



SMARTRONICS

MH61491

12-100E

12V 100Ah

Valve Regulated Lead Acid Battery / AGM Technology

Specifications

Nominal Voltage(V) 12V

Nominal Capacity

10 hr rate	(10.0A to 10.80V,25°C (77°F))	100.0AH
5 hr rate	(16.6A to 10.50V,25°C (77°F))	83.0AH
1 hr rate	(61.0A to 9.60V,25°C (77°F))	61.0AH

Weight Approx. 28 kg 61.7lbs)

Internal Resistance Approx. 5.7mΩ

Maximum Discharge Current 500A (5sec)

Charging Methods at 25°C (77°F)

Cycle use:

Initial Charging Current less than	30A
Charging Voltage	2.40~2.45VPC
Coefficient	-30.0mV/°C

Standby use:

No limit on Initial Charging Current Voltage	
Charging Voltage	2.20~2.28VPC
Coefficient	-20.0mV/°C

Operating Temperature Range

Charge	-10~60°C (14~140°F)
Discharge	-20~60°C (-4~140°F)
Storage	-20~60°C (-4~140°F)
Case Material	ABS
Terminal	F18

Description of torque value of hard ware for the terminals

Recommended torque value	M8: 12 N-m (122kgf-cm)
Maximum allowable torque value	M8: 15 N-m (153kgf-cm)

Self-Discharge

This series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.



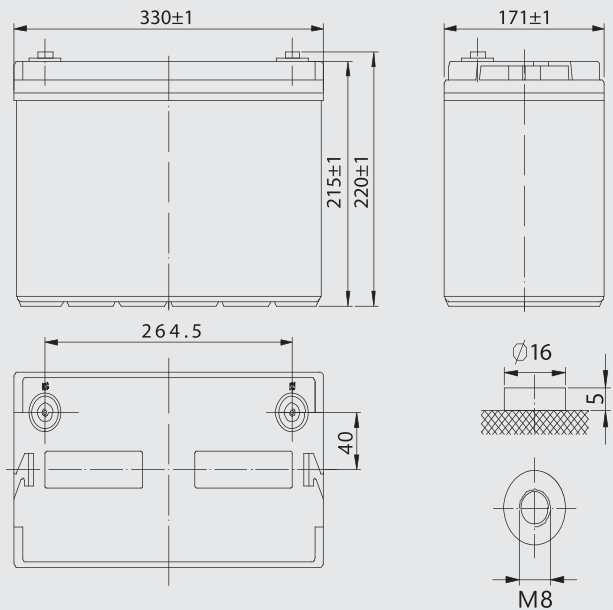
P# 12-100E 308

*E: Economic series

For: Backup Power i.e. UPS, ...

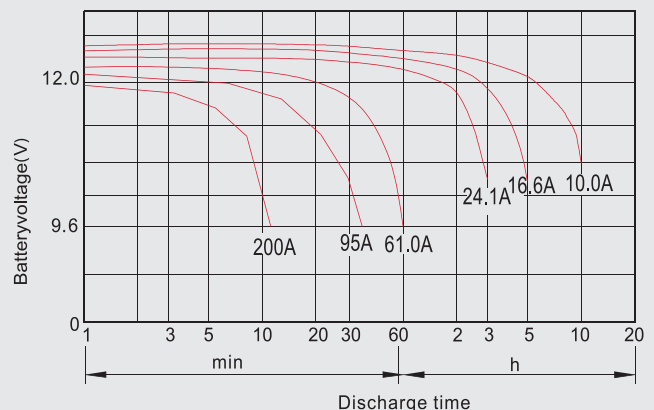
Design life: 10-12 years (Ambient Temperature 20°C)

Dimensions



Discharge Characteristics

12V Battery (V) Temperature: 25°C (77°F)



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

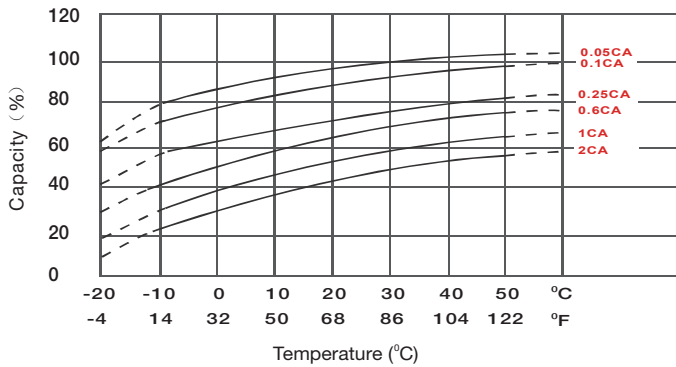
F.V (V/cell)	Time	10min	15min	30min	60min	3h	5h	10h	20h
1.80		156	136	87.4	57.1	22.8	16.3	10.0	5.30
1.75		170	145	89.3	58.9	23.5	16.6	10.2	5.35
1.70		182	156	92.2	59.7	24.1	17.0	10.4	5.40
1.65		197	164	95.0	60.6	24.6	17.3	10.6	5.45
1.60		210	173	98.9	61.0	25.1	17.6	10.8	5.50

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

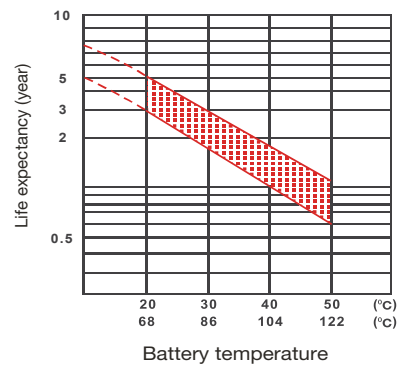
F.V (V/cell)	Time	10min	15min	30min	45min	60min	2h	3h	5h
1.80		296	270	164	126	109	63.9	45.9	32.9
1.75		317	279	170	129	112	64.6	46.7	33.2
1.70		335	290	176	132	116	65.8	47.3	33.3
1.65		353	299	180	134	117	67.0	47.8	33.6
1.60		372	304	186	138	119	68.2	48.4	33.8

Specifications subject to change without notice.

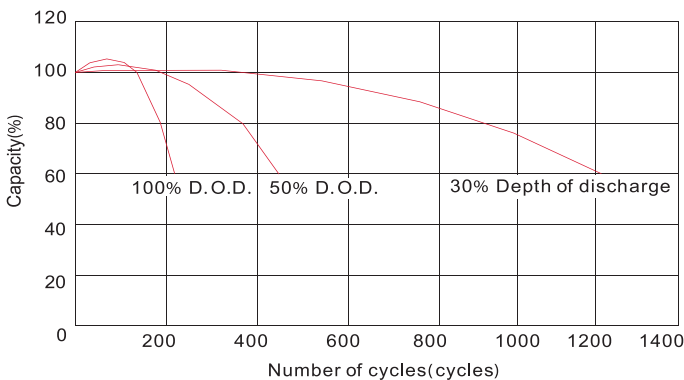
Temperature Effects in Relation to Battery Capacity



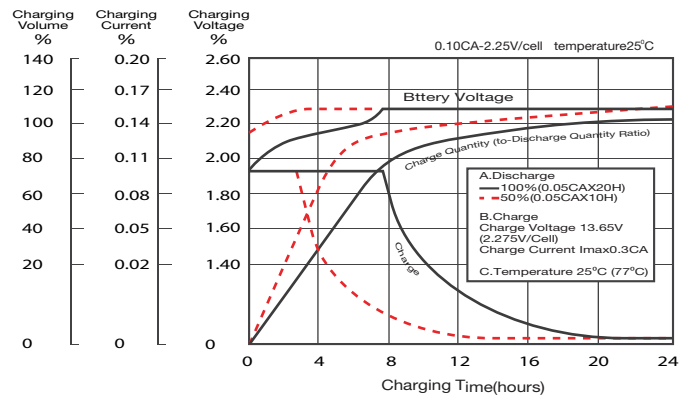
Effect of Temperature on Long Term Float Life



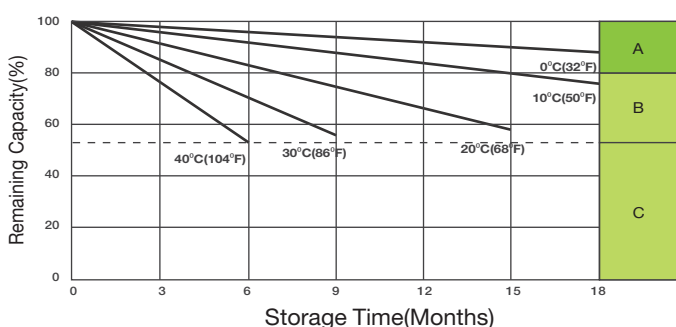
Cycle Life in Relation to Depth of Discharge



Float Charging Characteristics



Self Discharge Characteristics



- A** No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required.)
- B** 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 20hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8~10hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.