



HRL Series

HRL 12390W Datasheet

12V Top Terminal VRLA-AGM



Valve Regulated Lead Acid (VRLA) Battery

Maintenance-Free, Absorbent Glass Mat (AGM) Technology for Efficient Gas Recombination of up to 99%

Pure Lead Construction and Proprietary Elements

Designed for High-Rate UPS, Float Service Standby Power Applications

Built in Accordance with IEC 60896-21/22:2004 and UL1989 Recognized (MH14533)



Specifications

| | |
|---|---|
| Voltage (Vdc) | 12 |
| Nominal Capacity (1.67 VPC @25°C) | 390W @15min-rate |
| Watts Per Cell (30-Sec 1.67 VPC @ 25°C) | -- |
| Watts Per Cell (5-Min 1.67 VPC @ 25°) | 700 |
| Watts Per Cell (15-Min 1.67 VPC @ 25°) | 414 |
| Max Charge Current (A) | 39.0 |
| Max Discharge Current (A) | 800 |
| Short Circuit Current (A) | 2779 |
| Internal Resistance (mΩ) | Approx. 3.00 |
| Terminal Type | I2 thread lead alloy terminal to accept M6 bolt |
| Terminal Torque | 51.7±10.3 Kgf·cm / 44.9±9.0 Lbf·in / 5.10±1.0 N·m |
| Container Material | PP (UL 94-HB) & Flame Retardant (94-V0) available upon request |
| Weight (kg. / lb., Approx.) | 33.00 / 72.73 |
| Length (L) (mm / in) | 343.0±2.5 / 13.50±0.10 |
| Width (W) (mm / in) | 170.0±2.0 / 6.69±0.08 |
| Height (H) (mm / in) | 216.9±2.5 / 8.54±0.10 |
| Design Life | Up to 10 Years in Standby Service at 25°C Eurobat (20°C): >12 Years Very Long Life |
| Operating Temperature | Nominal: 25°C (77°F) Discharge: -15°C - 50°C (5°F-122°F) Charge/Storage: -15°C - 40°C (5°F - 104°F) |
| Float Charging Voltage | 13.5 - 13.8 Vdc/battery 25°C (77°F) |
| Eq. Charging Voltage | 14.4 - 15.0 Vdc/battery 25°C (77°F) |
| Self-Discharge | Less than 10% after 90 days, can be stored up to 6 months at 25°C (77°F); Fully recharging is required before usage, and charged sooner if stored at higher temperature than 25°C (77°F). |



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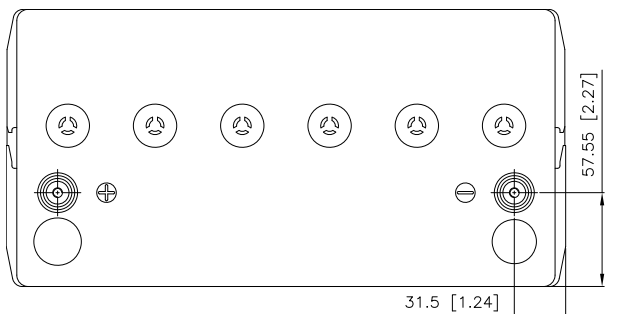
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Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

| F.V/Time | 2MIN | 4MIN | 5MIN | 6MIN | 8MIN | 10MIN | 15MIN | 20MIN | 30MIN | 45MIN | 60MIN | 90MIN |
|-------------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 10.02V (1.67 VPC) | 532 | 456 | 416 | 386 | 334 | 298 | 230 | 186 | 138 | 99.6 | 78.9 | 56.8 |
| 10.50V (1.75 VPC) | 463 | 384 | 354 | 330 | 296 | 266 | 212 | 174 | 132 | 96.1 | 76.7 | 55.7 |
| 10.80V (1.80 VPC) | 382 | 330 | 310 | 296 | 266 | 239 | 197 | 163 | 125 | 91.8 | 73.8 | 54.2 |

Constant Power Discharge Characteristics Unit: W (25°C, 77°F)

| F.V/Time | 2MIN | 4MIN | 5MIN | 6MIN | 8MIN | 10MIN | 15MIN | 20MIN | 30MIN | 45MIN | 60MIN | 90MIN |
|-------------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 10.02V (1.67 VPC) | 5312 | 4557 | 4197 | 3919 | 3518 | 3141 | 2483 | 2039 | 1545 | 1130 | 906 | 663 |
| 10.50V (1.75 VPC) | 4583 | 3970 | 3736 | 3555 | 3190 | 2861 | 2348 | 1943 | 1488 | 1098 | 885 | 653 |
| 10.80V (1.80 VPC) | 4044 | 3587 | 3451 | 3253 | 2893 | 2641 | 2215 | 1843 | 1423 | 1059 | 858 | 639 |



Detail A Drawing(4:1)

