



GEL BATTERY OPzV Series



OPzV770 (2V 770Ah)

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

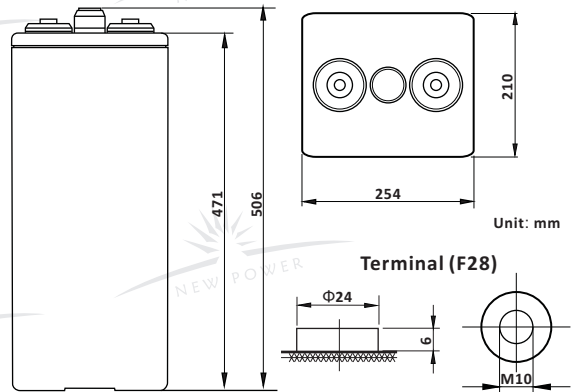
- **Nominal Voltage** 2V
- **Number of Cell** 1
- **Nominal Capacity (77°F / 25°C)**
 - 240 Hour rate (4.25A, 1.85V) 1020Ah
 - 48 Hour rate (20A, 1.85V) 960Ah
 - 10 Hour rate (77A, 1.8V) 770Ah
 - 3 Hour rate (200A, 1.6V) 600Ah
- **Internal Resistance**
 - Fully charged battery (77°F / 25°C) 0.35mΩ
- **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** 3850A(5S)
- **Charge Methods: constant voltage charge 77°F / 25°C**
 - Cycle use 2.38 ~ 2.42V
 - Max. Current 75A
 - Standby use 2.23 ~ 2.27V

Dimensions and Weight

Type	Length	Width	Height	Total Height	Approx. Weight
SI Units	254mm	210mm	471mm	506mm	60.0Kg
English Units	10.0inch	8.27inch	18.5inch	19.9inch	132.3lbs

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.**



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

V/cell	15min	30min	1h	3h	5h	10h	24h	48h	120h
1.65	970	724	454	208	145	80.0	38.7	21.6	9.20
1.70	878	658	427	200	137	79.0	38.3	21.4	9.13
1.75	827	624	400	197	135	78.5	38.1	21.1	9.06
1.80	778	588	393	193	130	77.0	37.6	20.9	9.02
1.85	727	534	376	188	126	72.7	35.7	20.0	8.50

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

V/cell	15min	30min	1h	3h	5h	10h	24h	48h	120h
1.65	1891	1532	902	411	290	159	77.7	43.4	18.39
1.70	1712	1409	850	399	274	158	77.2	43.1	18.26
1.75	1614	1217	796	393	266	157	76.6	42.6	18.17
1.80	1517	1147	781	383	256	153	75.0	41.8	17.82
1.85	1420	1043	750	374	249	145	71.1	39.7	16.8

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



