

# CHALLENGER

## EVG 12-55 (12V 55AH)

### Specification

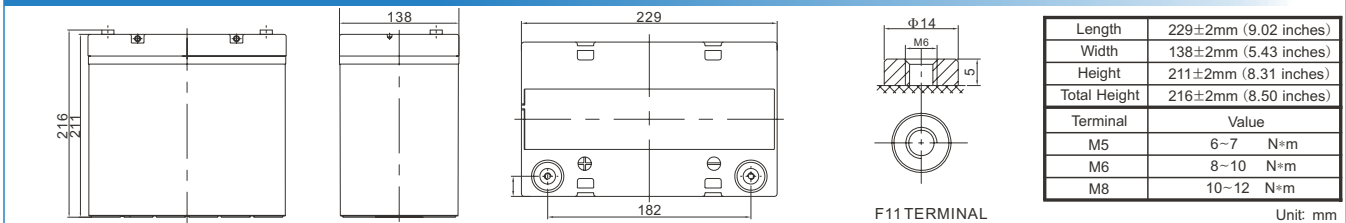
Cells Per Unit	6
Voltage Per Unit	12
Capacity	55Ah@ 20hr-rate to 1.75V per cell @25°C
Weight	Approx. 16.5 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 8.4 mΩ
Terminal	F15(M6)/F11(M6)
Max. Discharge Current	550A (5 sec)
Cold Cranking Ampere(CCA)	360A
Maxi. Charging Current	16.5A
Reference Capacity	C3 40.3AH C5 45.4AH C10 52.0AH C20 55.0AH
Float Charging Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C ±5°C
Self Discharge	Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



EVG ( Electric Vehicle ) series is specially designed for frequent discharge deep cycle application. By using the specially designed active material, strong grids, thick plate construction and hybrid GEL electrolyte, the EVG series battery offers reliable performance in high load situations and could provide competitive cycle performance. It is suitable for Electric Vehicle and Golf cart, Floor Machines, Forklifts, Aerial lifts, Robotics, Marine, RV, Mobility and Medical Equipment, and most outdoor application.



### Dimensions



### Constant Current Discharge Characteristics : A(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	174.8	131.9	99.26	58.06	32.07	18.94	14.67	11.53	9.82	6.60	5.48	2.87
1.65V	168.5	124.7	94.89	55.74	30.97	18.33	14.22	11.22	9.56	6.52	5.42	2.82
1.70V	160.3	114.8	88.88	53.27	29.97	17.73	13.84	10.92	9.31	6.42	5.33	2.79
1.75V	149.7	105.1	82.71	50.92	28.87	17.11	13.42	10.64	9.08	6.33	5.26	2.75
1.80V	136.4	95.10	76.37	48.67	27.77	16.50	13.01	10.33	8.84	6.23	5.20	2.73
1.85V	120.1	77.72	63.37	41.92	24.90	15.12	12.02	9.60	8.25	5.84	4.89	2.59

### Constant Power Discharge Characteristics : WPC(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	300.9	224.3	173.5	105.4	60.27	35.90	28.03	22.14	18.92	12.88	10.78	5.65
1.65V	297.8	216.0	168.4	102.3	58.54	34.92	27.28	21.62	18.50	12.77	10.66	5.57
1.70V	286.4	202.5	160.0	98.76	56.99	33.95	26.65	21.11	18.08	12.60	10.52	5.51
1.75V	272.4	188.7	151.1	95.37	55.24	32.92	25.97	20.65	17.69	12.45	10.39	5.44
1.80V	252.5	173.8	141.5	92.07	53.44	31.90	25.26	20.13	17.29	12.26	10.27	5.40
1.85V	226.1	144.6	119.1	80.09	48.22	29.39	23.46	18.78	16.18	11.54	9.68	5.13

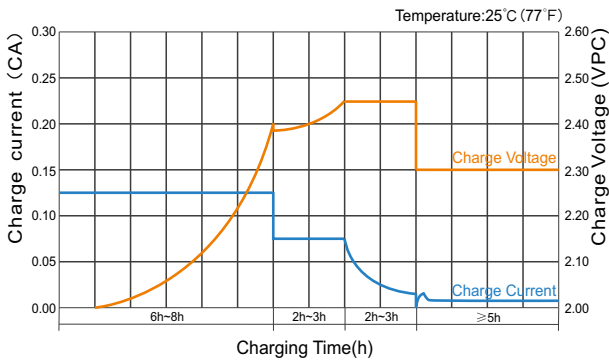
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

The battery must be fully charged before the capacity test. The C<sub>20</sub> should reach 95% after the first cycle and 100% after the third cycle.

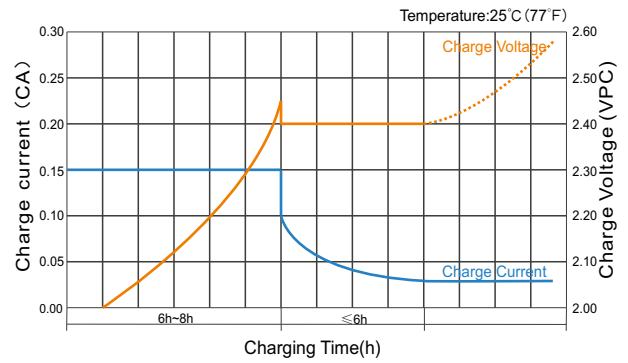
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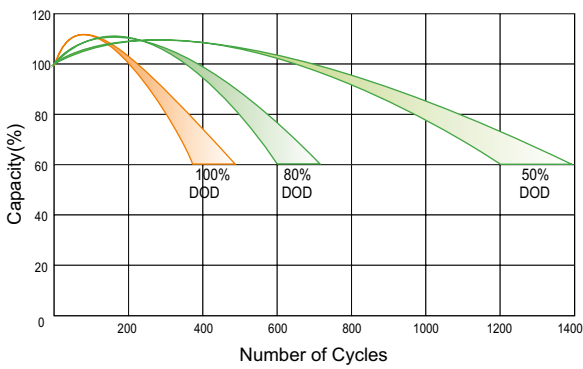
Charge Characteristic Curve for Cycle Use(IUUU)



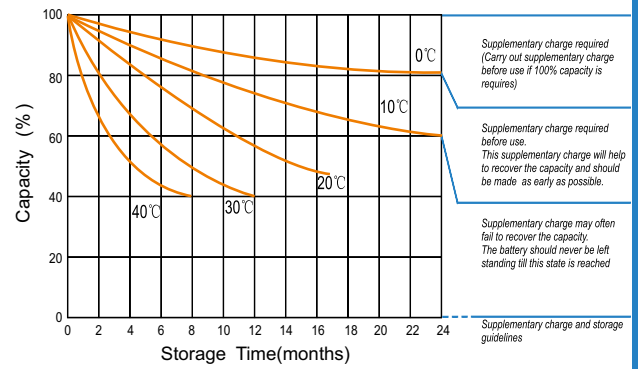
Charge Characteristic Curve For Cycle Use(IUI)



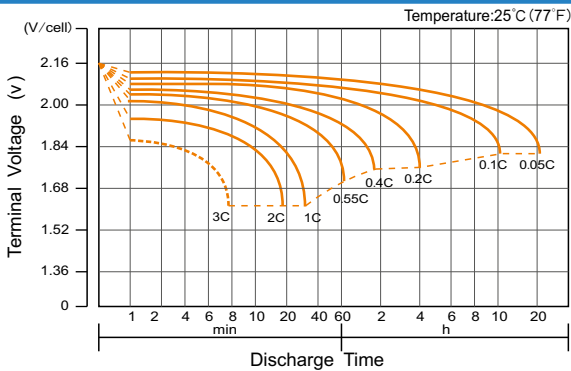
Cycle Life in Relation to Depth of Discharge



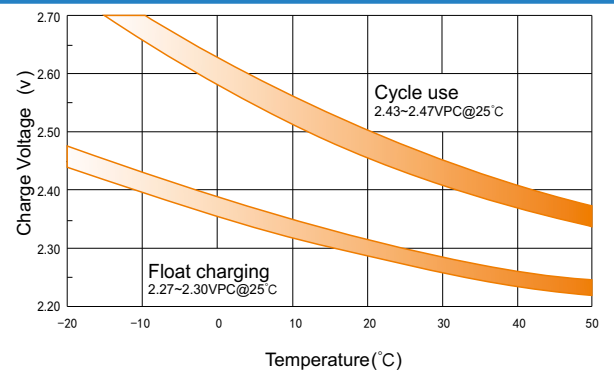
Storage Characteristics



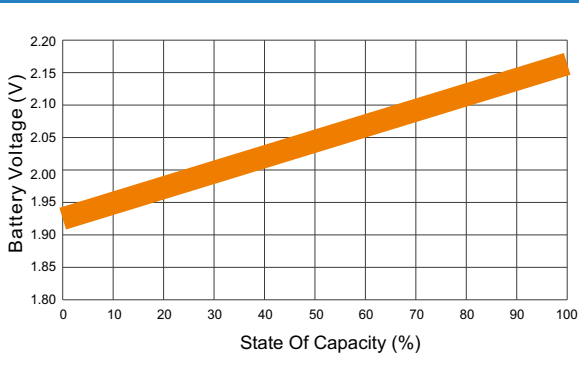
Discharge Characteristics Curve



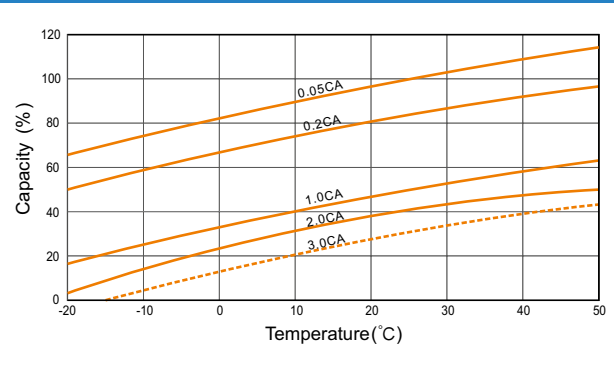
Relationship Between Charging Voltage and Temperature



Relationship of OCV And State of Charge(20°C)



Temperature Effects on Capacity



(Note) All above information shall be changed without prior notice. Producer reserves the right to explain and update the latest information.