

HUAWEI CORP. LEAD ACID BATTERY

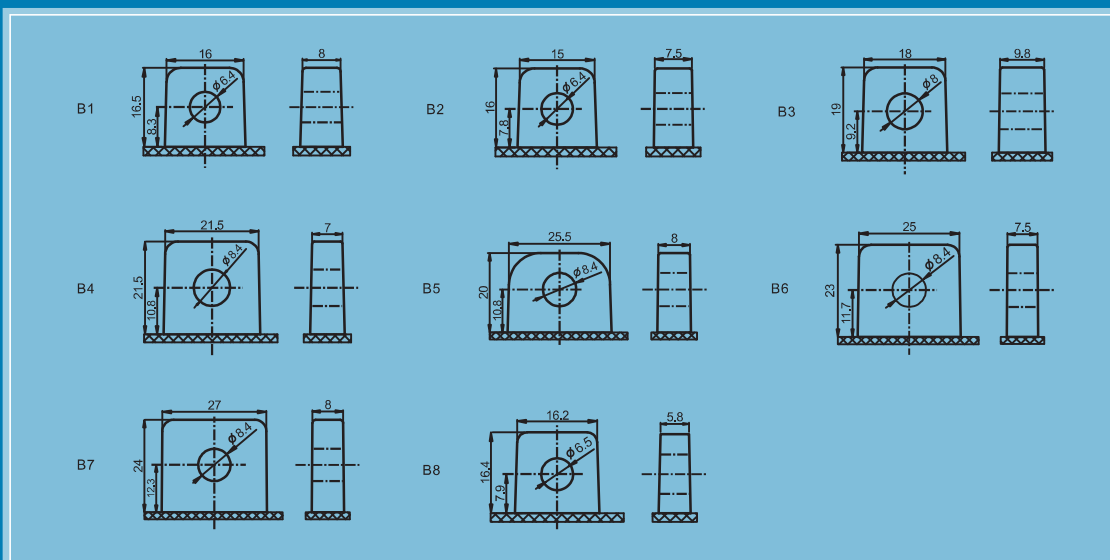
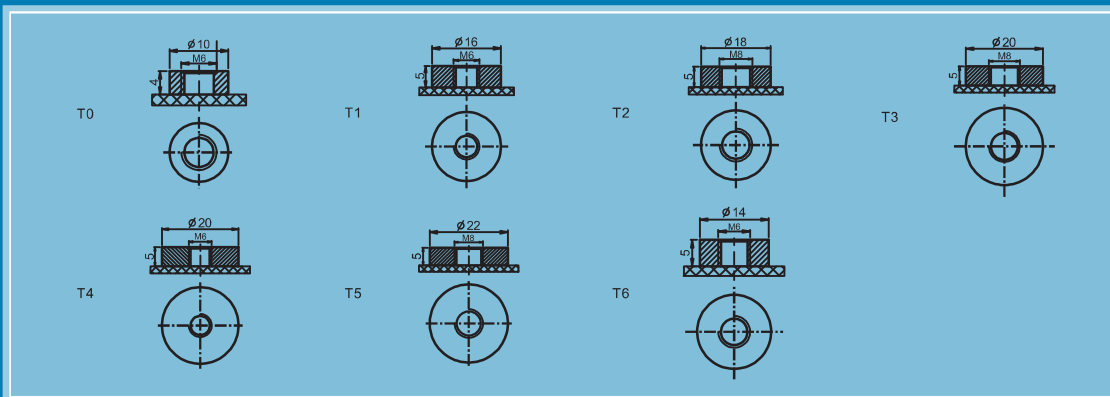
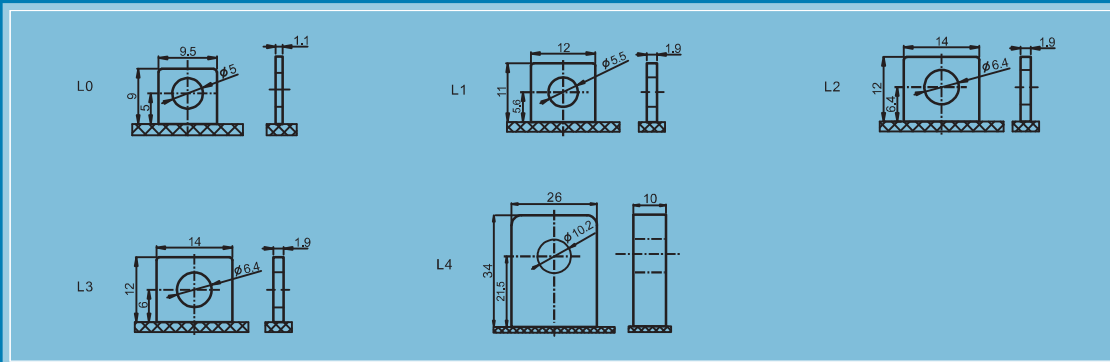
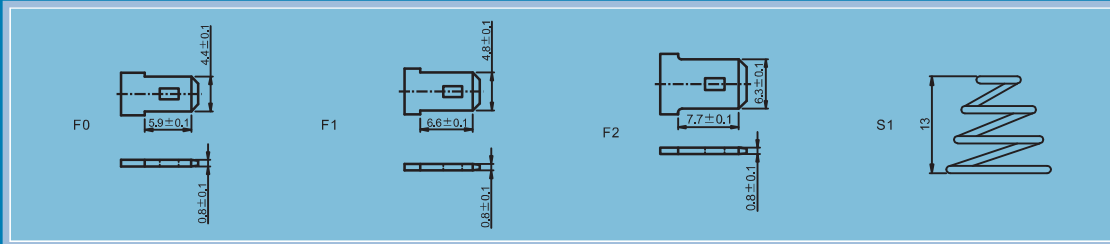


AMIRI TRADING . Imprt - Export
 TEL : +98 21 88304340- 1



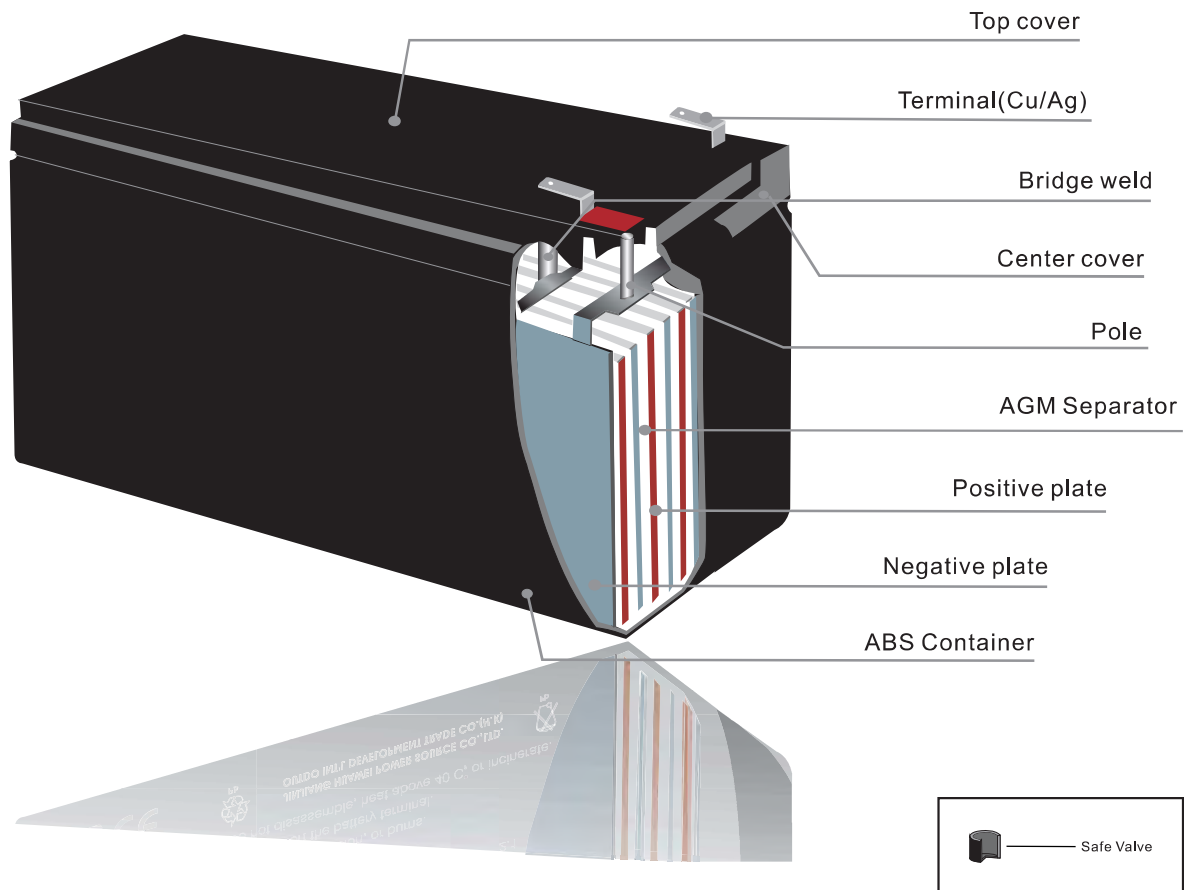
Huawei Power Source Co.,Ltd
 Lead-Acid Battery Manufacturer

Terminal type





Configuration



Main Applications

- ◎ Fire protection and security uninterruptible power supply
- ◎ Electronic appliance and other backup power supply
- ◎ Telephone and telecommunication equipment
- ◎ Uninterruptible power supply system for bank
- ◎ Railway engine or railway communication
- ◎ Emergency lighting or small lamp fitting
- ◎ UPS or computer backup power supply
- ◎ All kinds of test machines
- ◎ Electric power system
- ◎ Medical equipment
- ◎ Radio transceiver
- ◎ Security system
- ◎ Marine system



□ INSTRUCTION □

HUAWEI CORP. Lead Acid Batteries are sealed and valve regulated which don't require maintenance. The complete capacity range as well as the maintenance-free features ensure that HUAWEI CORP. lead acid battery .can be power for wide variety of application

■ FEATURES OF OPTIMA & OUTDO BATTERIES ■

. SafeandSealed

Completely sealed design prevents the leakage of electrolyte .

. Maintenance-Free

The hydrogen and oxygen produced in the battery cells largely recombine back into water . .

. There is no need to maintain the battery by adding distilled water **Widetemperature Range**

Applicable working ambient temperature: -2 0°C

. LowSelf-dischargerate and Long service life cycle

Made of high purity lead, rigidly selected Pb-Ca alloy lead plate, refined electrolytes, etc .

HUAWEI CORP. & OUTDO battery performs well in low self-discharge rate and long

service . life cycle

. Highreliabilityand Stable Quality

.Manufactured with advanced technology and strict quality control system, HUAWEI CORP -

OUTDO battery is reliable and stable in qualit.

■ APPLICATION OF OPTIMA & OUTDO BATTERIES ■

Floating Application

-Emergency lighting

-Security and Burglar system

-Automatic fire alarm devices

-Telecommunications systems

-All type of UPS/CVCF

-Electronic cash registers

-Other memory backup devices

Cycle Application

Communication and telephone equipment

Cordless tools

Medical equipment

Automatic fire alarm facilities

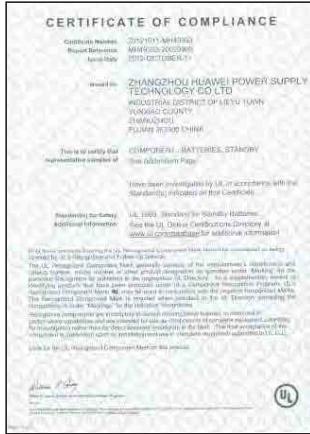
Measuring equipment

Laboratory equipment

Toys and hobbies etc.



■ Certificate ■



Medium and Mini Series

Model No.	Volts	Capacity (Ah) 20 HR	Appx.Dimension(mm)				Terminals	Appr ox. Weight (Kg)	Q'ty/ CTN	Meas		
			L ±1	W ±1	H ±2	TH ±2				L	W	H
OT1.3-6	6	1.3	97	24	51	57	F0	0.30	20	25.0	20.8	8.00
OT4-6	6	4.0	70	48	100	106	F1	0.66	20	29.5	24.5	12.6
OT4.5-6	6	4.5	70	48	100	106	F1	0.70	20	29.5	24.5	12.6
OT5-6	6	5.0	170	35	70	76	F1	0.97	16	35.0	29.0	9.70
OT7-6	6	7.0	151	35	94	100	F1	1.23	16	31.2	29.0	12.2
OT10-6	6	10	151	51	94	100	F1	1.68	10	31.0	26.0	12.3
OT12-6	6	12	151	51	94	100	F1	1.81	10	31.0	26.0	12.3
OT1.3-12	12	1.3	97	45	53	59	F0	0.58	20	40.0	23.8	8.00
OT2.2-12	12	2.2	178	35	61	67	F0	0.95	20	37.0	37.0	8.80
OT3.3-12	12	3.3	134	67	61	67	F1	1.37	10	34.5	27.8	8.80
OT4.5-12	12	4.5	90	70	102	108	F1	1.50	10	36.0	19.0	12.8
OT7-12	12	7.0	151	65	94	100	F1	2.13	10	34.0	31.0	12.8
OT7.2-12	12	7.2	151	65	94	100	F1	2.25	10	34.0	31.0	12.8
OT10-12	12	10	151	65	111	117	F2	3.02	8	31.5	27.0	14.3
OT12-12	12	12	151	98	96	100	F2	3.57	4	31.3	20.5	12.5
OT17-12	12	17	181	77	167	167	L1	4.88	4	31.5	19.0	19.0
OT24-12	12	24	175	165	125	125	T0	7.48	2	35.6	20.2	18.0
OT28-12(W)	12	28	175	165	125	125	L2	8.85	2	35.6	20.2	18.0
OT33-12(B)	12	33	194	132.2	172	172	L1	9.84	2	29.0	22.0	22.0
OT33-12(A)	12	33	194	132.2	172	172	L1	10.78	2	29.0	22.0	22.0
OT40-12	12	40	196	166	176	184	B1	12.60	2	35.5	22.0	23.0

HUAWEI COPR.LEAD ACID BATTERY



Large Capacity Series

Model No.	Volts	Capacity (Ah) 10 HR	Appx.Dimension(mm)				Terminals	Approx. Weight (Kg)	Q'ty/CTN	Meas		
			L ±1	W ±1	H ±2	TH ±2				L	W	H
OT65-12	12	65	350	166	175	175	T2	20.5	1	36.0	20.0	22.5
OT75-12	12	75	260	169	222	222	B3	22.7	1	28.4	19.0	27.6
OT85-12	12	85	260	169	222	222	B3	25.2	1	28.4	19.0	27.6
OT90-12	12	90	307	169	208	228	B3	27.0	1	33.0	19.0	28.0
OT100-12	12	100	333	172	218	221	T3	31.3	1	37.5	21.5	28.2
OT120-12	12	120	404	171	238	238	B4	37.2	1	45.5	20.5	29.5
OT150-12	12	150	483	170	241	241	B5	43.9	1	51.2	19.2	29.5
OT160-12	12	160	532	209	215	245	B6	50.9	1	55.8	23.2	27.3
OT175-12	12	175	532	209	215	245	B6	51.0	1	55.8	23.2	27.3
OT200-12	12	200	522	240	220	245	B6	60.8	1	54.2	26.2	30.0
OT220-12	12	220	522	240	220	245	B6	65.7	1	54.2	26.2	30.0

2V Series

Model No.	Volts	Capacity (Ah) 10 HR	Appx.Dimension(mm)				Terminals	Approx. Weight (Kg)	Q'ty/CTN	Meas		
			L ±1	W ±1	H ±2	TH ±2				L	W	H
OT100-2	2	100	171	72	206	214	T4	5.84	6	46.3	19.3	26.8
OT200-2	2	200	173	111	329	363	T3	14.8	2	25.0	19.5	43.5
OT300-2	2	300	171	151	330	366	T3	20.7	1	19.5	17.5	43.5
OT400-2	2	400	211	176	329	367	T3	29.2	1	23.5	19.5	43.5
OT500-2	2	500	241	172	331	366	T3	33.9	1	26.5	19.5	43.5
OT600-2	2	600	301	175	331	366	T3	40.9	1	33.0	20.0	43.5
OT800-2	2	800	410	177	330	365	T3	57.3	1	43.5	20.0	45.0
OT1000-2	2	1000	475	175	328	365	T3	69.1	1	51.0	20.0	44.0
OT1500-2	2	1500	401	351	342	378	T3	108	1	43.0	38.0	45.0
OT2000-2	2	2000	491	351	344	383	T3	137	1	52.0	38.0	45.0
OT3000-2	2	3000	712	353	341	382	T3	210	1	23.8	37.9	45.1

ZHANGZHOU HUAWEI POWER SUPPLY TECHNOLOGY CO.,LTD.

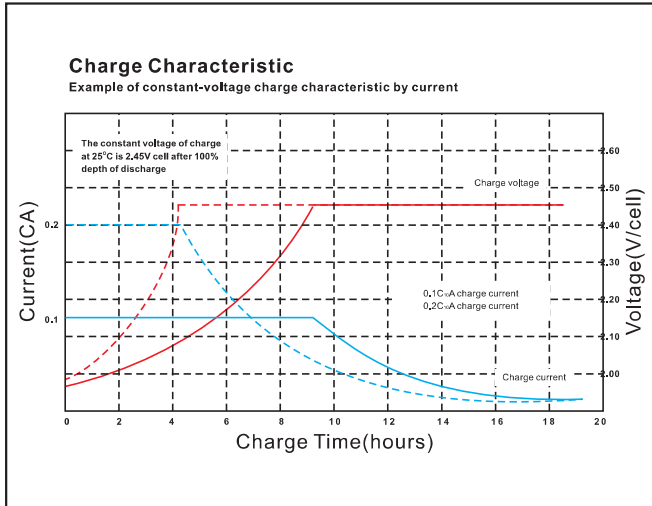


Amiri Trading Co
 TEL:+98 21 88304340-41 FAX:+98 21 88307635
 E-mail:hasouri23@yahoo.com



BATTERY CHARGING CHARACTERISTIC

Figure 1 shows the charging characteristic which charge by constant voltage at 2.45V at 25°C



BATTERY DISCHARGE CHARACTERISTIC

Figure 3 shows the typical discharge features of batteries at and ambient temperature of 25°C.

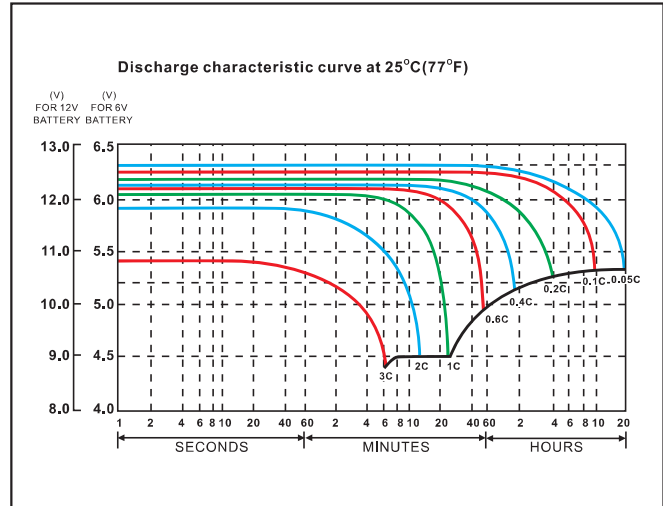
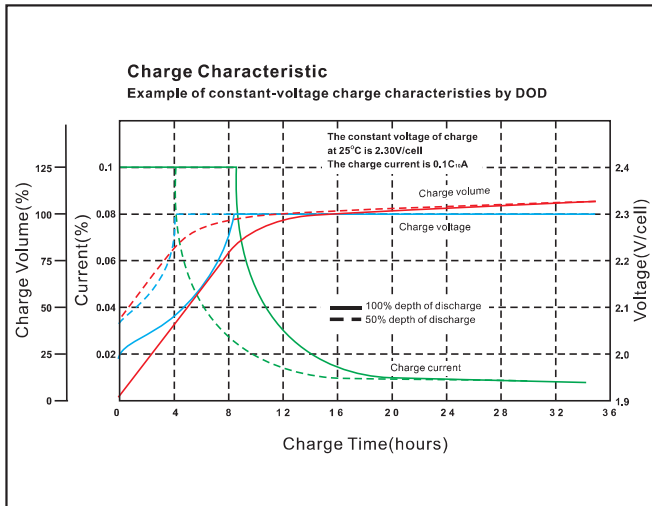


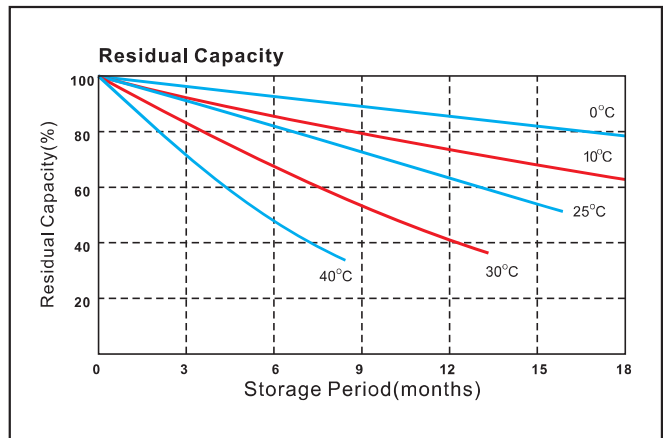
Figure 2 shows the charging time required at different charging current after same depth degree of discharge



SELF-DISCHARGE

The self-discharge rate of OPTIMA & OUTDO batteries is approximately 3% per month when batteries are stored at an ambient temperature of 25°C. The self-discharge rate varies with ambient temperature.

Figure 4 shows the relation between the storage time at various temperatures and the residuary capacity.



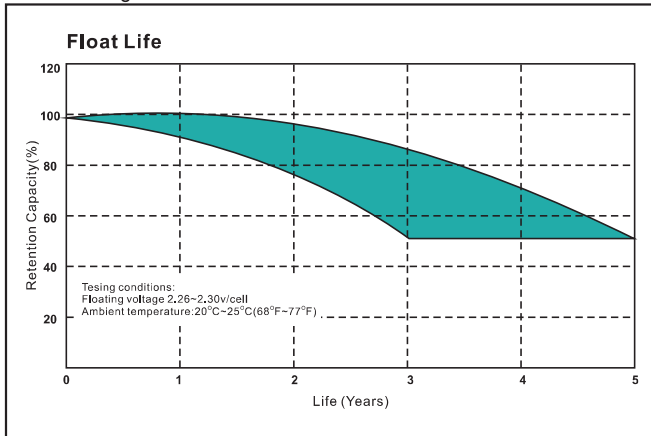
HUAWEI LEAD ACID BATTERY





Float Life

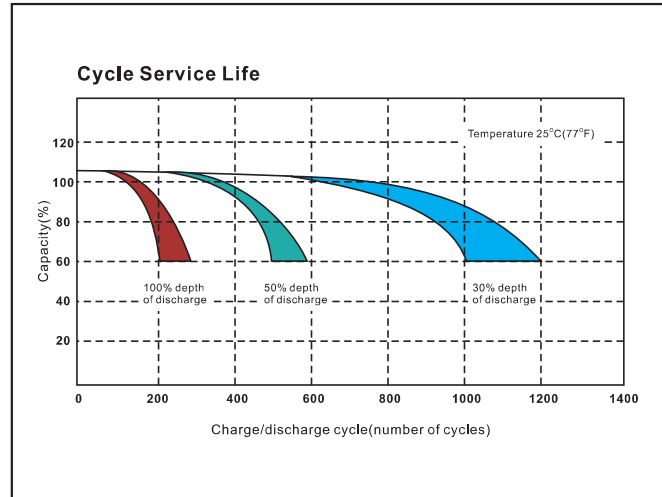
HUAWEI CORP. OUTDO batteries are designed to operate in standby(float) up to 5 years on a normal service condition in which float charge voltage is maintained between 2.25 and 2.30 volts per cell in an ambient temperature of approximately 25°C. Figure 6 shows the float life characteristic of HUAWEI CORP. & OUTDO batteries when discharged once every three (3) months up to 100% depth of discharge



SERVICE LIFE

Cycle Life

Figure 5 shows the effect of discharge depth degree on cycle life

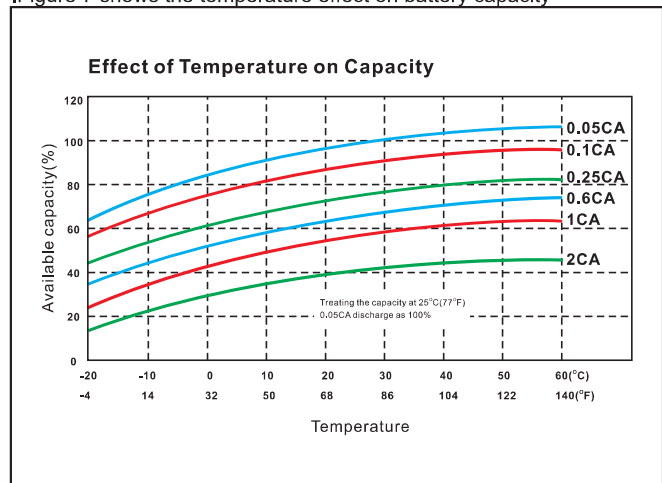


HANDLING INSTRUCTION

- Do not short-circuit the battery
- Never access of sparks and flames on or around the battery
- Never disassemble the batteries or place them near or in fire.
- If sulfuric acid from the battery happen to contact with your skin or clothes, immediately wash -with water. If it happen to contact with your eyes, wash then with water and immediately consult a doctor for medical care.
- Do not mixed use of batteries with different capacities, new and old or the batteries produced by different manufacturer.
- Minimum free air space between batteries when working in connecting is 5mm to 10mm.
- Follow the specified standards for charging current, charging voltage and charging time.
- During storage, recharge the battery at least every six months.
- Be sure to recharge the battery after being discharged.

Battery Capacity

As the ambient temperature rises, available capacity of a battery increases and as the ambient temperature is down, the capacity decrease. Figure 7 shows the temperature effect on battery capacity



HUAWEI LEAD ACID BATTERY

ZHANGZHOU HUAWEI POWER SUPPLY TECHNOLOGY CO.,LTD.



Amiri Trading Co
TEL:+98 21 88304340-41 E-mail:hasouri23@yahoo.com

FAX:+98 21 88307635

MODEL: OT4-6

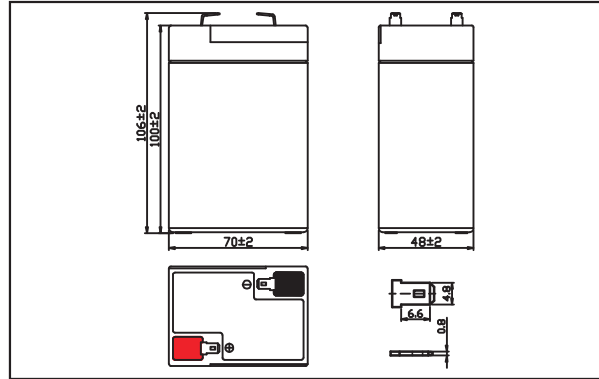
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Container Color
 ■ Black C
 ■ Grey 3 C

Plane Chart:

Unit:(mm) Terminal type:(F1)



ISO9001
 ISO140001
 OHSAS18001

Characteristic:

- 1.100% testing before out of factory, stable and reliable quality is guaranteed.
2. Professional alloy formula and advanced manufacturing techniques.
3. Completely sealed and maintenance free, low self-discharge.
4. Good charge-discharge acceptability.
5. Cyclic application: deep cycle charge-discharge for more than 260 times.
6. Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

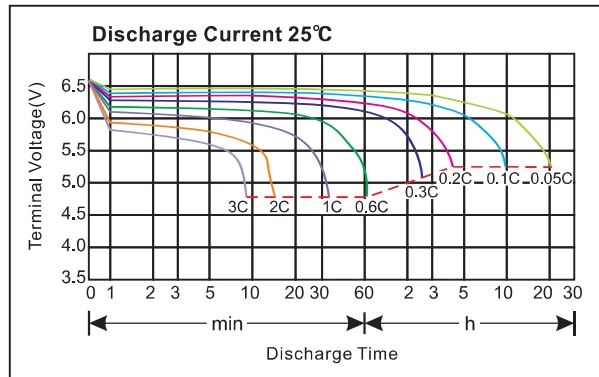
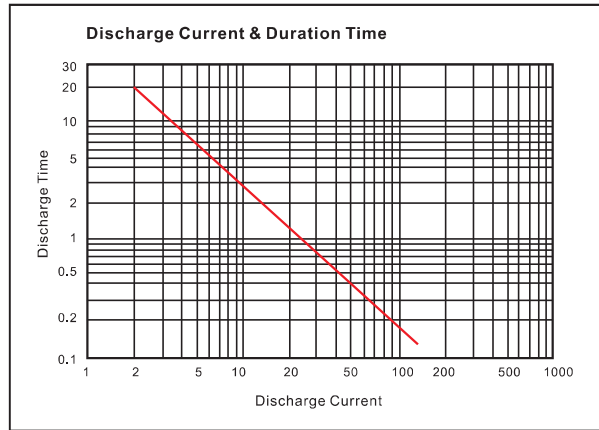
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts		6V	
Capacity(25°C)		20 hours rate (0.2A)	4Ah
Discharge Current Testing (25°C)		20 I ₂₀ rate (4A, 27min)	27min
		60 I ₃₀ rate (12A, 7min)	7min
Internal Resistance		Full Charged Battery 25°C	17.2mΩ
Capacity Affected By Temperature (20 hours rate)		40°C	104%
		25°C	100%
		0°C	83%
		-15°C	65%
Residual Capacity (25°C)		Capacity After 3 Months Storage	91%
		Capacity After 6 Months Storage	82%
		Capacity After 12 Months Storage	65%
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 1.2A Voltage 7.25~7.45V	
	Float (25°C)	Charge Voltage 6.8~6.9V	
Weight (Approx)		0.67Kg	

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve

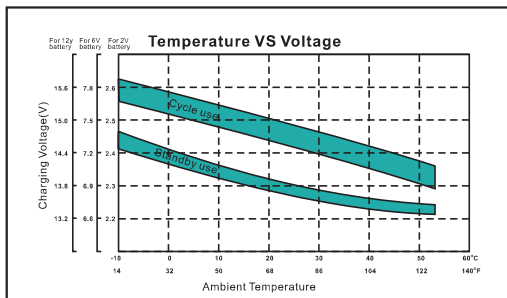
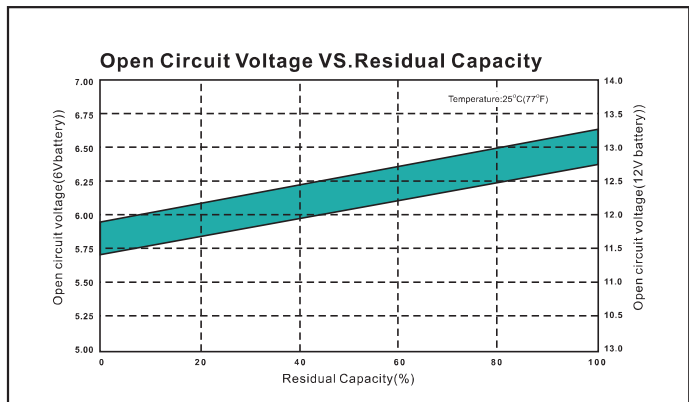
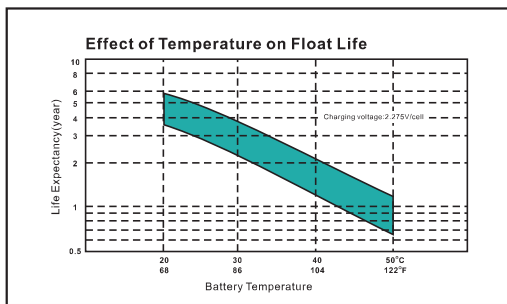
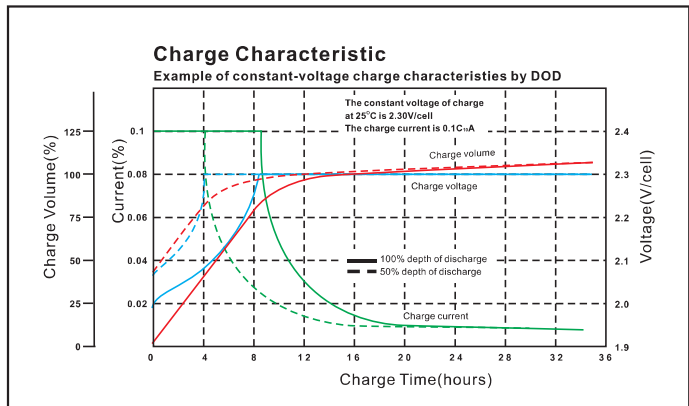
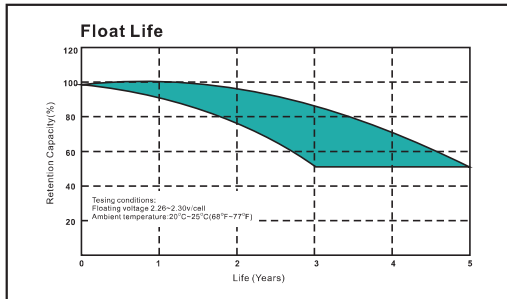
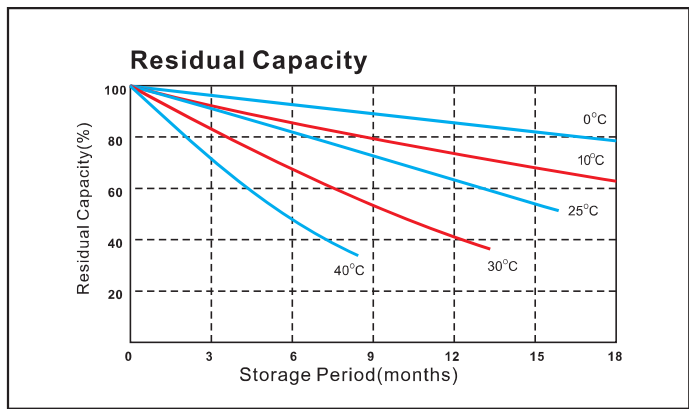
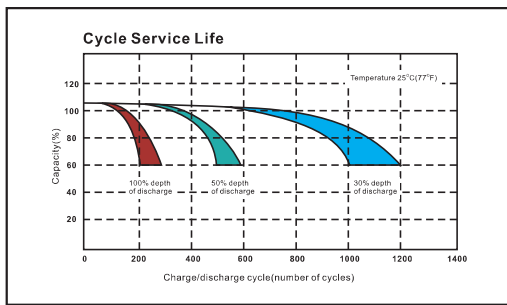


Constant Current Discharge Characteristics(A,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
4.80V	13.60	8.67	6.98	4.18	2.35	1.30	0.93	0.64	0.45	0.38	0.21
5.10V	12.94	8.23	6.70	4.06	2.26	1.29	0.92	0.63	0.44	0.37	0.20
5.25V	12.53	7.97	6.53	3.95	2.25	1.27	0.91	0.62	0.44	0.36	0.20
5.40V	12.13	7.72	6.37	3.85	2.15	1.26	0.90	0.62	0.44	0.35	0.19

Constant Current Discharge Characteristics(Watt,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
4.80V	75.71	48.88	36.96	24.22	13.63	7.63	5.55	3.82	2.69	2.27	1.23
5.10V	72.03	46.31	38.22	23.26	13.08	7.52	5.48	3.79	2.67	2.22	1.21
5.25V	69.83	44.83	37.26	22.67	12.75	7.44	5.40	3.73	2.66	2.17	1.18
5.40V	67.62	43.37	36.31	22.09	12.42	7.36	5.33	3.68	2.65	2.12	1.16

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty(pcs)
20 PCS	295*245*136	0.67	122*82	100	1.34	14	28000



MODEL: OT4.5-12

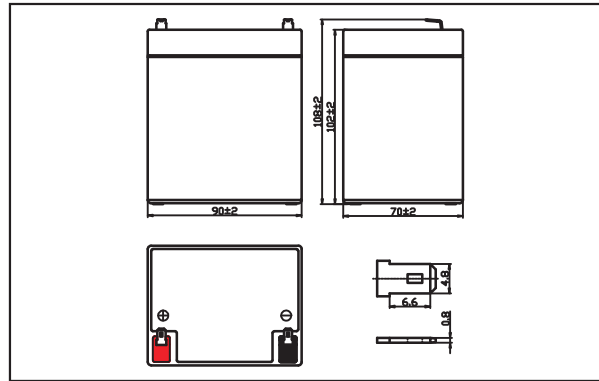
Product Code:302010005-00048



Container Color
 ■ Black C
 ■ Grey 3 C

Plane Chart:

Unit:(mm) Terminal type:(F1)



ISO9001
ISO140001
OHSAS18001

Characteristic:

- 1.100% testing before out of factory, stable and reliable quality is guaranteed.
2. Professional alloy formula and advanced manufacturing techniques.
3. Completely sealed and maintenance free, low self-discharge.
4. Good charge-discharge acceptability.
5. Cyclic application: deep cycle charge-discharge for more than 260 times.
6. Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

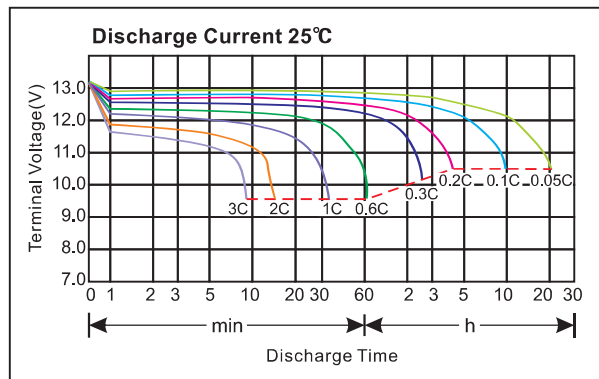
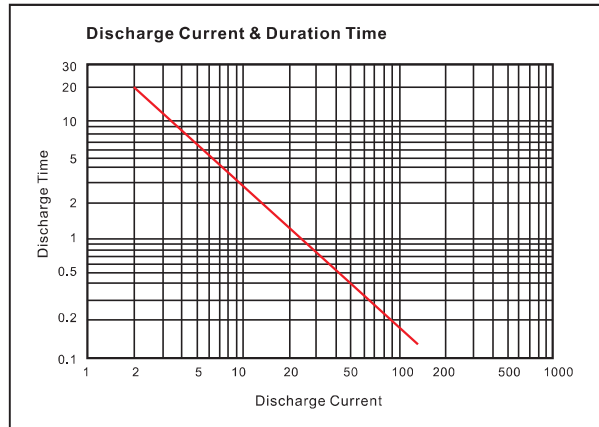
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts	12V	
Capacity(25°C)	20 hours rate (0.225A)	4.5Ah
Discharge Current Testing (25°C)	20 I ₂₀ rate (4.5A, 27min)	35min
	60 I ₆₀ rate(13.5A, 7min)	8min
Internal Resistance	Full Charged Battery 25°C	27mΩ
Capacity Affected By Temperature (20 hours rate)	40°C	104%
	25°C	100%
	0°C	83%
	-15°C	65%
Residual Capacity (25°C)	Capacity After 3 Months Storage	91%
	Capacity After 6 Months Storage	82%
	Capacity After 12 Months Storage	65%
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 1.35A Voltage 14.5~14.9V
	Float (25°C)	Charge Voltage 13.6~13.8V
Weight (Approx)		1.39Kg

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve



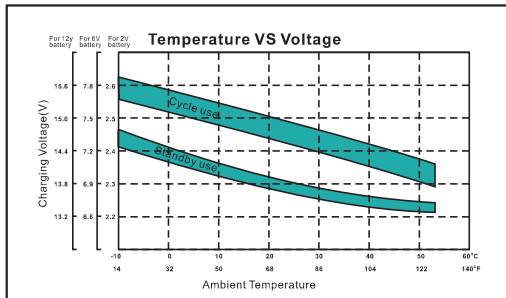
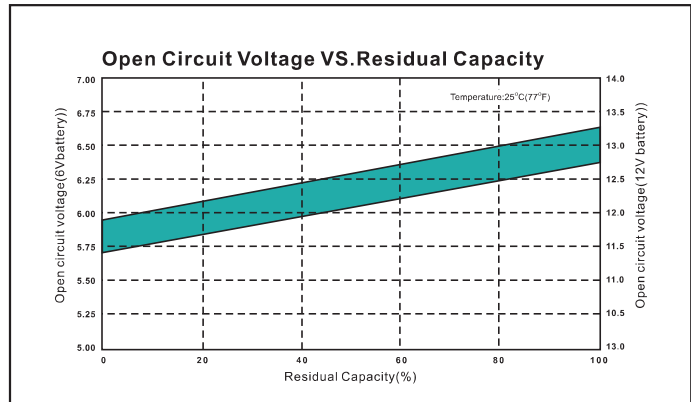
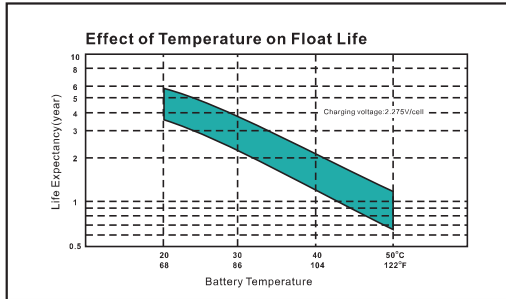
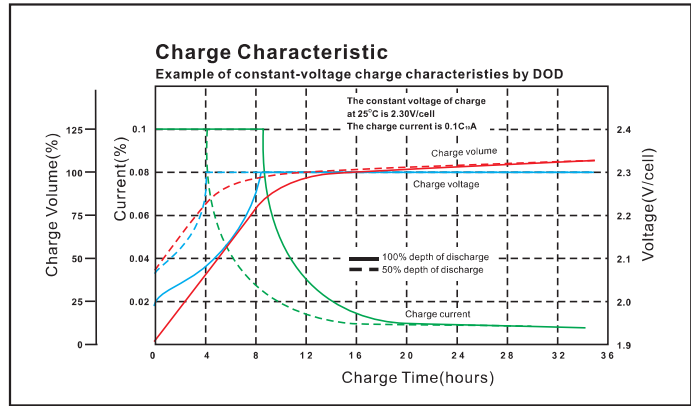
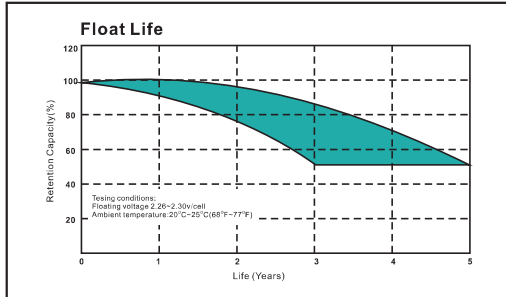
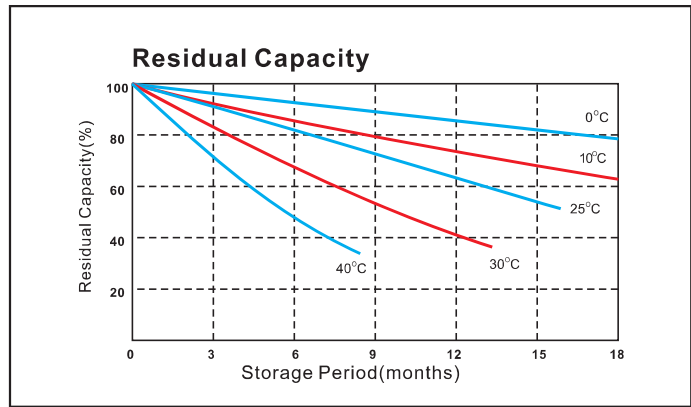
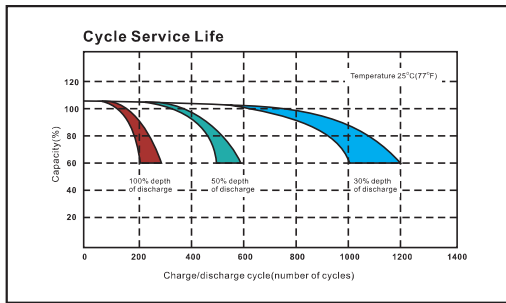


Constant Current Discharge Characteristics(A,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	15.17	9.68	7.79	4.72	2.62	1.46	1.04	0.71	0.50	0.42	0.23
10.2V	14.43	9.18	7.48	4.53	2.52	1.44	1.03	0.71	0.50	0.41	0.23
10.5V	13.98	8.90	7.29	4.41	2.46	1.42	1.01	0.70	0.50	0.41	0.22
10.8V	13.53	8.61	7.10	4.30	2.39	1.41	1.00	0.69	0.50	0.40	0.22

Constant Current Discharge Characteristics(Watt,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	168.92	109.06	88.56	54.04	30.42	17.02	12.38	8.53	6.03	5.08	2.70
10.2V	160.72	103.32	85.28	51.91	29.19	16.79	12.22	8.45	5.98	4.97	2.70
10.5V	155.80	100.04	83.15	50.59	28.45	16.61	12.05	8.32	5.95	4.86	2.65
10.8V	155.88	96.76	81.02	49.28	27.72	16.42	11.89	8.20	5.93	4.75	2.59

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty(pcs)
10 PCS	360*190*133	1.39	122*82	96	1.334	14	13440



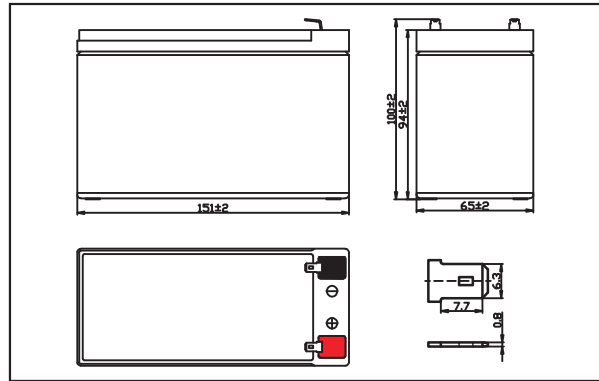
MODEL: OT7. 2-12

Product Code:302010005-00066



Plane Chart:

Unit:(mm) Terminal type:(F2)



Characteristic:

- 1.100% testing before out of factory, stable and reliable quality is guaranteed.
2. Professional alloy formula and advanced manufacturing techniques.
3. Completely sealed and maintenance free, low self-discharge.
4. Good charge-discharge acceptability.
5. Cyclic application: deep cycle charge-discharge for more than 260 times.
6. Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

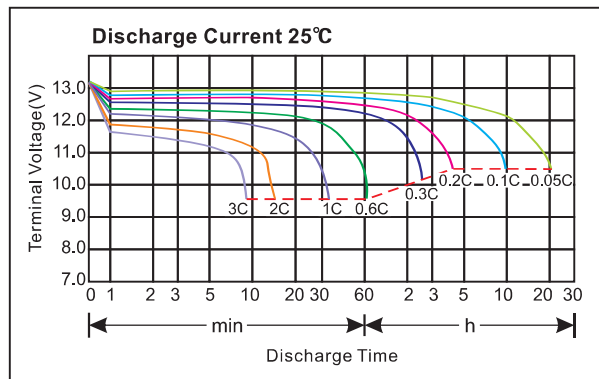
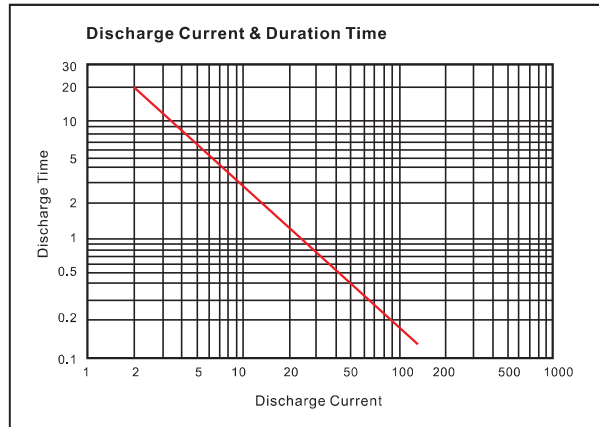
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts		12V	
Capacity(25°C)		20 hours rate (0.35A)	7Ah
Discharge Current Testing (25°C)		20 I ₂₀ rate (7A, 27min)	40min
		60 I ₃₀ rate(21A, 7min)	8min
Internal Resistance		Full Charged Battery 25°C	20.5mΩ
Capacity Affected By Temperature (20 hours rate)		40°C	104%
		25°C	100%
		0°C	83%
		-15°C	65%
Residual Capacity (25°C)		Capacity After 3 Months Storage	91%
		Capacity After 6 Months Storage	82%
		Capacity After 12 Months Storage	65%
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 2.1A Voltage 14.5~14.9V	
	Float (25°C)	Charge Voltage 13.6~13.8V	
Weight (Approx)		2.09Kg	

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve



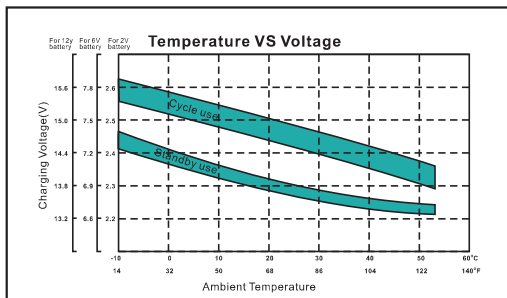
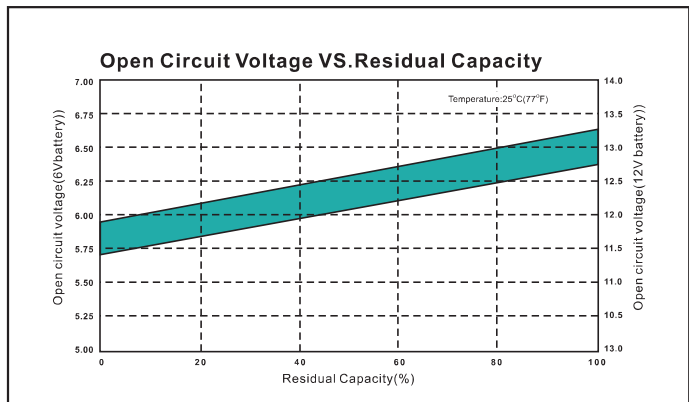
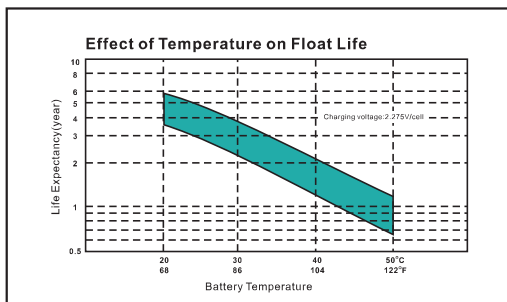
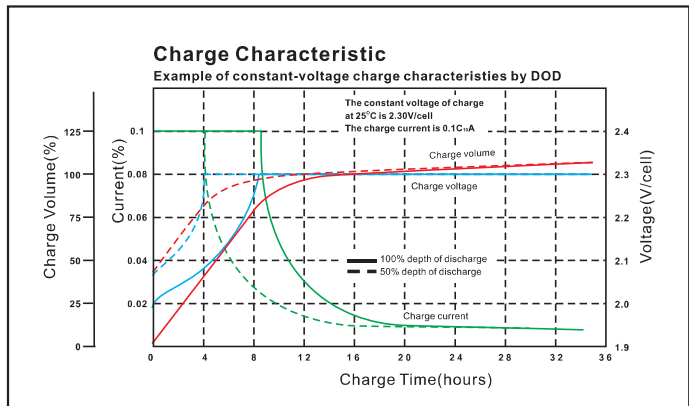
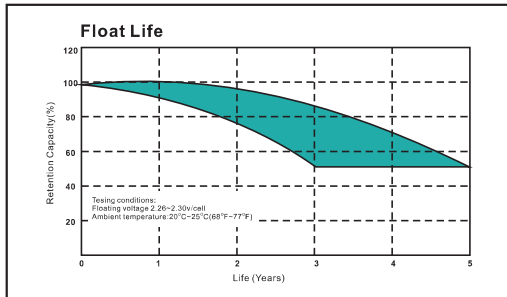
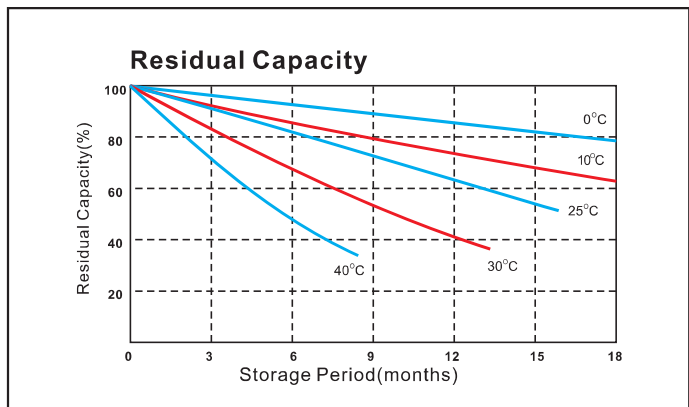
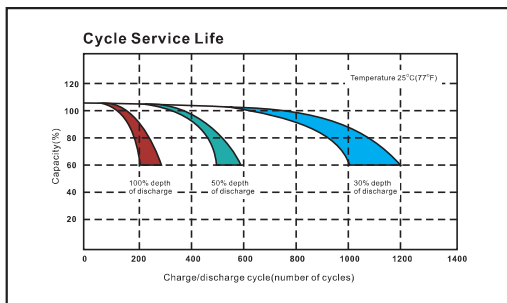


Constant Current Discharge Characteristics(A,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	26.19	17.46	13.58	7.76	4.56	2.42	1.68	1.12	0.77	0.69	0.36
10.2V	24.93	16.59	13.00	7.43	4.41	2.35	1.65	1.10	0.76	0.68	0.35
10.5V	24.20	16.10	12.66	7.42	4.32	2.33	1.62	1.08	0.75	0.67	0.35
10.8V	23.47	15.62	12.32	7.04	4.22	2.30	1.60	1.07	0.74	0.66	0.34

Constant Current Discharge Characteristics(Watt,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	291.97	196.91	155.20	88.95	52.77	28.18	19.98	13.39	9.09	8.26	4.30
10.2V	278.39	185.27	148.41	85.17	52.12	27.80	19.59	13.19	9.02	8.15	4.20
10.5V	270.15	179.94	144.53	82.94	50.00	27.50	19.30	13.00	8.98	8.04	4.14
10.8V	261.90	174.60	140.65	80.70	48.89	27.20	19.01	12.80	8.94	7.92	4.08

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty(pcs)
10 PCS	340*310*128	2.09	112*95	81	1.693	12	9720



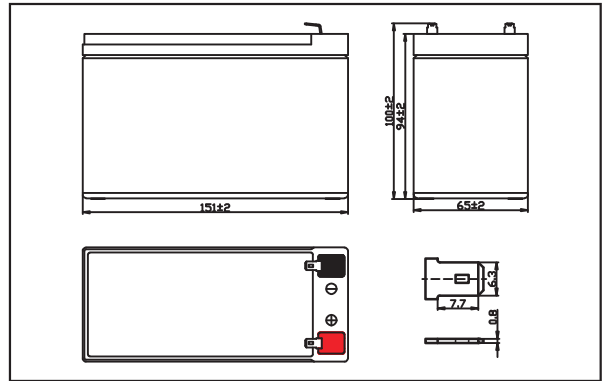
MODEL: OT9-12

Product Code:302010005-00077



Plane Chart:

Unit:(mm) Terminal type:(F2)



Characteristic:

- 100% testing before out of factory, stable and reliable quality is guaranteed.
- Professional alloy formula and advanced manufacturing techniques.
- Completely sealed and maintenance free, low self-discharge.
- Good charge-discharge acceptability.
- Cyclic application: deep cycle charge-discharge for more than 260 times.
- Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

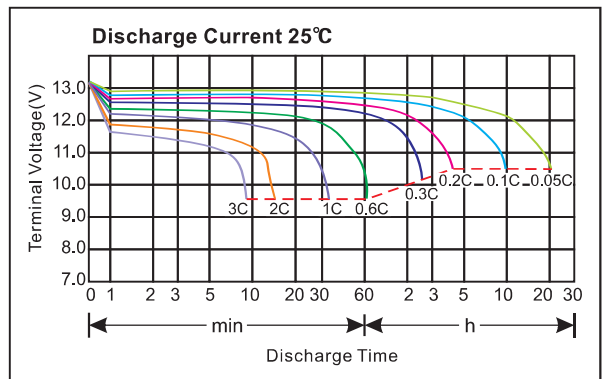
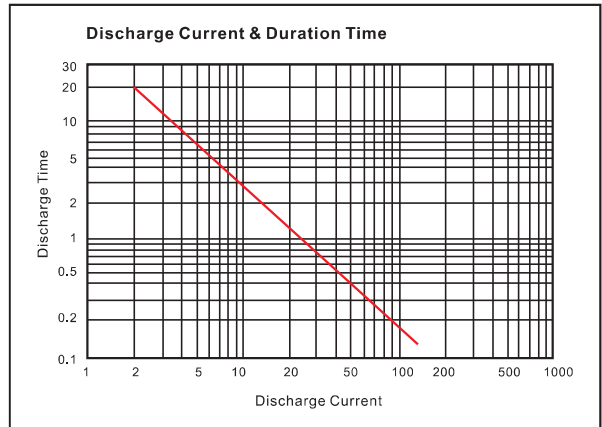
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts		12V	
Capacity(25°C)		20 hours rate (0.45A)	9Ah
Discharge Current Testing (25°C)		20 I ₂₀ rate (9A, 27min)	37min
		60 I ₃₀ rate(27A, 7min)	8min
Internal Resistance		Full Charged Battery 25°C	12.5mΩ
Capacity Affected By Temperature (20 hours rate)		40°C	104%
		25°C	100%
		0°C	83%
		-15°C	65%
Residual Capacity (25°C)		Capacity After 3 Months Storage	91%
		Capacity After 6 Months Storage	82%
		Capacity After 12 Months Storage	65%
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 2.7A Voltage 14.5~14.9V	
	Float (25°C)	Charge Voltage 13.6~13.8V	
Weight (Approx)		2.39Kg	

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve

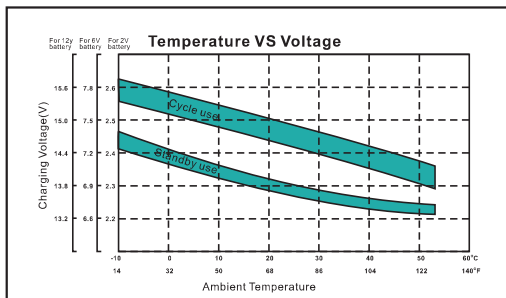
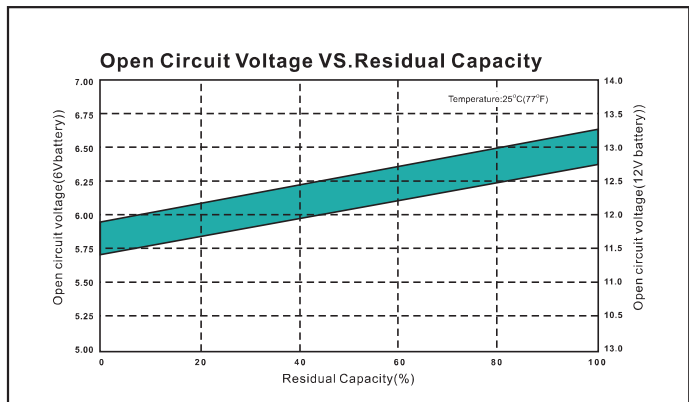
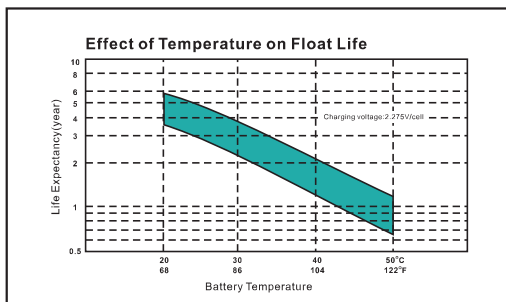
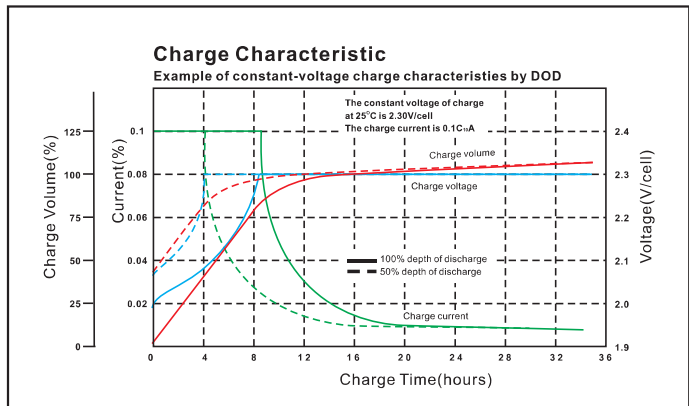
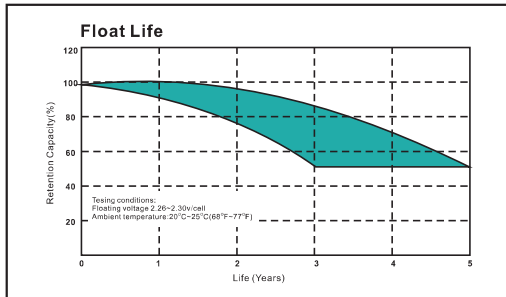
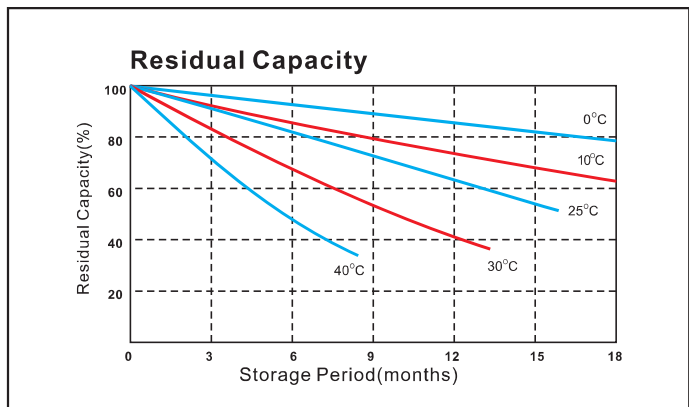
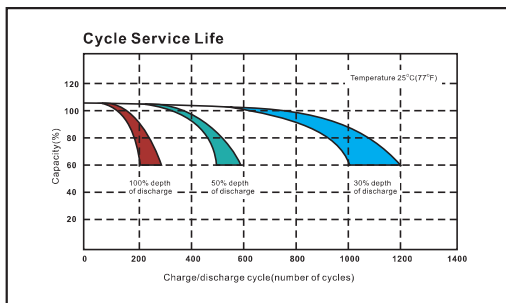


Constant Current Discharge Characteristics(A,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	39.08	25.75	19.04	10.62	5.81	3.21	2.18	1.51	1.00	0.81	0.45
10.2V	37.17	24.25	18.14	10.22	5.58	3.16	2.15	1.49	0.99	0.81	0.45
10.5V	36.17	23.85	17.84	9.92	5.47	3.13	2.13	1.48	0.98	0.80	0.45
10.8V	34.87	23.05	17.33	9.72	5.30	3.10	2.11	1.46	0.98	0.80	0.44

Constant Current Discharge Characteristics(Watt,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	435.87	290.58	217.43	121.24	67.33	37.47	25.95	18.04	12.12	9.74	5.41
10.2V	414.83	273.55	206.41	117.23	64.63	36.97	25.55	17.84	11.92	9.74	5.41
10.5V	402.80	268.54	103.41	113.23	63.33	36.57	25.35	17.64	11.72	9.62	5.41
10.8V	388.78	259.52	197.39	111.22	61.42	36.17	25.15	17.43	11.62	9.62	5.39

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty(pcs)
10 PCS	340*310*128	2.39	112*95	72	1.721	12	8640



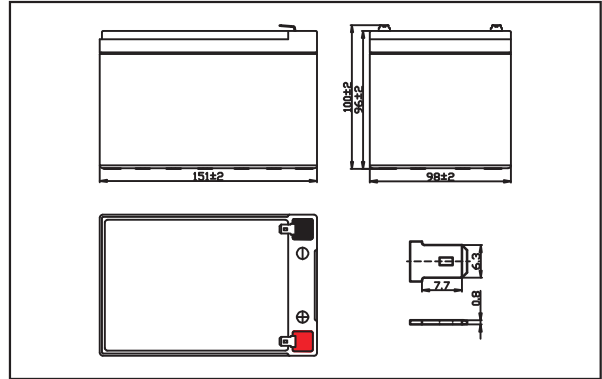
MODEL: OT12-12

Product Code:302010005-00084



Plane Chart:

Unit:(mm) Terminal type:(F2)



Characteristic:

- 1.100% testing before out of factory, stable and reliable quality is guaranteed.
2. Professional alloy formula and advanced manufacturing techniques.
3. Completely sealed and maintenance free, low self-discharge.
4. Good charge-discharge acceptability.
5. Cyclic application: deep cycle charge-discharge for more than 260 times.
6. Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

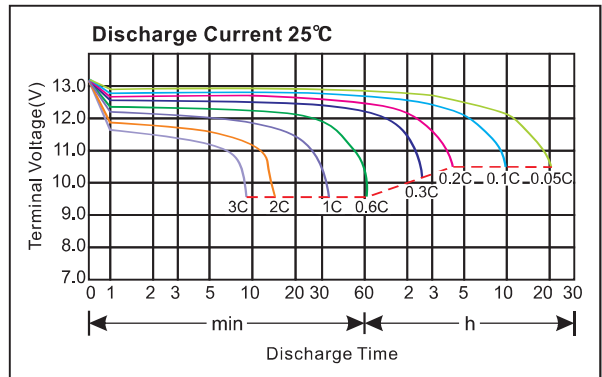
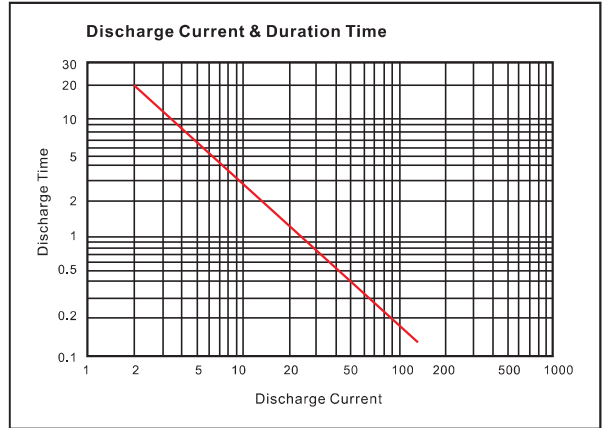
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts		12V	
Capacity(25°C)		20 hours rate (0.6A)	12Ah
Discharge Current Testing (25°C)		20 I ₂₀ rate (12A, 27min)	38min
		60 I ₃₀ rate(36A, 7min)	8min
Internal Resistance		Full Charged Battery 25°C	11mΩ
Capacity Affected By Temperature (20 hours rate)		40°C	104%
		25°C	100%
		0°C	83%
		-15°C	65%
Residual Capacity (25°C)		Capacity After 3 Months Storage	91%
		Capacity After 6 Months Storage	82%
		Capacity After 12 Months Storage	65%
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 3.6A Voltage 14.5~14.9V	
	Float (25°C)	Charge Voltage 13.6~13.8V	
Weight (Approx)		3.54Kg	

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve

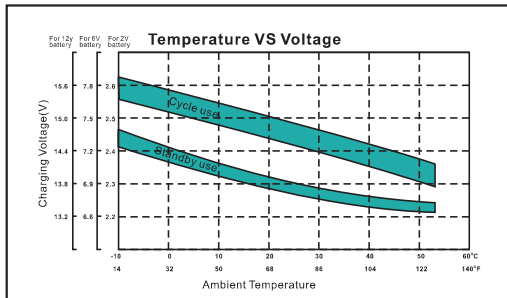
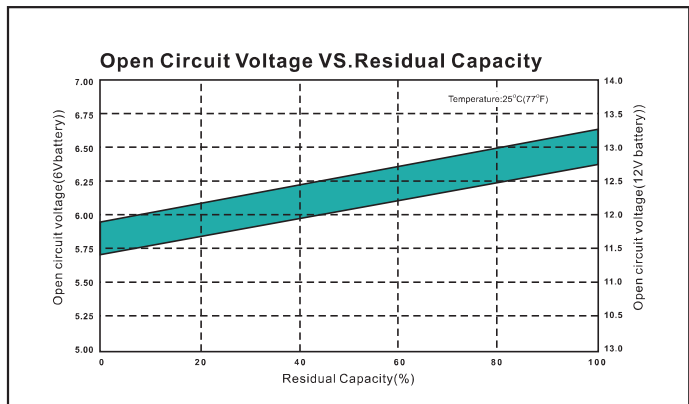
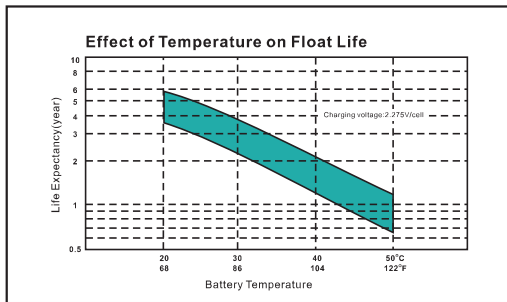
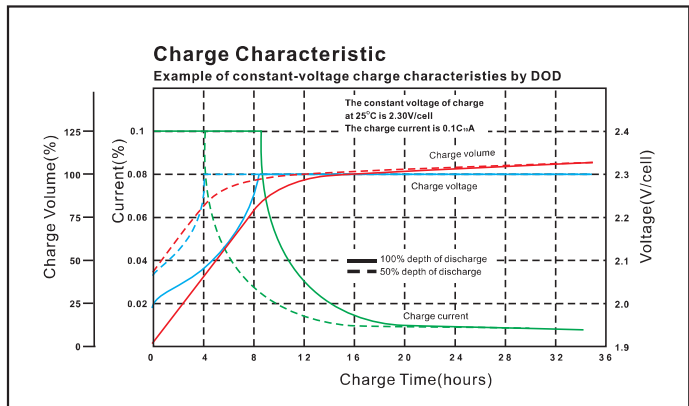
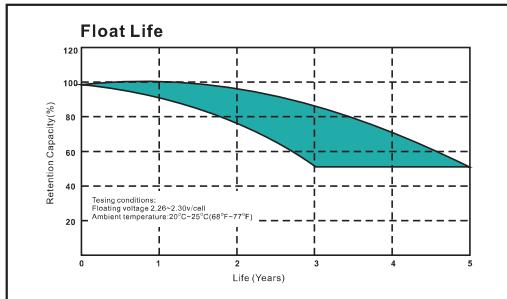
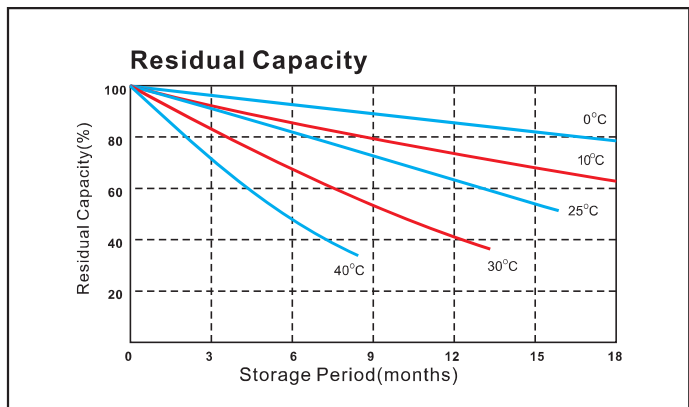
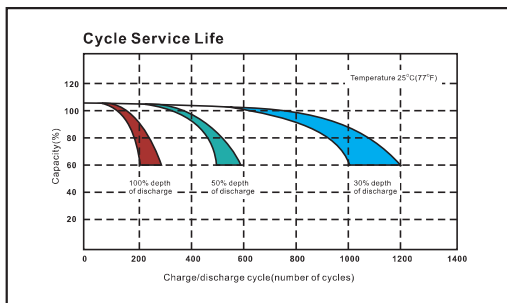


Constant Current Discharge Characteristics(A,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	52.65	34.70	25.65	14.31	7.83	4.32	2.94	2.04	1.35	1.09	0.61
10.2V	50.09	32.67	24.44	13.77	7.52	4.25	2.90	2.01	1.34	1.09	0.61
10.5V	48.74	32.13	24.03	13.37	7.37	4.21	2.88	2.00	1.32	1.08	0.61
10.8V	46.98	31.05	23.36	13.10	7.14	4.17	2.85	1.97	1.32	1.08	0.59

Constant Current Discharge Characteristics(Watt,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	587.25	391.50	292.95	163.35	90.72	50.49	34.97	24.30	16.34	13.12	7.29
10.2V	558.90	368.55	278.10	157.95	87.08	49.82	34.43	24.03	16.07	13.12	7.29
10.5V	542.70	361.80	274.05	152.55	85.32	49.28	34.16	23.76	15.80	12.96	7.29
10.8V	523.80	349.65	265.95	149.85	82.76	48.74	33.89	23.49	15.93	12.96	7.29

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty(pcs)
4 PCS	313*205*125	3.54	112*82	99	1.402	14	5544



MODEL: OT20HR-12

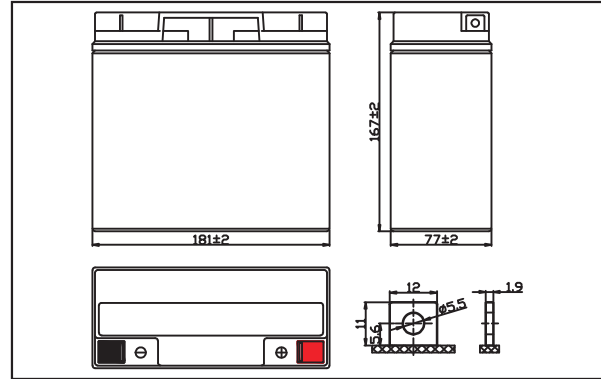
Product Code:302010001-00046



Container Color
 ■ Black C
 ■ Grey 3 C

Plane Chart:

Unit:(mm) Terminal type:(L1)



Characteristic:

- 1.100% testing before out of factory, stable and reliable quality is guaranteed.
2. Professional alloy formula and advanced manufacturing techniques.
3. Completely sealed and maintenance free, low self-discharge.
4. Good charge-discharge acceptability.
5. Cyclic application: deep cycle charge-discharge for more than 260 times.
6. Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

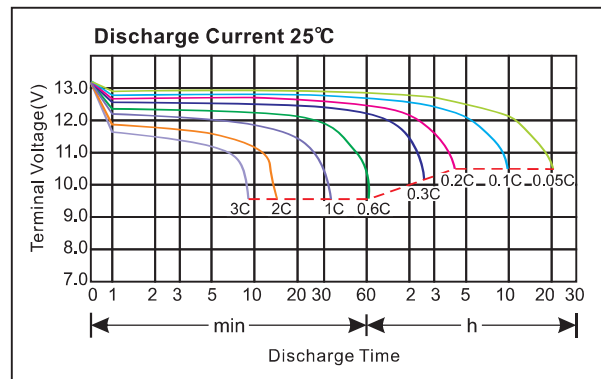
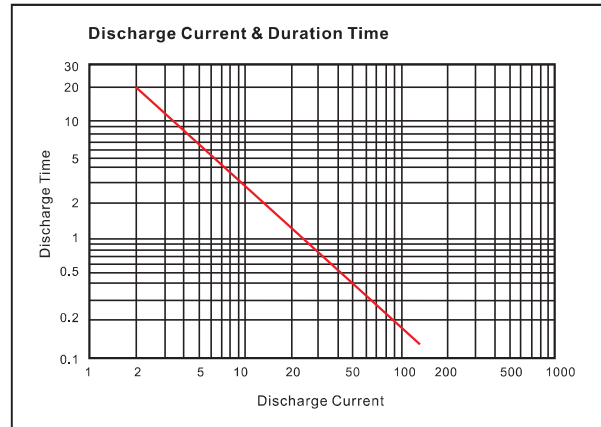
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts		12V	
Capacity(25°C)	20 hours rate (1A)	20Ah	
Discharge Current Testing (25°C)	20 I ₂₀ rate (20A, 27min)	35min	
	60 I ₃₀ rate (13.5A, 7min)	7min	
Internal Resistance	Full Charged Battery 25°C	12.5mΩ	
Capacity Affected By Temperature (20 hours rate)	40°C	104%	
	25°C	100%	
	0°C	83%	
	-15°C	65%	
Residual Capacity (25°C)	Capacity After 3 Months Storage	91%	
	Capacity After 6 Months Storage	82%	
	Capacity After 12 Months Storage	65%	
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 6A Voltage 14.5~14.9V	
	Float (25°C)	Charge Voltage 13.6~13.8V	
Weight (Approx)		5.22Kg	

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve

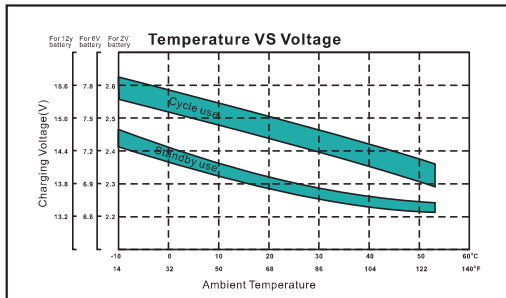
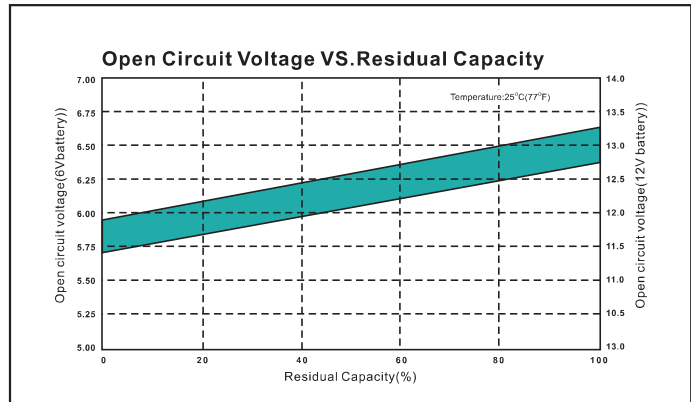
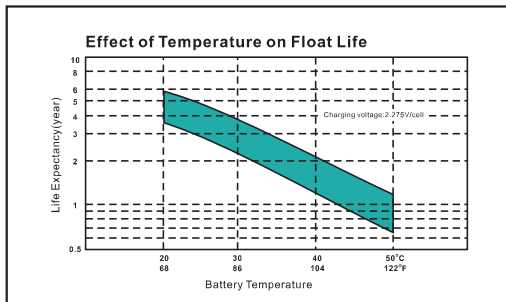
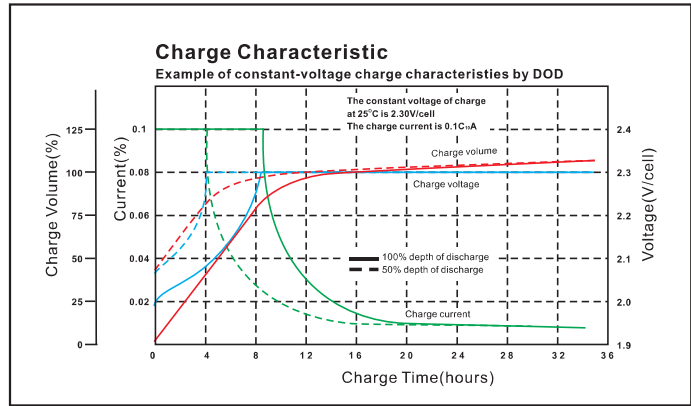
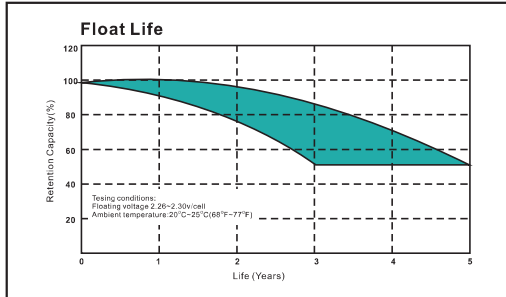
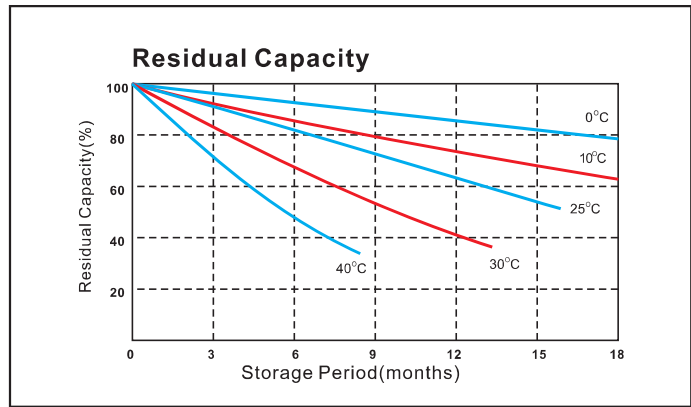
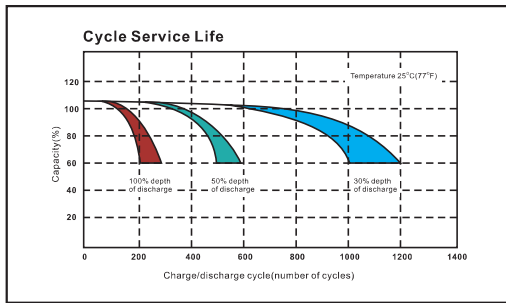


Constant Current Discharge Characteristics(A,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	69.30	43.56	34.65	20.79	11.88	7.03	4.82	3.21	2.21	1.80	1.00
10.2V	65.89	41.36	33.22	19.91	11.44	6.93	4.75	3.17	2.19	1.79	1.00
10.5V	64.24	40.37	32.56	19.58	11.11	6.88	4.71	3.15	2.18	1.79	0.99
10.8V	61.93	38.94	31.57	18.92	10.84	6.79	4.65	3.10	2.18	1.78	0.99

Constant Current Discharge Characteristics(Watt,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	773.30	491.70	394.90	238.70	167.50	82.17	57.31	38.39	26.51	21.67	12.10
10.2V	734.80	466.40	379.50	228.80	132.00	81.07	56.43	37.84	26.29	21.56	11.99
10.5V	716.10	454.30	370.70	223.30	128.70	80.41	55.88	37.51	26.07	21.56	11.88
10.8V	690.80	438.90	359.70	217.80	125.40	79.31	55.33	37.07	26.07	21.56	11.88

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty(pcs)
4 PCS	315*190*195	5.22	112*82	72	1.503	14	4032



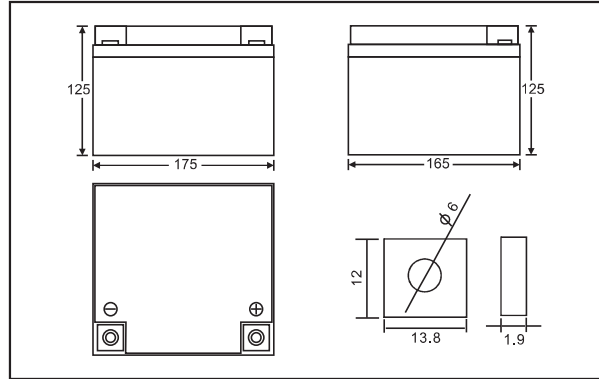
MODEL: OT28-12

Product Code:302010001-00050



Plane Chart:

Unit:(mm) Terminal type:(L2)



Characteristic:

- 1.100% testing before out of factory, stable and reliable quality is guaranteed.
2. Professional alloy formula and advanced manufacturing techniques.
3. Completely sealed and maintenance free, low self-discharge.
4. Good charge-discharge acceptability.
5. Cyclic application: deep cycle charge-discharge for more than 260 times.
6. Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

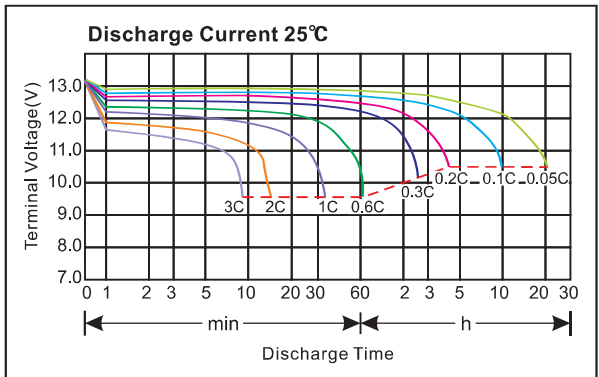
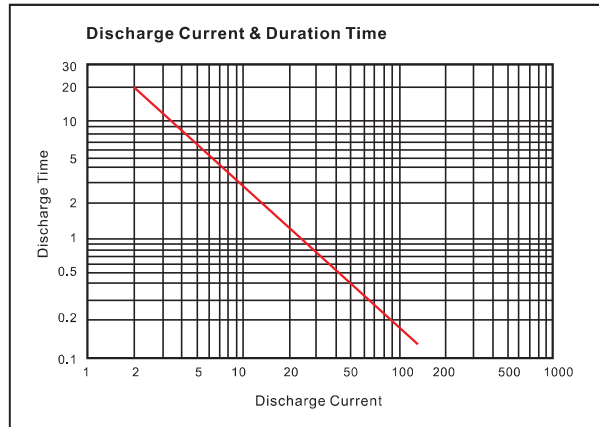
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts		12V	
Capacity(25°C)		20 hours rate (1.4A)	28Ah
Discharge Current Testing (25°C)		20 I ₂₀ rate (28A, 27min)	38min
		60 I ₃₀ rate (84A, 7min)	9min
Internal Resistance		Full Charged Battery 25°C	10mΩ
Capacity Affected By Temperature (20 hours rate)		40°C	104%
		25°C	100%
		0°C	83%
		-15°C	65%
Residual Capacity (25°C)		Capacity After 3 Months Storage	91%
		Capacity After 6 Months Storage	82%
		Capacity After 12 Months Storage	65%
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 9.9A Voltage 14.5~14.9V	
	Float (25°C)	Charge Voltage 13.6~13.8V	
Weight (Approx)		10.6Kg	

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve



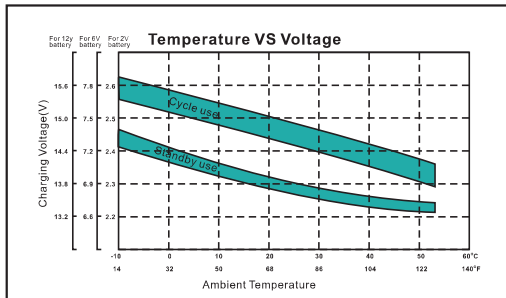
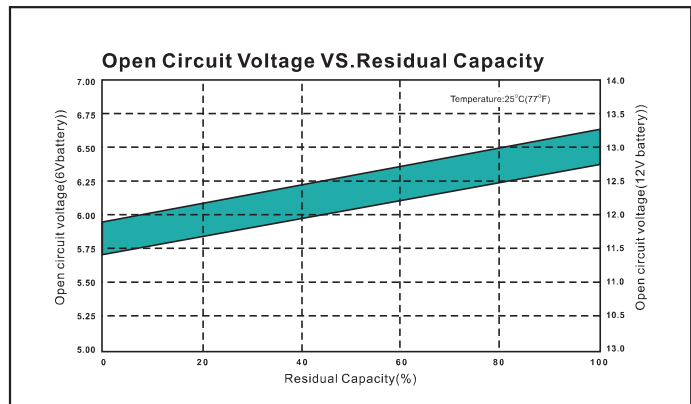
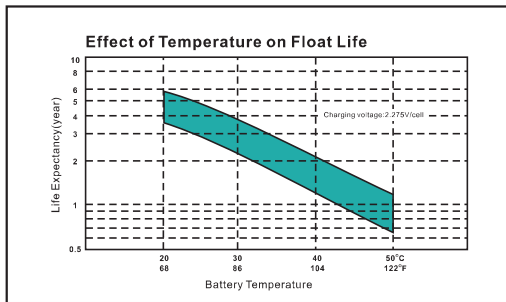
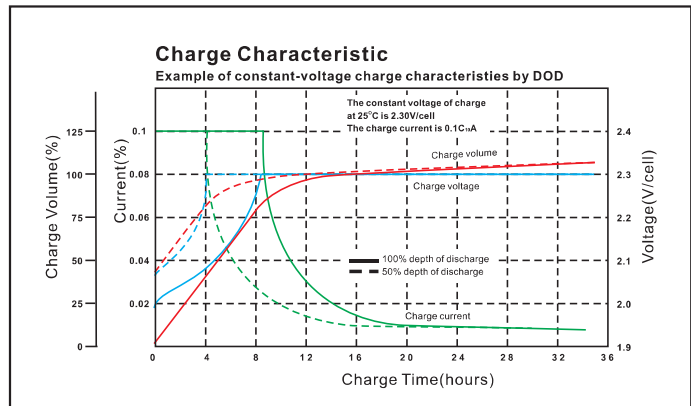
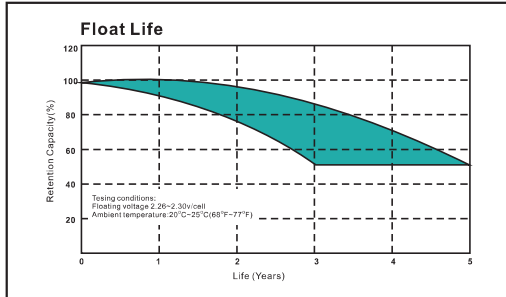
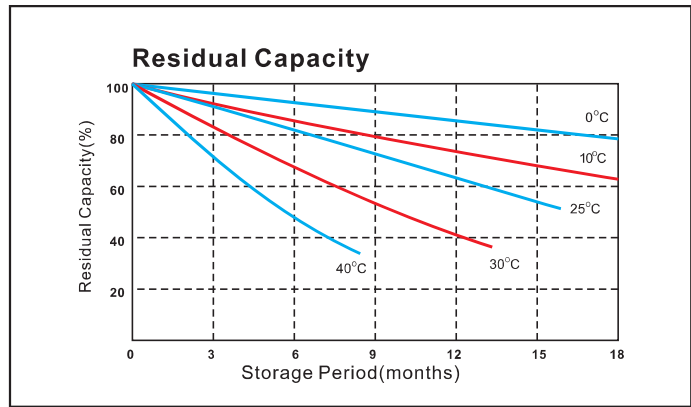
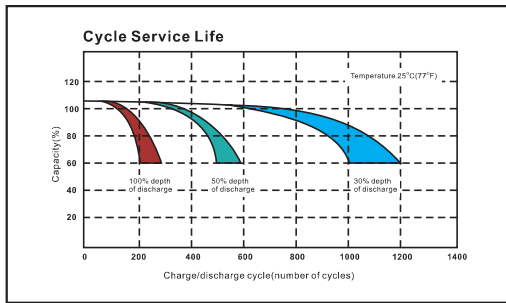


Constant Current Discharge Characteristics(A,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	110.5	69.1	51.3	30.6	19.2	9.8	7.1	4.9	3.1	2.6	1.4
10.2V	104.6	65.6	49.3	29.4	18.5	9.7	7.0	4.8	3.0	2.6	1.3
10.5V	101.7	64.1	48.3	28.7	18.1	9.6	6.9	4.7	3.0	2.5	1.3
10.8V	98.7	61.7	46.8	27.9	17.6	9.5	6.9	4.7	3.0	2.5	1.3

Constant Current Discharge Characteristics(Watt,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	1233.8	779.7	585.3	350.4	223.1	114.5	84.5	58.0	36.9	32.5	16.9
10.2V	1171.6	740.3	561.6	336.6	214.2	112.5	83.2	57.1	36.6	32.2	16.7
10.5V	1134.1	722.5	549.8	326.7	208.3	111.5	82.5	56.7	36.4	31.4	16.6
10.8V	1101.5	695.8	534.0	319.8	203.3	110.5	81.6	56.1	36.1	30.6	16.2

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty(pcs)
2 PCS	356*202*180	8.46	112*82	99	1.68	14	2772



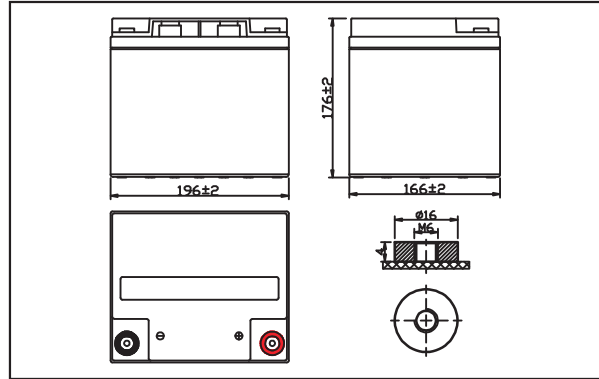
MODEL: OT40-12

Product Code:302010005-00115



Plane Chart:

Unit:(mm) Terminal type:(T1)



Characteristic:

- 100% testing before out of factory, stable and reliable quality is guaranteed.
- Professional alloy formula and advanced manufacturing techniques.
- Completely sealed and maintenance free, low self-discharge.
- Good charge-discharge acceptability.
- Cyclic application: deep cycle charge-discharge for more than 260 times.
- Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

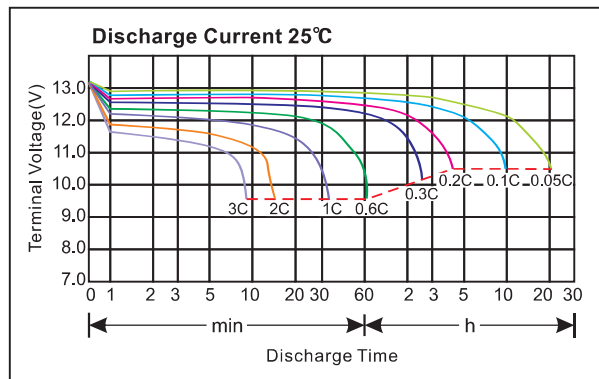
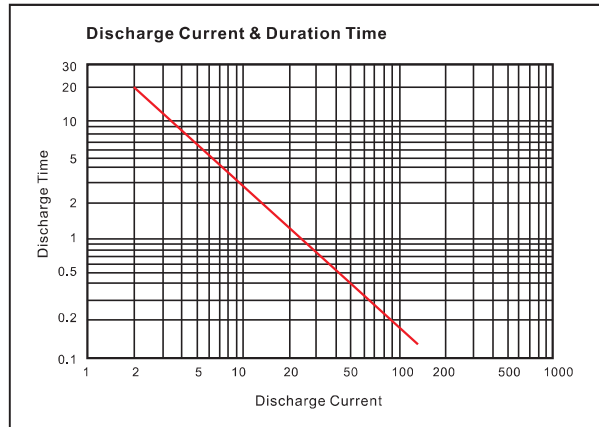
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts		12V	
Capacity(25°C)		20 hours rate (2.0A)	40Ah
Discharge Current Testing (25°C)		20 I ₂₀ rate (40A, 27min)	30min
		60 I ₂₀ rate(120A, 7min)	7min
Internal Resistance		Full Charged Battery 25°C	7mΩ
Capacity Affected By Temperature (20 hours rate)		40°C	104%
		25°C	100%
		0°C	83%
		-15°C	65%
Residual Capacity (25°C)		Capacity After 3 Months Storage	91%
		Capacity After 6 Months Storage	82%
		Capacity After 12 Months Storage	65%
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 12A Voltage 14.5~14.9V	
	Float (25°C)	Charge Voltage 13.6~13.8V	
Weight (Approx)		13.05Kg	

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve

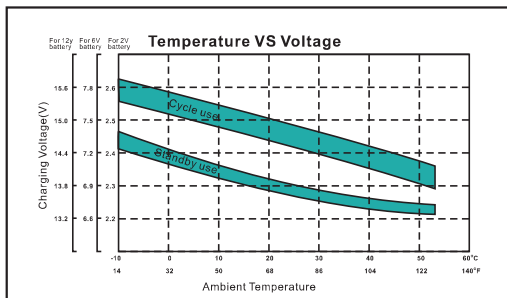
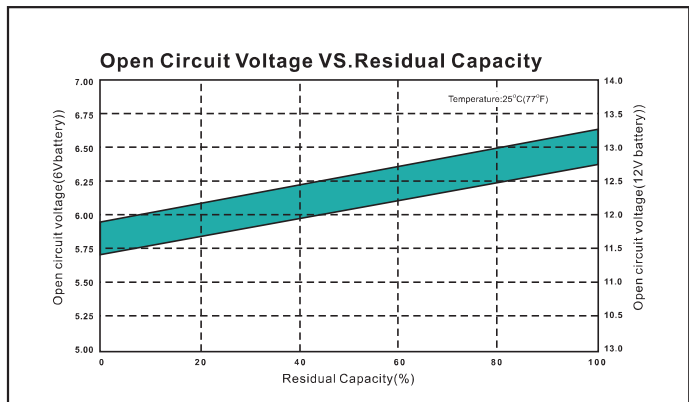
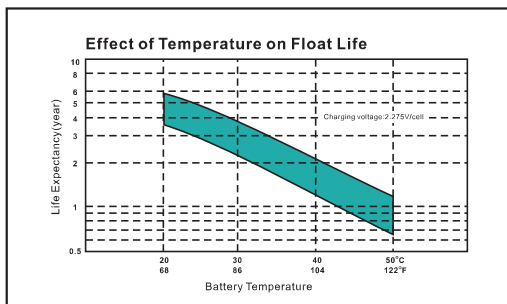
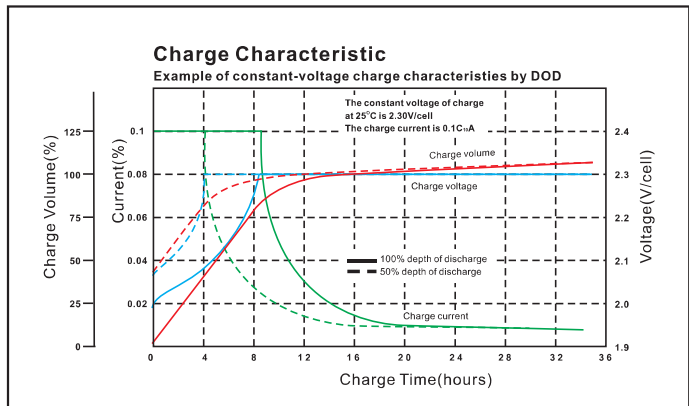
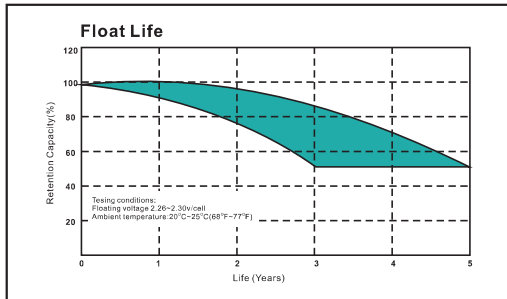
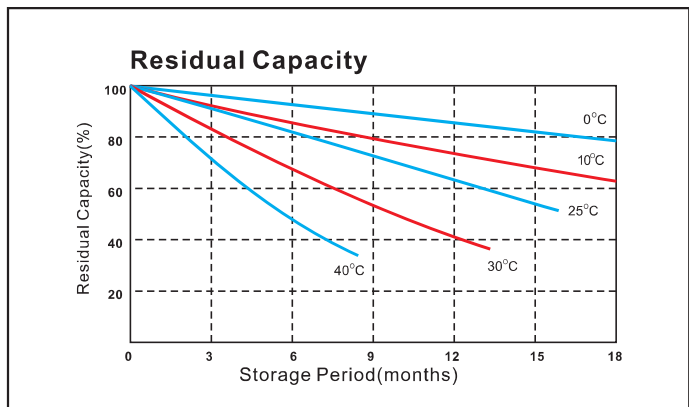
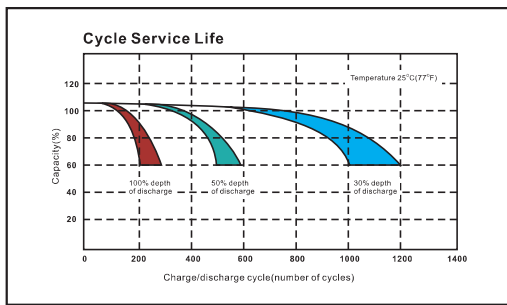


Constant Current Discharge Characteristics(A,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	120.2	80.0	62.8	39.6	23.9	13.9	9.9	7.0	4.6	3.9	2.0
10.2V	114.2	76.0	60.3	38.0	23.0	13.7	9.7	6.9	4.6	3.8	2.0
10.8V	110.7	73.6	58.8	37.0	22.4	13.6	9.6	6.8	4.6	3.8	2.0
10.8V	107.2	71.4	57.3	36.1	21.8	13.4	9.5	6.7	4.6	3.8	2.0

Constant Current Discharge Characteristics(A,25°C)											
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	1259.5	863.7	689.4	443.9	273.5	160.5	116.2	82.3	55.0	46.2	24.3
10.2V	1196.4	820.6	662.3	426.9	262.5	158.2	114.2	81.0	54.5	45.7	24.1
10.8V	1160.3	796.1	645.8	415.8	256.0	157.0	113.2	80.2	54.2	45.7	24.0
10.8V	1124.2	771.5	629.3	404.8	249.5	155.2	112.2	79.4	53.7	45.7	23.9

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty(pcs)
2 PCS	355*220*230	12.6	112*82	60	1.51	14	1680



MODEL: OT65-12

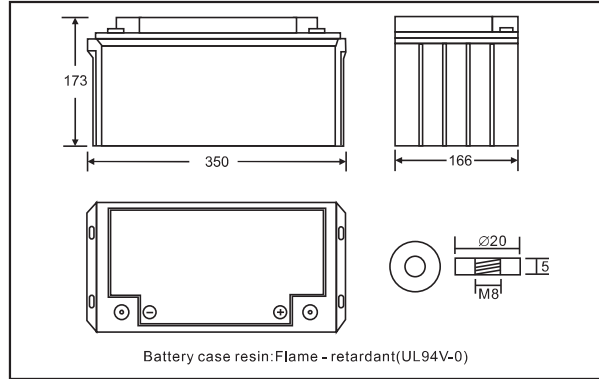
Product Code:302010005-00119



Container Color
 ■ Black C
 □ Grey 3 C

Plane Chart:

Unit:(mm) Terminal type:(T3)



ISO9001
 ISO140001
 OHSAS18001

Characteristic:

- 1.100% testing before out of factory, stable and reliable quality is guaranteed.
2. Professional alloy formula and advanced manufacturing techniques.
3. Completely sealed and maintenance free, low self-discharge.
4. Good charge-discharge acceptability.
5. Cyclic application: deep cycle charge-discharge for more than 260 times.
6. Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

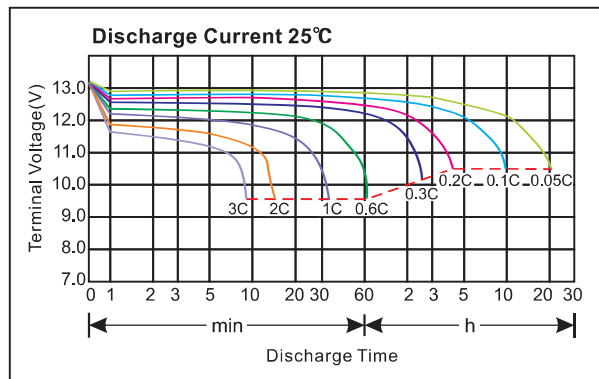
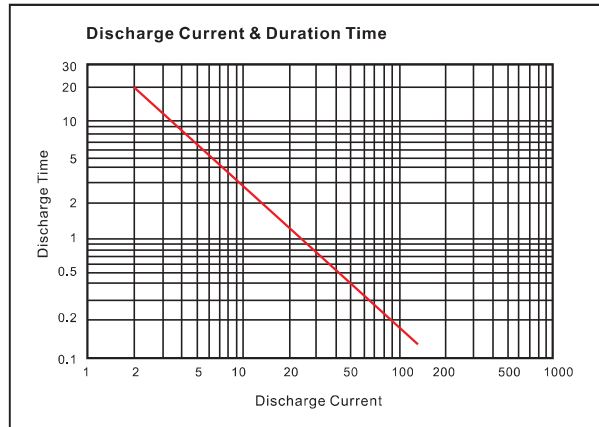
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts		12V	
Capacity(25°C)		10 hours rate (6.5A)	65Ah
Discharge Current Testing (25°C)		1 hours rate (35.7A)	36min
		3 hours rate(16.2A)	49Ah
Internal Resistance		Full Charged Battery 25°C	5.6mΩ
Capacity Affected By Temperature (20 hours rate)		40°C	104%
		25°C	100%
		0°C	83%
		-15°C	65%
Residual Capacity (25°C)		Capacity After 3 Months Storage	91%
		Capacity After 6 Months Storage	82%
		Capacity After 12 Months Storage	65%
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 19.5A Voltage 14.5~14.9V	
	Float (25°C)	Charge Voltage 13.6~13.8V	
Weight (Approx)		20.6Kg	

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve



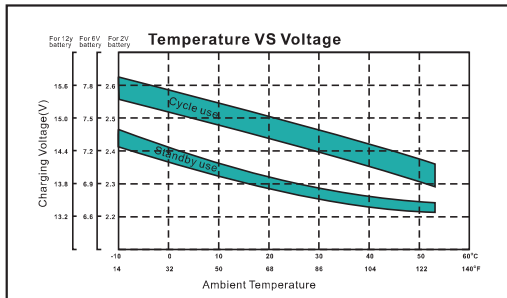
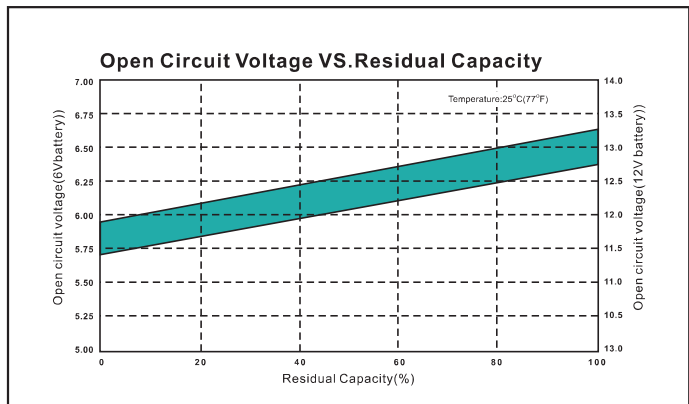
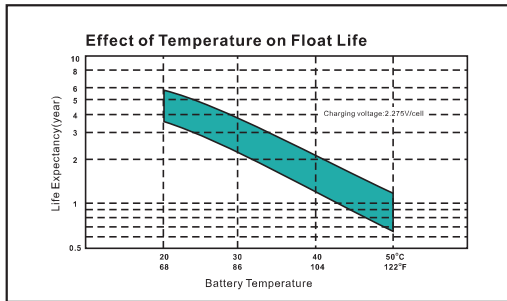
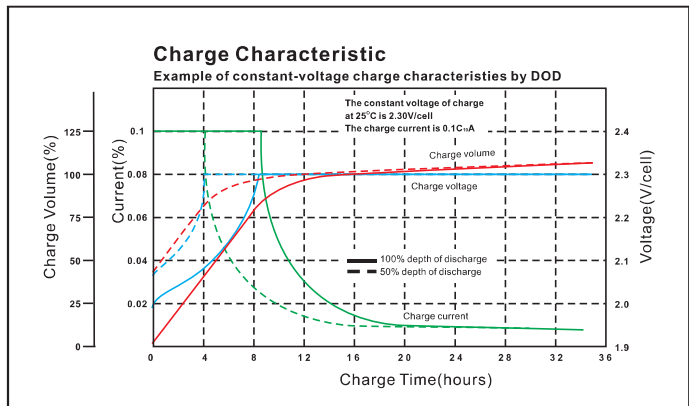
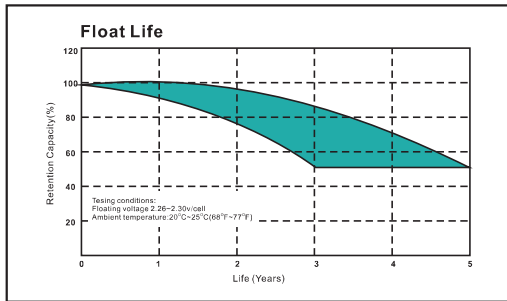
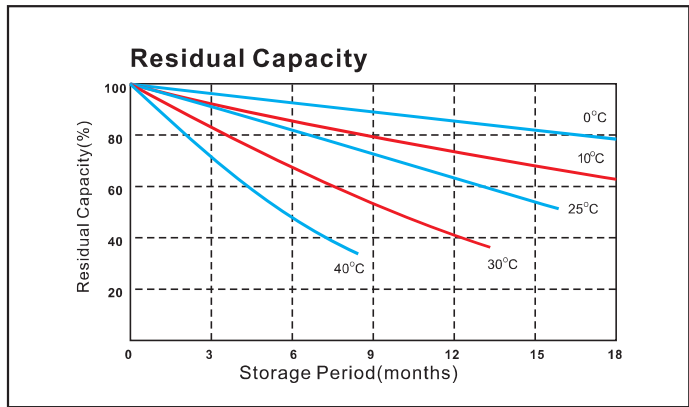
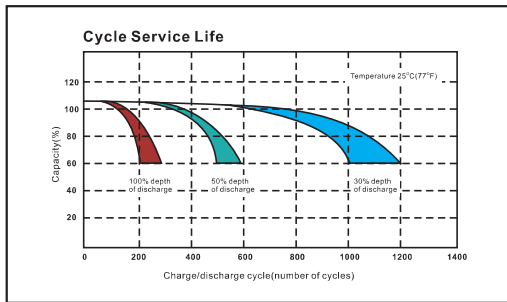


Constant Current Discharge Characteristics(A,25°C)												
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h	
9.60V	205.4	143.3	110.2	67.1	41.1	23.7	16.7	11.7	7.9	6.7	3.5	
10.2V	195.4	136.3	106.2	64.4	39.5	23.4	16.5	11.5	7.9	6.6	3.5	
10.5V	190.4	132.3	103.2	63.1	38.6	23.2	16.3	11.4	7.8	6.5	3.4	
10.8V	183.4	128.3	100.2	61.2	37.5	22.9	16.2	11.3	7.7	6.5	3.4	

Constant Current Discharge Characteristics(Watt,25°C)												
F.V/Time	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h	
9.60V	2157.3	1547.1	1210.4	753.5	467.9	274.5	196.4	138.3	94.1	79.6	41.5	
10.2V	2049.1	1469.9	1161.3	723.4	449.9	270.5	194.4	136.3	93.3	79.9	41.5	
10.5V	1999.0	1427.9	1132.3	707.4	438.9	268.5	192.4	135.3	92.8	78.1	41.1	
10.8V	1925.8	1381.8	1104.2	687.4	426.9	265.5	191.4	134.3	91.9	77.8	40.9	

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty (pcs)
1 PCS	360*200*235	20.5	112*82	77	1.58	14	1078



MODEL: OT100-12A

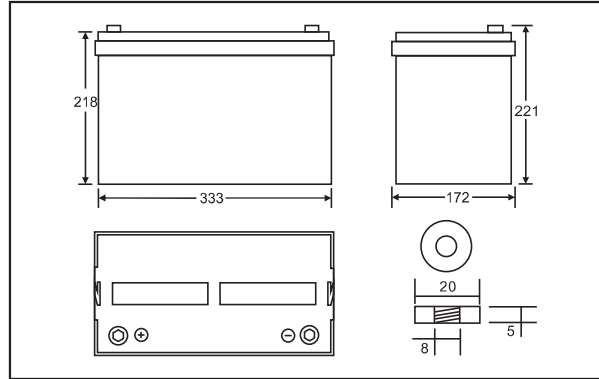
Product Code: 302010005-00127



Container Color
 ■ Black C
 ■ Grey 3 C

Plane Chart:

Unit:(mm) Terminal type:(T3)



Characteristic:

1. 100% testing before out of factory, stable and reliable quality is guaranteed.
2. Professional alloy formula and advanced manufacturing techniques.
3. Completely sealed and maintenance free, low self-discharge.
4. Good charge-discharge acceptability.
5. Cyclic application: deep cycle charge-discharge for more than 260 times.
6. Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

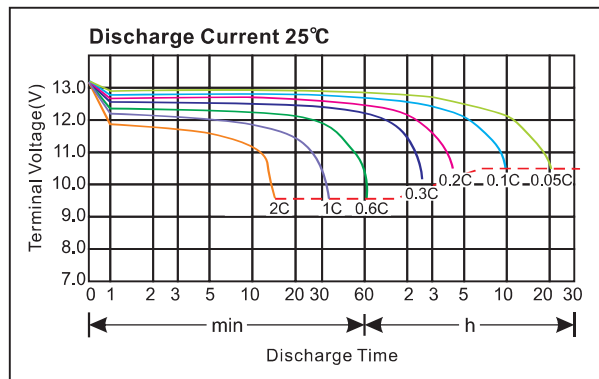
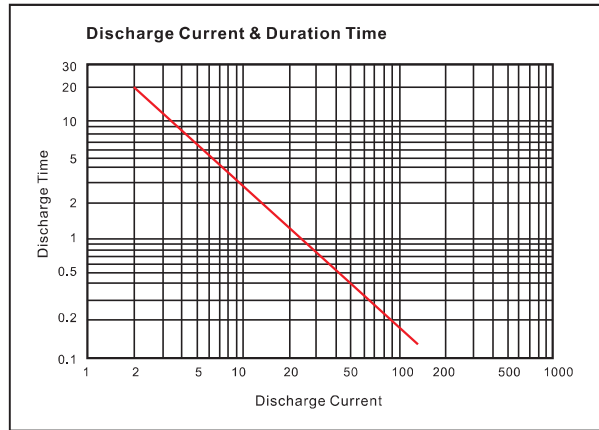
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts		12V	
Capacity(25°C)		10 hours rate (10A)	100Ah
Discharge Current Testing (25°C)		1 hours rate (55A)	56min
		3 hours rate(25A)	79Ah
Internal Resistance		Full Charged Battery 25°C	4mΩ
Capacity Affected By Temperature (20 hours rate)		40°C	104%
		25°C	100%
		0°C	83%
		-15°C	65%
Residual Capacity (25°C)		Capacity After 3 Months Storage	91%
		Capacity After 6 Months Storage	82%
		Capacity After 12 Months Storage	65%
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 30A Voltage 14.5~14.9V	
	Float (25°C)	Charge Voltage 13.6~13.8V	
Weight (Approx)		31.2Kg	

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve



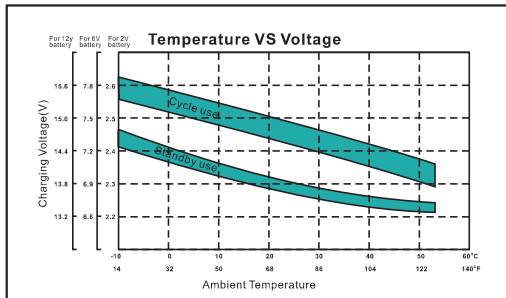
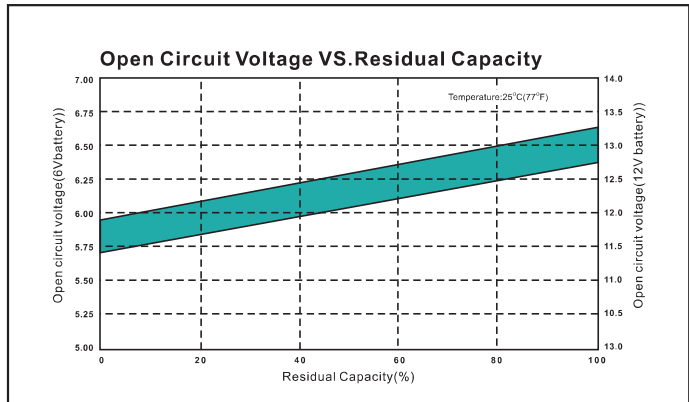
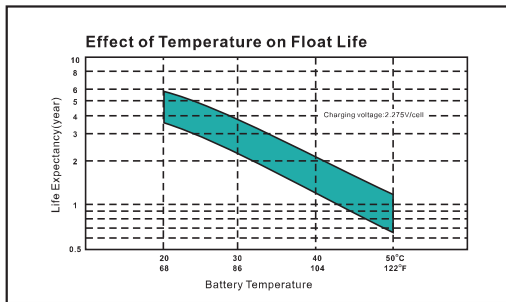
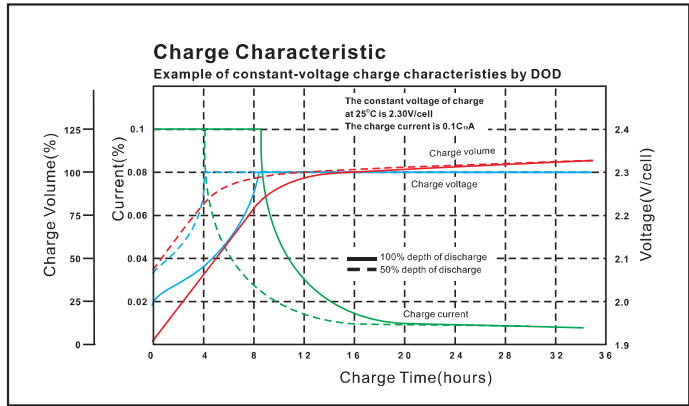
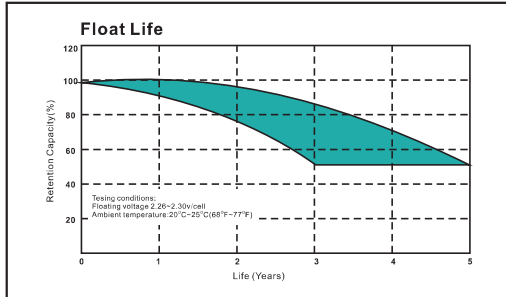
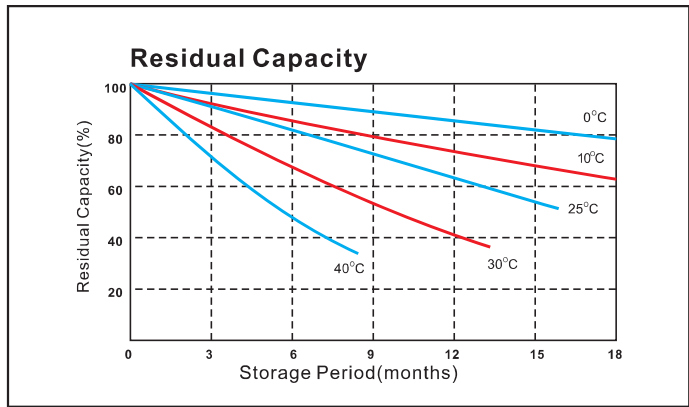
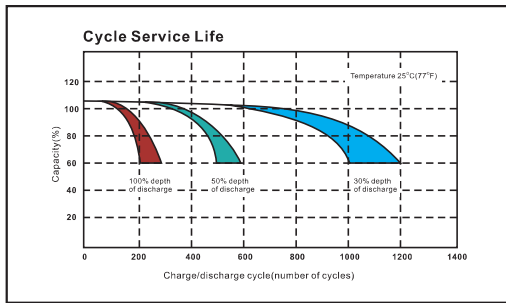


Constant Current Discharge Characteristics(A,25°C)										
F.V/Time	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	220.4	175.4	108.2	65.1	36.6	18.5	18.5	12.2	10.2	5.4
10.2V	209.4	168.3	104.2	62.5	36.1	18.2	18.2	12.1	10.1	5.4
10.5V	203.4	164.3	101.2	61.2	35.8	18.0	18.0	12.1	10.0	5.3
10.8V	196.4	160.3	98.0	59.4	35.4	17.8	17.8	12.0	10.0	5.3

Constant Current Discharge Characteristics(Watt,25°C)										
F.V/Time	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	2380.8	1925.8	1214.4	742.5	423.8	310.6	219.4	146.3	123.2	64.3
10.2V	2261.5	1848.7	1169.3	712.4	417.8	306.6	215.4	145.3	122.2	64.3
10.5V	2196.4	1803.6	1159.3	708.4	413.8	303.6	212.4	145.3	121.2	64.1
10.8V	2121.2	1760.5	1111.2	677.4	409.8	300.6	210.4	144.3	119.2	63.7

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty(pcs)
1 PCS	375*215*285	31.2	112*82	50	1.57	14	700



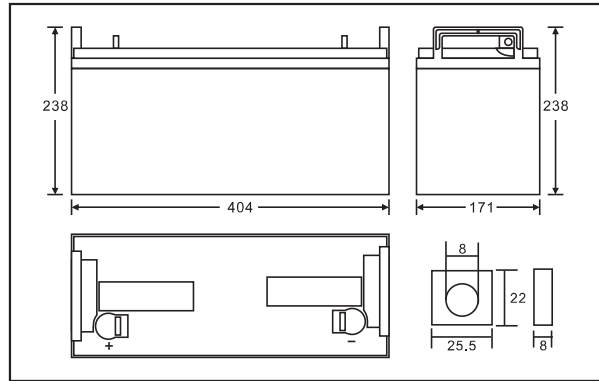
MODEL: OT120-12

Product Code:302010005-00128



Plane Chart:

Unit:(mm) Terminal type:(B4)



Characteristic:

- 1.100% testing before out of factory, stable and reliable quality is guaranteed.
2. Professional alloy formula and advanced manufacturing techniques.
3. Completely sealed and maintenance free, low self-discharge.
4. Good charge-discharge acceptability.
5. Cyclic application: deep cycle charge-discharge for more than 260 times.
6. Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

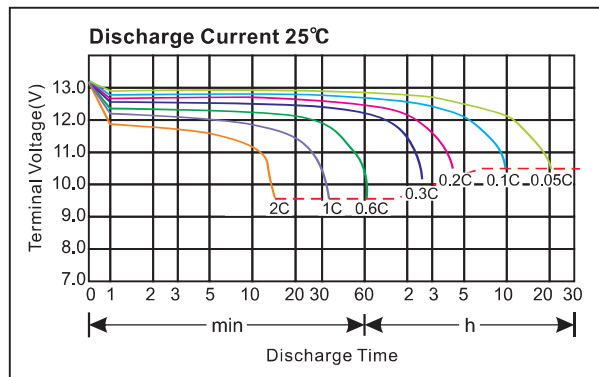
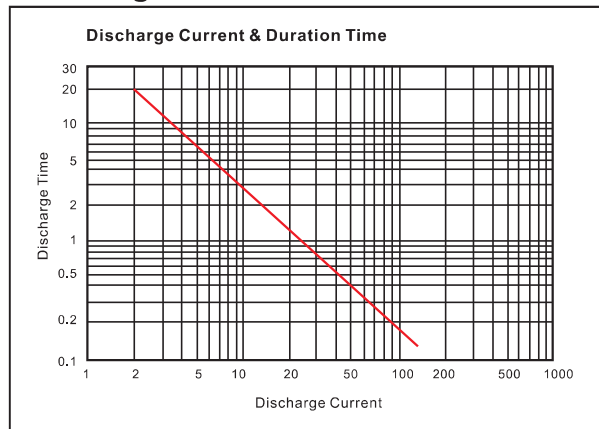
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts	12V	
Capacity(25°C)	10 hours rate (12A)	120Ah
Discharge Current Testing (25°C)	1 hours rate (66A)	68min
	3 hours rate(30A)	93Ah
Internal Resistance	Full Charged Battery 25°C	3.6mΩ
Capacity Affected By Temperature (20 hours rate)	40°C	104%
	25°C	100%
	0°C	83%
	-15°C	65%
Residual Capacity (25°C)	Capacity After 3 Months Storage	91%
	Capacity After 6 Months Storage	82%
	Capacity After 12 Months Storage	65%
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 36A Voltage 14.5~14.9V
	Float (25°C)	Charge Voltage 13.6~13.8V
Weight (Approx)		36.8Kg

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve



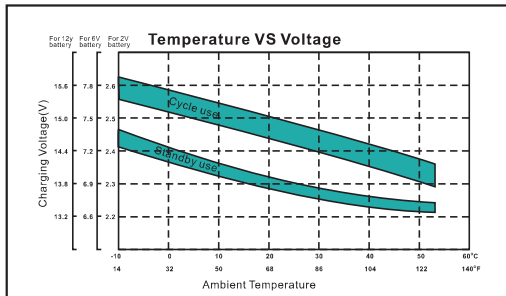
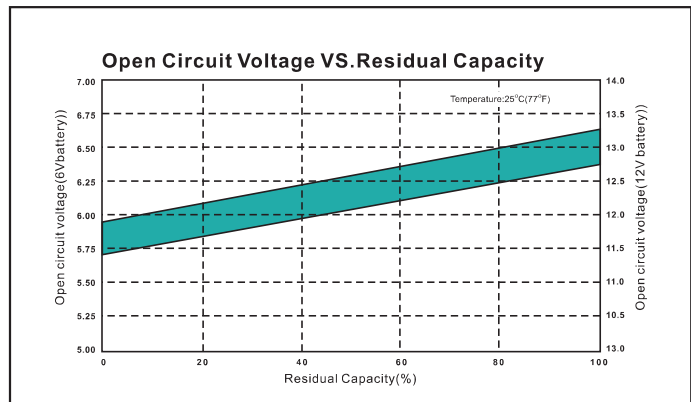
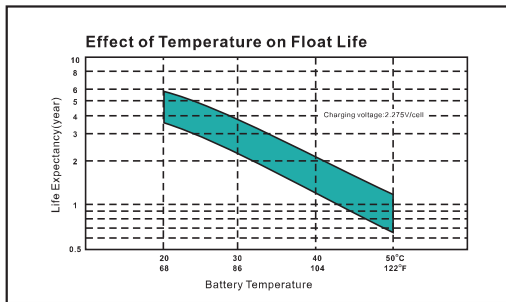
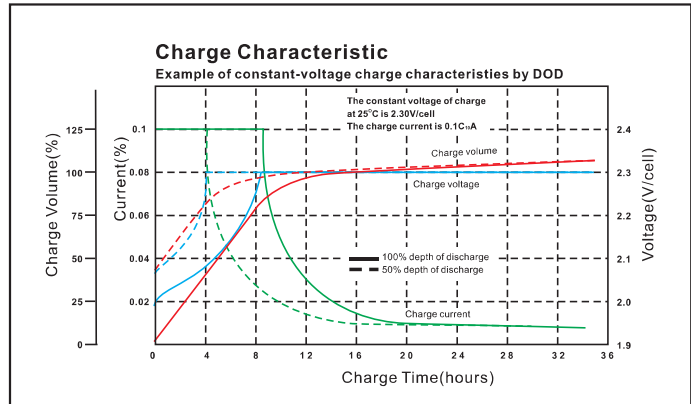
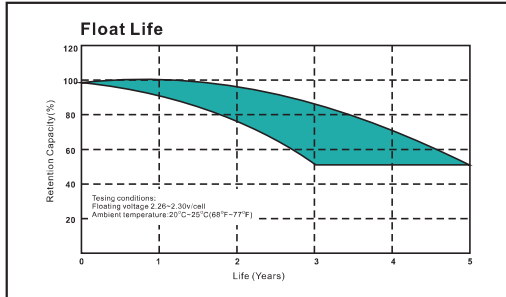
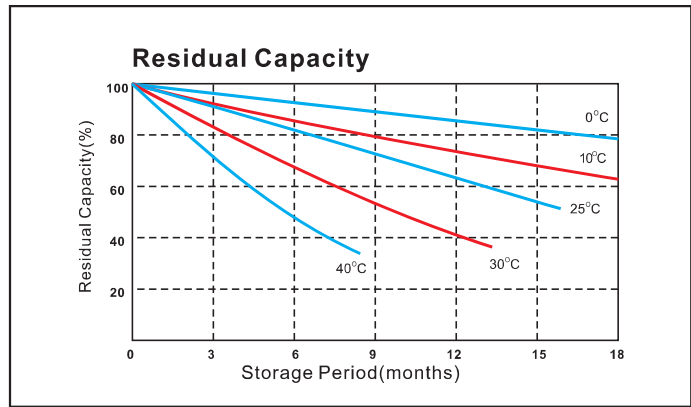
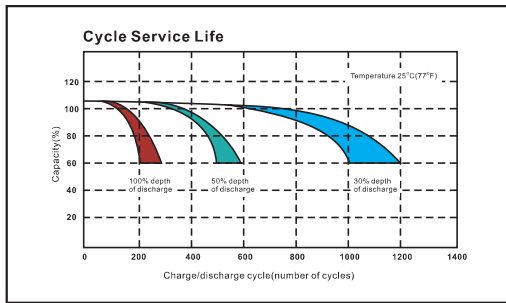


Constant Current Discharge Characteristics(A,25°C)										
F.V/Time	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	250.5	210.4	130.3	78.2	43.9	31.1	21.9	14.6	12.2	6.4
10.2V	238.5	202.4	125.3	75.0	43.3	30.6	21.6	14.5	12.1	6.4
10.5V	231.5	197.4	122.2	73.4	42.9	30.3	21.4	14.4	12.0	6.2
10.8V	224.4	192.4	119.2	71.3	42.4	30.0	21.2	14.2	12.0	6.2

Constant Current Discharge Characteristics(Watt,25°C)										
F.V/Time	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60V	2705.4	2310.6	1461.9	890.8	508.0	365.7	259.5	173.3	145.3	76.4
10.2V	2575.1	2222.4	1405.8	855.7	501.0	359.7	255.5	172.3	144.3	76.4
10.5V	2499.0	2167.3	1370.7	836.7	496.0	355.7	252.5	171.3	143.3	74.8
10.8V	2423.8	2112.2	1337.7	813.6	490.0	352.7	251.5	168.3	143.3	74.5

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty(pcs)
1 PCS	455*205*295	36.8	112*95	40	1.49	12	480



MODEL: OT150-12

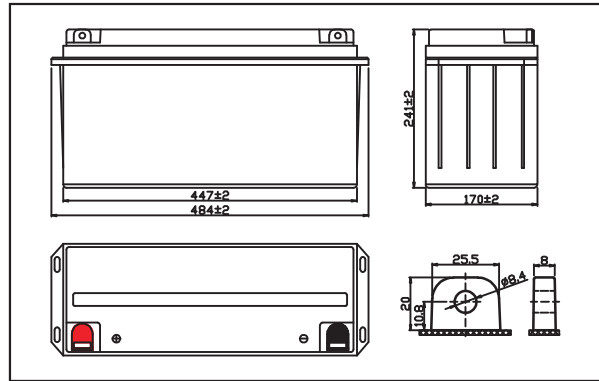
Product Code:302010005-00198



Container Color
 ■ Black C
 □ Grey 3 C

Plane Chart:

Unit:(mm) Terminal type:(B5)



Characteristic:

- 1.100% testing before out of factory, stable and reliable quality is guaranteed.
2. Professional alloy formula and advanced manufacturing techniques.
3. Completely sealed and maintenance free, low self-discharge.
4. Good charge-discharge acceptability.
5. Cyclic application: deep cycle charge-discharge for more than 260 times.
6. Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

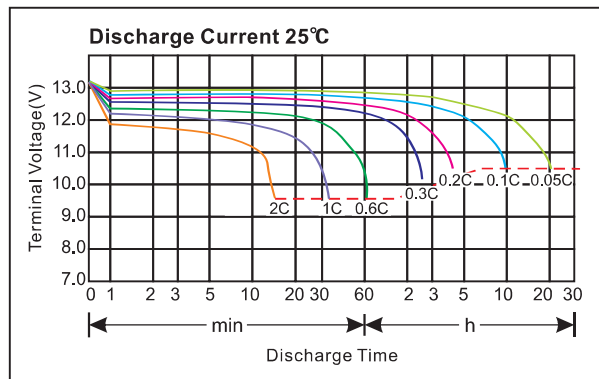
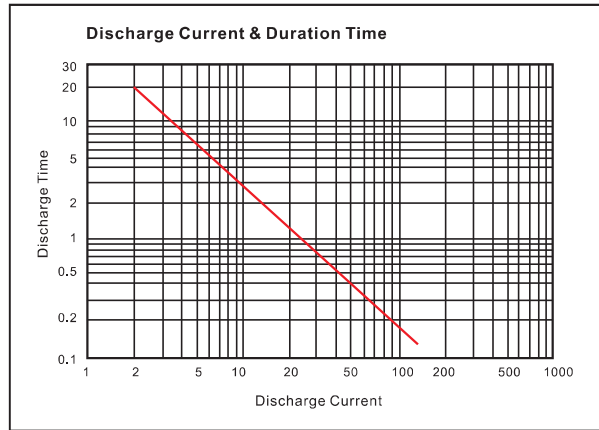
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts		12V	
Capacity(25°C)		10 hours rate (15A)	150Ah
Discharge Current Testing (25°C)		1 hours rate (82.5A)	83min
		3 hours rate(37.5A)	113Ah
Internal Resistance		Full Charged Battery 25°C	3.4mΩ
Capacity Affected By Temperature (20 hours rate)		40°C	104%
		25°C	100%
		0°C	83%
		-15°C	65%
Residual Capacity (25°C)		Capacity After 3 Months Storage	91%
		Capacity After 6 Months Storage	82%
		Capacity After 12 Months Storage	65%
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 45A Voltage 14.5~14.9V	
	Float (25°C)	Charge Voltage 13.6~13.8V	
Weight (Approx)		42.5Kg	

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve



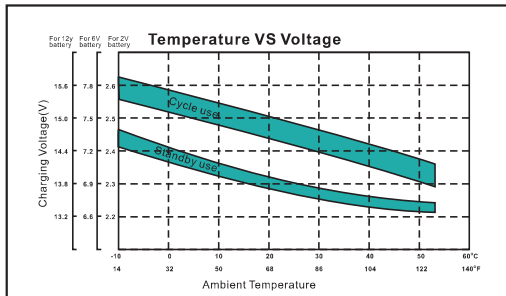
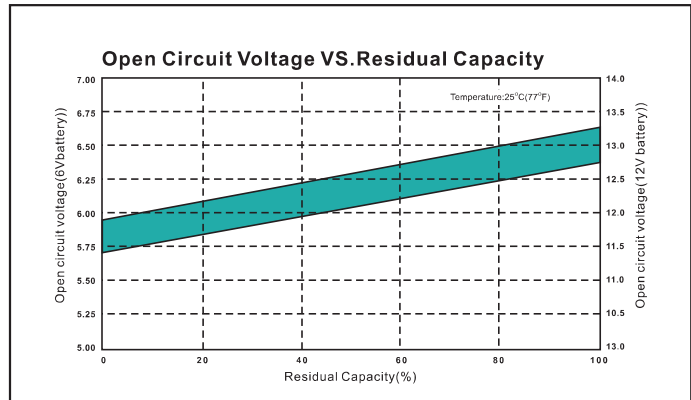
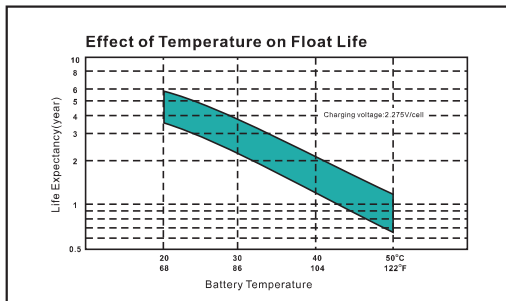
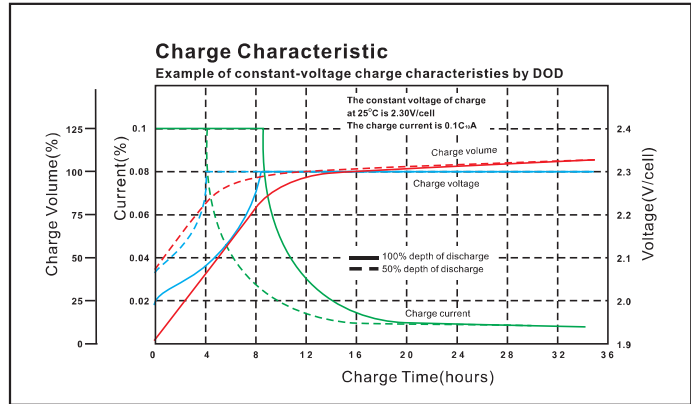
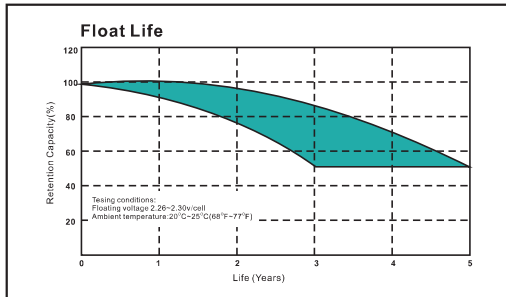
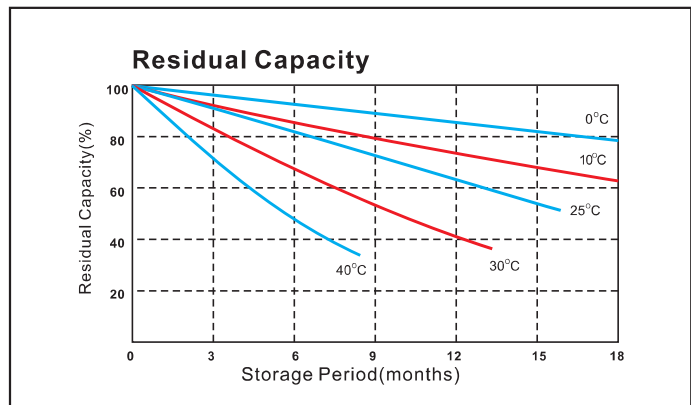
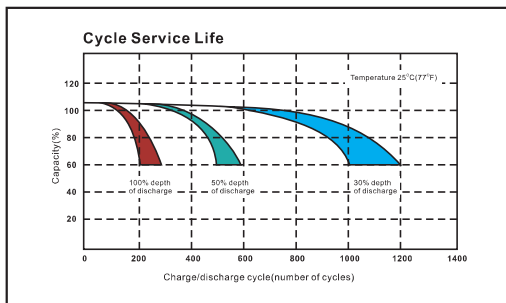


Constant Current Discharge Characteristics(A,25°C)										
F.V/Time	15min	15min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	267.3	158.4	96.5	54.3	39.2	31.1	27.3	18.1	15.2	7.8
10.2V	256.4	152.5	92.7	53.5	38.6	30.7	26.9	17.9	15.1	7.8
10.5V	251.5	148.5	90.8	53.0	38.2	30.5	26.6	17.8	15.0	7.8
10.8V	243.5	144.5	88.0	52.4	37.8	29.5	26.4	17.8	15.0	7.7

Constant Current Discharge Characteristics(Watt,25°C)										
F.V/Time	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2935.4	1777.1	1100.9	628.7	461.3	365.3	322.7	214.8	181.2	93.9
10.2V	2815.6	1710.7	1056.3	618.8	454.4	360.4	318.8	212.9	179.2	93.9
10.5V	2760.1	1666.2	1034.6	612.8	449.5	358.4	314.8	211.9	178.2	93.2
10.8V	2674.0	1621.6	1002.9	606.9	445.5	347.5	312.8	210.9	177.2	92.7

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty(pcs)
1 PCS	575*127*365	42.5	120*82	36	1.64	7	476
			105*82	32	1.46	7	



MODEL: OT200-12

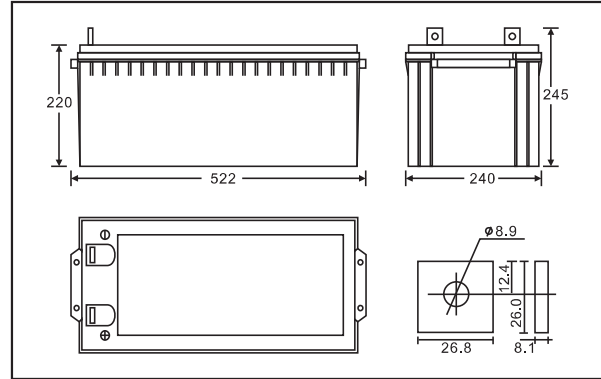
Product Code:302010005-00134



Container Color
 ■ Black C
 ■ Grey 3 C

Plane Chart:

Unit:(mm) Terminal type:(B6)



Characteristic:

- 1.100% testing before out of factory, stable and reliable quality is guaranteed.
2. Professional alloy formula and advanced manufacturing techniques.
3. Completely sealed and maintenance free, low self-discharge.
4. Good charge-discharge acceptability.
5. Cyclic application: deep cycle charge-discharge for more than 260 times.
6. Floating application: for 3-5 years.

Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

Parts:

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safty Valve	Seal Glue
ABS UL94 - V0	ABS UL94 - V0	Copper	PbO ₂	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

Packing

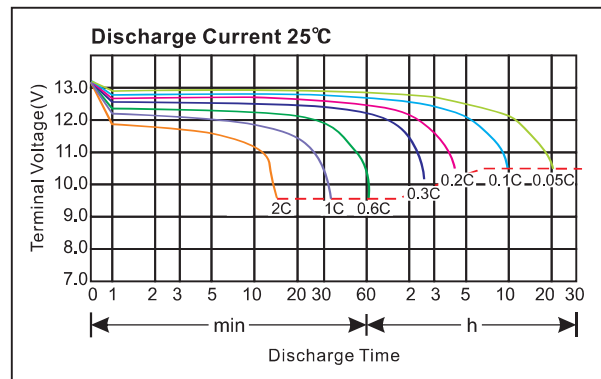
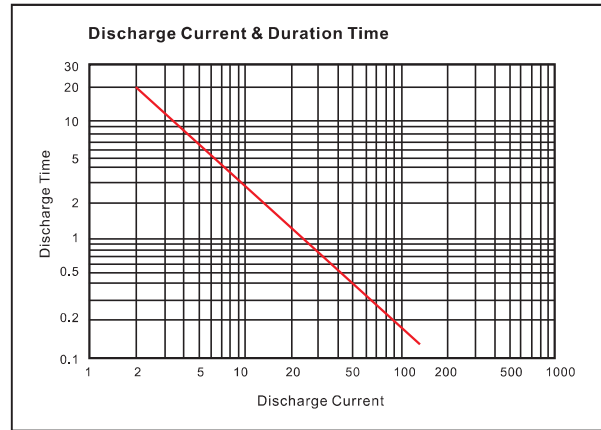
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

Parameter Chart:

Volts	12V	
Capacity(25°C)	10 hours rate (20A)	200Ah
Discharge Current Testing (25°C)	1 hours rate (110A)	110min
	3 hours rate(50A)	150Ah
Internal Resistance	Full Charged Battery 25°C	2.5mΩ
Capacity Affected By Temperature (20 hours rate)	40°C	104%
	25°C	100%
	0°C	83%
	-15°C	65%
Residual Capacity (25°C)	Capacity After 3 Months Storage	91%
	Capacity After 6 Months Storage	82%
	Capacity After 12 Months Storage	65%
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 60A Voltage 14.5~14.9V
	Float (25°C)	Charge Voltage 13.6~13.8V
Weight (Approx)		60.2Kg

★The above are average and data obtained from the first 3 charge/discharge cycles. These are not minimum values.

Discharge Curve



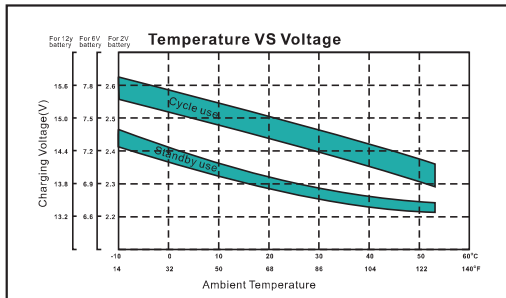
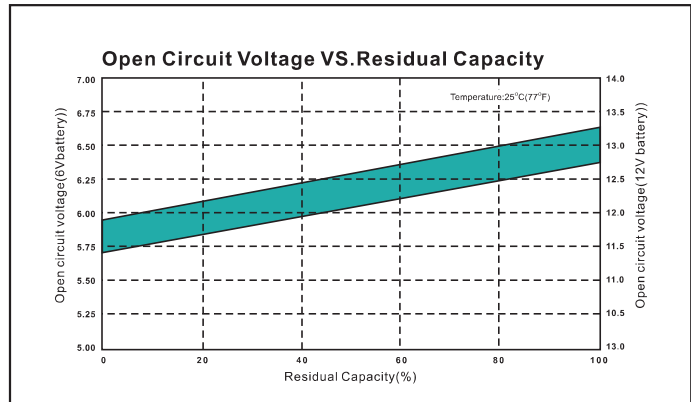
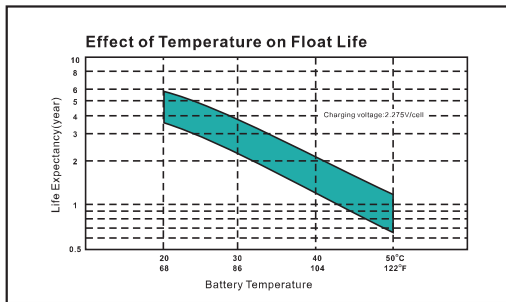
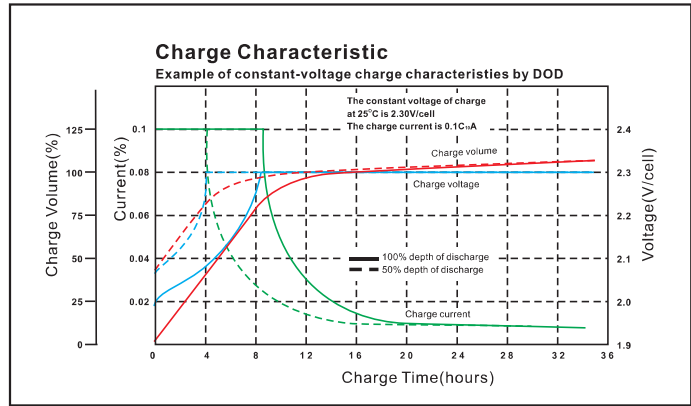
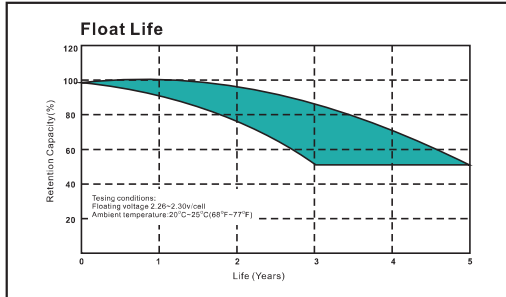
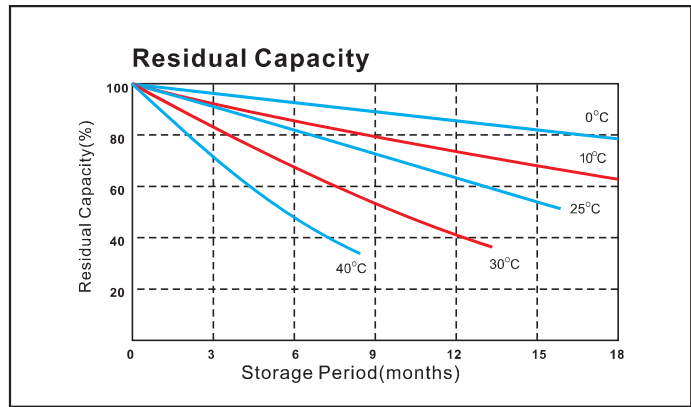
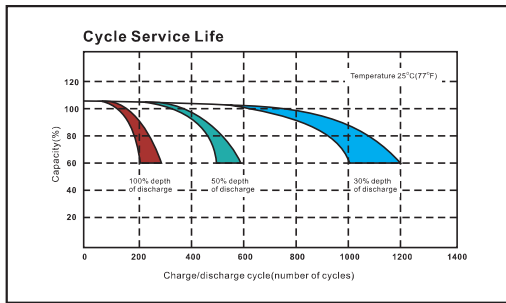


Constant Current Discharge Characteristics(A,25°C)										
F.V/Time	15min	15min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	366.3	207.9	128.7	72.4	54.5	41.4	37.8	24.1	20.2	10.3
10.2V	351.5	200.0	123.8	71.3	53.0	40.9	36.6	23.9	20.1	10.2
10.5V	344.5	195.0	120.8	70.7	52.6	40.6	36.3	23.8	20.0	10.1
10.8V	333.6	190.1	117.8	69.8	51.9	39.4	35.9	23.5	20.0	10.1

Constant Current Discharge Characteristics(Watt,25°C)										
F.V/Time	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	4022.4	2332.4	1467.2	837.5	632.6	487.1	439.6	285.1	239.6	122.8
10.2V	3861.0	2239.4	1410.8	824.7	622.7	481.1	432.6	283.1	237.6	121.8
10.5V	3782.8	2187.9	1376.1	817.7	617.8	477.2	428.7	282.2	237.6	120.8
10.8V	3668.0	2127.5	1338.5	807.8	610.8	463.3	424.7	278.2	237.6	120.8

Loading Info

Master Carton			Pallet			20 GP	
Pcs/Ctn	Size (mm)	N.W. (kg)	Size (mm)	Total CTNS	N.W.(T)	Pallet Qty	Battery Qty(pcs)
1 PCS	540*260*300	60.2	112*82	24	1.46	14	336





AMIRI TRADING CO. (IMPORT-EXPORT)
29, MEHRDAD ST., MOTRHARI AVE.
15759, TEHRAN-IRAN
TEL: (+9821)88829513-88831981
FAX: (+9821) 88831981-88307634
E-mail: hasouri23@yahoo.com



Huawei Power Source Co., Ltd
Lead-Acid Battery Manufacturer