

# Yuasa Technical Data Sheet



## Yuasa NPW45-12FR Industrial VRLA Battery

### Specifications

|   |     |
|---|-----|
| Nominal voltage (V)   | 12  |
| 10m rate Constant Power (Typ) to 9.6V at 20°C (W/Block)     | 273 |
| 10m rate Constant Power (Typ) to 1.6V/cell at 20°C (W/Cell) | 42  |
| 20-hr rate Capacity to 10.5V at 20°C (Ah)                   | 7.5 |
| 10-hr rate Capacity to 10.8V at 20°C (Ah)                   | 6.6 |

### Dimensions

|                            |           |
|----------------------------|-----------|
| Length (mm)                | 151 (±1)  |
| Width (mm)                 | 65 (±1)   |
| Height (mm)                | 94 (±1)   |
| Height over terminals (mm) | 97.5 (±2) |
| Mass (kg)                  | 2.7       |

### Terminal Type

|  |      |
|--|------|
| FASTON - Quickfit / release (JST where stated) | 6.35 |
|--|------|

### Operating Temperature Range

|                                      |                |
|--------------------------------------|----------------|
| Storage (in fully charged condition) | -15°C to +40°C |
| Charge                               | -0°C to +40°C  |
| Discharge                            | -15°C to +50°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) | 2.125    |

### Maximum Discharge Current

|              |     |
|--------------|-----|
| 1 second (A) | 105 |
| 1 minute (A) | 42  |

### Impedance

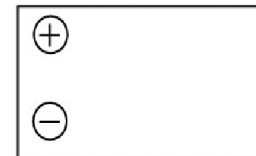
|                        |    |
|------------------------|----|
| Measured at 1 kHz (mΩ) | 24 |
|------------------------|----|

### Design Life & Approvals

|   |         |
|---|---------|
| EUROBAT Classification: Standard Commercial | 3 to 5  |
| Yuasa design life at 20°C (yrs)             | up to 5 |



### 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.

