

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

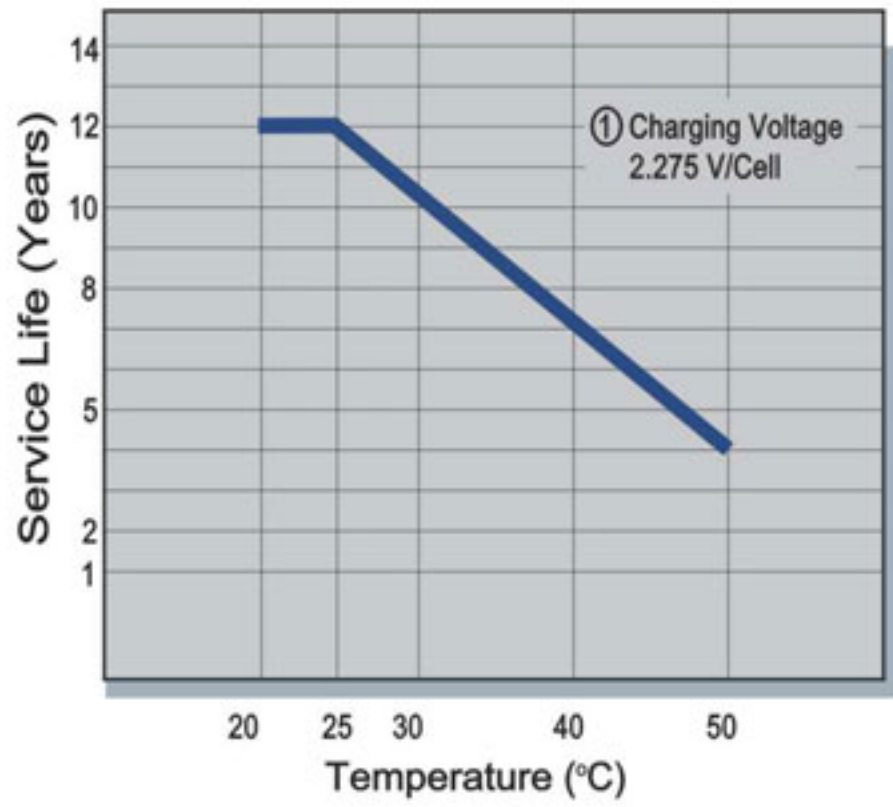
Standby use

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

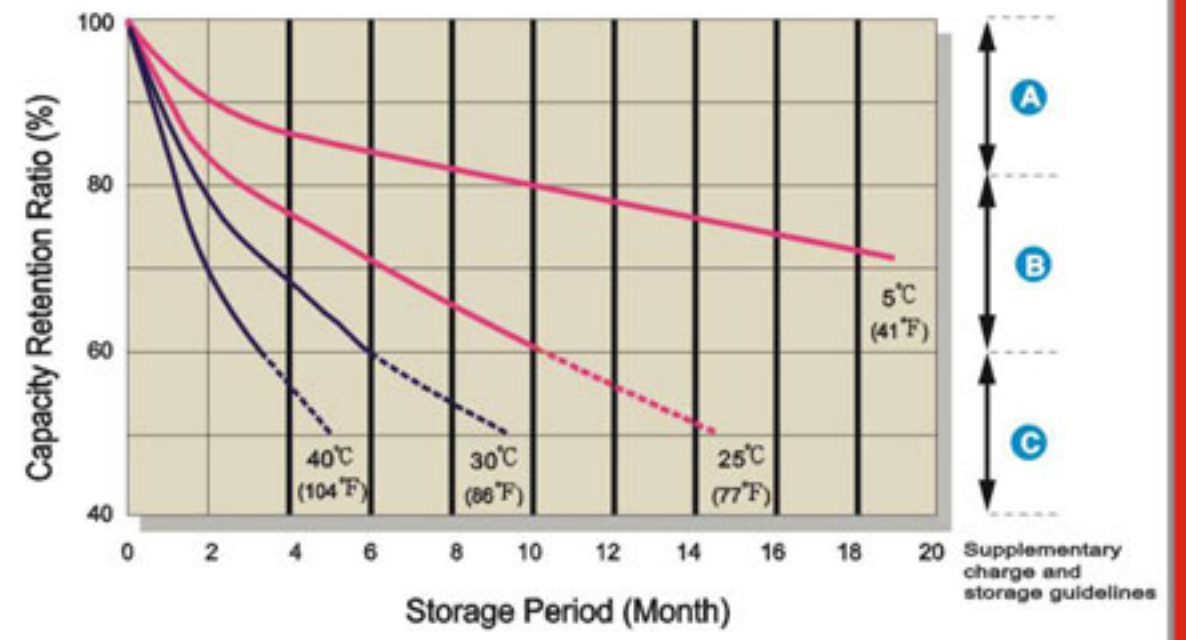
Solar Cell Power Generation

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

Trickle (or Float) Service Life

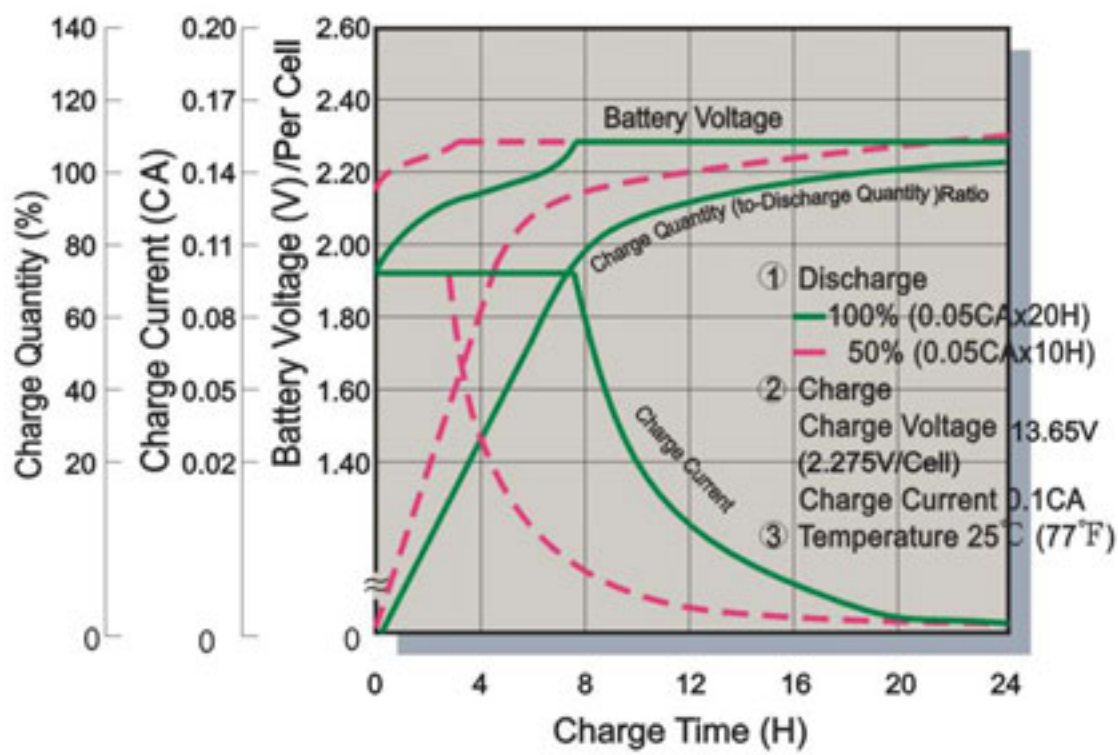


Capacity Retention Characteristic

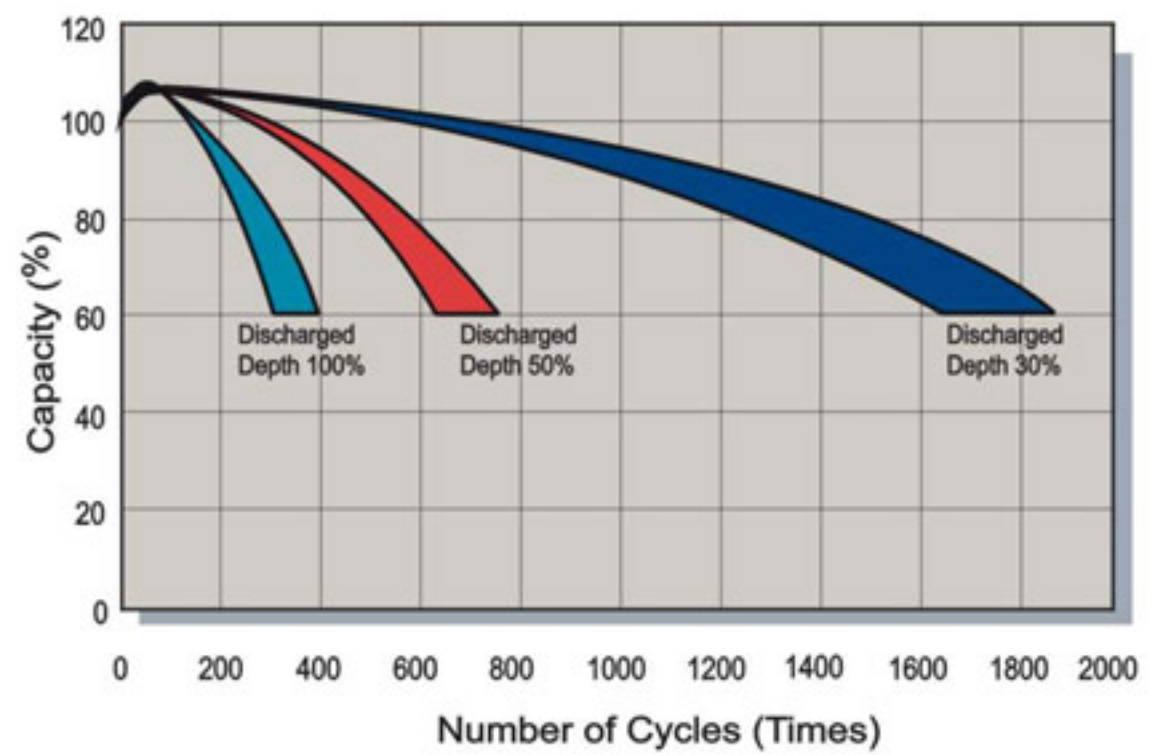


- A** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)
- B** Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.
- C** Supplementary charge may often fail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

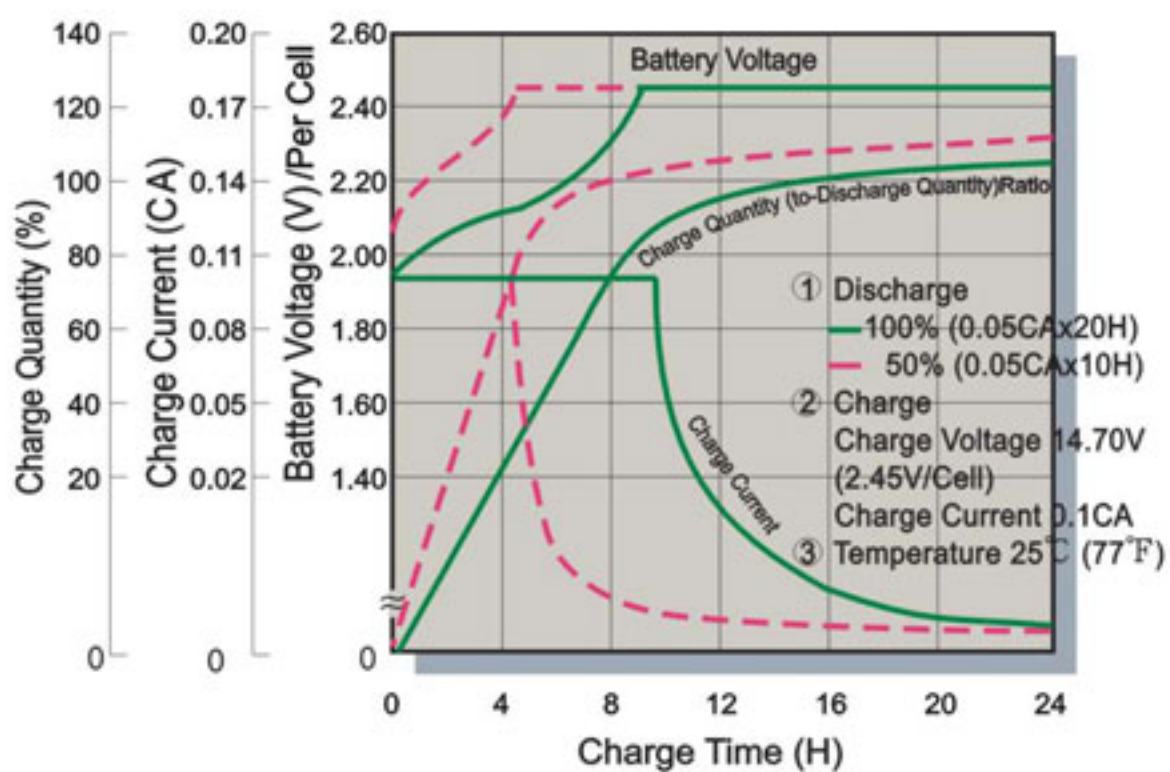
Battery Voltage and Charge Time for Standby Use



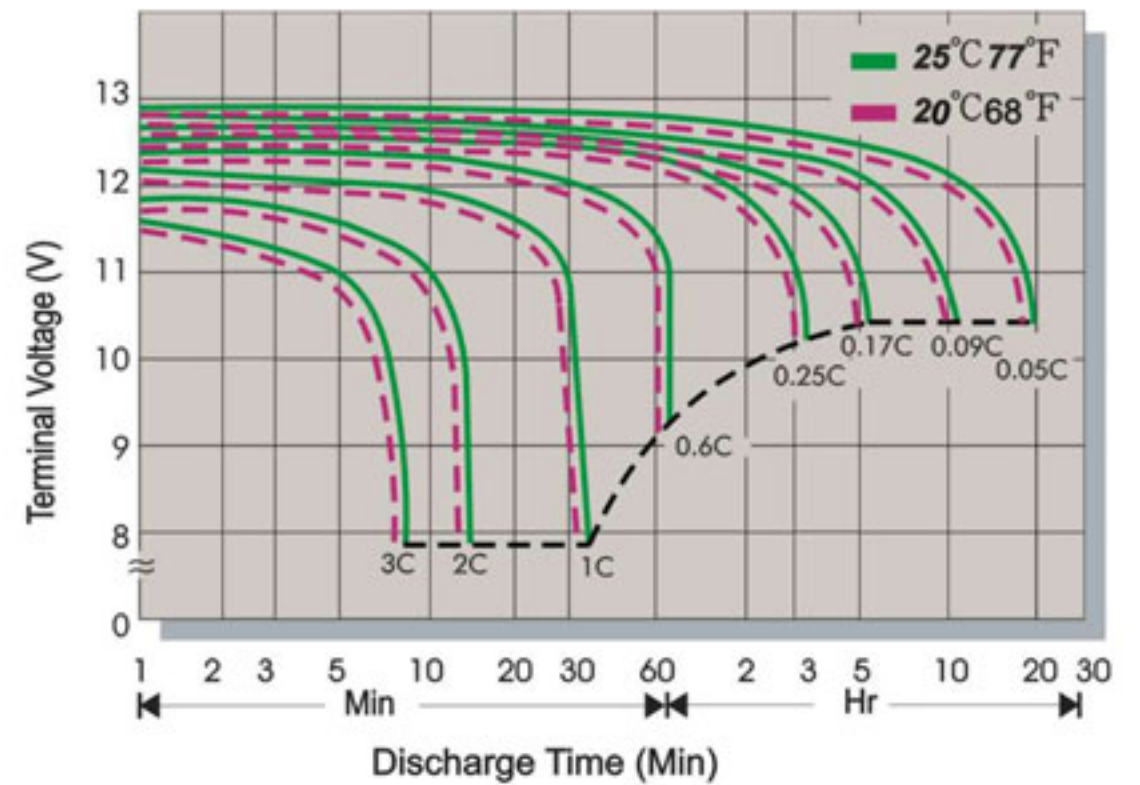
Cycle Service Life



Battery Voltage and Charge Time for Cycle Use



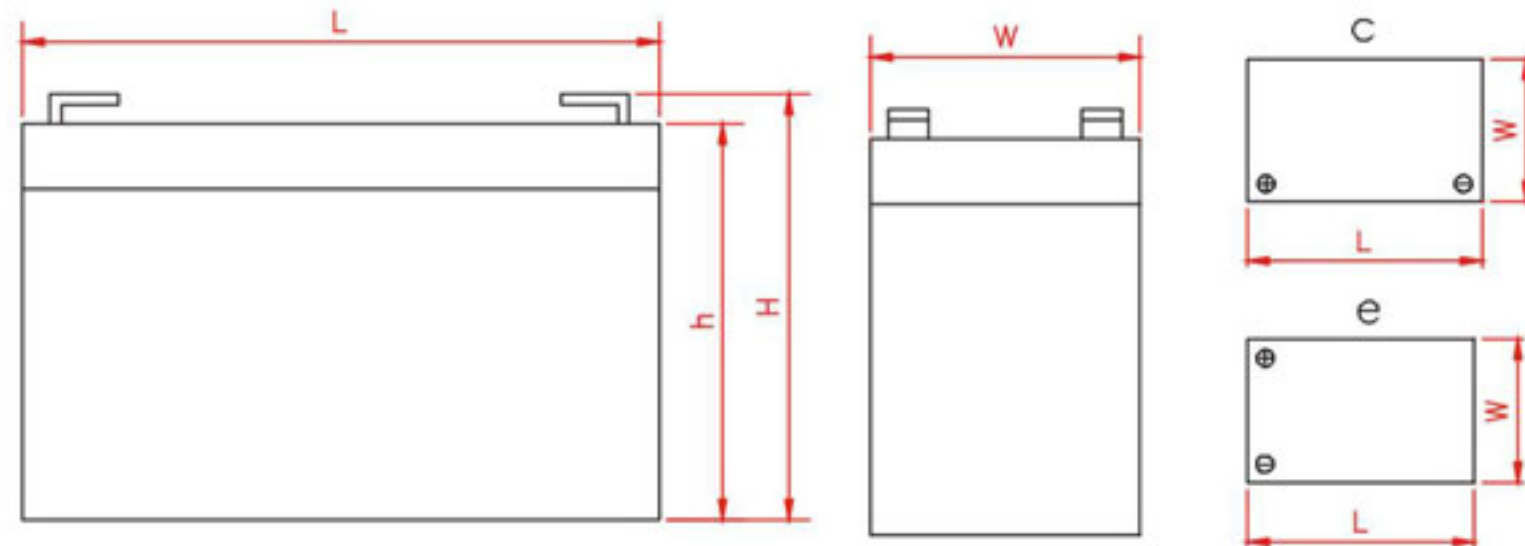
Terminal Voltage (V) and Discharge Time



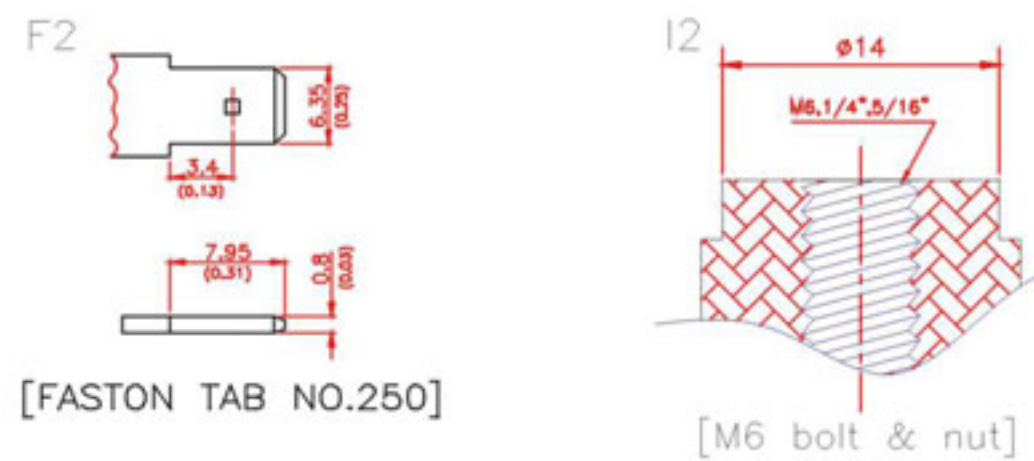
Specifications

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)	Charging(V)	
								Height Over Terminal (H)	Container Height (h)	Length (L)	Width (W)				Standby Use	Cycle Use
XTV1272	12	7.2	2.75	93.6	31.42	21.00	130	151±2.0	94±1.0	151±2.0	65±1.0	e	F2	2.16	2.275V±0.025/CELL AT 25°C (77°F) Temp Coefficient -3.3mV/CELL°C	2.45V±0.05V/CELL AT 25°C (77°F) Temp Coefficient -5mV/CELL°C
XTV12400	12	40	17.60	75.2	27.27	5.70	300	207.3±2.5	202.3±2.5	228±2.5	138.4±2.0	c	I2	12.00		
XTV12650	12	65	25.60	84.0	30.47	4.50	800	214.2±2.5	211.2±2.5	261±2.5	168.5±2.0	c	I2	19.50		
XTV12750	12	75	29.70	81.6	30.30	4.50	800	214.3±2.5	211.3±2.5	308.7±2.5	169±2.0	c	I2	22.50		
XTV12850	12	85	33.40	81.5	30.54	4.50	800	217.6±2.5	214.6±2.5	343±2.5	170±2.0	c	I2	25.50		
XTV121000	12	100	45.70	74.9	26.26	3.70	800	277.7±2.5	274.7±2.5	343±2.5	170±2.0	c	I2	30.00		

Terminal Position



Terminal Type



XTV1272

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	14.1	8.24	4.61	2.68	1.93	1.53	1.26	0.888	0.712	0.389
1.67V	13.5	8.03	4.48	2.63	1.90	1.50	1.25	0.877	0.708	0.385
1.70V	13.2	7.94	4.41	2.62	1.89	1.49	1.24	0.868	0.703	0.380
1.75V	12.7	7.77	4.31	2.60	1.88	1.48	1.23	0.847	0.698	0.375
1.80V	12.2	7.60	4.23	2.57	1.86	1.47	1.22	0.828	0.689	0.371
1.85V	11.7	7.33	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	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	158	90.6	54.8	32.1	23.1	18.3	15.2	10.3	8.65	4.68
1.67V	153	89.0	54.7	31.9	23.0	18.2	15.1	10.2	8.63	4.63
1.70V	151	88.4	54.5	31.8	22.9	18.1	15.0	10.1	8.60	4.60
1.75V	146	87.0	53.8	31.7	22.8	18.0	14.9	10.0	8.55	4.56
1.80V	141	85.2	53.2	31.4	22.7	17.8	14.8	9.93	8.50	4.51
1.85V	136	83.2	51.8	30.2	21.9	17.5	14.7	9.85	8.27	4.45

XTV12400

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	83.8	48.5	28.1	15.9	11.3	8.78	7.25	4.92	4.13	2.13
1.67V	79.5	46.7	27.8	15.6	11.1	8.66	7.17	4.88	4.10	2.12
1.70V	78.0	45.9	27.6	15.5	11.0	8.62	7.13	4.84	4.06	2.11
1.75V	74.4	44.2	27.0	15.3	10.8	8.51	7.05	4.76	4.02	2.09
1.80V	69.1	42.4	26.1	15.0	10.6	8.35	6.97	4.69	3.94	2.07
1.85V	64.5	40.2	24.3	14.8	10.4	8.23	6.81	4.61	3.86	1.98

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	932	545	326	186	133	104	85.8	58.7	49.6	28.0
1.67V	874	529	325	183	131	103	85.1	58.3	49.2	27.8
1.70V	855	521	323	182	130	102	84.3	57.9	48.8	27.7
1.75V	821	502	317	179	128	101	83.9	57.5	48.4	27.2
1.80V	773	483	306	175	126	99.2	83.5	56.3	47.6	26.7
1.85V	729	459	288	172	124	97.7	81.5	55.5	46.9	26.3

XTV12650**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	127	78.8	45.6	25.9	18.9	14.8	12.1	8.03	6.60	3.58
1.67V	124	77.2	45.3	25.8	18.8	14.7	12.0	7.95	6.50	3.46
1.70V	122	76.5	45.0	25.5	18.7	14.6	11.9	7.88	6.43	3.40
1.75V	116	74.8	44.5	25.4	18.5	14.5	11.8	7.80	6.35	3.29
1.80V	107	71.5	43.5	24.9	18.0	14.1	11.6	7.65	6.32	3.26
1.85V	96.4	67.0	41.3	23.8	17.2	13.5	11.1	7.39	6.16	3.15

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	1,408	888	522	298	218	172	141	93.3	76.1	39.7
1.67V	1,379	877	518	297	217	171	140	92.5	75.4	39.3
1.70V	1,360	866	515	294	216	170	139	91.8	74.8	39.0
1.75V	1,297	847	509	292	215	168	138	91.0	74.1	38.7
1.80V	1,191	808	497	288	210	164	135	88.7	73.5	38.3
1.85V	1,064	757	471	275	199	156	128	85.6	70.9	36.8

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	147	90.9	52.6	29.9	21.8	17.1	14.0	9.27	7.62	4.13
1.67V	143	89.1	52.3	29.8	21.7	17.0	13.9	9.18	7.50	4.00
1.70V	141	88.3	51.9	29.5	21.6	16.9	13.8	9.09	7.42	3.92
1.75V	134	86.3	51.4	29.3	21.4	16.8	13.7	9.00	7.33	3.80
1.80V	124	82.5	50.2	28.8	20.8	16.3	13.4	8.83	7.30	3.76
1.85V	111	77.3	47.7	27.5	19.9	15.6	12.8	8.53	7.11	3.64

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	1,625	1,025	602	344	252	198	163	108.0	87.8	45.8
1.67V	1,591	1,012	598	343	251	197	162	107.0	87.0	45.4
1.70V	1,569	1,000	594	340	249	196	161	106.0	86.3	45.0
1.75V	1,497	978	588	337	248	194	159	105.0	85.5	44.7
1.80V	1,375	933	574	332	242	189	156	102.0	84.8	44.2
1.85V	1,228	874	544	317	230	180	148	98.8	81.8	42.5

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	166	103	59.6	33.9	24.7	19.3	15.8	10.5	8.63	4.68
1.67V	162	101	59.3	33.7	24.6	19.2	15.7	10.4	8.50	4.53
1.70V	160	100	58.8	33.4	24.4	19.1	15.6	10.3	8.41	4.44
1.75V	152	97.8	58.2	33.2	24.2	19.0	15.5	10.2	8.30	4.30
1.80V	140	93.5	56.9	32.6	23.6	18.5	15.2	10.0	8.27	4.26
1.85V	126	87.6	54.0	31.1	22.5	17.6	14.5	9.670	8.05	4.12

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	1,841	1,161	682	390	285	224	184	122	99.5	51.9
1.67V	1,803	1,147	678	388	284	223	183	121	98.6	51.4
1.70V	1,778	1,133	673	385	282	222	182	120	97.8	51.0
1.75V	1,696	1,108	666	382	281	220	180	119	96.9	50.6
1.80V	1,558	1,057	650	376	274	214	177	116	96.1	50.1
1.85V	1,391	990	616	359	260	204	168	112	92.7	48.1

XTV121000**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	217	127	71.3	40.3	28.7	22.3	18.4	12.5	10.5	5.42
1.67V	205	121	70.2	39.7	28.2	22.0	18.2	12.4	10.4	5.38
1.70V	199	119	69.6	39.4	28.0	21.9	18.1	12.3	10.3	5.36
1.75V	187	114	67.9	38.4	27.2	21.4	17.7	12.0	10.1	5.31
1.80V	172	108	65.0	37.7	26.6	21.0	17.5	11.8	9.90	5.20
1.85V	156	103	60.4	37.1	26.1	20.7	17.1	11.6	9.70	4.97

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	2,345	1,438	828	472	337	263	218	149	126	71.0
1.67V	2,225	1,379	813	465	333	262	216	148	125	70.6
1.70V	2,161	1,348	807	461	331	261	214	147	124	70.4
1.75V	2,026	1,283	794	449	323	254	211	145	122	68.5
1.80V	1,841	1,222	763	440	317	249	210	142	120	67.2
1.85V	1,624	1,153	728	433	312	245	205	140	118	66.0

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