HRL 12-140 X

12V 140Ah

ASTERION HRL-X are sealed maintenance-free lead-acid batteries with gas recombination system (VRLA). Are manufactured by AGM technology (electrolyte absorbed in glass fiber separators).

Thanks to the use of modern technologies in production, batteries demonstrate high operation stability and highest quality. HR refers to a range of ASTERION UPS series, specifically designed for use in UPS Data Centers, communication systems and other equipment. The series is highly reliable and has a service-life up to 12 years.

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.....10-12 years
Nominal capacity (25°C)
10 hours rate (14 A; 1,8 V/cell).....140 Ah
5 hours rate (23,6 A; 1,75 V/cell).....118 Ah
1 hours rate (86,5 A; 1,6 V/cell).....86,5 Ah
Self-discharge.....3% capacity per month 20°C

Internal resistance (25°C).....3,8 mΩ

Operating temperature range

Discharge.....-20÷60°C
Charge.....-10÷60°C
Storage.....-20÷60°C
Maximum dischsrge current (25°C).....950A (5sec)
Cycle mode (2,35÷2,4 V/cell)
Max.charge current.....42 A
Temperature correction factor.....30 mV/°C
Standby mode (2,27÷2,3 V/cell)
Temperature correction factor.....20 mV/°C

Application

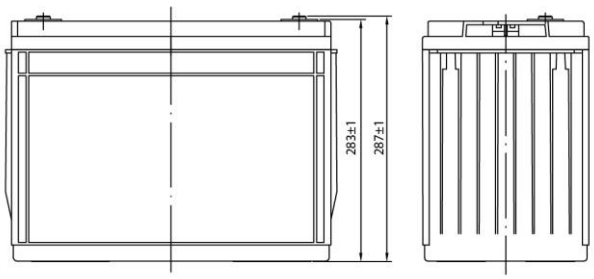
- Uninterruptable power supply
- Back up power supply
- Communication system
- Power engineering facilities
- Renewable energy systems

Performance & characteristics

- AGM technology allows to recombinate 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.

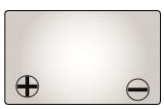
Dimensions (±2mm)

Length, mm.....341
Width, mm.....173
Height, mm.....283
Height over terminals, mm.....287
Weight (±3%), kg.....40



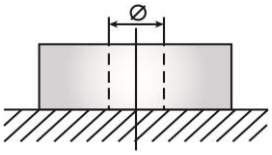
Layout

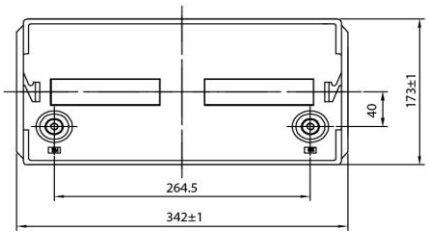
B

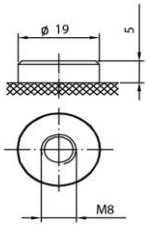


Terminal type

Insert Ø8 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	10 h
1,60	438	314	248	147	107	86,5	38,2	25,6	14,1
1,65	400	292	237	145	105	84,3	37,4	25,0	14,1
1,70	387	280	231	142	102	82,1	36,8	24,3	14,0
1,75	355	257	214	139	99,8	80,2	36,1	23,6	14,0
1,80	321	235	197	134	96,7	78,0	35,2	23,0	14,0

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	10 h
1,60	815	566	474	287	206	163	71,8	47,4	27,9
1,65	715	529	433	261	200	158	70,3	47,0	27,3
1,70	686	512	427	258	195	154	69,5	45,9	26,7
1,75	665	483	414	254	192	152	68,6	44,8	26,1
1,80	628	448	391	247	189	150	68,2	44,0	25,4