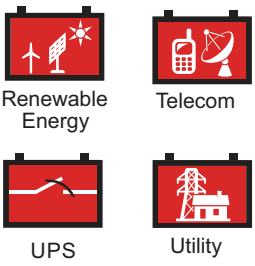
OPZV 12V Series

12V Tubular Gel Battery

With the rubust die cast positive tubular plate design and fumed gelled electrolyte, OPzV 12V series offers excellent deep cycling life and high level reliability with 12 years design life. OPzV 12V series is ideal for use in renewable energy system, telecom and other cyclic/standby harsh environment applications.



Features and Benefits

- Tubular positive plate and Fumed Silica gel gel electrolyte with prolonged cycle life
- low density electrolyte with fast charging
- Lead Calcium die cast grid with improved corrosion resistance capability
- Excellent deep discharge recovery capability
- Reliable maintenance-free and leakage-free construction
- Wide operating temperature range from -40°C to 60°C
- Low self-discharge rate and long shelf life (1 year at 25°C)
- 12 years design life at floating condition

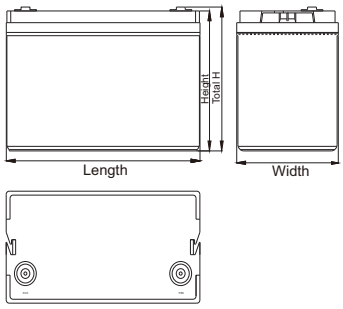
12V Tubular Gel **Battery**

Structure

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety Valve	Terminal
Raw material	Tubular plate	Lead	ABS	ABS	PE / PVC	GEL	Rubber	Copper

Physical Specifications

Model	Dimensions (mm)				Weight (kg)	Terminal	
	Length	Width	Height	Total H		Type	Torque (N.m)
OPZV12-60	260	170	210	213	21.5	F-M8	10-12
OPZV12-100	407	175	210	235	37.0	F-M8	10-12
OPZV12-150	532	210	216	217	56.5	F-M8	10-12
OPZV12-200	499	259	219	220	74.0	F-M8	10-12



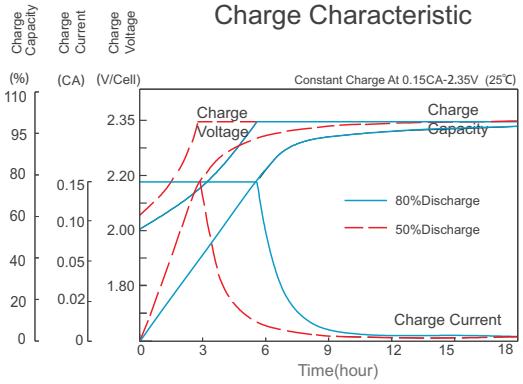
Electrical **Specifications**

Model	Num-ber of cell	Nominal Voltage (V)	Capacity (25 ℃)					Internal Resistance	Short Circuit Current	Maximum Current	
			C_{10} @1.80 V/cell	C_8 @1.75 V/cell	C_3 @1.75V /cell	C_1 @1.65 V/cell	$C_{0.5}$ @1.75 V/cell			Charge	Discharge (5 sec)
			(Ah)					(mΩ)	(A)	(A)	
OPZV12-60	6	12	60	59	49	39	30	9.3	1200	16	420
OPZV12-100	6	12	100	96	82	65	50	7.8	1600	25	600
OPZV12-150	6	12	150	148	124	97	75	6.0	2600	37.5	900
OPZV12-200	6	12	200	197	165	130	100	5.0	3400	50	1200

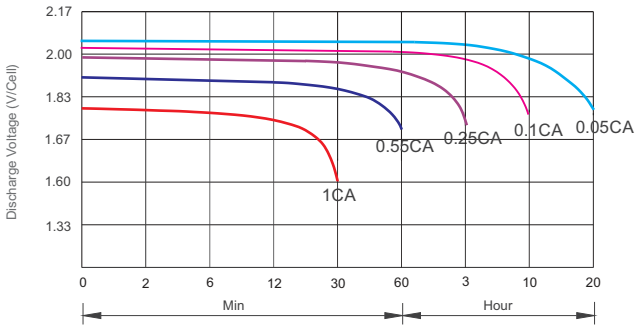
OPZV 12V Series 12V Tubular Gel Battery

Charge/Discharge Characteristics

Charge Characteristic



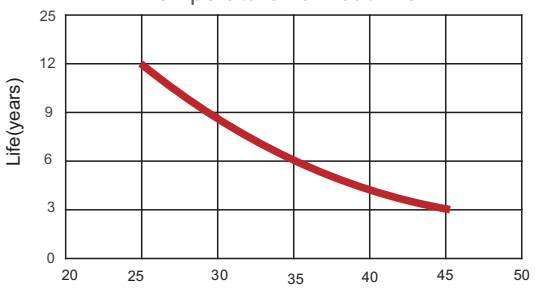
Discharge Characteristic (25℃)



*Float voltage: 2.23V/cell, Equalization voltage: 2.35V/cell @25℃

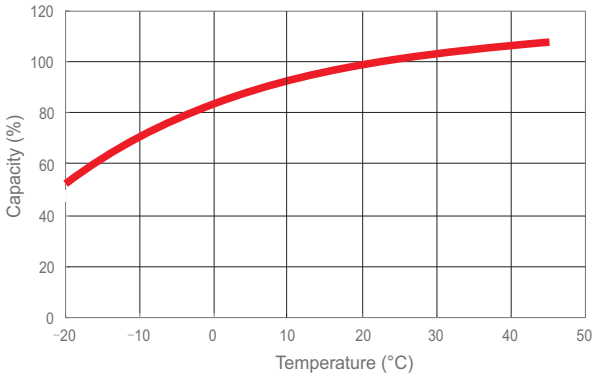
Temperature Characteristics

Temperature vs Float Life



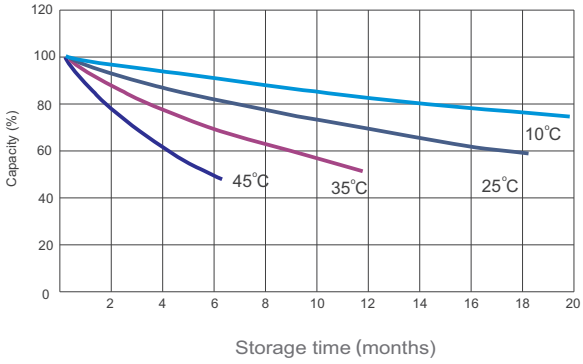
Temperature Range		
Discharge	Charge	Storage
-40℃ to +60℃	-20℃ to +55℃	-20℃ to +45℃

Capacity vs Temperature



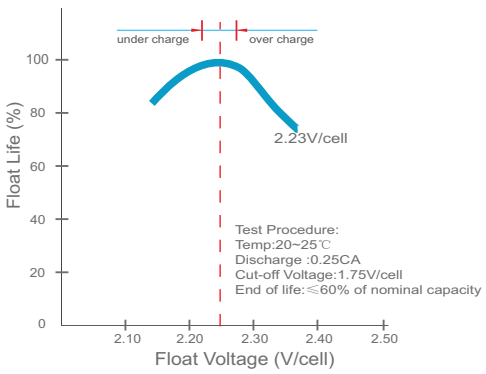
Self Discharge Characteristics

Self discharge characteristics



Stationary/ Floating Characteristics

Float voltage vs Float life



Standards Compliance

IEC60896-21/-22 DIN40742

OPzV 12V Series - EN-H -02(Ver2.0, 2018) Subject to revision without prior notice. E.&O.E.