

APC Gel Battery (12V96AH) (XB102XX1XS)

Specification



Battery	XB102XX1XS
Nominal Voltage	12V
Nominal Capacity(20HR)	96.0AH
Dimension	Length: 330 ± 3mm (12.99 inches) Width: 173 ± 2mm (6.81 inches) Container Height: 212 ± 3mm (8.35 inches) Total Height (with Terminal): 218 ± 3mm (8.58 inches)
Approx Weight	Approx 31.0 kg (68.4lbs)
Terminal	T11
Container Material	ABS
Rated Capacity	96.0 AH/4.80A - (20hr, 1.80V/cell, 25°C/77°F) 90.0 AH/9.00A - (10hr, 1.75V/cell, 25°C/77°F) 80.0 A H/16.0A - (5hr, 1.75V/cell, 25°C/77°F) 69.6 AH/23.2A - (3hr, 1.75V/cell, 25°C/77°F) 55.0 AH/55.0A - (1hr, 1.67V/cell, 25°C/77°F)
Max. Discharge Current	1000A (5s)
Internal Resistance	Approx 5.9mΩ
Operating Temp.Range	Discharge : -20~55°C (-4~131°F) Charge : 0~40°C (32~104°F) Storage : -20~50°C (-4~122°F)
Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
Cycle Use	Initial Charging Current less than 24.0A.Voltage 14.4V~15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C
Standby Use	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C
Capacity Affected by Temperature	40°C (104°F) – 103% 25°C (77°F) – 100% 0°C (32°F) – 86%
Self Discharge	The batteries may be stored for up to 9 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.
Standard Warranty	2 years



Intertek

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ISO14001



ISO9001



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

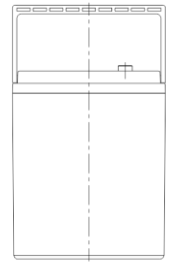
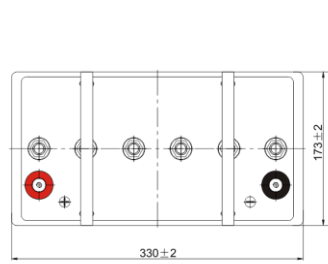
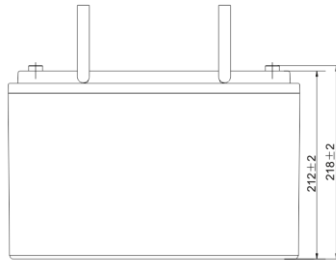
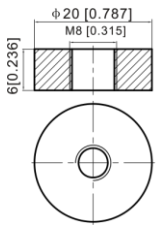
F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	84.6	66.4	50.7	42.4	26.9	20.5	17.0	14.7	12.3	10.9	9.8	8.96	8.47	4.61
1.80V/cell	96.9	74.2	55.9	46.8	29.1	22.0	18.0	15.4	12.9	11.4	10.3	9.42	8.85	4.80
1.75V/cell	108.9	81.6	60.4	50.1	30.9	23.2	18.9	16.0	13.3	11.8	10.6	9.7	9.00	4.90
1.70V/cell	117.3	87.4	64.1	53.0	32.7	24.2	19.5	16.5	13.8	12.2	10.9	10.0	9.23	4.96
1.67V/cell	122.1	90.8	66.4	55.0	33.6	24.9	20.0	16.8	14.0	12.3	11.1	10.1	9.34	5.01
1.60V/cell	132.3	97.2	71.3	58.4	34.9	25.9	20.7	17.4	14.4	12.6	11.3	10.3	9.53	5.08

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

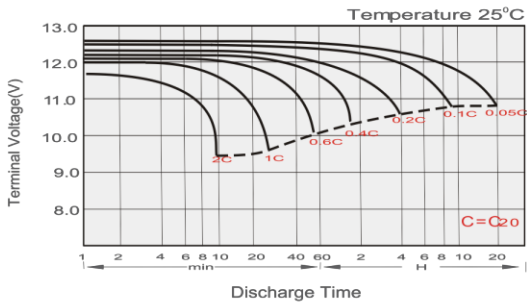
F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	161.9	128.0	98.2	82.6	52.6	40.2	33.4	28.9	24.3	21.6	19.5	17.8	16.9	9.20
1.80V/cell	183.0	141.6	107.5	90.7	56.6	42.9	35.3	30.3	25.4	22.5	20.4	18.7	17.6	9.57
1.75V/cell	203.4	154.4	115.4	96.5	59.8	45.2	36.8	31.4	26.3	23.3	21.0	19.3	17.9	9.75
1.70V/cell	216.8	163.9	121.7	101.6	63.1	46.9	37.9	32.3	27.1	24.0	21.6	19.7	18.3	9.86
1.67V/cell	223.1	168.5	125.1	104.8	64.4	48.2	38.7	32.8	27.5	24.3	21.9	20.0	18.5	9.95
1.60V/cell	239.1	178.7	133.4	110.7	66.7	49.9	40.1	33.8	28.1	24.7	22.2	20.3	18.9	10.1

Dimensions

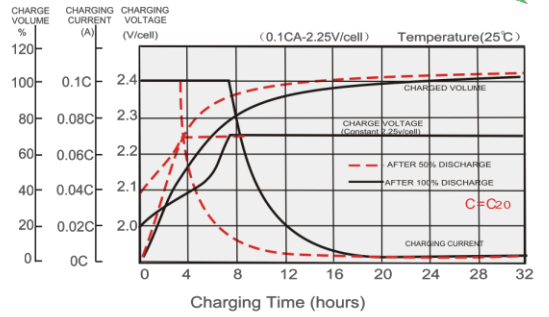
T11 Terminal Unit: mm [inches]



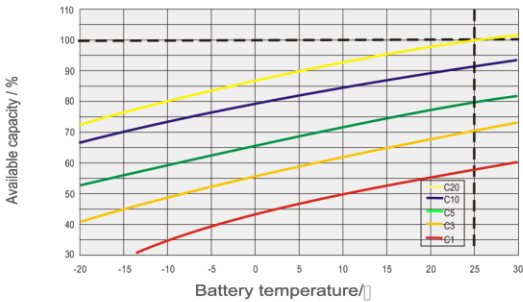
Discharge Characteristics



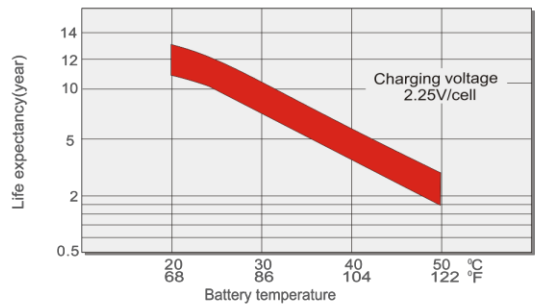
Float Charging Characteristics



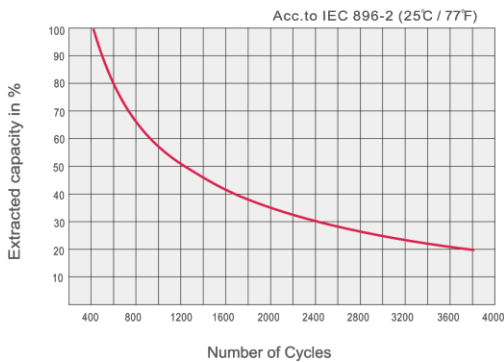
Temperature Effects in Relation to Battery Capacity



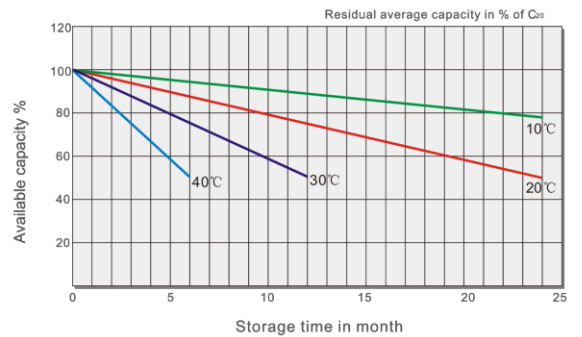
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



General Relation of Capacity VS. Storage Time



APC Gel Battery (12V50AH) (XB050XX1XS)

Specification



Battery	XB050XX1XS
Nominal Voltage	12V
Nominal Capacity(20HR)	50.0AH
Dimension	Length: 229 ± 3mm (9.02 inches) Width: 138 ± 2mm (5.43 inches) Container Height: 205 ± 3mm (8.07 inches) Total Height (with Terminal): 211 ± 3mm (8.31 inches)
Approx Weight	Approx 16.6 kg (36.46bs)
Terminal	T6
Container Material	ABS
Rated Capacity	50.0 AH/2.50A - (20hr, 1.80V/cell, 25°C/77°F) 46.5 AH/9.00A - (10hr, 1.75V/cell, 25°C/77°F) 40.0 A H/8.0A - (5hr, 1.75V/cell, 25°C/77°F) 34.8 AH/11.6A - (3hr, 1.75V/cell, 25°C/77°F) 27.5 AH/27.5A - (1hr, 1.67V/cell, 25°C/77°F)
Max. Discharge Current	500A (5s)
Internal Resistance	Approx 9.0mΩ
Operating Temp.Range	Discharge : -20~55°C (-4~131°F) Charge : 0~40°C (32~104°F) Storage : -20~50°C (-4~122°F)
Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
Cycle Use	Initial Charging Current less than 12.5A.Voltage 14.4V~15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C
Standby Use	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C
Capacity Affected by Temperature	40°C (104°F) – 103% 25°C (77°F) – 100% 0°C (32°F) – 86%
Self Discharge	The batteries may be stored for up to 9 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.
Standard Warranty	2 years



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

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	42.3	33.2	25.3	21.2	13.5	10.3	8.49	7.33	6.33	5.60	5.05	4.62	4.37	2.40
1.80V/cell	48.5	37.1	27.9	23.4	14.6	11.0	9.00	7.70	6.64	5.86	5.29	4.86	4.56	2.50
1.75V/cell	54.5	40.8	30.2	25.1	15.4	11.6	9.43	8.00	6.88	6.07	5.46	5.00	4.65	2.55
1.70V/cell	58.7	43.7	32.1	26.5	16.4	12.1	9.74	8.25	7.12	6.27	5.63	5.13	4.76	2.58
1.67V/cell	61.1	45.4	33.2	27.5	16.8	12.5	10.0	8.42	7.23	6.36	5.71	5.20	4.82	2.61
1.60V/cell	66.2	48.6	35.7	29.2	17.5	13.0	10.4	8.68	7.41	6.50	5.81	5.31	4.91	2.65

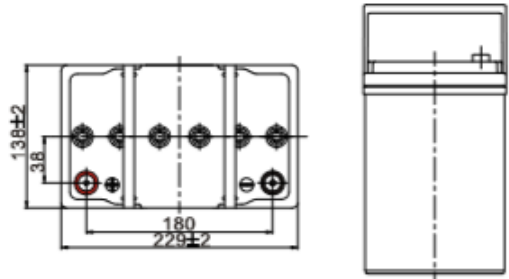
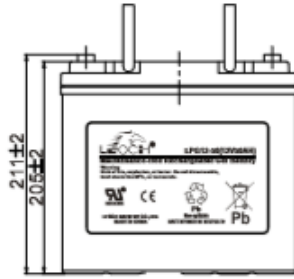
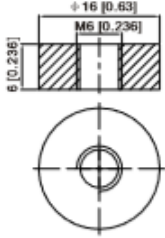
Constant Power Discharge (Amperes) at 25°C (77°F)

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	42.3	33.2	25.3	21.2	13.5	10.3	8.49	7.33	6.33	5.60	5.05	4.62	4.37	2.40
1.80V/cell	48.5	37.1	27.9	23.4	14.6	11.0	9.00	7.70	6.64	5.86	5.29	4.86	4.56	2.50
1.75V/cell	54.5	40.8	30.2	25.1	15.4	11.6	9.43	8.00	6.88	6.07	5.46	5.00	4.65	2.55
1.70V/cell	58.7	43.7	32.1	26.5	16.4	12.1	9.74	8.25	7.12	6.27	5.63	5.13	4.76	2.58
1.67V/cell	61.1	45.4	33.2	27.5	16.8	12.5	10.0	8.42	7.23	6.36	5.71	5.20	4.82	2.61
1.60V/cell	66.2	48.6	35.7	29.2	17.5	13.0	10.4	8.68	7.41	6.50	5.81	5.31	4.91	2.65

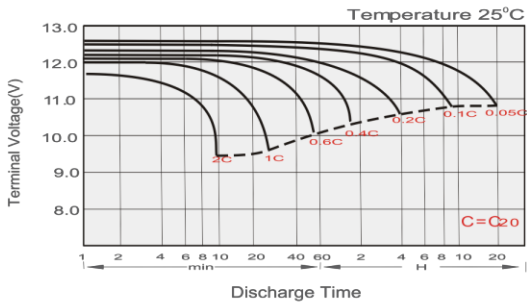
Dimensions

T6 Terminal

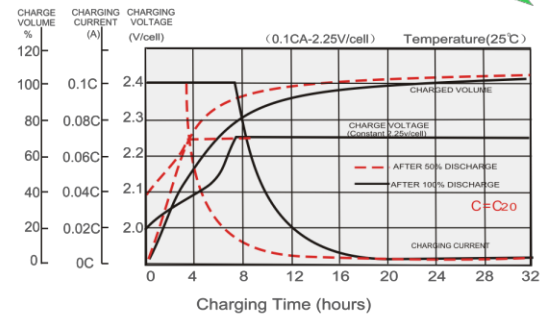
Unit: mm [inches]



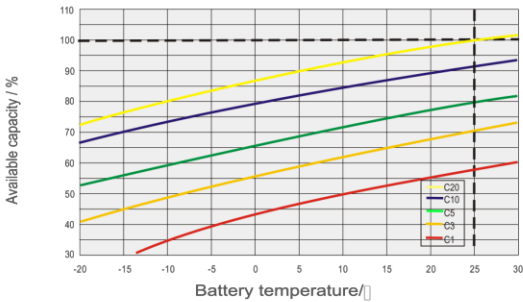
Discharge Characteristics



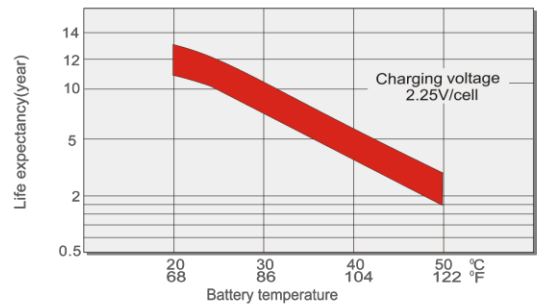
Float Charging Characteristics



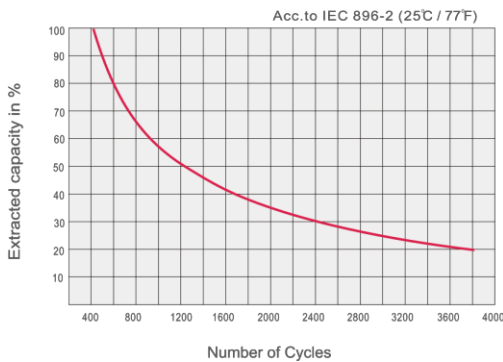
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



General Relation of Capacity VS. Storage Time

