

CZS490-2

2V 600AH

Tubular Flooded OPzS



CZS490-2

Physical Specification

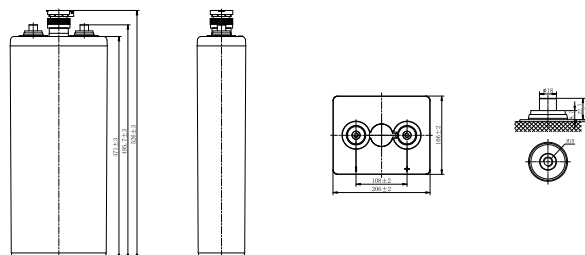
Part Number:	CZS490-2
Length:	166 ± 2 mm (6.53 inches)
Width:	206 ± 2 mm (8.11 inches)
Container Height:	471 ± 2 mm (18.54inches)
Total Height (With Terminal):	526 ± 2 mm (20.71 inches)
Approx Weight (Without Electrolyte):	28.2kg (62.0lbs)
Approx Weight (With Electrolyte):	38.0 kg (83.8lbs)

Specifications

Voltage	Rated Voltage: 2V	
	Floating Voltage: 2.23V~2.25V	Boost Charge Voltage: 2.30V~2.40V
Terminal Type	M10	
Electrolyte Type	Flooded	
Container Material	Standard Option	SAN transparent container
Rated Capacity	(10hr,49.0A,1.80V/cell)	490.0 Ah
	(5hr,87.0A,1.75V/cell)	435.0 Ah
	(3hr,125.9A,1.75V/cell)	377.7 Ah
	(1hr,279.8A,1.60V/cell)	279.8 Ah
Max.Charging Current (25°C)	0.1CA	
Max Discharge Current	3920A (5s)	
Internal Resistance	Approx 0.50mΩ	
Discharge Characteristics	Operating Temp. Range	Discharge: -15°C~55°C (5°F~131°F)
		Charge: -0°C~45°C (32°F~113°F)
		Storage: -15°C~45°C (5°F~113°F)
	Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
	Cycle Use	Initial Charging Current less than 0.1CA.Voltage
		2.35V~2.40V at 20°C(68°F)Temp. Coefficient -3mV/°C
	Standby Use	Initial Charging Current less than 0.1CA. Voltage
2.25V~2.30V at 20°C(68°F)Temp. Coefficient -2mV/°C		
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Design Floating Life at 25°C	20 Years	
Self Discharge	Canbat Tubular Flooded OPzS Batteries may be stored for 6 months at 25°C (77°F) and then a refresh charge is required. For higher temperatures the time interval will be shorter. Self-discharge ≤ 3% per month.	

Dimensions

M10 Terminal



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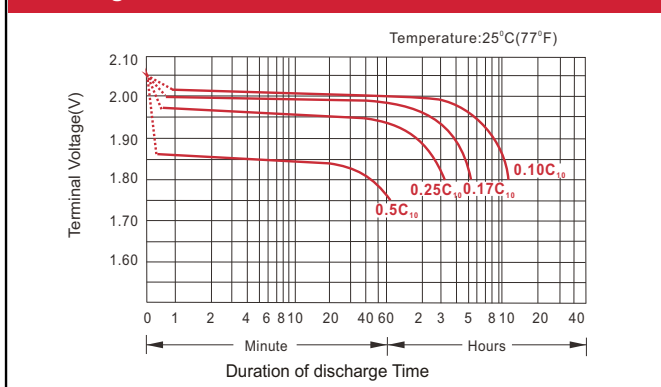
Constant Current Discharge (Amperes) at 20 °C (68°F)

F.V/Time	30 min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	371.4	322.7	279.8	220.5	182.3	136.2	109.5	92.6	80.2	63.4	52.4	28.4
1.65V/cell	348.9	310.3	270.5	214.9	178.1	133.9	107.9	91.4	79.1	62.7	51.8	28.2
1.70V/cell	331.2	292.7	260.2	208.1	174.0	130.0	105.5	89.4	77.6	61.6	50.9	27.8
1.75V/cell	310.7	279.0	247.0	198.3	166.6	125.9	102.3	87.0	75.7	60.5	50.1	27.3
1.80V/cell	276.4	251.5	227.4	185.9	156.6	119.6	97.9	83.4	72.9	58.9	49.0	26.8
1.85V/cell	220.5	208.4	194.5	165.3	142.1	109.4	90.6	78.2	68.7	56.0	46.9	25.8

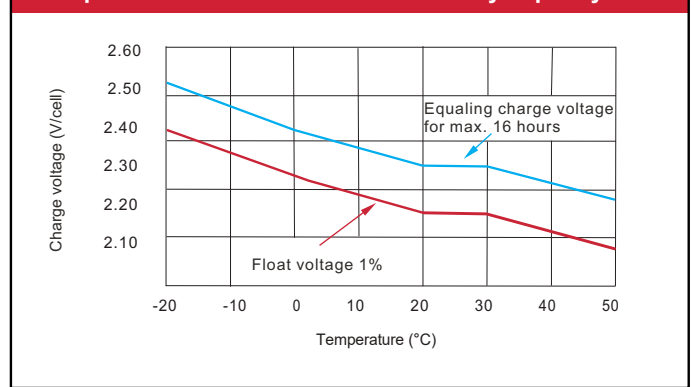
Constant Power Discharge (Watts/cell) at 20 °C (68°F)

F.V/Time	30 min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	634.0	564.8	496.8	396.4	331.5	249.5	202.3	172.3	150.1	119.3	98.9	53.9
1.65V/cell	608.5	549.5	484.2	388.4	325.5	246.5	200.4	170.9	148.8	118.4	98.3	53.6
1.70V/cell	585.6	523.7	469.3	378.4	319.3	240.5	196.5	167.8	146.5	116.8	97.0	53.1
1.75V/cell	558.5	504.5	449.7	363.2	308.0	234.4	191.5	164.1	143.4	115.3	95.8	52.4
1.80V/cell	503.6	461.8	419.3	344.4	292.0	224.2	184.5	158.1	139.0	112.7	94.2	51.7
1.85V/cell	408.6	388.2	364.0	310.5	268.0	207.4	172.4	149.5	131.9	108.0	90.9	50.1

Discharge Characteristics



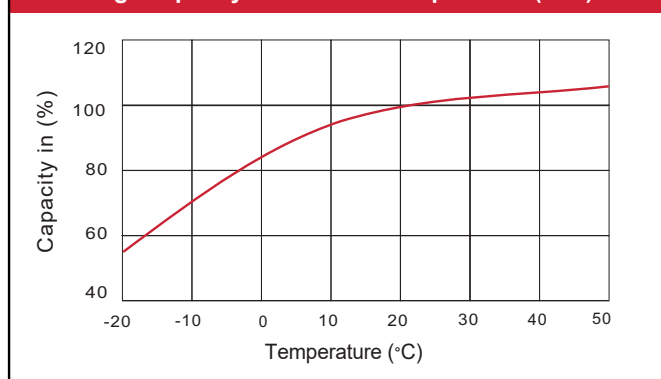
Temperature effects in relation to battery capacity



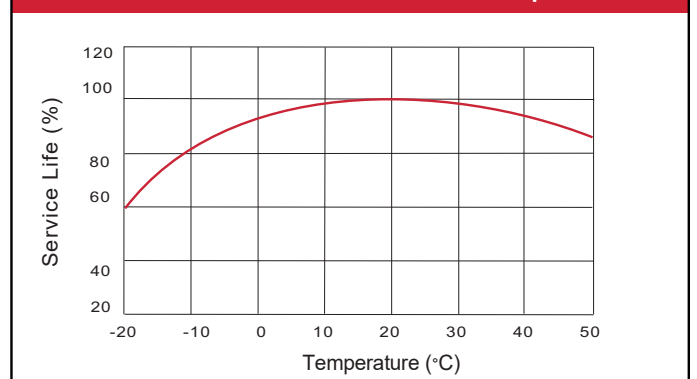
OPzS Tubular Flooded Batteries

OPzS batteries are a type of sealed lead-acid cells, commonly referred to as SLA or VRLA. OPzS cells are designed with tubular flooded technology for cost-effective energy solutions with over 3500 cycles at a 50% DOD. Canbat developed its range of OPzS batteries with a robust construction for applications demanding regular deep discharges. The batteries are characterized by long service life, outstanding capacity performance and low maintenance requirements, with reduced topping up needs. They are excellent for installations in high temperature environments or in areas with an unstable power source. Proven high reliability energy storage for critical applications including industrial projects in telecommunications, computing, power generation and distribution, railway, airport and seaport signalling, emergency lighting, automation and measuring systems.

Discharge capacity Vs Ambient temperature (10A)



Relation between service life & ambient temperature



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