



WPS2-250 OPzS(2V250AH/10HR)



Q5 OPzS series is a Flooded Lead Acid battery that adopts Tubular Plate technology to offer high reliability and performance. The Battery is designed and manufactured according to DIN/IEC standards and with die-casting positive spine and patent formula of active material. OPzS series exceeds DIN/IEC standard values with more than 20 years floating design life at 25°C and is even more suitable for cyclic use (PV/solar, traction etc) under extreme operating conditions.

Voltage Per Unit	2V (single cell)
Capacity	250Ah@10hr-rate to 1.80V per cell @25°C
Weight	Without Electrolyte:15.0Kg; Include Electrolyte:20.5Kg
Max. Discharge Current	1200A (5 sec)
Internal Resistance	Approx. 0.76m Ω
Operating Temperature Range	Discharge: -15 °C~50°C; Charge: 0°C~40°C; Storage: -15°C~50°C
Normal Operating Temperature Range	25°C ± 5°C
Float charging Voltage	2.23 to 2.25 V(DC)/cell at 25°C
Recommended Maximum Charging Current	37.5 A
Equalization and Cycle Service	2.40 to 2.45 V(DC)/cell at 25°C
Self Discharge	Self-discharge ratio less than 2.0% per month o at 25 C. Please charge batteries before using.
Terminal	Thread insert & Bolf (F10-M8)
Container Material	B.S. UL94-HB, and UL94-V0 is optional

Parking(mm):
 Battery Size: L×W×H:206*124*413
 QTY Pallet: 900*830*480mm:24pcs
 Box: Order
 Quantity Per Box: Order
 Gross Weight: Order

Long time discharge capacity for solar/wind application						
Discharge condition	C24(AH)	C48(AH)	C72(AH)	C100(AH)	C120(AH)	C240(AH)
Capacity	299.3	336.7	353.5	361.6	368.8	375.0

Discharge Current VS. Final Voltage

Discharge Current	Final Voltage (V)
$I_{dis} \leq 0.1110$	1.90
$0.1110 < I_{dis} \leq 110$	1.85
$110 < I_{dis} \leq 4110$	1.80
$4110 < I_{dis} \leq 6110$	1.75
$6110 < I_{dis} \leq 10110$	1.70
$I_{dis} \leq 15110$	1.60

Charge the batteries at least once every one year, if they are stored at 25°C.

Constant Voltage	-0.2Cx2h+2.35-2.40V, 24h, Max. Current 0.2CA
Constant Current	-0.2Cx2h+0.1Cx12h

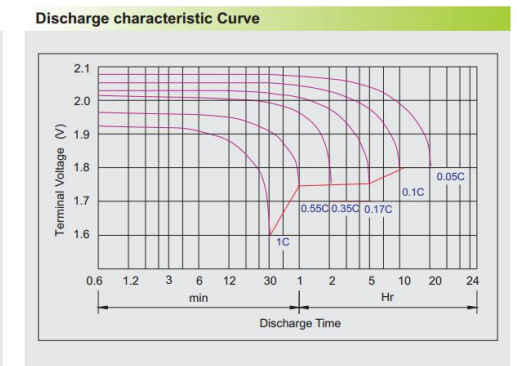
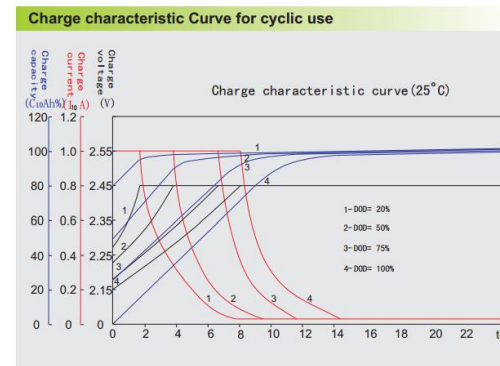
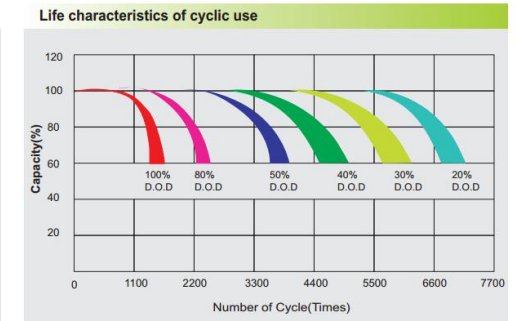
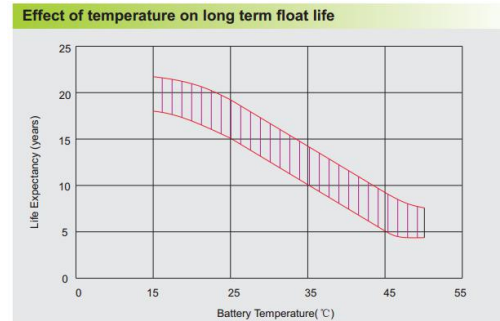
Maintenance & Cautions

Float Service:
 Every month, recommend inspection every battery voltage.
 Every three months, recommend equalization charge for one time.

Equalization charge method:
 Discharge: 40~50% rate capacity discharge.
 Charge: Max. current 0.2CA, constant voltage 2.40-2.35V/cell charge 24h.

Effect of temperature on float charge voltage: -3mV/°C/Cell.
 Length of service life will be directly affected by the number of discharge
 Cycles, depth of discharge, ambient temperature and charging voltage.

Capacity factors V.S temperature (OPzV series)											
Temperature	-30°C	-20°C	-10°C	0°C	10°C	20°C	25°C	30°C	40°C	45°C	50°C
Capacity	60%	75%	83%	89%	92%	99%	100%	103%	105%	107%	109%



Constant Current Discharge Characteristics : A(25°C)										
F.V/ Time e	30m in	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	133.0	105.4	74.35	56.67	44.89	39.90	34.91	27.24	23.36	13.44
1.87V	148.7	116.3	79.76	60.33	47.38	42.20	37.01	28.52	24.41	14.04
1.83V	170.3	129.8	86.52	64.53	49.88	44.10	38.33	29.79	25.46	14.64
1.80V	189.3	140.6	89.76	66.43	50.87	45.12	39.38	30.56	26.25	15.09
1.75V	210.9	150.6	93.82	68.56	51.71	45.94	40.16	31.06	26.78	15.39
1.70V	232.5	155.5	96.52	70.18	52.62	46.65	40.69	31.32	27.04	15.55
1.65V	239.8	165.2	99.77	71.93	53.37	47.29	41.21	31.57	27.30	15.70
1.60V	250.1	170.9	103.6	74.34	54.86	48.30	41.74	31.83	27.56	15.85

Constant Power Discharge Characteristics : WPC(25°C)										
F.V/ Time e	30m in	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.90V	254.6	202.4	143.7	110.2	87.85	78.43	69.04	54.49	47.61	27.38
1.87V	280.2	219.8	152.4	116.5	92.60	82.79	72.98	56.78	49.65	28.55
1.83V	313.8	239.7	162.2	123.1	97.08	86.21	75.34	58.82	51.43	29.57
1.80V	342.9	255.7	167.7	126.4	98.93	88.07	77.18	60.09	52.71	30.31
1.75V	372.0	267.1	173.1	129.4	100.2	89.36	78.49	60.86	53.47	30.74
1.70V	398.9	269.8	177.4	132.1	101.8	90.57	79.28	61.36	53.98	31.04
1.65V	405.7	281.8	182.3	134.8	103.2	91.57	80.06	61.87	54.24	31.19
1.60V	410.6	290.5	186.7	138.1	105.8	93.21	80.59	62.13	54.49	31.33