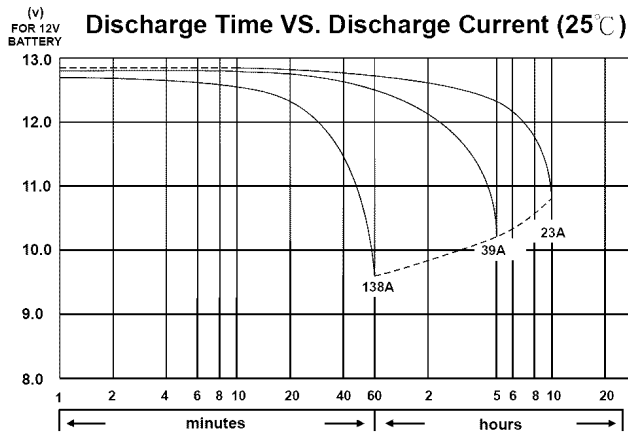
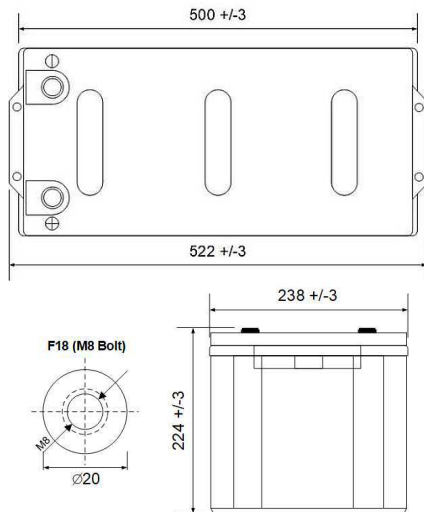


SHL230

12V VRLA BATTERY



VALVE REGULATED LEAD ACID BATTERIES – AGM



Nominal Voltage Type 12 V
AGM VRLA

Nominal Capacity
10 hours rate 230Ah
5 hours rate 196Ah
1 hour rate 138Ah
1C 86Ah

Weight 73.2kg

Internal Resistance 2.5mΩ@1kHz

Maximum Discharge Current for
5 sec. 1840A
Short Circuit 3600A

Operating Temperature Range
Charge -15°C ÷ 40°C
Discharge -15°C ÷ 50°C
Storage -15°C ÷ 40°C

Charge Retention (shelf life) at 20°C

1 month 98%
3 months 94%
6 months 85%

Charging Methods at 20°C

Max. Charging Current 69 A
Charging Voltage 14.4 ÷ 15.0V
Cycle use: 13.5 ÷ 13.8V
Standby use: 13.5 ÷ 13.8V
Thermal Coeff. Cycle/St.By -5.0/-3.0 mV/°C/cell

Life expectancy

Cycle Use
100% depth of discharge 250 cycles
50% depth of discharge 600 cycles
30% depth of discharge 1200 cycles
Standby Use 10/12 years Long Life (EUROBAT)

Case Material ABS UL94 HB

Terminal F18 (M8 Bolt)
Torque value (Max.) 12Nm (15Nm)

Standards and Certifications: CE, IEC 62056-1, IEC 60896-21-1, IEC 60896-22-1, IEC 61000-6-1, IEC 61000-6-3

Constant Power Discharge Characteristics (25°C) [Watt]

| Cut Off | Time | | | | | | | | | | | |
|---------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|
| | 5' | 10' | 15' | 30' | 1H | 1.5H | 2H | 3H | 4H | 5H | 10H | 20H |
| 11.1V | 6 732 | 5 341 | 4 421 | 2 848 | 1 642 | 1 182 | 966 | 708 | 553 | 474 | 257 | 139 |
| 10.8V | 7 405 | 5 826 | 4 778 | 3 041 | 1 760 | 1 284 | 1 020 | 750 | 582 | 496 | 269 | 146 |
| 10.5V | 7 994 | 6 264 | 5 125 | 3 249 | 1 867 | 1 347 | 1 062 | 774 | 600 | 509 | 278 | 150 |
| 10.2V | 8 415 | 6 594 | 5 392 | 3 431 | 1 955 | 1 398 | 1 092 | 792 | 618 | 520 | 285 | 153 |
| 10.0V | 8 617 | 6 746 | 5 515 | 3 512 | 1 994 | 1 423 | 1 104 | 798 | 624 | 523 | 287 | 154 |
| 9.9V | 8 777 | 6 872 | 5 637 | 3 592 | 2 033 | 1 449 | 1 116 | 804 | 630 | 527 | 290 | 155 |
| 9.6V | 9 130 | 7 150 | 5 854 | 3 700 | 2 072 | 1 481 | 1 140 | 816 | 636 | 533 | 294 | 157 |

Due to continuous product improvement, the design and specifications are subject to change without prior notice.