

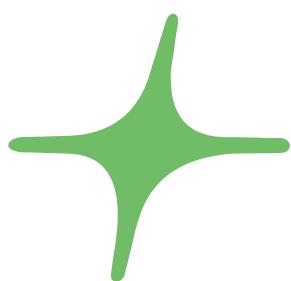


EverExceed®
power your applications

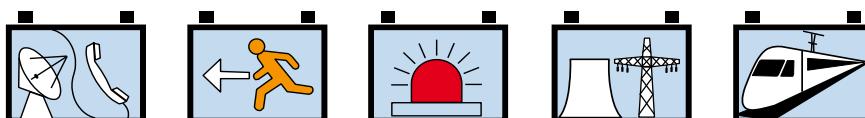
V3.3

Gellyte Range VRLA

Deep cycle GEL battery



»Premium quality for
uninterrupted communication«



www.everexceed.com



Gellyte Range VRLA 18 Ah to 300 Ah @ C20

The extremely powerful and reliable Everexceed's Gellyte Range VRLA batteries perfectly fulfills the requirements for many different applications including solar, telecommunications, Home Medical Equipment (HME) / mobility, industrial and utility applications where frequent deep cycles are required and minimum maintenance is desirable. Our development team combines the market's demand with design optimization, precision component selection and state-of-the-art manufacturing process to produce the most cost effective battery solution for today's applications.

Applicable Operating temperature range:
-40°C(-40°F) to +70°C (+158°F)

Ideal Operating temperature range:
+20°C (+68°F) to +32°C (+90°F)

Storage time from a fully charged condition:
24 months at 20°C / 68°F.
For each 9°C / 15°F rise, reduce the storage time by half.

Designed in Quality Manufacturing

Advanced Germany technology and the use of the most modern computer-aided design and manufacturing techniques combine to make Everexceed's Gellyte Range Batteries the ideal power solution for your applications. Each and every unit is capacity tested.

Applications

- Solar & Wind energy system
- Mobile communication system
- Emergency lighting system
- Radio and Broadcasting station
- Cathodic Protection system
- Power plant and Power transformer system

Compliant Standards

- | | |
|---|---|
| <input type="checkbox"/> IEC 60896-21/22-2004 | <input type="checkbox"/> IEC 61427-2005 |
| <input type="checkbox"/> DIN 43539-T5 | <input type="checkbox"/> YD/T 1360-2005 |
| <input type="checkbox"/> BS 6290 PART 4 | <input type="checkbox"/> UL Compliant |

Innovative Features

- ◆ Deep cycle battery designed, GEL electrolyte with highly porous glass micro-fiber separator;
- ◆ Sulfuric acid thixotropic gel, gel powder from Europe leading supplier to ensure the unique performance of gel battery;
- ◆ 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;
- ◆ UL Recognized component;
- ◆ Spill-proof and leak-proof;
- ◆ 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;
- ◆ Electrolyte in solid gel form will not stratify no equalization charge required;
- ◆ 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;
- ◆ Unique performance against high temperature.

Specifications

Voltage	6 & 12 volts nominal
Plate alloy	Calcium-Tin alloy
Element, post	Silver plated Copper female insert
Container/cover	Reinforced ABS, UL V-0 on request
Specific	1.280
Electrolyte	Sulfuric acid thixotropic solid gel
Vent	Self sealing (2 PSI operation)

No transport restrictions

Surface transport. Classified as non-hazardous material as related to DOT-CFR Title 49 parts 171-189.

Marine transport. Classified as non-hazardous material as per IMDG amendment 27.

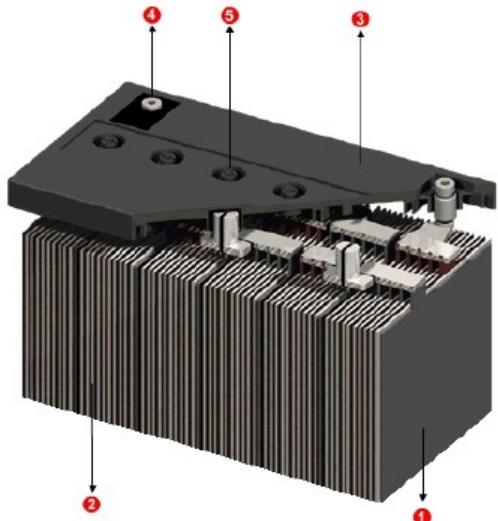
Air transport. Complies with IATA/ICAO, Special provision A67.



GEL BATTERY CONSTRUCTION - The positive and negative grids are cast from a calcium / tin lead alloy to reduce grid growth and corrosion. The active material is manufactured from high purity lead (99.9999%) to minimize the negative effects of impurities.

Gel Separator is mat of random woven acid resistant glass fibres. "U wrapping" is employed to eliminate the risk of short circuits due to mossing and debris at the bottom of the cell.

The purpose of the separator is to maintain a constant distance between the positive and negative plates, thus removing the possibility of short circuits whilst allowing the active material to fully react with the electrolyte. The random weaving also results in an open structure, which offers minimal resistance to the flow of electrolyte during filling.



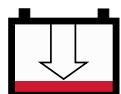
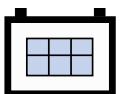
- **Plates:** Pb-Ca-Tin-Al lead alloy, optimized for high corrosion resistance.
- **Separator:** Highly porous glass micro-fibre separator, optimized for low internal resistance, for maximum absorption of the electrolyte and for electrical separation.
- **Standard Housing:** Reinforced ABS (UL 94HB) container and cover.
Optional Housing: Flame-retardant reinforced ABS container and cover compliant with U.L.94 V-0 with an Oxygen limiting Index of greater than 28%.
- **Terminals:** Silver plated Copper female insert for easy and safe assembly and maintenance free connection with excellent conductivity.
- **Valves:** Release gas in case of excess pressure and protects the cell against atmosphere.

GELLED ELECTROLYTE FILLING - Gelled electrolyte is filled into the cell by means of custom-built vacuum filling machines. To achieve reliable performance it is vitally important that the electrolyte achieves full penetration of the separators and plates therefore, vacuum cycling is utilized after the filling process. To ensure each cell has the correct amount of gel, the cells are first overfilled, the extra gel then removed. The V.R.L.A. Gel battery design and construction negates the need for electrolyte addition and the battery remains maintenance free throughout its design life.

SAFETY RELEASE VALVE - Those Gel batteries will operate above atmospheric pressure under normal operating conditions, however the maximum pressure is governed by the safety one-way release valve. Open action is activated by internal pressures in excess of approx. 2 PSI (14Kpa), resealing at approx. 1.2 PSI (8.4Kpa).

GAS RECOMBINATION - The gasses generated during normal operation of the battery are internally recombined. In fact more than 99% of the gas achieves recombination.

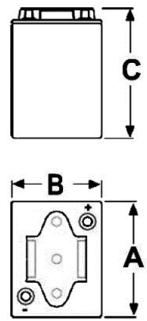
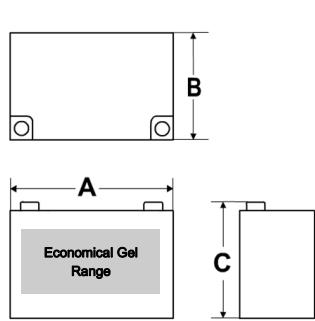
TERMINAL CONSTRUCTION - The contact quality between the copper insert female terminal and the lead post is of vital importance during short duration / high Amps discharge. Elevated terminal temperatures are the result of poor contact, eventually causing seal degradation and electrolyte leaks. EverExceed's tin plated copper terminal design and fusion welding plus epoxy sealing assembly technique for terminal casting ensures trouble free operation and high performance.



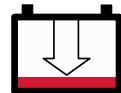
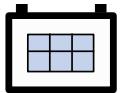
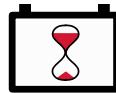
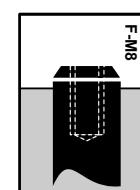
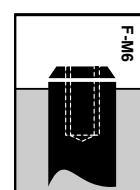
Gellyte Range Electrical Specifications & Dimensions

Battery Model	Nom. Voltage (V)	Capacity C20 1.75VPC @ 20°C	Capacity C100 1.75VPC @ 20°C	Short Circuit Amps	Internal Resistance Milli-ohms	Terminal Type	Battery Weight (kg/lb)	Outline Dimensions (mm/inch)			
								Length	Width	Height	
GL-1218	12	18	19.5	643	14.4	F-M5	5.5	12.1	181	7.13	76
GL-1220	12	20	22	834	12.5	F-M5	6.0	13.2	181	7.13	76
GL-1226	12	26	28	1206	11.5	F-M5	8.3	18.3	166	6.54	175
GL-1228	12	28	30	1219	11.1	F-M5	8.5	18.7	166	6.54	175
GL-1235	12	35	38	1530	9.6	F-M6	10.8	23.8	195	7.68	130
GL-1240	12	40	43	1734	8.5	F-M6	13.5	29.7	197	7.76	165
GL-1250	12	50	55	1785	7.2	F-M6	14.5	31.9	197	7.76	165
GL-1255	12	55	60	1836	6.7	F-M6	17.3	38.1	230	9.06	137
GL-1260	12	60	65	1938	6.3	F-M6	21.3	46.9	350	13.8	168
GL-1270	12	70	76	2040	5.8	F-M6	21.8	48.0	350	13.8	168
GL-1280	12	80	86	2142	5.4	F-M6	23.2	51.0	259	10.2	168
GL-1290	12	90	98	2448	5.0	F-M6	24.3	53.5	259	10.2	168
GL-12100	12	100	108	2703	4.1	F-M6	27.5	60.5	305	12.0	168
GL-12110	12	110	120	2958	3.8	F-M6	29.0	63.8	305	12.0	168
GL-12120	12	120	130	3060	3.4	F-M8	32.0	70.4	332	13.1	174
GL-12135	12	135	146	3366	3.0	F-M8	36.5	80.3	408	16.1	175
GL-12150	12	150	162	3825	2.7	F-M8	41.0	90.2	340	13.4	173
GL-12165	12	165	178	4284	2.6	F-M8	43.5	95.7	480	18.9	170
GL-12180	12	180	195	4794	2.5	F-M8	52.0	114.4	530	20.9	210
GL-12200	12	200	216	5508	2.5	F-M8	55.5	122.1	530	20.9	210
GL-12230	12	230	250	5508	2.4	F-M8	64.5	141.9	520	20.5	238
GL-12250	12	250	270	6018	2.2	F-M8	67.5	148.5	520	20.5	269
GL-12280	12	280	302	6222	2.1	F-M8	74.5	163.9	520	20.5	269
GL-12300	12	300	325	6426	1.9	F-M8	76.5	168.3	520	20.5	269
GL-675	6	75	81	1836	4.0	F-M6	11.3	24.9	185	7.30	112
GL-6135	6	135	146	3264	3.7	F-M6	17.3	38.1	195	7.68	170
GL-6165	6	165	180	4590	3.4	F-M8	22.5	49.5	260	10.2	180
GL-6200	6	200	216	4896	3.2	F-M8	27.4	60.3	306	12.0	168
GL-6230	6	230	250	5100	2.6	F-M8	29.5	64.9	322	12.7	178
GL-6240	6	240	260	5324	2.4	F-M8	32.0	70.4	243	9.57	188
GL-6250	6	250	270	5712	2.3	F-M8	32.5	71.5	322	12.7	178
GL-6300	6	300	325	6120	2.1	F-M8	41.0	90.2	295	11.6	178
GL-6330	6	330	356	6732	1.9	F-M8	43.0	94.6	295	11.6	178
GL-6400	6	400	432	8160	1.6	F-M8	54.0	118.8	295	11.6	180

Actual Battery Dimensions may vary by +1%



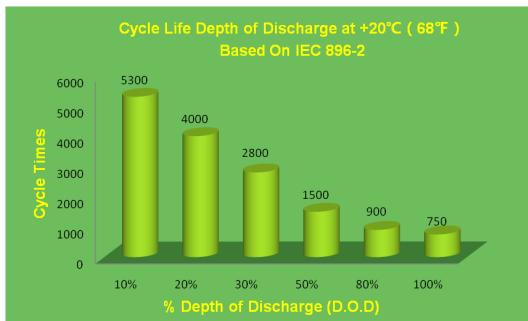
Terminal and Torque



BATTERY CYCLING ABILITY

The EverExceed's Gellyte Range VRLA Battery excels in cycling applications.

Gellyte Range batteries are capable of 5000+ charge / discharge cycles depending on the depth of discharge.



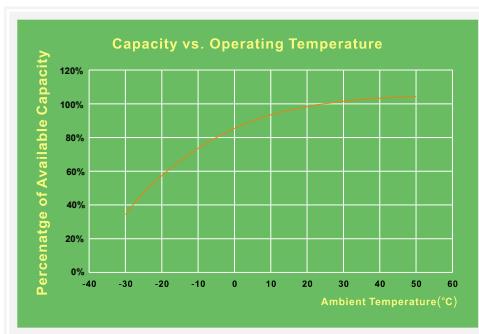
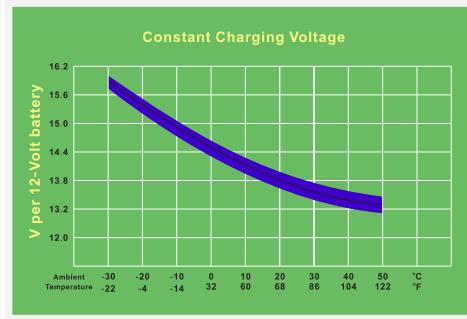
CONSTANT CHARGING VOLTAGE:

Shown is the constant charging voltage in relation to the ambient temperature.

The bandwidth shows a tolerance of $\pm 30\text{mV}/\text{cell}$.

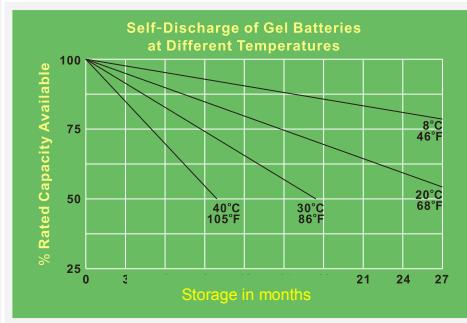
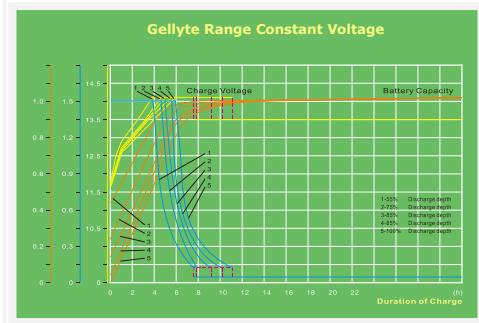
This constant voltage is suitable for continuous charging and cyclic operation.

In a parallel standby (floating) condition it always keeps the battery in a fully charged state; in a cyclic condition, it provides for rapid recharging and high cyclic performance.



CAPACITY VS. OPERATING TEMPERATURES:

Above are the changes in capacity for wider ambient temperature range, giving the available capacity, as a percentage of the rated capacity, at different ambient temperatures. The curves show the behavior of the battery after a number of cycles.



EverExceed[®]
power your applications



***Supplied Worldwide by
EverExceed Corporation***

