



The power for your life

# UR12V-40AH

## Specifications

### Nominal Capacity

20 hour rate	(2A	to	10.50V)	40Ah
10 hour rate	(3.8A	to	10.50V)	38Ah
5 hour rate	(6.8A	to	10.20V)	34Ah
1 C	(40A	to	9.60V)	22.67Ah
3 C	(120A	to	9.60V)	16Ah

**Weight** Approx.14KG

**Internal Resistance (at 1KHz)** Approx. 7.5mΩ

**Maximum Discharge Current for 5 seconds:** 480 A

**Maximum Charging Current :** 12 A

### Charging Methods at 25°C (77°F)

**Cycle use:**

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mV/°C/cell

**Standby use:**

Float Charging Voltage 13.5 to 13.8V

Coefficient -3.0mV/°C/cell

### Operating Temperature Range

Charge -15°C(5°F) to 40°C(104°F)

Discharge -15°C(5°F) to 50°C(122°F)

Storage -15°C(5°F) to 40°C(104°F)

### Charge Retention (shelf life) at 20°C (68°F)

1 month 92%

3 month 90%

6 month 80%

(Option: UL94 HB & UL94 V-0 flame retardant )

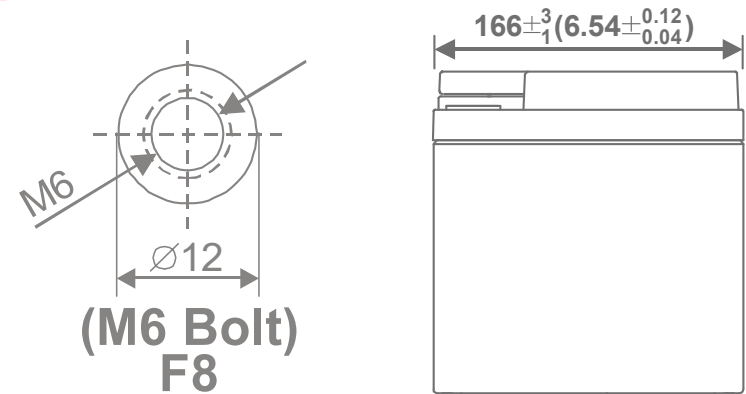
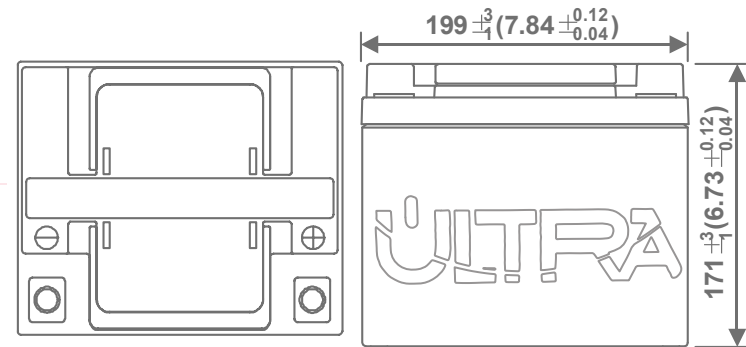
**Terminal** F8

### Description of torque value of hard ware for the terminals:

Recommended torque value M6: 7 N-m (71kgf-cm)

Maximum allowable torque value M6: 9 N-m (92kgf-cm)

**Life Time** 15Y

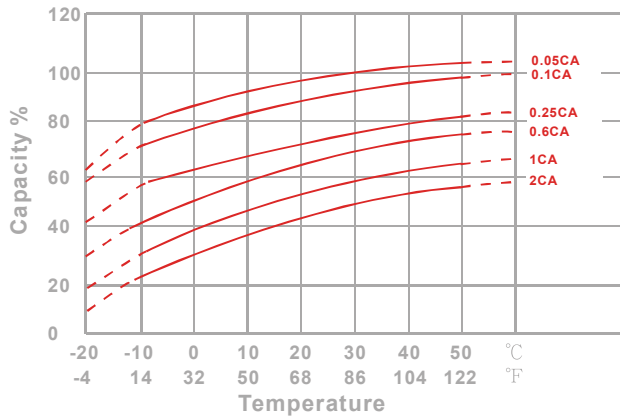


## Dimensions

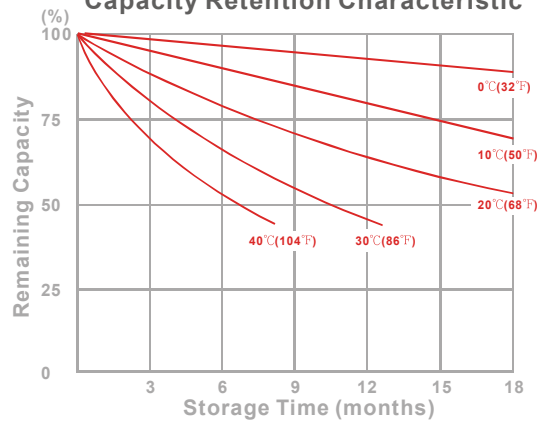
Length:	199 ± 0.12 mm (7.84 ± 0.04 inches)
Width:	166 ± 0.12 mm (6.54 ± 0.04 inches)
Height:	171 ± 0.12 mm (6.73 ± 0.04 inches)
Overall Height:	171 ± 0.12 mm (6.73 ± 0.04 inches)



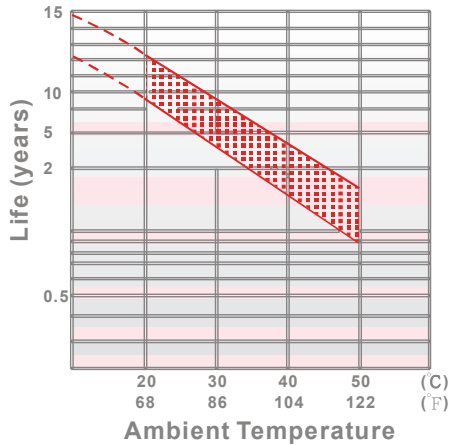
### Effect of Temperature on Capacity 25°C(77°F)



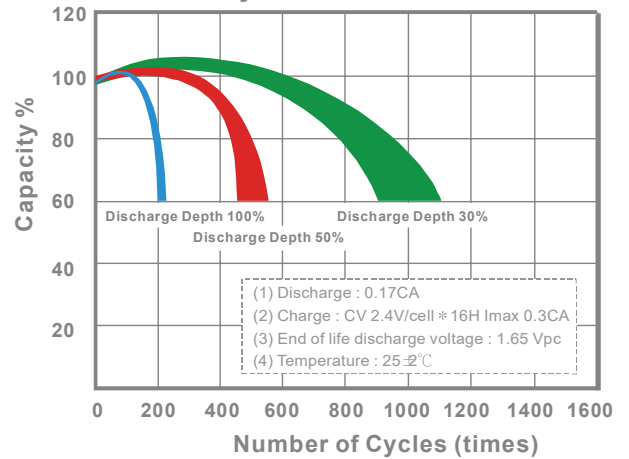
### Capacity Retention Characteristic



### Trickle (or float) Service Life



### Cycle Service Life



# PERFORMANCE DATA

### Discharge Rates in Watts to Various End Voltages at 25°C (77°F)

end voltage	5 min	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
9.6	1800	1242	954	570	412.2	322.8	173.4	124.8	96.6	79.8	67.2	52.92	44.76	26.1
9.9	1746	1224	942	565.8	411	321	171.6	124.2	96	79.2	67.2	52.86	44.58	25.68
10.02	1716	1206	936	563.4	409.8	320.4	171.6	124.2	96	79.2	67.2	52.86	44.52	25.5
10.2	1668	1188	924	559.2	407.4	318.6	171	123.6	95.4	79.2	67.2	52.8	44.46	25.44
10.5	1596	1152	906	555.6	404.4	316.2	170.4	122.4	94.8	78.6	66.6	52.68	44.22	25.14
10.8	1524	1122	894	549	396.6	310.8	168.6	120	93.6	78	66	52.38	43.68	24.9
11.1	1296	984	780	501.6	369.6	294.6	162.6	109.8	85.8	71.4	61.8	49.14	40.8	23.7
11.4	1038	822	678	444	336	270.6	154.8	102.6	80.4	67.2	58.38	46.08	37.92	23.1

### Discharge Rates in Amperes to Various End Voltages at 25°C(77°F)

end voltage	5 min	10 min	15 min	30 min	45 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
9.6	161	108	81.7	47.2	33.6	26.1	14	10.2	7.9	6.53	5.51	4.32	3.65	2.21
9.9	152	104	79.3	46.2	33.2	25.8	13.8	10.1	7.81	6.45	5.46	4.29	3.61	2.17
10.02	149	103	78.4	45.8	33	25.7	13.7	10.1	7.79	6.43	5.44	4.28	3.6	2.16
10.2	144	101	76.9	45.3	32.7	25.5	13.6	10	7.75	6.41	5.42	4.26	3.59	2.15
10.5	134	95.8	74.4	44.6	32.2	25.1	13.5	9.89	7.65	6.34	5.37	4.23	3.55	2.12
10.8	126	91.7	72.4	43.6	31.4	24.5	13.2	9.65	7.5	6.23	5.3	4.19	3.49	2.1
11.1	106	79.7	62.8	39.6	29	23.1	12.7	8.79	6.85	5.71	4.92	3.92	3.25	1.99
11.4	83.8	66	53.9	34.9	26.3	21.2	12.1	8.18	6.42	5.38	4.65	3.67	3.02	1.85

All data on the spec. sheet is an average value:

The tolerance range :  $X < 6min(+15\% \sim -15\%)$ ,  $6min \leq X < 10min(+12\% \sim -12\%)$ ,  $10min \leq X < 60min(+8\% \sim -8\%)$ ,  $X \geq 60min(+5\% \sim -5\%)$

