# Yuasa Technical Data Sheet

**Yuasa SWL+3000FR 12V 93.6Ah - Yuasa SWL+ series AGM VRLA high rate battery**

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| **Specifications** | |
| Nominal Voltage (V) | 12 V |
| 10m rate Constant Power (Typ) to 9.6V at 20°C (/Block) | 3000 |
| 10m rate Constant Power (Typ) to 1.6V/cell at 20°C (/Cell) | 500 |
| 20-hr rate Capacity to 1.75V /Cell at 20°C (Ah) | 93.6 |
| 10-hr rate Capacity to 1.8V /Cell at 20°C (Ah) | 91.4 |
| **Dimensions** | |
| Length (mm) | 305 (±3) |
| Width (mm) | 168 (±2) |
| Height (mm) | 225 (±1) |
| Weight (kg) | 33 |
| **Terminal Type** | |
| Terminal Type | M6 (F) |
| Torque (Nm) | 4.80 |
| **Operating Temperature Range** | |
| Storage (in fully charged condition) | - 20°C to + 50°C |
| Charge | -15°C to + 50°C |
| Discharge | -20°C to +60°C |
| **Storage** | |
| Capacity loss per month at 20°C (% approx.) | 3 |
| **Case Material** | |
| Case Material | ABS (UL94:V0) |
| Standard or FR Case | FR |
| **Charge Voltage** | |
| Float charge voltage at 20°C /Block (±1%) | 13.65 |
| Float charge voltage at 20°C /Cell (±1%) | 2.275 |
| Float Chg voltage tmp correction factor from std 20°C (mV) | -3 |
| Cyclic (or Boost) charge Voltage at 20°C (V) /Block (±3%) | 14.5 |
| Cyclic (or Boost) charge Voltage at 20°C (V) /Cell (±3%) | 2.42 |
| Cyclic Chg voltage tmp correction factor from std 20°C (mV) | -4 |
| **Charge Current** | |
| Cyclic (or Boost) charge current limit (A) | 22.5 |
| **Maximum Discharge Current** | |
| Maximum discharge current 1s (A) | 1000 |
| Maximum discharge current 1m (A) | 500 |
| **Short-Circuit Current & Internal Resistance** | |
| Short-Circuit current - according to EN IEC 60896-21 (A) | 2258 |
| Internal resistance (mΩ) measured at 1 kHz | 4 |
| **Design Life & Approvals** | |
| EUROBAT Classification | Very long life: 12+ years |
| Yuasa design life at 20°C (yrs) | Up to 15 years |




**Certifications**

ISO9001 Quality Management Systems
ISO14001 Environmental Management System
ISO45001 OHSAS Management Systems
UNDERWRITERS LABORATORIES Inc.

Cert. No: FM 10626 | Cert. No: EMS 55229 | Certificate No: OHS 532991

## Safety

**Installation**

Can be installed and operated in orientations up to 90° from the upright position.

**Handles**

Batteries must not be suspended by their handles (where fitted).

**Vent valves**

Each cell is fitted with a low pressure release valve to allow gasses to escape and then reseal.

**Gas release**

VRLA batteries release hydrogen gas which can form explosive mixtures in the air. Do not place inside a sealed container.

**Recycling**

YUASA's VRLA batteries must be recycled at the end of life in accordance with local and national laws and regulations.