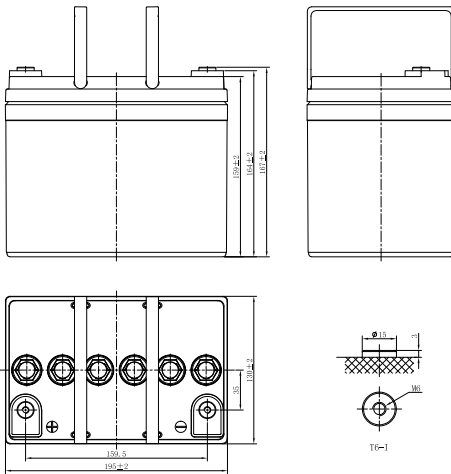


LPGS SERIES-HYBRID GEL BATTERY

LPGS12-33 (12V33Ah)



CHARACTERISTICS

Item	Specifications	
Rated Voltage	12V	
Nominal Capacity (25°C)	C ₂₀ : 1.80V/cell	33Ah
Dimension	Length	195mm (7.68inches)
	Width	130mm (5.12inches)
	Container Height	164mm (6.46inches)
	Total Height	167mm (6.57inches)
Approx Weight	10.5kg (23.1lbs)	
Terminal	T6-I(M6)	
Container Material	ABS (UL94 HB or V-0 optional)	
Short-circuit current	825A	
Internal Resistance (25°C)	Approx 12 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	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	≤3% per month at 25°C (77°F).	
	LPGS series batteries may 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	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	57.9	44.4	36.8	31.8	24.8	18.5	15.6	9.53	7.36	6.04	5.08	4.33	3.47	2.94	1.61
1.80V/cell	76.5	56.0	43.8	37.1	28.5	21.1	17.4	10.4	7.91	6.43	5.38	4.58	3.66	3.06	1.65
1.75V/cell	88.1	62.8	48.9	40.7	30.4	22.3	18.3	10.9	8.20	6.66	5.56	4.72	3.74	3.12	1.68
1.70V/cell	98.1	69.2	52.7	43.3	32.1	23.4	19.2	11.3	8.48	6.85	5.72	4.86	3.82	3.20	1.70
1.67V/cell	107.2	74.0	55.6	45.5	33.6	24.1	19.7	11.6	8.79	7.06	5.84	4.95	3.89	3.25	1.72
1.60V/cell	119.1	80.8	59.8	48.9	35.7	25.5	20.4	12.0	9.10	7.29	6.04	5.07	3.94	3.30	1.74
Constant Power Discharge (Watts/cell) at 25°C (77°F)															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	109.1	84.0	70.0	60.8	47.7	35.9	30.4	18.6	14.4	11.9	10.0	8.57	6.90	5.86	3.21
1.80V/cell	141.7	104.3	82.1	70.1	54.4	40.6	33.6	20.2	15.4	12.6	10.6	9.05	7.26	6.08	3.29
1.75V/cell	159.8	115.0	90.3	76.0	57.4	42.5	35.4	21.1	16.0	13.0	10.9	9.29	7.41	6.21	3.34
1.70V/cell	174.5	124.6	96.0	79.9	60.2	44.4	36.7	21.8	16.5	13.3	11.2	9.54	7.55	6.35	3.39
1.67V/cell	187.4	131.1	99.7	83.1	62.3	45.4	37.5	22.2	17.0	13.7	11.4	9.69	7.67	6.44	3.42
1.60V/cell	204.1	140.5	105.6	88.3	65.6	47.6	38.7	23.0	17.5	14.1	11.8	9.89	7.75	6.53	3.45

LPGS SERIES-HYBRID GEL BATTERY

LPGS12-33 (12V33Ah)



APPLICATIONS

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

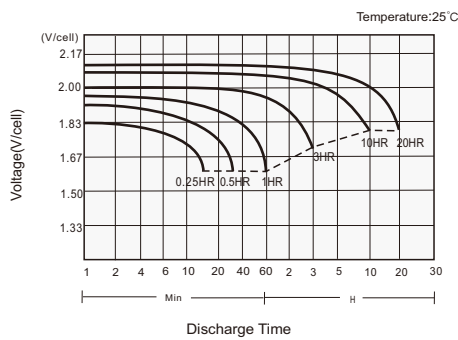
GENERAL FEATURES

- 5 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

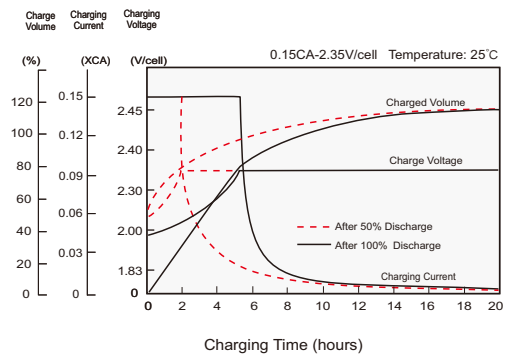
STANDARDS

- IEC60896 Certified
- Classified as "General Purpose" according to Eurobat
- UL, CE Approved
- Manufactured in Leoch@IATF16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

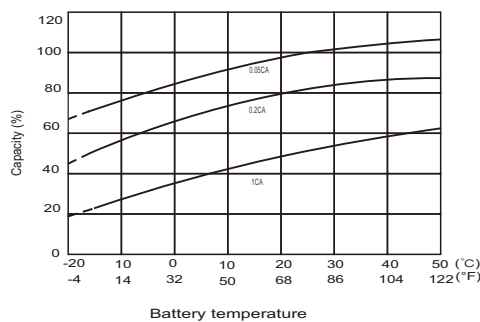
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

