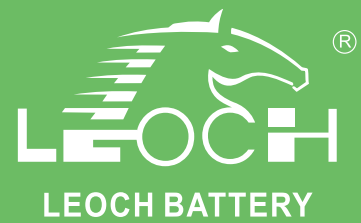




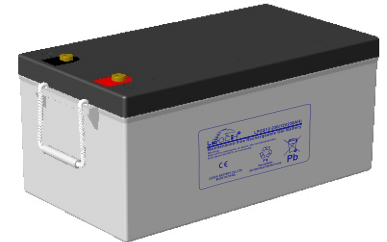
# LPGS Series-Gel Battery

## LPGS12-230(12V230Ah)

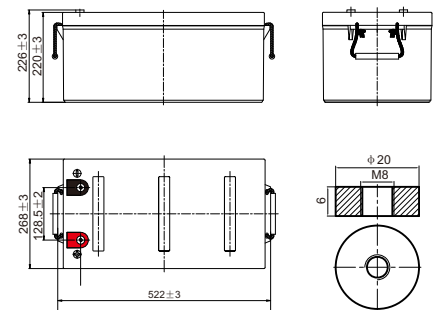


### Specifications

Rated Voltage	12V	
Nominal Capacity	230Ah (C <sub>20</sub> , 1.75V/cell)	
Dimension	Length	522±3mm (20.6 inches)
	Width	268±3mm (10.6 inches)
	Container Height	220±3mm (8.66 inches)
	Total Height	226±3mm (8.90 inches)
Approx Weight	73.6 Kg (162.3 lbs)	
Terminal	M8	
Container Material	ABS	
Rated Capacity (25°C)	247.0 Ah	(100hr, 2.47A, 1.80V/cell)
	244.1 Ah	(72hr, 3.39A, 1.80V/cell)
	230.0 Ah	(20hr, 11.5A, 1.75V/cell)
	209.0 Ah	(10hr, 20.9A, 1.80V/cell)
	138.2 Ah	(1hr, 138.2A, 1.75V/cell)
Max. Discharge Current	2090A (5s)	
Internal Resistance (25°C)	Approx 2.9mΩ	
Operating Temp. Range	Discharge : -20 ~ 55°C (-4 ~ 131°F)	
	Charge : 0 ~ 40°C (32 ~ 104°F)	
	Storage : -20 ~ 50°C (-4 ~ 122°F)	
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 52.3A. Voltage 14.1V~14.4V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Standby Use	
Effect of temp. to Capacity	Initial Charging Current less than 52.3A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
	40°C (104°F)	103%
	25°C (77°F)	100%
Self Discharge	0°C (32°F)	86%
	LPGS series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



### Layout



### Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h	48h	72h	100h
1.90V/cell	101.8	64.2	49.0	40.1	33.8	29.1	22.7	18.6	9.98	4.45	3.02	2.19
1.85V/cell	121.7	71.9	53.8	43.7	36.8	31.7	24.7	20.4	10.9	4.81	3.28	2.39
1.80V/cell	131.6	75.8	56.4	45.3	38.1	32.7	25.5	20.9	11.2	4.96	3.39	2.47
1.75V/cell	138.2	79.1	58.2	46.7	38.9	33.4	26.0	21.4	11.5	5.04	3.44	2.52

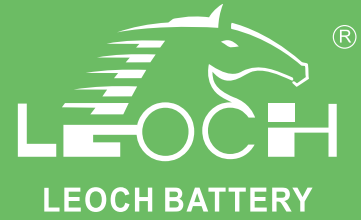
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h	48h	72h	100h
1.90V/cell	199.3	126.5	97.4	79.9	67.9	58.4	45.4	37.3	19.9	8.90	6.04	4.37
1.85V/cell	235.9	140.4	105.9	86.4	73.3	63.0	49.2	40.6	21.9	9.63	6.57	4.81
1.80V/cell	252.5	146.9	110.4	86.8	75.3	64.7	50.7	41.6	22.4	9.89	6.77	4.95
1.75V/cell	264.5	152.7	113.6	91.4	76.6	65.9	51.4	42.3	22.9	10.1	6.88	5.04



# LPGS Series-Gel Battery

## LPGS12-230(12V230Ah)



### Applications

- Solar energy (wind energy) household system /communication / communication base station;
- Movable energy storage system;
- Solar traffic lights;
- Solar, wind and solar power generation;
- Emergency lighting system.

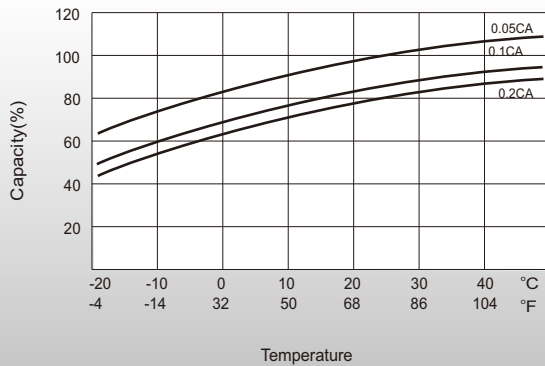
### General Features

- Adopted advantage AGM-GEL technology
- Operation temperature -20~55°C
- ≤3% Self discharge per month
- Fast recharge

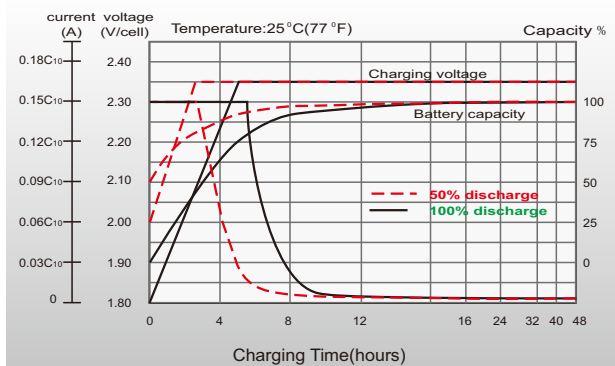
### Standards

- IEC 60896 Certified
- Classified as "Long Life" according to Eurobat
- Manufactured in Leoch® IATF16949, ISO 9001, ISO 14001 and ISO 45001 certified production facilities

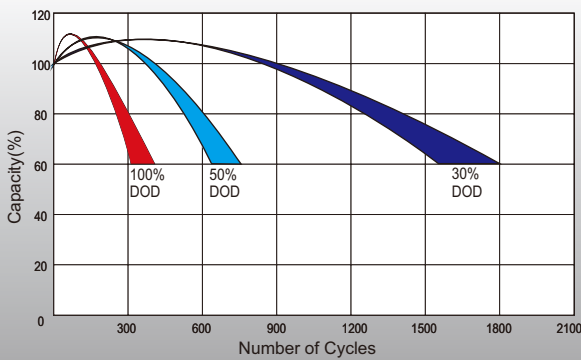
### Temperature Effects in Relation to Battery Capacity



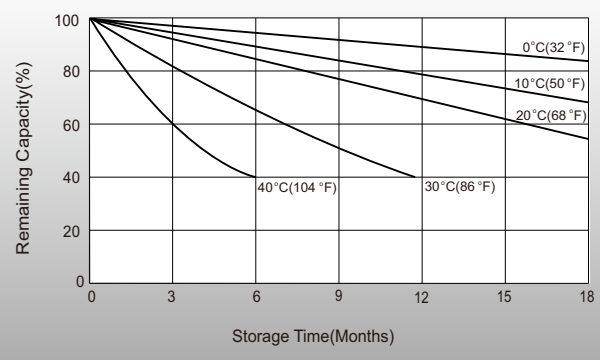
### Charging Characteristics



### Cycle Life in Relation to Depth of Discharge



### Self Discharge Characteristics



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