

EXCELLENT CYCLING ABILITY

FOR
MOBILITY
SOLAR / PHOTOVOLTAIC
MARINE
TELECOMMUNICATION
APPLICATIONS



12-90G / E8G27

GELLED VALVE REGULATED
LEAD ACID BATTERY (GVR)
FOR CYCLING APPLICATIONS

12V 90.0AH @ 20 HR RATE to 1.75VPC

12V 102AH @ 100 HR RATE to 1.75VPC

LONG DURATION

Innovative Features

- ☑ Exceptional energy storage capacity combined with long life - BCI Classification;
- ☑ Thick positive plate design for maximum service float life - 12 years design life @ 20°C(68°F);
- ☑ Thickness positive plate plus optimized plate alloy to anti-corrosion;
- ☑ Maintenance-free (no topping up) during the whole service life due to EverExceed GEL technology;
- ☑ 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;
- ☑ Flame-arresting one-way pressure-relief vent for safe and long life;
- ☑ Microporous rubber and corrugated PVC SiO₂ separator, the special design increase the high porosity and anti-corrosion and decrease the internal resistance;
- ☑ Electrolyte in solid gel form will not stratify no equalization charge required;
- ☑ Sulfuric acid thixotropic gel, gel powder from Europe leading supplier to ensure the unique performance of gel battery;
- ☑ Increased durability and deep cycle ability for heavy duty applications;
- ☑ Fully tank formed grid Lead Calcium Tin plate ensures voltage matching between cells;
- ☑ Shelf life up to 2 years at 20°C (68°F), very low gassing due to internal gas recombination;
- ☑ Can be used in any orientation. Upright, side or end mounting recommended;
- ☑ Unique performance against high temperature;
- ☑ UL Recognized component;
- ☑ Spill-proof and leak-proof;

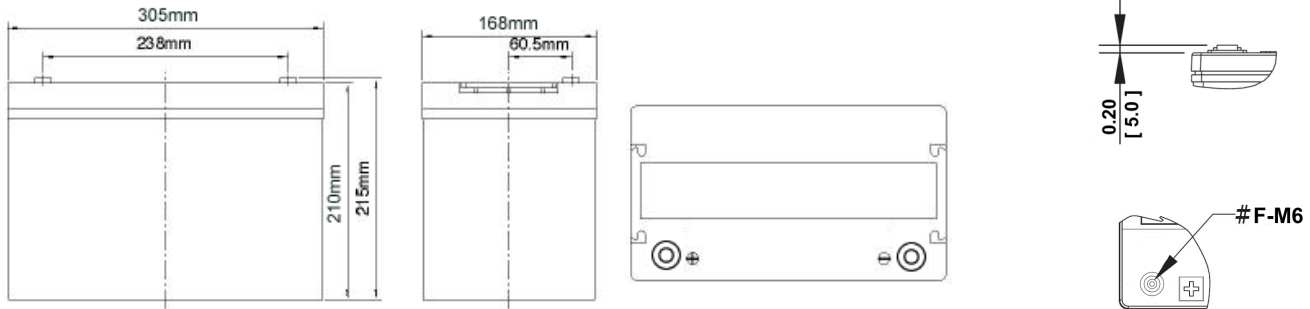
12 VOLTS - 90.0 AMPERE HOUR @ 20 HOUR RATE

AH Capacity to 1.75VPC @ 20°C (68°F)

End Point Volts/Cell	1.5hr	2hr	3hr	4hr	5hr	8hr	10hr	12hr	20hr	24hr	48hr	72hr	100hr
1.75	52.7	59.1	64.0	67.2	69.7	77.8	81.0	82.6	90.0	91.4	94.0	96.8	102

Deep Cycle Gel Range VALR

EverExceed[®]
power your applications



Length:305mm Width: 168mm Height: 215mm

Electrical Specifications						
Cells Per Unit	Voltage Per Unit	Weight	Electrolyte	CCA @ -18°C (0°F)	Short Circuit Current	Ohms Imped 60 Hz(Ω)
6	12.84	66.2lbs 30.0kg	SG = 1.300	510 Amps	2650 Amps	0.0043

Capacity	90.0 Ah @ 20 hr. rate to 1.75 volts per cell @ 20°C (68°F). 102 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 +35°C (+95°F).
Floating Charging Voltage	13.5 to 13.8 VDC/unit Average at 25°C (77°F).
Recommended Maximum Charging Current Limit	0.25C20 amperes (22.5 amperes @ 100% depth of discharge) @ 20 hr. rate to 1.75VPC.
Equalization and Cycle Service Charging Voltage	14.1 to 14.4 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 = 4.50 amperes RMS (C/20) to 1.75VPC.
Self Discharge	EverExceed Deep Cycle Gel Range batteries may be stored for up to 24 months at 20°C (68°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	9 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
1.85	62.1	52.6	38.2	30.3	25.3	17.8	14.7	12.5	8.21	7.24
1.80	65.4	55.4	40.3	32.0	26.6	18.7	15.5	13.3	8.72	7.57
1.75	66.7	56.8	41.2	32.6	27.2	19.1	15.9	13.6	8.90	7.77

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	48hr	72hr	100hr
1.85	32.3	27.2	19.6	15.5	12.8	8.94	7.37	6.27	4.10	3.52	1.84	1.27	0.97
1.80	34.3	28.9	20.8	16.4	13.6	9.48	7.89	6.70	4.37	3.70	1.91	1.31	1.00
1.75	35.1	29.6	21.3	16.8	13.9	9.72	8.10	6.89	4.50	3.81	1.96	1.34	1.02

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