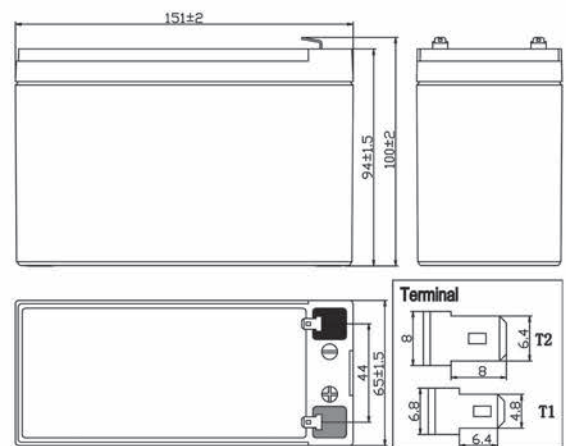


XCELL XP7-12

12V 7.0AH

Specification

Nominal Voltage (V)	12V (6 cells in series)	
Rated Capacity	7.0Ah	(C ₂₀ , 1.75V/cell)
Dimensions(mm)	Length	151 ± 2 mm
	Width	65 ± 1.5 mm
	Height	94 ± 1.5 mm
	Total Height	100 ± 2 mm
Nominal Capacity @25°C (Ah)	20 Hour rate (0.354A to 10.5 volts)	7.08Ah
	10 Hour rate (0.676A to 10.5 volts)	6.76Ah
	5 Hour rate (1.208A to 10.5 volts)	6.04Ah
	1 Hour rate (4.550A to 9.6 volts)	4.55Ah
	15 min rate (13.48A to 9.6 volts)	3.37Ah
Approx. Weight	2.25 kg	
Terminal	T1/T2	
Max.Discharge Current	105A @25°C (5s)	
Internal Resistance	20mΩ @25°C (Full Charged Battery)	
Floating Design Life	5 years @25°C	
Ambient Temperature	Charge: -15°C~50°C	
	Discharge: -20°C~60°C	
	Storage: -20°C~50°C	
Container Material	A.B.S , UL94-HB , UL94-V0 , Optional	
Self Discharge	VRLA batteries can be stored for more than 6 months at 25°C. Self-Discharge ratio less than 3% per month at 25°C. Please charge batteries before using.	



Certification



Constant Current Discharge Characteristics (A), (25°C)

F.V/TIME	5min	10min	15min	30min	60min	2H	3H	5H	8H	10H	20H
1.60V/cell	27.62	18.10	13.48	7.175	4.550	2.563	1.831	1.235	0.818	0.700	0.375
1.70V/cell	25.06	16.77	12.71	6.965	4.449	2.524	1.785	1.217	0.805	0.683	0.361
1.75V/cell	22.51	15.72	12.01	6.755	4.393	2.503	1.768	1.208	0.798	0.676	0.354
1.80V/cell	20.20	14.70	11.31	6.545	4.330	2.482	1.747	1.194	0.788	0.665	0.340

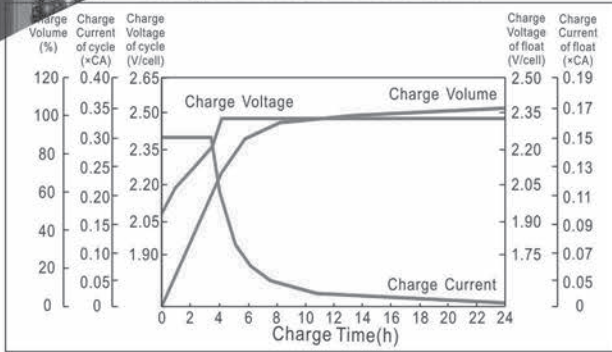
Constant Wattage Discharge Characteristics (Watt), (25°C)

F.V/TIME	5min	10min	15min	30min	60min	2H	3H	5H	8H	10H	20H
1.60V/cell	49.94	33.02	24.82	13.69	9.024	5.084	3.649	2.463	1.631	1.398	0.749
1.70V/cell	46.15	31.15	23.82	13.41	8.860	5.026	3.564	2.429	1.607	1.365	0.724
1.75V/cell	42.01	29.73	22.71	13.12	8.756	4.988	3.532	2.413	1.595	1.352	0.710
1.80V/cell	38.03	28.05	21.57	12.82	8.637	4.951	3.493	2.387	1.575	1.331	0.682

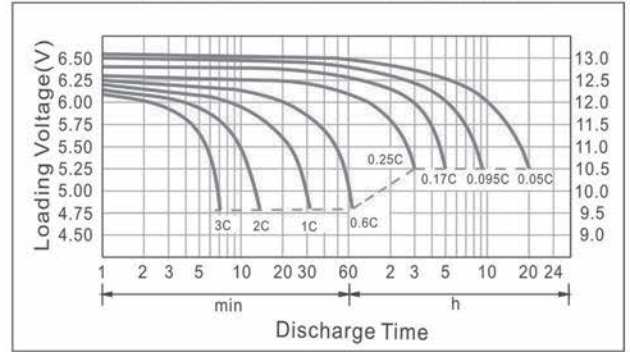
XCELL XP7-12

12V 7.0AH

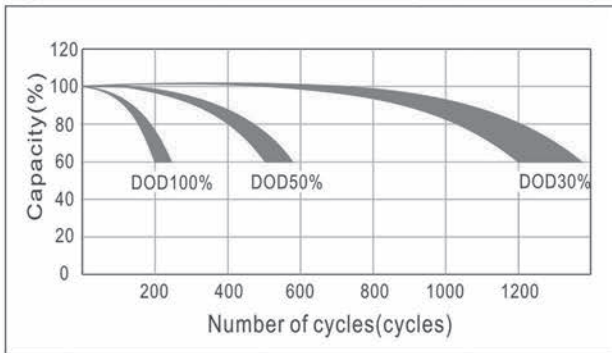
Charge Characteristics Curve



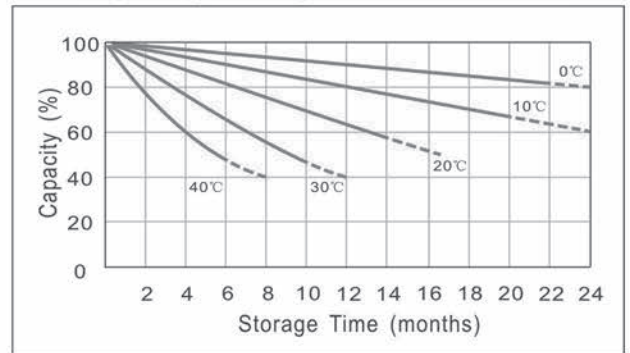
Discharge Characteristics Curve



Cycle service life in relation to depth of discharge



Capacity Storage Characteristics



Capacity Factors with Different Temperature

Battery type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
GEL Battery	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

Maintenance & Cautions

☑ Charging Procedure:

Application	Charging method	Charge voltage at 25°C	Temperature compensation coefficient of charging voltage	Max. charging current	Temperature
For standby power source	Constant voltage charging (With current restriction)	2.25~2.30 V/cell	-3mV/°C/cell	0.2CA	-15~50°C
For cycle service		2.45~2.50 V/cell	-4mV/°C/cell	0.3CA	

- ☑ Every month, recommend inspection every battery voltage.
- ☑ Every three months, recommend equalization charge for one time. Equalization charge method:
 - Step 1: Discharge: 100% rate capacity discharge.
 - Step 2: Charge: Max. Current 0.3CA, constant voltage 2.45~2.50V/Cell charge 24h.
- ☑ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, Ambient temperature and charging voltage.
- ☑ Charge the batteries at least once every six months, if they are stored at 25°C. Charging Method:
 - Constant Voltage : -0.2C × 2h + 2.4~2.45V/cell × 24h , Max. Current 0.25CA
 - Constant Current : -0.2C × 2h + 0.1C × 12h
 - Fast : -0.2C × 2h + 0.3C × 4h

☑ Terminal of torque:

	M5	M6	M8
Bolt	M5	M6	M8
Terminal	T3, T10	T4, T7, T11, T12, T13	T5, T6, T8, T9, T14
Torque	6~7N.m	8~10N.m	10~12N.m