JC12-4.5

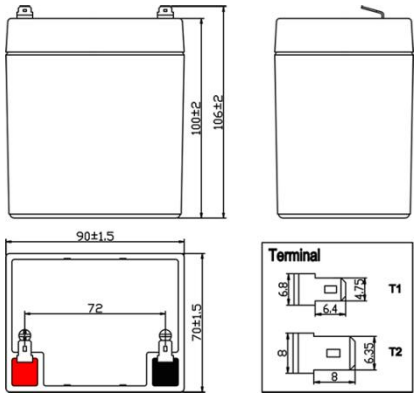
12V 4.5Ah



JAPCELL JC12-4.5 is an AGM battery. It is designed for stand-by applications such as Security and Alarm systems, Medical Facilities and Hospitals or UPS-systems.

SPECIFICATION

Nominal Voltage	12V (6 cells in series)
Rated Capacity	4.5Ah (C_{20},1.75V/cell)
Dimensions(mm)	90Length x 70Width x 100mm(max.106)Height
Nominal Capacity @25℃ (Ah)	20 Hour rate (0.227A to 10.5 volts) 4.54Ah 10 Hour rate (0.434A to 10.5 volts) 4.34Ah 5 Hour rate (0.776A to 10.5 volts) 3.88Ah 1 Hour rate (2.750A to 9.6 volts) 2.75Ah 15 min rate (8.143A to 9.6 volts) 2.03Ah
Approx. Weight	1.36 kg
Terminal	F1
Max.Discharge Current	67.5A @25℃ (5s)
Internal Resistance	45mΩ @25℃
Floating Design Life	5 years @25℃
Ambient Temperature	Charge：-15℃~50℃ Discharge：-20℃~60℃ Storage：-20℃~50℃
Container Material	A.B.S, UL94-HB, UL94-V0, Optional
Self Discharge	VRLA batteries can be stored for more than 6 months at 25℃. Self-Discharge ratio less than 3% per month at 25℃. Please charge batteries before using.



CONSTANT CURRENT DISCHARGE CHARACTERISTICS (A), (25℃)

F.V/Time	5min	10min	15min	30min	60min	2H	3H	5H	8H	10H	20H
1.60V/cell	16.69	10.93	8.143	4.336	2.750	1.549	1.177	0.794	0.526	0.450	0.241
1.70V/cell	15.14	10.13	7.677	4.209	2.688	1.525	1.148	0.782	0.518	0.439	0.232
1.75V/cell	13.60	9.496	7.254	4.082	2.654	1.512	1.136	0.776	0.513	0.434	0.227
1.80V/cell	12.20	8.883	6.831	3.955	2.616	1.500	1.123	0.767	0.506	0.428	0.218

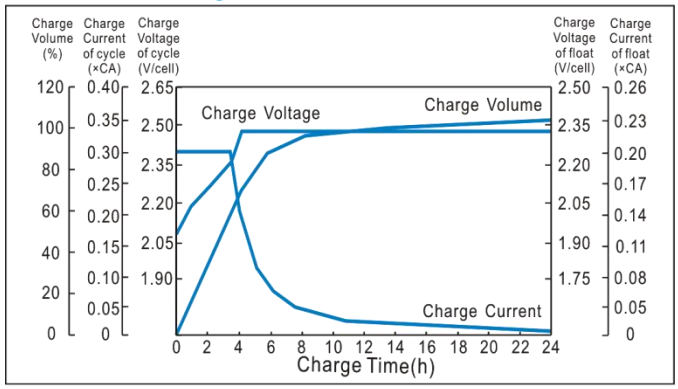
JC12-4.5

12V 4.5Ah

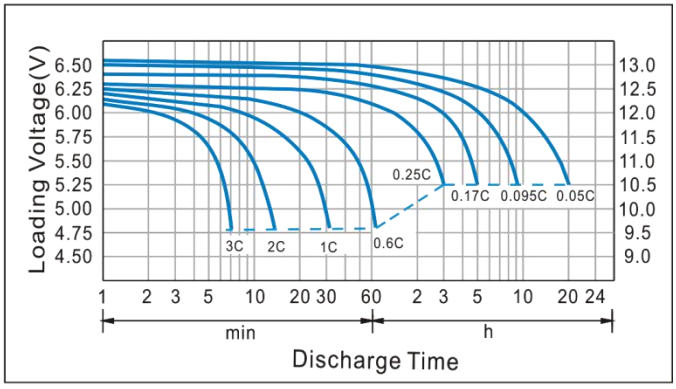
CONSTANT WATTAGE DISCHARGE CHARACTERISTICS (WATT), (25℃)

F.V/Time	5min	10min	15min	30min	60min	2H	3H	5H	8H	10H	20H
1.60V/cell	30.18	19.96	15.00	8.274	5.453	3.072	2.346	1.584	1.049	0.899	0.482
1.70V/cell	27.89	18.83	14.40	8.102	5.354	3.037	2.291	1.562	1.033	0.878	0.465
1.75V/cell	25.39	17.96	13.72	7.926	5.291	3.014	2.271	1.551	1.025	0.869	0.456
1.80V/cell	22.98	16.95	13.04	7.745	5.219	2.992	2.246	1.535	1.013	0.856	0.438

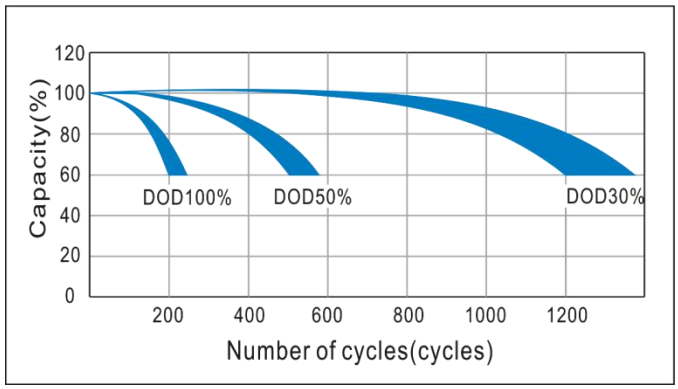
Charge Characteristics Curve



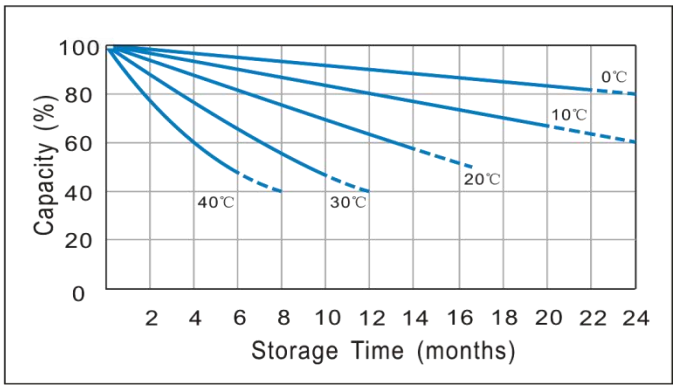
Discharge Characteristics Curve



Cycle service life in relation to depth of discharge



Capacity Storage Characteristics



CAPACITY FACTORS WITH DIFFERENT TEMPERATURE

Battery type		-20℃	-10℃	0℃	5℃	10℃	20℃	25℃	30℃	40℃	45℃
GEL Battery	**6V & 12V**	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	**6V & 12V**	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

CHARGING METHOD

☼ Charging Procedure：

Application	Charging method	Charge voltage at 25℃	Temperature compensation coefficient of charging voltage	Max.charging current	Temperature
For standby power source	Constant voltage charging (With current restriction)	2.25~2.30 V/cell	-3mV/℃/cell	0.2CA	-15~50℃
For cycle service		2.45~2.50 V/cell	-4mV/℃/cell	0.3CA	

☼ Charge the batteries at least once every six months, if they are stored at 25℃.

Constant Voltage: -0.2C×2h+2.45-2.50V/cell×24h, Max. Current 0.25CA

Constant Current: -0.2C×2h+0.1C×12h

Fast: -0.2C×2h+0.3C×4h