

# HRL 12-350 W

12V 75Ah

ASTERION HRL-W series batteries are high-tech lead-acid batteries for modern uninterruptible power supply systems intended for responsible consumers. These are maintenance-free batteries manufactured with the use of AGM technology with a gas recombination system (VRLA). The HRL-W series is characterized by increased current efficiency due to the use of thicker electrodes, as well as high-tech formulations with structural agents in the active mass during the manufacturing process. The HRL-W series belongs to the ASTERION Xpert product line, designed especially for use in "heavy" uninterruptible power supply systems of data centers, communication systems and other high-tech equipment.



## 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.....	12 years
Nominal capacity (25°C)	
10 min. disch. by const. power up to 1,8V/cell.....	351 W
20 hours rate (4,1 A; 1,75 V/cell).....	82 Ah
10 hours rate (7,5 A; 1,8 V/cell).....	75 Ah
Self-discharge.....	3% capacity per month 20°C
Internal resistance (25°C).....	5 mΩ

## Operating temperature range

Discharge.....	-20÷60°C
Charge.....	-10÷60°C
Storage.....	-20÷60°C
Maximum discharge current (25°C).....	700A (5sec)
Max.charge current.....	22,5 A
Cycle mode (2,35÷2,4 V/Cell)	
Temperature correction factor.....	30 mV/°C
Standby mode (2,27÷2,3 V/Cell)	
Temperature correction factor.....	20 mV/°C

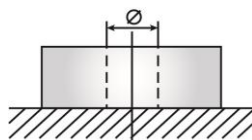
## Application

- Uninterruptible power supply units
- Standby power service units
- Medical equipment
- Various fields of instrument-making industry

Layout  
B



Terminal type  
Insert Ø6 mm

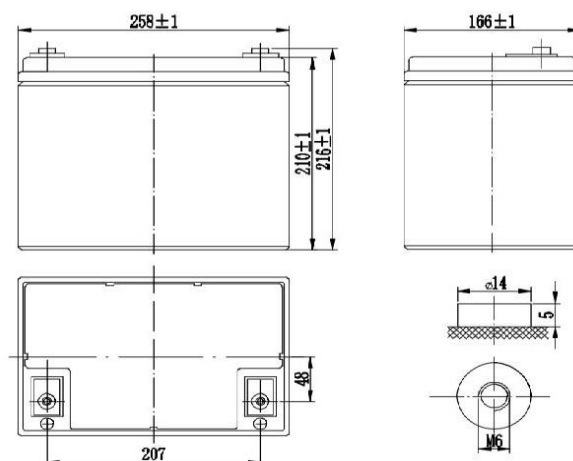


## Performance & characteristics

- 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.....	258
Width, mm.....	166
Height, mm.....	210
Height over terminals, mm.....	216
Weight (±3%), kg.....	24,5



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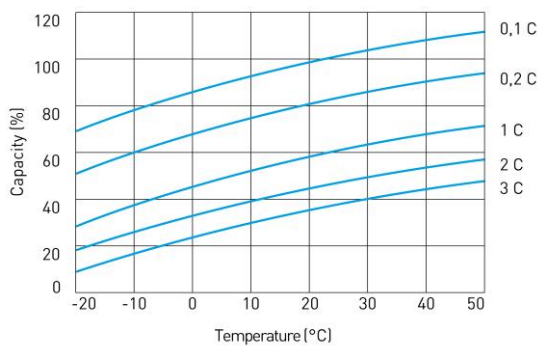
## Discharge Constant Current, A (25°C)

V/cell	5 min	10 min	15 min	20 min	25 min	30 min	35 min	45 min	1 h
1,60	342	252	194	159	132	119	106	88,0	67,8
1,65	330	232	180	150	127	114	101	84,4	66,5
1,70	311	223	174	144	122	111	99,0	83,0	64,3
1,75	275	204	163	137	113	106	94,5	79,3	62,6
1,80	242	188	153	130	107	99,4	88,6	74,2	59,3

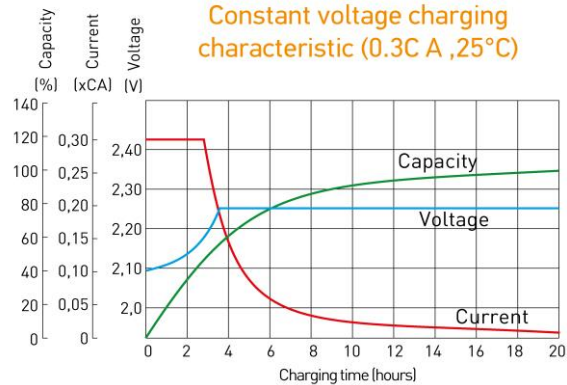
## Discharge Constant Power, W/cell (25°C)

V/cell	5 min	10 min	15 min	20 min	25 min	30 min	35 min	45 min	1 h
1,60	655	448	347	286	243	214	190	158	125
1,65	594	423	341	275	232	208	185	155	122
1,70	564	409	320	269	228	206	183	153	119
1,75	509	390	307	258	216	197	177	150	116
1,80	454	351	290	247	213	189	169	142	112

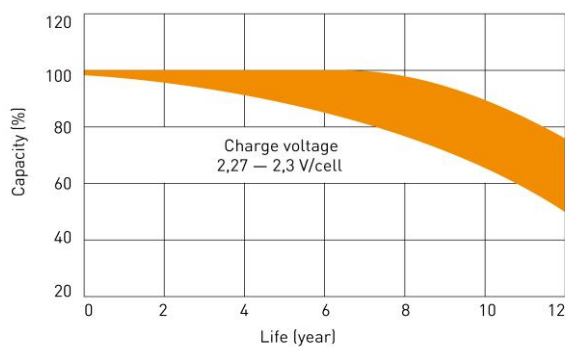
### Temperature effects on capacity



### Constant voltage charging characteristic (0.3C A, 25°C)



### Life characteristics of Standby use



### Cycle service life in relation to depth of discharge

