

Yuasa Technical Data Sheet

Yuasa SWL750 Industrial VRLA Battery



Specifications

Nominal voltage (V)	12
10m rate Constant Power (Typ) to 9.6V at 20°C (W/Block)	767
10m rate Constant Power (Typ) to 1.6V/cell at 20°C (W/Cell)	127.83
20-hr rate Capacity to 10.5V at 20°C (Ah)	25.0
10-hr rate Capacity to 10.8V at 20°C (Ah)	22.9

Dimensions

Length (mm)	166 (±0.5)
Width (mm)	175 (±0.5)
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
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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	14.5 (±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)	5.725

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)	20.47
Short-Circuit current - according to EN IEC 60896-21 (A)	714

Impedance

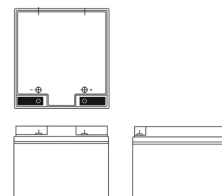
Measured at 1 kHz (mΩ)	8.5
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Design Life & Approvals

EUROBAT Classification: Long life	10 to 12
Yuasa design life at 20°C (yrs)	up to 10



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.



Yuasa Technical Data Sheet

Yuasa SWL1100 Industrial VRLA Battery



Specifications

Nominal voltage (V)	12
10m rate Constant Power (Typ) to 9.6V at 20°C (W/Block)	1202
10m rate Constant Power (Typ) to 1.6V/cell at 20°C (W/Cell)	200.3
20-hr rate Capacity to 10.5V at 20°C (Ah)	40.6
10-hr rate Capacity to 10.8V at 20°C (Ah)	39.6

Dimensions

Length (mm)	197 (±0.5)
Width (mm)	165 (±0.5)
Height (mm)	170 (±0.5)
Mass (kg)	14.5

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
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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	14.5 (±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)	9.9

Maximum Discharge Current

1 second (A)	500
1 minute (A)	200

Short-Circuit Current & Internal Resistance

Internal resistance - according to EN IEC 60896-21 (mΩ)	14.4
Short-Circuit current - according to EN IEC 60896-21 (A)	1005

Impedance

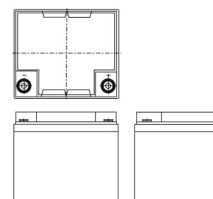
Measured at 1 kHz (mΩ)	7.5
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Design Life & Approvals

EUROBAT Classification: Long life	10 to 12
Yuasa design life at 20°C (yrs)	up to 10



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.



Spezifikationen

Nennspannung (V)	12
10-minütige Konstant-Leistungs-Entladerate bis 9,6V bei 20°C (Watt pro Block)	1974
10-minütige Konstant-Leistungs-Entladerate bis 1,6V bei 20°C (Watt pro Zelle)	329
20-stündige Kapazität bis 10,5V bei 20°C (Ah)	57.6
10-stündige Kapazität bis 10,8V bei 20°C (Ah)	55

Abmessungen

Länge (mm)	216 (±0.7)
Breite (mm)	168 (±0.5)
Höhe (mm)	223 (±0.7)
Gewicht (kg)	23

Anschlusspol Typ

Innengewinde oder Bolzenanschluss	M6 (F)
Drehmoment (Nm)	4.8

Betriebstemperatur-bereich

Lagerung (in voll geladenem Zustand)	-20°C+50°C
Ladung	-15°C to +50°C
Entladung	-20°C to +60°C

Lagerung

Selbstentladung pro Monat bei 20°C in % (ca.)	3
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Gehäusematerial

Standard	ABS (UL94:HB)
FR-Version erhältlich	UL94:V0

Ladespannung

Schwebeladespannung bei 20°C (V)/Block	13.65 (±1%)
Schwebeladespannung bei 20°C (V)/Zelle	2.275 (±1%)
Ladespannungskompensationsfaktor bei Schwebeladung bei Abweichungen von der Standardtemperatur 20°C (mV)	-3
Starkladespannung bei 20°C (V)/Block	14.5 (±3%)
Starkladespannung bei 20°C (V)/Zelle	2.42 (±3%)
Ladespannungskompensationsfaktor bei Starkladung bei Abweichungen von der Standardtemperatur 20°C (mV)	-4

Ladestrom

Ladestrombegrenzung bei Schwebeladung (A)	No limit
Ladestrombegrenzung bei Starkladung (A)	13.75

Maximaler Entladestrom

1 Sekunde (A)	800
1 Minute (A)	500

Kurzschlussstrom & Innenwiderstand

Innenwiderstand gemäß EN IEC 60896-21 (mΩ)	10.09
Kurzschlussstrom gemäß EN IEC 60896-21 (A)	1437

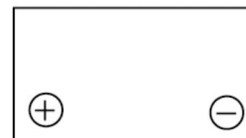
Impedanz

Gemessen bei 1kHz (mΩ)	6
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Gebrauchsdauer und Standards

EUROBAT-Klasse: Long life	10-12
YUASA-Gebrauchsdauer bei 20°C (Jahre)	bis zu 10

Layout



Zertifikate von Unabhängigen Institutionen

ISO 9001 - Quality Management System
ISO14001 - Environmental Management System
EN 18001 - OHSAS Management System
UNDERWRITERS LABORATORIES Inc.



Sicherheit

Einbau

Kann in beliebiger Lage installiert und betrieben werden, außer dauerhaft über Kopf.

Tragegriffe

Batterien nicht dauerhaft an den Tragegriffen hängend installieren (wo vorhanden).

Ventile

Um den Gasdruck auszugleichen, ist jede Zelle mit einem Niederdruckventil ausgestattet, das nach dem Öffnen wieder schließt.

Gasung

VRLA Batterien setzen Wasserstoffgas frei, das in Verbindung mit Luft eine explosive Mischung bilden kann. Die Batterien dürfen deshalb nicht in gasdichten Gehäusen gelagert oder betrieben werden.

Entsorgung

Yuasa VRLA Batterien müssen am Ende ihrer Gebrauchsdauer gemäß den lokalen und nationalen Gesetzen und Richtlinien entsorgt werden.



Yuasa Technical Data Sheet



Yuasa SWL1800 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)	57.6
10-hr rate Capacity to 10.8V at 20°C (Ah)	55

Dimensions

Length (mm)	216 (±0.7)
Width (mm)	168 (±0.5)
Height (mm)	223 (±0.7)
Mass (kg)	23

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
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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	14.5 (±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)	13.75

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)	10.09
Short-Circuit current - according to EN IEC 60896-21 (A)	1437

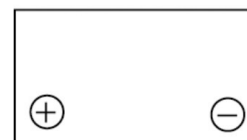
Impedance

Measured at 1 kHz (mΩ)	6
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Design Life & Approvals

EUROBAT Classification: Long life	10 to 12
Yuasa design life at 20°C (yrs)	up to 10

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.



Yuasa Technical Data Sheet

Yuasa SWL1850 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)	319.3
20-hr rate Capacity to 10.5V at 20°C (Ah)	74.0
10-hr rate Capacity to 10.8V at 20°C (Ah)	66

Dimensions

Length (mm)	350 (±0.7)
Width (mm)	166 (±0.5)
Height (mm)	174 (±0.5)
Mass (kg)	23.8

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
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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	14.5 (±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

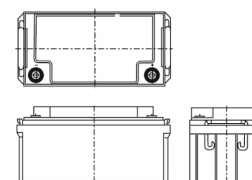
Measured at 1 kHz (mΩ)	4.4
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Design Life & Approvals

EUROBAT Classification: Long life	10 to 12
Yuasa design life at 20°C (yrs)	up to 10



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.



Yuasa Technical Data Sheet

Yuasa SWL2500E Industrial VRLA Battery



Specifications

Nominal voltage (V)	12
10m rate Constant Power (Typ) to 9.6V at 20°C (W/Block)	2940
10m rate Constant Power (Typ) to 1.6V/cell at 20°C (W/Cell)	490
20-hr rate Capacity to 10.5V at 20°C (Ah)	93.6
10-hr rate Capacity to 10.8V at 20°C (Ah)	91.4

Dimensions

Length (mm)	305 (±0.7)
Width (mm)	168 (±0.5)
Height (mm)	225 (±0.7)
Mass (kg)	33

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
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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	14.5 (±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)	22.5

Maximum Discharge Current

1 second (A)	1000
1 minute (A)	500

Short-Circuit Current & Internal Resistance

Internal resistance - according to EN IEC 60896-21 (mΩ)	6.5
Short-Circuit current - according to EN IEC 60896-21 (A)	2258

Impedance

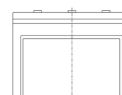
Measured at 1 kHz (mΩ)	4
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Design Life & Approvals

EUROBAT Classification: Long life	10 to 12
Yuasa design life at 20°C (yrs)	up to 10



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.



Yuasa Technical Data Sheet

Yuasa SWL3300 Industrial VRLA Battery



Specifications

Nominal voltage (V)	12
10m rate Constant Power (Typ) to 9.6V at 20°C (W/Block)	3300
10m rate Constant Power (Typ) to 1.6V/cell at 20°C (W/Cell)	550
20-hr rate Capacity to 10.5V at 20°C (Ah)	110.2
10-hr rate Capacity to 10.8V at 20°C (Ah)	102

Dimensions

Length (mm)	350 (±0.7)
Width (mm)	168 (±0.5)
Height (mm)	225 (±0.7)
Mass (kg)	37.5

Terminal Type

Threaded terminal - (M=Male or F=Female)	M8 (F)
Torque (Nm)	6

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
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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	14.5 (±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)	25.625

Maximum Discharge Current

1 second (A)	1100
1 minute (A)	550

Short-Circuit Current & Internal Resistance

Internal resistance - according to EN IEC 60896-21 (mΩ)	5.64
Short-Circuit current - according to EN IEC 60896-21 (A)	2547

Impedance

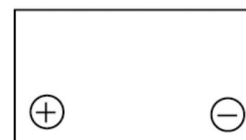
Measured at 1 kHz (mΩ)	3.5
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Design Life & Approvals

EUROBAT Classification: Long life	10 to 12
Yuasa design life at 20°C (yrs)	up to 10



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.

