

EXCELLENT CYCLING ABILITY FOR SOLAR / PHOTOVOLTAIC WIND GENERATION INVERTER / MOBILITY TELECOMMUNICATION APPLICATIONS



DP-12230

SEALED VRLA MONOBLOC AGM BATTERIES
VALVE REGULATED LEAD ACID BATTERY
FOR CYCLING APPLICATIONS

12V 230AH @ 20 HR RATE to 1.75VPC

12V 253AH @ 100 HR RATE to 1.75VPC

LONG DURATION

Innovative Features

- ◆ Thick positive plate design and high Tin alloy~12 years design life @ 20°C(68°F).
- ◆ 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 insert copper terminals for ease of assembly, reduced maintenance and increased safety.
- ◆ Advanced lead tin calcium alloy, reduces grid corrosion and promotes long battery life.
- ◆ Standard: Reinforced ABS (UL 94HB) container and cover.
- ◆ Optional: Flame-retardant reinforced ABS container and cover compliant with U.L.94 V-0 with an Oxygen limiting Index of greater than 28%.
- ◆ 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.
- ◆ Multicell design for ease of installation and maintenance.
- ◆ Horizontal or vertical operation.

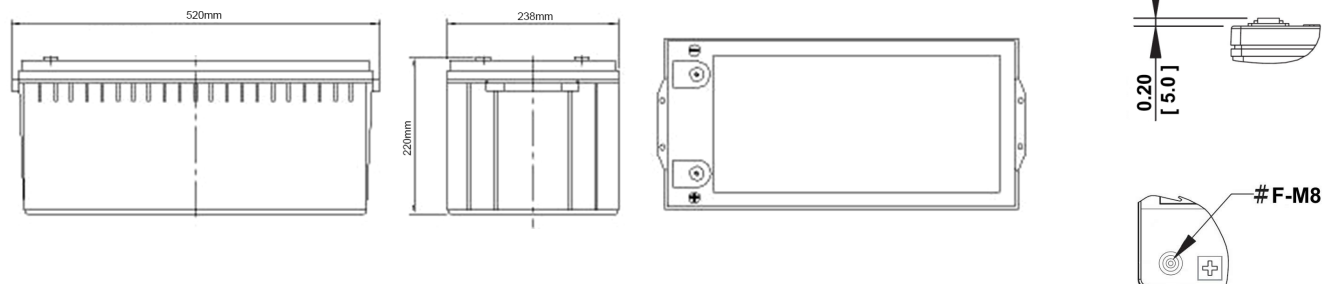
12 VOLTS - 230 AMPERE HOUR @ 20 HOUR RATE

AH Capacity to 1.75VPC @ 20°C (68°F)

End Point Volts/Cell	1.5hr	2hr	3hr	4hr	5hr	8hr	10hr	12hr	20hr	24hr	100hr
1.75	147	158	167	176	181	199	206	212	230	235	253

Deep Cycle AGM Range

EverExceed®
power your applications



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

Electrical Specifications						
Cells Per Unit	Voltage Per Unit	Weight	Electrolyte	Maximum Discharge Current(5s)	Short Circuit Current	Internal Resistance Milli-ohms
6	12.84	141.0lbs 64.0kg	SG = 1.300	2070 Amps	5400 Amps	2.5

Capacity	230 Ah @ 20 hr. rate to 1.75 volts per cell @ 20°C (68°F). 253 Ah @ 100 hr. rate to 1.75 volts per cell @ 20°C (68°F).
Applicable Operating Temperature Range	-40°C (-40°F) to +70°C (158°F).
Ideal Operating Temperature Range	+20°C (+68°F) to +30°C (+86°F).
Floating Charging Voltage	13.5 to 13.8 VDC/unit Average at 20°C (77°F).
Recommended Maximum Charging Current Limit	46 Amperes (0.20C20 Amperes)
Equalization and Cycle Service Charging Voltage	14.1 to 14.4 VDC/unit Average at 20°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 = 1.15 amperes RMS (C/20) to 1.75VPC.
Self Discharge	EverExceed Deep Cycle AGM Range batteries may be stored for up to 12 months at 20°C (68°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.
Accessories	F-M8 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

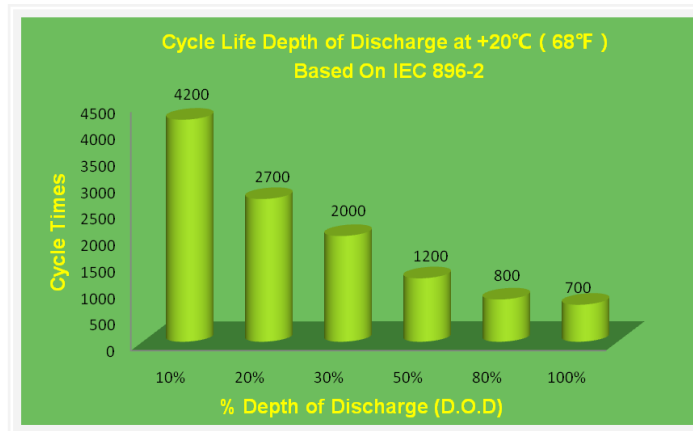
Constant Power Discharging Ratings - Watts Per Cell @ 20°C (68°F)											
End Point Volts/Cell	1.5hr	2hr	3hr	4hr	5hr	8hr	10hr	12hr	20hr	24hr	100hr
1.85	173	143	101	79.5	66.1	45.6	38.2	33.3	21.7	17.9	4.74
1.80	185	147	105	83.3	69.4	47.5	39.6	33.9	22.0	18.8	5.05
1.75	191	152	107	85.3	71.1	48.8	40.4	34.6	22.7	19.2	5.21

Constant Current Discharging Ratings - Amperes Per Cell @ 20°C (68°F)											
End Point Volts/Cell	1.5hr	2hr	3hr	4hr	5hr	8hr	10hr	12hr	20hr	24hr	100hr
1.85	90.6	72.3	51.4	40.3	33.5	23.2	19.2	16.3	10.7	9.10	2.37
1.80	96.4	77.1	54.3	42.7	35.5	24.1	20.0	17.1	11.1	9.44	2.43
1.75	98.2	78.8	55.8	44.0	36.2	24.8	20.6	17.6	11.5	9.78	2.53

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

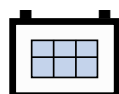
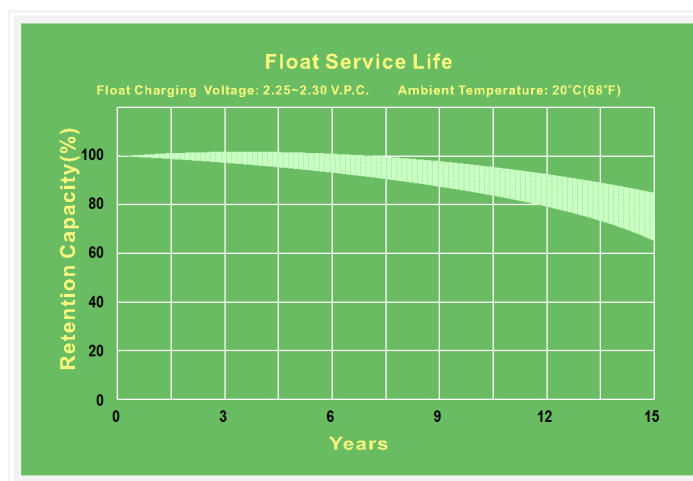
Deep Cycle AGM Range

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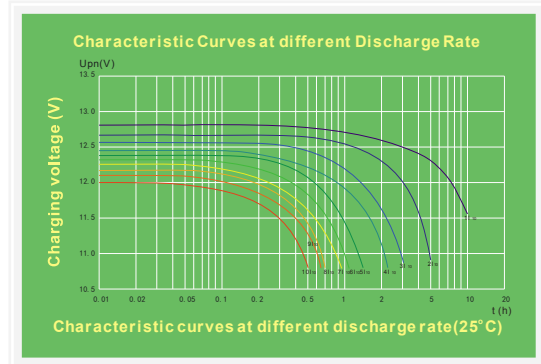
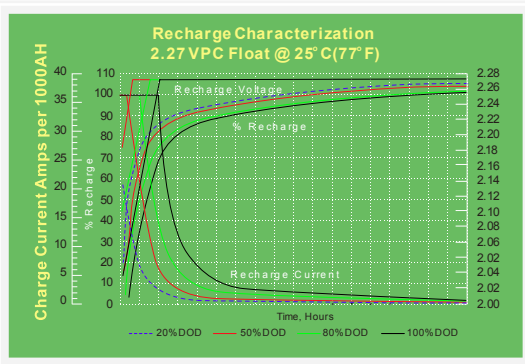
TYPICAL CYCLIC PERFORMANCE

CAPACITY WITHDRAWN	CYCLES
100%	700
80%	800
50%	1200
25%	2100
10%	4200



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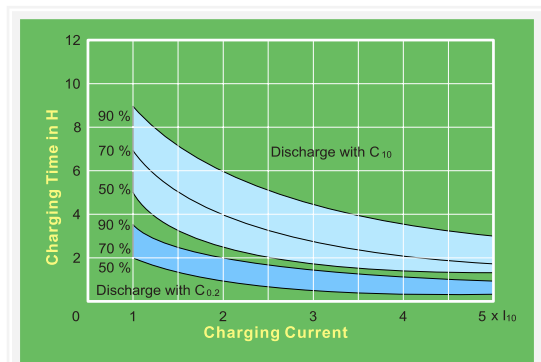
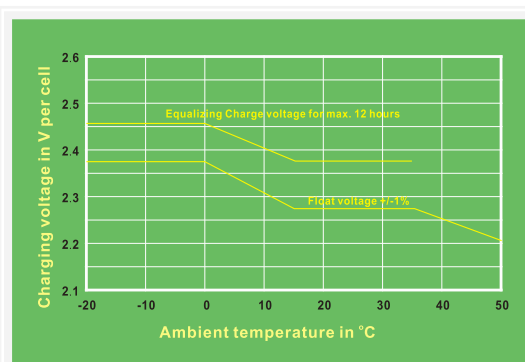


Float Voltage & charging

Constant Voltage charging is recommended
Recommended float voltage: 2.27VPC @ 25°C (77°F)
Float Voltage Range: 2.25VPC to 2.30 VPC @ 25°C (77°F)
Equalize voltage: 2.35VPC for 12 Hours

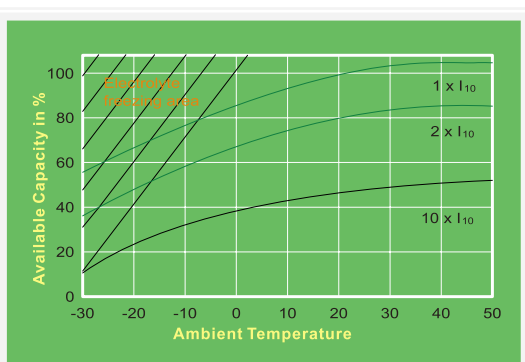
Temperature compensation:

Apply for temperature range of 0°C / 32°F to 40°C / 104°F. Sub tract 3 mV / °C / cell or 1.7 mV / °F / cell, above 25°C / 77°F. Add 3mV / °C / cell or 1.7 mV / °F / cell, below 25°C / 77°F.

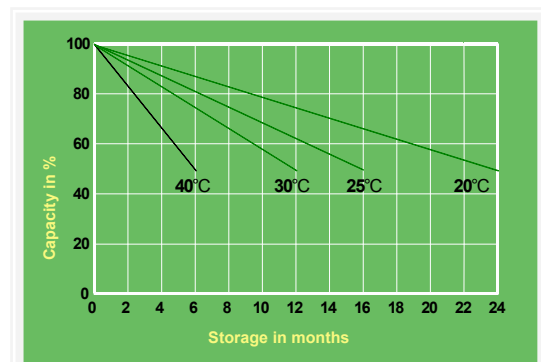


For charging 2.27 V/cell is recommended. The charging voltage must be compensated according to the curve for continuously different battery ambient temperature.

Recharging time in dependence of charging current (guide values) for up to 50, 70 and 90% of capacity at 25°C and with a charging voltage of 2.27 V/cell.



Extracted capacity in relation to the temperature.



Self-discharge in relation to the storage temperature.

