SMARTRONICS

MH61491

12-65E | 12V 65Ah

Valve Regulated Lead Acid Battery / AGM Technology

P# 12-65E 307

*E: Economic series

Specifications

Nominal Voltage(V)		12V
Nominal Capacity		
10 hr rate	(6.50A to 10.80V,25°C (77°F)	65.0AH
5 hr rate	(11.3A to 10.50V,25°C (77°F)	56.50AH
1C	(44.2A to 9.60V,25°C (77°F)	44.2AH
Weight		Approx. 23.4 kg (51.60lbs)
Internal Resistance		Approx. 6.8mΩ
Maximum Discharge Current		650A (5sec)

Charging Methods at 25°C (77°F)

Cycle use:

Initial Charging Current less than	19.5A
Charging Voltage	2.40~2.45VPC
Coefficient	-30mV/°C

Standby use:

No limit on Initial Charging Current Voltage	
Charging Voltage	2.20~2.30VPC
Coefficient -20.0mV/°C	-20mV/°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	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)

Self-Discharge

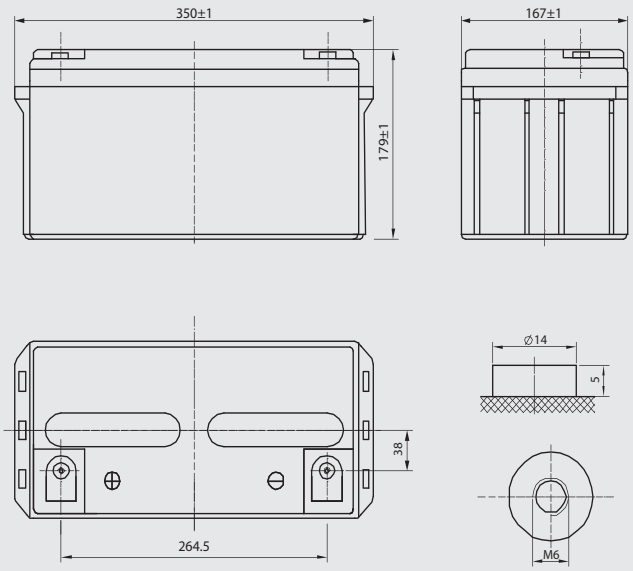
This series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.

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

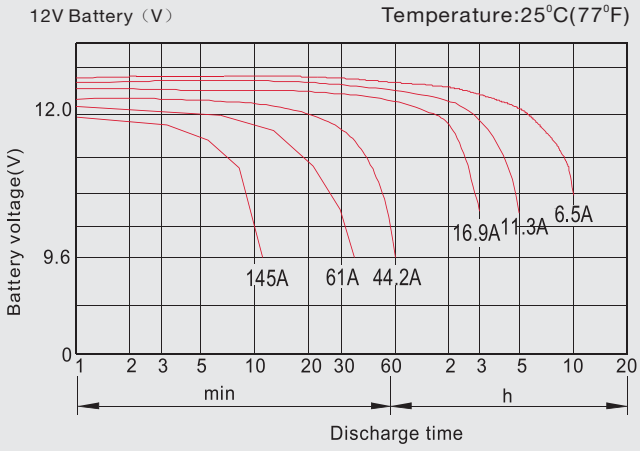
Design life:

6-9 years (Ambient Temperature 20°c)

Dimensions



Discharge Characteristics



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

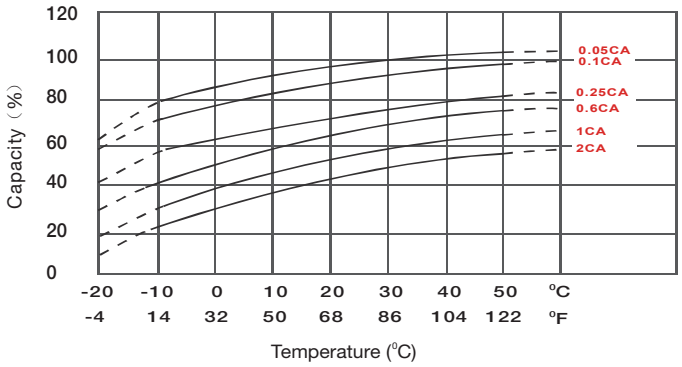
F.V (V/cell) \ Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	24h
1.80	165	120	100	80.9	61.8	47.3	38.3	21.8	16.3	13.0	11.1	9.57	7.65	6.50	2.86
1.75	178	132	108	87.1	66.2	49.8	40.9	22.8	16.7	13.3	11.3	9.74	7.78	6.61	2.97
1.70	191	143	114	90.2	66.3	50.1	41.5	23.1	16.9	13.5	11.5	9.92	7.95	6.76	3.06
1.65	203	151	116	92.2	68.0	52.8	41.9	23.3	17.1	13.7	11.7	10.1	8.10	6.90	3.12
1.60	215	160	125	97.8	70.5	53.0	44.2	24.3	17.7	14.2	12.1	10.4	8.28	7.01	3.20

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

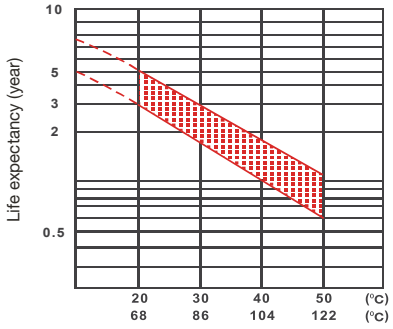
F.V (V/cell) \ Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	24h
1.80	294	220	183	149	114	91.2	75.0	42.5	31.7	25.5	21.7	18.7	14.9	12.6	5.78
1.75	315	237	193	155	116	92.4	75.4	43.2	32.4	25.9	22.0	18.9	15.0	12.7	5.84
1.70	337	252	197	158	118	94.5	77.2	44.6	33.7	26.6	22.4	19.2	15.2	12.8	5.88
1.65	359	267	206	166	127	96.5	79.0	43.2	33.8	26.8	22.6	19.4	15.3	12.9	5.90
1.60	381	282	222	177	132	98.0	80.8	42.5	34.5	27.2	22.8	19.6	15.5	13.1	5.98

Specifications subject to change without notice.

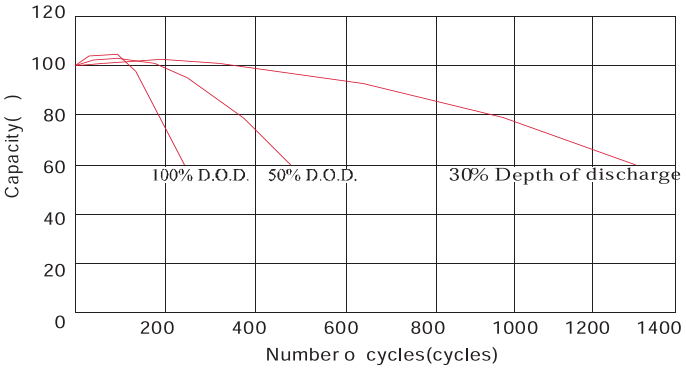
Temperature Effects in Relation to Battery Capacity



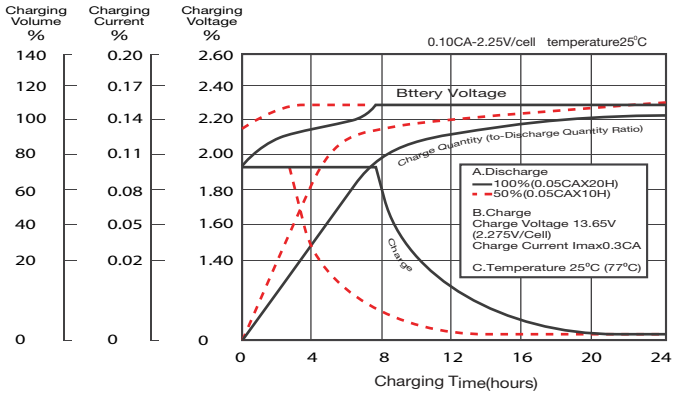
Effect of Temperature on Long Term Float Life



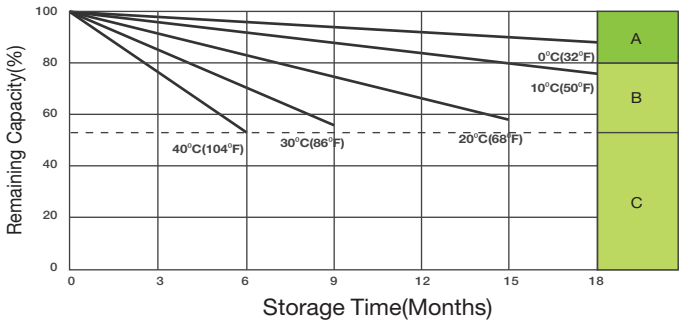
Cycle Life in Relation to Depth of Discharge



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.