

Complying standards:
IEC 61056-1/2-2002
JIS C8702-1/2-2009

AGM TECHNOLOGY
ABT Enduro EHP Series



EHP12-180

12V180Ah(10hr)

High Performance

The ABT Enduro EHP range of VRLA lead acid batteries have been designed specifically for use in applications which demand the highest levels of security and reliability. With proven compliance to the most rigorous international standards.

Enduro EHP is recognized as premium battery for Telecom/IT, Power Utilities applications. Enduro's reputation for long service life combined with excellent high rate performance also makes it the number one choice for high integrity, high specification UPS systems.

Mechanical Characteristics

| | SI Unit | English Unit |
|--|---------|--------------|
| Length | 521mm | 20.51inch |
| Width | 269mm | 10.59inch |
| Height | 220mm | 8.66inch |
| Total Height | 225mm | 8.86inch |
| Approx. Weight | 71.6Kg | 157.88lbs |
| Type of material for box and lids : ABS Standard (FV0 Optional) | | |

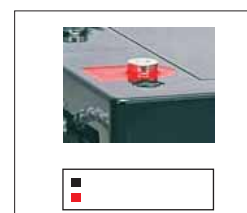
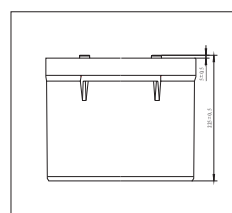
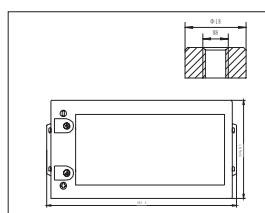
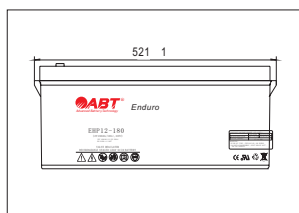
Product Characteristics

- Thick Pb-Ca-Sn alloy grids designed to resist corrosion and prolong life
- Low resistance microporous glass fibre separator
- Low specific acid density
- High integrity pillar seal
- Maintenance-Free Operation
- Low Pressure Venting System
- Low Self Discharge
- U. L. Components Recognition
- Six months shelf life at 20°C
- Design life 12+ years

Performance Characteristics

| | |
|------------------------------|---|
| Nominal Voltage | 12V |
| Number of Cell | 6 |
| Nominal Capacity 20°C (68°F) | 10 hour rate (18.0A, 10.8V) 180.00Ah 8 hour rate (21.08A, 10.5V) 168.64Ah 1 hour rate (109.8A, 10.5V) 109.80Ah |
| Intensity | |
| Max. Discharge Current | 20°C (68°F) 1440A(5s) |
| Short circuit current | 3000A |
| Maximum charge current | 36A(20% of rated capacity) |
| Internal Resistance | Fully Charged battery 20°C (68°F) 4.0mOhms |
| Mass Energy(Wh/kg) | 30.17 |
| Volumic Energy(Wh/L) | 70.06 |
| Self-Discharge | 3% of capacity declined per month at 20°C(average) |
| Operating Temperature Range | Discharge -20~60°C Charge -10~60°C Storage -20~60°C |
| Charge Methods: | Constant Voltage Charge 20°C (68°F) Cycle use 14.04-14.28V Temperature compensation -24mV/°C/unit Standby use 13.44-13.68V Temperature compensation -21mV/°C/unit |
| Terminal Type | Inserted Thread and bolt M8X φ 18 |
| Torque strength in Nm | 12~16 |
| Handle Type | Incorporated |
| Flame arrester | Yes |

Dimensions / Terminal



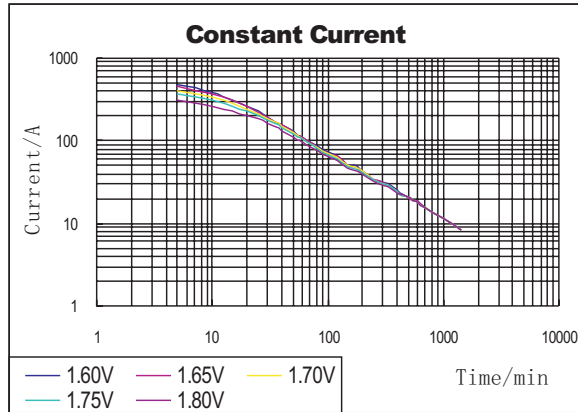
Constant Current Discharge Data (Amperes at 20°C / 68°F)

| End Volt. Per Cell | 5min | 10min | 15min | 20min | 25min | 30min | 35min | 40min | 45min | 50min | 55min | 1h | 1.5h | 2h | 2.5h | 3h | 4h | 5h | 6h | 7h | 8h | 9h | 10h | 12h | 24h |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|------|
| 1.60V | 538.9 | 430.0 | 346.5 | 281.1 | 226.5 | 195.5 | 172.0 | 156.4 | 144.0 | 131.4 | 121.0 | 112.3 | 80.4 | 63.0 | 53.4 | 47.3 | 38.3 | 31.2 | 26.99 | 23.46 | 21.50 | 19.91 | 18.60 | 15.54 | 8.18 |
| 1.65V | 491.4 | 399.4 | 328.3 | 267.4 | 218.6 | 190.6 | 169.1 | 154.3 | 142.0 | 129.8 | 119.9 | 111.3 | 79.4 | 62.1 | 52.8 | 46.9 | 37.7 | 30.9 | 26.70 | 23.24 | 21.30 | 19.77 | 18.42 | 15.45 | 8.15 |
| 1.70V | 450.4 | 374.7 | 312.7 | 253.7 | 211.1 | 185.4 | 166.0 | 152.1 | 140.6 | 128.2 | 118.8 | 110.6 | 77.5 | 61.3 | 52.2 | 46.4 | 37.1 | 30.5 | 26.40 | 23.06 | 21.20 | 19.59 | 18.28 | 15.36 | 8.11 |
| 1.75V | 419.0 | 351.5 | 300.3 | 241.8 | 203.6 | 180.3 | 162.5 | 149.9 | 139.0 | 126.9 | 117.6 | 109.8 | 76.4 | 60.5 | 51.7 | 46.0 | 36.6 | 30.2 | 26.05 | 22.88 | 21.08 | 19.41 | 18.15 | 15.27 | 8.02 |
| 1.80V | 378.2 | 335.7 | 290.0 | 223.3 | 195.0 | 174.9 | 158.7 | 147.2 | 137.2 | 125.2 | 116.2 | 108.9 | 75.3 | 59.7 | 51.1 | 45.5 | 36.1 | 29.8 | 25.69 | 22.70 | 21.00 | 19.23 | 18.00 | 15.22 | 7.87 |

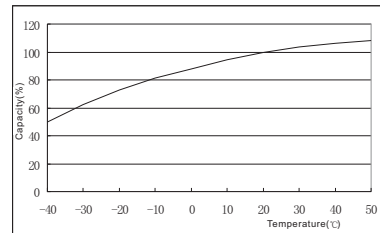
Constant Power Discharge Data (Watts per cell at 20°C / 68°F)

| End Volt. Per Cell | 5min | 10min | 15min | 20min | 25min | 30min | 35min | 40min | 45min | 50min | 55min | 1h | 1.5h | 2h | 2.5h | 3h | 4h | 5h | 6h | 7h | 8h | 9h | 10h | 12h | 24h |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V | 900.0 | 689.4 | 567.4 | 476.8 | 412.5 | 361.4 | 318.1 | 284.4 | 259.1 | 238.2 | 220.8 | 205.7 | 152.6 | 121.6 | 101.5 | 84.5 | 71.6 | 59.9 | 51.30 | 45.21 | 41.36 | 38.10 | 35.46 | 29.93 | 16.80 |
| 1.65V | 833.5 | 656.1 | 544.4 | 452.7 | 395.5 | 350.4 | 308.4 | 276.0 | 253.5 | 234.4 | 218.5 | 204.1 | 151.1 | 120.1 | 100.2 | 83.5 | 70.8 | 59.3 | 50.92 | 44.90 | 41.20 | 37.97 | 35.33 | 29.78 | 16.67 |
| 1.70V | 782.1 | 620.7 | 516.7 | 436.4 | 381.0 | 338.7 | 299.6 | 268.5 | 247.9 | 230.7 | 215.5 | 202.5 | 149.2 | 118.4 | 98.9 | 82.4 | 70.1 | 58.7 | 50.52 | 44.62 | 41.00 | 37.79 | 35.27 | 29.68 | 16.58 |
| 1.75V | 744.0 | 584.8 | 486.7 | 416.7 | 364.0 | 325.8 | 289.4 | 261.1 | 241.9 | 225.9 | 212.2 | 200.4 | 146.7 | 116.5 | 97.6 | 81.4 | 69.1 | 58.1 | 50.14 | 44.34 | 40.90 | 37.66 | 35.18 | 29.60 | 16.49 |
| 1.80V | 700.0 | 544.6 | 462.9 | 393.6 | 347.3 | 313.1 | 278.3 | 254.3 | 236.2 | 220.7 | 208.3 | 198.5 | 143.8 | 114.4 | 96.0 | 80.2 | 68.3 | 57.5 | 49.77 | 44.09 | 40.70 | 37.50 | 35.08 | 29.50 | 16.42 |

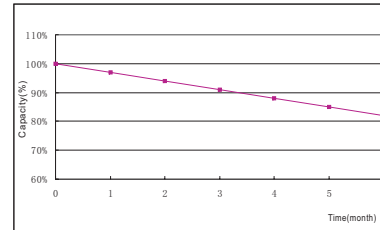
Constant Current Discharge Curve



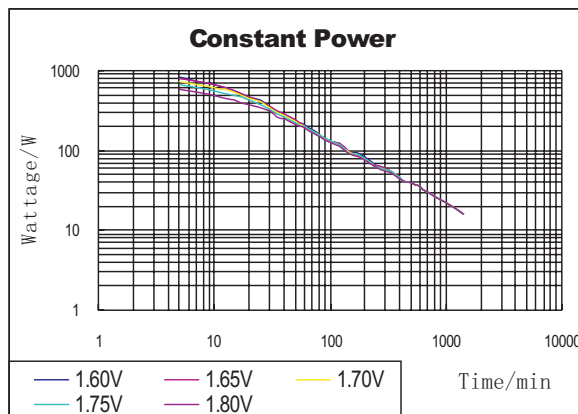
Capacity Vs Temperature



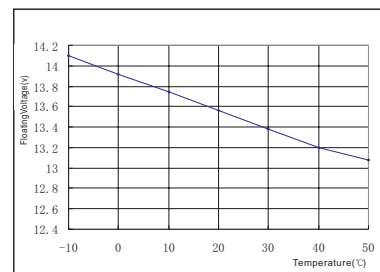
Self Discharge



Constant Power Discharge Curve



Floating Charge Voltage Vs Temperature



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ABT VRLA Battery: Available Power Range From 7Ah to 3000Ah

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