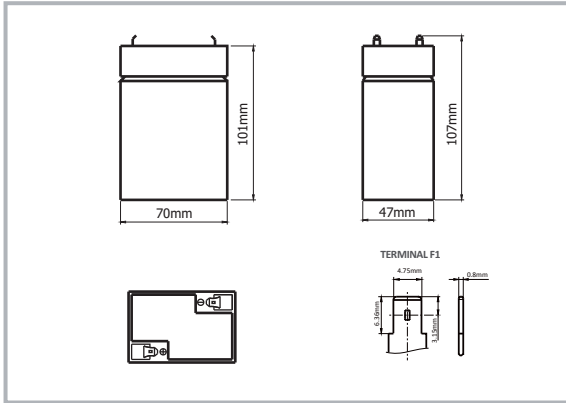


# BT4.5-6 (4.5ah 6V)

## BT GENERAL SERIES VRLA BATTERY

BT series offers 5 years full maintenance free design life. With optimum design and good reliability, this series is highly suited for security and alarm systems, UPS systems, emergency light systems and other small backup applications.

## BATTERY DIMENSIONS



## TECHNICAL SPECIFICATIONS

Nominal Voltage (V)	6 (3 cells per unit)
Designed Floating Life (20°C)	5 Years
Nominal Capacity (20°C)	4.5 Ah @ 20HR-rate (to 1.75Vpc)
Dimension (mm)	L70mm x W47mm x H107mm
Approx. Weight	0.75 kg (1.65 lbs)
Terminal Type	Fasten Tab F1
Internal Resistance	Approx. 0.022 Ohm (fully charged @ 20°C)
Max. Charge Current	1.35A
Max. Discharge Current (5S)	67 A
Short Circuit Current	550 A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -15~50°C Charge: -15~40°C Storage: -15~40°C
Float Charge Voltage (20~25°C)	6.8- 6.9V (-3mV/ cell/ °C)
Equalize and cycle Use Charge Voltage (20~25°C)	7.2-7.4V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)

ISO9001    ISO14001

Complied standards

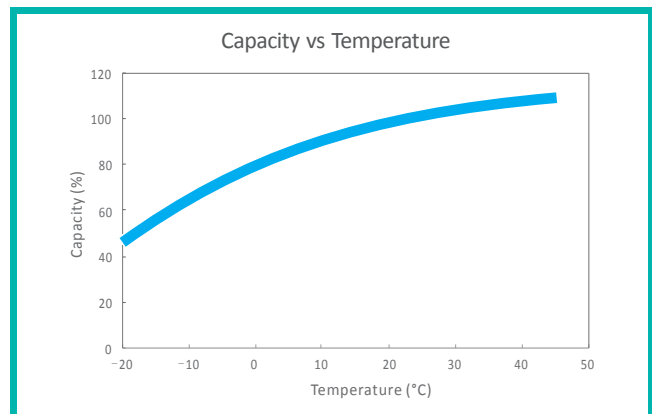
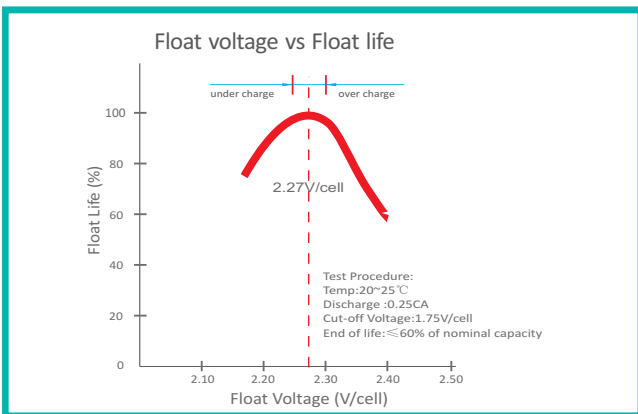
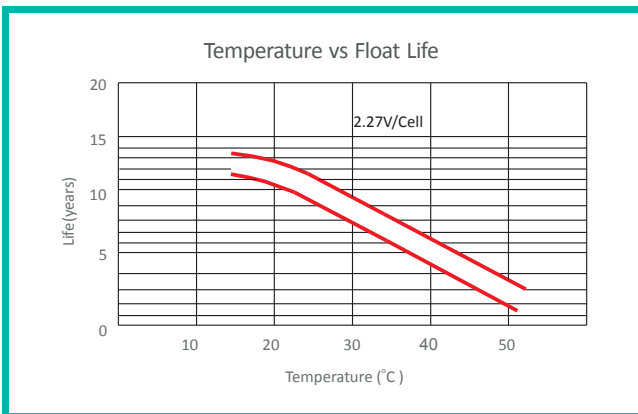
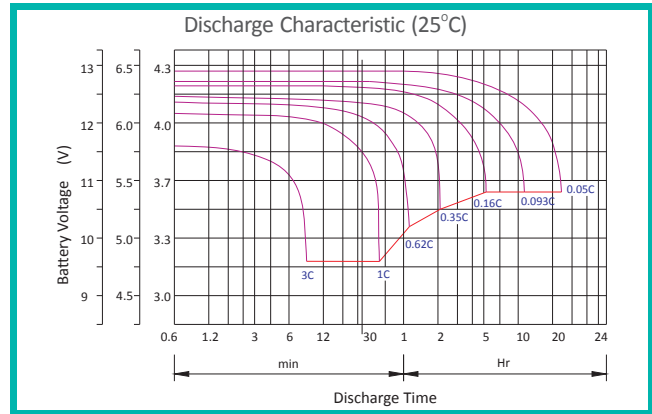
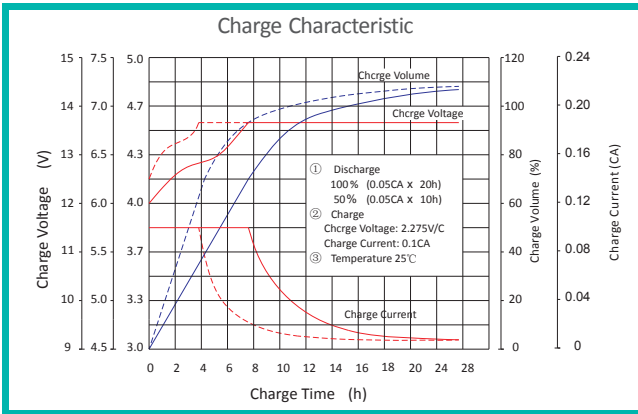
- IEC 61056
- UL1989
- JIS C8702
- GB/T19639

## BATTERY DISCHARGE TABLE

F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	18.0	11.2	8.5	5.1	2.96	1.76	1.25	0.98	0.81	0.55	0.45	0.24
1.67V	16.8	10.8	8.2	5.0	2.93	1.73	1.24	0.97	0.8	0.54	0.44	0.23
1.70V	15.5	10.3	8.0	4.9	2.88	1.72	1.23	0.95	0.79	0.53	0.44	0.23
1.75V	14.2	9.9	7.8	4.8	2.83	1.69	1.22	0.94	0.78	0.52	0.43	0.23
1.80V	12.7	9.3	7.6	4.7	2.77	1.67	1.20	0.93	0.77	0.51	0.43	0.22
1.85V	11.2	8.8	7.5	4.6	2.73	1.64	1.18	0.92	0.76	0.50	0.42	0.21

F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	31.8	20.1	15.6	9.4	5.52	3.30	2.36	1.86	1.54	1.05	0.862	0.463
1.67 V	29.9	19.6	15.1	9.2	5.48	3.28	2.36	1.84	1.53	1.04	0.856	0.458
1.70 V	28.1	19.0	14.9	9.1	5.44	3.27	2.35	1.83	1.52	1.03	0.852	0.453
1.75 V	25.9	18.3	14.7	9.0	5.39	3.25	2.35	1.82	1.51	1.02	0.848	0.447
1.80 V	23.5	17.5	14.5	8.9	5.32	3.23	2.33	1.81	1.50	1.01	0.845	0.440
1.85 V	21.2	16.7	14.2	8.8	5.30	3.22	2.32	1.80	1.49	1.00	0.839	0.431

## CHARACTERISTICS



### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

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

Charging Method:

Constant Voltage	0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.25CA
Constant Current	0.2Cx2h+0.1CAx12h
Fast	0.2Cx2h+0.3CAx4.0h

### Maintenance & Cautions

Do NOT overcharge the battery, especially in a series connection
Avoid battery over discharge, especially in a series connection
Only charge with the correct charge voltage to full
In general the recharge capacity should be 1.1 to 1.15 times the discharge capacity
There are a number of factors that effect the life of the battery
Depth of Discharge, temperature, Recharge rate
Effect of temperature on cycle charge voltage: -5mV/degrees per Cell
Always use the battery in the in correct position NEVER on its side