

**OPzS Series**

NARADA OPzS Series Lead Acid batteries are designed with a combination of die-casting Tubular positive framework and superfluous electrolyte technologies to offer a very high lever of reliability and a long service life. OPzS batteries used special filter and proof design to ensure no acid fog runs over and burning proof, and also convenient examine and maintenance.

The specification of Narada OPzS series batteries make if idea for a wide range of applications such as Telecommunications, Photovoltaic System, Security System, emergency lighting and UPS.

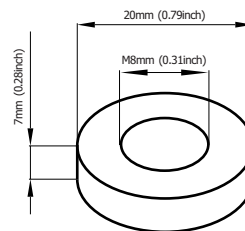


**Features & Benefits**

- Low maintenance.
- Super long service life.
- Transparent containers, convenient to observe.
- Special filter installation for acid fog proof.
- High quality and high reliability.
- Special pole sealed technology.
- DIN40736-1 compliant.

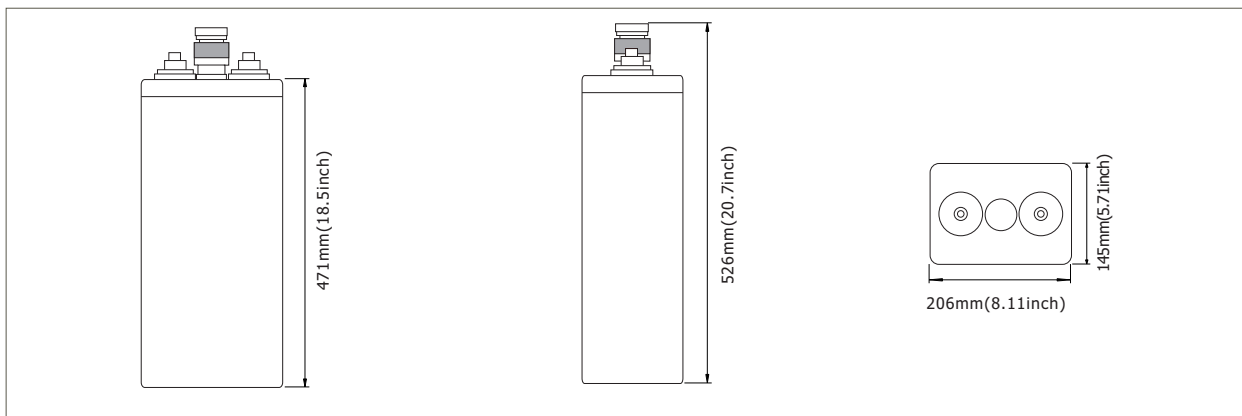
**Construction**

- Component .....Raw material
- Positive .....Lead dioxide
- Negative .....Lead
- Container .....SAN
- Cover .....ABS
- Terminal .....Copper
- Separator .....Rubber-PVC
- Electrolyte .....Sulfuric acid

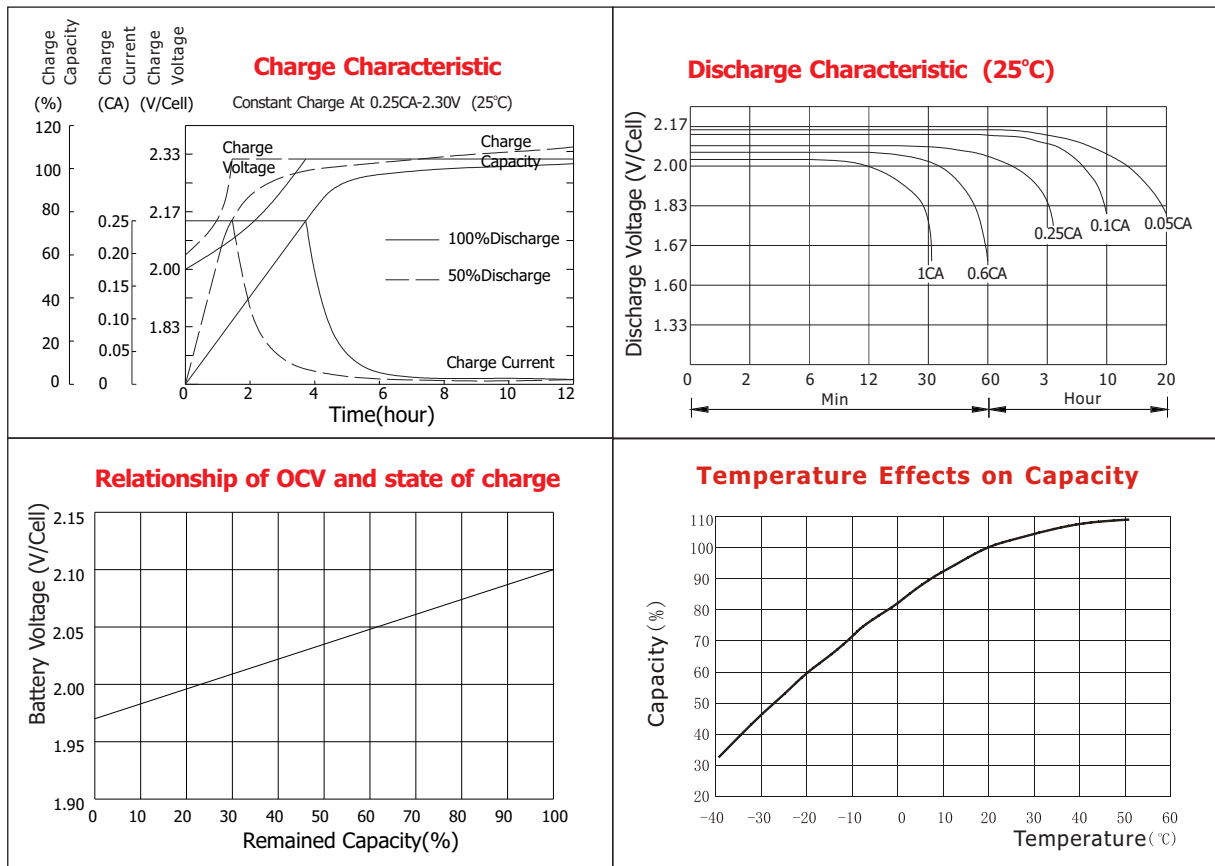


**Terminal Dimensions**

**Cell Dimensions**



Battery Model	60PzS420			
Designed Floating Life	20 Years			
Capacity(25°C)	24HR(18.5A,1.80V)	10HR(42.0A,1.80V)	5HR(69A,1.80V)	1HR(219A,1.75V)
	444AH	420AH	345AH	219AH
Dimensions	Length	Width	Height	Total Height
	145mm(5.71inch)	206mm(8.11inch)	471mm(18.5inch)	526mm(20.7inch)
Approx. Weight	without electrolyte:23.0Kg (50.7 lbs)		with electrolyte:32.0Kg(70.5 lbs)	
Internal Resistance	Full charged at 20°C: 0.00062 Ohm			
Self Discharge	3% of capacity declined per month at (20°C)			
Capacity Affected by Temp.(10HR)	40°C	25°C	0°C	-15°C
	102%	100%	85%	65%
Charge Voltage(25°C)	Cycle use		Float use	
	2.35-2.40V/cell(-5mV/cell/°C), max. Current: 105A		2.23V/cell(-3.0mV/cell/°C)	



**Constant Current Discharge Data Units: Amperes (25°C, 77°F)**

End voltage	minutes	hours									
	30	1	2	3	4	5	6	8	10	24	48
1.60V	348.0	238.6	149.1	107.2	85.2	73.6	65.1	52.7	43.5	19.5	10.8
1.65V	336.4	232.7	145.1	105.3	84.3	72.8	64.3	52.3	43.3	19.5	10.7
1.70V	322.9	225.9	142.3	104.2	83.2	71.9	63.2	51.6	43.1	19.3	10.6
1.75V	310.3	219.2	138.3	101.3	82.2	70.6	62.0	50.7	42.5	18.9	10.5
1.80V	284.1	208.5	133.5	99.4	80.3	69.0	60.5	49.5	42.1	18.6	10.3
1.85V	239.5	193.9	126.7	96.4	77.3	66.8	58.3	48.1	40.8	18.0	9.8
1.95V	203.6	155.1	110.1	85.8	72.4	62.1	53.9	43.6	36.7	16.4	9.1

**Constant Power Discharge Data Units: Watts per cell (25°C, 77°F)**

End voltage	minutes	hours									
	30	1	2	3	4	5	6	8	10	12	24
1.60V	704.8	539.4	297.4	225.8	180.9	152.6	134.1	110.7	93.5	80.6	41.3
1.65V	667.1	501.9	295.5	224.8	179.9	151.6	133.3	109.9	92.9	80.0	41.1
1.70V	637.4	470.2	291.4	221.8	177.0	149.4	131.4	108.5	91.5	79.0	40.4
1.75V	611.7	442.5	283.5	215.9	169.9	144.1	128.5	106.7	89.9	78.0	39.8
1.80V	586.9	417.7	273.5	209.9	166.0	137.6	122.8	101.6	85.2	72.8	39.2
1.85V	564.2	388.0	262.6	200.0	157.9	133.9	118.0	98.9	81.7	70.1	38.2
1.95V	514.7	345.4	238.7	193.0	166.0	138.6	112.5	94.0	74.0	64.1	36.3

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