

EXPZV-420-2V

2 Volt 420 Amp.
Tubular GEL OPzV

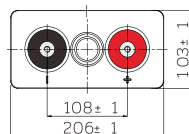
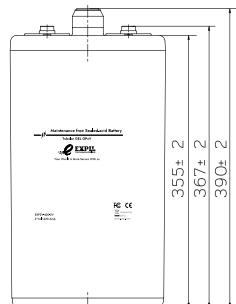
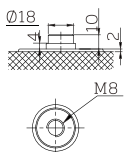


Physical Specification

Part Number:	EXPZV-420-2V
Length:	145 ± 2mm (5.71 inches)
Width:	206 ± 2mm (8.11 inches)
Container Height:	471 ± 2mm (18.54 inches)
Total Height (with terminal):	506 ± 2mm (19.92 inches)
Approx Weight:	34.5 kg (76.06 lbs)

Dimensions

■ M8 Terminal



Specifications

	Nominal Voltage	2V
	(C10,1.80V/cell)	420AH
Terminal Option	M8	
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS (UL94:VO)
Rated Capacity	(10hr,42.0A,1.80V/cell)	420.0 Ah
	(5hr,73.1A,1.75V/cell)	365.5 Ah
	(3hr,108.0A,1.75V/cell)	324.0 Ah
	(1hr,235.0A,1.65V/cell)	235.0 Ah
Max.Charging Current (25°C)	105.0A	
Max Discharge Current (5s)	3360A	
Internal Resistance	Approx. 0.80mΩ	
Discharge Characteristics		Discharge: -20°C~55°C (-4°F~131°F)
	Operating Temp. Range	Charge: 0°C~40°C (32°F~104°F)
		Storage: -20°C~50°C (5°F~122°F)
	Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
	Charge Voltage (25°C)	Float: 2.25V
		Temp. Coefficient: 3-mV/cell/°C
	Self Discharge	Cycle(Equalization): 2.35~2.40V
		Less than 3% per month at 25°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	ExpII 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%	

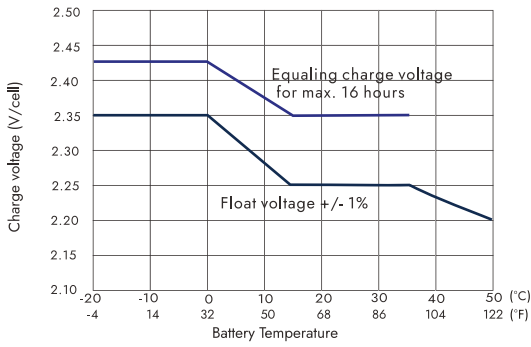
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	10 min	15 min	30 min	1h	2h	3h	5h	8h	10h
1.85V/cell	329.0	303.0	248.0	188.0	126.0	97.2	66.5	46.8	39.3
1.80V/cell	405.0	367.0	289.0	212.0	139.0	106.0	71.8	50.0	42.0
1.75V/cell	479.0	411.0	308.0	220.0	142.0	108.0	73.1	51.0	42.7
1.70V/cell	537.0	449.0	326.0	229.0	146.0	110.0	74.3	51.5	43.2
1.65V/cell	577.0	474.0	339.0	235.0	149.0	112.0	75.4	52.0	43.6
1.60V/cell	604.0	490.0	347.0	239.0	151.0	114.0	76.2	52.8	43.9

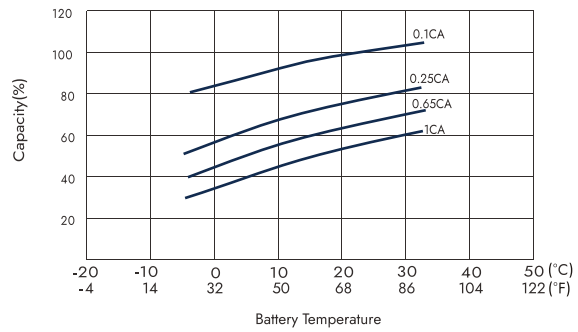
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	10 min	15 min	30 min	1h	2h	3h	5h	8h	10h
1.85V/cell	612.0	570.0	473.0	363.0	245.0	190.0	131.0	92.8	78.2
1.80V/cell	740.0	680.0	546.0	407.0	268.0	206.0	141.0	99.0	83.4
1.75V/cell	860.0	751.0	576.0	420.0	274.0	209.0	143.0	100.6	84.6
1.70V/cell	948.0	808.0	604.0	434.0	280.0	213.0	145.0	101.6	85.4
1.65V/cell	1000.0	840.0	621.0	443.0	284.0	216.0	146.0	102.4	86.2
1.60V/cell	1026.0	857.0	631.0	448.0	286.0	217.0	147.0	103.0	86.6

Charge voltage vs ambient temperature curve



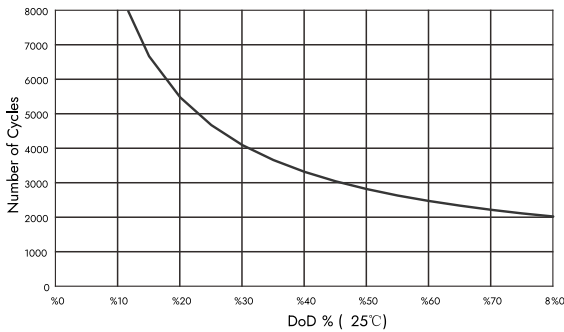
Temperature effects in relation to battery capacity



OPzV Tubular Gel Batteries

ExPll OPzV cells are a type of valve regulated sealed lead-acid (VRLA) batteries, designed by ExPll with tubular gel technology. They are ideal for applications with discharge over a long period, such as renewable energy, telecoms backup, oil and gas, energy storage, railway, emergency lighting and switchgear. ExPll 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 ExPll OPzV batteries are built with mono block cells (2V/cell), making it easy to group them and create various battery banks of 12V, 24V and 48V.

Temperature Effects in Relation to Battery Capacity



Float Service Life

