

ASTERION HR-W series batteries are sealed, maintenance-free lead-acid batteries with gas recombination system (VRLA), manufactured using AGM technology (electrolyte absorbed in a separator).

The HR-W series relates to the ASTERION UPS series, designed specifically for use in uninterruptible power supplies for server and other similar systems. The HR-W series has high energy efficiency due to its use in the production of more massive plates.



### Battery construction

Element	Positive plate	Negative plate	Case	Lid	Valve	Terminal	Separator	Electrolyte
Material	Lead dioxide	Lead	ABS		Rubber	Copper	Fiberglass	Acid

### Specifications

Nominal voltage.....	12 V
Cell.....	6
Design life.....	8 years
Nominal capacity (25°C)	
15 min discharge constant power up to 1,8V/cell.....	22,7 W
20 hours rate (0,25 A; 1,75 V/cell).....	5 Ah
10 hours rate (0,49 A; 1,75 V/cell).....	4,9 Ah
Self-discharge.....	3% capacity per month 20°C
Internal resistance (25°C).....	32 mΩ

### Operating temperature range

Discharge.....	-20+60°C
Charge.....	-10+60°C
Storage.....	-20+60°C
Maximum discharge current (25°C).....	75A (5sec)
Cycle mode (2,35±2,4 V/cell)	
Max.charge current.....	1,5 A
Temperature correction factor.....	30 mV/°C
Standby mode (2,25±2,3 V/cell)	
Temperature correction factor.....	20 mV/°C

### Application

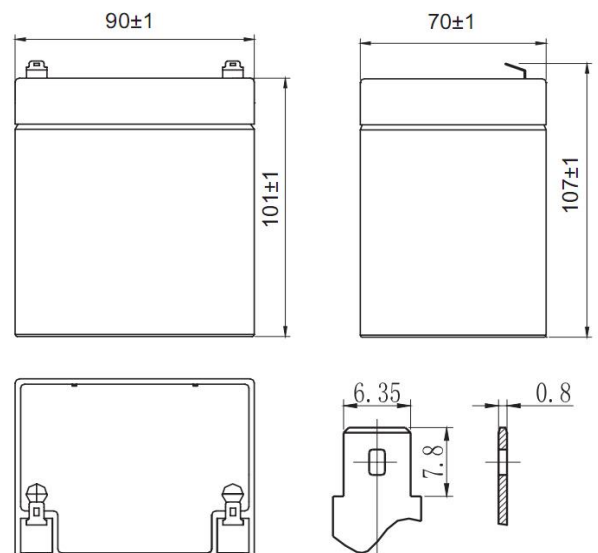
- Uninterruptable power supply
- Back up power supply
- Medical devices
- Portable devices
- Professional equipment

### Performance & characteristics

- AGM technology allows to recombine 99% of the generated gas;
- No restrictions on air transportation;
- Compliance with the UL requirements;
- Lead plates, alloyed by calcium, provide high energy density;
- Maintenance-free. Do not require distillate topping;
- Long service life;
- The battery case is made of flame-retardant ABS plastic.

### Dimensions (±2mm)

Length, mm.....	90
Width, mm.....	70
Height, mm.....	101
Height over terminals, mm.....	107
Weight (±3%), kg.....	1,8



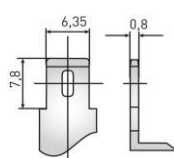
### Layout

B



### Terminal type

F2

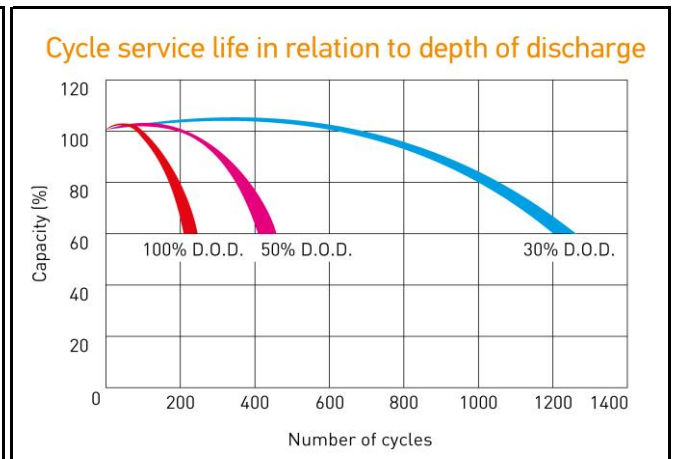
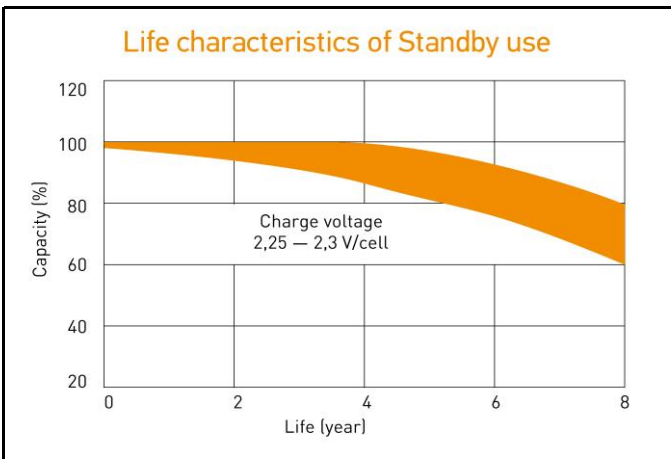
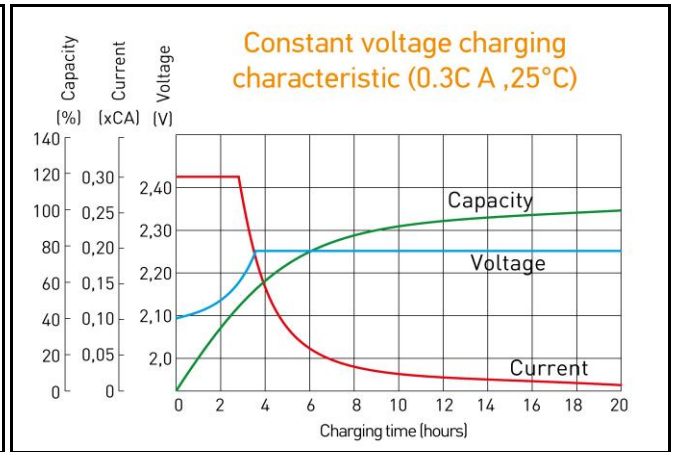
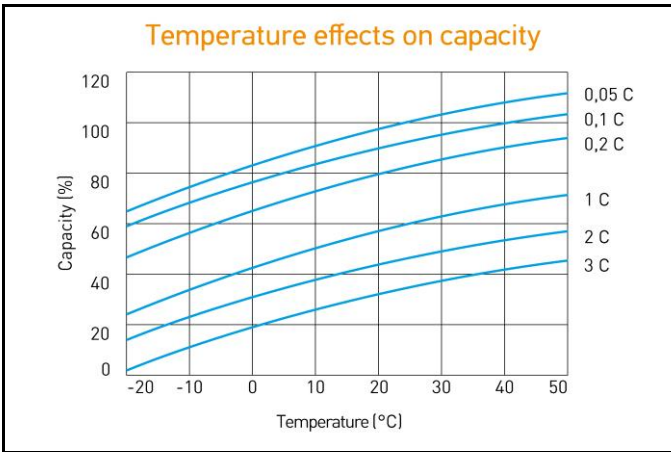


**Discharge Constant Current, A ( 25°C)**

V/cell	5 min	10 min	15 min	30 min	45 min	1 h	3 h	5 h	20 h
1,60	29,6	19,6	14,2	8,08	5,96	4,64	1,84	1,32	0,33
1,65	27,9	18,5	13,4	7,66	5,66	4,43	1,77	1,27	0,33
1,70	26,1	17,5	12,7	7,24	5,37	4,21	1,68	1,10	0,28
1,75	24,4	16,4	11,9	6,83	5,08	4,00	1,56	1,03	0,25
1,80	23,3	15,8	11,6	6,64	4,95	3,91	1,51	0,99	0,24

**Discharge Constant Power, W/cell ( 25°C)**

V/cell	5 min	10 min	15 min	30 min	45 min	1 h	3 h	5 h	20 h
1,60	51,4	34,7	26,3	15,1	11,3	8,99	3,54	2,49	0,66
1,65	49,2	33,4	25,4	14,6	11,0	8,74	3,47	2,45	0,64
1,70	47,0	32,1	24,5	14,2	10,7	8,50	3,37	2,33	0,61
1,75	44,9	30,7	23,6	13,6	10,3	8,25	3,20	2,19	0,54
1,80	42,7	29,5	22,7	13,2	9,98	8,00	3,07	2,03	0,50



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