



OPzV Series-Tubular Gel

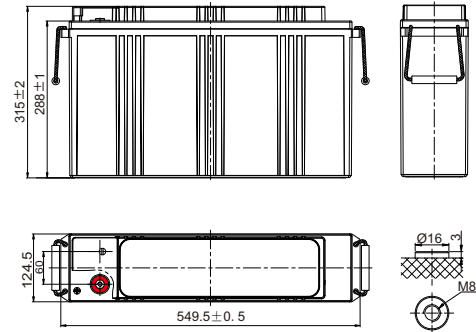
12V 4OPzV150FT(12V150Ah)

Specifications

Rated Voltage	12V	
Nominal Capacity	150Ah	(C ₁₀ , 1.80V/cell)
Dimension	Length	549.5mm(21.63 in.)
	Width	124.5mm(4.90 in.)
	Container Height	288mm(11.34 in.)
	Total Height	315mm(12.40 in.)
Approx Weight	51.7Kg (113.98 lbs)	
Terminal	M8	
Container Material	ABS	
Rated Capacity (25°C)	150.0 Ah	(10hr,15.0A,1.80V/cell)
	131.5 Ah	(5hr,26.3A,1.75V/cell)
	113.7 Ah	(3hr,37.9A,1.75V/cell)
	89.0 Ah	(1hr,89.0A,1.67V/cell)
Max. Discharge Current (5s)	1500A	
Internal Resistance(25°C)	Approx.7.5mΩ	
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	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	95.4	82.2	69.7	44.2	33.7	27.9	24.1	16.9	14.4	7.68
1.80V/cell	107.1	89.8	76.5	47.9	36.1	29.6	25.3	17.7	15.0	8.03
1.75V/cell	115.2	96.8	81.5	50.3	37.9	31.0	26.3	18.2	15.3	8.18
1.70V/cell	123.3	101.4	86.1	52.1	39.3	32.0	27.0	18.5	15.5	8.29
1.67V/cell	129.0	105.6	89.0	53.9	40.7	32.8	27.6	18.8	15.7	8.39
1.60V/cell	133.8	108.6	91.7	55.7	41.6	33.6	28.2	19.1	16.0	8.48

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

F.V/Time	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	183.6	159.4	135.8	86.5	66.1	54.9	47.6	33.6	28.6	15.3
1.80V/cell	204.5	172.8	148.2	93.1	70.5	58.0	49.8	35.2	29.9	16.0
1.75V/cell	217.9	185.0	157.0	97.4	73.7	60.5	51.6	36.0	30.4	16.3
1.70V/cell	231.2	192.4	165.0	100.5	76.2	62.4	52.8	36.6	30.8	16.5
1.67V/cell	239.4	199.0	169.4	103.4	78.6	63.7	53.9	37.1	31.2	16.7
1.60V/cell	245.9	203.1	173.7	106.3	80.0	65.0	54.8	37.6	31.6	16.8



OPzV Series-Tubular Gel 12V 4OPzV150FT(12V150Ah)

Applications

- Telecommunications
- Radio and cellular telephone relay stations
- Emergency lighting systems
- Power stations, Conventional power stations, alternative pwer(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

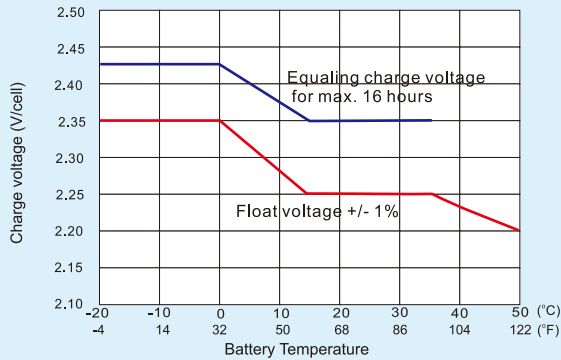
General Features

- 20 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
- Build in copper core based in lead will carry large current
- Separator imported form 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
- Tubuler type positive plate (polyester tube) prevent the active material from falling. Muti metal alloy pressed positive grid increase the anti corrosion ability and service life

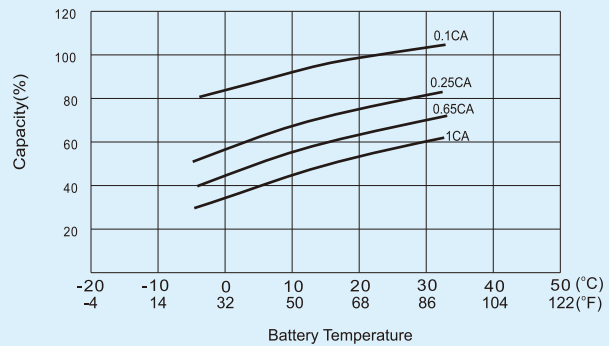
Standards

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

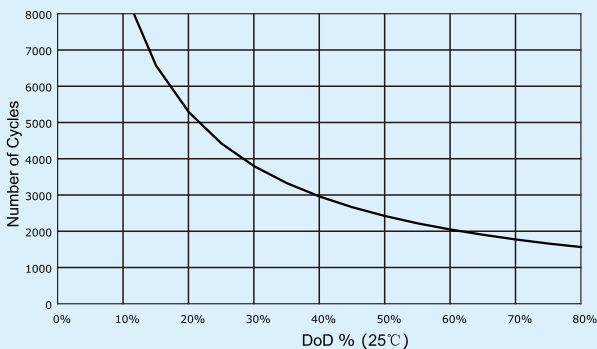
Charge voltage vs ambient temperature curve



Temperature effects in relation to battery capacity



Cycle Life in Relation to DOD



General Relation of Capacity VS. Storage Time

