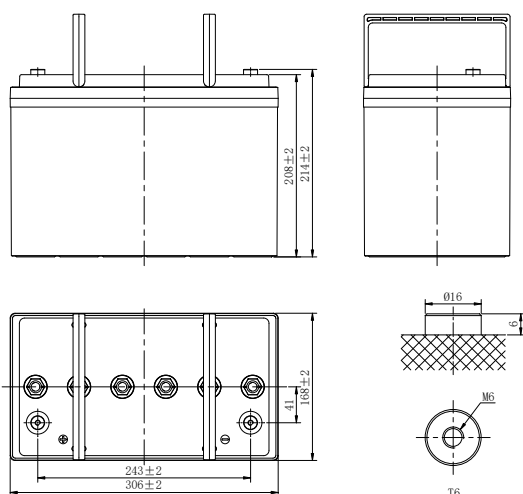


LPGS SERIES-HYBRID GEL BATTERY

LPGS12-90 (12V90Ah)



CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Capacity (25°C)	C ₁₀ , 1.80V/cell	90Ah
Dimension	Length	306mm (12.0inches)
	Width	168mm (6.61inches)
	Container Height	208mm (8.19inches)
	Total Height	214mm (8.43inches)
Approx Weight	27.0kg (59.5lbs)	
Terminal	T6(M6)	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	2070A	
Internal Resistance (25°C)	Approx 5.5 mΩ (Fully charged)	
Operating Temp. Range	Discharge	-20~55°C (-4~131°F)
	Charge	-20~40°C (-4~104°F)
	Storage	-20~50°C (-4~122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Max.Charging Current (25°C)	0.25C	
Charge voltage (25°C)	Standby Use	Cycle Use
	2.25-2.30V/cell	2.35-2.40V/cell
Temp. Coefficient	-3mV/cell/°C	-5mV/cell/°C
	40°C (104°F)	103%
Effect of temp. to Capacity	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	≤3% per month at 25°C (77°F). LPGS series batteries can be stored 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.	

DISCHARGE TABLE

Constant Current Discharge (Amperes) at 25°C (77°F)													
F.V/Time	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	97.0	81.2	64.1	48.7	40.3	25.7	19.9	16.4	13.9	12.2	9.90	8.35	4.50
1.80V/cell	115.5	94.5	73.8	55.3	44.8	27.8	21.4	17.5	14.9	13.0	10.5	9.00	4.64
1.75V/cell	128.8	103.8	78.7	58.4	47.4	29.2	22.1	18.0	15.3	13.3	10.7	9.09	4.68
1.70V/cell	139.1	110.3	83.0	61.4	49.5	30.6	23.0	18.5	15.8	13.7	10.8	9.18	4.77
1.67V/cell	146.4	116.1	86.9	63.2	51.3	31.4	23.8	19.1	16.1	14.0	11.0	9.27	4.82
1.60V/cell	158.0	124.7	92.3	66.9	53.7	32.6	24.6	19.5	16.4	14.2	11.2	9.36	4.86
Constant Power Discharge (Watts/cell) at 25°C (77°F)													
F.V/Time	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	182.4	154.1	122.9	94.1	78.1	49.9	38.9	32.1	27.4	23.9	19.5	16.6	8.95
1.80V/cell	214.5	177.0	139.7	105.9	86.4	53.9	41.6	34.0	29.3	25.6	20.8	17.8	9.18
1.75V/cell	236.0	192.3	147.6	111.1	91.0	56.3	42.9	35.0	29.9	26.2	21.1	18.0	9.27
1.70V/cell	250.9	202.7	154.6	116.0	94.5	59.0	44.3	36.0	30.6	26.6	21.3	18.1	9.45
1.67V/cell	261.6	211.2	160.4	118.5	97.3	60.2	45.8	36.9	31.2	27.2	21.6	18.3	9.54
1.60V/cell	277.5	224.4	169.0	124.5	101.4	62.1	47.2	37.6	31.7	27.7	21.9	18.5	9.63

LPGS SERIES-HYBRID GEL BATTERY

LPGS12-90 (12V90Ah)



APPLICATIONS

- Communication power supply
- Engine starting
- Pump systems
- Alarm installations
- Marine and power stations

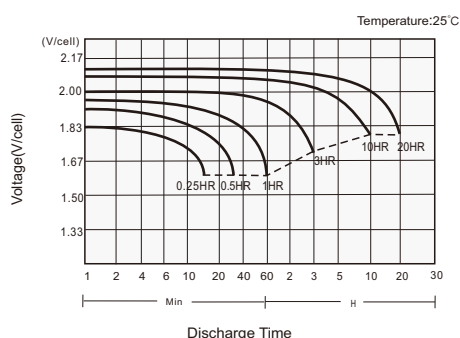
GENERAL FEATURES

- 12 years design life (25°C)
- Proven AGM-GEL technology
- Excellent deep discharge recovery and cyclability
- Very low maintenance: no water addition
- Low self-discharge rate

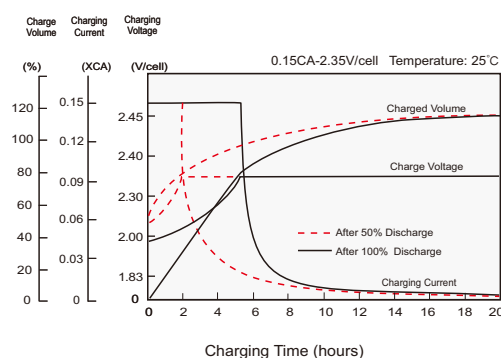
STANDARDS

- IEC60896 Certified
- Classified as "Long Life" according to Eurobat
- UL, CE Approved
- Manufactured in Leoch® IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

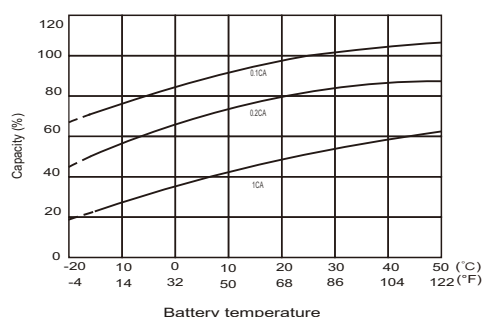
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

