

# UP Series UP30-12

GENERAL PURPOSE AGM



## Main Features

- **High Reliability**

Extensive control processes, from raw materials to delivery to the end customer, within the international quality standards implemented in the company.

- **Valve Regulated Lead Acid batteries**

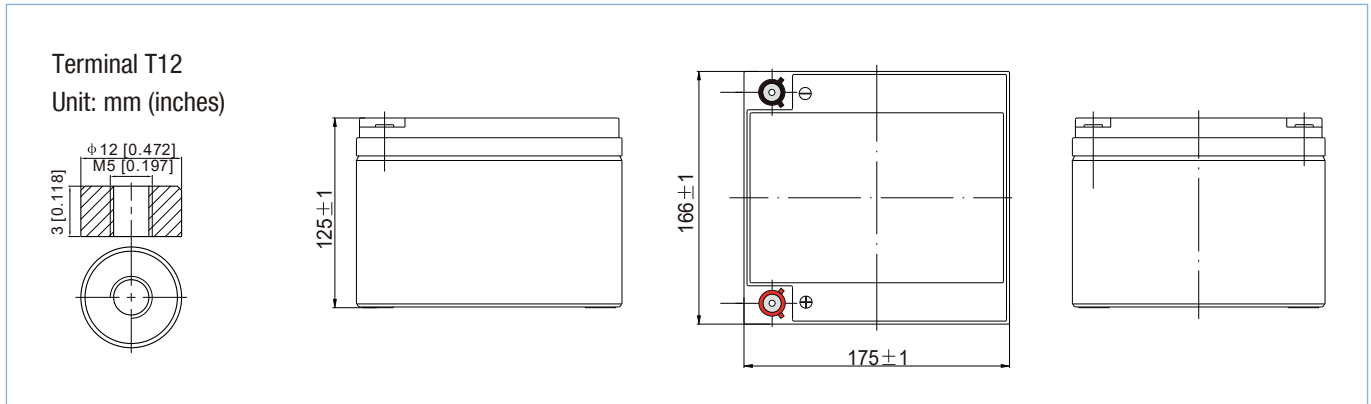
Designed for better gas recombination, with minimal hydrogen losses, aid to inner pressure regulation, increasing its performance and security.

## Technical Specifications

Nominal Voltage (V)	12
Nominal Capacity (20 Hr)	30.0 Ah
Dimensions	Length: 166 ± 2mm (6.56 inches)
	Width: 175 ± 2mm (6.89 inches)
	Container Height: 125 ± 2mm (4.92 inches)
	Total Height (+terminal): 125 ± 2mm (4.92 inches)
Approx. Weight	8.6 Kg (18.96 lbs)
Terminal	T12
Container Material	ABS
Rated Capacity	30.0 Ah / 1.50 A (20hr, 1.80V/cell, 25°C / 77°F)
	27.9 Ah / 2.79 A (10hr, 1.80V/cell, 25°C / 77°F)
	25.5 Ah / 5.10 A (5hr, 1.75V/cell, 25°C / 77°F)
	22.9 Ah / 7.65 A (3hr, 1.75V/cell, 25°C / 77°F)
	18.8 Ah / 18.8 A (1hr, 1.60V/cell, 25°C / 77°F)
Maximum Discharge Current	450 A (5s)
Internal Resistance	Approx. 13 mΩ
Operating Temperature Range	Discharge: -15 ~ 50°C (5 ~ 122°F)
	Charge: 0 ~ 40°C (32 ~ 104°F)
	Storage: -15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temperature Range	25 ± 3°C (77 ± 5°F)
Cycle Use	Initial Charging Current less than 9.0 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 6 months at 25°C (77°F) and then a freshening charge is required.



## Battery Dimensions



## Battery Discharge Tables

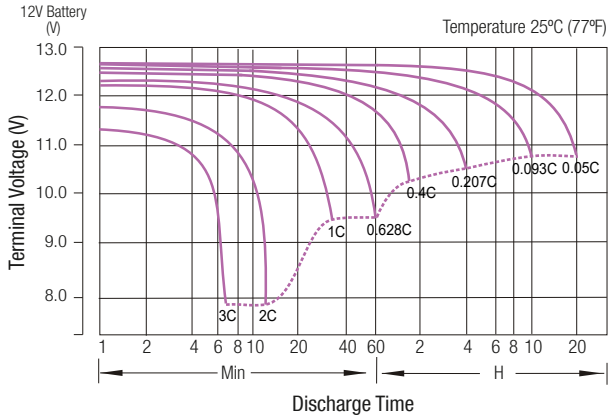
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	57.1	43.9	36.3	31.4	24.3	17.90	15.1	8.92	6.98	5.68	4.63	4.02	3.24	2.71	1.49
1.80V/cell	76.7	56.1	43.9	37.1	28.7	20.8	16.9	9.74	7.51	6.06	4.97	4.31	3.44	2.79	1.50
1.75V/cell	86.5	61.6	48.0	40.0	29.8	21.6	17.7	10.1	7.65	6.20	5.10	4.43	3.50	2.87	1.52
1.70V/cell	95.2	67.1	51.2	42.0	31.0	22.5	18.2	10.4	7.86	6.36	5.23	4.52	3.54	2.92	1.54
1.65V/cell	105.0	72.5	54.4	44.6	32.7	23.0	18.7	10.5	8.20	6.58	5.37	4.62	3.60	2.98	1.56
1.60V/cell	115.8	78.7	58.2	47.5	34.5	24.0	18.8	11.0	8.45	6.79	5.55	4.72	3.63	3.02	1.57

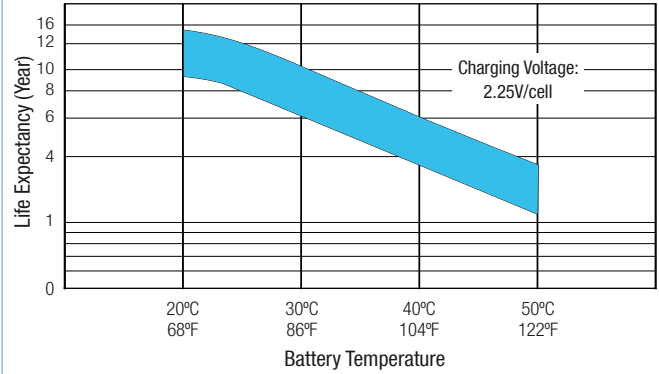
Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	104.5	81.0	67.8	59.2	46.3	34.4	29.1	17.3	13.6	11.1	9.08	7.90	6.39	5.36	2.94
1.80V/cell	138.7	102.3	80.8	69.0	53.8	39.7	32.4	18.8	14.6	11.8	9.69	8.44	6.76	5.51	2.97
1.75V/cell	153.1	110.6	87.2	73.5	55.4	40.8	33.8	19.4	14.8	12.0	9.92	8.64	6.86	5.65	2.99
1.70V/cell	163.9	117.9	91.8	76.7	57.3	42.3	34.7	19.8	15.2	12.3	10.2	8.81	6.95	5.76	3.04
1.65V/cell	178.2	126.0	96.9	80.8	60.0	42.9	35.3	20.0	15.7	12.7	10.4	8.97	7.05	5.87	3.08
1.60V/cell	192.0	133.7	101.9	85.2	62.9	44.5	35.4	20.8	16.1	13.0	10.7	9.13	7.10	5.93	3.10

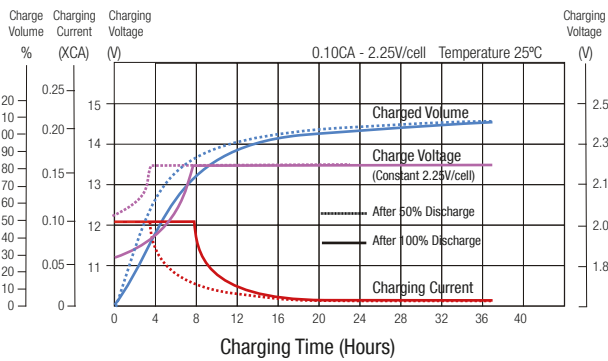
### Discharge Characteristics



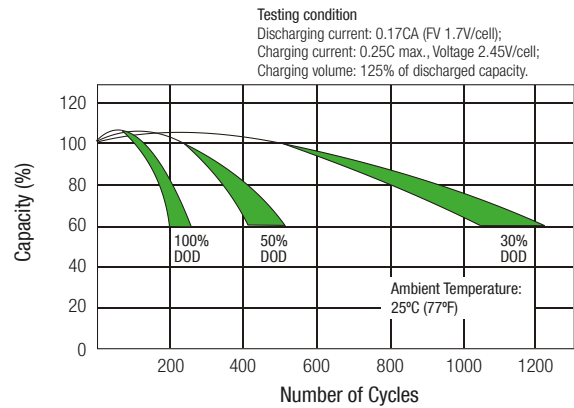
### Effect of Temperature on Long Term Float Life



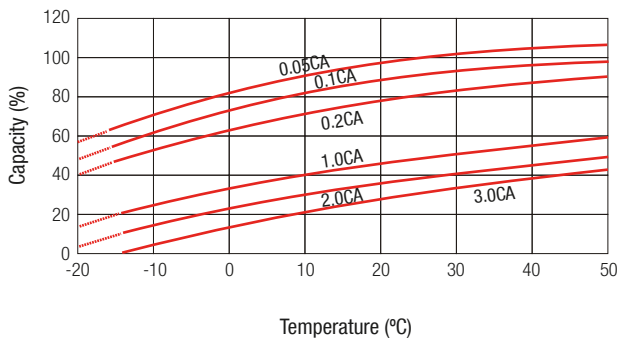
### Float Charging Characteristics



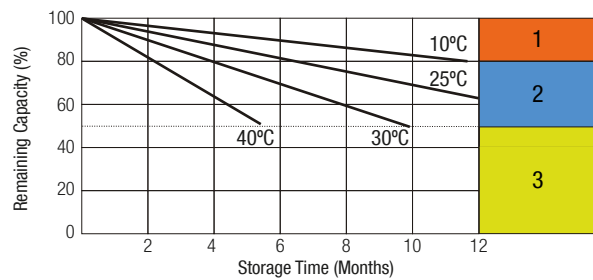
### Cycle Life in Relation to Depth of Discharge



### Temperature Effects in Relation to Battery Capacity



### Self Discharge Characteristics



- 1** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required).
- 2** 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 0.05CA.
- 3** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is recharged.