



## EKO-Power EP Series 4.5

## EP12-

Eko-Power EP series product is a general Valve Regulated Lead Acid battery with **AGM technology**. EP series batteries are widely applied to energy reservation system, traction system, starting devices, emergence system and so on.

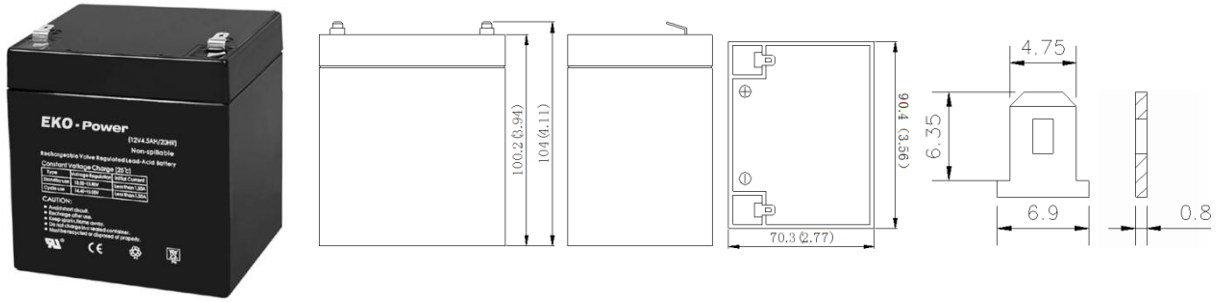
### Application

Lighting system, Security system, Electric toy, Medical equipment, Telecommunication system, Power systems, UPS, Electric tools, Hobby and so on.



### General Specifications

<b>Nominal Voltage</b>	12 V			
<b>Rated Capacity (25°C)</b>	20HR 4.5AH	10HR 4.2AH	5HR 3.83AH	1HR 2.7AH
<b>Designed Service Life</b>	5~8 years			
<b>Approx. Weight</b>	1.51 Kg (3.32 lbs)±5%			
<b>Internal Resistance</b>	Fully charged at 25°C: 0.033 Ohm			
<b>Self-discharge</b>	3% of capacity declined per month at 25°C			
<b>Charge Voltage (25°C)</b>	Cycle use		Stand-by use	
	14.40-15.0V(-24mV/°C) Max. Current 1.35A		13.50-13.80V (-18mV/°C) Max. Current 1.35A	
<b>Dimension: mm (inch)</b>	Length	Width	Height	Total Height
	90 (3.54)	70 (2.76)	100 (3.94)	104 (4.09)



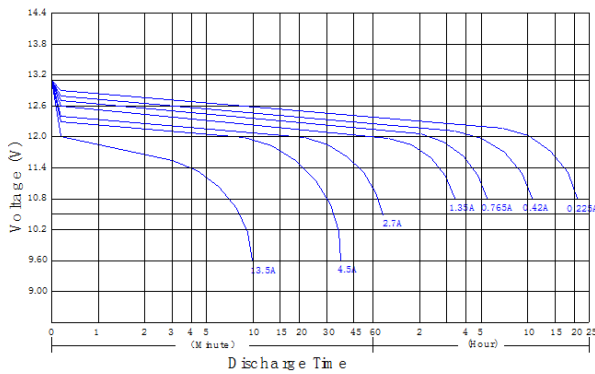
**Constant Current Discharge Data (Amperes at 25 °C)**

Cell Voltage	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.80	13.80	11.50	8.06	4.37	2.84	1.17	0.76	0.44	0.223
1.75	14.80	12.20	8.54	4.85	2.98	1.23	0.79	0.45	0.225
1.70	15.70	12.90	9.01	4.85	3.12	1.28	0.81	0.46	0.227
1.65	16.70	13.60	9.46	5.07	3.25	1.33	0.84	0.47	0.231
1.60	17.60	14.30	9.90	5.28	3.37	1.37	0.86	0.48	0.235

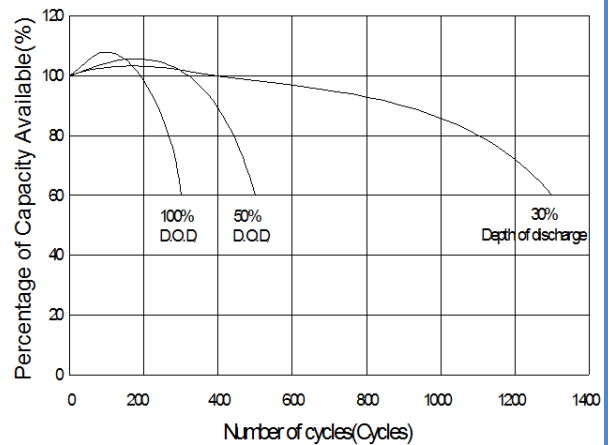
**Constant Power Discharge Data (Watts at 25 °C)**

Cell Voltage	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.80	25.20	18.40	14.60	8.73	6.73	5.48	3.37	2.31	1.59
1.75	27.20	19.80	15.60	9.31	7.14	5.79	3.52	2.39	1.63
1.70	29.20	21.20	16.6	9.89	7.55	6.09	3.67	2.46	1.67
1.65	31.30	22.60	17.70	10.50	7.95	6.39	3.80	2.53	1.70
1.60	33.30	24.00	18.70	11.00	8.33	6.67	3.91	2.59	1.73

**Discharge Characteristic (25 °C)**



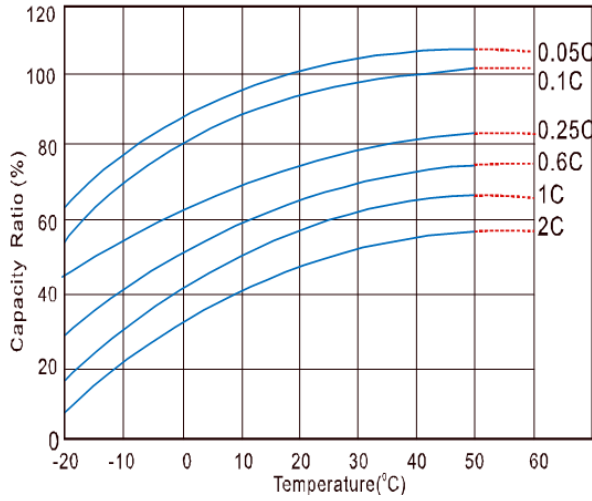
**Number of cycles Vs. Depth of Discharge**



# EKO-Power



**Effect of temperature on capacity**



**Charge Characteristic (25°C)**

