



HIGH RATE SERIES

- **Epoxy-sealed posts eliminate leaks**
- **Pure lead, low calcium, high tin positive grids deliver quick high-rate power**
- **Puncture resistant micro-porous glass mat separators extend life**
- **Exclusive IPF® Technology optimizes power capacity, cell consistency, and long-term reliability**
- **Reinforced flame retardant (rated UL94, V0 28% LOI) polypropylene or standard polypropylene case and cover resists bulging and meets safety requirements**
- **Flame arresting, low pressure, self-sealing valve on flame-retardant or low-pressure, self-sealing valve on standard, maximizes gas recombination efficiency and minimizes gassing**
- **Computer-aided design and manufacturing ensure quality products through control of process and standards**
- **Case and cover heat sealed and 100% tested to prevent leaks**
- **Float Voltage: 2.25 volts per cell $\pm .01$ VPC @ 77°F (25°C)**
- **Design life 10 years @ 77°F / 25°C (full float)**
- **All batteries meet or exceed IEEE-485 capacity requirements at shipment**

DATA SHEET FOR PART NUMBER:

45HR2000*



* 45HR2000S - Standard: Black Cover, Grey Case
45HR2000 - Flame Retardant: Charcoal Cover and Case

Specifications

NOMINAL VOLTAGE: 12-Volt

FLOAT CHARGE VOLTAGE: 13.50 @ 77°F (25°C)

EQUALIZE CHARGE VOLTAGE: 13.8

OPERATING TEMPERATURE: 50° to 95°F (10°C to 35°C)

TERMINAL: Molded lead terminal with 1/4 x 20 brass inserts

TORQUE VALUE: 60 inch lbs.

RIPPLE: Limited to 0.5% RMS or 1.5% of the float voltage

Battery	DIMENSIONS			Weight
	Length	Width	Height	
45HR2000	8.99 (225)	5.47 (139)	8.27 (210)	40 (18)

Chart contains dimensions in inches over millimeters and pounds over kilograms.

Discharge Ratings in Watts Per Cell To Various End Voltages [at 77°F (25°C)]

Volts per Cell (V.P.C.)	1 Min.	5 Min.	10 Min.	15 Min.	20 Min.	30 Min.	40 Min.	50 Min.	60 Min.
1.80	—	253	189	151	127	96.9	78.9	66.9	58.4
1.75	472	286	205	161	134	101	81.7	69	60.2
1.70	500	300	212	166	137	103	83	70.1	61
1.67	526	308	216	168	138	104	83.6	70.7	61.6
1.60	569	322	222	172	141	105	84.5	71.5	62.3

Note: Above ratings conform to IEEE-485 standards.

Made in the U.S.A. by East Penn Manufacturing

Distributed by: **MK Battery**

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