



Industrial Batteries – Network Power Sonnenschein A700

The durable high energy and
reliable battery system.

Specifications

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


- The success of Sonnenschein A700 batteries comes from the internationally superior dryfit technology
- High current discharge capability, with excellent energy storage capacity
- Maintenance-free (no topping up) during the whole service life due to the Sonnenschein dryfit technology
- Nominal capacity 21 – 280 Ah C₁₀
- Design life of 12 years and longer at 20°C (80% remaining capacity from C₁₀)
- Case material polypropylene (PP)
- Thick grid plate construction consisting of a lead calcium
- 6 volt and 4 volt blocks
- Very low gassing due to internal gas recombination
- Shelf life up to 2 years at 20°C without recharge due to the low self discharge rate
- Short recharging time
- Proof against deep discharge according to DIN 43 539 T5
- Trouble-free transport of operational blocks, no restrictions for rail, road, sea and air transportation (IATA, DGR clause A67)
- Completely recyclable



Applications

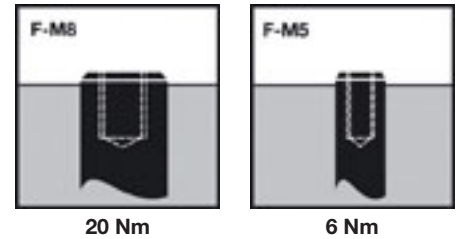
Sonnenschein A700 batteries make a completely reliable means of energy source for many applications including: telecommunications, UPS, security, emergency lighting, railways and other power supplies for safety systems.



 Design life in years 12+	 Nominal capacity 21 - 280 Ah	 Block battery	 Grid plate	 Recyclable
 Valve regulated lead-acid batteries	 Proof against deep discharge acc. to DIN 43539 T5	 Maintenance-free (no topping-up)	 Special high current performance	

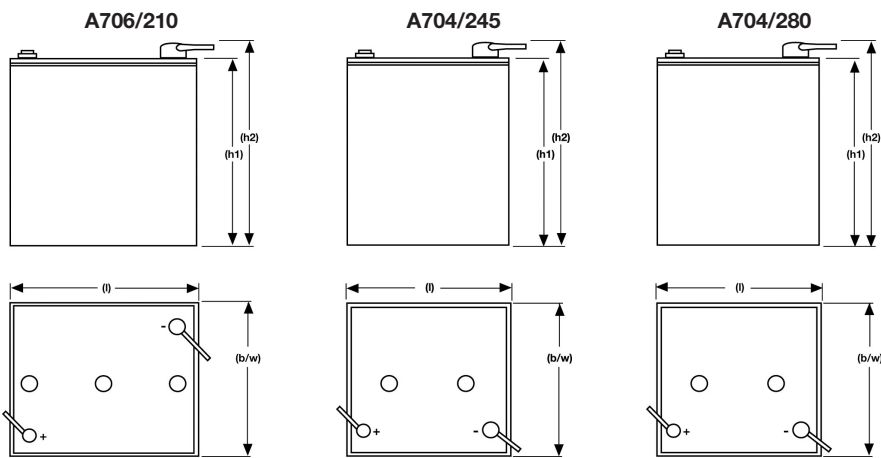
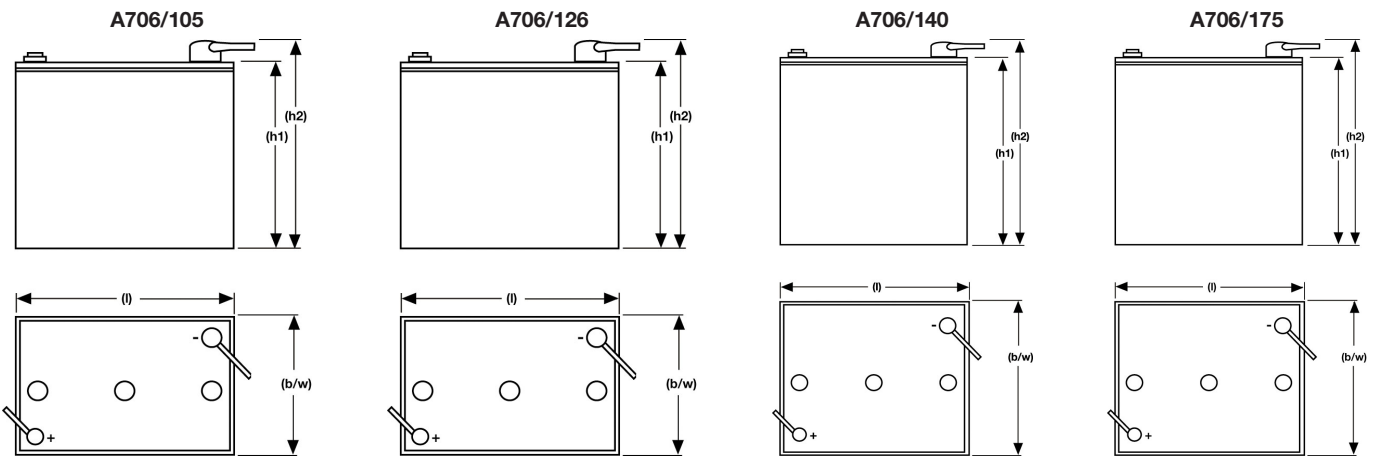
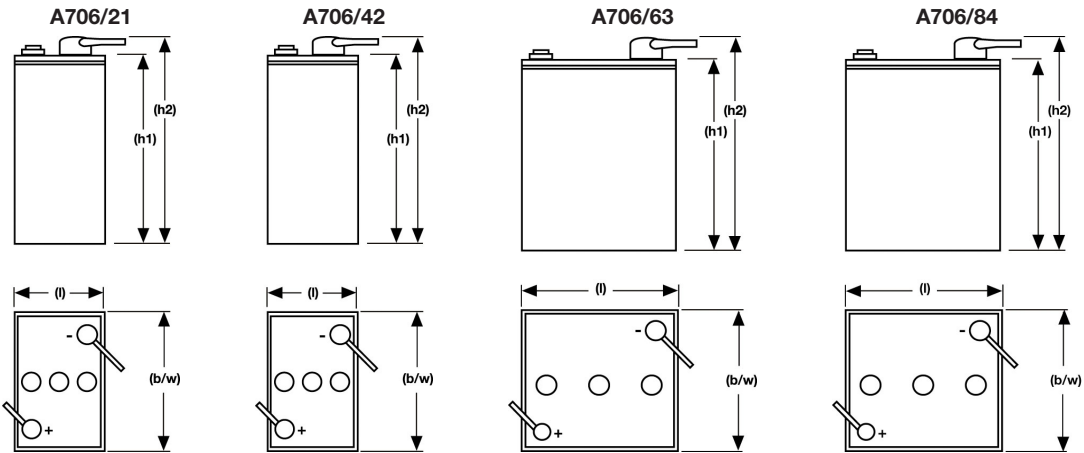
Exide type designation	Part number	Type acc. to DIN 40 741 T1	Nom. Voltage V	Nominal capacity C ₁₀ 1.80 VpC 20 °C Ah	Length l max. mm	Width b/w max. mm	Height top of cover h1 max. mm	Height over terminals h2 max. mm	Installed length mm	Weight approx. kg	Internal resistance acc. IEC896-2 mOhm	Short circuit current acc. IEC896-2 A	Terminal
A706/21	NGA7060021HS0FA	6V 1 OGiV 18	6	21.0	115	178	241	268	125	8.50	16.8	367	F-M5
A706/42	NGA7060042HS0FA	6V 2 OGiV 36	6	42.0	115	178	241	268	125	10.1	8.50	731	F-M5
A706/63	NGA7060063HS0FA	6V 3 OGiV 54	6	63.0	198	178	241	272	208	16.3	5.80	1058	F-M8
A706/84	NGA7060084HS0FA	6V 4 OGiV 72	6	84.0	198	178	241	272	208	18.3	4.30	1409	F-M8
A706/105	NGA7060105HS0FA	6V 5 OGiV 90	6	105	282	178	241	272	292	25.3	3.60	1726	F-M8
A706/126	NGA7060126HS0FA	6V 6 OGiV 108	6	126	282	178	241	272	292	26.2	2.90	2092	F-M8
A706/140	NGA7060140HS0FA	6V 4 OGiV 128	6	140	285	232	296	327	295	36.3	3.00	2083	F-M8
A706/175	NGA7060175HS0FA	6V 5 OGiV 160	6	175	285	232	296	327	295	39.7	2.60	2383	F-M8
A706/210	NGA7060210HS0FA	6V 6 OGiV 192	6	210	285	232	296	327	295	42.9	2.20	2876	F-M8
A704/245	NGA7040245HS0FA	4V 7 OGiV 224	4	245	250	232	296	327	260	35.5	1.70	3181	F-M8
A704/280	NGA7040280HS0FA	4V 8 OGiV 256	4	280	250	232	296	327	260	39.0	1.17	3490	F-M8

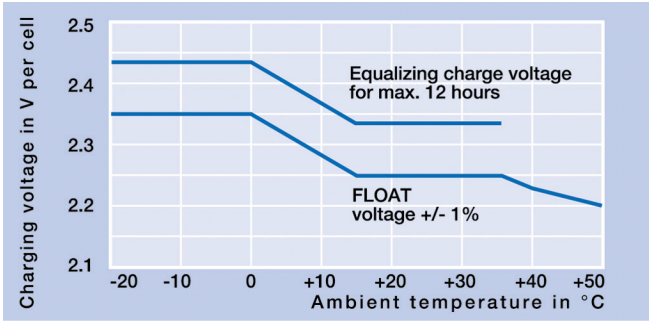
Container, approval, terminal and torque



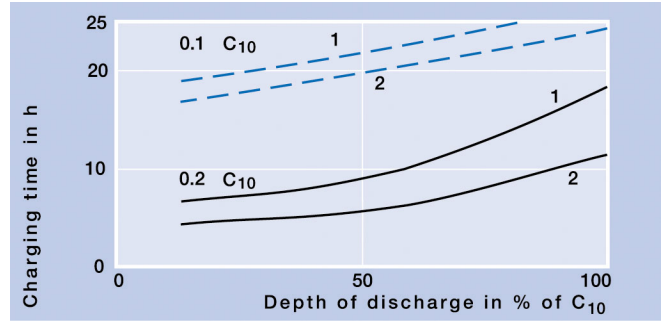
Container: Polypropylene (PP)

Approval: Germanischer Lloyd (GL)
DIN/Gost/TÜV, Russia





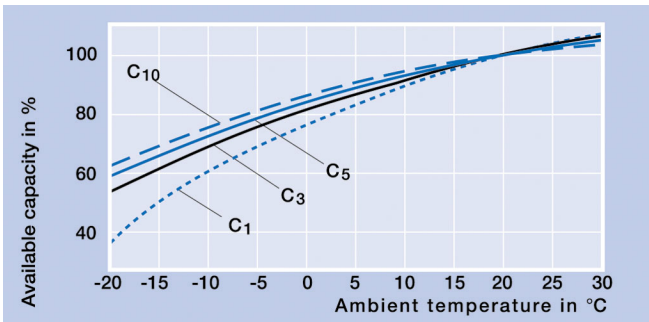
2.25 V per cell is recommended for continuous charging. The charging voltage must be compensated according to the curve for continuously different battery ambient temperature.



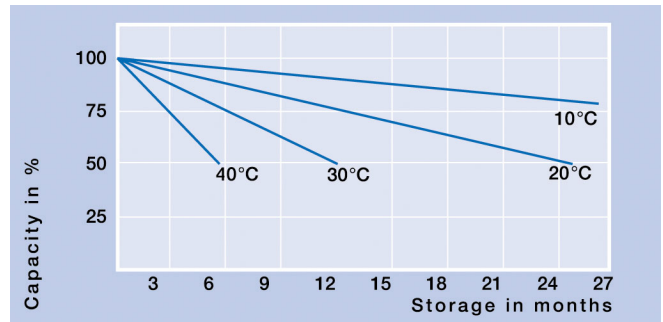
Recharging times in relation to the initial charging current at 20°C.

- - State of charge 100%
- State of charge 90%

Charging voltage:
 1: 2.25 V/C
 2: 2.40 V/C



Available capacity in relation to the ambient temperature.



Self-discharge in relation to the storage temperature.

1.80 VpC - Discharge in A at 20 °C												
Exide type designation	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
A706/21	NGA7060021HSOFA	36.3	31.3	26.4	23.1	18.9	11.5	7.30	5.50	3.70	2.60	2.10
A706/42	NGA7060042HSOFA	72.5	62.6	52.8	46.2	37.8	23.0	14.6	11.0	7.40	5.20	4.20
A706/63	NGA7060063HSOFA	108	93.9	79.2	69.3	56.7	34.5	21.9	16.5	11.1	7.70	6.30
A706/84	NGA7060084HSOFA	145	125	105	92.4	75.6	46.0	29.3	22.0	14.8	10.3	8.40
A706/105	NGA7060105HSOFA	181	156	132	115	94.5	57.5	36.6	27.6	18.5	12.9	10.5
A706/126	NGA7060126HSOFA	217	187	158	138	113	69.0	43.9	33.1	22.2	15.5	12.6
A706/140	NGA7060140HSOFA	203	190	161	144	125	81.8	50.5	37.1	25.6	17.4	14.0
A706/175	NGA7060175HSOFA	254	237	202	180	157	102	63.1	46.4	32.0	21.7	17.5
A706/210	NGA7060210HSOFA	305	285	242	216	188	122	75.7	55.7	38.4	26.0	21.0
A704/245	NGA7040245HSOFA	356	332	283	252	220	143	88.3	64.9	44.8	30.4	24.5
A704/280	NGA7040280HSOFA	406	380	323	288	251	163	100	74.2	51.2	34.7	28.0

1.77 VpC - Discharge in A at 20 °C												
Exide type designation	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
A706/21	NGA7060021HSOFA	40.2	34.2	28.0	24.2	19.3	11.9	7.30	5.50	3.80	2.60	2.10
A706/42	NGA7060042HSOFA	80.4	68.4	55.9	48.5	38.6	23.7	14.6	11.0	7.50	5.20	4.20
A706/63	NGA7060063HSOFA	120	102	83.9	72.7	58.0	35.6	21.9	16.5	11.3	7.70	6.30
A706/84	NGA7060084HSOFA	160	136	111	97.0	77.3	47.4	29.3	22.0	15.1	10.3	8.40
A706/105	NGA7060105HSOFA	201	170	139	121	96.6	59.3	36.6	27.6	18.9	12.9	10.5
A706/126	NGA7060126HSOFA	241	205	167	145	115	71.2	43.9	33.1	22.6	15.5	12.6
A706/140	NGA7060140HSOFA	224	205	171	149	128	83.1	51.6	38.2	25.9	17.7	14.0
A706/175	NGA7060175HSOFA	280	257	214	187	160	103	64.5	47.8	32.4	22.1	17.5
A706/210	NGA7060210HSOFA	336	308	257	224	192	124	77.4	57.4	38.9	26.5	21.0
A704/245	NGA7040245HSOFA	392	360	300	261	224	145	90.3	66.9	45.5	31.0	24.5
A704/280	NGA7040280HSOFA	448	411	343	299	256	166	103	76.5	51.9	35.4	28.0

1.75 VpC - Discharge in A at 20 °C												
Exide type designation	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
A706/21	NGA7060021HSOFA	42.8	36.1	29.0	25.0	19.6	12.1	7.30	5.50	3.80	2.60	2.10
A706/42	NGA7060042HSOFA	85.6	72.2	58.0	50.0	39.2	24.2	14.6	11.0	7.50	5.20	4.20
A706/63	NGA7060063HSOFA	128	108	87.0	75.0	58.8	36.6	21.9	16.5	11.3	7.70	6.30
A706/84	NGA7060084HSOFA	171	144	116	100	78.4	48.4	29.3	22.0	15.1	10.3	8.40
A706/105	NGA7060105HSOFA	214	180	145	125	98.0	60.5	36.6	27.6	18.9	12.9	10.5
A706/126	NGA7060126HSOFA	256	216	174	150	117	72.6	43.9	33.1	22.6	15.5	12.6
A706/140	NGA7060140HSOFA	238	216	178	153	130	84.0	52.3	39.0	26.2	17.9	14.0
A706/175	NGA7060175HSOFA	298	270	222	191	162	105	65.4	48.8	32.7	22.4	17.5
A706/210	NGA7060210HSOFA	357	324	267	230	195	126	78.5	58.5	39.2	26.9	21.0
A704/245	NGA7040245HSOFA	417	378	311	268	227	147	91.6	68.3	45.8	31.4	24.5
A704/280	NGA7040280HSOFA	477	432	356	306	260	168	104	78.0	52.3	35.8	28.0

Discharge data are measured average values at 20 °C which can vary to application and ambient temperature

1.70 VpC - Discharge in A at 20 °C												
Exide type designation	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
A706/21	NGA7060021HS0FA	48.0	39.0	31.0	26.5	20.4	12.1	7.40	5.50	3.80	2.60	2.10
A706/42	NGA7060042HS0FA	96.0	78.0	62.0	53.0	40.8	24.2	14.8	11.0	7.60	5.20	4.20
A706/63	NGA7060063HS0FA	144	117	93.0	79.5	61.2	36.6	22.2	16.5	11.4	7.70	6.30
A706/84	NGA7060084HS0FA	192	156	124	106	81.6	48.4	29.7	22.0	15.3	10.3	8.40
A706/105	NGA7060105HS0FA	240	195	155	132	102	60.5	37.1	27.6	19.1	12.9	10.5
A706/126	NGA7060126HS0FA	288	234	186	159	122	72.6	44.5	33.1	22.9	15.5	12.6
A706/140	NGA7060140HS0FA	266	234	194	166	137	85.2	52.3	39.0	26.2	17.9	14.0
A706/175	NGA7060175HS0FA	333	292	243	208	172	106	65.4	48.8	32.7	22.4	17.5
A706/210	NGA7060210HS0FA	399	351	291	249	206	127	78.5	58.5	39.2	26.9	21.0
A704/245	NGA7040245HS0FA	466	409	340	291	240	149	91.6	68.3	45.8	31.4	24.5
A704/280	NGA7040280HS0FA	532	468	389	332	275	170	104	78.0	52.3	35.8	28.0

1.65 VpC - Discharge in A at 20 °C												
Exide type designation	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
A706/21	NGA7060021HS0FA	52.0	41.0	32.5	26.9	20.4	12.2	7.40	5.60	3.80	2.60	2.10
A706/42	NGA7060042HS0FA	104	82.0	65.0	53.8	40.8	24.4	14.8	11.2	7.60	5.20	4.20
A706/63	NGA7060063HS0FA	156	123	97.5	80.7	61.2	36.6	22.2	16.9	11.4	7.70	6.30
A706/84	NGA7060084HS0FA	208	164	130	107	81.6	48.8	29.7	22.5	15.3	10.3	8.40
A706/105	NGA7060105HS0FA	260	205	162	134	102	61.0	37.1	28.1	19.1	12.9	10.5
A706/126	NGA7060126HS0FA	312	246	195	161	122	73.2	44.5	33.7	22.9	15.5	12.6
A706/140	NGA7060140HS0FA	290	246	202	171	139	85.3	52.5	39.2	26.2	17.9	14.0
A706/175	NGA7060175HS0FA	363	308	252	214	173	106	65.7	49.0	32.7	22.4	17.5
A706/210	NGA7060210HS0FA	436	369	303	256	208	128	78.8	58.8	39.2	26.9	21.0
A704/245	NGA7040245HS0FA	508	431	353	299	243	149	91.9	68.6	45.8	31.4	24.5
A704/280	NGA7040280HS0FA	581	493	404	342	278	170	105	78.4	52.3	35.8	28.0

1.60 VpC - Discharge in A at 20 °C												
Exide type designation	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h	8 h	10 h
A706/21	NGA7060021HS0FA	55.0	42.5	33.2	26.9	20.5	12.2	7.40	5.60	3.80	2.60	2.10
A706/42	NGA7060042HS0FA	110	85.0	66.4	53.8	41.0	24.4	14.8	11.2	7.60	5.20	4.20
A706/63	NGA7060063HS0FA	165	127	99.6	80.7	61.5	36.6	22.2	16.9	11.4	7.70	6.30
A706/84	NGA7060084HS0FA	220	170	132	107	82.0	48.8	29.7	22.5	15.3	10.3	8.40
A706/105	NGA7060105HS0FA	275	212	166	134	102	61.0	37.1	28.1	19.1	12.9	10.5
A706/126	NGA7060126HS0FA	330	255	199	161	123	73.2	44.5	33.7	22.9	15.5	12.6
A706/140	NGA7060140HS0FA	309	253	208	173	139	85.3	52.5	39.2	26.2	17.9	14.0
A706/175	NGA7060175HS0FA	387	317	260	216	173	106	65.7	49.0	32.7	22.4	17.5
A706/210	NGA7060210HS0FA	464	380	312	260	208	128	78.8	58.8	39.2	26.9	21.0
A704/245	NGA7040245HS0FA	541	444	364	303	243	149	91.9	68.6	45.8	31.4	24.5
A704/280	NGA7040280HS0FA	619	507	416	346	278	170	105	78.4	52.3	35.8	28.0

Discharge data are measured average values at 20 °C which can vary to application and ambient temperature

1.80 VpC - Discharge in W/Block at 20 °C										
Exide type designation	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h
A706/21	NGA7060021HSOFA	186	157	137	121	97.0	65.0	41.0	31.0	21.0
A706/42	NGA7060042HSOFA	372	315	274	241	195	129	82.0	62.0	42.0
A706/63	NGA7060063HSOFA	558	472	411	362	292	194	123	93.0	63.0
A706/84	NGA7060084HSOFA	744	629	548	482	389	258	164	124	84.0
A706/105	NGA7060105HSOFA	930	786	685	603	486	323	205	155	105
A706/126	NGA7060126HSOFA	1115	944	822	724	584	388	246	186	126
A706/140	NGA7060140HSOFA	1007	886	809	733	640	439	295	218	148
A706/175	NGA7060175HSOFA	1259	1108	1012	916	801	548	368	272	185
A706/210	NGA7060210HSOFA	1510	1330	1214	1099	961	658	442	327	222
A704/245	NGA7040245HSOFA	1175	1034	944	855	747	512	344	254	173
A704/280	NGA7040280HSOFA	1342	1182	1079	977	854	585	393	290	198

1.77 VpC - Discharge in W/Block at 20 °C										
Exide type designation	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h
A706/21	NGA7060021HSOFA	199	165	144	126	100	66.0	42.0	31.0	21.0
A706/42	NGA7060042HSOFA	398	331	288	252	200	131	83.0	62.0	42.0
A706/63	NGA7060063HSOFA	596	496	432	377	300	197	125	93.0	63.0
A706/84	NGA7060084HSOFA	795	661	576	503	401	263	166	124	84.0
A706/105	NGA7060105HSOFA	994	826	719	629	501	328	208	155	105
A706/126	NGA7060126HSOFA	1193	992	863	755	601	394	249	186	126
A706/140	NGA7060140HSOFA	1083	952	859	776	659	449	300	222	150
A706/175	NGA7060175HSOFA	1354	1190	1074	971	823	561	375	277	188
A706/210	NGA7060210HSOFA	1625	1428	1288	1165	988	673	450	332	225
A704/245	NGA7040245HSOFA	1264	1111	1002	906	768	523	350	258	175
A704/280	NGA7040280HSOFA	1445	1270	1145	1035	878	598	400	295	200

1.75 VpC - Discharge in W/Block at 20 °C										
Exide type designation	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h
A706/21	NGA7060021HSOFA	212	173	151	131	103	67.0	42.0	32.0	21.0
A706/42	NGA7060042HSOFA	423	347	302	262	206	133	84.0	64.0	42.0
A706/63	NGA7060063HSOFA	635	520	452	393	309	200	126	96.0	63.0
A706/84	NGA7060084HSOFA	847	693	603	524	412	267	168	128	84.0
A706/105	NGA7060105HSOFA	1058	866	754	655	515	334	210	160	105
A706/126	NGA7060126HSOFA	1270	1040	905	786	618	400	252	192	126
A706/140	NGA7060140HSOFA	1160	1018	908	820	677	458	303	223	151
A706/175	NGA7060175HSOFA	1450	1272	1135	1025	846	573	379	279	189
A706/210	NGA7060210HSOFA	1740	1527	1363	1230	1015	688	454	335	226
A704/245	NGA7040245HSOFA	1353	1187	1060	957	790	535	353	260	176
A704/280	NGA7040280HSOFA	1547	1357	1211	1094	902	611	404	297	201

Discharge data are measured average values at 20 °C which can vary to application and ambient temperature

1.70 VpC - Discharge in W/Block at 20 °C

Exide type designation	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h
A706/21	NGA7060021HS0FA	230	189	159	137	106	68.0	43.0	32.0	22.0
A706/42	NGA7060042HS0FA	459	379	318	275	213	135	86.0	64.0	43.0
A706/63	NGA7060063HS0FA	689	568	477	412	319	203	129	96.0	65.0
A706/84	NGA7060084HS0FA	919	758	636	550	425	271	172	128	86.0
A706/105	NGA7060105HS0FA	1148	947	795	687	532	338	215	160	108
A706/126	NGA7060126HS0FA	1378	1137	954	825	638	406	258	192	129
A706/140	NGA7060140HS0FA	1302	1125	996	879	707	468	307	225	151
A706/175	NGA7060175HS0FA	1628	1407	1245	1098	884	585	383	281	189
A706/210	NGA7060210HS0FA	1954	1688	1494	1318	1060	702	460	337	227
A704/245	NGA7040245HS0FA	1519	1313	1162	1025	825	546	358	262	176
A704/280	NGA7040280HS0FA	1736	1501	1328	1172	943	624	409	300	202

1.65 VpC - Discharge in W/Block at 20 °C

Exide type designation	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h
A706/21	NGA7060021HS0FA	251	202	164	141	108	68.0	43.0	32.0	22.0
A706/42	NGA7060042HS0FA	502	403	328	282	216	136	86.0	64.0	43.0
A706/63	NGA7060063HS0FA	753	605	492	423	324	204	129	96.0	65.0
A706/84	NGA7060084HS0FA	1003	807	655	564	432	272	172	128	86.0
A706/105	NGA7060105HS0FA	1254	1008	819	705	540	340	215	160	108
A706/126	NGA7060126HS0FA	1505	1210	983	846	648	408	258	192	129
A706/140	NGA7060140HS0FA	1401	1194	1051	917	725	472	308	225	152
A706/175	NGA7060175HS0FA	1751	1492	1313	1147	906	591	385	282	190
A706/210	NGA7060210HS0FA	2101	1790	1576	1376	1087	709	462	338	228
A704/245	NGA7040245HS0FA	1634	1393	1226	1070	846	551	359	263	177
A704/280	NGA7040280HS0FA	1868	1592	1401	1223	967	630	410	300	203

1.60 VpC - Discharge in W/Block at 20 °C

Exide type designation	Part number	5 min	10 min	15 min	20 min	30 min	1 h	2 h	3 h	5 h
A706/21	NGA7060021HS0FA	266	210	168	143	109	68.0	43.0	32.0	22.0
A706/42	NGA7060042HS0FA	532	420	335	286	218	136	86.0	64.0	44.0
A706/63	NGA7060063HS0FA	798	630	503	429	326	205	129	96.0	66.0
A706/84	NGA7060084HS0FA	1064	840	670	571	435	273	172	128	88.0
A706/105	NGA7060105HS0FA	1329	1050	838	714	544	341	215	160	110
A706/126	NGA7060126HS0FA	1595	1260	1005	857	653	409	258	192	132
A706/140	NGA7060140HS0FA	1510	1265	1101	941	735	474	309	226	152
A706/175	NGA7060175HS0FA	1888	1582	1376	1177	919	593	386	283	190
A706/210	NGA7060210HS0FA	2265	1898	1652	1412	1103	712	463	339	228
A704/245	NGA7040245HS0FA	1762	1476	1285	1098	858	553	360	264	177
A704/280	NGA7040280HS0FA	2014	1687	1468	1255	980	633	411	301	203

Discharge datas are measured average values at 20 °C which can vary to application and ambient temperature

Exide Technologies Industrial Energy – The Industry Leader.



Exide Technologies is the global leader in stored electrical energy solutions with subsidiaries in more than 80 countries. Based on over 100 years of experience in technological innovation, we are partners of OEM and serve the spare parts market for industrial and transportation applications.

Our Global 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.

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