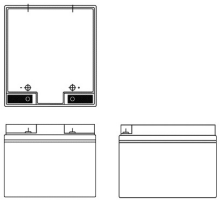
# Yuasa Technical Data Sheet

**Yuasa NPL24-12IFR Industrial VRLA Battery**

| | |
|---|---|
| **Specifications** | |
| Nominal voltage (V) | 12 |
| 20-hr rate Capacity to 10.5V at 20°C (Ah) | 24 |
| 10-hr rate Capacity to 10.8V at 20°C (Ah) | 22.2 |
| **Dimensions** | |
| Length (mm) | 166 (±2) |
| Width (mm) | 175 (±1) |
| Height (mm) | 125 (±0.5) |
| Mass (kg) | 9.8 |
| **Terminal Type** | |
| Threaded terminal - (M=Male or F=Female) | M5 (F) |
| Torque (Nm) | 2.5 |
| **Operating Temperature Range** | |
| Storage (in fully charged condition) | -20°C to +60°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** | |
| Standard | ABS (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 | 14.5 (±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) | No limit |
| Cyclic (or Boost) charge current limit (A) | 6 |
| **Maximum Discharge Current** | |
| 1 second (A) | 500 |
| 1 minute (A) | 150 |
| **Short-Circuit Current & Internal Resistance** | |
| Internal resistance - according to EN IEC 60896-21 (mΩ) | 22.19 |
| Short-Circuit current - according to EN IEC 60896-21 (A) | 656 |
| **Impedance** | |
| Measured at 1 kHz (mΩ) | 9.5 |
| **Design Life & Approvals** | |
| EUROBAT Classification: Long life | 10 to 12 years |
| Yuasa design life at 20°C (yrs) | up to 10 years |




**Layout**



**3rd Party Certifications**

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

Cert. No.: FM 10626

Cert. No.: EMS 55229

## 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.

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