

## High Rate Range VRLA



SEALED VRLA MONOBLOC **AGM BATTERIES** 

HR-12180

## **VALVE REGULATED** LEAD ACID BATTERY

12V 615WATTS/CELL @ 15MIN to 1.67 VPC

12V 180AH @ 10 HR to 1.80VPC 12V 195AH @ 20 HR to 1.75VPC

> FOR APPLICATION: **UPS SWITCHGEAR** INDUSTRIAL DC POWER

- One-way relief valve, Explosion Resistant.
- Patented long life alloy having the lowest calcium levels industry-minimizing grid growth, reducing gassing, and extending battery life.











#### **Innovative Features**

- 12 years design life in float applications @ 25°C(77°F).
- UL Recognized component.
- ☐ Valve regulated lead acid battery (VRLA).
- High-Compression Absorbed Glass Mat technology (AGM) for greater than 99% recombination efficiency.
- Proprietary Fixed Orifice Plate Pasting technology applying active materials on both sides of the grid for consistent cell-to-cell performance, higher capacity and uniform grid protection.
- Operates at a low internal pressure.
- Heavy duty threaded copper alloy terminals for ease of assembly, reduced maintenance and increased safety.
- Advanced lead tin calcium alloy, reduces grid corrosion and promotes long battery life.
- Over-sized, through the partition inter-cell welds provide low resistance connections, with minimal power loss.
- Flame arresting, low pressure safety release venting system for individual cells, recognized per U.L. 924.
- Horizontal or vertical operation.
- Multicell design for ease of installation and maintenance.
- Standard: Reinforced ABS (UL 94HB) container and cover Optional: Flame-retardant reinforced ABS case and cover compliant with U.L.94 V-0 with an Oxygen Limiting Index of greater than 28%.

	12 VOLTS - 615WATTS @ 15 MIN RATE											
	Constant Power Discharging Ratings - Watts Per Cell @ 25°C (77°F)											
End Point Volts/Cell	5min   10min   15min   20min   30min   40min   45min   50min   60min   90min											
1.67	1025	771	615	536	413	332	306	282	264	196		

### For UPS / Switchgear / Industrial DC Power













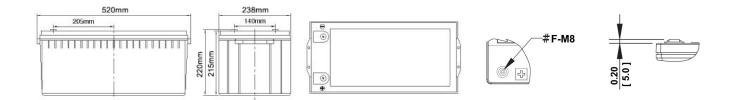






# High Rate Range VRLA





Length: 520mm Width: 238mm Height: 220mm

Electrical Specifications									
Cells Per Unit	Cells Per Unit Voltage Per Unit Weight Electrolyte Maximum Discharge Current Short Circuit Current Ohms Imped 60 H								
6	12.84	133lbs 60.5kg	SG = 1.300	1143Amps	5500 Amps	0.0018			

Capacity	615Watts per all at the 15 minute rate to 1.67 volts per cell at 25°C (77°F). 180Ah @ 10 hr. rate to 1.80 volts per cell @ 25°C (77°F). 195Ah @ 20 hr. rate to 1.75 volts per cell @ 25°C (77°F).
Applicable Operating Temperature Range	-40°F (-40°C) to +158°F (70°C).
Ideal Operating Temperature Range	+68°F (+20°C) to +82.4°F (28°C).
Floating Charging Voltage	13.5 to 13.8 VDC/unit Average at 25°C (77°F).
Recommended Maximum Charging Current Limit	C/5 amperes (38.9 amperes @ 100% depth of discharge) @ 20 hr. rate to 1.75VPC.
Equalization and Cycle Service Charging Voltage	14.4 to 14.8 VDC/unit Average at 25°C (77°F).
Maximum AC Ripple (Charger)	0.5% RMS or 1.5% P-P of float charge voltage recommended for best results.  Maximum voltage allowed = 1.4% RMS (4% P-P).  Maximum current allowed = 9.74 amperes RMS (C/20) to 1.75VPC.
Self Discharge	EverExceed High Rate Range batteries may be stored for up to 12 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.
Accessories	Inter unit connectors racks and cabinet systems are available.
Terminal: Inserted	Threaded copper alloy insert terminal
Terminal Hardware Initial Torque: Inserted Terminal	11 N-m

	Constant Power Discharging Ratings - Watts Per Cell @ 25°C (77°F)										
End Point Volts/Cell	5min	10min	15min	20min	30min	40min	45min	50min	60min	90min	
1.75	970	708	565	500	388	316	293	269	251	188	
1.70	1008	743	594	520	402	325	302	277	259	193	
1.67	1025	771	615	536	413	332	306	282	264	196	

Constant Current Discharging Ratings - Ampere Per Cell @ 25°C (77°F)										
End Point Volts/Cell	1hr	2hr	3hr	5hr	8hr	10hr	12hr	20hr	24hr	72hr
1.85	115	66.4	49.1	31.9	21.1	17.2	14.8	9.27	7.83	2.78
1.80	123	71.6	51.1	33.3	22.0	18.0	15.4	9.60	8.13	2.89
1.75	127	73.2	52.6	33.8	23.1	18.3	15.5	9.74	8.23	2.91

**Note:** Batteries to be mounted with 0.39 in (1.00 cm) spacing minimum and free air ventilation. Specifications subject to change without notification.

















