

Normal Series

Introduction

Normal Series designed for UPS/EPS, Emergency lighting (medical, insurance, bank, tax administration and recreation), Spot light, energy saving lamp, Railway and airline signals, Alarming and security, Instruments and meters, electrical D/C power sources.

Voltage: 12V
 Capacity: 33AH to 250AH
 Designed floating service life:
 10 ~ 15 years designed life at 20oC / 68oF

Typical Applications

- Electronic instruments
- Fire alarm
- Security devices
- UPS power supply
- Emergency lighting

Application of scene graph ▾



•Solar •Wind •Power •UPS •Telecom •Bank

Model	Voltage (V)	Capacity (Ah)	Dimension								Weight (APPROX.) (kg)	Terminal	
			Length		Width		Height		T.Height			Type	Position
			(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)			
HT12-33	12	33	195	7.68	130	5.12	159	6.26	180	7.09	10.5	F5	D
HT12-40	12	40	196	7.72	165	6.5	175	6.89	182	7.17	13.4	F6	D
HT12-55	12	55	229	9.02	138	5.43	208	8.19	227	8.93	18.2	F6	D
HT12-65	12	65	350	13.8	166	6.54	178	7.01	178	7.01	21.2	F7	D
HT12-70	12	70	259	10.2	169	6.65	208	8.19	227	8.94	23.5	F7	D
HT12-80	12	80	350	13.8	166	6.54	178	7.01	178	7.01	25.1	F7	D
HT12-90	12	90	307	12.09	169	6.65	211	8.31	227	8.94	27.3	F8/F14	D
HT12-100	12	100	329	12.95	172	6.73	214	8.43	243	9.57	29	F8/F14	D
HT12-120	12	120	406	16.02	174	6.85	209	8.23	238	9.37	37	F9/F15	D
HT12-150	12	150	483	19.02	170	6.69	241	9.49	241	9.49	41.5	F9/F15	D
HT12-160	12	160	483	19.02	170	6.69	241	9.49	241	9.49	42.0	F9	D
HT12-180	12	180	522	20.9	240	8.23	218	8.58	244	9.61	54	F9	D
HT12-200	12	200	522	20.9	240	8.23	218	8.58	244	9.61	59.0	F10	F
HT12-250	12	250	520	20.5	269	10.6	220	8.66	245	9.7	71.0	F10	F

Normal Series



Model	Voltage (V)	Capacity (Ah)	Dimension								Weight (APPROX.)		Terminal	
			Length		Width		Height		T.Height		(kg)	(Lb)	Type	Position
			(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)				
HT6-4.0X	6	4	70	2.76	47	1.85	101	3.98	106	4.17	0.71	1.57	F1B	A
HT6-5.0	6	5	70	2.76	47	1.85	101	3.98	106	4.17	0.78	1.72	F1B	A
HT6-7.0	6	7	151	5.94	34	1.34	94	3.7	100	3.94	1.1	2.43	F1B/F2	D
HT6-8B	6	8	151	5.94	50	1.97	94	3.7	100	3.94	1.35	2.98	F1B/F2	D
HT6-10	6	10	151	5.94	50	1.97	94	3.7	100	3.94	1.65	3.64	F1B/F2	D
HT6-12	6	12	151	5.94	50	1.97	94	3.7	100	3.94	1.8	3.97	F1B/F2	D
HT6-14	6	14	151	5.94	50	1.97	94	3.7	100	3.94	2.1	4.63	F1B/F2	D
HT12-2.3A	12	2.3	178	7.01	35	1.38	61	2.4	67	2.64	0.91	2.01	F1A	D
HT12-2.6B	12	2.6	178	7.01	34	1.34	60	2.36	70	2.8	1	2.2	F1A	F
HT12-3.2	12	3.2	134	5.28	67	2.64	61	2.4	67	2.64	1.3	2.87	F1A	F
HT12-4.0	12	4	90	3.54	70	2.76	101	3.98	107	4.21	1.4	3.09	F1B/F2	D
HT12-4.5	12	4.5	90	3.54	70	2.76	101	3.98	107	4.21	1.45	3.2	F1B/F2	D
HT12-5.0	12	5	90	3.54	70	2.76	101	3.98	107	4.21	1.55	3.42	F1B/F2	D
HT12-5.5	12	5.5	90	3.54	70	2.76	101	3.98	107	4.21	1.7	3.75	F1B/F2	D
HT12-7	12	7	151	5.94	65	2.56	94	3.7	100	3.94	2.16	4.8	F1B/F2	F
HT12-7.2	12	7.2	151	5.94	65	2.56	94	3.7	100	3.94	2.3	5.07	F1B/F2	F
HT12-7.5	12	7.5	151	5.94	65	2.56	94	3.7	100	3.94	2.4	5.29	F1B/F2	F
HT12-8.0	12	8	151	5.94	65	2.56	94	3.7	100	3.94	2.45	5.4	F1B/F2	F
HT12-9.0	12	9	151	5.94	65	2.56	94	3.7	100	3.94	2.5	5.51	F1B/F2	F
HT12-10	12	10	151	5.94	98	3.86	95	3.74	101	3.98	3.25	7.2	F1B/F2/F38	F
HT12-12	12	12	151	5.94	98	3.86	95	3.74	101	3.98	3.65	8.047	F1B/F2/F38	F
HT12-14	12	14	151	5.94	98	3.86	95	3.74	101	3.98	4.0	8.8	F1B/F2/F38	F
HT12-18	12	18	181	7.13	77	3.03	167	6.57	167	6.57	5.1	11.24	F3	D
HT12-20	12	20	181	7.13	77	3.03	167	6.57	167	6.57	5.5	12.1	F3	D
HT12-24	12	24	166	6.54	175	6.89	125	4.92	125	4.92	7.25	15.98	F4	D
HT12-26	12	26	166	6.54	175	6.89	125	4.92	125	4.92	7.7	18.74	F4	D
HT12-28	12	28	166	6.54	175	6.89	125	4.92	125	4.92	9.0	19.84	F4	D

Deep Cycle Battery Series



Deep Cycle Battery Series

Introduction

Deep Cycle Battery Series Designed for Solar and wind energy storage system, also for inverters and some application that require deep discharge often. Designed for longer cyclic service life, 20% more cycles than normal batteries.

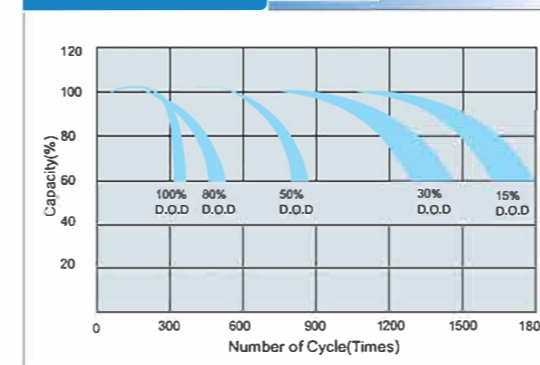
Voltage: 6V, 12V,
Capacity: 10AH250 AH
Designed floating service life:
More than 1200 cycles at 30% DOD; 800 cycles at 50% DOD

Typical Applications

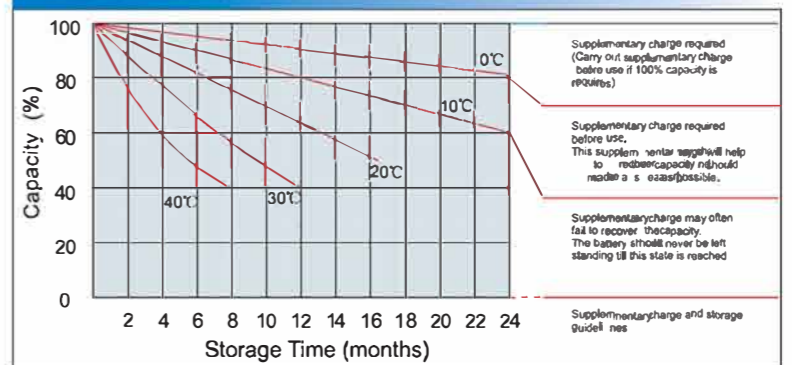
- Electric powered vehicles
- Golf cars and buggies, electronic toys
- Power tools, lawn mowers, vacuum cleaners
- Solar Power system
- Wind power system

Model	Voltage (V)	Capacity (Ah)	Dimension								Weight (APPROX.)		Terminal	
			Length		Width		Height		T.Height		(kg)	(Lb)	Type	Position
HTD6-100	6	100	194	7.6	170	6.7	205	8.1	210	8.3	15.0	33.07	F12	A
HTD6-150	6	150	260	10.2	180	7.1	245	9.6	250	9.8	23.5	51.81	F14	B
HTD6-200	6	200	321	12.6	176	6.9	226	8.9	246/229	9.7/9.0	30.5	67.24	F7/F15	A
HTD6-220	6	220	243	9.57	187	7.36	253	9.96	276	10.87	32	70.55	F15	B
HTD12-10	12	10	151	5.94	98	3.86	95	3.74	101	3.98	3.2	6.9	F1B/F38	F
HTD12-12	12	12	151	5.9	98	3.9	95	3.7	101	4.0	3.5	7.72	F1B/F2	F
HTD12-18	12	18	181	7.1	77	3	167	6.6	167/167	6.6/6.6	5.3	11.68	F3	D
HTD12-20	12	20	181	7.1	77	3	167	6.6	167/167	6.6/6.6	5.6	12.35	F3	D
HTD12-24	12	24	166	6.5	175	6.9	125	4.9	125/125	4.9/4.9	7.8	17.2	F4	D
HTD12-28	12	28	166	6.5	175	6.9	125	4.9	125/125	4.9/4.9	8.6	18.96	F4	D
HTD12-33	12	33	195	7.7	130	5.1	155	6.1	180/166	7.1/6.5	10.5	21.94	T7/T9	C
HTD12-40	12	40	197	7.8	165	6.5	170	6.7	170/170	6.7/6.7	12.5	27.56	T4/T9	D
HTD12-55	12	55	229	9	138	5.4	208	8.2	230/211	9.1/8.3	16.5	36.38	T5/T9	C
HTD12-60	12	60	260	10.2	168	6.6	211	8.3	233/214	9.2/8.4	18.5	40.79	T5/T9	C
HTD12-70	12	70	260	10.2	168	6.6	211	8.3	233/214	9.2/8.4	21.5	47.4	T5/T9	C
HTD12-80	12	80	260	10.2	168	6.6	211	8.3	233/214	9.2/8.4	23.2	51.15	T5/T9	C
HTD12-90	12	90	306	12	169	6.7	211	8.3	233/214	9.2/8.4	26.8	59.08	T5/T9	C
HTD12-100	12	100	330	13	171	6.7	214	8.4	224/220	8.8/8.7	30	66.14	T5/T9	C
HTD12-120	12	120	409	16.1	176	6.9	225	8.9	225/225	8.9/8.9	35.0	77.16	T5/T11	C
HTD12-150	12	150	485	19.1	172	6.8	240	9.4	242/240	9.5/9.4	43	94.8	T5/T11	C
HTD12-180	12	180	494	19.4	206	8.1	209	8.2	235/235	9.3/9.3	55.0	119.05	T20/T11	E
HTD12-200	12	200	522	20.6	238	9.4	218	8.6	238/221	9.4/8.7	60.0	133.38	T5/T11	E
HTD12-250	12	250	521	20.5	269	10.6	220	8.7	242/223	9.7/8.8	70.0	160.5	T5/T11	E

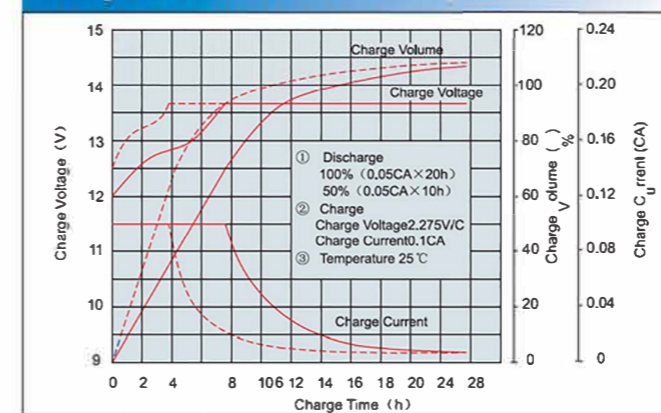
Life characteristics of cyclic use



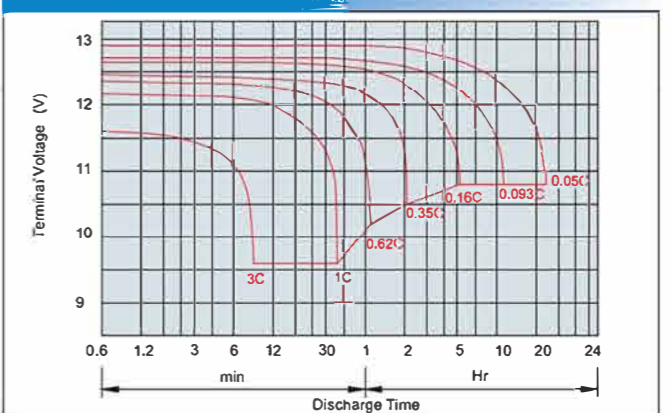
Storage Characteristic



Charge characteristic Curve for standby use



Discharge characteristic Curve



Application of scene graph



• Solar Street light



• Wind Power



• Lawn Mower



• Golf Cars



• Powered Kid's Car



Front Terminal Battery Series



Model	Voltage (V)	Capacity (Ah)	Internal Resistance (mΩ)	Dimension								Weight (APPROX.)		Terminal	
				Length		Width		Height		T.Height		(kg)	(Lb)	Type	Position
				(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)				
HTF12-55	12	55	10	277	8.9	106	4.17	221	8.7	221	8.7	17	37.5	F13	F
HTF12-75	12	75	8	562	22.1	114	4.49	189	7.44	189	7.44	24.5	54.0	F13	F
HTF12-100	12	100	6.5	395	15.6	110	4.33	286	11.3	286	11.3	31	70.5	F13	F
HTF12-105	12	105	6.5	506	19.9	110	4.33	224	8.82	239	9.41	31.5	71.0	F13	F
HTF12-120	12	120	5	551	21.7	109	4.29	239	9.41	239	9.41	39	86	F13	F
HTF12-125	12	125	5	436	17.2	108	4.25	317	12.5	317	12.5	40.5	89.3	F13	F
HTF12-150	12	150	3.6	551	21.7	110	4.33	287	11.3	287	11.3	45	108	F13	F
HTF12-180	12	180	3.3	546	21.5	125	4.92	317	12.5	323	12.7	54	119.1	F13	F

Application of scene graph



• Telecom Equipment



• Power Station



• Control Equipment

Front Terminal Battery Series

Introduction

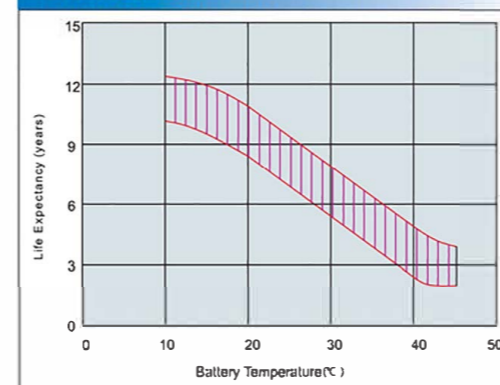
Front Terminal Battery Series designed for applied in 19 foot and 23 foot standard power cabinet, Network access equipment to Power source system for franchised network and LAN , UPS and back-up power sources.

Voltage: 12V
 Capacity: 55 AH~ 200 AH
 Designed floating service life:
 10 ~ 20 years designed life at 20°C / 68°F

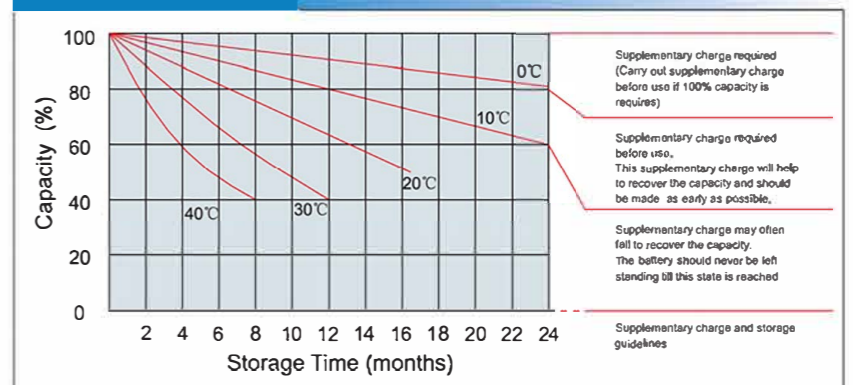
Typical Applications

- Alarm System
- Communication Equipment
- Security System
- Emergency Power System
- Cable Television
- Control Equipment
- UPS system

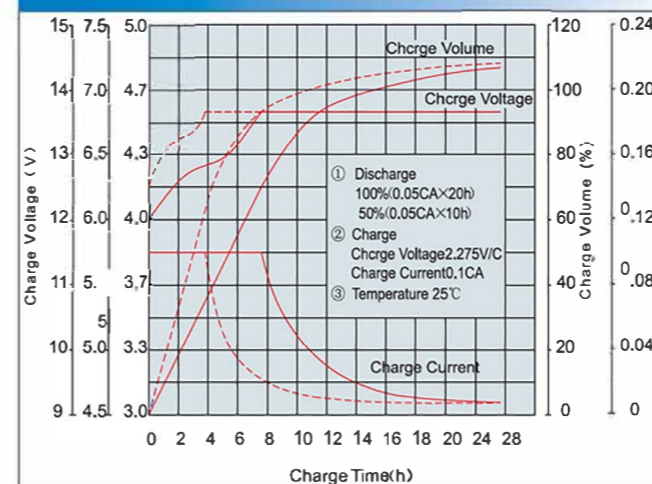
Effect of temperature on long term float life



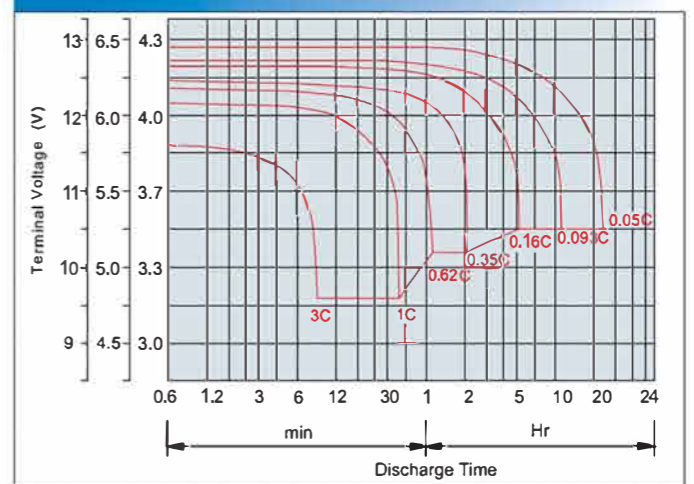
Storage Characteristic



Charge characteristic Curve for standby use



Discharge characteristic Curve



High Rate Battery



High Rate Battery

Introduction

High Rate Battery Series is high performance battery, specially designed for applications requiring high rate discharge and offers much improved power densities up to 50% more watts per kilo than general models when operated at the 10 minutes discharge rate. The High rating Series designed for small UPS, Generators, Jump start, and other high power back-up power sources, Electronic powered toys, also some power quad bike and power tools which discharge with big current.

Voltage: 6V, 12V
 Capacity: 18AH~250AH
 Designed floating service life:
 10 ~ 15 years designed life at 20°C / 68°F

Typical Applications

- Electronic instruments
- Fire alarm
- Security devices
- UPS system
- Emergency lighting

Model	Voltage (V)	Capacity (Ah)	Dimension								Weight (APPROX.)		Terminal	
			Length		Width		Height		T.Height		(kg)	(Lb)	Type	Position
HT12-18	12	18	181	7.13	77	3.03	167	6.57	167	6.57	5.7	12.56	F3	D
HT12-20	12	20	181	7.13	77	3.03	167	6.57	167	6.57	6.3	13.86	F3	D
HT12-24	12	24	166	6.54	175	6.89	125	4.92	125	4.92	7.7	15.98	F4	D
HT12-26	12	26	166	6.54	175	6.89	125	4.92	125	4.92	8.0	17.74	F4	D
HT12-28	12	28	166	6.54	175	6.89	125	4.92	125	4.92	9.0	19.84	F4	D
HT12-33	12	33	195	7.68	130	5.12	159	6.26	180	7.09	10.5	23.1	F5	D
HT12-45	12	45	196	7.72	165	6.5	175	6.89	182	7.17	14.2	31.25	F6	D
HT12-55	12	55	229	9.02	138	5.43	208	8.19	227	8.93	17.5	38.5	F6	D
HT12-65	12	65	350	13.8	166	6.54	178	7.01	178	7.01	21.2	46.7	F7	D
HT12-70	12	70	259	10.2	169	6.65	208	8.19	227	8.94	22.0	48.5	F7	D
HT12-80	12	80	350	13.8	166	6.54	178	7.01	178	7.01	24.5	53.3	F7	D
HT12-90	12	90	307	12.09	169	6.65	211	8.31	227	8.94	27.3	60.2	F8/F14	D
HT12-100	12	100	329	12.95	171	6.73	214	8.43	243	9.57	31	68.5	F8/F14	D
HT12-120	12	120	341	16.02	172	6.85	209	8.23	238	9.37	37	81.6	F9/F15	D
HT12-150	12	150	530	19.02	209	6.69	241	9.49	241	9.49	46.3	102.1	F9/F15	D
HT12-160	12	160	522	20.9	238	8.23	214	8.43	244	9.61	47	103.6	F9	D
HT12-200	12	200	522	20.6	238	9.37	218	8.58	238	9.37	60	132.6	F10	F
HT12-250	12	250	521	20.5	269	106	220	8.66	249	9.8	71.8	167.9	F10	F

Application of scene graph



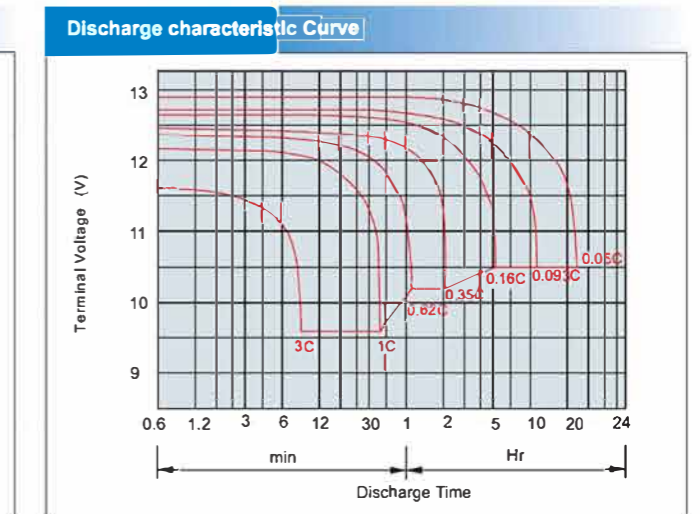
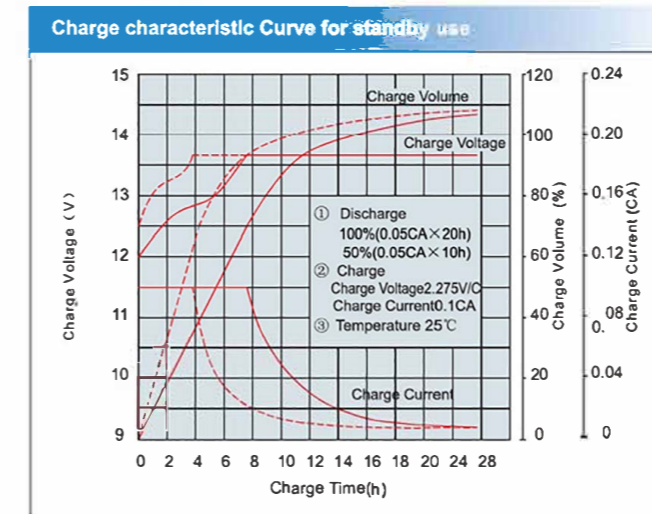
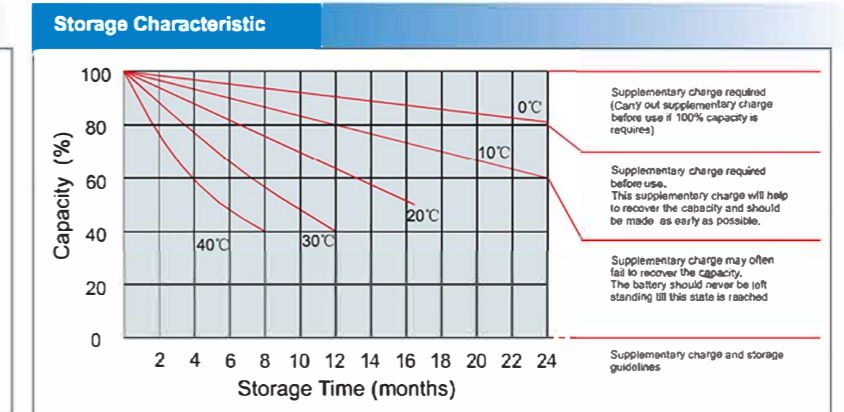
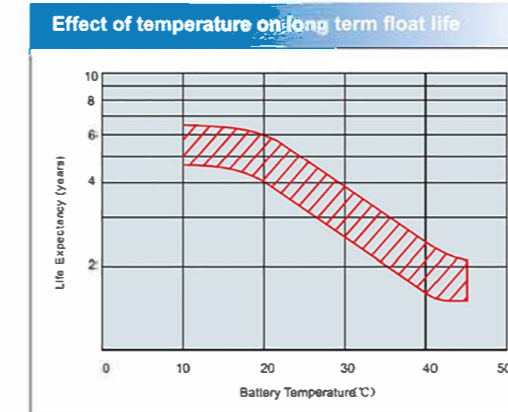
• Telecom Systems



• Control Systems



• UPS Systems



Long Life Battery Series



Model	Voltage (V)	Capacity (Ah)	Internal Resistance (mΩ)	Dimension			Weight (APPROX.)		Terminal	
				Length (mm)	Width (mm)	T.Height (mm)	(kg)	(Lb)	Type	Position
HT2-100	2	100	0.9	171	72	206	6	13.23	F7/F14	A
HT2-150	2	150	0.7	171	102	206	8.5	18.74	F7/F14	A
HT2-200	2	200	0.95	173	109	330	12	26.86	F7/F14	A
HT2-300	2	300	0.8	171	151	330	16.5	36.30	F8/F15	I
HT2-400	2	400	0.65	210	176	330	22.0	48.42	F8/F15	I
HT2-500	2	500	0.55	241	171	330	27.0	59.45	F9/F15	I
HT2-600	2	600	0.5	302	175	330	32	70.4	F9/F15	I
HT2-800	2	800	0.4	410	175	330	43.5	95.75	F9/F15	I
HT2-1000	2	1000	0.3	475	175	330	54	118.8	F10/F15	J
HT2-1500	2	1500	0.22	400	350	345	85	218.0	F10/F15	J
HT2-2000	2	2000	0.2	490	350	345	110	242.5	F10/F15	J
HT2-3000	2	3000	0.13	710	350	345	168	369.62	F10/F15	J

Application of scene graph



- Telecommunication equipment
- UPS system
- Electronic instruments
- Solar power system
- Wind power system
- Back-up Systems

Long Life Battery Series

Introduction

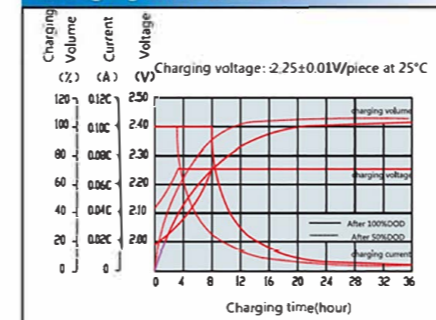
Long Life Series designed for Central control station and transmission station for telecommunication, Central control station and relay station for wireless telecommunication, Telecommunication stations for various applications such as electricity distribution and military communication, Data transmission and television signal transmission, EPS/UPS.

Voltage: 2V
 Capacity: 100 AH~3000 AH
 Designed floating service life:
 15 years designed life at 20°C/ 68°F at 20°C / 68°F
 More than 1200 cycles at 30% DOD; 800 cycles at 50% DOD

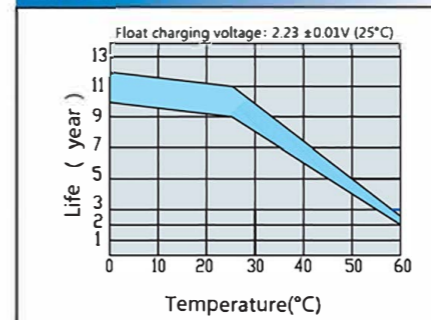
Typical Applications

- Telecommunication equipment
- Electronic instruments
- UPS system
- Solar power system
- Wind power system

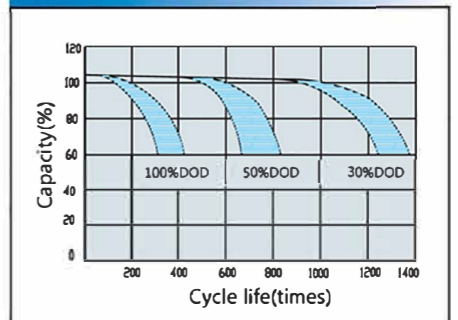
Charging characteristics



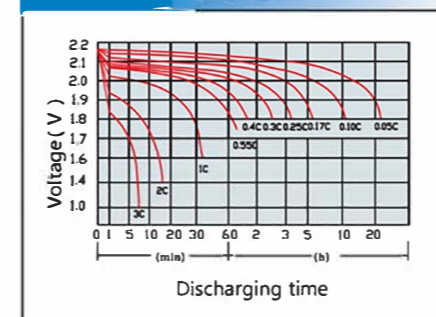
Temperature effect on float life



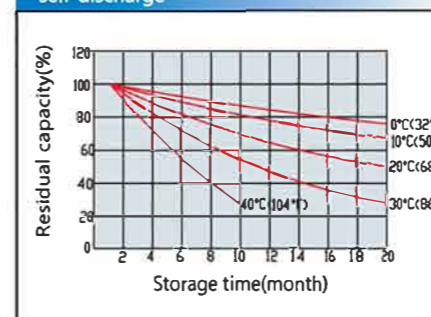
Cycle life vs. Depth of discharge (25°C)



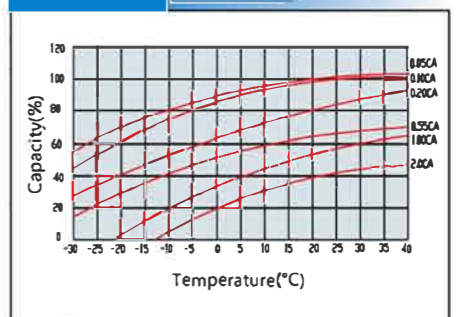
Discharge characteristics (25°C)



Temperature effect on battery self-discharge



Temperature effect on capacity



Solar GEL Battery Series



• Solar & Wind system



• Communications



• UPS systems



• Golf cars

Model	Voltage (V)	Capacity (Ah)	Internal Resistance (mΩ)	Dimension						Weight (APPROX.)		Terminal	
				Length		Width		T.Height		(kg)	(Lb)	Type	Position
HTG6-100	6	100	3.3	194	7.6	170	6.7	205	8.1	15.8	34.83	F4	D
HTG6-190	6	190	2.2	243	9.6	187	7.4	253	10.9	31	68.34	F4	D
HTG12-55	12	55	7	229	9	138	5.4	208	8.2	17.5	38.48	F6	D
HTG12-65	12	65	6.6	350	3.8	167	6.6	179	7	21	46.3	F7	D
HTG12-70	12	70	7	260	10.2	168	6.6	211	8.3	22.8	50.91	F7	D
HTG12-80	12	80	6.5	306	12.05	166	6.65	211	8.3	25.0	55.3	F7	D
HTG12-90	12	90	5.8	306	12.05	169	6.65	211	8.3	26.5	62.83	F8/F14	D
HTG12-100	12	100	5	330	13	171	6.7	214	8.4	30	66.55	F8/F14	D
HTG12-120	12	120	4.4	409	16.1	176	6.9	225	8.9	35.5	78.47	F8/F14	D
HTG12-150	12	150	3.9	485	19.1	172	6.8	240	9.4	42	92.4	F9/F15	D
HTG12-200	12	200	3.3	522	20.6	238	9.4	218	8.6	60	132.1	F10	F
HTG12-250	12	250	7.9	521	20.5	269	10.6	220	8.7	70	154.3	F10	F
HTG12-50FT	12	50	7.2	277	10.91	106	4.17	221	8.7	17	37.48	F10	F
HTG12-100FT	12	100	5.4	506	19.9	110	4.3	224	9.4	31	68.34	F10	F
HTG12-150FT	12	150	4	551	21.7	110	4.3	284	11.3	45	99	F10	F
HTG12-180FT	12	180	3	546	21.5	125	4.9	317	12.7	54	118.6	F10	F
HT2-100	2	100	0.9	171	6.7	72	2.8	206	8.2	6	13.23	F7/F14	A
HT2-150	2	150	0.7	171	6.7	102	4	206	8.3	8.5	18.74	F7/F14	A
HT2-200	2	200	0.95	173	6.8	109	4.3	330	14.3	14	30.86	F7/F14	A
HT2-300	2	300	0.8	171	6.74	151	5.9	330	14.3	18.5	40.9	F8/F15	I
HT2-400	2	400	0.65	210	8.3	176	6.9	330	14.4	26.5	58.42	F8/F15	I
HT2-500	2	500	0.55	241	9.5	171	6.8	330	14.4	31.5	69.45	F9/F15	I
HT2-600	2	600	0.5	302	11.9	175	6.9	330	14.4	38	83.8	F9/F15	I
HT2-800	2	800	0.4	410	16.1	175	6.9	330	14.4	50	110.5	F9/F15	I
HT2-1000	2	1000	0.3	475	18.7	175	6.9	330	14.4	62	136.1	F10/F15	J
HT2-1500	2	1500	0.22	400	15.7	350	13.8	345	15	97	213.85	F10/F15	J
HT2-2000	2	2000	0.2	490	19.3	350	13.8	345	15	125	276.6	F10/F15	J
HT2-3000	2	3000	0.13	710	28	350	13.8	345	15	190	418.52	F10/F15	J

Solar GEL Battery Series

Introduction

Solar Gel Battery Series designed for Solar and wind storage system, Telecom, motion, railway, and all kinds of communications, standby power supply of beacon ages, Electric power system, UPS, all kinds of electricity powered vehicle, Watercraft, sea transportation, etc.

Voltage: 2V, 6V, 12V
 Capacity: 2V: 100 AH~3000 AH; 6V,12V: 50AH ~ 250AH
 Charge voltage:
 Cycle use: 2.30~2.35V/cell; Float use: 2.25~2.30V/cell
 Charge current: The initial current less then 0.3CA

Typical Applications

- Communications
- Electric powered vehicles
- Commercial deep cycle applications
- Solar & Wind system
- Golf cars
- Power plant
- UPS systems

