STARMAX

OPzV TUBULAR GEL BATTERIES

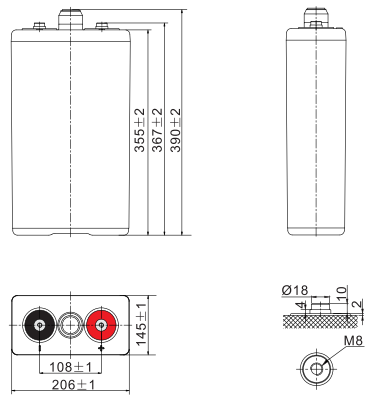
OPzV300-2

UPS

www.starmaxbatteries.com

OPzV300-2 (2V 300Ah)

LAYOUT



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-SiO_2 and low resistance
- Pasted negative plate special grid design increase the active material. Availablity 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 ablity and service life

Applications

- Green energy systems (solar, wind, hydro, etc)
- Telecommunications installations
- Solar power stations
- Alarm installations
- Railway crossing
- Street lightening
- Pump systems
- Signal station
- Street signs
- Traffic lights
- Lawn lamp

Standards

- ACC. to IEC 60896, IEC 61427, DIN 40742 standards
- UL, CE Certified
- Manufactured by Starmax, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

SPECIFICATIONS

Rated Voltage	2V	
Nominal Capacity	300Ah	C_{10} ,1.80V/cell
Dimensions	Length	145mm(5.71 in.)
	Width	206mm(8.11 in.)
	Container height	355mm(13.97 in.)
	Total height	390mm(15.35 in.)
Approx. weight	26.4 Kg (5 . bs)	
Terminal	M8	
Container material	ABS	
Rated capacity (25°C)	390.0 Ah	(100hr,3.90A,1.80V/cell)
	300.0 Ah	(10hr,30.0A,1.80V/cell)
	263.0Ah	(5hr,52.6A,1.75V/cell)
	233.7Ah	(3hr,77.9A,1.75V/cell)
	168.0 Ah	(1hr,168.0A,1.65V/cell)
Max. discharge current	2400A	
Internal resistance (25°C)	Approx.1.00mΩ	
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℃ (77±5°F)	
Cycle Use	75.0A	
Effect of temp. to Capacity	Float	2.25V
	Temp. Coefficient	-3mV/cell/°C
	Cycle(Equalization)	2.35~2.40V
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	

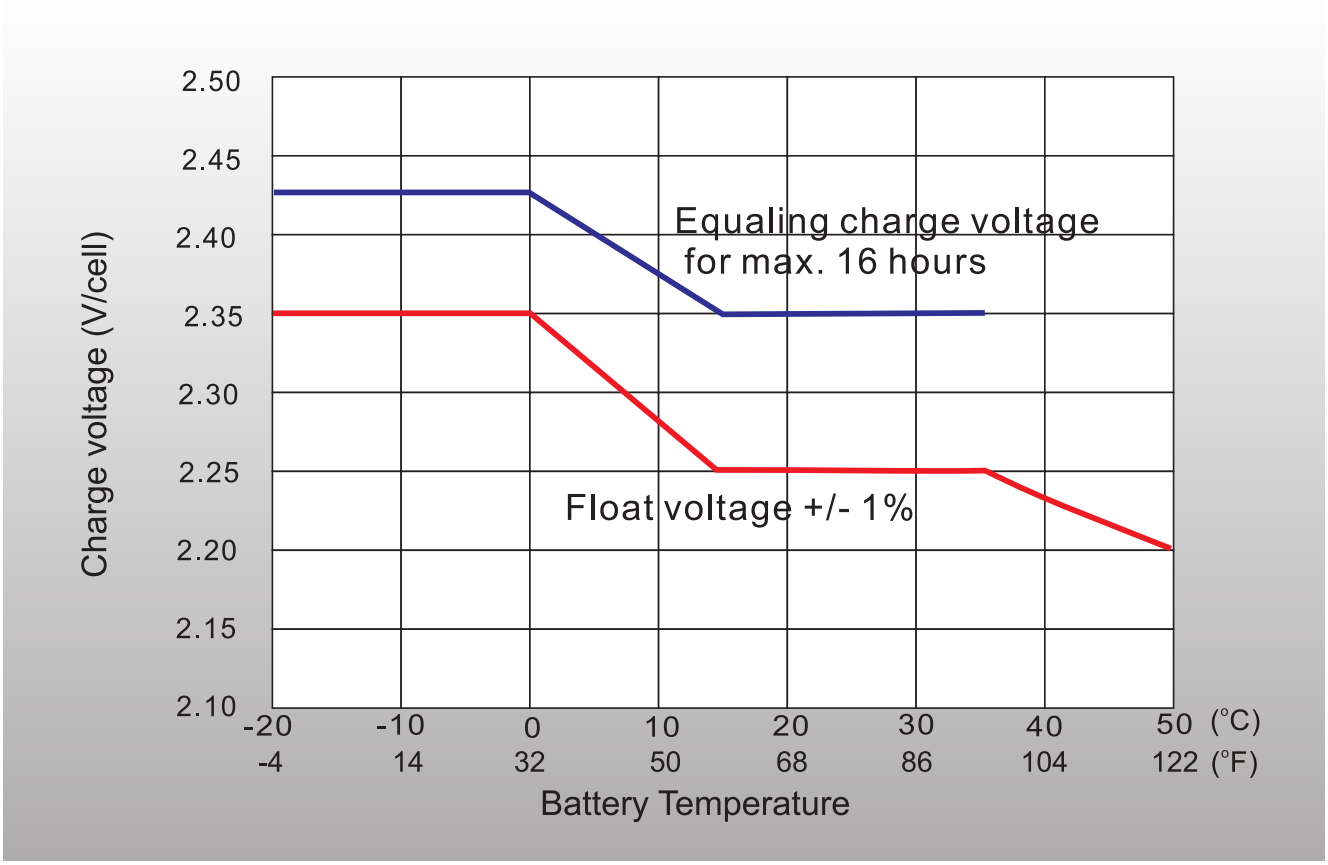
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	1h	2h	3h	5h	8h	10h	24h	48h	72h	100h	120h
1.85V/cell	134.1	90.7	69.6	47.6	33.4	28.1	13.4	6.98	5.02	3.80	3.28
1.80V/cell	150.3	99.3	75.7	51.3	35.7	30.0	13.8	7.25	5.21	3.90	3.38
1.75V/cell	156.3	102.8	77.4	52.3	36.3	30.5	13.9	7.41	5.34	3.98	3.43
1.70V/cell	163.1	105.3	79.0	53.1	36.8	30.9	14.1	7.56	5.39	4.04	3.47
1.67V/cell	167.4	107.1	80.4	54.0	37.3	31.1	14.3	7.64	5.44	4.10	3.52
1.60V/cell	169.9	108.8	81.4	54.5	37.5	31.4	14.4	7.72	5.48	4.15	3.56

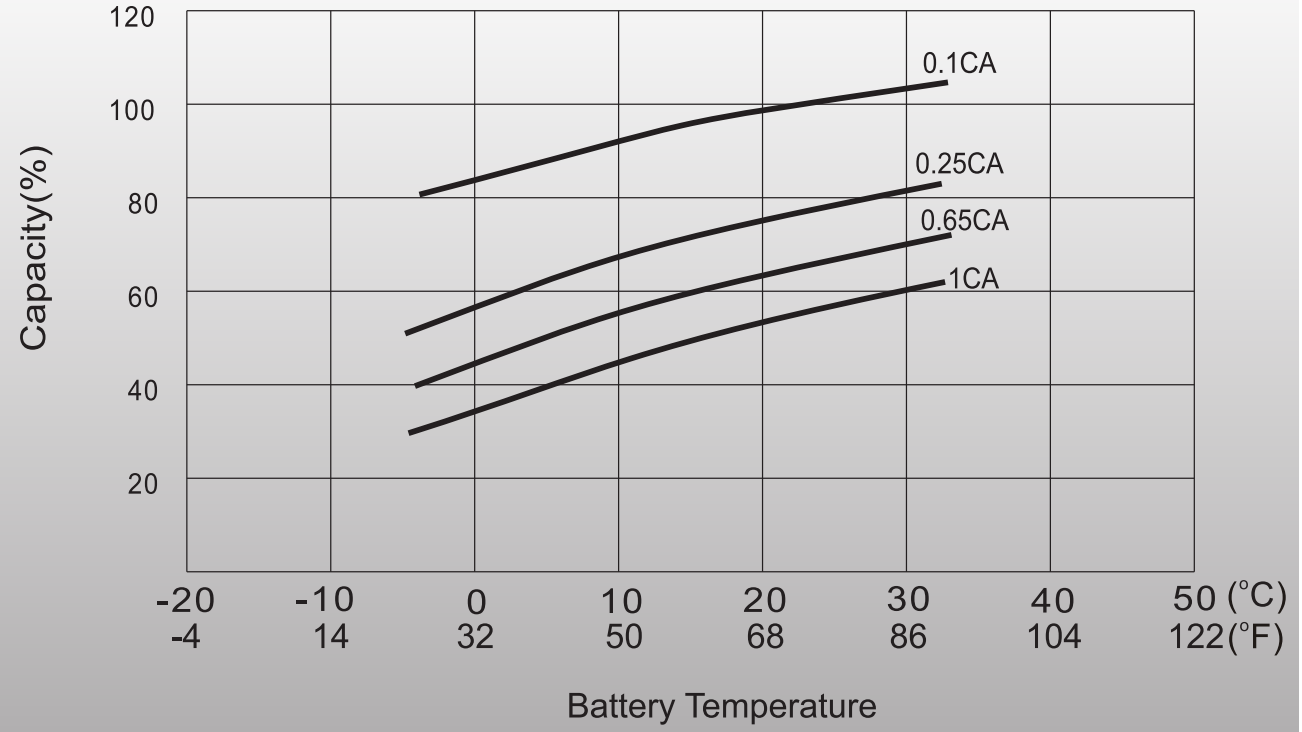
Constant Power Discharge (Watts/Cell) at 25°C (77°F)

F.V/Time	1h	2h	3h	5h	8h	10h	24h	48h	72h	100h	120h
1.85V/cell	258.8	176.1	135.8	93.5	66.1	55.9	26.7	14.0	10.1	7.65	6.61
1.80V/cell	289.5	192.6	146.9	100.4	70.7	59.6	27.6	14.5	10.4	7.83	6.79
1.75V/cell	298.9	196.9	149.5	102.1	71.7	60.4	27.7	14.8	10.7	7.98	6.88
1.70V/cell	309.1	201.2	152.1	103.8	72.5	61.0	28.1	15.1	10.8	8.09	6.97
1.67V/cell	315.1	204.6	154.7	104.7	73.2	61.5	28.4	15.2	10.9	8.22	7.05
1.60V/cell	318.5	206.4	155.5	105.5	73.6	61.9	28.6	15.4	10.9	8.29	7.12

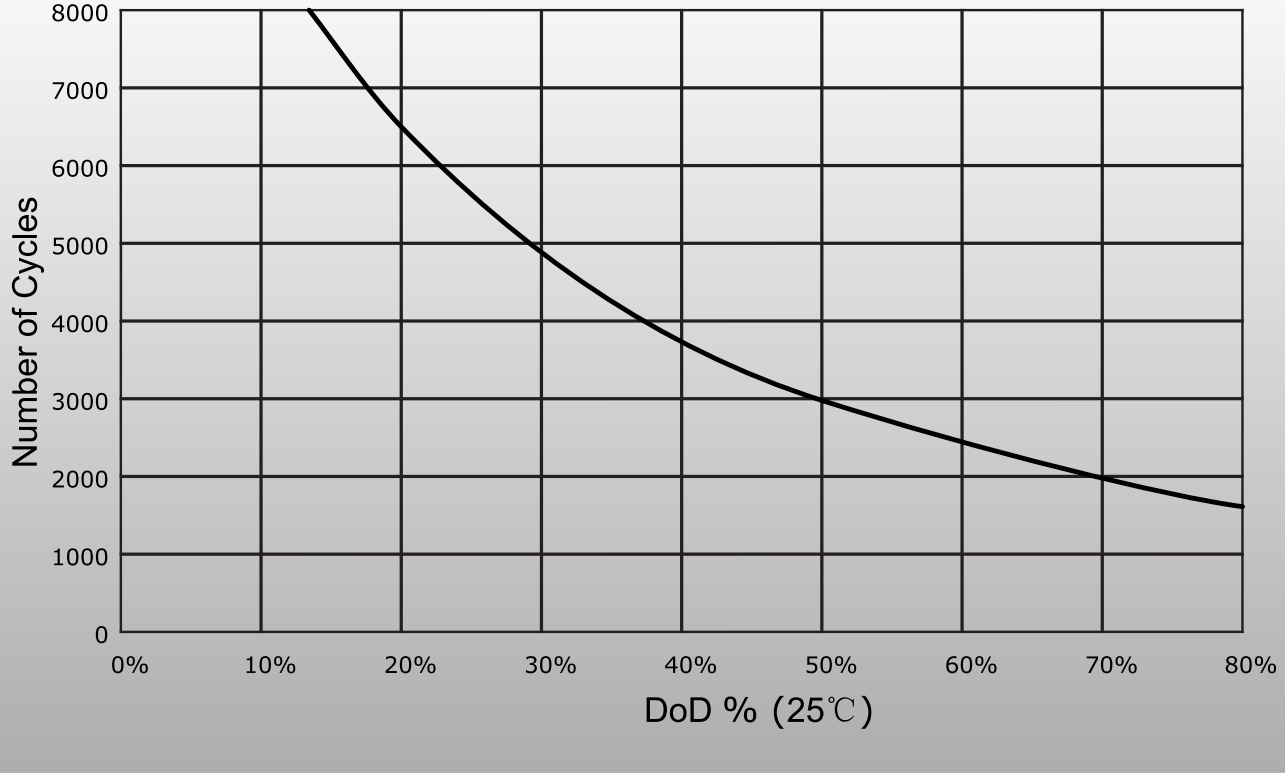
Charge voltage vs Ambient Temp. Curve



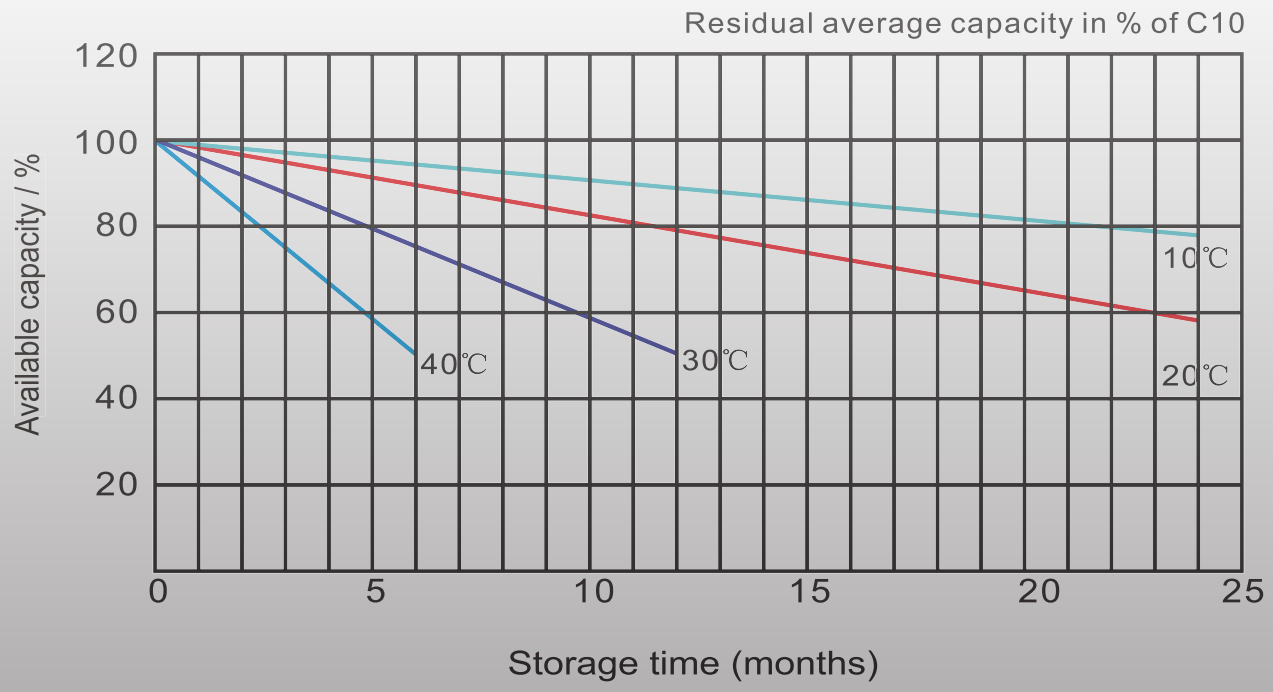
Temperature Effects in relation to Battery Capacity

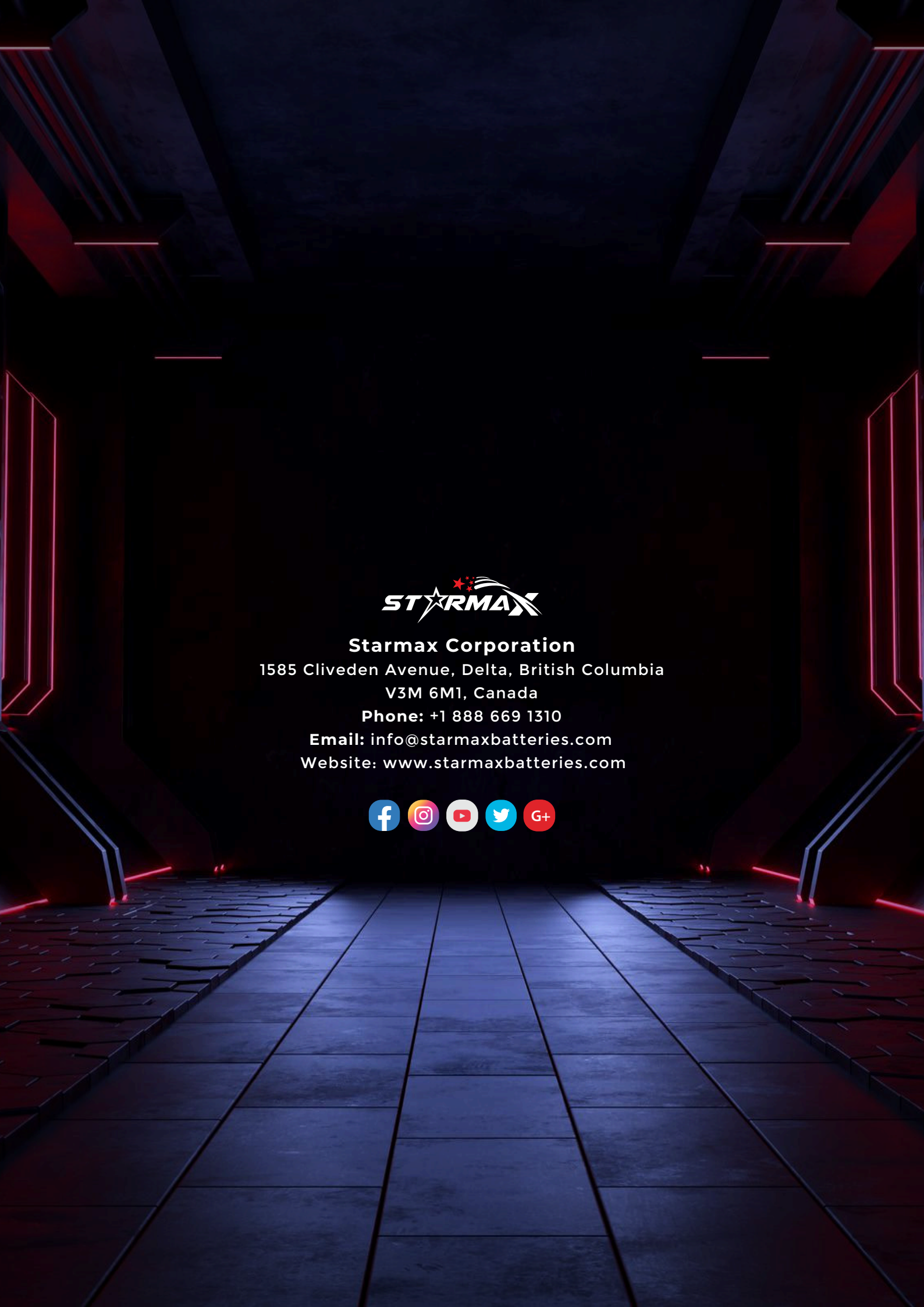


Cycle Life in Relation to DOD



General Relation of Capacity vs Storage Time





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