



## GEL BATTERY

### BATTERY GROUP

#### DEEP CYCLE GEL BATTERY 100/150/200A



- Full recovery from deep discharge, even when the battery is not recharged immediately.
  - Ideal for repeat cycling daily use.
  - Excellent performance over long discharges.
  - Good tolerance to higher temperature applications.
  - Suitable where mains power is unstable.
  - Zero stratification due to immobilized electrolyte.
  - Reduced self-discharge.
  - Limiting design protects the positive plates to greatly improve cycle life.
  - Improved charge acceptance due to low internal resistance.
  - High resistance to water loss with the right charging set up.
  - Ultra stable polymer separator with glass mat for increased performance.
  - High resistance to shorting due to superior mechanical strength of the polymer separator.
  - Increased tolerance to poor charging parameters.
  - Can be discharged even when full recharge has not been achieved, without loss of battery capacity.
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- Akü hemen yeniden şarj edilmese bile derin deşarjdan tamamen kurtulma.
  - Tekrarlayan günlük kullanım için idealdir.
  - Uzun deşarjlarda mükemmel performans.
  - Daha yüksek sıcaklık uygulamalarına karşı iyi tolerans.
  - Şebeke gücünün kararsız olduğu yerler için uygundur.
  - Hareketsizleştirilmiş elektrolit nedeniyle sıfır katmanlaşma.
  - Azaltılmış kendi kendine deşarj.
  - Sınırlayıcı tasarım, döngü ömrünü büyük ölçüde iyileştirmek için pozitif plakaları korur.
  - Düşük dahili direnç sayesinde geliştirilmiş şarj kabulü.
  - Doğru şarj kurulumu ile su kaybına karşı yüksek direnç.
  - Arttırılmış performans için parlak örgülü ultra kararlı polimer ayırıcı.
  - Polimer ayırıcının üstün mekanik mukavemeti sayesinde kısa devrelere karşı yüksek direnç.
  - Zayıf şarj parametrelerine karşı arttırılmış tolerans. • Batarya kapasitesinde bir kayıp olmadan, tam dolum sağlanmadığında bile deşarj olabilir.

# Technical Specifications

MODEL	GEL12-100(12V100AH)		GEL12-150(12V150AH)		GEL12-200(12V200AH)	
<b>SPECIFICATION</b>						
Nominal Voltage	12V		12V		12V	
Capacity (25°C)	10HR (10.5V)	100 Ah	20HR (10.5V)	150 Ah	20HR (10.5V)	200 Ah
	5HR (10.2V)	78 Ah	5HR (10.2V)	116.5 Ah	5HR (10.2V)	156 Ah
	1HR (9.6V)	58.2 Ah	1HR (9.6V)	87.3 Ah	1HR (9.6V)	116 Ah
<b>Dimension</b>						
Length	330±2mm (12.99 inch)		485±2mm (19.09 inch)		522±2mm (20.55 inch)	
Width	171±2mm (6.73 inch)		172±2mm (6.77 inch)		238±2mm (9.37 inch)	
Height	214±2mm (8.43 inch)		240±2mm (9.45 inch)		222±2mm (8.74 inch)	
Total Height	220±2mm (8.66 inch)		240±2mm (9.45 inch)		222±2mm (8.74 inch)	
Approx. Weight	30.0 kgs (66.00 lbs±4%)		43.1 kgs (95.02 lbs±4%)		60 kgs (132.28 lbs ± 4%)	
Terminal Type	T9		T11		T11	
Internal Resistance (Fully Charged, 25°C)	Approx. 5m Ω		Approx. 4.2m Ω		Approx. 3.3m Ω	
Capacity Affected by Temperature (10HR)	40°C	103%	40°C	103%	40°C	103%
	25°C	100%	25°C	100%	25°C	100%
	0°C	88%	0°C	88%	0°C	88%
	-15°C	70%	-15°C	70%	-15°C	70%
Self-Discharge (25°C)	3 Month	Remaining Capacity: %94	3 Month	Remaining Capacity: %94	3 Month	Remaining Capacity: %94
	6 Month	Remaining Capacity: %88	6 Month	Remaining Capacity: %88	6 Month	Remaining Capacity: %88
	12 Month	Remaining Capacity: %75	12 Month	Remaining Capacity: %75	12 Month	Remaining Capacity: %75
Nominal Operating Temperature	25°C ± 3°C (77°F ± 5°F)		25°C ± 3°C (77°F ± 5°F)		25°C ± 3°C (77°F ± 5°F)	
<b>Operating Temperature Range</b>						
Discharge	-15°C ~ 55°C (5°F ~ 131°F)		-15°C ~ 55°C (5°F ~ 131°F)		-15°C ~ 50°C (5°F ~ 131°F)	
Charge	-10°C ~ 55°C (14°F ~ 131°F)		-10°C ~ 55°C (14°F ~ 131°F)		-10°C ~ 50°C (14°F ~ 131°F)	
Storage	-20°C ~ 55°C (-4°F ~ 131°F)		-20°C ~ 55°C (-4°F ~ 131°F)		-20°C ~ 50°C (-4°F ~ 131°F)	
Float Charging Voltage (25°C)	13.50 to 13.80V Temperature Compensation -18mV/°C		13.50 to 13.80V Temperature Compensation -18mV/°C		13.50 to 13.80V Temperature Compensation -18mV/°C	
Cyclic Charging Voltage (25°C)	14.10 to 14.40V Temperature Compensation -30mV/°C		14.10 to 14.40V Temperature Compensation -30mV/°C		14.10 to 14.40V Temperature Compensation -30mV/°C	
Maximum Charging Current	20A		30A		40A	
Terminal Material	Copper		Copper		Copper	
Maximum Discharge Current	800A (5 sec.)		1500A (5 sec.)		1600A (5 sec.)	
Designed Floating Life (20°C)	15 Years		15 Years		15 Years	

- Absorbent Glass Mat Technology;
- Recognized by RoHS & CE;
- ABS Container.



## MODEL

### GEL12-100(12V100AH)

#### CONSTANT CURRENT DISCHARGE (AMPERES) at 25°C (77°F)

F.V/TIME	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h	48h	120h
9.60V	135	93.2	58.2	34.0	24.0	18.9	15.8	13.5	10.5	9.37	5.11	---	---
9.90V	132	91.3	57.3	33.8	23.8	18.8	15.7	13.4	10.4	9.35	5.10	---	---
10.2V	127	88.5	55.9	33.5	23.7	18.6	15.6	13.3	10.4	9.32	5.06	2.23	---
10.5V	123	86.4	54.8	33.0	23.5	18.5	15.5	13.2	10.3	9.26	5.00	2.22	0.92
10.8V	116	83.2	53.1	32.2	22.8	17.9	15.0	12.8	9.99	9.20	5.00	2.22	0.92

#### CONSTANT POWER DISCHARGE (WATTS) at 25°C (77°F)

F.V/TIME	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h	48h	120h
9.60V	1507	1062	670	396	283	223	188	160	125	112	61.6	---	---
9.90V	1470	1041	660	393	282	222	187	159	125	112	61.5	---	---
10.2V	1416	1009	644	390	280	220	185	158	124	112	61.3	26.8	---
10.5V	1368	985	631	384	278	219	184	157	123	111	60.3	26.6	11.1
10.8V	1296	949	611	374	269	212	179	152	119	110	60.5	26.6	11.0

### GEL12-150(12V150AH)

#### CONSTANT CURRENT DISCHARGE (AMPERES) at 25°C (77°F)

F.V/TIME	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h	48h	120h
9.60V	203	140	87.3	51.0	36.0	28.3	23.7	20.2	15.8	14.0	7.67	---	---
9.90V	198	137	86.0	50.7	35.7	28.1	23.6	20.1	15.7	14.0	7.65	---	---
10.2V	190	133	83.8	50.3	35.5	27.9	23.4	19.9	15.6	14.0	7.63	3.35	---
10.5V	184	130	82.1	49.5	35.3	27.8	23.3	19.8	15.5	13.9	7.50	3.32	1.50
10.8V	174	125	79.6	48.2	34.2	26.9	22.6	19.2	15.0	13.8	7.53	3.32	1.50

#### CONSTANT POWER DISCHARGE (WATTS) at 25°C (77°F)

F.V/TIME	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h	48h	120h
9.60V	2260	1594	1006	594	425	335	282	240	188	169	92.4	---	---
9.90V	2206	1562	991	590	422	333	280	239	187	168	92.3	---	---
10.2V	2124	1514	965	585	420	330	278	237	186	168	92.0	40.1	---
10.5V	2052	1477	946	576	417	328	276	235	184	167	90.4	39.8	16.6
10.8V	1944	1423	917	562	404	318	268	228	179	166	90.8	39.8	16.5

### GEL12-220(12V200AH)

#### CONSTANT CURRENT DISCHARGE (AMPERES) at 25°C (77°F)

F.V/TIME	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h	48h	120h
9.60V	270	186	116	68.0	48.0	37.8	31.6	27.0	21.0	18.7	10.2	---	---
9.90V	264	183	115	67.6	47.6	37.6	31.4	26.8	20.8	18.7	10.2	---	---
10.2V	254	177	112	67.0	47.4	37.2	31.2	26.6	20.8	18.6	10.2	4.46	---
10.5V	246	173	110	66.0	47.0	37.0	31.0	26.4	20.6	18.5	10.0	4.43	1.84
10.8V	232	166	106	64.4	45.6	35.8	30.0	25.6	20.0	18.4	10.0	4.43	1.84

#### CONSTANT POWER DISCHARGE (WATTS) at 25°C (77°F)

F.V/TIME	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h	48h	120h
9.60V	3014	2124	1340	792	566	446	376	320	250	224	123	---	---
9.90V	2940	2082	1320	786	564	444	374	318	250	224	123	---	---
10.2V	2832	2018	1288	780	560	440	370	316	248	224	123	53.5	---
10.5V	2736	1970	1262	768	556	438	368	314	246	222	121	53.2	22.2
10.8V	2592	1898	1222	748	538	424	358	304	238	220	121	53.2	22.0

# GEL Characteristics Curve

