

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 1,7V/cell.....	83,5 W
20 hours rate (1 A; 1,75 V/cell).....	20 Ah
10 hours rate (2,01 A; 1,75 V/cell).....	20,1 Ah
Self-discharge.....	3% capacity per month 20°C
Internal resistance (25°C).....	9 mΩ

Operating temperature range

Discharge.....	-20÷60°C
Charge.....	-10÷60°C
Storage.....	-20÷60°C
Maximum discharge current (25°C).....	300A (5sec)
Cycle mode (2,35÷2,4 V/cell)	
Max.charge current.....	6 A
Temperature correction factor.....	30 mV/°C
Standby mode (2,25÷2,3 V/cell)	
Temperature correction factor.....	20 mV/°C

Application

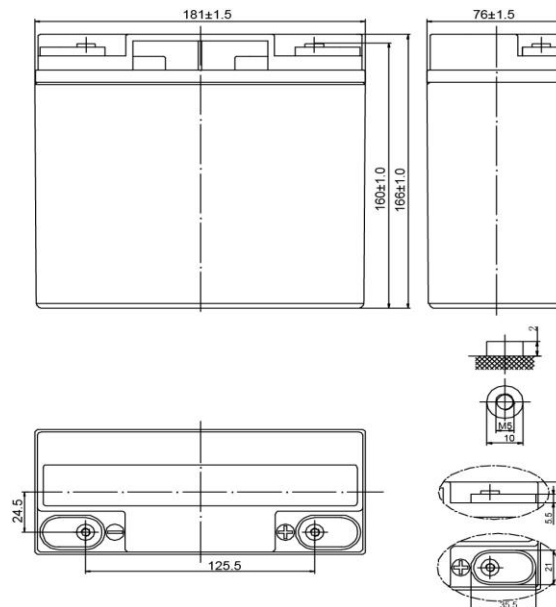
- Uninterruptable power supply
- Back up power supply
- Medical devices
- Portable devices
- Professional equipment

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)

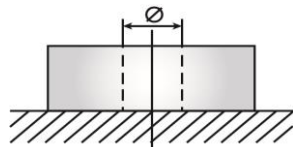
Length, mm.....	181
Width, mm.....	77
Height, mm.....	167
Height over terminals, mm.....	167
Weight (±3%), kg.....	6,5



Layout E



Terminal type Insert Ø5 mm

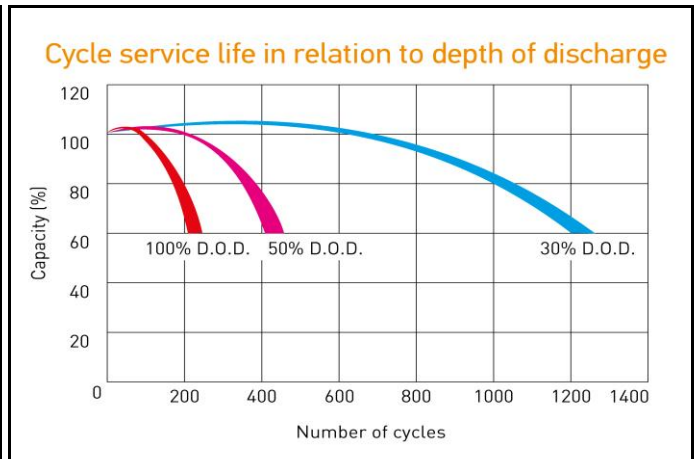
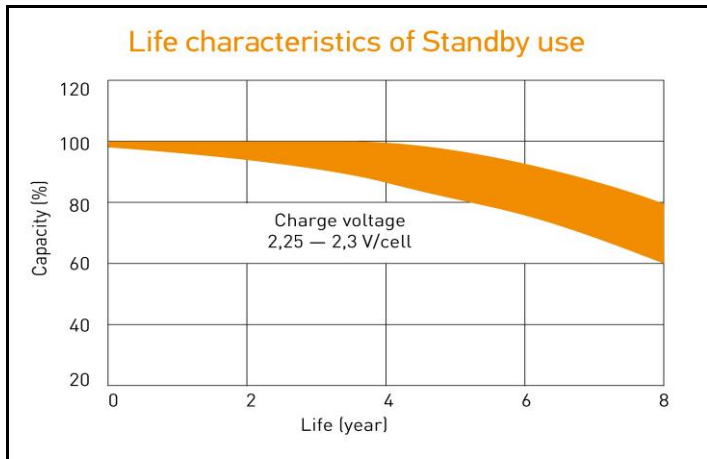
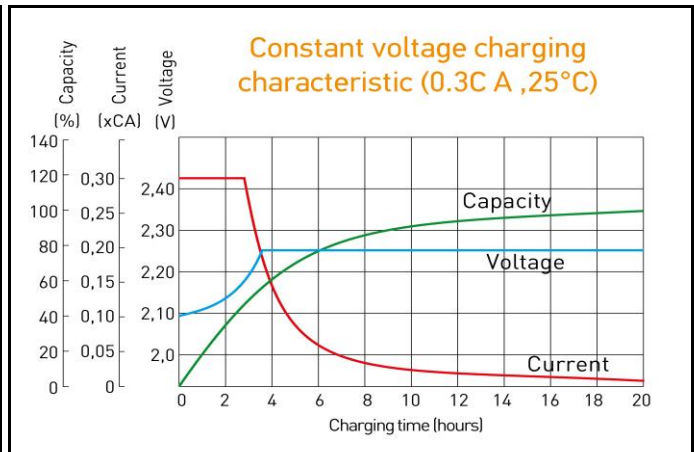
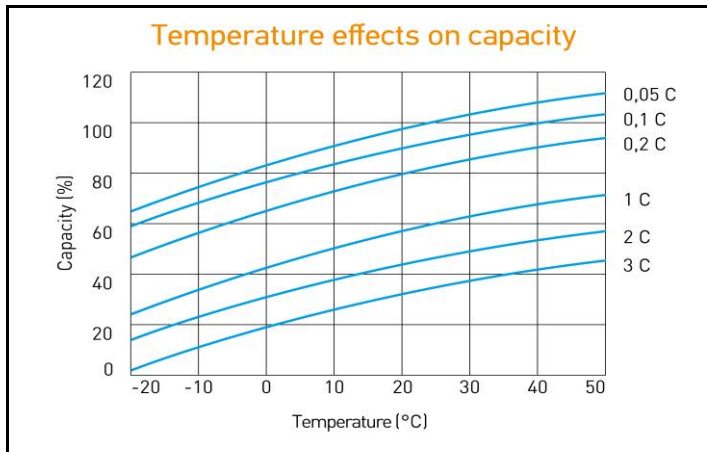


Discharge Constant Current, A (25°C)

V/cell	5 min	10 min	15 min	30 min	45 min	1 h	3 h	5 h	20 h
1,60	90,7	66,4	50,3	29,9	21,0	16,0	6,13	3,91	1,07
1,65	88,5	64,7	49,7	28,5	20,2	15,5	6,10	3,87	1,07
1,70	87,0	63,0	48,9	27,7	19,7	15,2	6,04	3,75	1,04
1,75	80,4	58,1	45,1	27,3	19,4	14,9	5,96	3,65	1,00
1,80	75,7	57,3	42,5	26,5	19,0	14,7	5,83	3,61	0,95

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	172	116	86,3	51,5	37,6	29,8	11,6	7,27	1,95
1,65	167	115	85,1	50,7	37,1	29,2	11,5	7,18	1,93
1,70	164	113	83,5	50,1	36,4	28,5	11,4	7,09	1,91
1,75	161	112	77,8	48,5	35,2	27,6	11,3	7,00	1,83
1,80	158	108	73,3	47,4	34,5	27,2	11,2	6,99	1,77



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