



POWER SOLID

The Crown of Power Solution

Power Solid Battery
PS-12750-EVR
12V , 75Ah

General Features

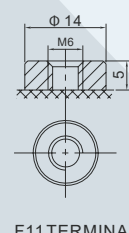
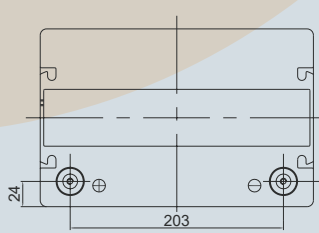
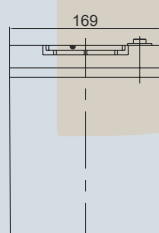
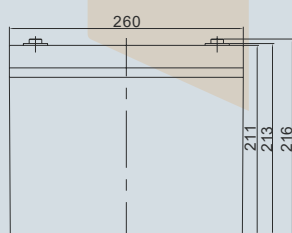
EV (Electric Vehicle) series is specially designed for frequent discharge deep cycle application. By using the specially designed active material, strong grids and thick plate construction, the EV series battery offers reliable performance in high load situations and could provide competitive cycle performance. 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.



Specification

Cells Per Unit	6
Voltage Per Unit	12V
Capacity	75Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 22.5 Kg (Tolerance $\pm 5\%$)
Internal Resistance	$\leq 7.0 \text{ m}\Omega$ (Full Charge Condition @25°C)
Terminal	Default F11(M6), F15(M6)&L4 Optional
Max. Discharge Current	750A (5 sec)
Cold Cranking Ampere(CCA)	470A
Max. Charging Current	22.5A
Reference Capacity	C ₃ 56.1Ah C ₅ 63.5Ah C ₁₀ 71.3Ah C ₂₀ 75.0Ah
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 $\pm 5^\circ\text{C}$
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.

Dimensions



Length	260 \pm 2mm (10.2 inches)
Width	169 \pm 2mm (6.65 inches)
Height	211 \pm 2mm (8.31 inches)
Total Height	216 \pm 2mm (8.50 inches)
Terminal	Value
M5	6- 7 N·m
M6	8- 10 N·m
M8	10- 12 N·m

Unit: mm

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Constant Current Discharge Characteristics : A(25°C)

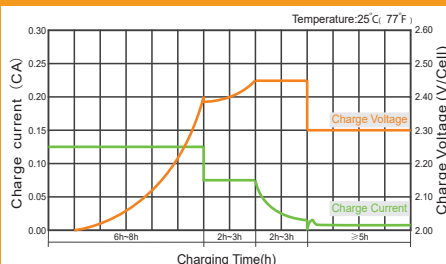
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	190.4	143.2	83.8	45.8	27.2	21.1	16.6	14.1	9.30	7.52	3.90
1.65V	179.9	136.9	80.4	44.3	26.3	20.5	16.2	13.8	9.19	7.42	3.84
1.70V	165.6	128.3	76.9	42.8	25.4	19.9	15.7	13.4	9.05	7.31	3.80
1.75V	151.6	119.3	73.5	41.2	24.6	19.3	15.3	13.1	8.93	7.22	3.75
1.80V	137.2	110.2	70.2	39.7	23.7	18.7	14.9	12.7	8.78	7.13	3.71
1.85V	112.1	91.4	60.5	35.6	21.7	17.3	13.8	11.9	8.24	6.71	3.52

Constant Power Discharge Characteristics : W/Cell(25°C)

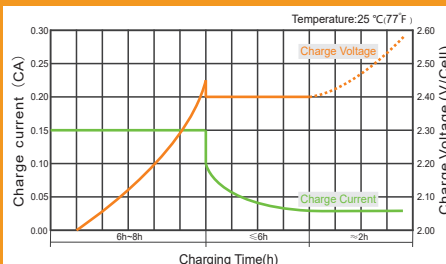
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	323.6	250.4	152.2	86.1	51.5	40.4	31.9	27.3	18.2	14.8	7.69
1.65V	311.7	242.9	147.6	83.6	50.1	39.3	31.2	26.7	18.0	14.6	7.58
1.70V	292.2	230.9	142.5	81.4	48.7	38.4	30.4	26.1	17.8	14.4	7.49
1.75V	272.3	218.0	137.6	78.9	47.2	37.4	29.8	25.5	17.5	14.2	7.41
1.80V	250.8	204.2	132.9	76.3	45.8	36.4	29.0	24.9	17.3	14.1	7.35
1.85V	208.6	171.8	115.6	68.9	42.2	33.8	27.1	23.3	16.3	13.3	6.99

(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 C₂₀ should reach 95% after the first cycle and 100% after the third cycle.

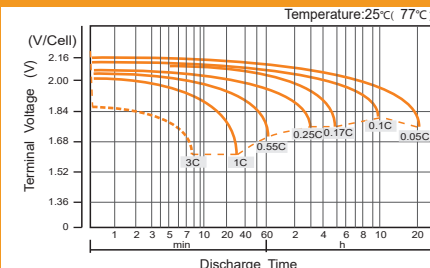
Charge Characteristic Curve for Cycle Use(IUUI)



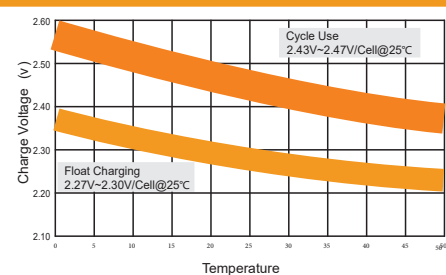
Charge Characteristic Curve For Cycle Use(IUI)



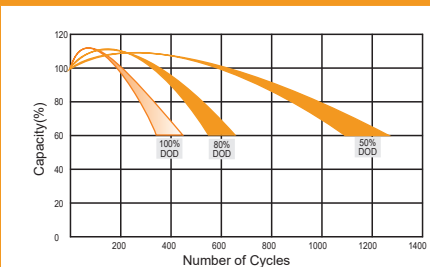
Discharge Characteristics Curve



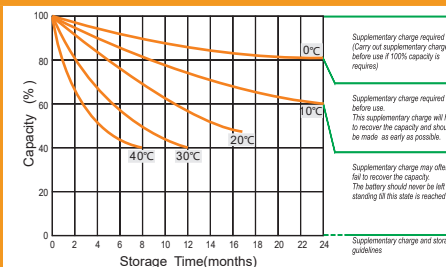
Relationship Between Charging Voltage and Temperature



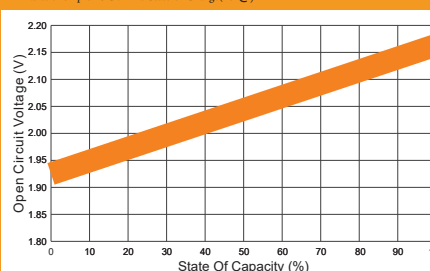
Cycle Life in Relation to Depth of Discharge



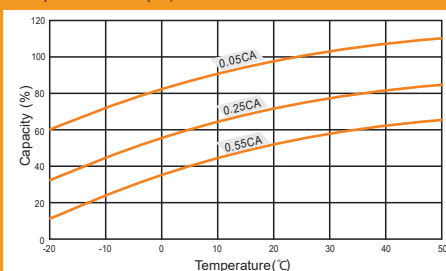
Storage Characteristics



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



Temperature Effects on Capacity



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