



SWL



SWL Series

VALVE REGULATED LEAD-ACID BATTERIES

SWL

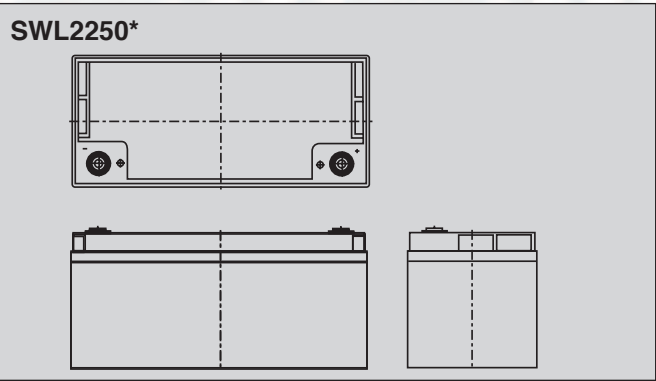
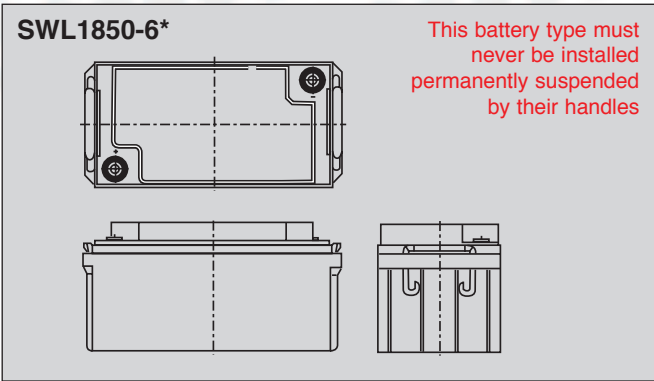
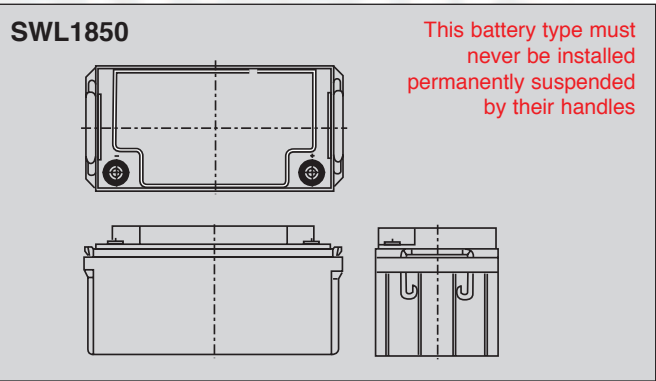
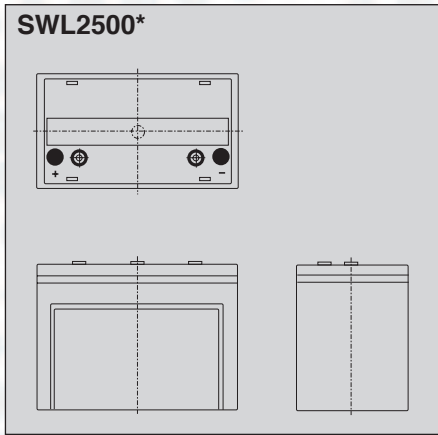
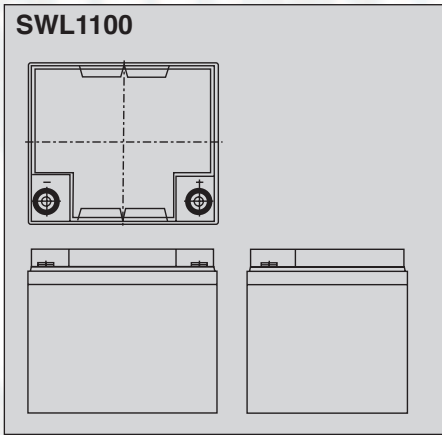
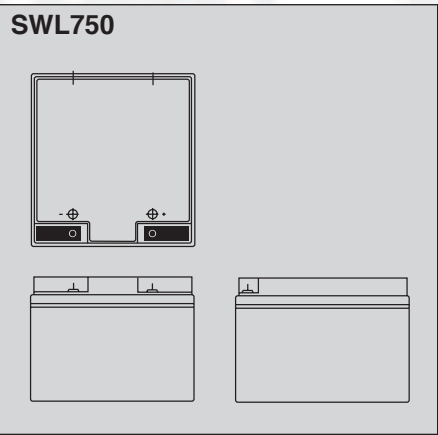
SWL VALVE REGULATED LEAD-ACID BATTERIES (VRLA)

The SWL range is an enhanced NPL design resulting in an improved energy to density ratio, giving up to 40% extra discharge capacity. All other attributes and operational characteristics are the same, thereby maintaining the benefit of a common mechanical and electrical design for users of both products.

FEATURES

- Yuasa VRLA batteries can be used in any orientation excluding continuous use inverted.
- Standard case material is flame retardant to (UL94) HBØ.
- FR option case material is flame retardant to UL94:VØ (oxygen index 30).
- SWL batteries are manufactured in factories that comply with ISO9001:2000.
- FR option SWL's comply with BS6290 Part 4 (1997).
- SWL batteries comply with IEC 60896-21+22.

Layouts



Terminals (mm)

Terminal	X	Y	L
B	17mm	M5	10
C	20mm	M6	16
D	20mm	M8	16

The diagram shows the terminal dimensions. It includes a side view of a terminal with dimensions X, Y, and L indicated. X is the width of the terminal, Y is the height of the terminal, and L is the length of the terminal.

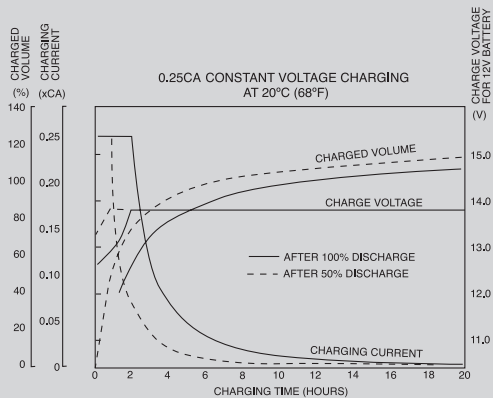
*Models available in Flame Retardent case only.

General Specifications

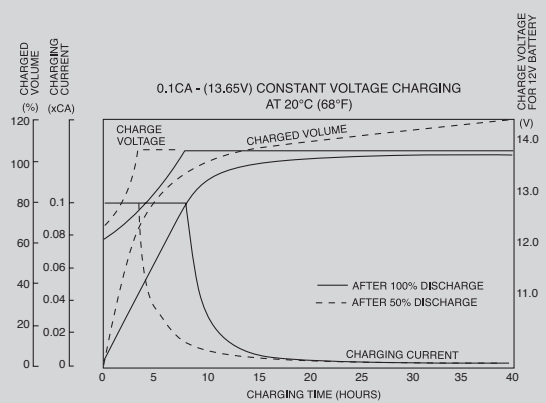
Specifications	SWL 750	SWL1100	SWL1800*	SWL1850	SWL2250*	SWL1850-6*	SWL2500*
1) Nominal Voltage	12	12	12	12	6	12	12
2) Nominal Wattage/Cell							
10 min to 1.6V/Cell	128	200	300	319	375	-	490
5 min to 1.6V/Cell	196	285	443	453	524	-	650
3 min to 1.6V/Cell	239	346	511	536	582	-	750
3) Weight (Approx)/Kg	9.3	14.5	22	23.8	28.4	23.5	36
4) Energy Density (Wh/L)	88	96	81.5	88	100	90	95
5) Specific Energy (Wh.kg) 10HR	36	37	28.7	39	40	40	31
6) Internal Resistance (Approx)/mohm	8.5	6	6	4.4	3.6	1.6	6
7) Maximum (1 min) discharge Current/A	150	200	165	500	500	500	500
8) Maximum Short Duration (1 sec) Discharge Current in Amperes	500	500	450	800	800	800	800
9) Operating Temperatures/°C							
Charge	-15 to 50	-15 to 50	-15 to 50	-15 to 50	-15 to 50	-15 to 50	-15 to 50
Discharge	-20 to 60	-20 to 60	-20 to 60	-20 to 60	-20 to 60	-20 to 60	-20 to 60
10) Percentage Charge Retention at 20°C							
1 month	97	97	97	97	97	97	97
3 months	91	91	91	91	91	91	91
6 months	85	85	85	85	85	85	85
11) Standard Terminal Type	I Type Zn alloy casting B	Lead post with brass insert B	Lead post with brass insert C	Lead post with brass insert D	Lead post with brass insert C	Lead post with brass insert C	Lead post with brass insert C
12) Torque Nm	2.45	2.45	4.76	4.76	6.1	4.76	6
13) Case Material	ABS	ABS	ABS	ABS	ABS	ABS	ABS
Dimensions / mm							
Length +/-1	166	197	216	350	380	350	305
Width +/-1	175	165	168	166	166	166	173
Height +/-2	125	170	223	174	177.5	174	223

*Models available in Flame Retardent case only.

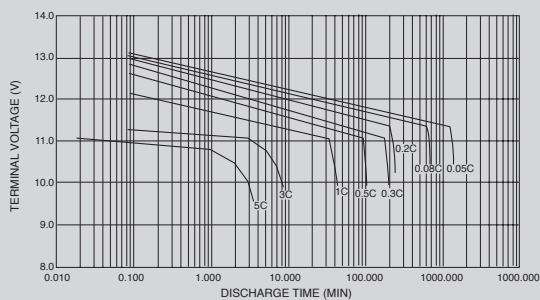
CHARGING CHARACTERISTICS



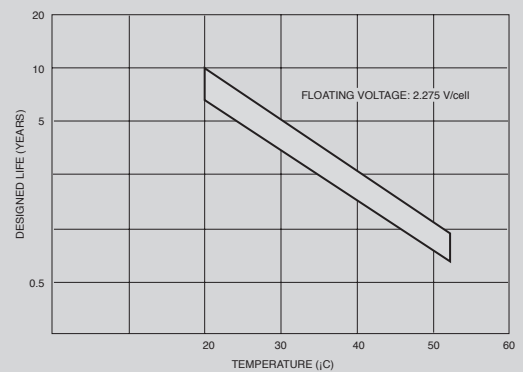
CHARGING CHARACTERISTICS



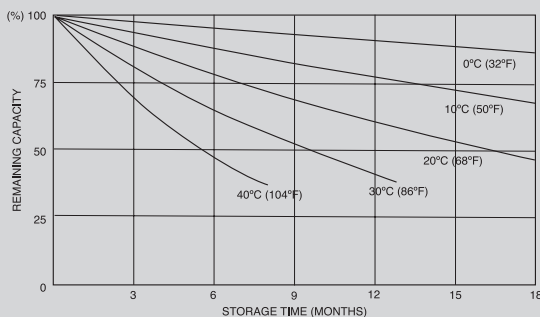
DISCHARGE CHARACTERISTIC CURVES



TEMPERATURE/LIFE CHARACTERISTIC



SELF DISCHARGE CHARACTERISTICS



Charging Methods (At 20°C)

Standby use: Float charging voltage 2.275vpc

CAUTION

- Avoid short circuit.
- Do not charge in a sealed container.
- Service life and operational characteristics will be affected by temperature.
- AC Ripple reduces service life.

WARNING!

SWL (Standard) and (FR) battery types SWL1850; SWL1850-6; SWL2500, must never be installed permanently suspended by their handles; they are not designed for this purpose.



Yuasa Battery Sales (UK) Ltd

Unit 22 Rassau Industrial Estate
Ebbw Vale, Gwent, NP23 5SD
Tel: 08708 500312 Fax: 08708 500317
E-mail: enquiries@yuasa-sales.co.uk

Registered number 1548820

Cat. No. SWLSF April 06

E&O.E.

Distributed by