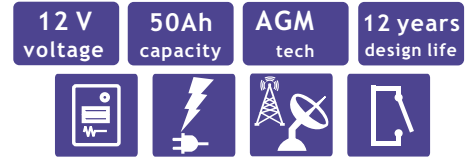


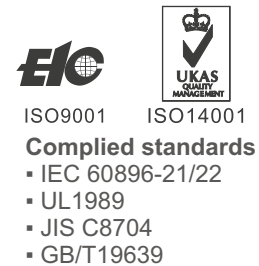
## DURATION SERIES VRLA BATTERY

By combining a newly developed corrosion resistance alloy and advanced curing process, CATE created a range of long life batteries - Duration range. The range features top termination and offers 12 years design life. This battery series is highly suited to UPS systems, switchgear, CATV and telecommunication systems applications.

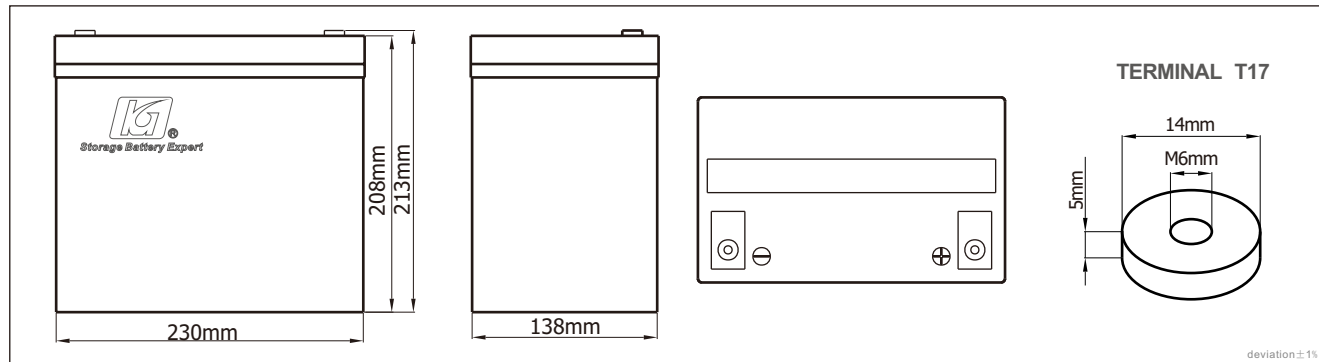


### TECHNICAL SPECIFICATIONS

Nominal Voltage (V)	12 (6 cells per unit)
Designed Floating Life (20°C)	12 Years
Nominal Capacity (20°C)	50 Ah @ 10HR-rate (to 1.80Vpc)
Dimension (mm)	L230mm x W138mm x H213mm
Approx. Weight	16.5 kg (36.4 lbs)
Terminal Type	Female Copper Insert M6 (torque:6~7N.m)
Internal Resistance	Approx. 0.0062 Ohm (fully charged @ 20°C)
Max. Charge Current	12.5A
Max. Discharge Current (5S)	500 A
Short Circuit Current	1930 A
Self Discharge	Approx. 3% per month @ 20°C
Ambient Temperature	Discharge: -20~60°C Charge: -20~60°C Storage: -20~45°C
Float Charge Voltage (20~25°C)	13.6-13.8V (-3mV/ cell/ °C)
Equalize and cycle Use Charge Voltage (20~25°C)	14.4-14.8V (-5mV/ cell / °C)
Container Material	ABS (UL94-V0 optional)



### BATTERY DIMENSIONS

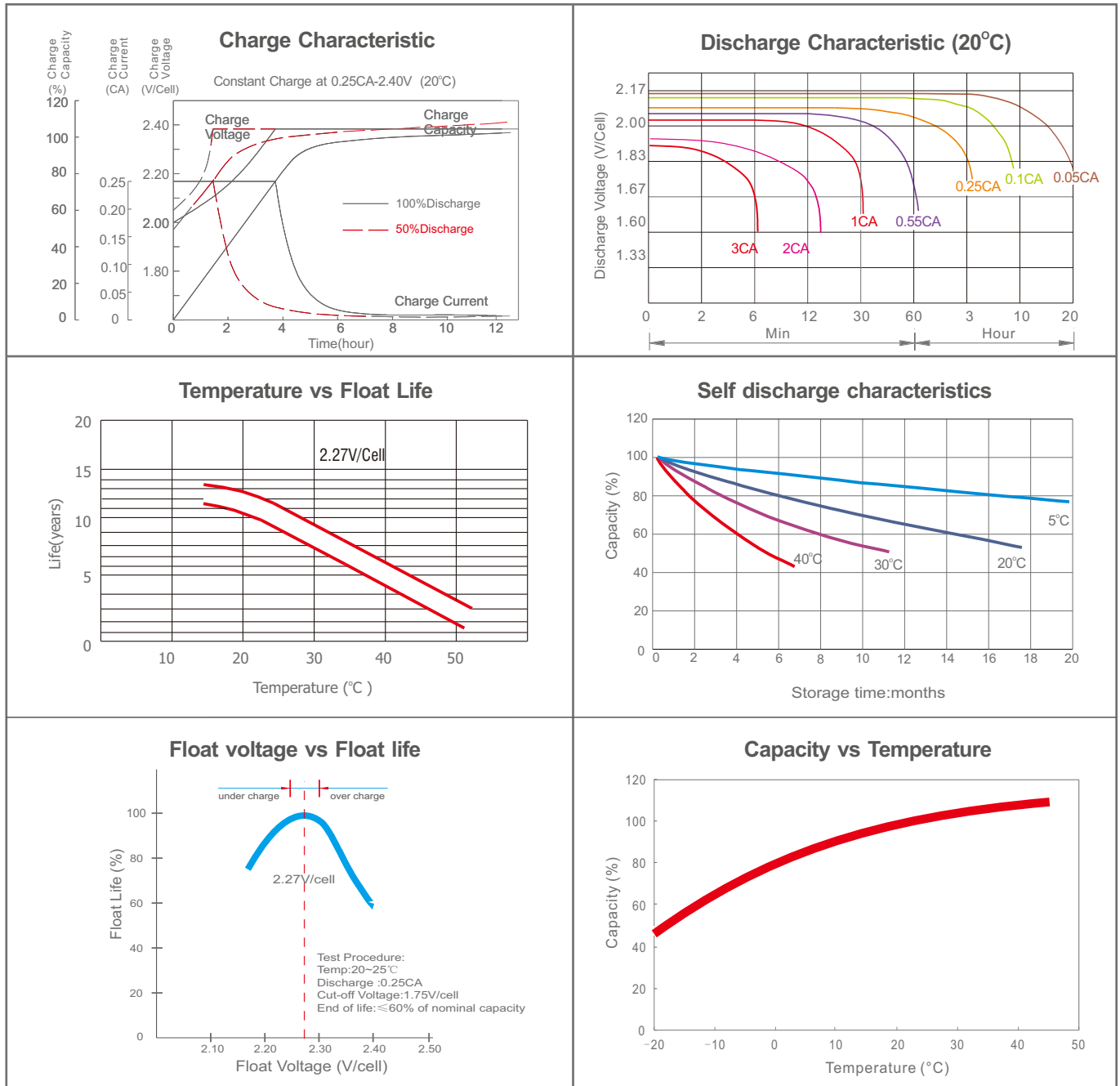


### BATTERY DISCHARGE TABLE

Constant Current Discharge Characteristics: Amps (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	150	111	91.4	56.3	33.8	19.6	14.2	11.3	9.41	6.43	5.30	2.86
1.67V	134	102	86.1	53.8	32.9	19.3	14.0	11.1	9.28	6.34	5.24	2.79
1.70V	119	92.7	81.4	51.8	32.1	19.0	13.8	11.0	9.21	6.26	5.17	2.73
1.75V	104	86.1	75.5	50.0	31.5	18.7	13.6	10.9	9.09	6.18	5.10	2.68
1.80V	91.8	78.3	70.5	47.8	30.5	18.3	13.4	10.7	8.87	6.03	5.00	2.62
1.85V	78.6	70.5	64.2	45.1	29.1	17.6	12.9	10.4	8.66	5.90	4.87	2.56

Constant Power Discharge Characteristics: W/cell (25°C)												
F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	264	199	167	104	63.0	36.9	26.7	21.4	17.9	12.3	10.3	5.54
1.67V	239	185	158	100	61.7	36.4	26.6	21.3	17.8	12.2	10.2	5.45
1.70V	216	170	151	97.0	60.7	36.2	26.5	21.2	17.7	12.1	10.1	5.37
1.75V	190	160	142	94.4	59.9	35.9	26.3	21.1	17.6	12.0	10.0	5.30
1.80V	170	147	133	91.1	58.5	35.5	26.0	20.8	17.4	11.9	9.93	5.24
1.85V	148	134	123	86.8	56.5	34.4	25.4	20.4	17.1	11.8	9.73	5.15

## CHARACTERISTICS



### FINAL VOLTAGE SETTINGS RECOMMENDED ACCORDING TO THE DISCHARGE CURRENT

Discharge Current I (A)	$I \leq 0.08C$	$0.08C \leq I < 0.2C$	$0.2C \leq I < 0.6C$	$0.6C \leq I < 1.0C$	$I \geq 1.0C$
Final of Voltage	$\geq 1.85V_{pc}$	$\geq 1.80V_{pc}$	$\geq 1.75V_{pc}$	$\geq 1.70V_{pc}$	$\geq 1.60V_{pc}$

### HEADQUARTERS AND SUBSIDIARIES