

ASTERION
BATTERY

XPERT[®]

LEAD-ACID BATTERIES



EXPERT LEVEL OF
QUALITY

ASTERION XPERT LEAD-ACID BATTERIES

ASTERION XPERT is a professional series of lead acid batteries that includes the most expensive and premium quality ASTERION batteries.

The ASTERION XPERT series is ideal for design applications in various types of facilities:

AUTONOMOUS POWER SUPPLY



SOLAR AND WIND POWER INDUSTRY



COMMUNICATION AND TELECOMMUNICATION SYSTEMS



UNINTERRUPTIBLE POWER SUPPLIES



BACKUP POWER SUPPLIES



DATA CENTERS



ENERGY FACILITIES



ASTERION XPERT BATTERIES



Meet all modern requirements of electrical facilities and systems



Have an extended service life



Recommended for use by leading vendors: APC by Schneider Electric, EATON, Emerson/Liebert, Socomec, Powercom, AEG, Newave, Riello



Certified and have all necessary opinions and declarations



Have an extended warranty period - for main positions up to 3 years



In addition to the main activity - the supply of batteries - we also provide customers with cabinet and shelf solutions, components, provide all necessary calculations and certificates and perform installation



HRL-W

pages 6-7



12 years

STC

pages 10-11



20 years

AGM technology

Absorbent Glass Mat; the electrolyte is absorbed in the fiberglass separator

OPzS

pages 16-17



20 years

ASTERION batteries have been on the market since 2001 and have proven their reliability and high quality at major industrial, sport and infrastructure facilities.



GSC

pages 12-13

20 years

GEL

AGM technology

The battery electrolyte is in the form of thickened gel.

20 years



OPzV

pages 14-15

FRONT TERMINAL DESIGN

Housing is optimized for installation in 19" and 23" cabinets and racks.

12 years



FTS-X

pages 8-9

ASTERION XPERT is a 6 professional series of rechargeable batteries, optimized for your application: from telecommunications and communication systems to uninterruptible power supplies and alternative energy systems.



ASTERION series **HRL-W** are highly reliable and energy efficient lead-acid batteries for modern uninterruptible power supply systems. They are sealed, maintenance-free with a gas recombination system (VRLA). They are manufactured using AGM technology (Absorbent Glass Mat - an electrolyte absorbed in a fiberglass separator). Due to the optimized technology, the electrical and electrochemical parameters of this series have been corrected and the batteries have excellent discharge characteristics at short time intervals.

The **HRL-W** series is part of the Xpert family designed specifically for use in uninterruptible power supplies to data centers, communication systems, and other equipment.

SCOPES OF APPLICATION

- Sources of backup power supply
- Uninterruptible power supplies
- Energy facilities
- Communication facilities
- Data centers

STANDARD SIZES

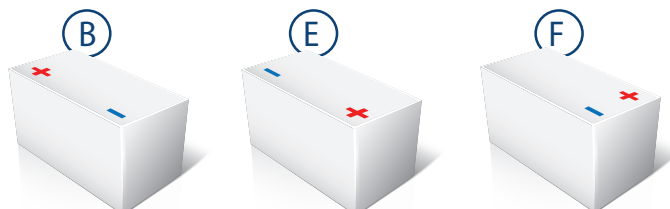
Type	Rated, V	Capacitance, Ah*	Length (±2), mm	Width (±2), mm	Height max (±2), mm	Weight, kg	Body	Terminal type
HRL 12-155 W	12	28	165	125	175	9,5	E	For M5 bolt
HRL 12-170 W	12	33	195	130	168	11,5	B	For M6 bolt
HRL 12-211 W	12	45	198	166	170	14,8	E	For M6 bolt
HRL 12-260 W	12	55	229	138	213	18	B	For M6 bolt
HRL 12-350 W	12	75	258	166	215	24,5	B	For M6 bolt
HRL 12-370 W	12	80	350	167	179	26,2	B	For M6 bolt
HRL 12-460 W	12	90	306	170	225	28,5	B	For M6 bolt
HRL 12-480 W	12	100	330	171	220	32	B	For M6 bolt
HRL 12-570 W	12	120	410	176	224	36,5	B	For M6 bolt
HRL 12-630 W	12	140	341	173	279	41	B	For M8 bolt
HRL 12-670 W	12	150	482	170	240	45	B	For M8 bolt
HRL 12-830 W	12	192	530	209	220	57	F	For M8 bolt

*Capacitance is indicated at the 10-hour discharge.

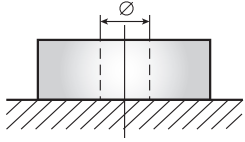
DESIGN

Component	Positive plate	Negative plate	Container	Cover	Valve	Terminals	Separator	Electrolyte
Material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

HOUSING TYPES



TERMINAL DIAGRAMS



For bolt



SERVICE LIFE:

In buffer mode: 12 years.
In cyclic mode: 1,300 cycles at 30% depth of discharge.



SELF-DISCHARGE:

Less than 3% per month



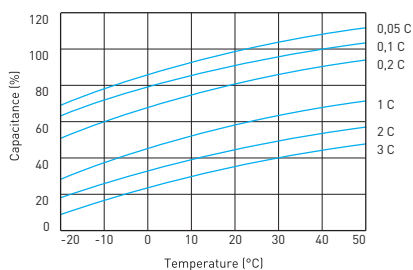
CHARGING METHOD:

DC voltage charge (25°C)
Cyclic mode: 2,35-2,4 V/cell Temperature compensation - 5 mV/cell°C
Buffer mode: 2,27-2,3 V/cell Temperature compensation - 3,3 mV/cell°C

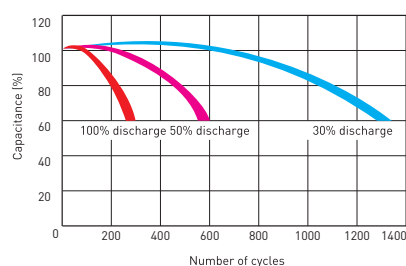
DISCHARGE CHARACTERISTICS

Type	DC discharge up to 1,70 V/cell, A, at t 25°C.						Discharge with constant power up to 1,70 V/cell, W/cell, at t 25°C						Service life
	5 min	15 min	30 min	35 min	45 min	1 hour	5 min	15 min	30 min	35 min	45 min	1 hour	
HRL 12-155 W	110	60	37	33	27	21	210	110	68	61	51	41	12 years
HRL 12-170 W	149	84	50	44	37	29	273	154	96	85	70	55	
HRL 12-211 W	169	91	54	48	40	31	312	168	99	87	72	58	
HRL 12-260 W	182	109	70	62	52	42	351	200	123	110	94	76	
HRL 12-350 W	311	174	111	99	83	64	564	320	206	183	153	119	
HRL 12-370 W	258	161	99	88	72	59	497	286	177	158	133	105	
HRL 12-460 W	362	213	129	112	89	69	655	402	241	213	175	136	
HRL 12-480 W	380	224	133	118	99	78	668	420	248	220	182	143	
HRL 12-570 W	430	267	165	144	117	92	835	490	304	269	223	176	
HRL 12-630 W	442	275	181	158	128	98	805	521	337	298	246	193	
HRL 12-670 W	492	314	206	181	148	116	943	585	381	339	283	219	
HRL 12-830 W	547	372	243	217	183	143	1015	732	451	399	330	259	
HRL 12-980 W	689	435	282	248	204	160	1233	789	501	447	374	289	

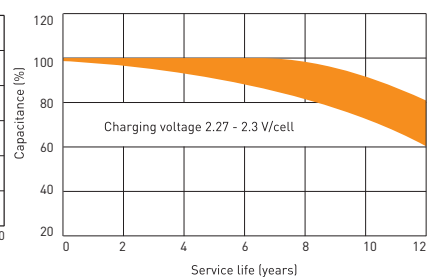
Temperature influence on capacitance



Service life in cyclic mode



Service life in buffer mode





FTS series ASTERION lead-acid batteries are manufactured according to AGM technology (Absorbent Glass Mat - an **electrolyte** absorbed in a fiberglass separator). Housing is optimized for installation in 19" and 23" cabinets and racks.

One of the most important technical parameters of any battery is its specific capacity, which characterizes the amount of energy in a unit of cell volume. This value is 15% higher in the new **FTS** Series. The surface area is smaller, which allows more batteries to be installed in a fixed area. Ideal for power supply systems of mobile operators.

SCOPES OF APPLICATION

- Power racks of telecommunication equipment and communication systems
- Telephone stations
- Backup power supply for cellular and radio relay stations
- Uninterruptible power supplies

STANDARD SIZES

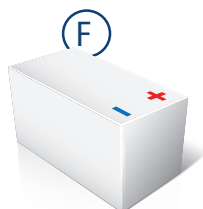
Type	Urated, V	Capacitance, Ah	Length (±2), mm	Width (±2), mm	Height max (±2), mm	Weight, kg	Body	Terminal type
FTS 12-50 X	12	50	277	106	227	17,3	F	For M6 bolt
FTS 12-80 X	12	80	564	115	189	28,2	F	For M8 bolt
FTS 12-100 X	12	100	508	110	231	32,5	F	For M8 bolt
FTS 12-125 X	12	125	418	108	317	39	F	For M8 bolt
FTS 12-140 X	12	140	552	110	295	49	F	For M8 bolt
FTS 12-150 X	12	150	548	105	316	49,8	F	For M8 bolt
FTS 12-180 X	12	180	546	125	323	59	F	For M8 bolt

*Capacitance is indicated at the 10-hour discharge.

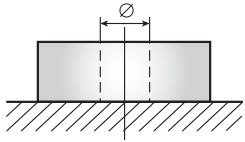
DESIGN

Component	Positive plate	Negative plate	Container	Cover	Valve	Terminals	Separator	Electrolyte
Material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

HOUSING TYPES



TERMINAL DIAGRAMS



For bolt



SERVICE LIFE:

In buffer mode: up to 12 years
In cyclic mode: 1,300 cycles at 30% depth of discharge.



SELF-DISCHARGE:

Less than 3% per month



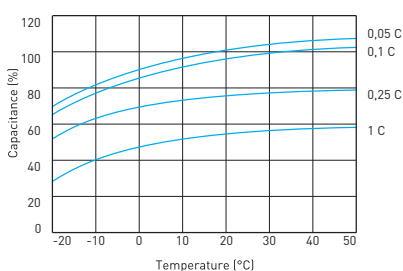
CHARGING METHOD:

DC voltage charge (20°C)
Cyclic mode: 2,35-2,4 V/cell Temperature compensation - 5 mV/cell°C
Buffer mode: 2,27-2,3 V/cell Temperature compensation - 3,3 mV/cell°C

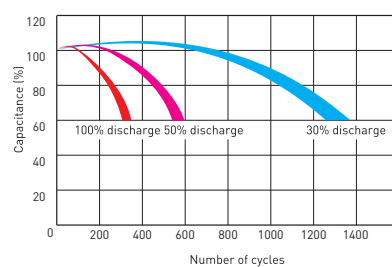
DISCHARGE CHARACTERISTICS

Type	DC discharge up to 1,70 V/cell, A, at t 25°C.						Discharge with constant power up to 1,70 V/cell, W/cell, at t 25°C						Service life
	30 min	45 min	1 hour	3 hours	5 hours	8 hours	30 min	45 min	1 hours	3 hours	5 hours	8 hours	
FTS 12-50 X	53	41	34	14	9	6	102	80	65	28	18	12	12 years
FTS 12-80 X	85	66	54	23	15	10	164	128	104	45	29	20	
FTS 12-100 X	102	74	60	26	18	12	195	140	115	52	36	24	
FTS 12-105 X	112	87	71	30	19	13	215	178	137	59	38	26	
FTS 12-125 X	131	99	83	35	23	16	239	184	150	65	44	30	
FTS 12-140 X	150	113	91	39	26	17	258	200	165	73	49	33	
FTS 12-150 X	164	129	106	45	29	19	286	223	186	86	57	36	
FTS 12-180 X	187	140	114	50	33	22	339	262	217	96	63	43	

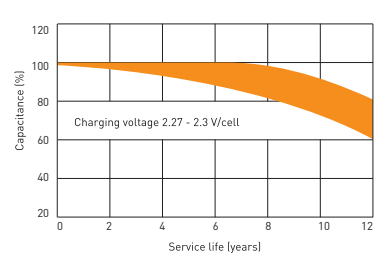
Temperature influence on capacitance



Service life in cyclic mode



Service life in buffer mode





STC series ASTERION lead-acid batteries are manufactured according to AGM technology (Absorbent Glass Mat - an electrolyte absorbed in a fiberglass separator).

The service life has been increased up to 20 years by optimizing the composition and increasing the weight of the active mass and thickness of the plates, as well as by applying advanced forming and casting technologies in the manufacture of plates. Designed for operation in both buffer and cyclic modes.

SCOPES OF APPLICATION

- Backup power supply for cellular and radio relay stations
- Communication and telecommunication systems
- Uninterruptible power supplies
- Telephone stations
- Solar and wind power systems

STANDARD SIZES

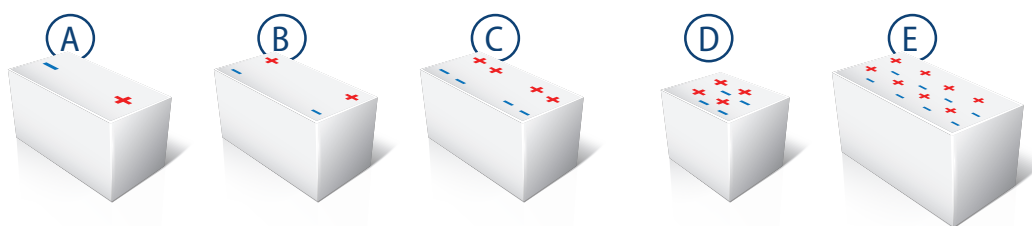
Type	Urated, V	Capacitance, Ah*	Length (±2), mm	Width (±2), mm	Height max (±2), mm	Weight, kg	Body	Terminal type
STC 100	2	100	171	72	211	6,4	A	For M8 bolt
STC 150	2	150	172	102	217	8,2	A	For M8 bolt
STC 200	2	200	173	111	364	14,2	A	For M8 bolt
STC 300	2	300	171	151	364	20	A	For M8 bolt
STC 400	2	400	211	176	367	28	B	For M8 bolt
STC 500	2	500	242	173	365	33	B	For M8 bolt
STC 600	2	600	302	175	367	40	B	For M8 bolt
STC 800	2	800	410	175	367	57	C	For M8 bolt
STC 1000	2	1000	475	175	367	66,5	C	For M8 bolt
STC 1500	2	1500	400	350	382	100	D	For M8 bolt
STC 2000	2	2000	490	350	382	132	E	For M8 bolt
STC 3000	2	3000	710	350	382	210	E	For M8 bolt

*Capacitance is indicated at the 10-hour discharge.

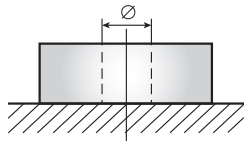
DESIGN

Component	Positive plate	Negative plate	Container	Cover	Valve	Terminals	Separator	Electrolyte
Material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

HOUSING TYPES



TERMINAL DIAGRAMS



For bolt



SERVICE LIFE:

In buffer mode: up to 12 years
In cyclic mode: 1,300 cycles at 30% depth of discharge.



SELF-DISCHARGE:

Less than 3% per month



CHARGING METHOD:

DC voltage charge (20°C)

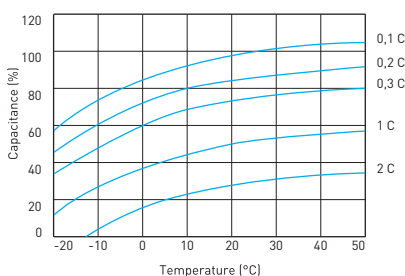
Cyclic mode: 2,35-2,4 V/cell Temperature compensation - 5 mV/cell°C

Buffer mode: 2,27-2,3 V/cell Temperature compensation - 3,3 mV/cell°C

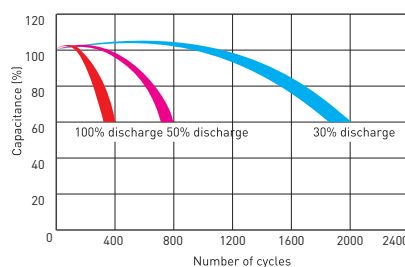
DISCHARGE CHARACTERISTICS

Type	DC discharge up to 1,70 V/cell, A, at t 25°C. 5 min						Discharge with constant power up to 1,70 V/cell, W/cell, at t 25°C						Service life
	5 min	15 min	30 min	1 hour	3 hours	5 hours	5 min	15 min	30 min	1 hour	3 hours	5 hours	
STC100	199	135	91	60	26,1	18,6	281	233	179	114	51,3	38,1	20 years
STC150	239	199	134	90,2	38,5	27,8	402	344	264	168	75,8	56,3	
STC200	307	265	178	115	52,9	37,4	568	473	348	224	101	75,1	
STC300	467	400	296	180	84,0	55,9	874	718	554	357	166	111	
STC400	658	530	388	229	106	74,0	996	810	665	449	203	135	
STC500	753	642	460	278	129	92,5	1252	1030	836	572	247	161	
STC600	949	800	562	337	174	111	1439	1269	1009	649	340	218	
STC800	1311	1156	755	458	213	148	2208	1777	1346	855	413	292	
STC1000	1470	1270	967	582	253	185	2521	2158	1621	1018	497	348	
STC1500	2218	1848	1365	870	381	276	3745	3077	2242	1491	701	515	
STC2000	2961	2468	1919	1185	508	371	4948	4152	3185	2052	987	692	
STC3000	4366	3639	2720	1747	785	560	6470	5459	4088	2814	1346	888	

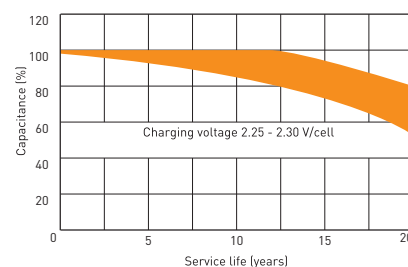
Temperature influence on capacitance



Service life in cyclic mode



Service life in buffer mode



ASTERION GSC series lead-acid monoblocks are manufactured using **GEL** technology.



A composite gel is used as an electrolyte, which ensures deep discharge resistance and high temperature stability of Delta **GSC** batteries. Service life has been extended to 20 years by increasing the plate thickness and active mass volume. Designed for operation in both buffer and cyclic modes.

SCOPES OF APPLICATION

- Solar and wind power systems
- Backup power supply for cellular and radio relay stations
- Communication and telecommunication systems
- Uninterruptible power supplies
- Telephone stations

STANDARD SIZES

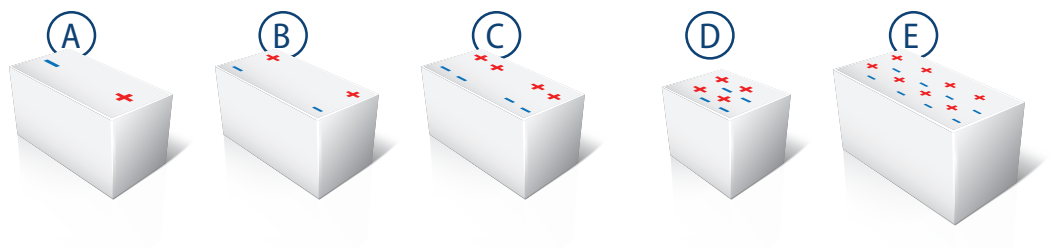
Type	Urated, V	Capacitance, Ah*	Length (±2), mm	Width (±2), mm	Height max (±2), mm	Weight, kg	Body	Terminal type
GSC 100	2	100	171	72	211	6,4	A	For M8 bolt
GSC 150	2	150	172	102	217	8,2	A	For M8 bolt
GSC 200	2	200	173	111	364	14,2	A	For M8 bolt
GSC 300	2	300	171	151	364	20	A	For M8 bolt
GSC 400	2	400	211	176	367	28	B	For M8 bolt
GSC 500	2	500	242	173	365	33	B	For M8 bolt
GSC 600	2	600	302	175	367	42	B	For M8 bolt
GSC 800	2	800	410	175	367	40	C	For M8 bolt
GSC 1000	2	1000	475	175	367	66,5	C	For M8 bolt
GSC 1500	2	1500	400	350	382	100	D	For M8 bolt
GSC 2000	2	2000	490	350	382	132	E	For M8 bolt
GSC 3000	2	3000	710	350	382	210	E	For M8 bolt

*Capacitance is indicated at the 10-hour discharge.

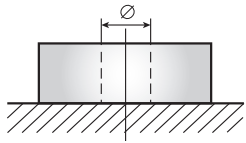
DESIGN

Component	Positive plate	Negative plate	Container	Cover	Valve	Terminals	Separator	Electrolyte
Material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

HOUSING TYPES



TERMINAL DIAGRAMS



For bolt



SERVICE LIFE:

In buffer mode: 20 years.
In cyclic mode: 2,200 cycles at 30% depth of discharge.



SELF-DISCHARGE:

Less than 3% per month



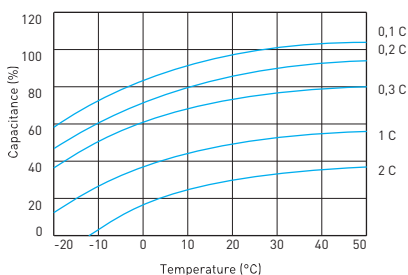
CHARGING METHOD:

DC voltage charge (25°C)
Cyclic mode (2.35 - 2.4 V/cell)
Temperature compensation - 5 mV/cell°C
Buffer mode (2.25 - 2.3 V/cell)
Temperature compensation - 3,3 mV/cell°C

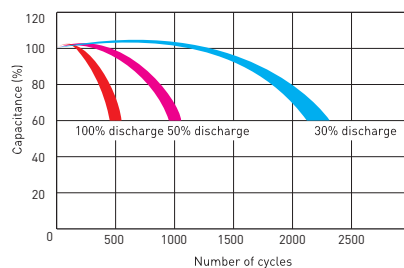
DISCHARGE CHARACTERISTICS

Type	DC discharge up to 1,70 V/cell, A, at t 25°C.						Discharge with constant power up to 1,70 V/cell, W/cell, at t 25°C						Service life
	5 min	15 min	30 min	1 hour	3 hours	5 hours	5 min	15 min	30 min	1 hour	3 hours	5 hours	
GSC 100	151	133	89,4	59,3	25,7	18,3	269	228	177	113	50,4	37,6	20 years
GSC 150	236	196	132	98,8	37,8	27,2	412	337	259	166	74,9	55,5	
GSC 200	296	262	175	113	52,2	37,0	552	468	345	221	99,6	74,0	
GSC 300	479	395	293	177	82,6	55,3	866	705	545	353	164	110	
GSC 400	602	521	382	225	104	72,5	941	801	655	445	200	133	
GSC 500	767	630	452	273	127	91,9	1222	1011	825	564	242	158	
GSC 600	953	785	555	331	171	109	1505	1245	995	641	333	214	
GSC 800	1372	1138	743	452	210	146	2036	1747	1333	846	407	287	
GSC 1000	1463	1247	949	572	250	181	2631	2126	1592	1004	487	344	
GSC 1500	2101	1813	1346	856	377	273	3582	3037	2208	1472	688	506	
GSC 2000	2817	2421	1883	1165	501	366	4888	4090	3137	2052	968	685	
GSC 3000	4157	3592	2671	1716	774	553	6278	5393	4039	2758	1327	875	

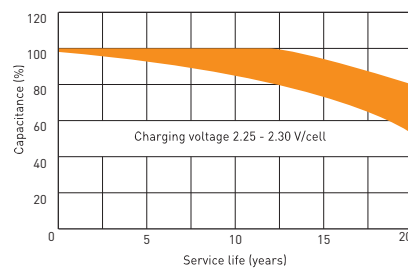
Temperature influence on capacitance



Service life in cyclic mode



Service life in buffer mode





ASTERION **OPzV** series batteries are manufactured according to GEL technology. The batteries are designed using tubular positive plates and an electrolyte thickened in gel. Thanks to the use of modern technology, the ASTERION **OPzV** Series is resistant to adverse environmental conditions and operating modes and shows the highest performance in all modes.

Recommended for use in power engineering, large telecommunication facilities, outdoor systems at elevated temperatures, systems based on renewable energy sources, etc.

SCOPES OF APPLICATION

- Communication and telecommunication systems
- Autonomous power supply systems
- Operating current systems
- Uninterruptible power supplies
- Continuous cycle production power supply systems
- Railway facilities
- Solar and wind power systems

STANDARD SIZES

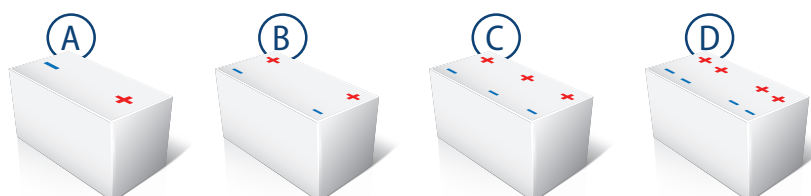
Type	Urated, V	Capacitance, Ah*	Length (±2), mm	Width (±2), mm	Height max (±2), mm	Weight, kg	Body	Terminal type
OPzV 100	2	100	103	206	390	13,4	A	For M8 bolt
OPzV 150	2	153	103	206	390	15,4	A	For M8 bolt
OPzV 200	2	200	103	206	390	17	A	For M8 bolt
OPzV 250	2	251	124	206	390	20,3	A	For M8 bolt
OPzV 300	2	301	145	206	390	24,4	A	For M8 bolt
OPzV 350	2	370	124	206	506	28,5	A	For M8 bolt
OPzV 420	2	445	145	206	506	32,5	A	For M8 bolt
OPzV 500	2	552	166	206	506	37,3	A	For M8 bolt
OPzV 600	2	673	145	206	681	44,2	A	For M8 bolt
OPzV 700	2	796	254	210	506	51	A	For M8 bolt
OPzV 800	2	898	191	210	681	60	B	For M8 bolt
OPzV 1000	2	1126	233	210	681	73,2	B	For M8 bolt
OPzV 1200	2	1374	275	210	681	84	B	For M8 bolt
OPzV 1500	2	1504	275	210	831	105	B	For M8 bolt
OPzV 2000	2	2009	399	210	807	144,6	F	For M8 bolt
OPzV 2500	2	2503	487	210	807	185	C	For M8 bolt
OPzV 3000	2	3013	576	212	807	220	C	For M8 bolt

*Capacitance is indicated at the 10-hour discharge.

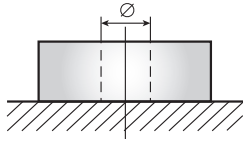
DESIGN

Component	Positive plate	Negative plate	Container	Cover	Valve	Terminals	Separator	Electrolyte
Material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

HOUSING TYPES



TERMINAL DIAGRAMS



For bolt



SERVICE LIFE:

In buffer mode: 20 years.
In cyclic mode: 4,000 cycles at 30% depth of discharge.



SELF-DISCHARGE:

Less than 3% per month



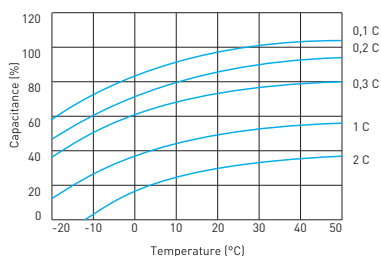
CHARGING METHOD:

DC voltage charge (20-25°C)
Cyclic mode (2.3 - 2.35 V/cell)
Temperature compensation - 5 mV/cell°C
Buffer mode (2.25 - 2.27 V/cell)
Temperature compensation - 3,3 mV/cell°C

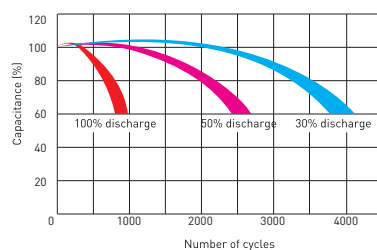
DISCHARGE CHARACTERISTICS

Type	DC discharge up to 1,70 V/cell, A, at t 25°C.						Discharge with constant power up to 1,70 V/cell, W/cell, at t 25°C						Service life
	5 min	15 min	30 min	1 hour	3 hours	5 hours	5 min	15 min	30 min	1 hour	3 hours	5 hours	
OPzV 100	99,6	82,0	70,7	49,8	27,5	18,5	176	146	127	90,4	51,1	34,8	20 years
OPzV 150	137	123	106	74,8	41,3	27,8	244	218	190	136	76,6	52,1	
OPzV 200	182	164	141	100	55	37	321	291	254	181	102	69,5	
OPzV 250	230	205	177	125	68,8	46,3	407	364	317	226	128	86,9	
OPzV 300	289	246	212	150	82,5	55,5	504	437	380	271	153	105	
OPzV 350	333	287	247	174	96,3	64,8	562	510	444	317	179	122	
OPzV 420	405	344	297	209	116	77,7	674	611	532	380	215	146	
OPzV 500	473	402	346	249	138	92,5	810	713	621	443	250	170	
OPzV 600	571	492	424	299	165	111	1009	878	761	543	307	209	
OPzV 700	666	574	495	349	193	130	1158	1019	887	633	358	243	
OPzV 800	739	646	557	393	217	146	1344	1147	999	713	403	274	
OPzV 1000	899	800	689	486	270	181	1563	1419	1236	882	501	341	
OPzV 1200	1079	959	827	583	323	218	1966	1703	1483	1058	601	409	
OPzV 1500	1364	1193	1028	725	404	272	2371	2118	1845	1316	751	511	
OPzV 2000	1780	1583	1364	967	539	363	3194	2810	2447	1755	1001	681	
OPzV 2500	2261	1978	1705	1208	674	453	4054	3512	3059	2193	1252	852	
OPzV 3000	2754	2374	2046	1450	809	544	4791	4214	3670	2632	1502	1022	

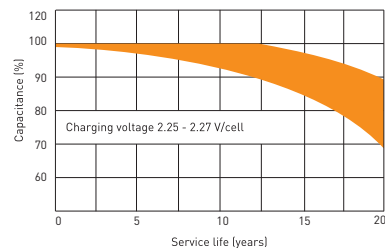
Temperature influence on capacitance



Service life in cyclic mode



Influence of temperature on service life





ASTERION **OPzS** Series batteries are low-maintenance rechargeable batteries with plated positive electrodes. This technology provides extended battery life of up to 20 years or more.

Thanks to innovative manufacturing processes and the use of the most advanced technology, the ASTERION batteries of **OPzS** series have excellent operating characteristics and show the highest performance in a wide range of applications.

Recommended for use in high-capacity DC systems at energy facilities, systems with extended autonomous operation time.

SCOPES OF APPLICATION

- Sources of backup power supply
- Uninterruptible power supplies
- Data centers
- Energy facilities
- Communication facilities
- Solar and wind power systems

STANDARD SIZES

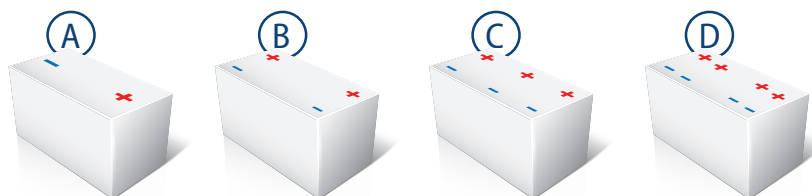
Type	Urated, V	Capacitance, Ah	Length (±2), mm	Width (±2), mm	Height max (±2), mm	Weight, kg	Body	Terminal type
OPzS 100	2	100	103	206	409	12	A	For M8 bolt
OPzS 150	2	150	103	206	409	14,5	A	For M8 bolt
OPzS 200	2	200	103	206	409	17,5	A	For M8 bolt
OPzS 250	2	250	124	206	409	20,5	A	For M8 bolt
OPzS 300	2	300	145	206	409	23,3	A	For M8 bolt
OPzS 350	2	350	124	206	525	27	A	For M8 bolt
OPzS 420	2	420	145	206	525	32	A	For M8 bolt
OPzS 600	2	600	145	206	700	42,8	A	For M8 bolt
OPzS 800	2	800	191	210	700	58	B	For M8 bolt
OPzS 1000	2	1000	233	210	700	75,5	B	For M8 bolt
OPzS 1200	2	1200	275	210	700	88	B	For M8 bolt
OPzS 1500	2	1500	275	210	850	98	B	For M8 bolt
OPzS 1750	2	1750	399	210	826	120	C	For M8 bolt
OPzS 2000	2	2000	399	212	826	146	C	For M8 bolt
OPzS 2250	2	2250	487	212	826	174	D	For M8 bolt
OPzS 2500	2	2500	487	212	826	183	D	For M8 bolt
OPzS 3000	2	3000	576	212	826	218	D	For M8 bolt

*Capacitance is indicated at the 10-hour discharge.

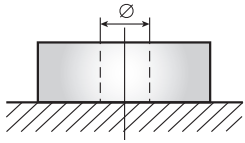
DESIGN

Component	Positive plate	Negative plate	Container	Cover	Valve	Terminals	Separator	Electrolyte
Material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

HOUSING TYPES



TERMINAL DIAGRAMS



For bolt



SERVICE LIFE:

In buffer mode: 20 years.
In cyclic mode: 4,500 cycles at 30% depth of discharge.



SELF-DISCHARGE:

Less than 3% per month



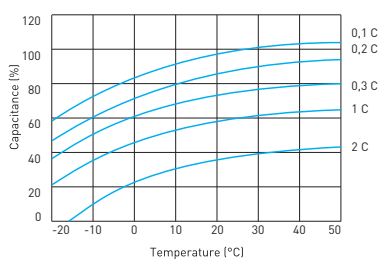
CHARGING METHOD:

DC voltage charge (20°C) Cyclic mode (2,3 - 2,35 V/cell)
Temperature compensation - 5 mV/cell°C
Buffer mode (2.25 - 2.27 V/cell)
Temperature compensation - 3 mV/cell°C

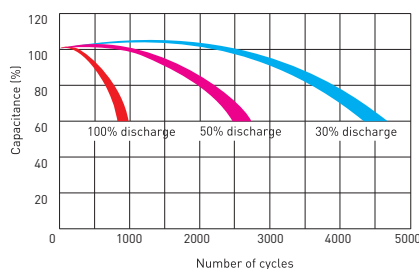
DISCHARGE CHARACTERISTICS

Type	DC discharge up to 1,75 V/cell, A, at t 25°C.						Discharge with constant power up to 1,75 V/cell, W/cell, at t 25°C						Service life
	5 min	15 min	30 min	1 hour	3 hours	5 hours	5 min	15 min	30 min	1 hour	3 hours	5 hours	
OPzS 100	82,6	76,8	63,6	48,7	26,5	17,8	160	113	102	86,4	57,9	39,5	20 years
OPzS 150	124	115	95,4	73,1	39,8	26,7	240	169	153	130	86,9	59,3	
OPzS 200	165	154	127	97,4	53	35,6	320	225	205	173	116	79	
OPzS 250	207	192	159	122	66,3	44,5	401	282	256	216	145	99	
OPzS 300	248	230	191	146	79,5	53,4	481	338	307	259	174	119	
OPzS 350	289	269	123	170	92,8	62,3	561	394	358	302	203	138	
OPzS 420	347	323	267	205	111	74,8	673	473	430	363	243	166	
OPzS 600	496	461	382	292	159	107	961	676	614	518	347	237	
OPzS 800	661	614	509	390	212	142	1282	901	818	691	463	316	
OPzS 1000	826	768	636	487	256	178	1602	1126	1023	864	579	395	
OPzS 1200	991	922	763	584	318	214	1922	1351	1228	1037	695	474	
OPzS 1500	1053	979	811	731	398	267	2043	1436	1304	1296	896	593	
OPzS 2000	1404	1306	1081	974	530	356	2723	1914	1739	1728	1158	790	
OPzS 2250	1580	1469	1216	1096	596	401	3064	2153	1956	1944	1303	889	
OPzS 2500	1755	1632	1352	1218	663	445	3404	2393	2174	2160	1448	988	
OPzS 3000	1982	1843	1526	1461	795	534	4085	2871	2609	2592	1737	1185	

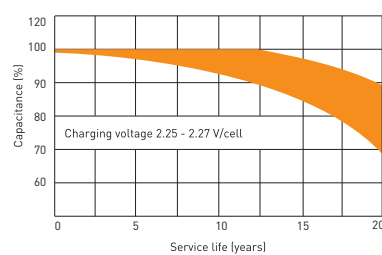
Temperature influence on capacitance



Service life in cyclic mode



Service life in buffer mode



ASTERION XPERT batteries provide reliable power and smooth operation of your equipment and are recommended by leading vendors.

The products pass several stages of quality control, which allows producing the battery with stable technical parameters. Tests by independent research centres confirm the excellent performance and reliability of **ASTERION XPERT** batteries.

Features and benefits:

- AGM technology enables recombination of up to 99% of the gas released;
- No restrictions on air traffic;
- UL compliance;
- Operation in horizontal position is permissible;
- Calcium-alloyed lead plates provide high energy density;
- Long service life;
- Maintenance-free. No distilled water refills required;
- Low self-discharge;
- The battery case is made of ABS plastic that is not flammable.

The products are subject to further development, so the manufacturer reserves the right to make changes without prior notice.





