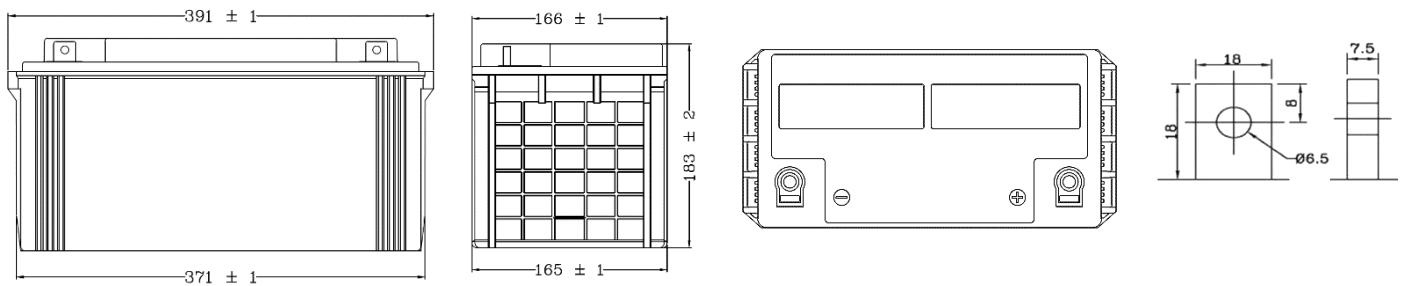


TECHNICAL DATA SHEET FOR EP 75-12 (12V 75AH) VRLA BATTERY

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: -

- ▶ International Size. ▶ 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.

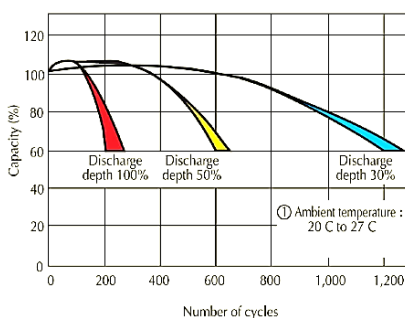
Performance Characteristics conforming to JISC8702

| Battery Type | Nominal Voltage (V) | Rated Capacity (Ah) at 27°C | | | | | | Dimensions (mm) | | | | Weight (Kg) (±5%) |
|--------------|---------------------|-----------------------------|-------------------------|------------------------|-------------------------|-----------------------|------------------------|----------------------|----------------------------|--------------|-------------|-------------------|
| | | 20 hr 1.75V/ cell | 10 hr 1.75V/ cell | 3 hr 1.7 V/ cell | 1.5 hr 1.7V/ cell | 1 hr 1.6V/ cell | 30min 1.6V/ cell | Overall Height ±2 | Height up to lid top ±2 | Length ±1 | Width ±1 | |
| EP75-12 | 12 | 75.0 | 69.0 | 56.2 | 54.0 | 45.0 | 37.5 | 183.0 | 183.0 | 391.0 | 166.0 | 23 |

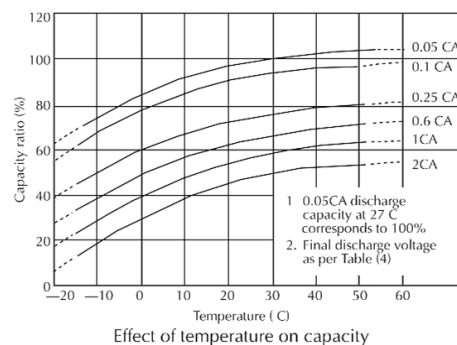
NOTES ON OPERATION

| Mode of Operation | 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 | |
| CYCLE | 14.7V ± 0.1V | |

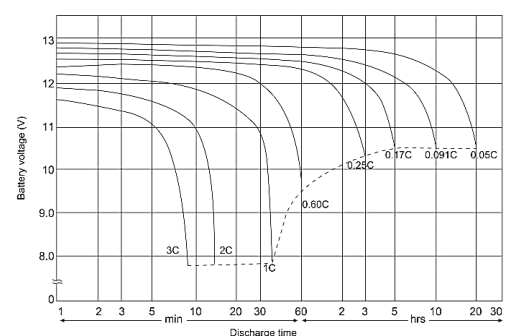
Number of Cycles



Effect of Temp on Capacity



Discharge Characteristics



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

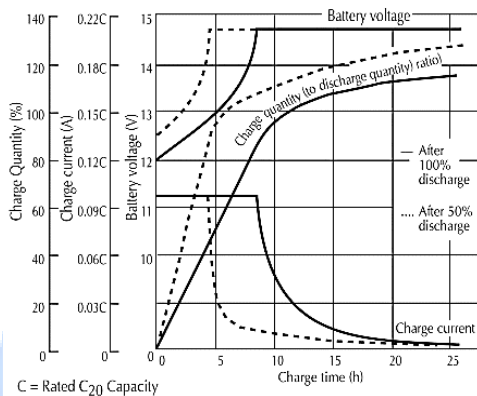
| | Ah | 5Min | 10Min | 15Min | 20Min | 30Min | 60Min |
|----------------------|------|------|-------|-------|-------|-------|-------|
| Watt/Battery @ 1.60V | 75Ah | 2961 | 1988 | 1560 | 1255 | 940 | 577 |
| Watt/Battery @ 1.70V | | 2816 | 1867 | 1500 | 1220 | 921 | 555 |
| Watt/Battery @ 1.80V | | 2534 | 1788 | 1389 | 1150 | 864 | 526 |

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 |

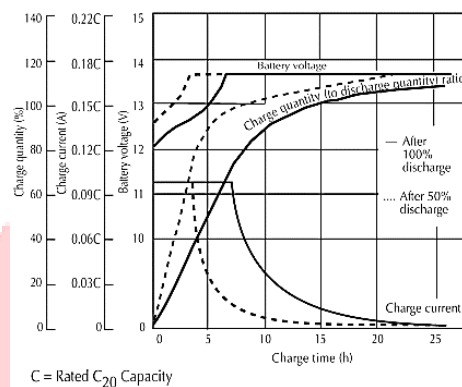
CYCLIC use

(Recharge at 2.45 V/cell)

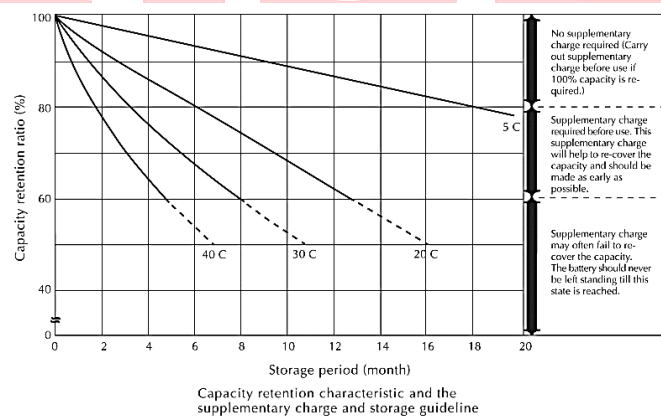
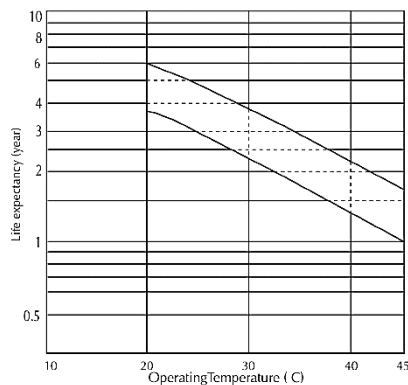


STANDBY use

(Recharge at 2.275 V/cell)



STANDBY use



Product Details

| | |
|--------------------------------|--|
| AH Efficiency | >90% |
| WH Efficiency | >80% |
| Internal Resistance | 6 mΩ Max @ full charge 27°C |
| Short Circuit Current | 1767 Amps |
| 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 manufacturing and to be stored in a covered place at 27 °C |
| Material of container | PCCP (FR Grade Optional) |
| Type of +ve & -ve plate | Flat Pasted |
| Recommended Terminal Torque | 4.9 N-m |

MAXIMUM DISCHARGE CURRENT FOR VARIOUS DURATION & CUT-OFF

| END VOLTAGE/ CELL | TEMP(C) | DISCHARGE TIME | | | | | | | | | | | | |
|----------------------|-----------|----------------|-------|-------|-------|-------|---------|-------|--------|--------|--------|--------|--------|--------|
| | | 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 | 2.0C | 1.65C | 1.4C | 1.1C | 0.64C | 0.42C | 0.36C | 0.27C | 0.210C | 0.17C | 0.145C | 0.11C | 0.090C |
| | 5 | 1.65C | 1.3C | 1.1C | 0.95C | 0.59C | 0.34C | 0.29C | 0.230C | 0.182C | 0.147C | 0.129C | 0.098C | 0.080C |
| | -5 | 1.3C | 1.0C | 0.86C | 0.76C | 0.48C | 0.28C | 0.24C | 0.198C | 0.154C | 0.125C | 0.115C | 0.087C | 0.071C |
| 1.75 | 25 | 2.15C | 1.72C | 1.45C | 1.12C | 0.65C | 0.45C | 0.38C | 0.28C | 0.22C | 0.180C | 0.15C | 0.12C | 0.099C |
| | 5 | 1.72C | 1.40C | 1.15C | 0.97C | 0.60C | 0.36C | 0.30C | 0.24C | 0.190C | 0.150C | 0.130C | 0.100C | 0.088C |
| | -5 | 1.45C | 1.10C | 0.93C | 0.81C | 0.50C | 0.30C | 0.25C | 0.20C | 0.160C | 0.130C | 0.119C | 0.090C | 0.078C |
| 1.70 | 25 | 2.3C | 1.8C | 1.5C | 1.15C | 0.67C | 0.48C | 0.40C | 0.29C | 0.230C | 0.19C | 0.165C | 0.13C | 0.108C |
| | 5 | 1.8C | 1.5C | 1.2C | 1.0C | 0.62C | 0.39C | 0.32C | 0.250C | 0.199C | 0.164C | 0.143C | 0.116C | 0.096C |
| | -5 | 1.6C | 1.2C | 1.0C | 0.86C | 0.53C | 0.32C | 0.27C | 0.213C | 0.168C | 0.139C | 0.123C | 0.103C | 0.086C |
| 1.65 | 25 | 2.35C | 1.85C | 1.55C | 1.2C | 0.69C | 0.50C | 0.41C | 0.300C | 0.240C | 0.200C | 0.170C | 0.135C | 0.110C |
| | 5 | 1.9C | 1.6C | 1.3C | 1.05C | 0.64C | 0.40C | 0.33C | 0.260C | 0.208C | 0.173C | 0.147C | 0.120C | 0.098C |
| | -5 | 1.6C | 1.25C | 1.05C | 0.88C | 0.54C | 0.34C | 0.27C | 0.220C | 0.176C | 0.147C | 0.125C | 0.107C | 0.087C |
| 1.60 | 25 | 2.4C | 1.9C | 1.6C | 1.25C | 0.7C | 0.51C | 0.42C | 0.310C | 0.250C | 0.210C | 0.180C | 0.140C | 0.115C |
| | 5 | 2.0C | 1.7C | 1.4C | 1.10C | 0.66C | 0.41C | 0.34C | 0.270C | 0.216C | 0.182C | 0.156C | 0.125C | 0.102C |
| | -5 | 1.65C | 1.3C | 1.1C | 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