

SOLAR DEEP CYCLE ECO GEL BATTERY



Features:

- User Friendly
- Low Maintenance
- High Performance
- Ultra Long Life Service
- High Recovery Capability
- High Charge Acceptability
- No Water Topping Required
- Maintenance-Free Operation
- Low Pressure Venting System
- Non-Spill Sealed Construction
- Low Self-Discharge - Long Shelf Life
- Wide Operating Temperature Range



SPECIFICATIONS

EUR10012 12V 100AH

Cells Per Unit	6
Voltage Per Unit	12
Capacity	100Ah@10hr-rate to 1.75V per cell@25°C
Max. Discharge Current	800A (5sec)
Internal Resistance	Approx. 3.5mΩ
Operating Temperature Range	Discharge: -40°C ~ 50°C Charge: -20°C ~ 50°C Storage: -20°C ~ 50°C
Normal Operating Temperature Range	25°C ± 5°C
Float charging Voltage	13.50 to 13.80V DC/unit Average at 25°C
Max. Charging Current	25.0A
Equalization and Cycle service	14.70 to 15.00V DC/unit Average at 25°C
Self Discharge	The batteries can be stored for more than 6 months at 25°C. Please charge batteries before using. For high temperature, the time interval will be shorter.
Terminal	T14
Container Material	ABS(UL94-HB) Flammability resistance of UL94-V0 is available on request.
Box Dimension	330 x 172 x 225 mm
Product Weight	N. W - 25 KG / G. W - 25.5 KG

APPLICATION

- Electric tools
- Vehicle in place of walking
- Lawn mowers
- Golf trolleys and golf cart
- Portable apparatus, lights and instruments;
- Electric toys
- Illumination light
- Fire alarms
- Portable power
- Wheelchairs
- Medical equipments.



UPS SYSTEM



EMERGENCY LIGHTING



GENERAL PURPOSE



FIRE & SECURITY



MEDICAL



ISO9001

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

F.V/Time	5min	10min	15min	30min	45min	1h	3h	5h	10h	20h
1.60V/cell	307.1	210.8	152.1	91.9	67.3	56.3	25.5	17.3	10.3	5.38
1.65V/cell	294.6	191.0	148.8	90.3	66.5	55.8	25.4	17.2	10.2	5.30
1.70V/cell	267.4	184.3	146.7	89.6	65.7	55.3	25.3	17.1	10.1	5.25
1.75V/cell	241.5	169.7	142.6	88.9	63.6	55.0	25.0	17.0	10.0	5.20
1.80V/cell	219.6	157.6	132.3	83.6	63.0	52.3	23.8	16.3	8.8	4.75

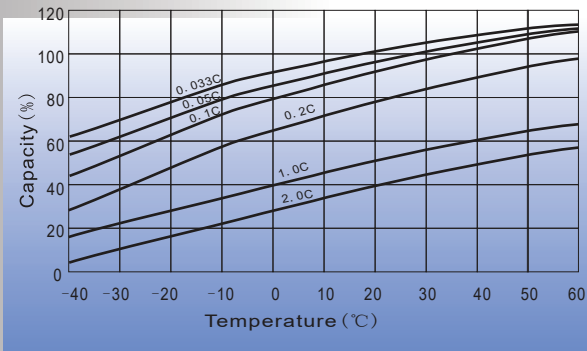
Constant Power Discharge Characteristics Unit:W(25 °C, 77 °F)

F.V/Time	5min	10min	15min	30min	45min	1h	3h	5h	10h	20h
1.60V/cell	506.9	348.5	274.6	174.2	131.4	109.9	54.4	33.6	20.0	10.5
1.65V/cell	485.8	346.3	272.8	169.0	130.2	108.8	53.8	33.6	19.8	10.0
1.70V/cell	454.1	337.9	267.5	165.4	126.7	108.3	53.5	33.3	19.6	9.90
1.75V/cell	422.4	316.8	249.9	156.6	125.6	107.2	53.4	33.2	19.5	9.88
1.80V/cell	380.2	295.7	235.8	154.9	122.1	101.9	49.5	31.6	17.2	9.30

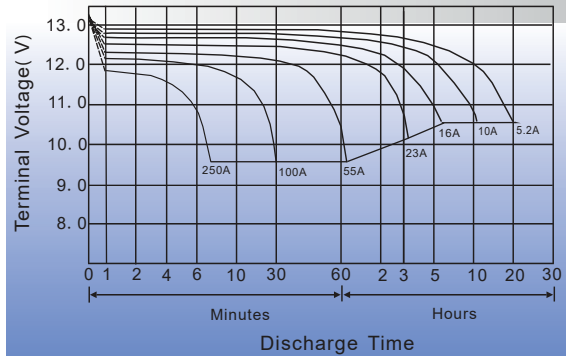
SOLAR DEEP CYCLE ECO GEL BATTERY



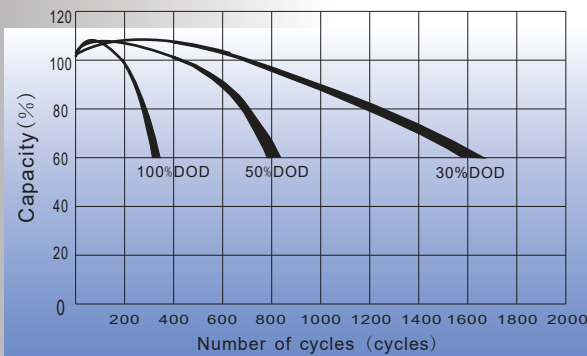
TEMPERATURE EFFECTS CURVE



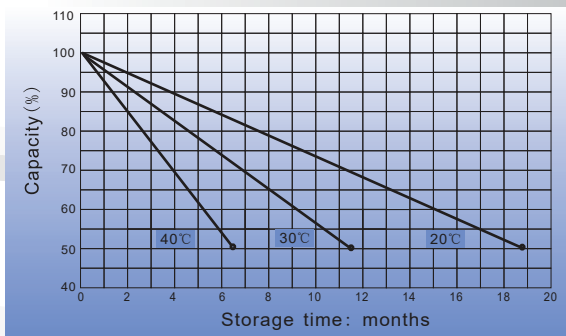
DISCHARGE TIME VS DISCHARGE CURRENT 25 (°C)



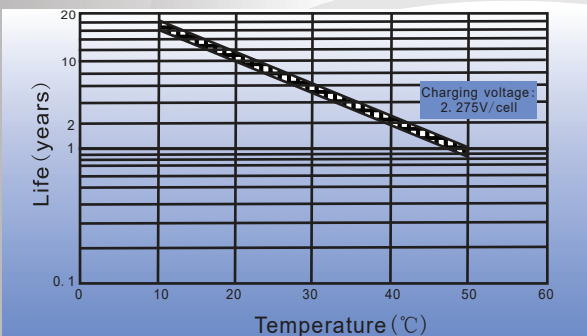
LIFE CHARACTERISTICS OF CYCLIC USE



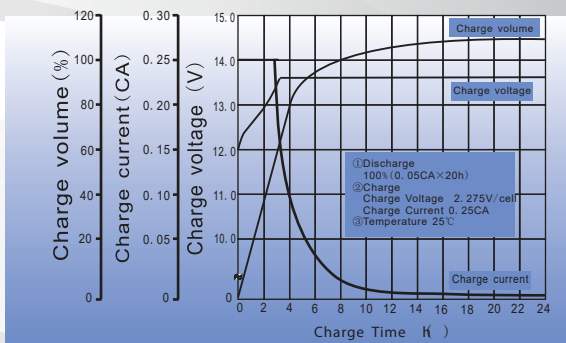
SELF DISCHARGE CHARACTERISTIC



EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE



CHARGE CHARACTERISTIC CURVE FOR STANDBY USE



Charging Procedures

Application	Charge Voltage (V/cell)			Max. Charge Current
	Temperature	Set Point	Allow able Range	
Cycle Use	25°C	2.475	2.45~2.50	0.25C
Standby Use	25°C	2.275	2.25~2.30	

Discharge Current VS Discharge Voltage

Final Discharge Voltage V/cell	1.75	1.7	1.6	1.3
Discharge Current(A)	0.2C > (A)	0.2C < (A) < 0.5C	0.5C < (A) < 1.0C	(A) > 1.0C

Charge the batteries at least once every 6 months, if they are stored at 25 °C.

Charging Method

Constant Voltage	14.7~15.0V, 5~11h, Max. Current 0.25CA
Constant Current	0.1CA×5h
Fast	0.25CA×1.7h

SOLAR DEEP CYCLE ECO GEL BATTERY



Features:

- User Friendly
- Low Maintenance
- High Performance
- Ultra Long Life Service
- High Recovery Capability
- High Charge Acceptability
- No Water Topping Required
- Maintenance-Free Operation
- Low Pressure Venting System
- Non-Spill Sealed Construction
- Low Self-Discharge - Long Shelf Life
- Wide Operating Temperature Range



SPECIFICATIONS	EUR15012 12V 150AH
Cells Per Unit	6
Voltage Per Unit	12
Capacity	150Ah@10hr-rateto1.85Vpercell@25 °C
Max. Discharge Current	1000A (5 sec)
Internal Resistance	Approx.2.6 mΩ
Operating Temperature Range	Discharge: -40°C~50°C Charge: -20°C~50°C Storage: -20°C~50°C
Normal Operating Temperature Range	25°C±5°C
Float charging Voltage	13.50 to 13.80V DC/unit Average at 25°C
Max. Charging Current	37.5A
Equalization and Cycle service	14.70 to 15.00V DC/unit Average at 25°C
Self Discharge	The batteries can be stored for more than 6 months at 25°C. Please charge batteries before using. For high temperature, the time interval will be shorter.
Terminal	T14
Constainer Material	ABS(UL94-HB) Flammability resistance of UL94-V0 is available on request.
Box Dimension	485 x 240 x 172 mm
Product Weight	N. W - 40 KG / G. W - 40.5 KG

APPLICATION

- Solar systems
- UPS systems
- IT systems
- Data centers
- Power generation plants and substations
- Telecommunication equipments



UPS SYSTEM



EMERGENCY LIGHTING



GENERAL PURPOSE



FIRE & SECURITY



MEDICAL



ISO9001

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

F.V/Time	5min	10min	15min	30min	45min	1h	3h	6h	10h	20h
1.60V/cell	445.3	337.3	243.4	147.0	107.6	84.4	41.7	25.9	15.5	7.92
1.65V/cell	427.2	305.5	238.1	144.4	106.4	83.6	41.5	25.7	15.4	7.88
1.70V/cell	387.7	294.9	234.7	143.4	105.2	82.9	41.4	25.6	15.2	7.80
1.75V/cell	350.2	271.5	228.1	142.2	101.8	82.5	41.3	25.5	15.0	7.70
1.80V/cell	318.4	252.2	211.6	133.8	100.8	78.4	38.3	24.4	13.1	7.13

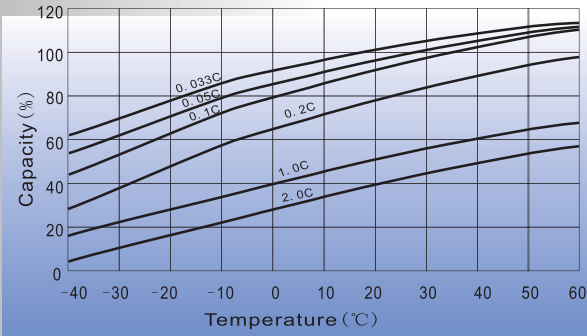
Constant Power Discharge Characteristics Unit:W(25°C, 77°F)

F.V/Time	5min	10min	15min	30min	45min	1h	3h	6h	10h	20h
1.60V/cell	735.0	557.6	439.3	278.8	210.2	164.8	81.0	50.4	30.0	15.8
1.65V/cell	704.4	554.1	436.5	270.3	208.4	163.2	80.7	50.3	29.6	15.5
1.70V/cell	658.4	540.7	428.0	264.7	202.8	162.4	80.3	49.9	29.4	15.2
1.75V/cell	612.5	506.9	399.9	250.6	200.9	160.8	80.0	49.7	29.2	14.8
1.80V/cell	551.2	473.1	377.3	247.8	195.3	152.8	74.3	47.4	25.7	14.0

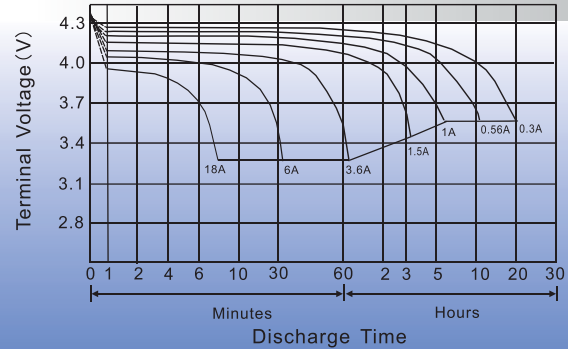
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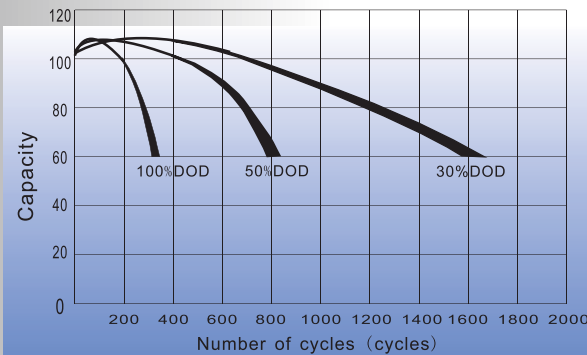
TEMPERATURE EFFECTS CURVE



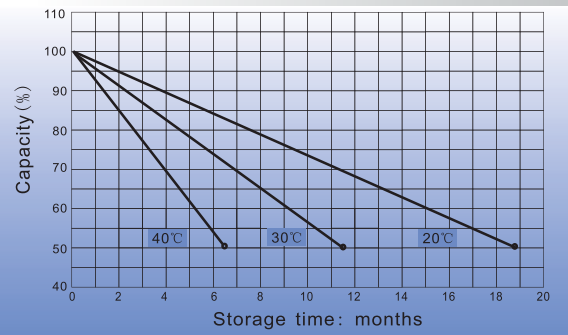
DISCHARGE TIME VS. DISCHARGE CURRENT (25°C)



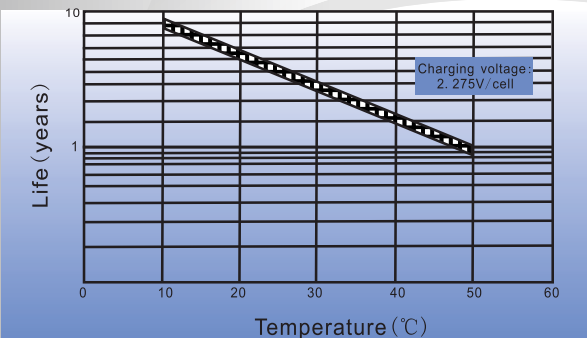
LIFE CHARACTERISTICS OF CYCLIC USE



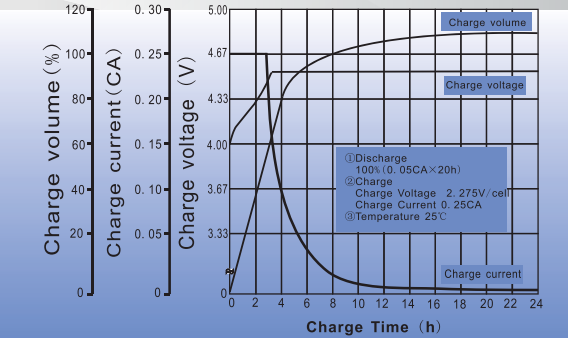
SELF-DISCHARGE CHARACTERISTIC



EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE



CHARGE CHARACTERISTIC CURVE FOR STANDBY USE



Charging Procedures

Application	Charge Voltage (V/cell)		Max. Charge Current
	Temperature	Set Point Allow able Range	
Cycle Use	25°C	2.475 2.45~2.50	0.3C
Standby Use	25°C	2.275 2.25~2.30	

Charge the batteries at least once every 6 months, if they are stored at 25°C.

Charging Method

Constant Voltage	4.90~5.00V, 5~11h, Max. Current 0.3CA
Constant Current	0.1CA×5h
Fast	0.3CA×1.7h

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75	1.7	1.6	1.3
Discharge Current(A)	0.2C > (A)	0.2C < (A) < 0.5C	0.5C < (A) < 1.0C	(A) > 1.0C

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- Wide Operating Temperature Range



SPECIFICATIONS	EUR20012 12V 200AH
Cells Per Unit	6
Voltage Per Unit	12
Capacity	200Ah@10hr-rateto1.80Vpercell@25 °C
Max. Discharge Current	1200A (5 sec)
Internal Resistance	Approx.2.6 mΩ
Operating Temperature Range	Discharge: -40°C ~50°C Charge: -20°C ~50°C Storage: -20°C ~50°C
Normal Operating Temperature Range	25°C±5°C
Float charging Voltage	13.50 to 13.80V DC/unit Average at 25°C
Max. Charging Current	50A
Equalization and Cycle service	14.70 to 15.00V DC/unit Average at 25°C
Self Discharge	The batteries can be stored for more than 6 months at 25°C. Please charge batteries before using. For high temperature, the time interval will be shorter.
Terminal	T9/T14
Constainer Material	ABS(UL94-HB) Flammability resistance of UL94-V0 is available on request.
Box Dimension	522 x 236 x 238 mm
Product Weight	N. W - 55 KG / G. W - 55.5 KG

APPLICATION

- Electric tools
- Vehicle in place of walking
- Lawn mowers
- Golf trolleys and golf cart
- Portable apparatus, lights and instruments;
- Electric toys
- Illumination light
- Fire alarms
- Portable power
- Wheelchairs
- Medical equipments.



UPS SYSTEM



EMERGENCY LIGHTING



GENERAL PURPOSE



FIRE & SECURITY



MEDICAL



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

F.V/Time	5min	10min	15min	30min	45min	1h	3h	5h	10h	20h
1.60V/cell	570.0	451.9	345.1	208.5	152.6	112.5	55.7	34.5	20.6	10.7
1.65V/cell	546.8	409.4	337.7	204.8	150.9	111.5	55.5	34.4	20.5	10.5
1.70V/cell	496.3	395.1	332.8	203.4	149.1	110.5	55.2	34.2	20.2	10.4
1.75V/cell	448.2	363.8	323.4	201.6	144.3	110.0	55.0	34.0	20.0	10.2
1.80V/cell	407.6	337.9	300.1	189.7	142.9	104.5	51.0	32.5	17.5	9.5

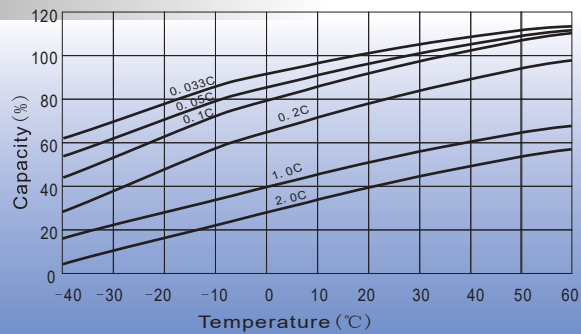
Constant Power Discharge Characteristics Unit:W(25°C,77°F)

F.V/Time	5min	10min	15min	30min	45min	1h	3h	5h	10h	20h
1.60Vicell	940.8	725.7	641.8	399.1	301.0	212.7	105.3	65.1	40.9	21.5
1.65Vicell	901.6	721.3	637.7	387.0	298.3	210.7	104.2	65.0	40.4	20.4
1.70Vicell	842.8	703.7	625.3	379.0	290.3	209.6	103.6	64.4	40.1	20.3
1.75Vicell	784.0	659.7	584.2	358.8	287.7	207.5	103.3	64.2	39.8	20.2
1.80Vicell	705.6	615.8	551.3	354.8	279.6	197.2	95.8	61.1	35.1	19.0

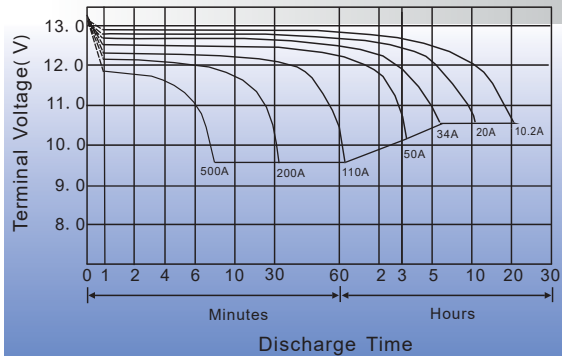
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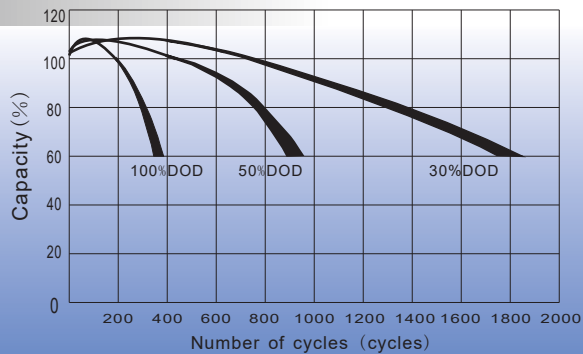
TEMPERATURE EFFECTS CURVE



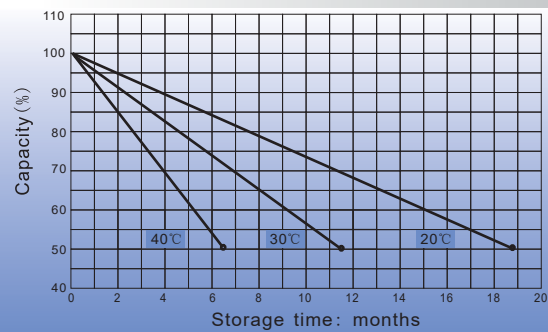
DISCHARGE TIME VS DISCHARGE CURRENT 25 (°C)



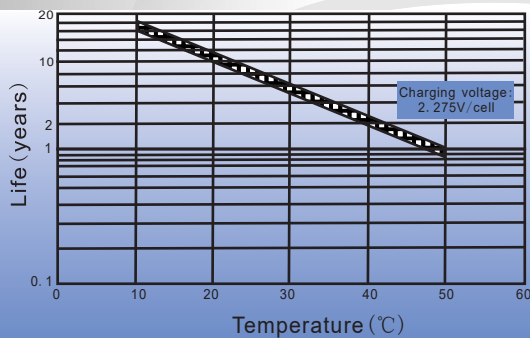
LIFE CHARACTERISTICS OF CYCLIC USE



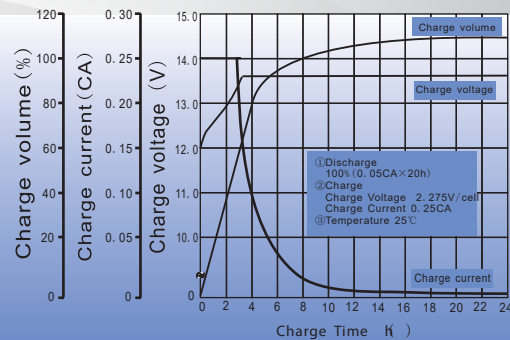
SELF DISCHARGE CHARACTERISTIC



EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE



CHARGE CHARACTERISTIC CURVE FOR STANDBY USE



Charging Procedures

Application	Charge Voltage (V/cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C	2.475	2.45~2.50	0.25C
Standby Use	25°C	2.275	2.25~2.30	

Charge the batteries at least once every 6 months, if they are stored at 25 °C.
Charging Method

Constant Voltage	14.7~15.0V, 5~11h, Max. Current 0.25CA
Constant Current	0.1CA×5h
Fast	0.25CA×1.7h