



GEL BATTERY OPzV Series

OPzV300 (2V 300Ah)



The battery is manufactured with PVC-SiO₂ separator and colloidal or fumed silica. The tubular positive plate and pasted negative plate is applied. The batteries use silica gel to immobilize the electrolyte inside the battery. The proven silica gel technology improves battery cycle life and performance at various ambient temperatures.

Battery Construction

COMPONENT	POSITIVE PLATE	NEGATIVE PLATE	CONTAINER	COVER	SAFETY VALVE	TERMINAL	SEPARATOR	ELECTROLYTE
Raw material	Tubular	Lead	ABS	ABS	Rubber	Copper	PVC-SiO ₂	Fumed Silicon

Performance Characteristics

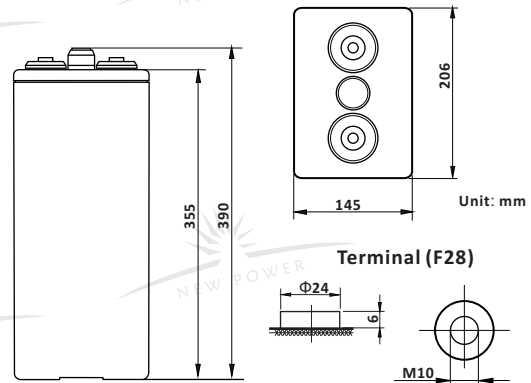
- **Nominal Voltage** 2V
- **Number of Cell** 1
- **Nominal Capacity (77°F /25°C)**
 - 100 Hour rate (3.60A, 1.85V)..... 360Ah
 - 10 Hour rate (30.0A, 1.8V)..... 300Ah
 - 3 Hour rate (75A, 1.8V) 225Ah
 - 1 Hour rate (178A, 1.6V)..... 178Ah
- **Internal Resistance**
 - Fully charged battery (77°F /25°C) 0.60mΩ
- **Operating Temperature Range**
 - Discharge -20 ~ 65°C
 - Charge -10 ~ 65°C
 - Store -20 ~ 65°C
- **Self-Discharge 68°F (20°C)**
 - Capacity declined per month 1.5%
- **Max. discharge current 77°F /25°C** 1800A(5S)
- **Charge Methods: constant voltage charge 77°F /25°C**
 - Cycle use 2.38 ~ 2.42V
 - Max. Current 45A
 - Standby use 2.23 ~ 2.27V

General Features

- **The battery has a long service life, under float charging, ambient temperature 25°C, it can operate 15-20 years.**
- **High cycle service life.**
- **Excellent recovery from deep discharge and good deep discharge cycle capability.**
- **The battery has a low self-discharge, keep over 60% of the rated capacity after 2 years stored under 20°C.**
- **Better temperature resistance performance.**
- **Excellent deep cycle performance.**
- **Superior low current discharge performance.**
- **Better high temperature performance.**
- **Stronger constant power discharge capability.**
- **Better charge reception capability.**
- **Better safety performance and reliability.**
- **Modular and personified installation design.**

Dimensions and Weight

Type	Length	Width	Height	Total Height	Approx. Weight
SI Units	206mm	145mm	355mm	390mm	25Kg
English Units	8.11inch	4.88inch	14.0inch	15.3inch	55.12lbs



Constant Current Discharge (Amperes at 77°F/25°C)

V/cell	15min	30min	1h	3h	5h	10h	48h	100h	120h
1.65	378	282	178	80.5	56.8	-	-	-	-
1.70	342	257	167	78.1	53.8	-	-	-	-
1.75	323	244	156	77.2	52.3	30.6	-	-	-
1.80	304	229	154	75.0	50.3	30.0	-	-	-
1.85	283	209	146	73.3	49.1	28.3	7.20	3.60	3.17

Constant Power Discharge (Watts at 77°F/25°C)

V/cell	15min	30min	1h	3h	5h	10h	48h	100h	120h
1.65	737	551	353	161	113	-	-	-	-
1.70	667	500	331	155	107	-	-	-	-
1.75	629	474	311	154	105	60.8	-	-	-
1.80	590	448	305	149	100	59.8	-	-	-
1.85	553	407	293	145	97.7	56.4	14.3	9.96	6.24

(Note: The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.)



