

UP-HR24-12



Specification	
Nominal Voltage	12V
Watts(15min Rate)	99.8 W at 1.67V/cell
Dimension	Length 166.5±1mm (6.56 inches)
	Width 175±1mm (6.89 inches)
	Container Height 125±1mm (4.92 inches)
	Total Height (with Terminal) 125±1mm (4.92 inches)
Approx Weight	Approx 8.8 kg (19.4lbs)
Terminal	T3 / T12
Container Material	ABS
Rated Capacity	25.5 AH/2.55A (10hr, 1.80V/cell, 25°C/77°F)
	24.0 AH/3.00A (8hr, 1.80V/cell, 25°C/77°F)
	21.8 AH/4.37A (5hr, 1.75V/cell, 25°C/77°F)
	20.1 AH/6.69A (3hr, 1.75V/cell, 25°C/77°F)
	19.7 AH/19.7A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	360A (5s)
Internal Resistance	Approx 12mΩ
Operating Temperature Range	Discharge: -15~50°C (5~122°F)
	Change : 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 7.2A.Voltage. 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
Standby Use	No limit on Initial Charging Current Voltage. 13.5V~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.

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	68.0	51.4	41.2	34.6	26.8	19.9	15.9	8.64	6.05	4.77	4.05	3.46	2.87	2.45	1.41
1.80V/cell	79.3	58.1	45.2	37.2	28.7	21.6	17.0	9.25	6.51	5.09	4.20	3.67	3.00	2.55	1.43
1.75V/cell	89.4	63.8	49.4	40.0	29.9	22.4	17.8	9.59	6.69	5.21	4.37	3.76	3.08	2.58	1.45
1.70V/cell	98.5	69.5	52.8	42.0	31.0	23.4	18.3	10.0	6.88	5.34	4.47	3.84	3.14	2.62	1.47
1.65V/cell	108.6	75.1	56.1	44.6	32.8	24.0	19.0	10.3	7.10	5.53	4.56	3.93	3.19	2.68	1.49
1.60V/cell	119.8	81.5	59.9	47.5	34.6	24.9	19.7	10.6	7.32	5.70	4.69	4.02	3.22	2.70	1.50

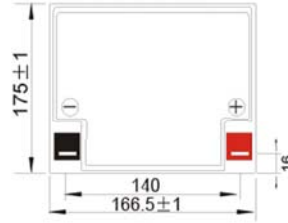
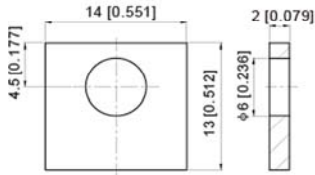
Constant Power Discharge (Watts) at 25°C (77°F)															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	124.3	94.9	76.8	65.2	51.0	38.2	30.7	16.8	11.8	9.43	8.07	6.93	5.64	4.85	2.80
1.80V/cell	143.5	106.0	83.2	69.1	53.9	41.2	32.7	17.8	12.6	9.99	8.31	7.30	5.87	5.02	2.84
1.75V/cell	158.3	114.7	89.8	73.5	55.6	42.4	34.0	18.4	12.9	10.2	8.63	7.48	6.00	5.09	2.88
1.70V/cell	169.6	122.1	94.6	76.7	57.5	43.9	35.0	19.1	13.3	10.5	8.81	7.62	6.11	5.16	2.92
1.65V/cell	184.3	130.6	99.8	80.9	60.1	44.6	35.9	19.6	13.7	10.8	8.96	7.77	6.20	5.27	2.96
1.60V/cell	198.6	138.5	105.0	85.3	63.1	46.3	37.0	20.1	14.0	11.1	9.18	7.91	6.25	5.32	2.97



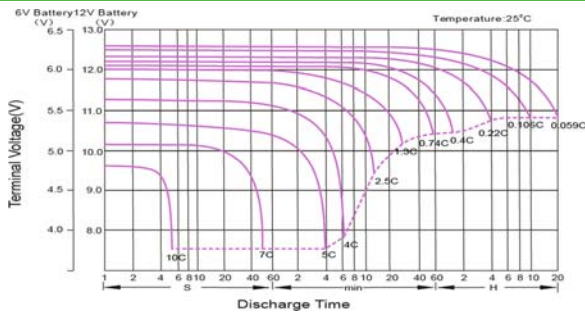
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Dimensions

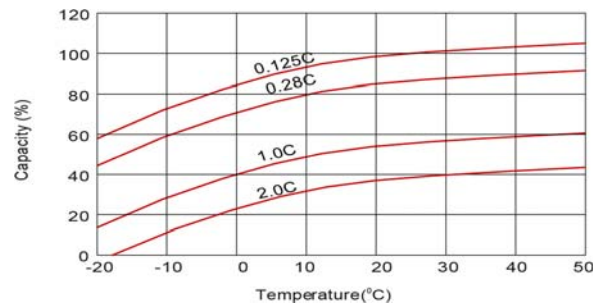
T3 Terminal
Unit: mm [inches]



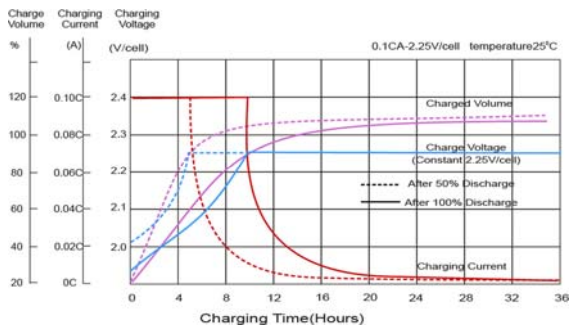
Discharge Characteristics



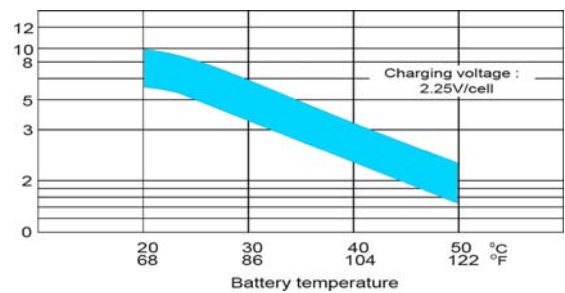
Temperature Effects in Relation to Battery Capacity



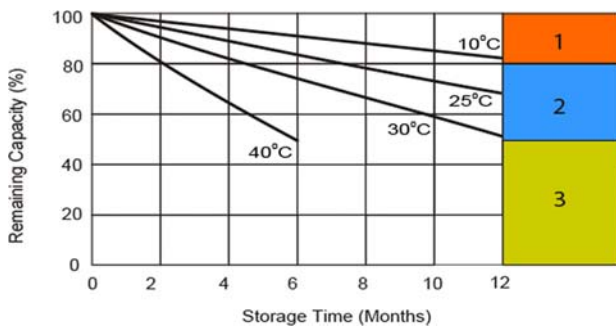
Float Charging Characteristics



Effect of Temperature on Long Term Float Life



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 reached.



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