

Sealed Lead Acid Rechargeable Battery

SN33-12 12Volt 33Ah

Specifications

Nominal Voltage(V) 12V

Nominal Capacity

20 hour rate	(1.65A to 10.50V)	33Ah
10 hour rate	(3.135A to 10.50V)	31.35Ah
5 hour rate	(5.61A to 10.20V)	22.1Ah
1 C	(33A to 9.60V)	13.87Ah
3 C	(99A to 9.60V)	9.1Ah

Weight Approx. 9.9Kg(21.8Lbs.)

Internal Resistance (at 1KHz) Approx. 10mΩ

Maximum Discharge Current for

5 seconds: 495A

Charging Methods at 25 °C (77 °F)

Cycle use:

Charging Voltage 14.4 to 15V
Coefficient -5.0mV/°C/cell
Maximum Charging Current: 9.9A

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%

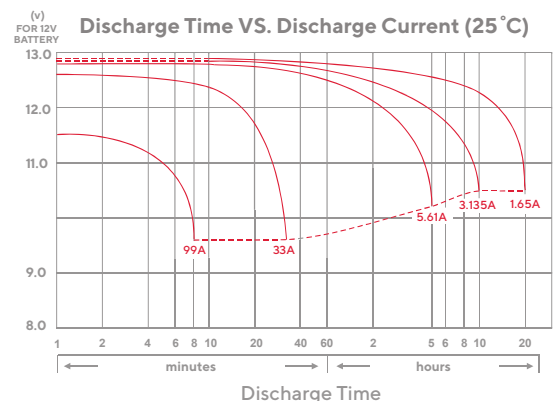
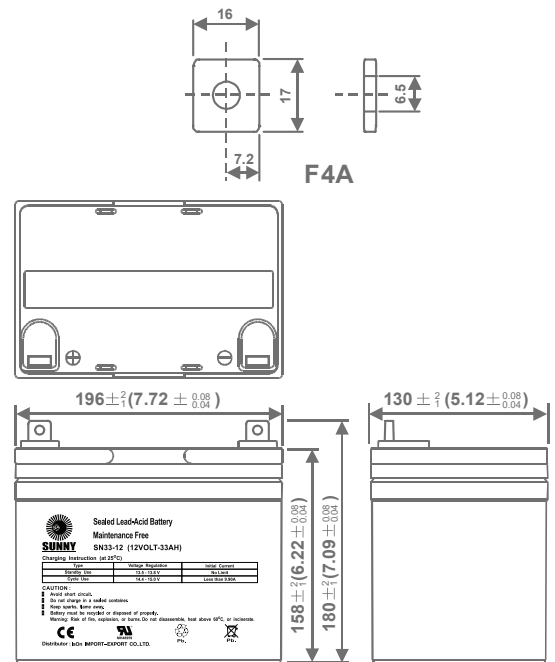
Case Material ABS UL94 HB

Option: Flammability resistance of (UL94 V-0)

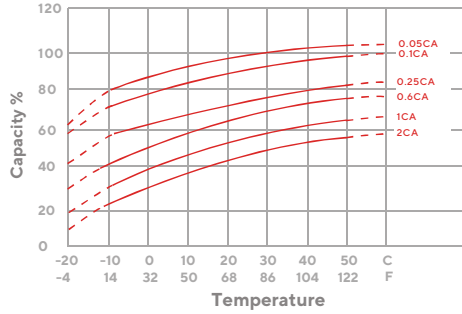
Terminal F4A



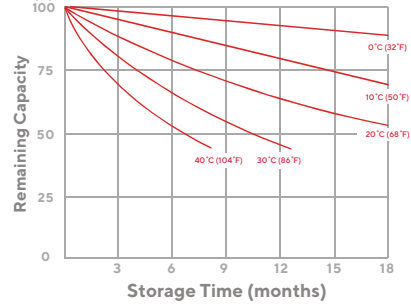
Dimensions mm(inch)



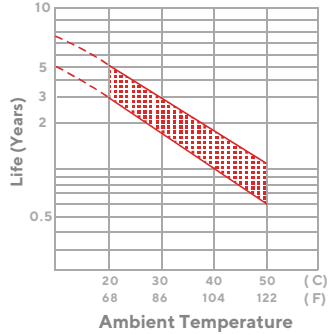
Effect of Temperature on Capacity 25 C(7 F)



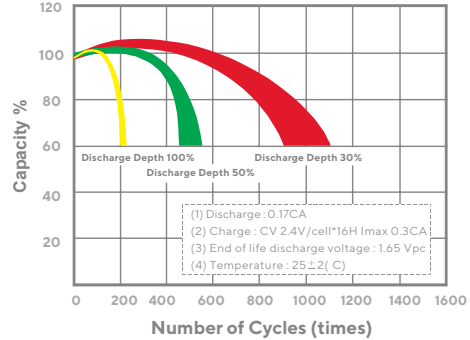
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



PERFORMANCE DATA

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

Time	End Voltage	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
5	min	163	192	211	223	227	232	236
10	min	111	130	143	151	154	156	159
15	min	85.8	99.3	108	114	115	117	119
30	min	48.2	55.5	60.3	63.0	63.8	64.8	66.0
60	min	30.3	33.2	35.0	36.8	37.5	38.2	39.0
120	min	19.0	20.5	21.5	22.3	22.7	23.0	23.5
180	min	13.6	14.7	15.5	16.1	16.4	16.7	17.0
240	min	11.0	11.7	12.3	12.8	13.0	13.2	13.4
300	min	9.57	10.3	10.9	11.3	11.4	11.5	11.7
600	min	5.52	5.97	6.35	6.57	6.63	6.70	6.80
1200	min	2.90	3.13	3.33	3.45	3.50	3.55	3.60

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

Time	End Voltage	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
5	min	86.7	106	120	129	132	136	140
10	min	58.5	68.4	74.5	79.8	81.7	84.2	87.3
15	min	41.1	49.3	54.2	58.4	59.6	61.5	63.0
30	min	27.4	31.3	32.9	34.2	34.6	35.1	35.6
60	min	16.4	17.7	18.6	19.3	19.5	19.8	20.1
120	min	9.67	10.3	10.8	11.2	11.3	11.5	11.7
180	min	6.86	7.36	7.82	8.08	8.15	8.23	8.36
240	min	5.45	5.89	6.27	6.46	6.51	6.58	6.69
300	min	4.74	5.11	5.43	5.61	5.65	5.70	5.78
600	min	2.73	2.95	3.15	3.24	3.27	3.30	3.34
1200	min	1.48	1.59	1.66	1.71	1.72	1.74	1.76

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

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