 40 742	Part number	3 min	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	4 h	5 h
4 OPzV 200	NGA6020200HS0FC	671	620	588	506	439	381	258	152	124	105	90.4
5 OPzV 250	NGA6020250HS0FC	840	775	736	632	550	476	324	190	156	132	113
6 OPzV 300	NGA6020300HS0FC	1007	930	882	759	660	572	388	228	187	158	136
5 OPzV 350	NGA6020350HS0FC	1017	967	906	790	738	624	436	275	210	173	143
6 OPzV 420	NGA6020420HS0FC	1220	1160	1087	948	886	748	524	330	251	208	172
7 OPzV 490	NGA6020490HS0FC	1423	1354	1269	1106	1033	873	611	385	294	243	200
6 OPzV 600	NGA6020600HS0FC	1469	1442	1387	1272	1183	1048	785	482	395	338	280
8 OPzV 800	NGA6020800HS0FC	1959	1922	1850	1697	1577	1397	1046	642	526	450	374
10 OPzV 1000	NGA6021000HS0FC	2449	2403	2312	2121	1971	1747	1308	803	658	562	468
12 OPzV 1200	NGA6021200HS0FC	2939	2884	2775	2545	2367	2096	1569	964	789	676	561
12 OPzV 1500	NGA6021500HS0FC	2444	2362	2292	2170	2059	1907	1554	1037	856	732	614
16 OPzV 2000	NGA6022000HS0FC	3258	3150	3056	2893	2745	2543	2073	1383	1142	976	819
20 OPzV 2500	NGA6022500HS0FC	4073	3938	3820	3617	3432	3178	2591	1729	1428	1220	1024
24 OPzV 3000	NGA6023000HS0FC	4888	4725	4584	4340	4118	3814	3109	2075	1713	1464	1229

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Exide Technologies, with subsidiaries in 80 countries, is one of the world's largest manufacturers and recyclers of lead-acid batteries. Exide provides a comprehensive and customized range of stored electrical energy solutions.

Based on over 100 years of experience in the development of innovative technologies, Exide is an esteemed partner of OEMs and serves the spare parts market for industrial and transportation applications. The Industrial Energy business unit offers an extensive range of storage products and services, including solutions for

telecommunications systems, railway applications, mining, photovoltaic (solar energy), uninterruptible power supply (UPS), electrical power generation and distribution, fork lifts and electric vehicles.

Exide Technologies takes pride in its commitment to a better environment. Its Total Battery Management programme, (an integrated approach to manufacturing, distributing and recycling of lead-acid batteries), has been developed to ensure a safe and responsible life cycle for all of its products.