



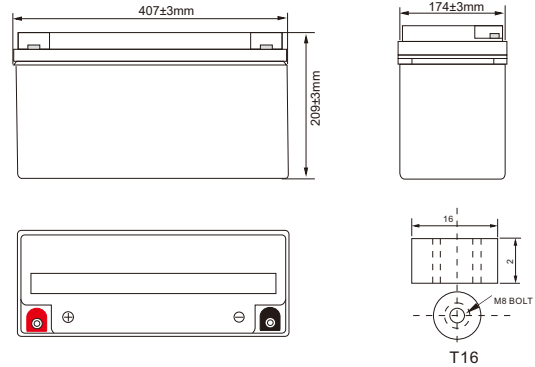
**Valve Regulated**  
Deep Cycle Gel Battery

**VAG120D-12(12V120Ah)**

▼ **Picture**



▼ **Dimension**



▼ **Datasheet**

<b>Nominal Voltage</b>		<b>12V</b>
<b>Rated Capacity(C10)</b>		<b>120Ah</b>
<b>Capacity 25°C(77°F)</b>	<b>10 Hour rate(1.8V)</b>	<b>120Ah</b>
	<b>3 Hour rate(1.8V)</b>	<b>90Ah</b>
	<b>1 Hour rate(1.75V)</b>	<b>66Ah</b>
<b>Internal Resistance</b>	<b>25°C(Full Charged Battery)</b>	<b>≤5.3mΩ</b>
<b>Capacity at Different Temperatures (10 hour)</b>	<b>40°C(104°F)</b>	<b>102%</b>
	<b>25°C(77°F)</b>	<b>100%</b>
	<b>0°C(32°F)</b>	<b>85%</b>
	<b>-15°C(5°F)</b>	<b>65%</b>
<b>Self-discharge (Remaining Cap) 25°C(77°F)</b>	<b>3 months later</b>	<b>91%</b>
	<b>6 months later</b>	<b>82%</b>
	<b>12 months later</b>	<b>64%</b>
<b>Charge Method 25°C(77°F)</b>	<b>Floating Charge</b>	<b>Voltage:13.6V-13.8V Current, 0.15C/max</b>
	<b>Equalizing Charge</b>	<b>Voltage:14.2V-14.5V Current, 0.25C/max</b>

▼ **Specification**

<b>Dimension</b>	<b>Length</b>	<b>407±3mm</b>
	<b>Width</b>	<b>174±3mm</b>
	<b>Height</b>	<b>209±3mm</b>
	<b>Total Height</b>	<b>233±3mm</b>
<b>Terminal</b>		<b>T16</b>
<b>Net Weight</b>		<b>33.4kg±3%</b>
<b>Gross Weight</b>		<b>33.9kg±3%</b>

▼ **Certification**



▼ **Application、Advantages、Features**

**Application**

- ❑ Control System, Alarm System, Power System, Railway System Emergency
- ❑ Light, Lighting System, Backup Power Supply, UPS
- ❑ Telecom Equipment, Fire and Security System, Power Station
- ❑ Electric Tools, Electric Toys

**Features**

- ❑ Excellent anti-impact and anti-seismic capability due to high-strength ABS container and compact structure
- ❑ Low internal resistance, excellent anti-corrosion and charging acceptance capability due to special lead-based multi-element alloy grid

**Advantages**

- ❑ Design Life:15years
- ❑ Safe and Reliable Seal
- ❑ High Specific Energy, Low Internal Resistance, Low Self-discharge Rate Excellent
- ❑ Charging Acceptance and High sealing Reaction Efficiency

- ❑ New plate manufacturing process, getting higher active material utilization rate
- ❑ High-purity electrolyte and special additives, getting lower self-discharge rate
- ❑ Multi-layer sealing technology and special sealant ensure that the battery has no leakage of electrolyte and sulfuric acid mist, and then ensure that the battery Safe and reliable



## ▼ Constant current discharge parameters: A(25°C)

End voltage (V/cell)	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.6	276	217	134	74.8	45.6	32.9	26.7	22.0	15.9	12.6	6.76
1.65	271	213	132	73.8	45.1	32.6	26.4	21.6	15.5	12.5	6.67
1.7	257	206	129	72.5	44.4	32.1	26.0	21.2	15.3	12.4	6.58
1.75	237	195	125	71.0	43.7	31.6	25.9	20.9	15.0	12.3	6.48
1.8	215	182	118	68.7	42.7	30.9	25.6	20.4	14.7	12.0	6.37

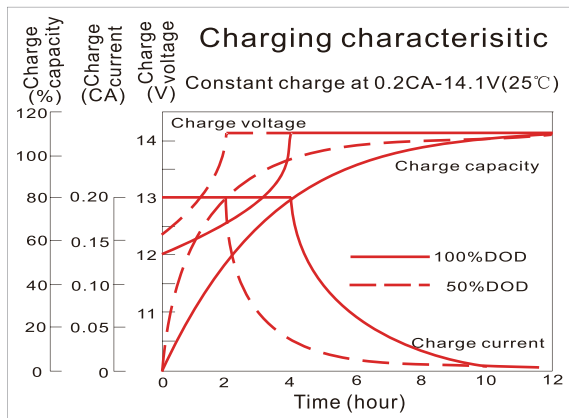
## ▼ Constant power discharge parameters: W/cell(25°C)

End voltage (V/cell)	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.6	477	383	245	142	86.9	63.5	51.5	42.2	30.4	25.1	13.52
1.65	471	377	241	140	86.3	63.1	51.1	41.8	30.1	24.9	13.38
1.7	455	369	237	139	85.5	62.5	50.5	41.3	29.7	24.7	13.19
1.75	425	354	232	137	84.7	61.9	50.7	40.8	29.4	24.5	12.98
1.8	390	334	225	134	83.8	61.0	50.6	40.3	29.0	24.2	12.77

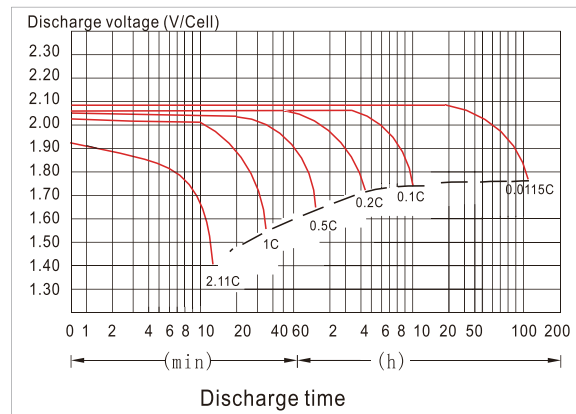
Above are cycle tests

## ▼ Discharge and Charge Characteristics

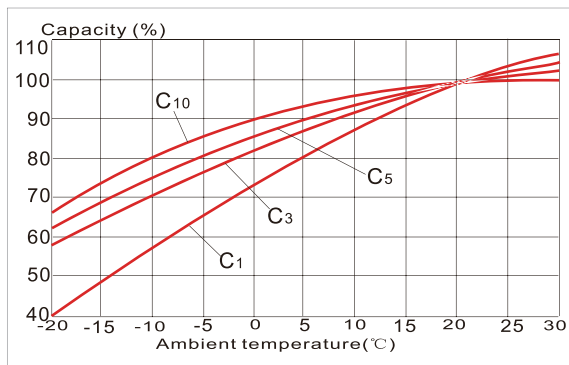
### Charge Characteristics Curve



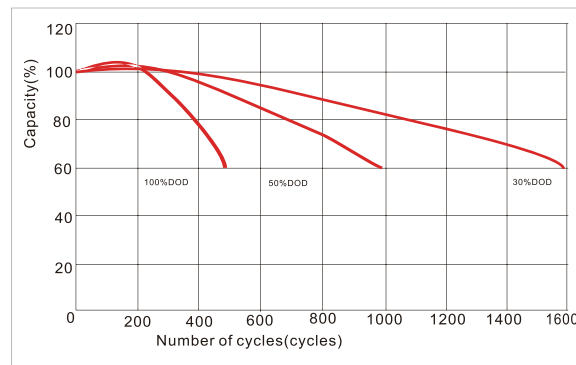
### Discharge Characteristics Curve



### Temperature Effects on Capacity



### Cycle Life in Relation to Depth of Discharge



## ▼ Battery main material

Name	Positive Plate	Negative Plate	Battery Case	Battery Cover	Safety Valve	Terminal	Seperator	Electrolyte
Material	High tin Lead Alloy	Lead Alloy	ABS	ABS	Rubber	Lead/Copper	Fiberglass	Sulfuric Acid