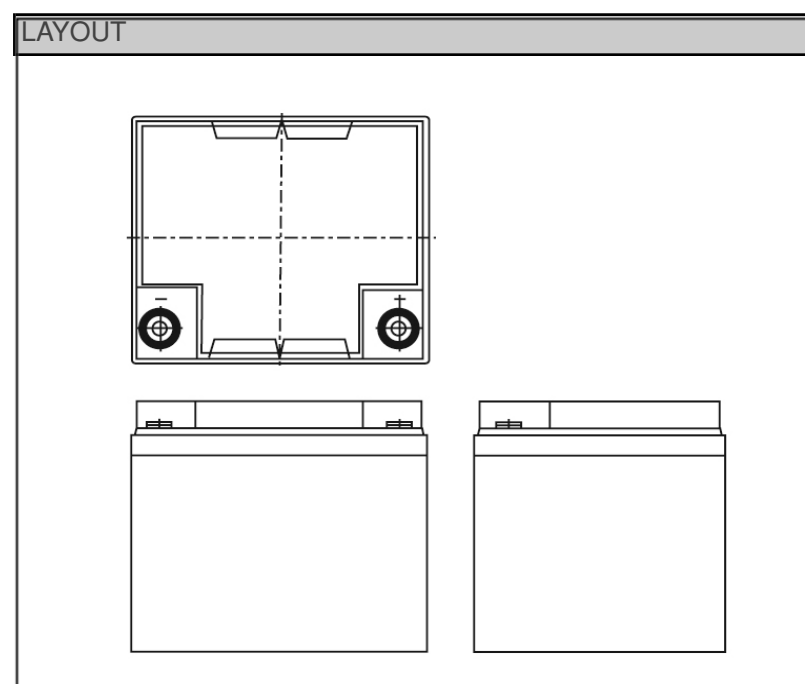


## SWL-Series - Valve Regulated Lead Acid Battery

### SWL1100 (FR)

| SPECIFICATIONS  |   |            |
|---|---|------------|
| Nominal voltage   | 12  | V          |
| 10-min rate Constant Power to 9.6V at 20°C  | 1100  | Watts      |
| 10-min rate Constant Power to 1.6V/cell at 20°C   | 183   | Watts      |
| 10-hr rate Capacity to 10.8V at 20°C  | 39.6  | Ah         |
| DIMENSIONS  |   |            |
| Length  | 197 (±0.5)  | mm         |
| Width   | 165 (±0.5)  | mm         |
| Height  | 170 (±0.5)  | mm         |
| (height over terminals)   | N/A   | mm         |
| Mass (typical)  | 14.0  | kg         |
| TERMINAL TYPE   |   |            |
| Female threaded terminal  | M5  | mm         |
| Torque  | 2.5   | Nm         |
| 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 Option   | ABS (UL.94:HB)  |            |
| Flame retardant option (FR)   | ABS (UL94:V0)   |            |
| CHARGE VOLTAGE  |   |            |
| Float charge voltage at 20°C  | 13.65 (±1%)   | V          |
|   | 2.275 (±1%)   | V/cell     |
| Float Charge voltage temperature correction factor (for variations from the standard 20°C)  | -3  | mV/cell/°C |
| Cyclic (or Boost) charge at 20°C  | 14.5 (±3%)  | V          |
|   | 2.42 (±3%)  | V/cell     |
| Cyclic Charge voltage temperature correction factor (for variations from the standard 20°C) | -4  | mV/cell/°C |
| CHARGE CURRENT  |   |            |
| Float charge current limit  | No limit  | A          |
| Cyclic (or Boost) charge current limit  | 9.90  | A          |
| MAXIMUM DISCHARGE CURRENT   |   |            |
| 1 second  | 500   | A          |
| 1 minute  | 200   | A          |
| SHORT-CIRCUIT CURRENT & INTERNAL RESISTANCE<br>(according to EN IEC 60896-21)               |   |            |
| Internal resistance   | N/A   | mΩ         |
| Short-Circuit current   | N/A   | A          |
| IMPEDANCE   |   |            |
| Measured at 1 kHz   | 7.5   | mΩ         |
| PERFORMANCE & CHARACTERISTICS   |   |            |
| Refer to the technical manual   | SWL   |            |
| DESIGN LIFE   |   |            |
| EUROBAT Classification: High Performance  | 10 to 12  | years      |
| Yuasa design life (at 20°C)   | up to 10  | years      |
| SAFETY  |   |            |
| <b>Installation</b>   | Can be installed and operated in any orientation except permanently inverted  |            |
| <b>Handles</b>  | Batteries must not be suspended by their handles (where fitted)   |            |
| <b>Vent valves</b>  | Each cell is fitted with a low pressure release valve to allow gasses to escape and then reseal.                      |            |
| <b>Gas Release</b>  | VRLA Batteries release hydrogen gas which can form explosive mixtures in air. Do not place inside a sealed container  |            |
| <b>Recycling</b>  | YUASA's VRLA batteries must be recycled at the end of life in accordance with local and national laws and regulations |            |



#### 3RD PARTY CERTIFICATIONS

ISO 9001 - Quality Management Systems  
 ISO 14001 - Environmental Management Systems  
 EN 18001 - OHSAS Management Systems  
 TL4423-6 by DeTelImmobilien  
 UNDERWRITERS LABORATORIES Inc.



#### STANDARDS

IEC61056  
 IEC60896-21/22



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