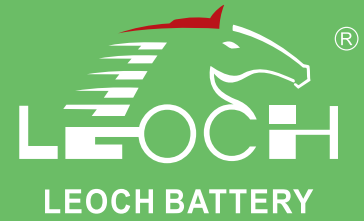


IEEE/UL Battery
Sizing by
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OPzS Series-Flooded Battery 6 OPzS420(2V420Ah)

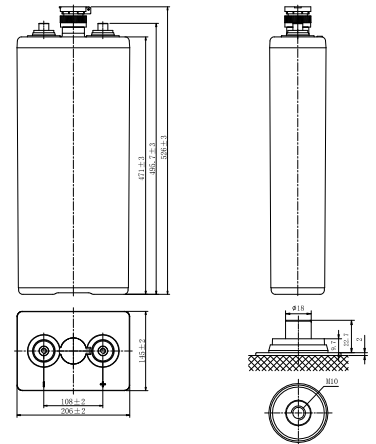


Specifications

Rated Voltage	2V	
Nominal Capacity	C ₁₀ , 1.80V/cell	420.0Ah
Dimension	Length	145±2mm (5.71 inches)
	Width	206±2mm (8.11 inches)
	Container Height	471±3mm (18.54 inches)
	Total Height	526±3mm (20.71 inches)
Approx Weight	Without Electrolyte	24.5kg (54.0lbs)
	With Electrolyte	32.7 kg (72.1lbs)
Terminal	M10	
Container Material	SAN transparent container	
Rated Capacity	420.0 Ah	(10hr,42.0A,1.80V/cell)
	373.0 Ah	(5hr,74.6A,1.75V/cell)
	323.7 Ah	(3hr,107.9A,1.75V/cell)
	239.8 Ah	(1hr,239.8A,1.60V/cell)
Max. Discharge Current	3360A (5s)	
Internal Resistance (20°C)	Approx 0.88mΩ	
Operating Temp.Range	Discharge	-15 ~ 55°C (5 ~ 131°F)
	Charge	0 ~ 45°C (32 ~ 113°F)
	Storage	-15 ~ 45°C (5 ~ 113°F)
Nominal Operating Temp. Range	25±5°C (77±9°F)	
Cycle Use	Initial Charging Current less than 0.15CA. Voltage	
	2.40V~2.45V at 20°C(68°F)Temp. Coefficient -5mV/°C	
Standby Use	Initial Charging Current less than 0.15CA. Voltage	
	2.23V~2.25V at 20°C(68°F)Temp. Coefficient -3mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	20°C (68°F)	100%
	0°C (32°F)	86%
Self Discharge	≤4% per month at 20°C	



Layout



Constant Current Discharge (Amperes) at 20 °C (68°F)

F. V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h	24h	72h	100h	120h
1.85V/cell	166.7	121.8	93.8	77.7	67.0	58.9	48.0	40.2	22.1	18.5	6.65	4.99	4.27
1.80V/cell	194.9	134.2	102.5	83.9	71.5	62.5	50.5	42.0	23.0	19.3	6.92	5.19	4.45
1.75V/cell	211.7	142.8	107.9	87.7	74.6	64.9	51.9	42.9	23.4	19.6	7.04	5.28	4.52
1.70V/cell	223.0	149.1	111.4	90.4	76.6	66.5	52.8	43.7	23.8	/	/	/	/
1.65V/cell	231.8	152.7	114.8	92.5	78.3	67.8	53.7	44.4	24.1	/	/	/	/
1.60V/cell	239.8	156.2	116.8	93.9	79.4	68.7	54.4	44.9	24.4	/	/	/	/

Constant Power Discharge (Watts/cell) at 20 °C (68°F)

F. V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h	24h	72h	100h	120h
1.85V/cell	312.0	229.7	177.8	147.8	128.1	113.1	92.5	77.9	43.0	36.0	12.8	9.59	8.20
1.80V/cell	359.4	250.3	192.2	158.1	135.5	119.1	96.6	80.8	44.3	37.1	13.2	9.88	8.44
1.75V/cell	385.4	264.0	200.9	164.2	140.7	122.9	98.8	82.1	44.9	37.6	13.4	10.01	8.56
1.70V/cell	402.3	273.7	206.1	168.4	143.8	125.5	100.1	83.1	45.5	/	/	/	/
1.65V/cell	415.0	279.0	211.3	171.8	146.4	127.5	101.5	84.2	46.0	/	/	/	/
1.60V/cell	425.8	284.1	213.8	173.4	147.7	128.7	102.2	84.8	46.2	/	/	/	/

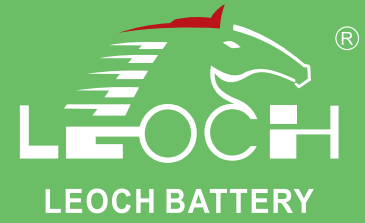


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OPzS Series-Flooded Battery

6 OPzS420(2V420Ah)



Applications

- Telecommunications
- Buoy lighting
- Standby power
- Railway signalling
- Emergency lighting systems
- Alternative power (solar, wind)
- Maritime standby power on ships and ashore

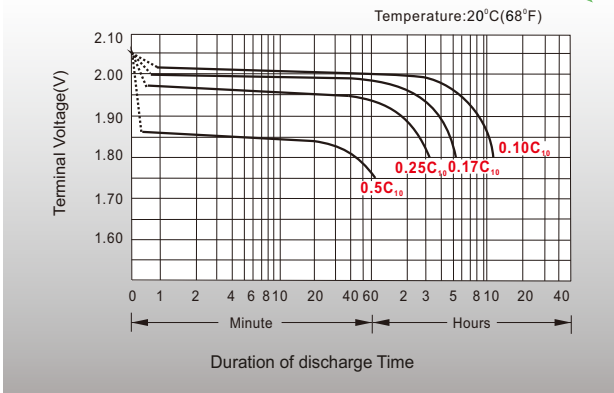
General Features

- 20 years design life(20°C)
- Lower self discharge
- Higher thermal capacity, no thermal runaway will occur
- Superior deep cycle performance
- Wide operation temperature range

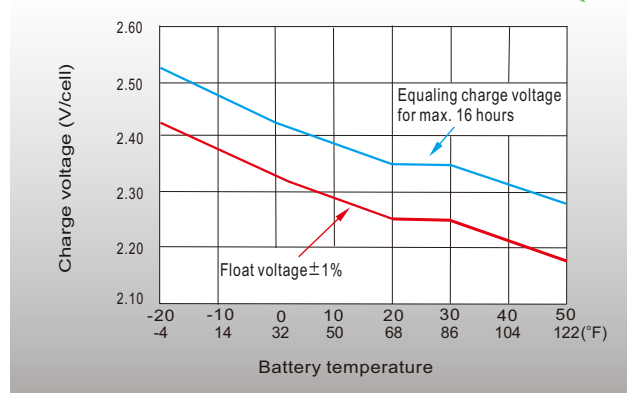
Standards

- Acc. to IEC60896, DIN 40736 standards
- Manufactured in Leoch@IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

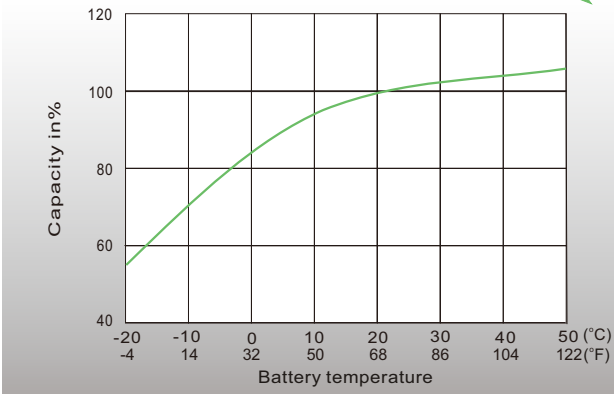
Discharge Characteristics



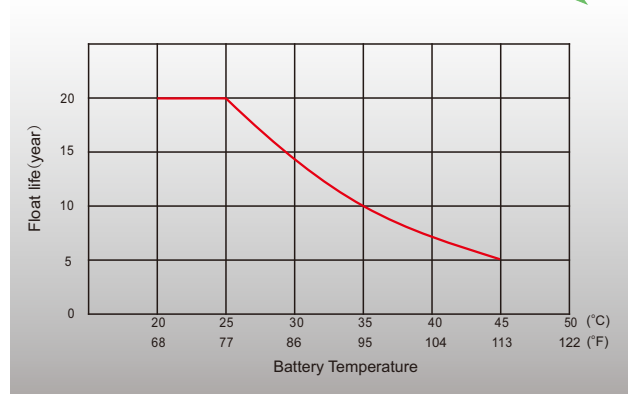
Charge voltage Vs ambient temperature curve



Discharge capacity Vs Ambient temperature curve (10A)



Effect of Temperature on Long Term Float Life



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