

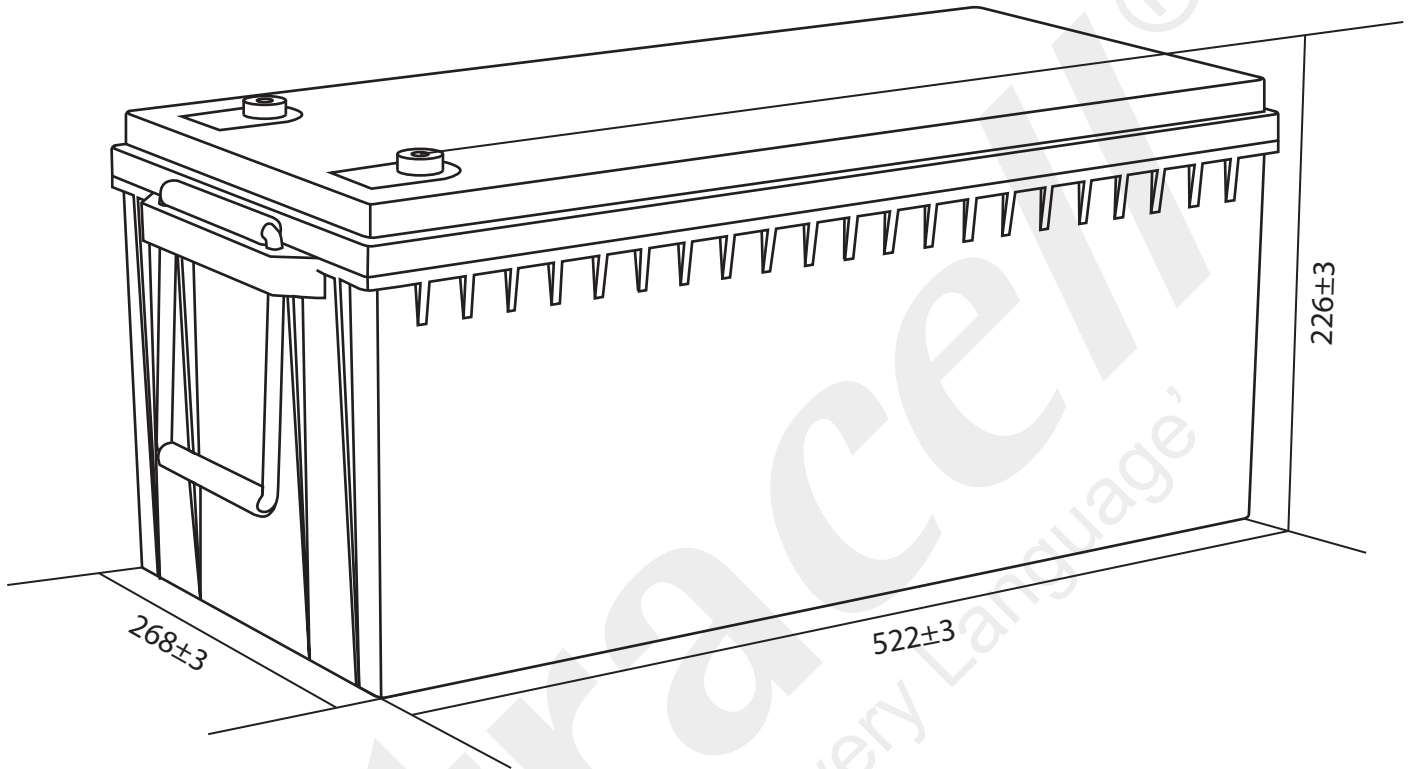
# Ultracell®

'Quality in Every Language'

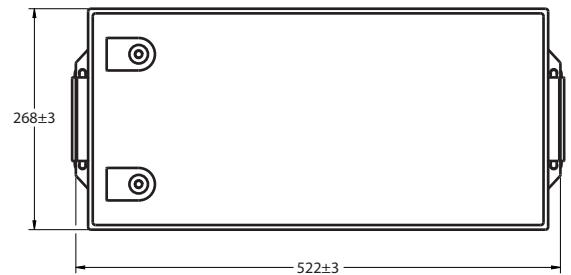
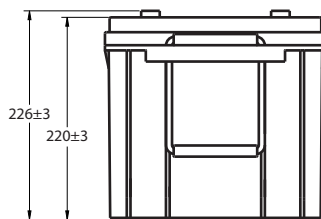
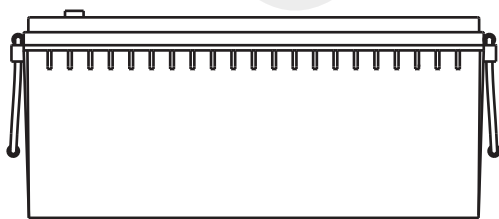
UCG275-12

12V 275Ah

Solar Series



## Technical Dimensions (mm)



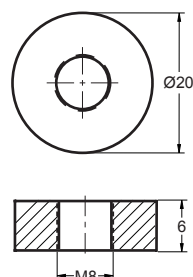


Image



Terminal Dimensions (mm)

Standard Terminal: F11



Technical Specification

<b>Output</b>	Nominal Voltage	12V
	Nominal Capacity (10HR)	275Ah
<b>Terminal Type</b>	Standard Terminal	F11
<b>Container Material</b>	Standard Option	ABS
	Flame Retardant Option (FR)	ABS (UL94:VO)
<b>Rated Capacity</b>	(20HR 1.80V/cell, 25°C)	281.0 Ah/12.9A
	(10HR 1.80V/cell, 25°C)	275.0 Ah/27.5A
	(5HR 1.75V/cell, 25°C)	240.0 Ah/48.1A
	(1HR 1.60V/cell, 25°C)	171.0 Ah/171.0A
<b>Max Discharge Current</b>	2500A (5s)	
<b>Internal Resistance</b>	Approx 2.5mΩ	
<b>Discharge Characteristics</b>	Operating Temp Range	Discharge: -15 ~ 50°C Charge: 0 ~ 40°C Storage: -15 ~ 40°C
	Nominal Operating Temp Range	25 ± 3°C
	Cycle Use	Initial Charging Current less than 82.5A. Voltage 14.4V ~ 15.0V @ 25°C Temp. Coefficient -30mV/°C
	Standby Use	Initial Charging Current less than 82.5A. Voltage 13.5V ~ 13.8V @ 25°C Temp. Coefficient -20mV/°C
	Capacity affected by Temperature	40°C 103% 25°C 100% 0°C 86%
<b>Design Floating Life at 20°C</b>	10 Years	

Self Discharge

Ultracell® UCG batteries may be stored for up to 9 months at 25°C and then a refresh charge is required. For higher temperatures the time intervals will be shorter.

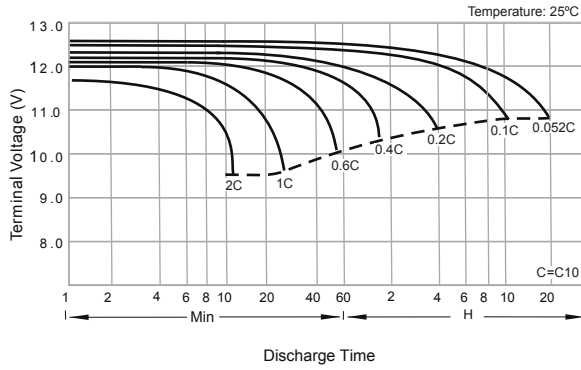
Constant Current Discharge / Constant Power Discharge At 25°C (Amperes & Watts/Cell)

A = Amperes W = Watts

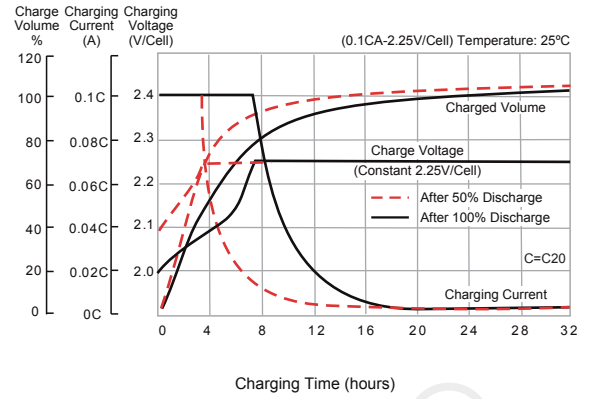
F.V/TIME	15 min	30 min	60 min	2 hours	3 hours	4 hours	5 hours	6 hours	8 hours	10 hours	20 hours
A \ W											
1.80V/cell	390	246	155	95.0	66.7	54.7	46.7	40.8	32.0	27.5	12.9
	4285	2755	1773	1101	784	643	552	482	380	328	25.6
1.75V/cell	412	255	160	97.5	68.8	56.4	48.1	42.1	33.0	27.7	13.0
	4524	2860	1829	1129	809	663	569	497	392	331	25.8
1.70V/cell	427	261	164	99.0	69.2	56.8	48.5	42.4	33.2	27.9	13.3
	4683	2931	1866	1146	814	668	573	501	395	333	26.3
1.65V/cell	443	270	168	99.9	69.7	57.2	48.8	42.7	33.5	27.9	13.4
	4863	3024	1915	1157	820	672	577	504	398	334	26.5
1.60V/cell	454	275	171	100	70.1	57.5	49.1	42.9	33.7	28.0	13.5
	4982	3086	1944	1164	825	676	580	507	400	334	26.7



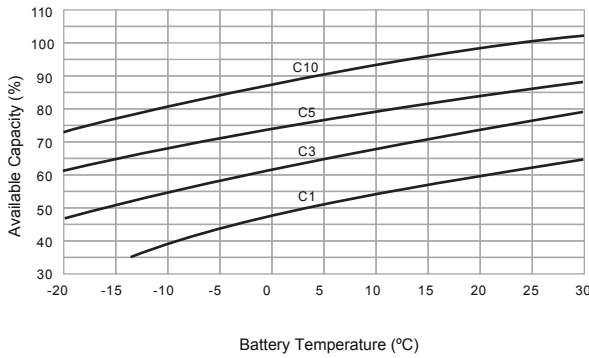
Discharge Characteristics



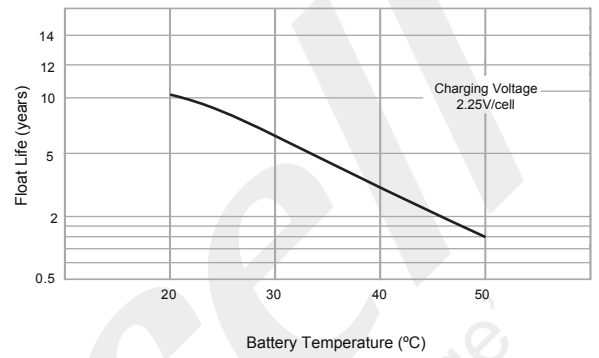
Float Charging Characteristics



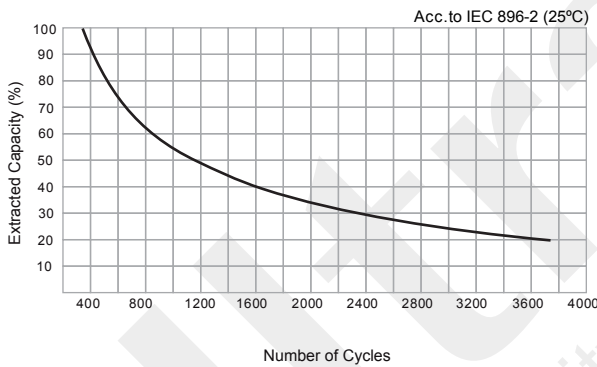
Temperature Effects in Relation to Battery Capacity



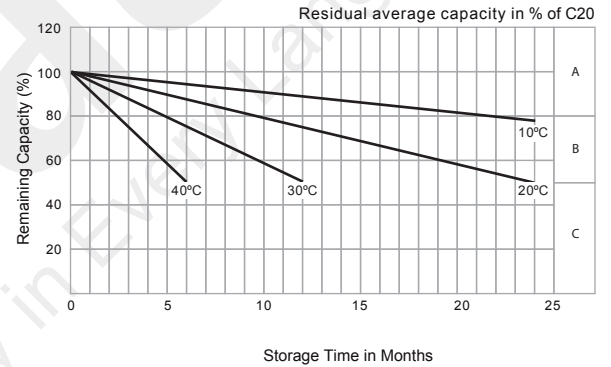
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



General Relation of Capacity vs. Storage Time



General Relation of Capacity vs. Storage Time (Notes)

- A) No supplementary charge required.  
(Carryout supplementary charge before use if 100% capacity is required.)
- B) Supplementary charge required before use. Optional charging way as below:
  1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
  2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
  3. Charged for 8 ~ 10 hours at limited current 0.05 CA.
- C) Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.