

# VALVE REGULATED LEAD ACID BATTERY- MINI CAPACITY SERIES

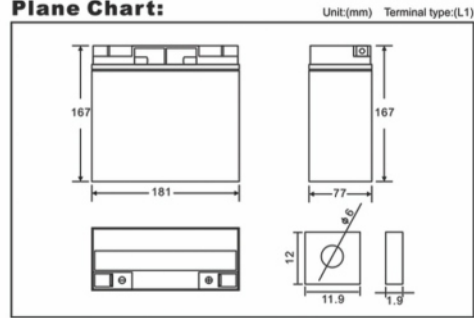


MODEL: TP18-12

Product Code: VRLA-1218001



### Plane Chart:



### Characteristic:

1. 100% testing before out of factory, stable and reliable quality is guaranteed.
2. Professional alloy formula and advanced manufacturing techniques.
3. Completely sealed and maintainance free, low self-discharge.
4. Good charge-discharge acceptability.
5. Cyclic application: deep cycle charge-discharge for more than 260 times.
6. Floating application: for 3-5 years.

### Application:

- Anti-theft system
- Radio transceiver
- Power system
- Railroad engine and railway communication
- Emergency lighting and lamps
- Electric tools
- Electronic instruments and other backup power
- Medical facilities
- UPS for banking system
- Computer backup power
- Marine system
- UPS for fire fighting system
- Toys

### Parts:

Executed Standard: GB/T 19639.1-2005

Cover	Container Bottom	Terminal	Positive Plate	Negative Plate	Separator	Electrolyte	Safety Valve	Seal Glue
ABS	ABS	Copper	PbO <sub>2</sub>	Pb	AGM	dilute sulphuric acid	Rubber	Epoxy Resin

### Packing

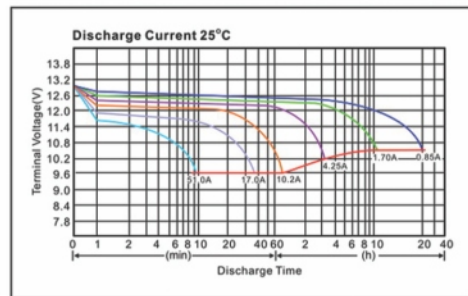
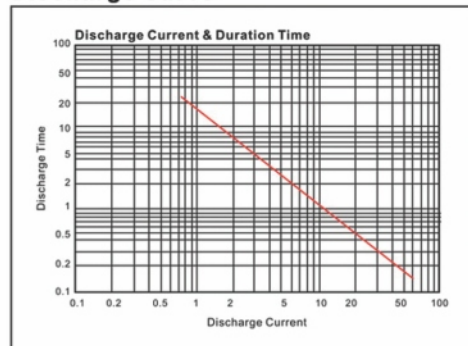
Date	Battery Packing	Inner Packing	Outer Packing
① Printing	① Polybag	Paper Box	Carton Packing
② Branded	② Shrink		
Carton Sealing		Accessories	
① Packing Strap		Bolts&nuts	Mini Charger
② Shrink		With	Optional

### Parameter Chart:

Volts		12V	
Capacity(25°C)		20 hours rate (0.85A)	17.0Ah
Discharge Current Testing (25°C)		20 I <sub>10</sub> rate (17A, 27min)	40min
		60 I <sub>5</sub> rate(51A, 7min)	9.5min
Internal Resistance		Full Charged Battery 25°C	16mΩ
Capacity Affected By Temperature (20 hours rate)		40°C	102%
		25°C	100%
		0°C	85%
		-15°C	62%
Residual Capacity (25°C)		Capacity After 3 Months Storage	91%
		Capacity After 6 Months Storage	82%
		Capacity After 12 Months Storage	64%
Cycle (Above 300 Time)		Discharge 2hrs at 4.25A Current Charge 6hrs at 1.7A Current (25°C)	
Charge (Constant Voltage)	Cycle (25°C)	Initial Charging Current Less Than 5.1A Voltage 14.5-14.9V	
	Float (25°C)	Charge Voltage 13.6-13.8V	
Weight (Approx)		4.88Kg	

\*The above are average data obtained from the first 3 charge/discharge cycles. These are not minimum values.

### Discharge Curve



Constant Current Discharge (Amperes) at 25°C (77°F)												
F.V/Time	5min	10min	15min	30min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.80V/cell	46.92	35.19	25.50	17.17	10.03	5.61	4.250	3.400	2.992	2.448	1.598	0.833
1.75V/cell	48.62	35.87	26.01	17.51	10.17	5.78	4.420	3.570	3.060	2.482	1.632	0.850
1.70V/cell	53.04	38.08	27.54	18.19	10.37	5.95	4.539	3.621	3.111	2.533	1.663	0.864
1.65V/cell	58.31	41.31	29.92	19.21	10.37	5.98	4.590	3.665	3.145	2.550	1.663	0.867
1.60V/cell	63.24	43.35	31.45	20.06	10.54	6.12	4.624	3.689	3.179	2.601	1.700	0.884

Constant Power Discharge (Watts/cell) at 25°C (77°F)												
F.V/Time	5min	10min	15min	30min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.80V/cell	614.65	452.47	362.61	215.63	123.74	67.03	49.541	40.946	34.170	28.706	19.084	9.996
1.75V/cell	711.35	490.11	379.34	223.89	127.43	68.34	50.541	41.674	34.680	29.143	19.380	10.200
1.70V/cell	755.82	507.86	390.97	228.99	129.73	69.51	51.000	42.403	34.874	29.726	19.482	10.251
1.65V/cell	789.79	520.00	399.94	232.15	131.28	70.23	51.367	42.840	34.996	30.017	19.523	10.271
1.60V/cell	816.00	530.40	408.00	234.60	132.60	70.96	51.653	43.277	35.088	30.309	19.523	10.271