Yuasa Technical Data Sheet

Yuasa SWL1850FR Industrial VRLA Battery

Specifications

Nominal voltage (V)	12
10m rate Constant Power (Typ) to 9.6V at 20°C (W/Block)	1916
10m rate Constant Power (Typ) to 1.6V/cell at 20°C (W/Cell)	319
10-hr rate Capacity to 1.8V/Cell at 20°C (Ah)	66
20-hr rate Capacity to 1.75V/Cell at 20°C (Ah)	74

Dimensions

Length (mm)	350 (±2)
Width (mm)	166 (±1)
Height (mm)	174 (±2)
Mass (kg)	23.3

Terminal Type

Threaded terminal - (M=Male or F=Female)	M6 (F)
Torque (Nm)	4.8

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

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)	16.5

Maximum Discharge Current

1 second (A)	800
1 minute (A)	500

Short-Circuit Current & Internal Resistance

Internal resistance - according to EN IEC 60896-21 (mΩ)	9.35
Short-Circuit current - according to EN IEC 60896-21 (A)	1529

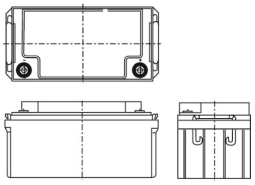
Impedance

Measured at 1 kHz (mΩ)	4.4

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 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.

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