

OPzV Series-Tubular Gel

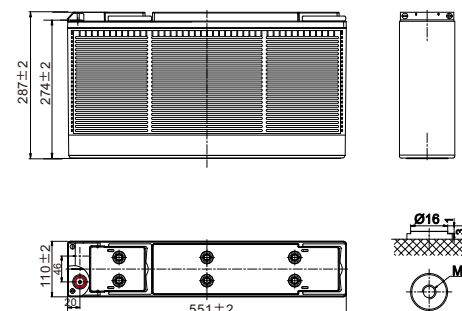
12V 3OPzV120FT(12V120Ah)

Specifications

Rated Voltage	12V	
Nominal Capacity	120Ah	(C ₁₀ , 1.80V/cell)
Dimension	Length	551mm(21.69 in.)
	Width	110mm(4.33 in.)
	Container Height	274mm(10.79 in.)
	Total Height	287mm(11.30 in.)
Approx Weight	42.3Kg (93.26 lbs)	
Terminal	M6	
Container Material	ABS	
Rated Capacity (25°C)	120.0 Ah	(10hr, 12.0A, 1.80V/cell)
	105.5 Ah	(5hr, 21.1A, 1.75V/cell)
	90.9 Ah	(3hr, 30.3A, 1.75V/cell)
	71.2 Ah	(1hr, 71.2A, 1.67V/cell)
Max. Discharge Current(5s)	1200A	
Internal Resistance(25°C)	Approx. 7.0mΩ	
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)	36.0A	
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	30 min	45 min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	76.3	65.8	55.8	35.4	27.0	22.3	19.3	13.5	11.5	6.15
1.80V/cell	85.7	71.8	61.2	38.3	28.9	23.7	20.3	14.2	12.0	6.42
1.75V/cell	92.2	77.4	65.2	40.2	30.3	24.8	21.1	14.6	12.2	6.55
1.70V/cell	98.6	81.1	68.9	41.6	31.4	25.6	21.6	14.8	12.4	6.63
1.67V/cell	103.2	84.5	71.2	43.1	32.5	26.3	22.1	15.0	12.6	6.71
1.60V/cell	107.0	86.9	73.3	44.5	33.2	26.9	22.6	15.3	12.8	6.78

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

F.V/Time	30 min	45 min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	147.0	128.0	109.0	69.2	52.8	43.9	38.1	26.9	22.9	12.3
1.80V/cell	164.0	138.0	119.0	74.5	56.4	46.4	39.9	28.1	23.9	12.8
1.75V/cell	174.0	148.0	126.0	77.9	59.0	48.4	41.3	28.8	24.3	13.0
1.70V/cell	185.0	154.0	132.0	80.4	61.0	49.9	42.3	29.3	24.6	13.2
1.67V/cell	192.0	159.0	136.0	82.7	62.9	51.0	43.1	29.6	25.0	13.3
1.60V/cell	197.0	163.0	139.0	85.1	64.0	52.0	43.9	30.1	25.3	13.5

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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

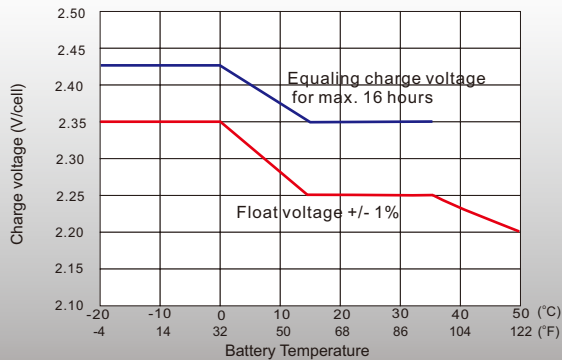
General Features

- 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

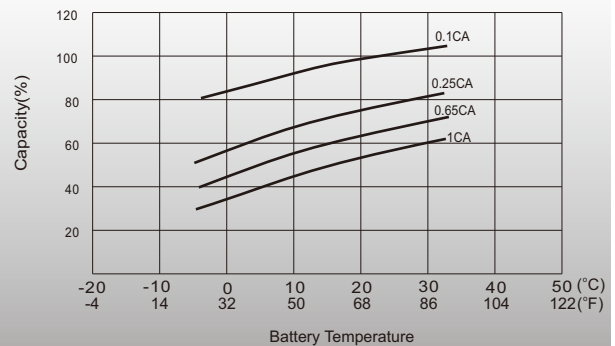
Standards

- 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

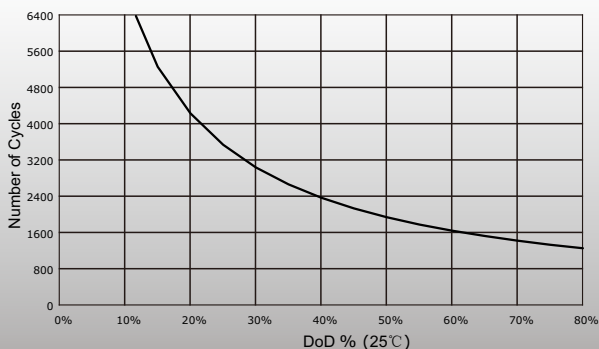
Charge voltage vs ambient temperature curve



Temperature effects in relation to battery capacity



Cycle Life in Relation to DOD



General Relation of Capacity VS. Storage Time

