



HIGH PERFORMANCE

SEALED VRLA MONOBLOC
AGM BATTERIES



HR-12160

VALVE REGULATED
LEAD ACID BATTERY

12V 540WATTS/CELL
@ 15MIN to 1.67 VPC

12V 160AH @ 10 HR to 1.80VPC
12V 173AH @ 20 HR to 1.75VPC

FOR APPLICATION:
UPS
SWITCHGEAR
INDUSTRIAL DC POWER

Innovative Features

- 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.

- 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%.

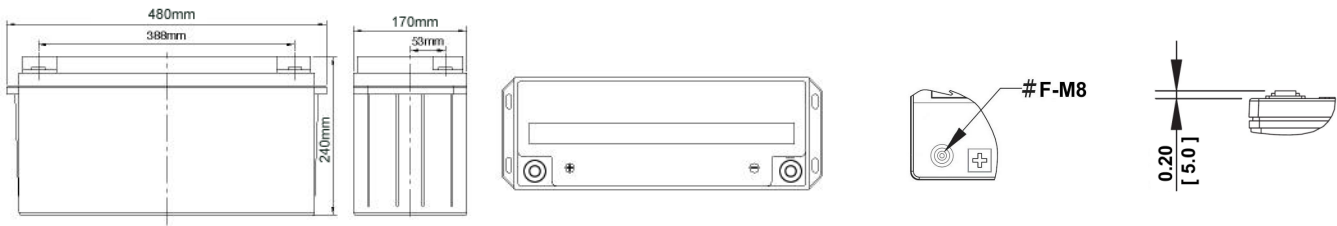
12 VOLTS - 540WATTS @ 15 MIN RATE										
Constant Power Discharging Ratings - Watts Per Cell @ 25°C (77°F)										
End Point Volts/Cell	5min	10min	15min	20min	30min	40min	45min	50min	60min	90min
1.67	928	680	540	478	356	295	271	245	224	170

For UPS / Switchgear / Industrial DC Power



High Rate Range VRLA

EverExceed[®]
power your applications



Length : 480mm Width : 170mm Height : 240mm

Electrical Specifications						
Cells Per Unit	Voltage Per Unit	Weight	Electrolyte	Maximum Discharge Current	Short Circuit Current	Ohms Imped 60 Hz(Ω)
6	12.84	115lbs 52.2kg	SG = 1.300	1016Amps	5200 Amps	0.0020

Capacity	540Watts per all at the 15 minute rate to 1.67 volts per cell at 25°C (77°F). 160Ah @ 10 hr. rate to 1.80 volts per cell @ 25°C (77°F). 173Ah @ 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 (34.7 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 = 8.67 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	854	638	488	446	345	282	260	240	212	163
1.70	905	664	519	467	348	289	266	243	218	166
1.67	928	680	540	478	356	295	271	245	224	170

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	102	59.1	43.7	28.4	18.8	15.4	13.2	8.25	6.96	2.48
1.80	109	63.7	45.5	29.6	19.6	16.0	13.7	8.55	7.23	2.57
1.75	114	65.2	46.8	30.2	20.5	16.3	13.8	8.67	7.33	2.59

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

