# **MORE POWER - LESS SPACE®**



# HR4000

Exclusive IPF<sup>®</sup> technology optimizes power capacity, cell consistency, and long-term reliability

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- Advanced AGM technology for superior high-rate power
- Puncture resistant micro-porous glass mat separators extend life
- Reinforced case resists bulging and meets safety requirements (UL 94 V-0)
- Case & cover heat sealed and 100% tested to prevent leaks
- Epoxy-sealed posts eliminate leaks
- Flame arresting, low-pressure, self-sealing valves are 100% factory tested
- Computer-aided design and manufacturing control processes and standards to ensure quality products
- All batteries meet or exceed IEEE recommended practices
- Battery design and construction meet UL recognition requirements
- Plate thickness optimized for long life
- Guaranteed 100% initial string capacity when tested in accordance with IEEE 1188

#### **SPECIFICATIONS**

Nominal Voltage:	12-Volts
Rating:	420 Watts/Cell @ 15 min. rate
	to 1.67 V.P.C.
Positive Plate:	>98% Pure lead with tin-calcium alloy
Negative Plate:	Pure lead, calcium alloy
Post Seal:	Epoxy-sealed
Terminal:	Top access, 1/4" – 20 threaded insert
Case/Cover:	Flame-retardant, polypropylene –
	UL 94 V-0/>28% L.O.I.

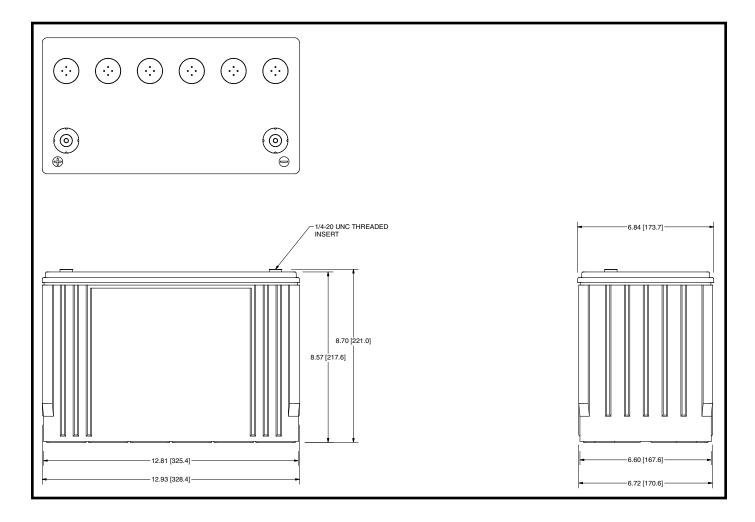


Safety Vent:	Low positive pressure,
	self-sealing w/ flame arrestor
Float Voltage:	2.25 V.P.C. ± 0.01 V.P.C. @ 77°F (25°C)
Design life:	10 years in float applications @ 77°F (25°C)
Dimensions:	Length - 12.93" (328.4 mm)
	Width - 6.84" (173.7 mm)
	Height - 8.70" (221 mm)
Weight:	81 lbs. (37 kg)

#### DISCHARGE RATINGS IN WATTS PER CELL @ 77°F (25°C)<sup>†</sup>

Volts per Cell (V.P.C.)	1 MIN.	5 MIN.	10 MIN.	15 MIN.	20MIN.	30 MIN.	40 MIN.	50 MIN.	60 MIN.
1.60	1405	832	554	428	350	257	204	168	145
1.63	1333	809	550	426	348	256	203	168	144
1.65	1279	795	546	423	346	255	203	167	144
1.67	1227	780	541	420	344	254	202	167	143
1.70	1125	750	532	417	342	252	201	166	143
1.75	1027	705	506	404	335	249	198	163	140

<sup>†</sup>Subject to change without notice.



## **OPTIONAL FACTORY ACCEPTANCE TESTING**

- More economical than performing a load test on site
- Confirms published capacity rating of product
- Establishes a factory baseline ohmic reading
- Formal test report provided
- Contact your East Penn Mfg. representative for additional information

### **TESTING SPECIFICATIONS**

- Exceeds IEEE-1188 standards
- 10 minute battery rate to 1.67 V.P.C.
- Constant power discharge
- String  $\geq$  100% capacity All individual batteries  $\geq$  95% capacity
- Conductance readings taken before the test
- · Battery voltage recorded on report every 2 minutes

**SO 9001** D/TS 16949

**ISO 14001** 

### INSTALLATION AND OPERATING INSTRUCTIONS

• http://www.eastpennmanufacturing.com/wp-content/uploads/High-Rate-IO-Manual-0970.pdf





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UL Recognized Componen