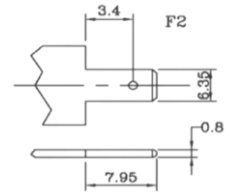
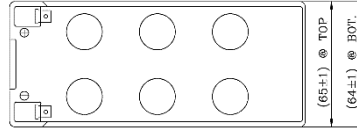
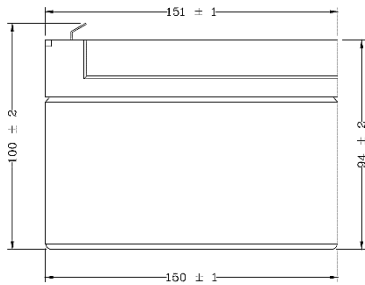


## TECHNICAL DATA SHEET FOR EP 9-12 (12V 9AH) VRLA BATTERY

### BATTERY OUTLINE



### CONSTRUCTION:

- ▶ Positive and negative plates in lead-tin-calcium alloy. ▶ Separator - low resistance micro porous glass fiber.
- ▶ The electrolyte is absorbed within this material, preventing acid leakage in case of accidental damage.
- ▶ Terminals with a large surface area provide maximum conductivity. ▶ Self-regulating pressure relief valve. ▶ 100% ensured capacity (through Data-logger) during manufacturing. ▶ Stronger, sturdier & attractive packaging. ▶ Especially suited for UPS & Power Application

### FEATURES: -

- ▶ Free from Orientation Constraints. ▶ Eco-Friendly. ▶ Easy Handling. ▶ Ready to Use. ▶ Long Service Life. ▶ Low Self-discharge. ▶ Excellent Charge retention & recovering ability. ▶ Superior High Rate Discharge. ▶ High Reliability.

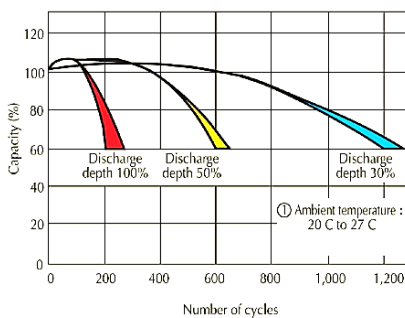
Performance Characteristics confirming to JISC8702

Battery Type	Nominal Voltage (V)	Rated Capacity (Ah) at 27°C						Dimensions (mm)				Weight (Kg) (±5%)
		20 hr 1.75 VPC	10 hr 1.75 VPC	3 hr 1.7 VPC	1.5 hr 1.7 VPC	1 hr 1.6 VPC	30min 1.6 VPC	Overall Height ±2	Height up to lid top ±2	Length ±1	Width ±1	
EP9-12	12	9	8.1	6.8	6.4	5.4	4.5	100	94	151	65	2.6

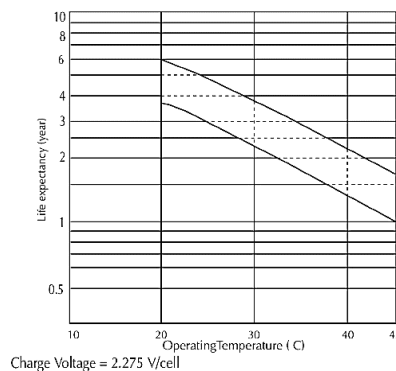
### Charging Parameters

Recharge Voltage	Voltage setting per 12V unit for ambience Temp. 20-30 °C	Current setting
FLOAT	13.7V ± 0.1V	Maximum: 0.3CA Minimum: 0.1CA
BOOST	14.1V ± 0.1V	
CYCLIC	14.7V ± 0.1V	

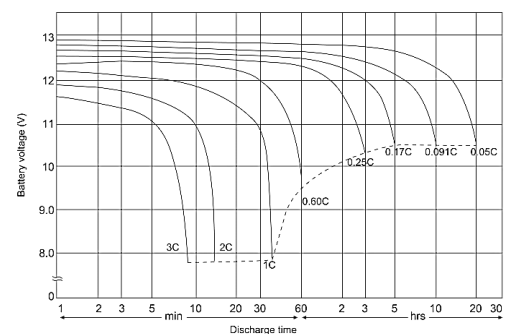
### Cyclic Service Life



### Float Service Life



### Discharge Characteristics



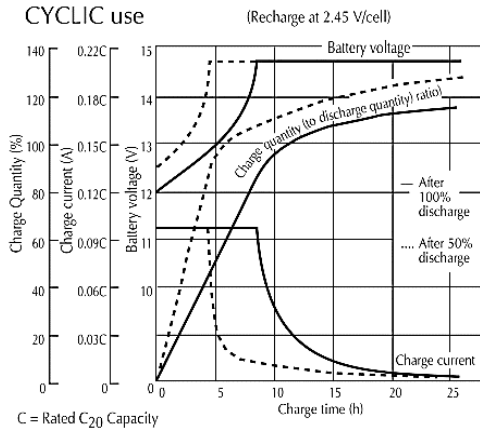
## Constant Power Discharge Rating in Watts per Battery for POWERSAFE PLUS @27°C

	Ah	5Min	10Min	15Min	20Min	30Min	60Min
Watt/Battery @ 1.60V	9Ah	345	217	181	146	109	67
Watt/Battery @ 1.70V		329	213	175	140	105	64
Watt/Battery @ 1.80V		298	209	163	134	101	61

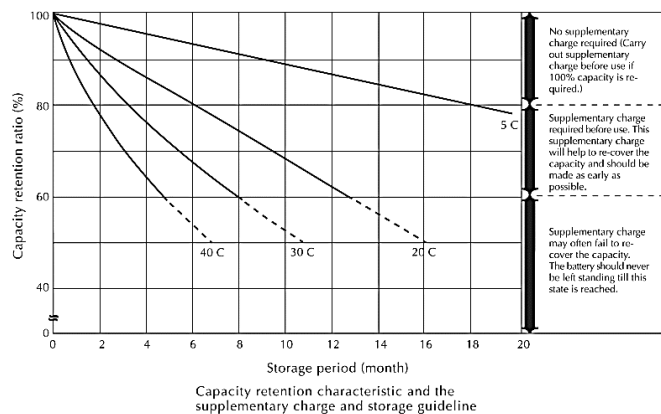
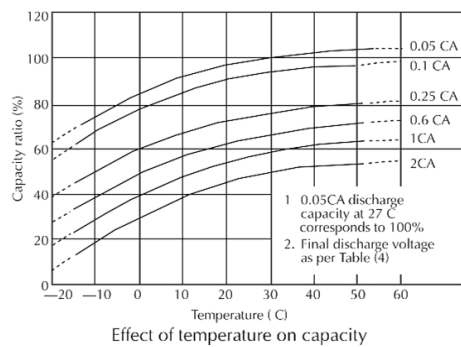
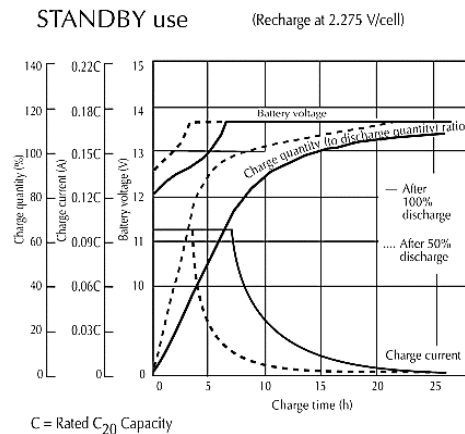
## Discharge Current & Recommended Final Discharge Voltage

Discharge Current (A)	Final Discharge Voltage(V/Cell)
0.2 C > (A) or intermittent discharge	1.75
0.2 C < or = (A) < 0.5 C	1.70
0.5 C < or = (A) < 1.0 C	1.55
1.0 C < or = (A)	1.30

### CYCLIC use



### STANDBY use



## Product Details

AH Efficiency	>90%
WH Efficiency	>80%
Internal Resistance @ full charge	18 mΩ
Operating Temperature Range	0°C to 45°C
Self-Discharge/Month @ 27deg C	<3% of Rated Capacity
Recommended period of storage	3 months from the date of dispatch and to be stored in a covered place at 27°C
Material of container	ABS (FR Grade Optional)
Type of +ve & -ve plate	Flat Pasted
Recommended Terminal Torque	NA

## MAXIMUM DISCHARGE CURRENT FOR VARIOUS DURATION & CUT-OFF VOLTAGE

END VOLTAGE/ CELL	TEMP(C)	DISCHARGE TIME																
		1 min	3min	5min	7min	10min	15min	20min	30min	1 hrs	1.5 hrs	2 hrs	3 hrs	4 hrs	5 hrs	6 hrs	8 hrs	10 hrs
1.80	25	3.9C	3.7C	3.2C	2.8C	2.3C	1.8C	1.5C	1.1C	0.64C	0.42C	0.36C	0.270C	0.210C	0.170C	0.145C	0.110C	0.090C
	5	3.0C	2.5C	2.2C	1.9C	1.75C	1.4C	1.2C	0.95C	0.59C	0.34C	0.29C	0.230C	0.182C	0.147C	0.129C	0.098C	0.080C
	-5	2.4C	2.1C	1.8C	1.6C	1.4C	1.1C	0.96C	0.76C	0.48C	0.28C	0.24C	0.198C	0.154C	0.125C	0.115C	0.087C	0.071C
1.75	25	4.4C	4.0C	3.4C	2.9C	2.4C	1.85C	1.55C	1.12C	0.65C	0.45C	0.38C	0.280C	0.220C	0.180C	0.155C	0.120C	0.098C
	5	3.8C	3.0C	2.5C	2.2C	1.9C	1.5C	1.25C	0.98C	0.61C	0.37C	0.31C	0.24C	0.191C	0.156C	0.136C	0.107C	0.088C
	-5	2.9C	2.5C	2.1C	1.8C	1.6C	1.2C	1.03C	0.81C	0.51C	0.3C	0.26C	0.206C	0.161C	0.132C	0.119C	0.095C	0.079C
1.70	25	5.1C	4.3C	3.6C	3.0C	2.5C	1.9C	1.6C	1.15C	0.67C	0.48C	0.40C	0.290C	0.230C	0.190C	0.165C	0.130C	0.108C
	5	4.6C	3.4C	2.8C	2.4C	2.0C	1.6C	1.3C	1.0C	0.62C	0.39C	0.32C	0.250C	0.199C	0.164C	0.143C	0.116C	0.096C
	-5	3.4C	2.8C	2.3C	2.0C	1.7C	1.3C	1.1C	0.86C	0.53C	0.32C	0.27C	0.213C	0.168C	0.139C	0.123C	0.103C	0.086C
1.65	25	5.9C	4.6C	3.8C	3.2C	2.7C	2.0C	1.65C	1.2C	0.69C	0.50C	0.41C	0.300C	0.240C	0.200C	0.170C	0.135C	0.110C
	5	4.9C	3.6C	2.95C	2.5C	2.1C	1.7C	1.4C	1.05C	0.64C	0.40C	0.33C	0.260C	0.208C	0.173C	0.147C	0.120C	0.098C
	-5	3.9C	2.9	2.4C	2.1C	1.7C	1.35C	1.15C	1.88C	0.54C	0.34C	0.27C	0.220C	0.176C	0.147C	0.125C	0.107C	0.087C
1.60	25	6.7C	4.9C	3.9C	3.3C	2.8C	2.1C	1.7C	1.25C	0.7C	0.51C	0.42C	0.310C	0.250C	0.210C	0.180C	0.140C	0.115C
	5	5.2C	3.8C	3.1C	2.6C	2.2C	1.8C	1.5C	1.10C	0.66C	0.41C	0.34C	0.270C	0.216C	0.182C	0.156C	0.125C	0.102C
	-5	4.4C	3.0C	2.5C	2.2C	1.75C	1.4C	1.2C	0.9C	0.55C	0.34C	0.28C	0.227C	0.183C	0.154C	0.132C	0.111C	0.091C

Note: C represents the C20 rated capacity

