



HIGH PERFORMANCE



ES135-12G

**EVEREXCEED GEL TECHNOLOGY
EXCELS IN CYCLING APPLICATIONS**

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

**12V 138AH @ 20 HR RATE to 1.75VPC
12V 153AH @ 100 HR RATE to 1.75VPC
12V 120AH @ 10 HR RATE to 1.80VPC**



Innovative Features

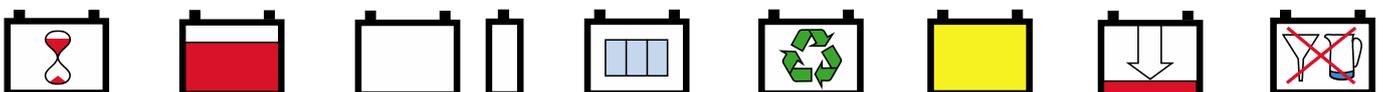
- ☑ Valve regulated lead acid (VRLA);
- ☑ Sulfuric acid thixotropic gel, electrolyte in solid gel form will not stratify - no equalization charge required, Gel powder from Europe leading supplier to ensure the unique performance of gel battery;
- ☑ Microporous rubber and corrugated PVC SiO₂ separator, the special design increase the high porosity and anti-corrosion and decrease the internal resistance;
- ☑ Virgin Pure Lead Tin and thick positive plate technology design for maximum service float life - 12 years design life @25°C(77°F);
- ☑ 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.
- ☑ Thickness positive plate plus optimized plate alloy to anti-corrosion;
- ☑ Unique performance against high temperature;
- ☑ Spill-proof and leak-proof;
- ☑ Operates at a low internal pressure;
- ☑ Very low gassing due to internal gas recombination;
- ☑ Flame-arresting one-way pressure relief vent for safety and long life;
- ☑ Rated non-spillable by ICAO, IATA and DOT.

12 VOLTS - 138 AMPERE HOUR @ 20 HOUR RATE

AH Capacity to 1.75VPC @ 25°C (77°F)

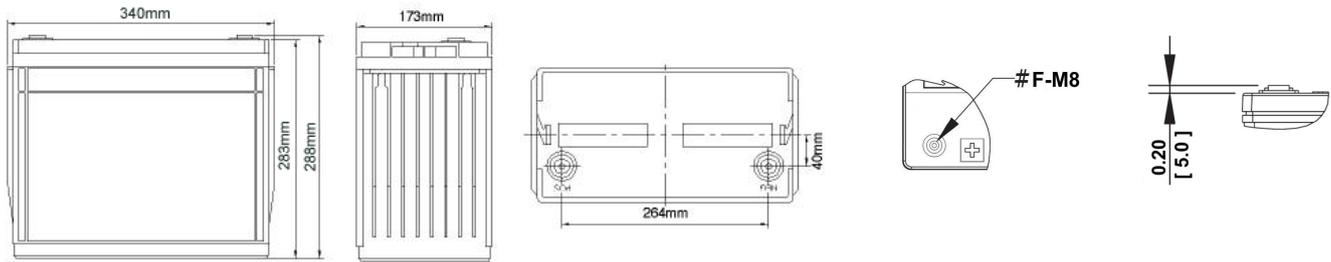
End Point Volts/Cell	1.5hr	2hr	3hr	4hr	5hr	8hr	10hr	12hr	20hr	24hr	48hr	72hr	100hr
1.75	80.6	90.5	97.9	103	107	119	124	138	138	140	144	148	153

THE MOST RELIABLE BATTERY FOR RENEWABLE ENERGY



Solar Gel Range VRLA

EverExceed[®]
power your applications



Length: 340mm Width: 173mm Height: 288mm

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	87.5lbs 39.6kg	SG = 1.280	850 Amps	3650 Amps	0.0030

Capacity	138 Ah @ 20 hr. rate to 1.75 volts per cell @ 25°C (77°F). 153 Ah @ 100 hr. rate to 1.75 volts per cell @ 25°C (77°F). 120 Ah @ 10 hr. rate to 1.80 volts per cell @ 25°C (77°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 (34.5 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 = 6.89 amperes RMS (C/20) to 1.75VPC.
Self Discharge	EverExceed Solar 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	11 N-m

Constant Power Discharging Ratings - Watts Per Cell @ 25°C (77°F)

End Point Volts/Cell	1.5hr	2hr	3hr	4hr	5hr	8hr	10hr	12hr	20hr	24hr
1.85	95.1	80.5	58.5	46.5	38.7	27.2	22.5	20.9	12.5	10.8
1.80	100	84.8	61.7	49.0	40.7	28.7	23.8	22.2	13.4	11.3
1.75	102	86.9	63.0	49.9	41.5	29.2	24.4	22.6	13.7	11.5

Constant Current Discharging Ratings - Amperes Per Cell @ 25°C (77°F)

End Point Volts/Cell	1.5hr	2hr	3hr	4hr	5hr	8hr	10hr	12hr	20hr	24hr	48hr	72hr	100hr
1.85	49.5	41.6	30.1	23.7	19.6	13.7	11.3	10.4	6.26	5.39	2.82	1.94	1.45
1.80	52.4	44.2	31.9	25.1	20.8	14.5	12.0	11.1	6.69	5.66	2.92	2.01	1.49
1.75	53.8	45.2	32.6	25.7	21.3	14.9	12.4	11.5	6.89	5.83	3.00	2.05	1.53

Note: Batteries to be mounted with 0.5 in (1.25 cm) spacing minimum and free air ventilation.
Specifications subject to change without notification.

