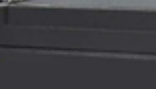


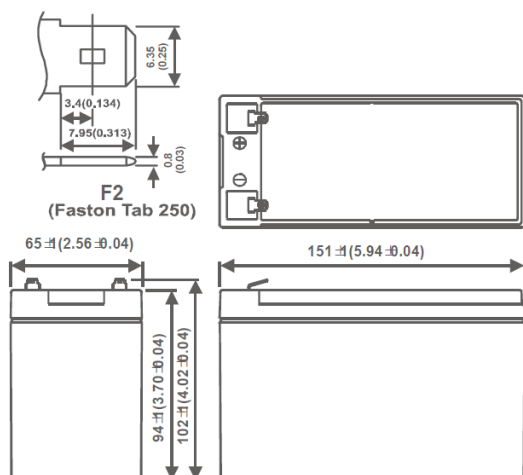


PN-EN 60896-21:2007
PN-EN 60896-22:2007
PN-EN 61056-1:2013-05
PN-EN 61056-2:2013-05
PN-F-83016:1999

systems, as energy source in mobile devices, power supply for motors and other different devices in cycle use mode. 600 work cycles for 50% discharge. 12 years designed lifetime at 20-25°C.



Characteristic		
Capacity at 25°C and cutoff voltage of 10,2V	20h	7,2 Ah
	10h	7,0 Ah
	5h	6,3 Ah
Internal resistance	Battery fully charged	22 mΩ
Capacity	At 20°C	100%
	At 0°C	85%
	At -15°C	65%
Self-discharge	3 months	90%
	6 months	80%
	12 months	65%
Connector/Case	F2 / ABS UL94HB	
Charging	Buffer	13,5-13,8 V
	Cyclic	14,4-15,0 V
Max charge current	2,16 A	
Max discharge current	108A / 5s	
Working temperature	Discharge	-20°C—50°C
	Charge	-20°C—50°C
	Storage	-20°C—50°C



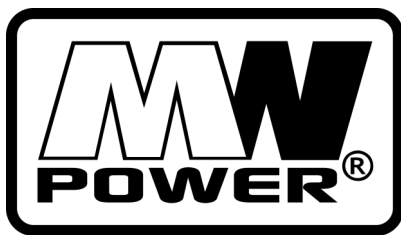
(v) FOR 12V BATTERY

Discharge Time VS. Discharge Current (25°C)

Graph showing Discharge Time (minutes and hours) versus Discharge Current (A) for a 12V battery at 25°C. The y-axis represents Voltage (V) from 8.0 to 13.0. The x-axis represents Discharge Time in minutes (1 to 20) and hours (2 to 20). The graph shows the relationship between discharge current and discharge time for various current values: 21.8A, 7.2A, 1.234A, 0.884A, and 0.38A. A dashed line indicates the 10.0V threshold.



SALES OFFICE:
03-310 WARSZAWA
UL. STANIEWICKA 14
TEL. 32 44 00 960
FAX: 22 674 75 21,
E-MAIL: HANDEL@MPLENERGY.PL

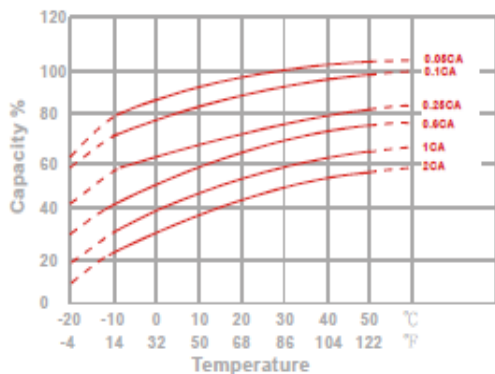


MWP 7,2-12L

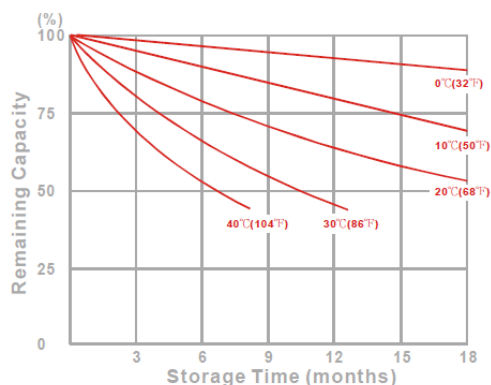
Accordance with standards

PN-EN 60896-21:2007
PN-EN 60896-22:2007
PN-EN 61056-1:2013-05
PN-EN 61056-2:2013-05
PN-E-83016:1999

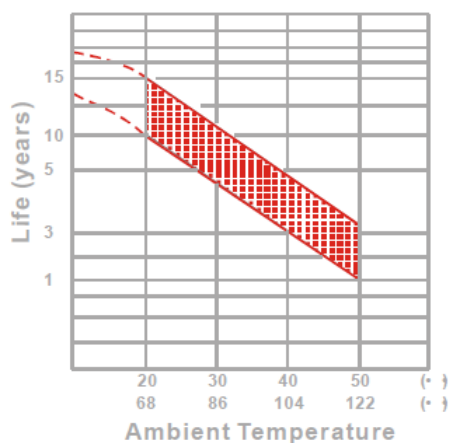
Temperature impact on battery capacity



Characteristic of capacity drop during storage



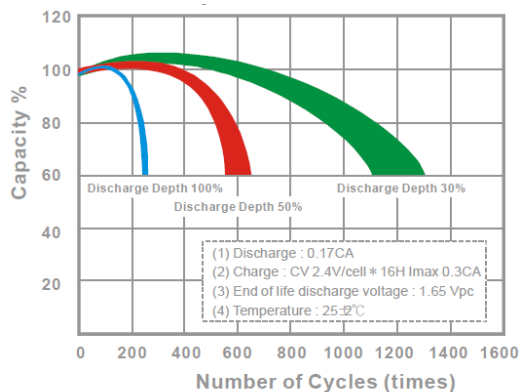
Battery lifetime for buffer use mode



Constant power discharge characteristic (Watt, 25°C)

Voltage	11,1 V	10,8 V	10,5 V	10,2 V	9,9 V	9,6V
5 min	288	302	315	321	326	335
10 min	188	196	204	209	212	218
15 min	153	157	161	162	165	169
30 min	82,1	84,7	86,8	87,6	88,4	89,6
60 min	52,4	53,8	54,9	55,3	55,8	56,7
120 min	26,3	27,8	31,3	31,6	31,9	32,4
180 min	20,7	21,6	22,4	22,6	22,9	23,2
240 min	18	18,6	18,9	19	19,2	19,4
300 min	15,3	15,8	16,1	16,2	16,3	16,4
600 min	8,35	8,49	8,61	8,65	8,7	8,76
1200 min	4,31	4,42	4,5	4,53	4,56	4,62

Battery lifetime for cycle use mode



Constant current discharge characteristic (A, 25°C)

Voltage	11,1 V	10,8 V	10,5 V	10,2 V	9,9 V	9,6V
5 min	26,4	28,1	29,7	30,5	31,3	32,6
10 min	17	18,2	18,6	18,8	19,1	19,8
15 min	13,1	13,6	13,9	14	14,2	14,5
30 min	6,92	7,14	7,3	7,38	7,45	7,61
60 min	4,13	4,25	4,36	4,39	4,42	4,48
120 min	2,14	2,21	2,27	2,29	2,32	2,35
180 min	1,69	1,75	1,8	1,82	1,84	1,87
240 min	1,37	1,42	1,45	1,46	1,47	1,49
300 min	1,16	1,23	1,25	1,26	1,27	1,28
600 min	0,68	0,721	0,728	0,732	0,737	0,747
1200 min	0,357	0,377	0,382	0,384	0,387	0,392



SALES OFFICE:
03-310 WARSZAWA
UL. STANIEWICKA 14
TEL. 32 44 00 960
FAX: 22 674 75 21,
E-MAIL: HANDEL@MPLENERGY.PL