

# VIPER<sup>TEK</sup>®



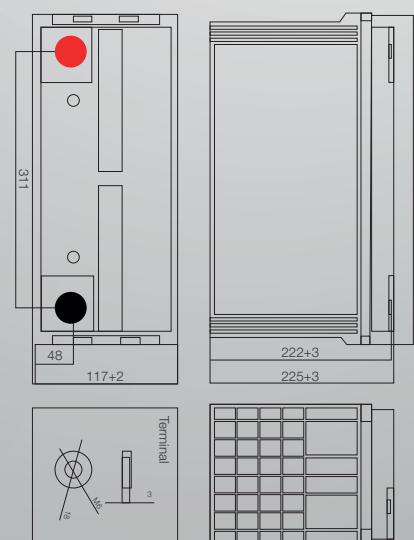
MODEL

## VIP-12100DCG

## Specification

Nominal Voltage (V)	12V (6 cells in series)
Rated Capacity	100.0Ah (C10, 1.80V/cell)
Dimensions (mm)	Length 407±3mm Width 177±2mm Height 225±3mm Total Height 225±3mm
Nominal Capacity @ 25°C (Ah)	20 Hour rate (5.500A to 10.8 volts) 110.0Ah 10 Hour rate (10.00A to 10.8 volts) 100.0Ah 5 Hour rate (17.29A to 10.8 volts) 86.4Ah 1 Hour rate (63.30A to 10.5 volts) 63.3Ah
Approx. Weight	33.5 kg
Terminal	T13
Max. Discharge Current	800A @ 25°C (5s)
Internal Resistance	10.5m @ 25°C (Full Charged Battery)
DOD 80%	>700 Cycles @ 25°C
Ambient Temperature	Charge: -20°C - 50°C Discharge: -40°C - 60°C Storage: -20°C - 60°C
Container Material	A.B.S., UL94-V0, Optional
Self Discharge	VRLA batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.

## Certification

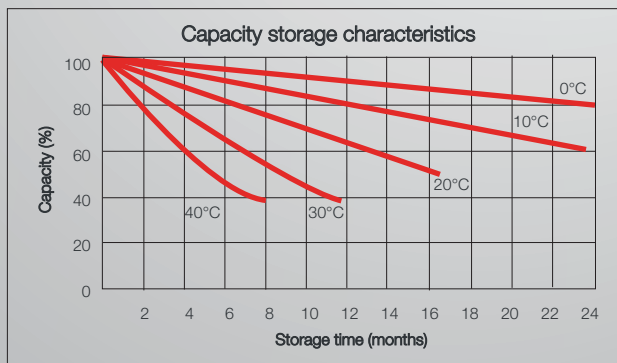
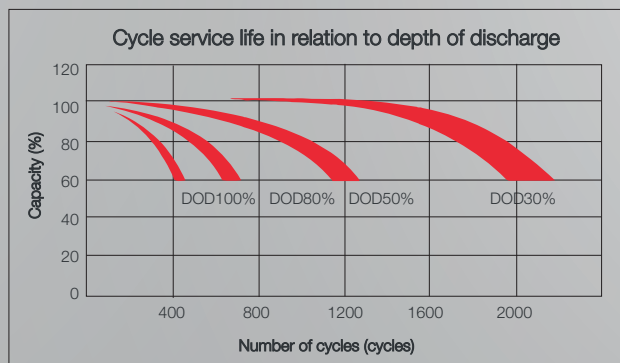
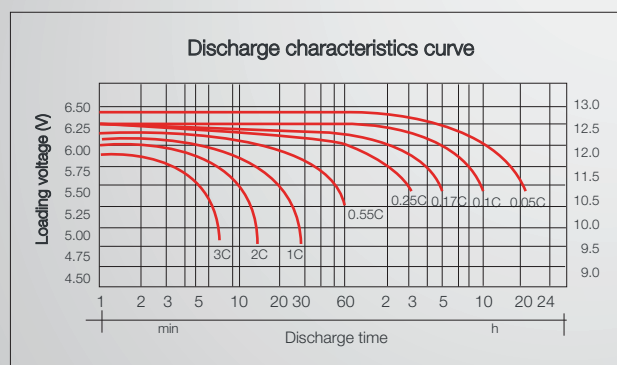
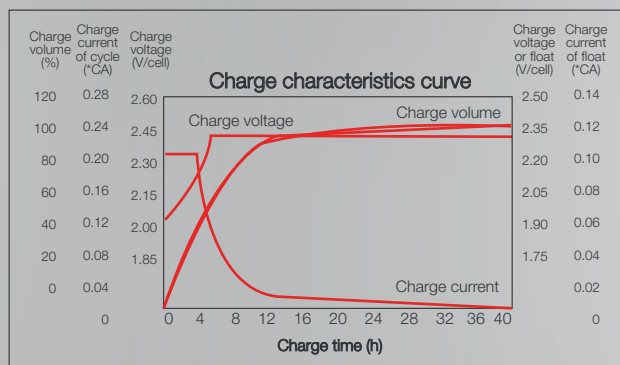


## Constant Current Discharge Characteristics (A), (25°C)

F.V/TIME	5min	10min	15min	30min	60min	2H	3H	5H	8H	10H	20H
1.60V/cell	335.0	215.0	175.0	112.5	65.00	38.85	26.88	18.03	12.42	10.40	5.698
1.70V/cell	295.0	195.0	167.5	109.5	64.10	38.35	26.55	17.82	12.22	10.20	5.656
1.75V/cell	265.0	180.0	158.5	106.5	63.30	37.85	26.25	17.55	12.10	10.10	5.602
1.80V/cell	230.0	163.0	148.5	102.4	62.00	37.33	25.75	17.29	11.92	10.00	5.500

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

F.V/TIME	5min	10min	15min	30min	60min	2H	3H	5H	8H	10H	20H
1.60V/cell	577.9	383.4	317.9	210.0	124.6	75.76	53.31	35.85	24.72	20.71	11.39
1.70V/cell	521.2	354.3	308.5	206.2	123.4	75.10	52.79	35.52	24.38	20.37	11.31
1.75V/cell	474.8	331.5	294.5	202.4	112.4	74.44	52.33	35.07	24.20	20.20	11.20
1.80V/cell	417.8	304.3	278.4	196.3	120.4	74.04	51.46	34.58	23.84	20.00	11.00



## Capacity Factors with Different Temperature

Battery type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
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°C	Temperature compensation coefficient of charging voltage	Max. charging current	Temperature
	For standby power source	Constant voltage charging (with current restrictin)	Constant voltage charging (with current restrictin)	-3mV°C/cell -4mV°C/cell	0.2CA 0.3CA	-20-50°C
	For cycle service					

**Float service:** Every month, recommend inspection every battery voltage. Every 3 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 2.40-2.45V/Cell charge 24h.

**Cycle service:** Avoid battery over discharge, especially battery series connection use. Charge with recommend voltage, ensure battery can be full recharge. In general, recharge capacity should be 1.1-1.5 times discharge capacity.

**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 6 months, if they are stored at 25°C. Charging: Constant voltage: -0.2C x 2h+ 2.4-2.45V/cell x 24h, max. current 0.25CA. Constant current: -0.2C x 2h+0.1C x 12h. Fast: -0.2C x 2h+ 0.3C x 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