EV SERIES • VRLA AGM BATTERY • ELECTRIC VEHICLE SERIES

EV12-12 (12V 12Ah)

08/07/2021

Specifications

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	12Ah@20hr-rate to 1.75V per cell @25℃
Weight	Approx. 4.20 Kg (Tolerance±5.0%)
Dimensions	Length 151 mm Width 98 mm Height 95 mm Total Height 101 mm
Internal Resistance	Approx. 13.0 mΩ
Terminal	T1
Layout	3
Max. Discharge Current	180A (5 sec)
Cold Cranking Ampere (CCA)	120A
Max. Charging Current	3.6A
Reference Capacity	C3 9.36AH C5 10.3AH C10 11.3AH C20 12.0AH
Float Charging Voltage	13.7 V~13.9 V @ 25℃ Temperature Compensation: -3mV/℃/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25℃ Temperature Compensation: -4mV/℃/Cell
Operating Temp. Range	Discharge: -20℃~60℃ Charge: 0℃~50℃ Storage: -20℃~60℃
Nominal Operating Temp. Range	25℃±5℃
Self Discharge	Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25℃ and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25℃.Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional

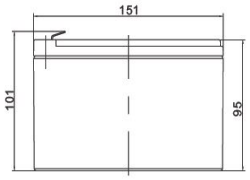
Description and Features

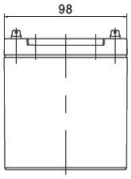
VRLA EV Series is specially designed for frequent discharge in deep cycle applications. EV batteries offer reliable performance in high load situations and have a high cycle durability due to the specially designed active material, strong grids and thick plate construction. The addition of carbon ensures faster full recharging of the battery and longer battery life. This stable and durable battery is completely sealed and maintenance free.

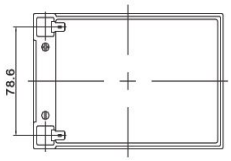
Features

- Absorbent Glass Mat technology
- Long service life – 50% more cycles than VRLA AGM
- Faster full recharging – quick use of application
- Suitable for (deep) cycle applications

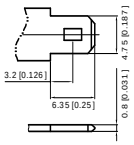
Layout







Terminal



UL certification

MH 64495

Constant Current Discharge Characteristics: A (25°C)

F.V/Time	5 Min	10 Min	15 Min	30 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	8 Hr	10 Hr	20 Hr
1.60V	50.17	32.89	24.50	14.08	8.267	4.716	3.331	2.605	2.174	1.469	1.215	0.624
1.65V	48.31	31.80	23.77	13.79	8.111	4.636	3.280	2.569	2.147	1.453	1.203	0.618
1.70V	45.90	30.37	22.80	13.40	7.904	4.530	3.212	2.521	2.111	1.431	1.187	0.611
1.75V	42.69	28.45	21.51	12.87	7.622	4.384	3.120	2.455	2.062	1.400	1.164	0.600
1.80V	38.42	25.89	19.77	12.14	7.233	4.183	2.991	2.364	1.993	1.358	1.132	0.586
1.85V	32.65	22.40	17.37	11.10	6.679	3.895	2.805	2.232	1.893	1.297	1.086	0.564

Constant Power Discharge Characteristics: Wpc (25°C)

F.V/Time	5 Min	10 Min	15 Min	30 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	8 Hr	10 Hr	20 Hr
1.60V	85.08	55.91	42.83	25.58	15.46	8.94	6.36	5.00	4.19	2.87	2.39	1.23
1.65V	84.10	55.48	42.42	25.42	15.33	8.85	6.30	4.96	4.16	2.85	2.37	1.22
1.70V	80.79	53.58	41.06	24.84	14.99	8.67	6.19	4.88	4.10	2.81	2.34	1.21
1.75V	76.49	51.11	39.29	24.10	14.52	8.43	6.04	4.77	4.02	2.75	2.30	1.19
1.80V	70.04	47.32	36.62	22.96	13.85	8.09	5.81	4.61	3.90	2.68	2.24	1.16
1.85V	60.59	41.66	32.63	21.22	12.88	7.57	5.47	4.37	3.71	2.56	2.15	1.12

(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 C10 should reach 95% after the first cycle and 100% after the third cycle.

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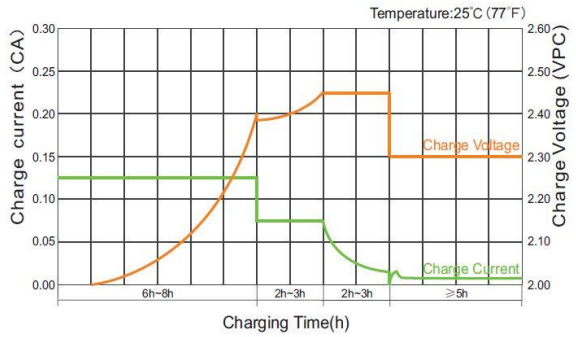
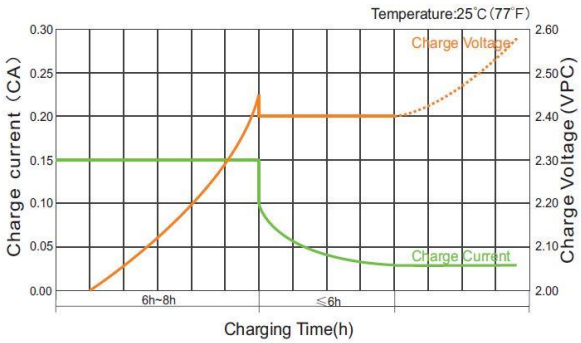
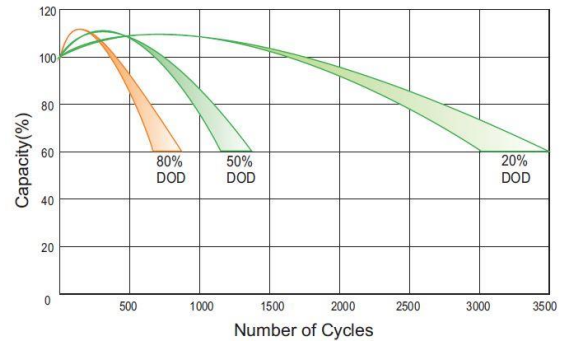
Charge Characteristic Curve For Cycle Use (IIUU)



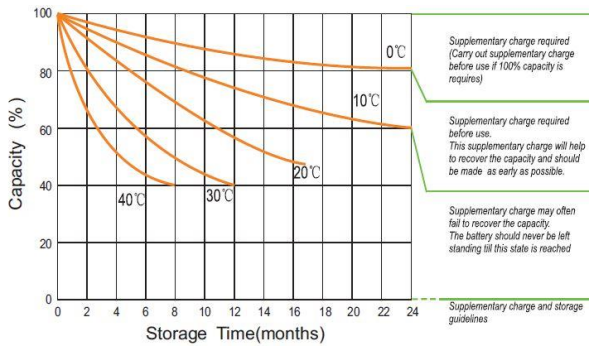
Charge Characteristic Curve For Cycle Use (IUI)



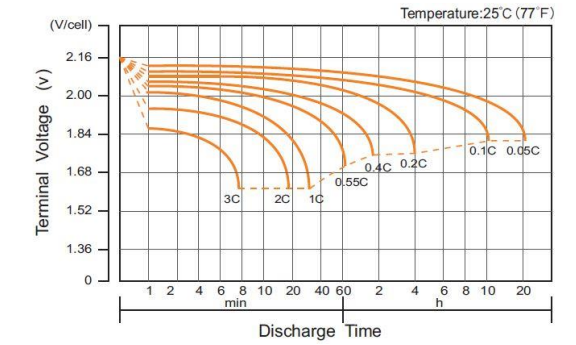
Cycle Life In Relation To Depth Of Discharge



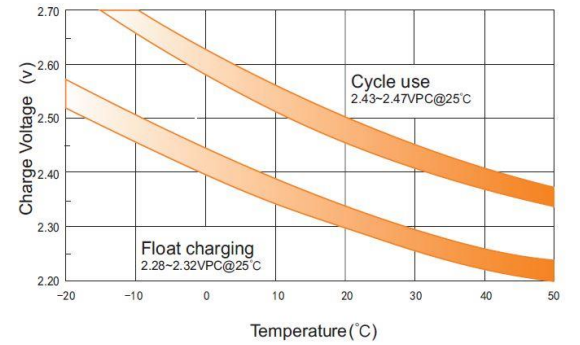
Storage Characteristics



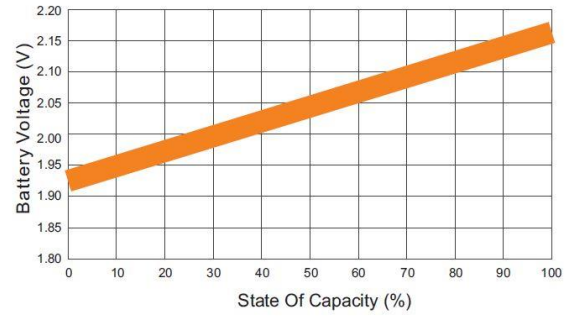
Discharge Characteristics Curve



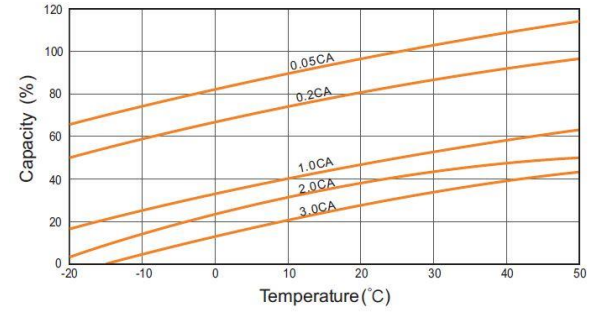
Relationship Between Charging Voltage And Temperature



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



Temperature Effects On Capacity



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