

OPzV Series-Tubular Gel

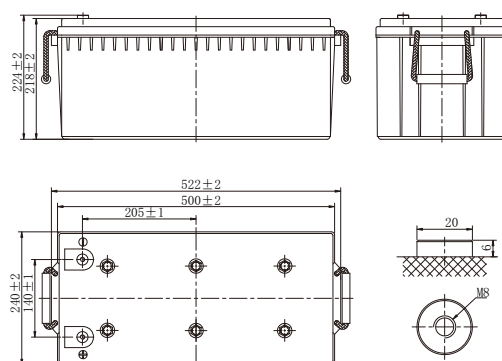
12V 90PzV180(12V180Ah)

Specifications

Rated Voltage	12V	
Nominal Capacity	180.0Ah	(C ₁₀₀ , 1.80V/cell)
Dimension	Length	522mm(20.5in.)
	Width	240mm(9.45in.)
	Container Height	218mm(8.58in.)
	Total Height	224mm(8.81in.)
Approx Weight	67.4Kg (148.59 lbs)	
Terminal	M8	
Container Material	ABS	
Rated Capacity (25°C)	180.0 Ah	(10hr, 18.0A, 1.80V/cell)
	158.0 Ah	(5hr, 31.6A, 1.75V/cell)
	136.2 Ah	(3hr, 45.4A, 1.75V/cell)
	106.7 Ah	(1hr, 106.7A, 1.67V/cell)
Max. Discharge Current(5s)	1440A	
Internal Resistance(25°C)	Approx. 5.2mΩ	
Operating Temp. Range	Discharge	-20°C~55°C (-4°F~131°F)
	Charge	0°C~40°C (32°F~104°F)
	Storage	-20°C~50°C (-4°F~122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Max. Charging Current(25°C)	45.0A	
Charge voltage(25°C)	Float	13.5V
	Temp. Coefficient	-3mV/cell/°C
	Cycle(Equalization)	14.1~14.4V
Effect of temp. to Capacity	40°C (104°F)	106%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	≤3% per month at 25°C	



Layout



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

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.85V/cell	173.8	153.2	114.5	83.7	53.1	40.5	29.0	20.3	17.2
1.80V/cell	208.9	177.0	128.5	91.8	57.4	43.4	30.4	21.2	18.0
1.75V/cell	239.6	197.8	138.2	97.7	60.3	45.4	31.6	21.8	18.4
1.70V/cell	261.6	214.7	148.0	103.3	62.5	47.2	32.4	22.1	18.5
1.67V/cell	286.1	230.4	154.8	106.7	64.6	48.8	33.1	22.5	18.9
1.60V/cell	305.4	243.7	160.6	109.7	66.8	49.9	33.8	22.9	19.3

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

F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.85V/cell	285.8	262.8	218.5	162.9	103.7	79.2	57.1	40.3	34.4
1.80V/cell	345.6	313.2	245.3	177.8	111.8	84.6	59.8	42.1	35.8
1.75V/cell	401.8	345.6	261.5	188.3	117.0	88.6	61.9	43.2	36.5
1.70V/cell	442.8	372.2	277.4	198.0	120.6	91.4	63.4	43.9	36.9
1.67V/cell	466.6	387.4	287.3	203.4	124.0	94.3	64.6	44.5	37.4
1.60V/cell	478.8	395.3	295.0	208.4	127.6	95.9	65.9	45.2	38.0

OPzV Series-Tubular Gel

12V 90PzV180(12V180Ah)

Applications

- Telecommunications
- Radio and cellular telephone relay stations
- Emergency lighting systems
- Power stations, Conventional power stations, alternative power (solar, wind)
- Large UPS and computer back-up
- Railway signaling
- Maritime standby power on ships and ashore
- Process and control engineering
- Standby power
- Buoy lighting

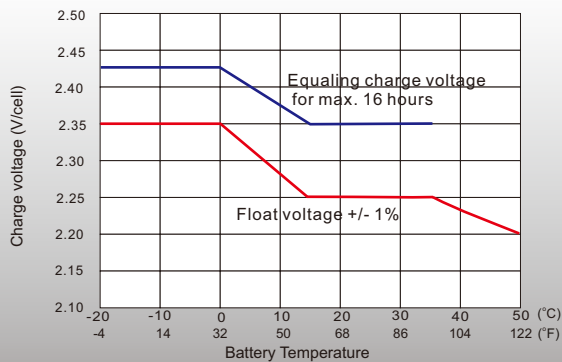
General Features

- 16 years design life (20°C)
- Better recovery performance
- Wide working temperature range (-20~55)°C
- No electrolyte stratification provides longer service life
- High recombination efficient
- Built in copper core based in lead will carry large current
- Separator imported from AMER-SIL high porosity. PVC-SiO₂ and low resistance
- Pasted negative plate special grid design increase the active material. availability large current discharge and charge ability
- Tubular type positive plate (polyester tube) prevent the active material from falling. Multi metal alloy pressed positive grid increase the anti corrosion ability and service life

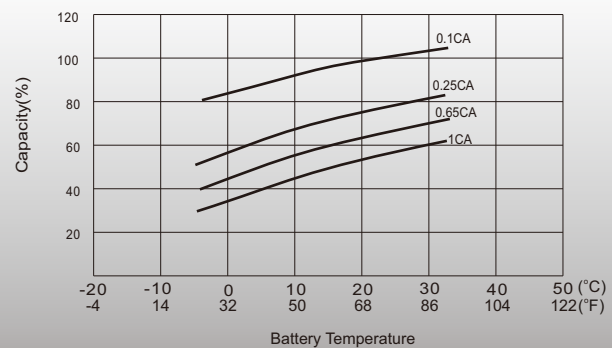
Standards

- Compliance with IEC 60896, IEC 61427, DIN 40742 standards
- UL, CE Certified
- Manufactured in Leoch® IATF16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

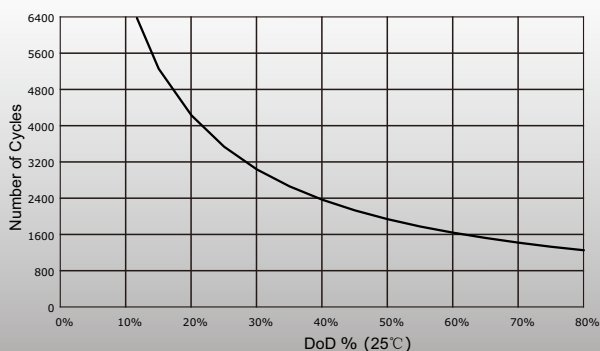
Charge voltage vs ambient temperature curve



Temperature effects in relation to battery capacity



Cycle Life in Relation to DOD



General Relation of Capacity VS. Storage Time

