

BATTERY
CSB



XTV series
Extreme Temperature Series

ENERGY OF INFINITY ▼

Confidence & Creativity
Service & Sincerity
Belief & Bravery

XTV

XTV Series

XTV-series batteries are specially designed for extreme temperatures (-20 to 50 °C). Innovative Valve Regulated Lead-Acid (VRLA) technology enables a 12-year design life in standby use, or more than 400 cycles at 100% discharge. All CSB batteries are rechargeable, highly efficient, maintenance free, leakproof, useable in any orientation and ISO/UL recognized.



Feature and Benefits

- Innovative plate structure dramatically improves service life under harsh conditions.
- Newly formulated lead paste sustains performance while reducing thermal runaway risk.
- High-grade separator and new electrolyte formula extend battery life.
- Uniform plate formation makes capacity consistent.
- No-spill design.
- Useable in any orientation.
- Maintenance free.

Long service life

- Lead-Calcium cast grid design provides longer shelf and service life.

Reliability

- CSB-manufactured batteries are 100% 2 cycles tested by CCDS system.
- CSB-manufactured batteries are UL-recognized components under UL 924 and UL 1989. CSB file number MH14533.
- ISO9001 and ISO14001 certified.

Applications

Standby use

- Telecom Applications (Distributed Power, PHS, Cellular and Broadband).
- CATV.
- Uninterrupted Power Supply Systems.
- Power Plants and Substations.
- Signaling and Communication.

Solar Cell Power Generation

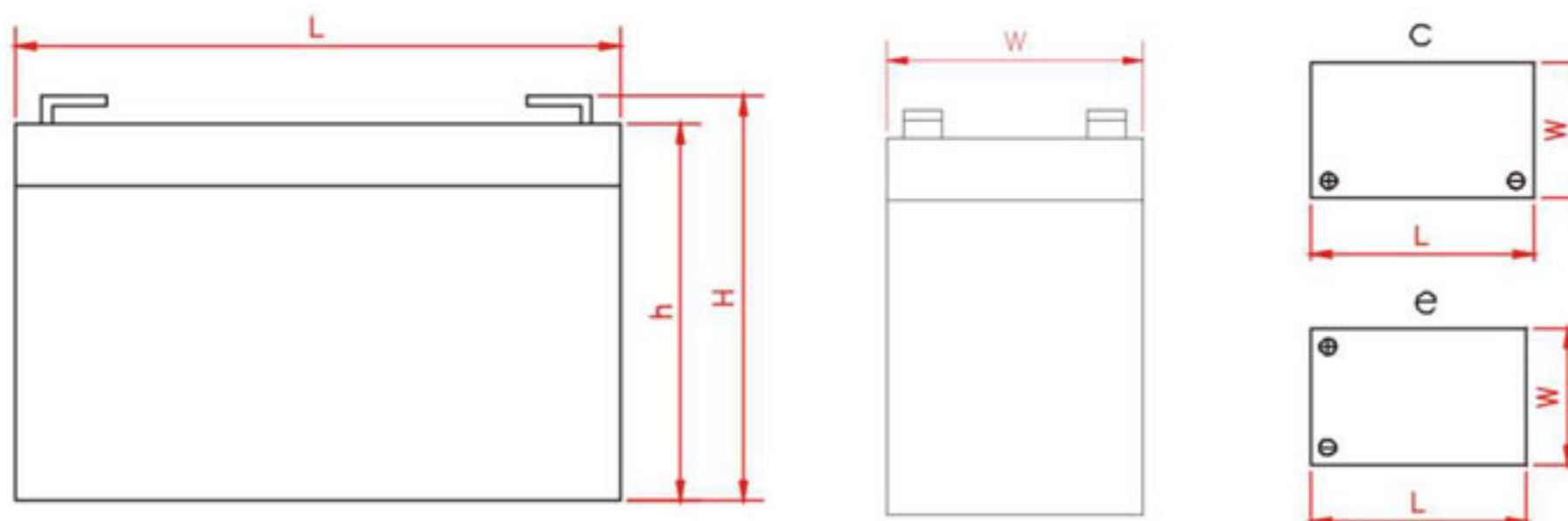
- Street lighting.
- Portable power supply.
- Water pumping.
- Rural power systems.

Specifications

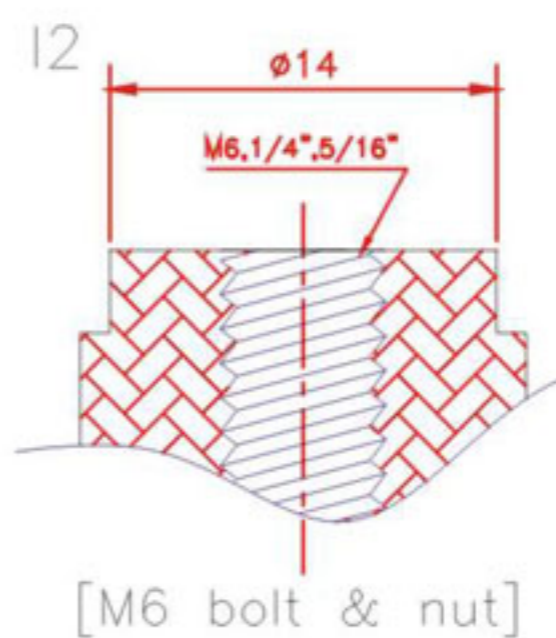
Battery Type	Nominal Voltage(V)	Nominal Capacity (20Hr) (Ah)	Weight (Approx. kg)	Energy Density (Wh/l)	Specific Energy (Wh/kg)	Internal Resistance Approx. (mΩ)	Max. Discharge Current 5 sec (A)	Dimensions (mm)				Terminal Position	Terminal Type	Max. Charging Current (A)	Max. Screw Torque value	
								Overall Height (H)	Container Height (h)	Length (L)	Width (W)				Kgf-cm/lbf-in	N-m
XTV1272	12	7.2	2.75	93.6	31.42	21.00	130	100±1.0	94±1.0	151±2.0	65±1.0	e	F2	2.16	—	—
XTV12750	12	75	29.50	81.6	30.51	6.50	800	214.3±2.5	211.3±2.5	308.7±2.5	169±2.0	c	I2	22.50	127/110	12.45
XTV12850	12	85	31.20	81.5	32.69	6.50	800	217.6±2.5	214.6±2.5	343±2.5	170±2.0	c	I2	25.50	127/110	12.45
XTV12950	12	95	32.40	71.2	35.19	6.50	800	277.7±2.5	274.7±2.5	343±2.5	170±2.0	c	I2	28.50	127/110	12.45

Charging(V) : • Standby Use : 2.275V±0.025/CELL AT 25°C (77°F) Temp Coefficient -3 mV/CELL/°C
 • Cycle Use : 2.45V±0.05V/CELL AT 25°C (77°F) Temp Coefficient -5mV/CELL/°C

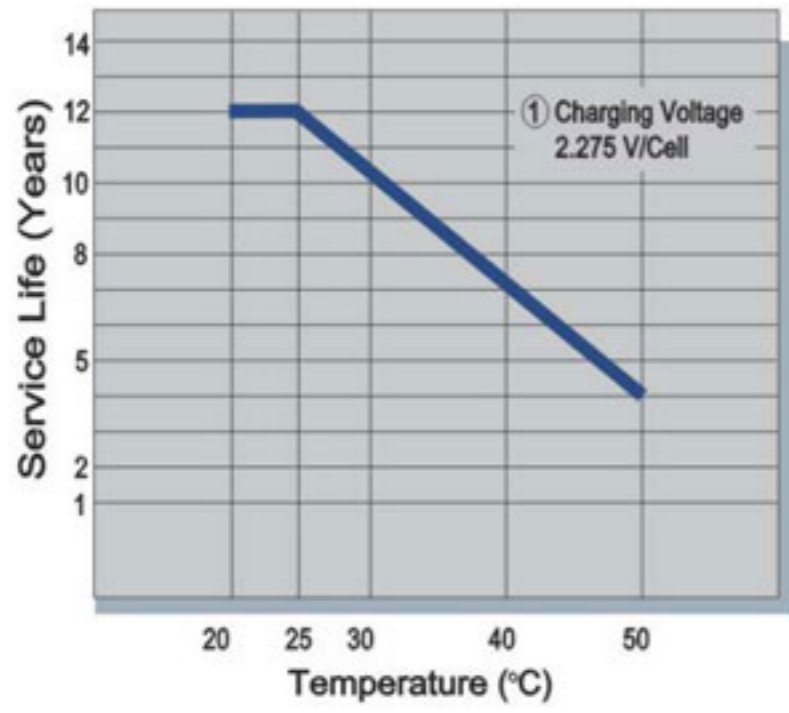
Terminal Position



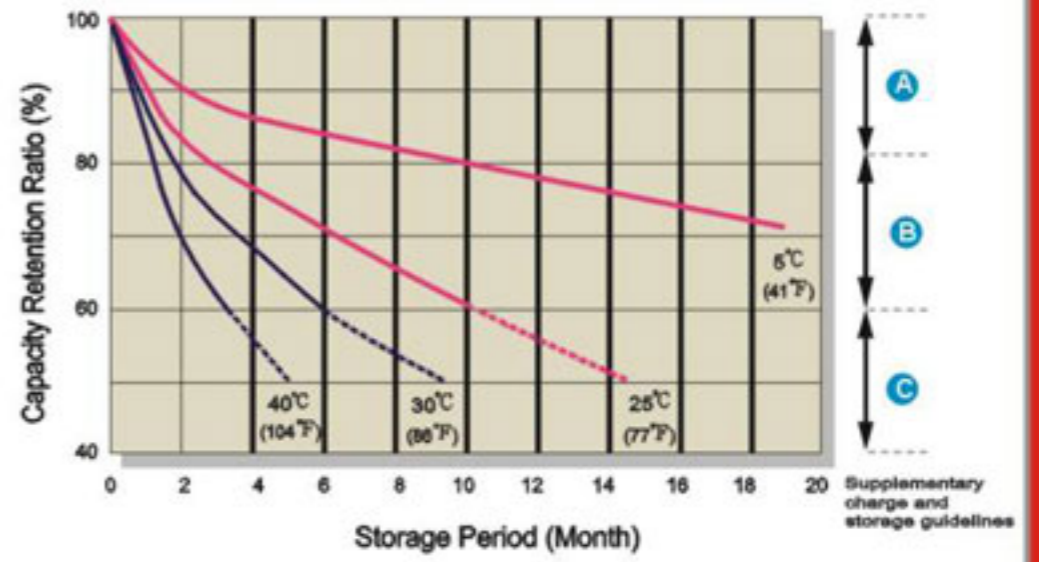
Terminal Type



Trickle (or Float) Service Life

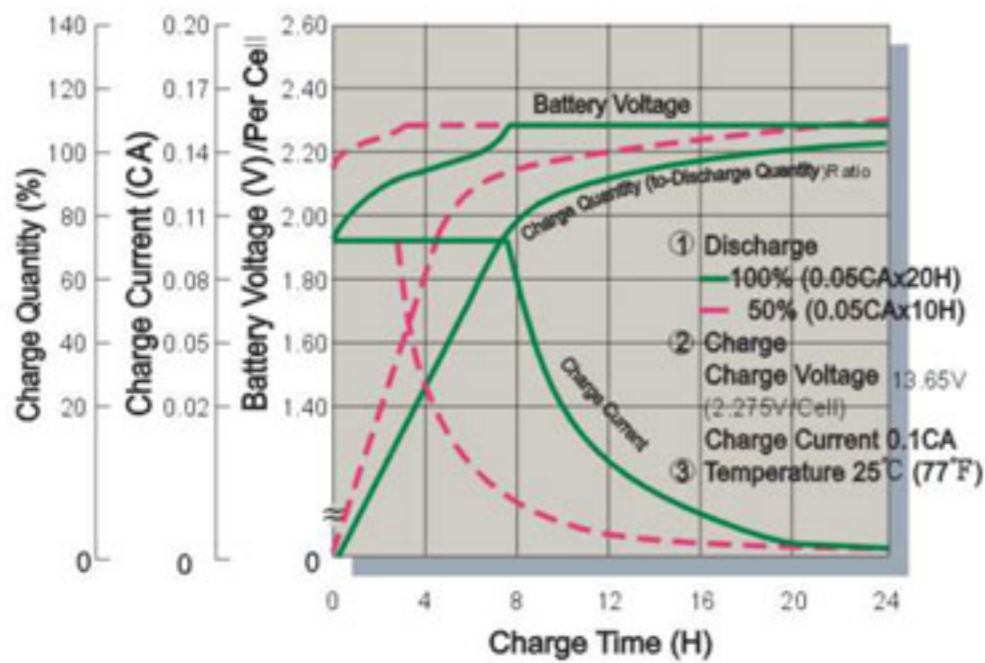


Capacity Retention Characteristic

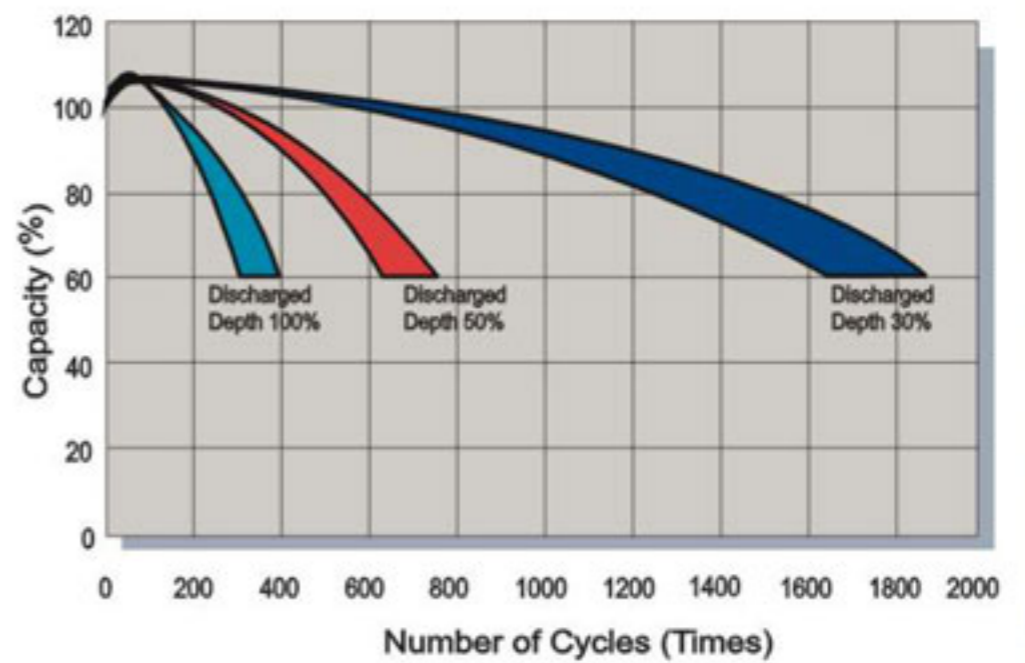


- A** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)
- B** Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached.

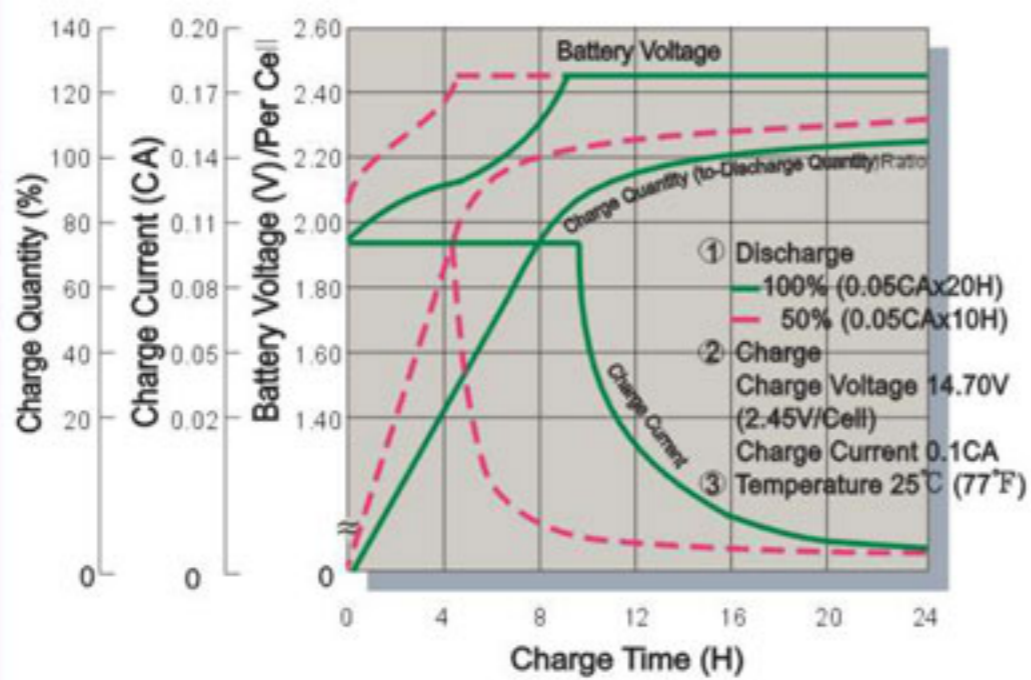
Battery Voltage and Charge Time for Standby Use



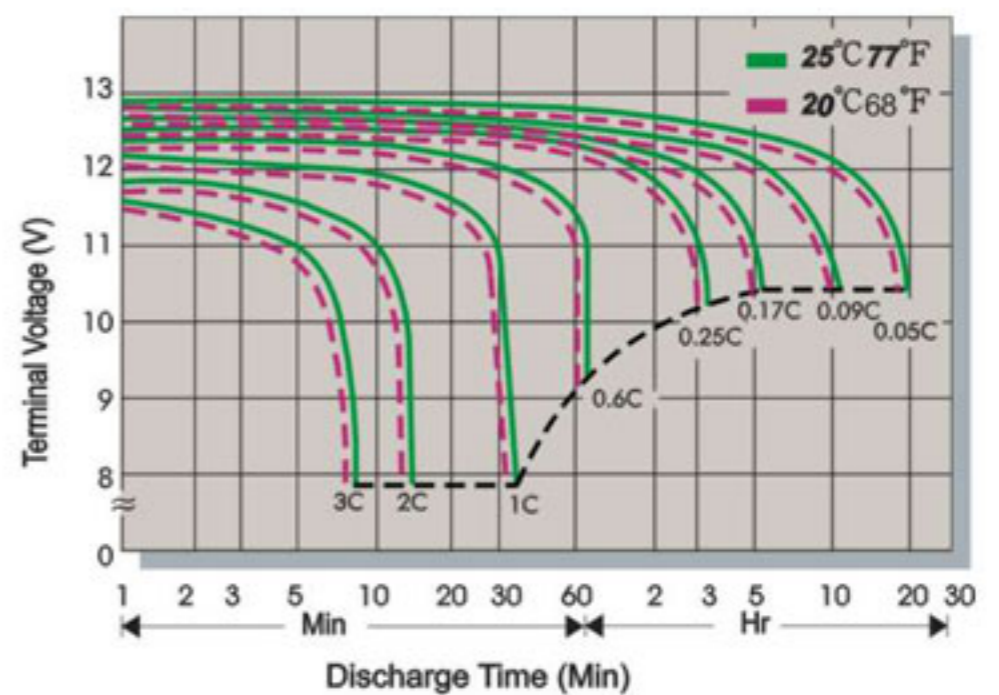
Cycle Service Life



Battery Voltage and Charge Time for Cycle Use



Terminal Voltage (V) and Discharge Time



XTV1272**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	27.7	17.7	13.4	7.94	4.61	2.68	1.93	1.53	1.26	0.888	0.712	0.389
1.67V	26.8	17.4	13.3	7.87	4.48	2.63	1.90	1.50	1.25	0.877	0.708	0.385
1.70V	25.8	17.1	13.2	7.82	4.41	2.62	1.89	1.49	1.24	0.868	0.703	0.380
1.75V	24.6	16.4	12.9	7.75	4.31	2.60	1.88	1.48	1.23	0.847	0.698	0.375
1.80V	21.8	15.4	12.3	7.53	4.23	2.57	1.86	1.47	1.22	0.828	0.689	0.371
1.85V	18.3	13.9	11.2	7.10	4.11	2.48	1.80	1.42	1.19	0.802	0.670	0.366

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	299	193	149	89.8	54.8	32.1	23.1	18.3	15.2	10.3	8.65	4.68
1.67V	290	190	148	89.3	54.7	31.9	23.0	18.2	15.1	10.2	8.63	4.63
1.70V	282	188	147	88.8	54.5	31.8	22.9	18.1	15.0	10.1	8.60	4.60
1.75V	264	182	145	88.1	53.8	31.7	22.8	18.0	14.9	10.0	8.55	4.56
1.80V	239	173	138	86.3	53.2	31.4	22.7	17.8	14.8	9.93	8.50	4.51
1.85V	206	160	128	82.3	51.8	30.2	21.9	17.5	14.7	9.85	8.27	4.45

XTV12750**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	285	197	151	91.6	54.6	32.4	22.3	17.1	14.1	9.39	7.89	4.09
1.67V	252	184	144	90.0	53.5	31.7	22.1	17.0	14.0	9.39	7.73	4.07
1.70V	235	176	140	88.4	52.9	31.5	21.8	16.9	13.9	9.32	7.67	4.05
1.75V	208	163	133	84.5	51.4	30.6	21.2	16.6	13.7	9.16	7.57	4.00
1.80V	189	147	123	79.7	49.5	29.2	20.8	16.3	13.4	9.00	7.50	3.93
1.85V	156	131	107	72.9	46.2	27.4	19.7	15.4	12.9	8.68	7.14	3.78

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	2,671	1,993	1,604	993	606	361	256	201	165	111	92.4	47.9
1.67V	2,469	1,895	1,557	982	598	356	253	197	163	110	91.6	47.4
1.70V	2,385	1,839	1,539	973	596	354	251	197	163	109	90.8	47.1
1.75V	2,237	1,726	1,444	942	583	345	245	193	161	107	90.0	46.9
1.80V	1,971	1,602	1,322	898	563	331	240	188	156	106	89.2	46.2
1.85V	1,677	1,424	1,165	834	531	314	228	178	149	102	85.3	44.8

XTV12850**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	323	224	170	103	62.0	36.8	25.3	19.4	16.1	10.7	8.90	4.64
1.67V	286	209	163	101	60.6	36.0	25.1	19.3	15.9	10.6	8.80	4.61
1.70V	266	200	159	99.4	59.9	35.7	24.8	19.1	15.8	10.5	8.78	4.59
1.75V	236	185	151	95.6	58.3	34.6	24.1	18.7	15.6	10.3	8.58	4.54
1.80V	215	166	139	90.1	56.1	33.2	23.6	18.5	15.3	10.2	8.50	4.46
1.85V	178	148	121	82.7	52.3	31.0	22.4	17.5	14.5	9.9	8.10	4.28

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	3,027	2,260	1,819	1,125	687	409	290	227	187	125	104	54.3
1.67V	2,800	2,148	1,765	1,113	678	404	287	224	185	124	103	53.7
1.70V	2,704	2,085	1,745	1,102	676	401	285	223	185	123	102	53.4
1.75V	2,536	1,956	1,636	1,068	662	391	278	219	182	122	101	53.2
1.80V	2,234	1,816	1,499	1,017	638	376	272	213	178	120	100	52.4
1.85V	1,901	1,615	1,320	945	601	356	259	203	169	116	96.6	50.8

XTV12950**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	361	250	191	116	69.2	41.1	28.3	21.6	17.9	11.9	10.0	5.18
1.67V	319	233	182	114	67.8	40.2	28.0	21.5	17.7	11.8	9.79	5.15
1.70V	298	223	177	112	67.0	39.9	27.6	21.4	17.6	11.7	9.72	5.13
1.75V	264	206	169	107	65.1	38.7	26.9	21.0	17.4	11.6	9.59	5.07
1.80V	240	186	156	101	62.7	37.0	26.4	20.7	17.0	11.4	9.50	4.98
1.85V	198	166	136	92.4	58.5	34.7	25.0	19.5	16.3	11.0	9.05	4.79

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	3383	2525	2032	1258	768	457	324	254	209	140	117	60.7
1.67V	3128	2400	1972	1244	757	451	321	250	207	139	116	60.0
1.70V	3021	2330	1950	1232	755	448	318	249	206	138	115	59.7
1.75V	2833	2186	1829	1193	739	437	310	245	204	136	114	59.4
1.80V	2496	2029	1675	1137	713	419	304	238	198	134	113	58.5
1.85V	2124	1804	1476	1056	672	398	289	226	189	129	108	56.8

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