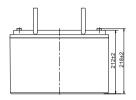
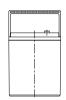


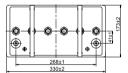
# 12V 4 OPzV80



# Layout









# Specification

Nominal Voltage			12V	
Rated Capacity	86.4Ah		(C <sub>10</sub> ,1.80V/cell)	
	Length		330mm(12.99in.)	
Dimension	Width		173mm(6.81in.)	
	Container Height		212mm(8.35 in.)	
	Total Height (with Te	rminal)	218mm(8.58 in.)	
Approx Weight			30.8Kg (67.9 lbs)	
Terminal		T11(M8	3,Torque11~14.7Nm)	
Container Material			ABS	
	86.4 Ah	(10hr,8.64A,1.80V/cell		
	73.5 Ah	(5hr,14.7A,1.75V/ce		
Capacity	63.6 Ah	(3hr,21.2A,1.75V/ce		
	51.2 Ah	(1hr,51.2A,1.67V/ce		
Max. Discharge Current			640A (5s)	
Internal Resistance			Approx 7.8 mΩ	
	Discharge	-20°C	C~55°C (-4°F~131°F)	
Operating Temp.Range	Charge	0°C	~40°C (32°F~104°F)	
	Storage	-20°C	C~50°C (-4°F~122°F)	
Nominal Operating Temp. Range		2	25°C±3°C (77°F±5°F)	
Cycle Hee/2F°C)	Charging Current		≤20.0A	
Cycle Use(25°C)	Charging Voltage		2.34V~2.40V	
Standby Use (25°C)	Charging Current		≤20.0A	
	Charging Voltage		2.25V	
	Temp. Coefficient		-3mV/ceII/°C	
Self Discharge		≤3	% per month at 25°C	

Constant Current Discharge (Amperes) at 25 °C (77°F)									
F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.85V/cell	77.2	68.1	53.4	40.2	25.5	19.4	13.9	9.76	8.25
1.80V/cell	92.8	78.7	57.1	42.8	26.8	20.3	14.2	10.2	8.64
1.75V/cell	106.5	87.9	61.4	45.6	28.1	21.2	14.7	10.5	8.81
1.70V/cell	116.3	95.4	65.8	48.2	29.2	22.1	15.1	10.6	8.90
1.67V/cell	127.2	102.4	72.2	51.2	31.0	23.4	15.9	10.8	9.07
1.60V/cell	135.7	108.3	75.0	52.7	32.1	24.0	16.2	11.0	9.24

	Constant Power Discharge (Watts/cell) at 25 °C (77°F)								
F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.85V/cell	127.0	116.8	102.0	78.2	49.8	38.0	27.4	19.3	16.5
1.80V/cell	153.6	139.2	109.0	83.0	52.2	39.5	27.9	20.2	17.2
1.75V/cell	178.6	153.6	116.2	87.9	54.6	41.4	28.9	20.7	17.5
1.70V/cell	196.8	165.4	123.3	92.4	56.3	42.6	29.6	21.1	17.7
1.67V/cell	207.4	172.2	134.1	97.6	59.5	45.3	31.0	21.4	17.9
1.60V/cell	212.8	175.7	137.7	100.0	61.2	46.0	31.6	21.7	18.3

## **Applications**

- Telecommunications
- Radio and cellular telephone relay stations
- Emergency lighting systems
- Power stations, Conventional power stations, alternative pwer(solar, wind)
- Large UPS and computer back-up
- · Railway signaling
- Maritime standby power on ships and ashore
- · Process and control engineering
- Standby power
- Buoy lighting

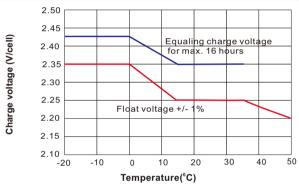
### **General Features**

- Better recovery performance
- Wide working temperature range (-20~50)°C
- No electrolyte stratification provides longer service life.
- · High recombination efficient.
- Build in copper core based in lead will carry large current
- Separator imported form AMER-SIL high porosity.PVC-SiO<sub>2</sub> and low resistance.
- Pasted negative plate special grid design increase the active material availability large current discharge and charge ability.
- Tubuler type positive plate (polyester tube) prevent the active material from falling. Muti metal alloy pressed positive grid increase the anti corrosion ablity and service life.

## **Standards**

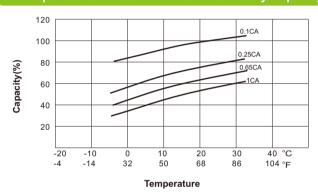
- IEC 60896Certified
- Classified as "Very Long Life" according to Eurobat
- UL Certified
- Manufactured in Leoch®
  TS16949,ISO 9001 and ISO 14001
  certified production facilities

## Charge voltage vs ambient temperature curve

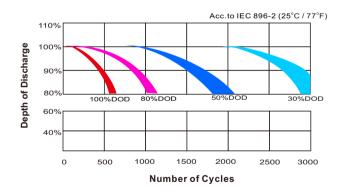


For continuous charging we recommend a voltage of 2.25 V. The charging voltage must be compensated to the curve for acontinuously different battery ambient temperature.

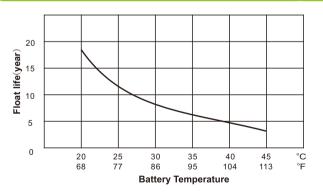
## Temperature Effects in Relation to Battery Capacity



## Cycle Life in Relation to Depth of Discharge



## Float Life



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