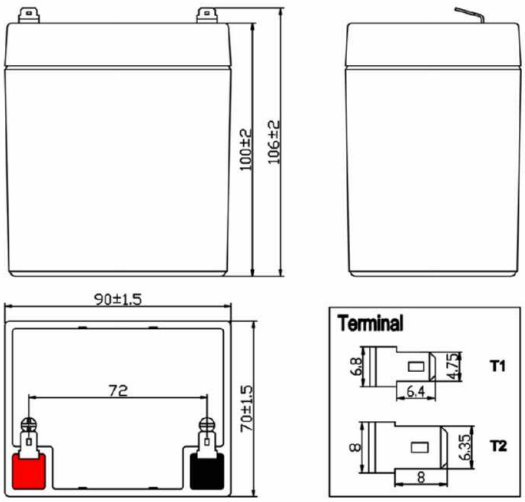
PS4.5-12 (12V4.5Ah)



Specification

Nominal Voltage (V)	12V (6 cells in series)	
Rated Capacity	4.5Ah	(C_{20},1.75V/cell)
Dimensions(mm)	Length	90 ± 1.5 mm
	Width	70 ± 1.5 mm
	Height	100 ± 2 mm
	Total Height	106 ± 2 mm
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 (2.925A to 9.6 volts)	2.92Ah
	15 min rate (8.663A to 9.6 volts)	2.16Ah
Approx. Weight	1.36 kg	
Terminal	T1/T2	
Max.Discharge Current	67.5A @25℃ (5s)	
Internal Resistance	42mΩ @25℃ (Full Charged Battery)	
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.	



Certification

MH28792

KK06-006-00763

ISO 9001 · ISO 14001 · OHSAS 18001 · TLC

Constant Current Discharge Characteristics (A), (25°C)

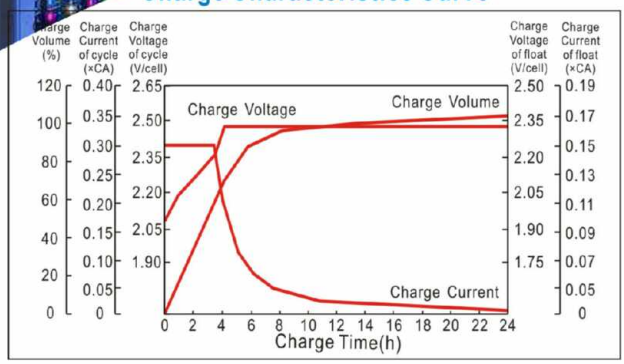
F.V/TIME	5min	10min	15min	30min	60min	2H	3H	5H	8H	10H	20H
1.60V/cell	17.75	11.63	8.663	4.613	2.925	1.648	1.177	0.794	0.526	0.450	0.241
1.70V/cell	16.11	10.78	8.168	4.478	2.860	1.622	1.148	0.782	0.518	0.439	0.232
1.75V/cell	14.47	10.10	7.718	4.343	2.824	1.609	1.136	0.776	0.513	0.434	0.227
1.80V/cell	12.98	9.450	7.268	4.208	2.783	1.595	1.123	0.767	0.506	0.428	0.218

Constant Wattage Discharge Characteristics (Watt), (25°C)

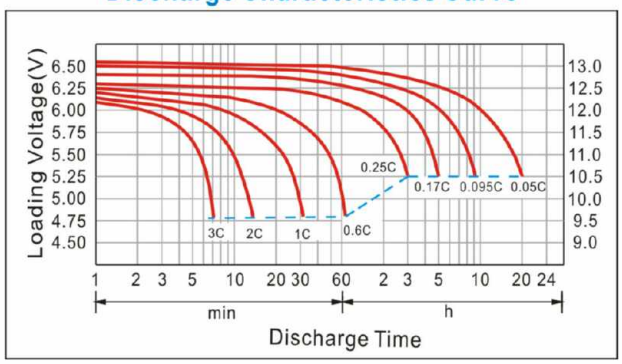
F.V/TIME	5min	10min	15min	30min	60min	2H	3H	5H	8H	10H	20H
1.60V/cell	32.10	21.23	15.95	8.802	5.801	3.268	2.346	1.584	1.049	0.899	0.482
1.70V/cell	29.67	20.03	15.31	8.619	5.696	3.231	2.291	1.562	1.033	0.878	0.465
1.75V/cell	27.01	19.11	14.60	8.432	5.629	3.207	2.271	1.551	1.025	0.869	0.456
1.80V/cell	24.45	18.03	13.87	8.240	5.553	3.183	2.246	1.535	1.013	0.856	0.438

PS4.5-12 (12V4.5Ah)

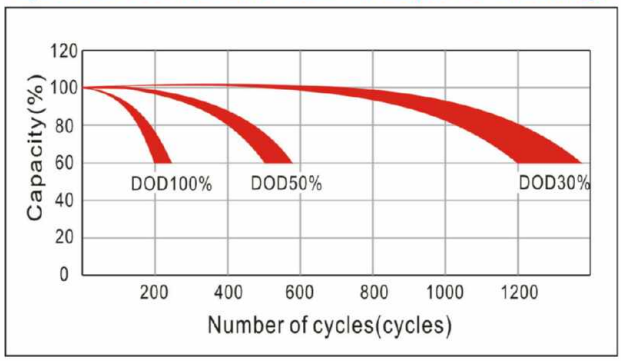
Charge Characteristics Curve



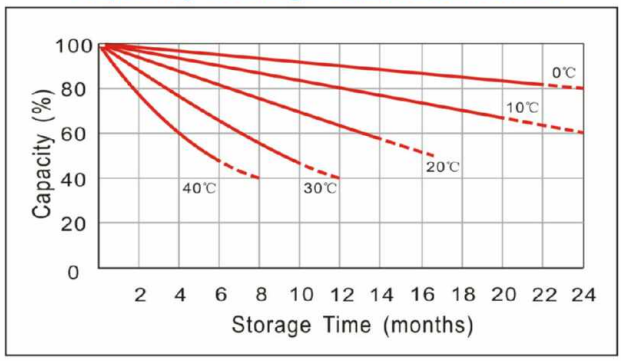
Discharge Characteristics Curve



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%

Maintenance & Cautions

☑ 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	

☑ Every month, recommend inspection every battery voltage.

☑ Every three months, recommend equalization charge for one time.Equalization charge method:

Step 1:Discharge: 100% rate capacity discharge.

Step 2:Charge: Max. Current 0.3CA, constant voltage 2.45–2.50V/Cell charge 24h.

☑ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, Ambient temperature and charging voltage.

☑ Charge the batteries at least once every six months, if they are stored at 25℃.Charging Method:

Constant Voltage : –0.2C × 2h+2.4~2.45V/cell × 24h , Max. Current 0.25CA

Constant Current : –0.2C × 2h+0.1C × 12h

Fast : –0.2C × 2h+0.3C × 4h

☑ Terminal of torque:

Bolt	M5	M6	M8
Terminal	T3、T10	T4、T7、T11、T12、T13	T5、T6、T8、T9、T14
Torque	6~7N.m	8~10N.m	10~12N.m

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