

# Yuasa Technical Data Sheet



## Yuasa REC50-12I Industrial VRLA Battery

### Specifications

|   |    |
|---|----|
| Nominal voltage (V)                       | 12 |
| 20-hr rate Capacity to 10.5V at 20°C (Ah) | 50 |
| 10-hr rate Capacity to 10.8V at 20°C (Ah) | 40 |

### Dimensions

|             |          |
|-------------|----------|
| Length (mm) | 197 (±2) |
| Width (mm)  | 165 (±2) |
| Height (mm) | 175 (±2) |
| Mass (kg)   | 15.3     |

### Terminal Type

|  |        |
|--|--------|
| Threaded terminal - (M=Male or F=Female) | M5 (F) |
| Torque (Nm)                              | 2-3Nm  |

### Operating Temperature Range

|                                      |                |
|--------------------------------------|----------------|
| Storage (in fully charged condition) | -15°C to +50°C |
| Charge                               | -0°C to +40°C  |
| Discharge                            | -15°C to +40°C |

### Storage

|   |   |
|---|---|
| Capacity loss per month at 20°C (% approx.) | 3 |
|---|---|

### Case Material

|                      |               |
|----------------------|---------------|
| Standard             | ABS (UL94:HB) |
| FR version available | UL94:V0       |

### Charge Voltage

|   |             |
|---|-------------|
| Float charge voltage at 20°C (V)/Block                      | 13.65 (±1%) |
| Float charge voltage at 20°C (V)/Cell                       | 2.275 (±1%) |
| Float Chg voltage tmp correction factor from std 20°C (mV)  | -3          |
| Cyclic (or Boost) charge Voltage at 20°C (V)/Block          | 14.52 (±3%) |
| Cyclic (or Boost) charge Voltage at 20°C (V)/Cell           | 2.42 (±3%)  |
| Cyclic Chg voltage tmp correction factor from std 20°C (mV) | -4          |

### Charge Current

|  |      |
|--|------|
| Float charge current limit (A)             | 12.5 |
| Cyclic (or Boost) charge current limit (A) | 12.5 |

### Maximum Discharge Current

|              |     |
|--------------|-----|
| 1 second (A) | 400 |
| 1 minute (A) | 185 |

### Cyclic Life Data

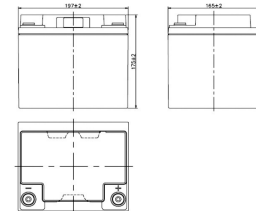
|                               |      |
|-------------------------------|------|
| 100% DOD down to 80% capacity | 300  |
| 75% DOD down to 80% capacity  | 500  |
| 50% DOD down to 80% capacity  | 600  |
| 25% DOD down to 80% capacity  | 1400 |

### Impedance

|                        |     |
|------------------------|-----|
| Measured at 1 kHz (mΩ) | 5.7 |
|------------------------|-----|



### Layout



### 3rd Party Certifications

ISO9001 - Quality Management Systems  
UNDERWRITERS LABORATORIES Inc.



### Safety

#### Installation

Can be installed and operated in any orientation except permanently inverted.

#### 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.

