Yuasa Technical Data Sheet

Yuasa SWL1800FR Industrial VRLA Battery

Specifications Nominal voltage (V)	12
10m rate Constant Power (Typ) to 9.6V at 20°C (W/Block)	1974
10m rate Constant Power (Typ) to 1.6V/cell at 20°C (W/Cell)	329
20-hr rate Capacity to 10.5V at 20°C (Ah) 10-hr rate Capacity to 10.8V at 20°C (Ah)	57.6 55
Dimensions	
Length (mm)	216 (±0.7)
Width (mm)	168 (±0.5)
Height (mm) Mass (kg)	223 (±0.7) 23
Terminal Type	
Threaded terminal - (M=Male or F=Female) Torque (Nm)	M6 (F) 4.8
Operating Temperature Range	
Storage (in fully charged condition)	-20°C to +50°C
Charge	-15°C to +50°C -20°C to +60°C
Discharge	-20 C t0 +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	
Float charge voltage at 20°C (V)/Block	$1 \le 65(\pm 1\%)$
	13.65 (±1%) 2 275 (+1%)
Float charge voltage at 20°C (V)/Cell Float Chg voltage tmp correction factor from std	2.275 (±1%) -3
Float charge voltage at 20°C (V)/Cell Float Chg voltage tmp correction factor from std 20°C (mV)	2.275 (±1%) -3
Float charge voltage at 20°C (V)/Cell Float Chg voltage tmp correction factor from std 20°C (mV) Cyclic (or Boost) charge Voltage at 20°C (V)/Block	2.275 (±1%) -3 14.5 (±3%)
Float charge voltage at 20°C (V)/Cell Float Chg voltage tmp correction factor from std 20°C (mV) Cyclic (or Boost) charge Voltage at 20°C (V)/Block Cyclic (or Boost) charge Voltage at 20°C (V)/Cell	2.275 (±1%) -3 14.5 (±3%) 2.42 (±3%)
Float charge voltage at 20°C (V)/Cell Float Chg voltage tmp correction factor from std 20°C (mV) Cyclic (or Boost) charge Voltage at 20°C (V)/Block	2.275 (±1%) -3 14.5 (±3%) 2.42 (±3%)
Float charge voltage at 20°C (V)/Cell Float Chg voltage tmp correction factor from std 20°C (mV) Cyclic (or Boost) charge Voltage at 20°C (V)/Block Cyclic (or Boost) charge Voltage at 20°C (V)/Cell Cyclic Chg voltage tmp correction factor from std 20°C (mV) Charge Current	2.275 (±1%) -3 14.5 (±3%) 2.42 (±3%) -4
Float charge voltage at 20°C (V)/Cell Float Chg voltage tmp correction factor from std 20°C (mV) Cyclic (or Boost) charge Voltage at 20°C (V)/Block Cyclic (or Boost) charge Voltage at 20°C (V)/Cell Cyclic Chg voltage tmp correction factor from std 20°C (mV) Charge Current Float charge current limit (A)	2.275 (±1%) -3 14.5 (±3%) 2.42 (±3%) -4 No limit
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Float charge voltage at 20°C (V)/Cell Float Chg voltage tmp correction factor from std 20°C (mV) Cyclic (or Boost) charge Voltage at 20°C (V)/Block Cyclic (or Boost) charge Voltage at 20°C (V)/Cell Cyclic Chg voltage tmp correction factor from std 20°C (mV) Charge Current Float charge current limit (A) Cyclic (or Boost) charge current limit (A)	2.275 (±1%) -3 14.5 (±3%) 2.42 (±3%) -4 No limit
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Float charge voltage at 20°C (V)/Cell Float Chg voltage tmp correction factor from std 20°C (mV) Cyclic (or Boost) charge Voltage at 20°C (V)/Block Cyclic (or Boost) charge Voltage at 20°C (V)/Cell Cyclic Chg voltage tmp correction factor from std 20°C (mV) Charge Current Float charge current limit (A) Cyclic (or Boost) charge current limit (A) Maximum Discharge Current 1 second (A) 1 minute (A) Short-Circuit Current & Internal Resistance Internal resistance - according to EN IEC 60896-21	2.275 (±1%) -3 14.5 (±3%) 2.42 (±3%) -4 No limit 13.75 800 500
Float charge voltage at 20°C (V)/Cell Float Chg voltage tmp correction factor from std 20°C (mV) Cyclic (or Boost) charge Voltage at 20°C (V)/Block Cyclic (or Boost) charge Voltage at 20°C (V)/Cell Cyclic Chg voltage tmp correction factor from std 20°C (mV) Charge Current Float charge current limit (A) Cyclic (or Boost) charge current limit (A) Maximum Discharge Current 1 second (A) 1 minute (A) Short-Circuit Current & Internal Resistance Internal resistance - according to EN IEC 60896-21 (m Ω)	2.275 (±1%) -3 14.5 (±3%) 2.42 (±3%) -4 No limit 13.75 800 500 10.09
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Float charge voltage at 20°C (V)/Cell Float Chg voltage tmp correction factor from std 20°C (mV) Cyclic (or Boost) charge Voltage at 20°C (V)/Block Cyclic (or Boost) charge Voltage at 20°C (V)/Cell Cyclic Chg voltage tmp correction factor from std 20°C (mV) Charge Current Float charge current limit (A) Cyclic (or Boost) charge current limit (A) Cyclic (or Boost) charge current 1 second (A) 1 minute (A) Short-Circuit Current & Internal Resistance Internal resistance - according to EN IEC 60896-21 (mΩ) Short-Circuit current - according to EN IEC 60896-21 (A) Impedance Measured at 1 kHz (mΩ)	2.275 (±1%) -3 14.5 (±3%) 2.42 (±3%) -4 No limit 13.75 800 500 10.09
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Layout



3rd Party Certifications

ISO9001 - Quality Management Systems ISO14001 - Environmental Management Systems EN 18001 OHSAS 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.



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