

# CZV180-12

12V 180AH

Tubular Gel OPzV



## CZV180-12



## Physical Specification

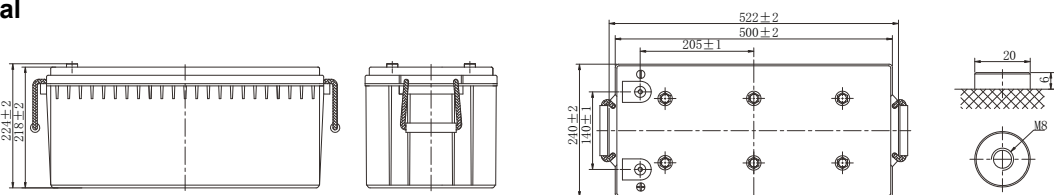
Part Number:	<b>CZV180-12</b>
Length:	<b>522 ± 2 mm (20.55 inches)</b>
Width:	<b>240 ± 2 mm (9.45 inches)</b>
Container Height:	<b>218 ± 2 mm (8.58 inches)</b>
Total Height (with terminal):	<b>224 ± 2 mm (8.81 inches)</b>
Approx Weight:	<b>67.4 kg (148.59 lbs)</b>

## Specifications

	Nominal Voltage	12V	
	(C10, 1.80V/cell)	180AH	
<b>Terminal Option</b>	M8		
<b>Container Material</b>	Standard Option	ABS	
	Flame Retardant Option (FR)	ABS (UL94:VO)	
<b>Rated Capacity</b>	(10hr, 18.0A, 1.80V/cell)	180.0 Ah	
	(5hr, 31.6A, 1.75V/cell)	158.0 Ah	
	(3hr, 45.4A, 1.75V/cell)	136.2 Ah	
	(1hr, 106.7A, 1.67V/cell)	106.7 Ah	
<b>Max.Charging Current (25°C)</b>	45.0A		
<b>Max Discharge Current (5s)</b>	1440A		
<b>Internal Resistance</b>	Approx. 5.2mΩ		
<b>Discharge Characteristics</b>	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)	
	Charge Voltage (25°C)	Float: 13.5V	
		Temp. Coefficient: -3mV/cell/°C	
		Cycle(Equalization): 14.1~14.4V	
	Self Discharge	Less than 3% per month at 25°C	
	Capacity affected by Temperature	40°C (104°F)	106%
		25°C (77°F)	100%
0°C (32°F)		86%	
<b>Design Floating Life at 20°C</b>	20+ Years		
<b>Self Discharge</b>	Canbat Tubular Gel OPzV Batteries may be stored for up to 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 is less than 2%		

## Dimensions

### M8 Terminal



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12V 180AH

Tubular Gel OPzV



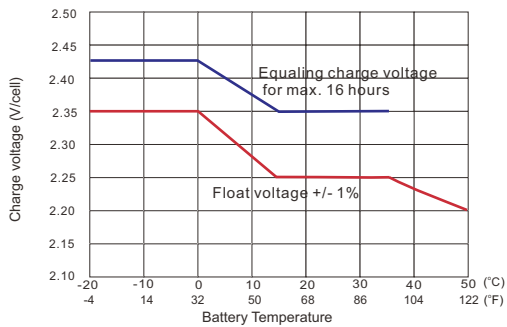
## Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	10 min	15 min	30 min	1h	2h	3h	5h	8h	10h
1.85V/cell	173.8	153.2	114.5	83.7	53.1	40.5	29.0	20.3	17.2
1.80V/cell	208.9	177.0	128.5	91.8	57.4	43.4	30.4	21.2	18.0
1.75V/cell	239.6	197.8	138.2	97.7	60.3	45.4	31.6	21.8	18.4
1.70V/cell	261.6	214.7	148.0	103.3	62.5	47.2	32.4	22.1	18.5
1.67V/cell	286.1	230.4	154.8	106.7	64.6	48.8	33.1	22.5	18.9
1.60V/cell	305.4	243.7	160.6	109.7	66.8	49.9	33.8	22.9	19.3

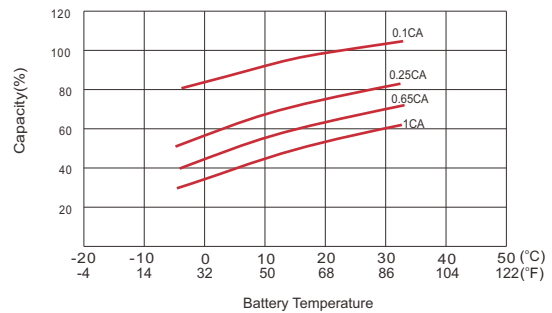
## Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	10 min	15 min	30 min	1h	2h	3h	5h	8h	10h
1.85V/cell	285.8	262.8	218.5	162.9	103.7	79.2	57.1	40.3	34.4
1.80V/cell	345.6	313.2	245.3	177.8	111.8	84.6	59.8	42.1	35.8
1.75V/cell	401.8	345.6	261.5	188.3	117.0	88.6	61.9	43.2	36.5
1.70V/cell	442.8	372.2	277.4	198.0	120.6	91.4	63.4	43.9	36.9
1.67V/cell	466.6	387.4	287.3	203.4	124.0	94.3	64.6	44.5	37.4
1.60V/cell	478.8	395.3	295.0	208.4	127.6	95.9	65.9	45.2	38.0

### Charge voltage vs ambient temperature curve



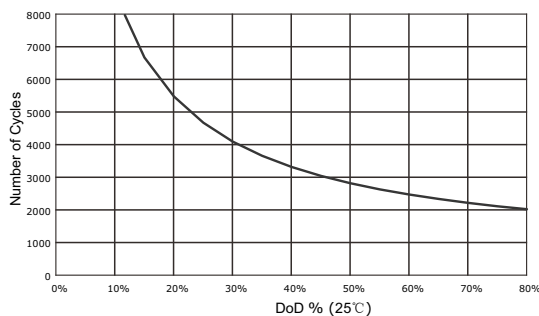
### Temperature effects in relation to battery capacity



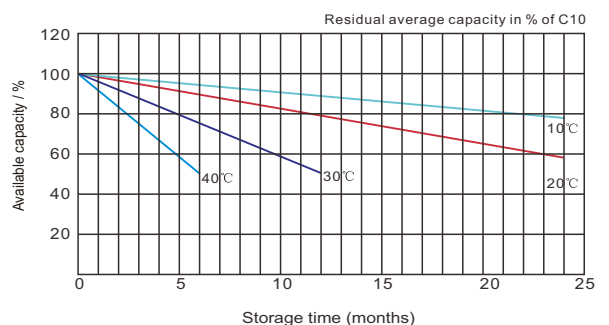
## OPzV Tubular Gel Batteries

Canbat OPzV cells are a type of valve regulated sealed lead-acid (VRLA) batteries, designed in Canada with tubular gel technology. They are ideal for applications with discharge over a long period, such as renewable energy, telecom backup, oil and gas, energy storage, railway, emergency lighting and switchgear. Canbat OPzV tubular gel batteries offer high capacity reserve power and deep cycle performance. They also offer a long service life of over 20 years at 20°C (68°F) and a reliable maintenance-free and non-spillable construction. OPzV cells are developed with high capacities to give you more options to meet your energy needs. OPzV technology utilizes tubular positive plates and a fixed gel electrolyte, making them the best valve-regulated battery design available. The 2V series of Canbat OPzV batteries are built with monoblock cells (2V/cell), making it easy to group them and create various battery banks of 12V, 24V and 48V.

### Cycle Life in Relation to DOD (C10)



### General Relation of Capacity VS. Storage Time



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