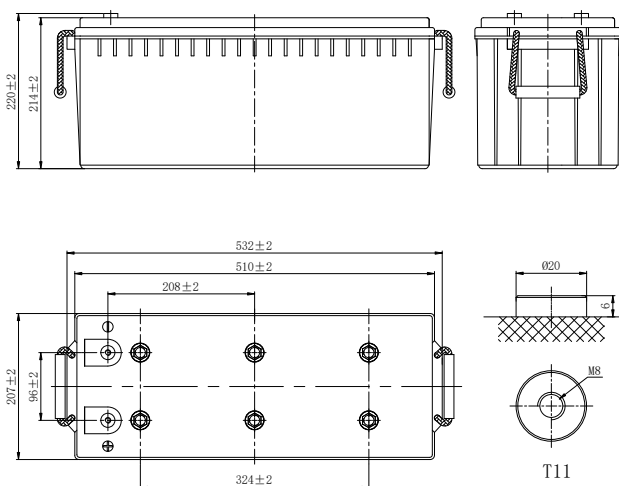


LPGS SERIES-HYBRID GEL BATTERY

LPGS12-180 (12V180Ah)



CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Capacity (25°C)	C ₁₀ , 1.80V/cell	180Ah
Dimension	Length	532mm (20.9inches)
	Width	207mm (8.15inches)
	Container Height	214mm (8.43inches)
	Total Height	220mm (8.66inches)
Approx Weight	54.0kg (119.0lbs)	
Terminal	T11(M8)	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	3600A	
Internal Resistance (25°C)	Approx 3.2 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	194.0	162.3	128.2	97.4	80.6	51.2	39.8	32.7	27.8	24.2	19.7	16.7	9.00
1.80V/cell	231.0	189.0	147.6	110.5	89.6	55.7	42.8	34.8	29.9	26.0	21.0	18.0	9.27
1.75V/cell	257.5	207.5	157.3	116.9	94.8	58.4	44.3	36.0	30.6	26.7	21.4	18.2	9.36
1.70V/cell	278.2	220.7	166.0	122.8	99.0	61.2	45.8	37.1	31.4	27.3	21.7	18.3	9.54
1.67V/cell	292.9	232.2	173.8	126.4	102.5	62.9	47.5	38.2	32.1	27.9	22.0	18.5	9.63
1.60V/cell	315.8	249.3	184.7	133.7	107.5	65.2	49.2	39.1	32.8	28.5	22.3	18.8	9.72
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	364.8	308.2	245.7	188.1	156.2	99.8	77.8	64.2	54.7	47.8	39.1	33.2	17.9
1.80V/cell	428.9	354.1	279.3	211.8	172.8	107.9	83.2	68.0	58.5	51.1	41.5	35.7	18.4
1.75V/cell	471.9	384.7	295.2	222.1	181.9	112.7	85.9	70.1	59.8	52.3	42.2	36.0	18.6
1.70V/cell	501.8	405.4	309.2	231.9	189.1	117.8	88.6	72.0	61.2	53.4	42.7	36.2	18.9
1.67V/cell	523.3	422.5	320.8	237.0	194.5	120.3	91.6	73.9	62.4	54.4	43.2	36.5	19.1
1.60V/cell	554.9	448.7	338.1	249.0	202.8	124.2	94.4	75.3	63.4	55.4	43.7	37.0	19.2

LPGS SERIES-HYBRID GEL BATTERY

LPGS12-180 (12V180Ah)



APPLICATIONS

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

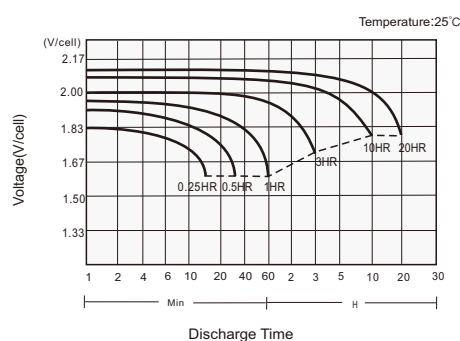
GENERAL FEATURES

- 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

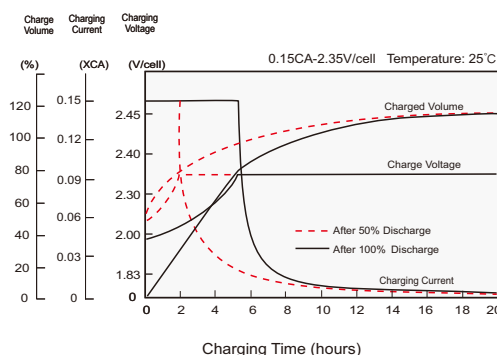
STANDARDS

- 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

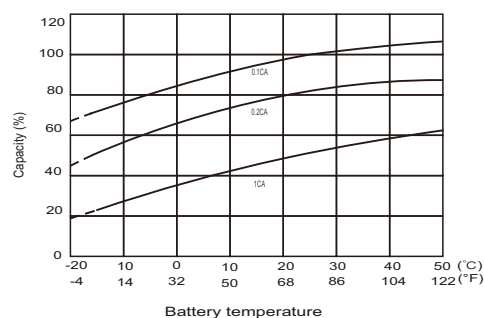
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

