

## UP Series G18-12

GENERAL PURPOSE GEL



### Main Features

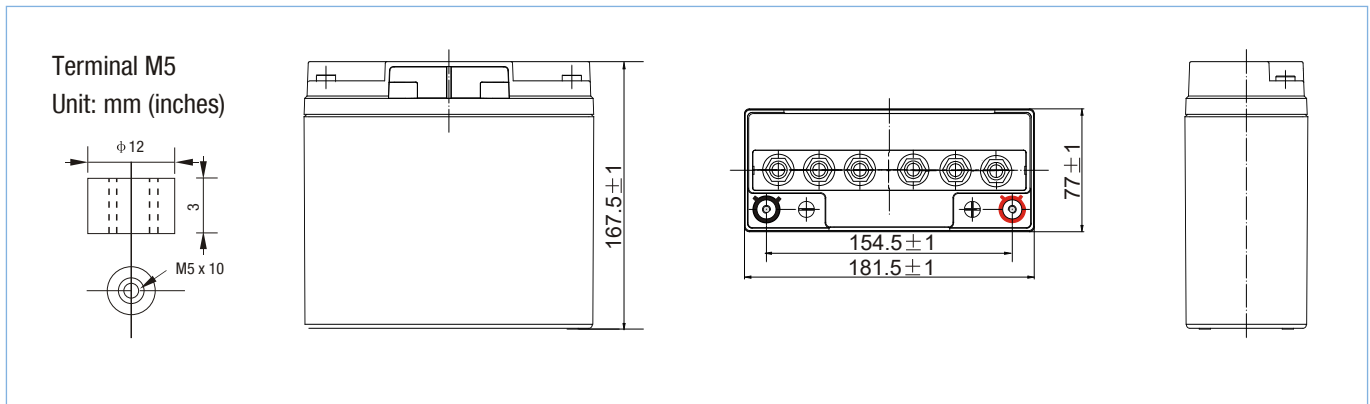
- **Longer Design Life**  
Designed for 12 years of service life at 25°C.
- **Uniform Electrolyte Distribution**  
Using high quality silica (silicon dioxide) we obtain a uniform electrolyte distribution for a better performance.

### Technical Specifications

Nominal Voltage (V)	12
Nominal Capacity (20 Hr)	17 Ah
Dimensions	Length: 181.5 ± 2 mm (7.15 inches)
	Width: 77 ± 1 mm (3.03 inches)
	Container Height: 167.5 ± 2 mm (6.59 inches)
	Total Height (+terminal): 167.5 ± 2 mm (6.59 inches)
Approx. Weight	Approx. 5.8 kg (12.8 lbs)
Terminal	M5
Container Material	ABS
Rated Capacity	17.0 Ah / 0.85 A (20hr, 1.80V/cell, 25°C / 77°F)
	15.8 Ah / 1.58 A (10hr, 1.75V/cell, 25°C / 77°F)
	13.6 Ah / 2.72 A (5hr, 1.75V/cell, 25°C / 77°F)
	11.8 Ah / 3.94 A (3hr, 1.75V/cell, 25°C / 77°F)
	9.35 Ah / 9.35 A (1hr, 1.67V/cell, 25°C / 77°F)
Maximum Discharge Current	204 A (5 s)
Internal Resistance	Approx. 18 mΩ
Operating Temperature Range	Discharge: -20 ~ 55°C (-4 ~ 131°F)
	Charge: 0 ~ 40°C (32 ~ 104°F)
	Storage: -20 ~ 50°C (-4 ~ 122°F)
Nominal Operating Temperature Range	25 ± 3°C (77 ± 5°F)
Cycle Use	Initial Charging Current less than 3.4 A. Voltage 14.4~15V at 25°C (77°F) Temp. Coefficient -30mV/°C
Standby Use	No limit on Initial Charging Current Voltage. 13.5~13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C
Capacity affected by Temperature	40°C (104°F) 103%
	25°C (77°F) 100%
	0°C (32°F) 86%
Self Discharge	Batteries may be stored for up to 9 months at 25°C (77°F) and then a freshening charge is required.



## Battery Dimensions



## Battery Discharge Tables

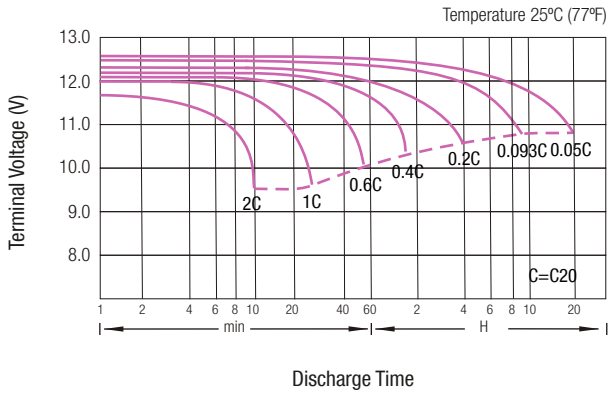
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	14.4	11.3	8.61	7.21	4.57	3.49	2.89	2.49	2.15	1.90	1.72	1.57	1.48	0.82
1.80V/cell	16.5	12.6	9.50	7.96	4.95	3.73	3.06	2.62	2.26	1.99	1.80	1.65	1.55	0.85
1.75V/cell	18.5	13.9	10.3	8.52	5.24	3.94	3.20	2.72	2.34	2.06	1.86	1.70	1.58	0.87
1.70V/cell	19.9	14.9	10.9	9.01	5.56	4.11	3.31	2.81	2.42	2.13	1.91	1.75	1.62	0.88
1.67V/cell	20.8	15.4	11.3	9.35	5.70	4.24	3.39	2.86	2.46	2.16	1.94	1.77	1.64	0.89
1.60V/cell	22.5	16.5	12.1	9.93	5.93	4.41	3.52	2.95	2.52	2.21	1.98	1.81	1.67	0.90

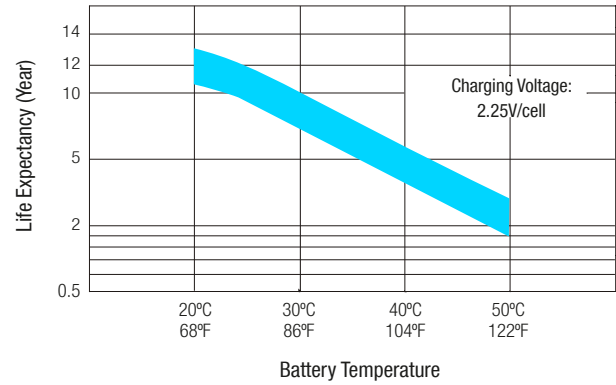
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	27.5	21.8	16.7	14.0	8.94	6.83	5.68	4.92	4.26	3.78	3.42	3.13	2.96	1.63
1.80V/cell	31.1	24.1	18.3	15.4	9.63	7.29	5.99	5.15	4.46	3.95	3.57	3.28	3.09	1.69
1.75V/cell	34.6	26.2	19.6	16.4	10.2	7.68	6.26	5.33	4.60	4.07	3.68	3.37	3.14	1.73
1.70V/cell	36.9	27.9	20.7	17.3	10.7	7.98	6.45	5.48	4.75	4.20	3.78	3.46	3.21	1.75
1.67V/cell	37.9	28.6	21.3	17.8	11.0	8.20	6.59	5.58	4.82	4.25	3.83	3.50	3.25	1.76
1.60V/cell	40.6	30.4	22.7	18.8	11.3	8.49	6.81	5.74	4.92	4.33	3.89	3.57	3.31	1.78

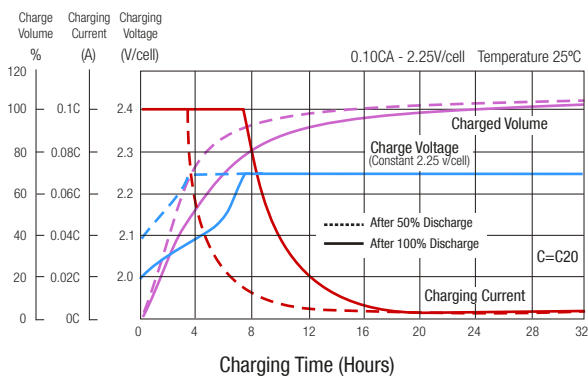
### Discharge Characteristics



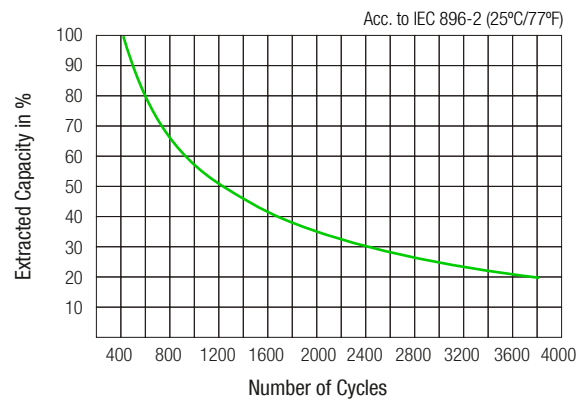
### Effect of Temperature on Long Term Float Life



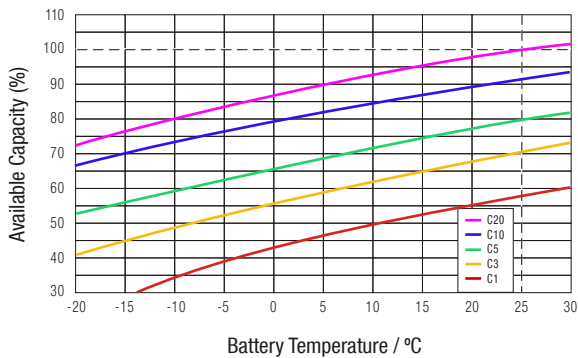
### Float Charging Characteristics



### Cycle Life in Relation to Depth of Discharge



### Temperature Effects in Relation to Battery Capacity



### General Relation of Capacity VS. Storage Time

