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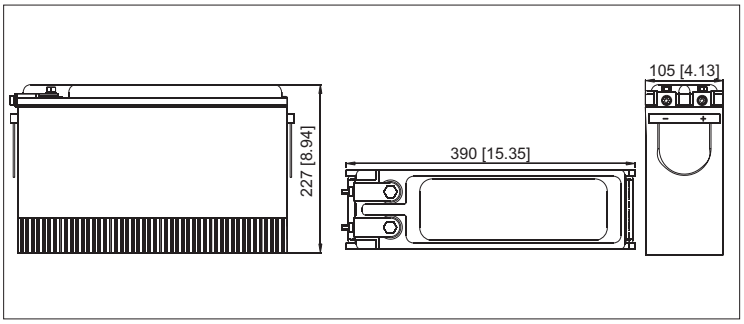
# Model: 6-GFM-50F

MP SERIES

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS heat seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℉).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-50F |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 50Ah (10hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 21. 5kg |
| Internal Resistance | Approx 8. 32mΩ |
| Operating Temperature Range | Operation(maximum): -40°C to 55°C(-40°F to 131°F)<br>Operation(recommended): 15°C to 25°C(59°F to 77°F)<br>Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 12. 5A |
| Equalize and Cycle Serivice | 2.35V~2.40V/cell@25°C(77°F) |
| Self Discharge | The residual capacity is above 90% after 90 days storage(25°C/77°F) |
| Terminal | M6 Female |
| Terminal Hardware Torque | 10 ± 1. 0Nm |
| Container Material | ABS (V0 optional) |

## Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 163 | 87.4 | 53.0 | 38.4 | 31.0 | 17.8 | 13.9 | 10.7 | 9.60 | 8.06 | 6.26 | 5.15 | 4.38 | 2.72 | 2.27 |
| 1.67V | 153 | 84.3 | 52.0 | 38.1 | 30.8 | 17.7 | 13.7 | 10.6 | 9.50 | 8.02 | 6.19 | 5.08 | 4.33 | 2.70 | 2.25 |
| 1.70V | 151 | 82.8 | 51.3 | 37.8 | 30.6 | 17.6 | 13.6 | 10.6 | 9.40 | 8.02 | 6.19 | 5.09 | 4.29 | 2.69 | 2.25 |
| 1.75V | 139 | 80.2 | 50.8 | 37.5 | 30.2 | 17.1 | 13.4 | 10.5 | 9.30 | 7.96 | 6.13 | 5.05 | 4.29 | 2.68 | 2.25 |
| 1.80V | 125 | 74.8 | 48.7 | 36.0 | 29.4 | 17.0 | 13.4 | 10.4 | 9.05 | 7.80 | 6.09 | 5.00 | 4.26 | 2.66 | 2.24 |
| 1.83V | 119 | 68.5 | 47.7 | 34.8 | 28.1 | 16.7 | 12.9 | 9.94 | 8.76 | 7.53 | 5.94 | 4.81 | 4.08 | 2.65 | 2.21 |
| 1.85V | 111 | 66.4 | 44.4 | 33.4 | 27.2 | 16.1 | 12.6 | 9.81 | 8.55 | 7.37 | 5.75 | 4.78 | 4.06 | 2.60 | 2.19 |

## Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 272 | 153 | 95.7 | 72.0 | 58.3 | 33.6 | 26.5 | 20.5 | 18.4 | 15.5 | 12.2 | 9.98 | 8.47 | 5.38 | 4.51 |
| 1.67V | 262 | 151 | 94.9 | 71.6 | 58.0 | 33.5 | 26.1 | 20.5 | 18.3 | 15.5 | 12.0 | 9.90 | 8.41 | 5.37 | 4.51 |
| 1.70V | 260 | 149 | 94.9 | 71.4 | 57.8 | 33.3 | 26.1 | 20.4 | 18.1 | 15.5 | 12.0 | 9.85 | 8.33 | 5.35 | 4.50 |
| 1.75V | 243 | 148 | 94.5 | 71.3 | 57.0 | 33.2 | 25.9 | 20.4 | 18.0 | 15.4 | 11.9 | 9.82 | 8.32 | 5.34 | 4.50 |
| 1.80V | 227 | 140 | 92.3 | 69.6 | 56.8 | 33.1 | 25.8 | 20.3 | 17.6 | 15.3 | 11.9 | 9.78 | 8.30 | 5.34 | 4.49 |
| 1.83V | 219 | 128 | 91.2 | 67.5 | 54.5 | 32.7 | 25.2 | 19.6 | 17.3 | 14.8 | 11.8 | 9.53 | 8.13 | 5.33 | 4.46 |
| 1.85V | 207 | 125 | 84.7 | 64.8 | 52.8 | 31.6 | 24.5 | 19.3 | 16.8 | 14.5 | 11.4 | 9.46 | 8.08 | 5.23 | 4.42 |

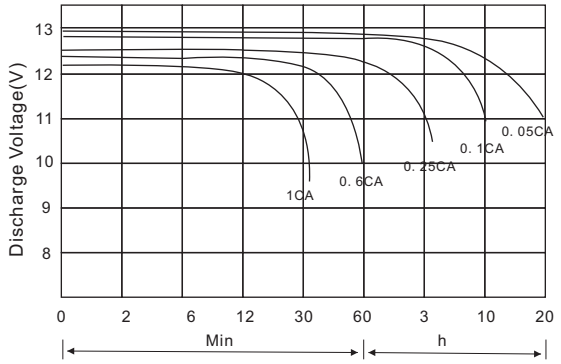
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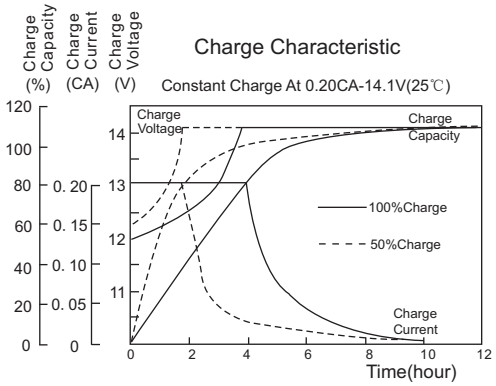
# Model: 6-GFM-50F

MP SERIES

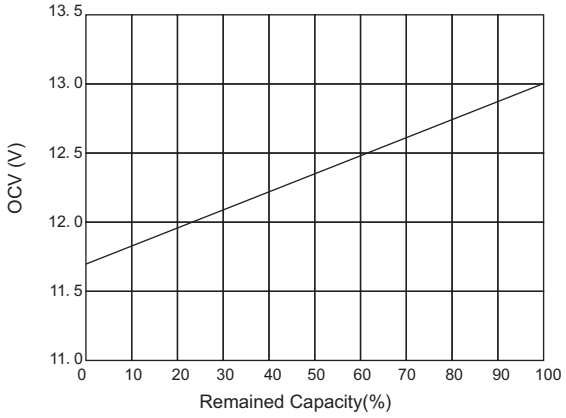
### Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



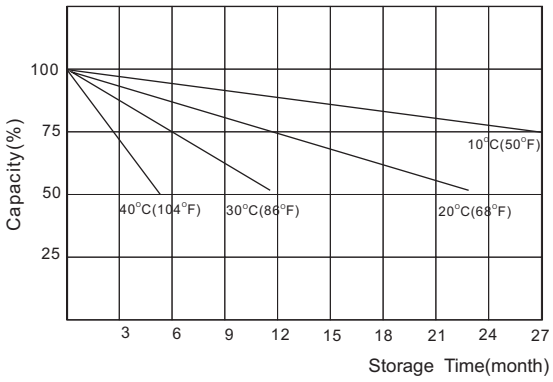

### Battery Voltage Vs. Charge Time




### Relationship of OCV Vs. State of Charge




### Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.45 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C⩾(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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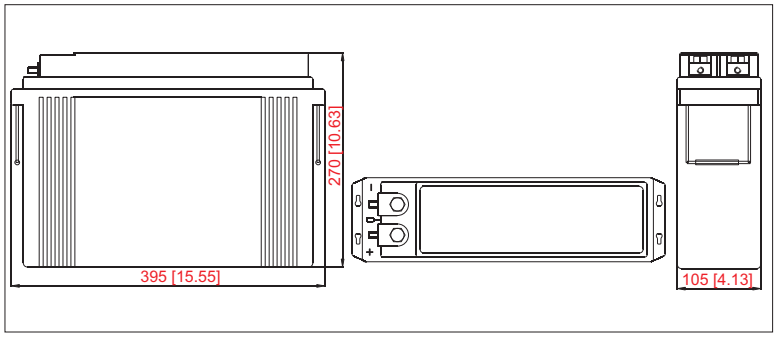
# Model: 6-GFM-65F

MP SERIES

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS heat seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℉).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-65F |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 65Ah (10hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 24.5kg |
| Internal Resistance | Approx 7.5mΩ |
| Operating Temperature Range | Operation(maximum): -40°C to 55°C(-40°F to 131°F) |
| | Operation(recommended): 15°C to 25°C(59°F to 77°F) |
| | Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 16.25A |
| Equalize and Cycle Serivice | 2.35V~2.40V/cell@25°C(77°F) |
| Self Discharge | The residual capacity is above 90% after 90 days storage(25°C/77°F) |
| Terminal | M6 Female |
| Terminal Hardware Torque | 10 ± 1.0Nm |
| Container Material | ABS (V0 optional) |

## Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 240.1 | 129.2 | 78.9 | 58.7 | 46.9 | 26.8 | 19.0 | 15.2 | 12.6 | 10.9 | 8.34 | 6.92 | 5.77 | 3.62 | 3.02 |
| 1.67V | 228.6 | 124.6 | 77.7 | 57.6 | 46.6 | 26.2 | 18.8 | 14.9 | 12.5 | 10.8 | 8.26 | 6.89 | 5.75 | 3.59 | 3.01 |
| 1.70V | 222.3 | 122.4 | 76.6 | 56.9 | 46.3 | 25.9 | 18.7 | 14.8 | 12.4 | 10.7 | 8.24 | 6.85 | 5.72 | 3.58 | 3.00 |
| 1.75V | 205.7 | 117.5 | 75.2 | 55.3 | 44.9 | 25.6 | 18.5 | 14.7 | 12.3 | 10.6 | 8.18 | 6.78 | 5.70 | 3.57 | 2.99 |
| 1.80V | 186.3 | 109.9 | 72.4 | 53.2 | 43.2 | 25.1 | 18.2 | 14.4 | 12.1 | 10.4 | 8.06 | 6.68 | 5.66 | 3.55 | 2.97 |
| 1.83V | 174.9 | 103.9 | 71.3 | 51.5 | 41.5 | 24.8 | 17.9 | 14.0 | 11.8 | 10.1 | 7.88 | 6.56 | 5.48 | 3.53 | 2.94 |
| 1.85V | 164.4 | 97.9 | 68.6 | 49.9 | 40.2 | 24.5 | 17.7 | 13.8 | 11.6 | 9.9 | 7.70 | 6.45 | 5.38 | 3.46 | 2.91 |

## Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 401.5 | 227.1 | 141.5 | 106.3 | 86.4 | 49.6 | 37.2 | 28.9 | 24.2 | 20.9 | 16.8 | 14.4 | 11.4 | 7.17 | 6.00 |
| 1.67V | 391.7 | 223.5 | 140.7 | 105.6 | 85.6 | 49.5 | 36.4 | 28.7 | 24.1 | 20.7 | 16.6 | 14.3 | 11.3 | 7.14 | 6.00 |
| 1.70V | 383.6 | 220.2 | 139.9 | 105.5 | 85.4 | 49.3 | 35.9 | 28.6 | 23.9 | 20.6 | 16.4 | 14.2 | 11.2 | 7.12 | 5.99 |
| 1.75V | 363.2 | 215.7 | 138.2 | 105.0 | 84.1 | 49.0 | 35.6 | 28.5 | 23.8 | 20.5 | 16.2 | 13.9 | 11.1 | 7.11 | 5.99 |
| 1.80V | 339.4 | 206.5 | 135.1 | 103.2 | 82.6 | 48.7 | 35.3 | 28.2 | 23.5 | 20.4 | 16.0 | 13.8 | 11.0 | 7.10 | 5.98 |
| 1.83V | 322.5 | 198.6 | 132.6 | 101.2 | 80.6 | 48.1 | 35.1 | 27.8 | 22.9 | 20.2 | 15.7 | 13.7 | 10.7 | 7.09 | 5.93 |
| 1.85V | 305.9 | 192.1 | 129.4 | 98.6 | 78.6 | 47.2 | 34.9 | 27.4 | 22.4 | 20.0 | 15.4 | 13.6 | 10.6 | 6.95 | 5.89 |

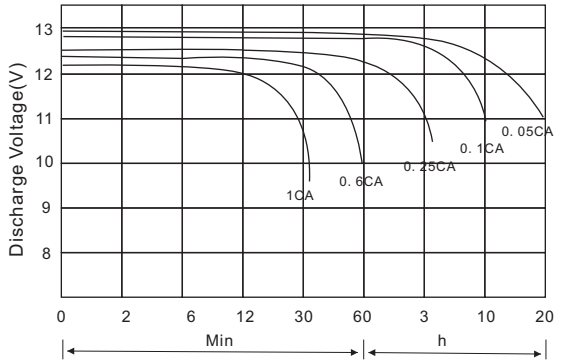
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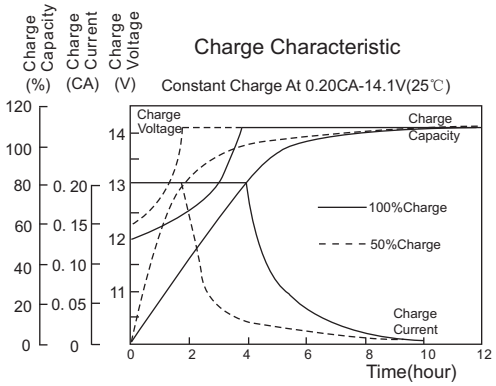
# Model: 6-GFM-65F

MP SERIES

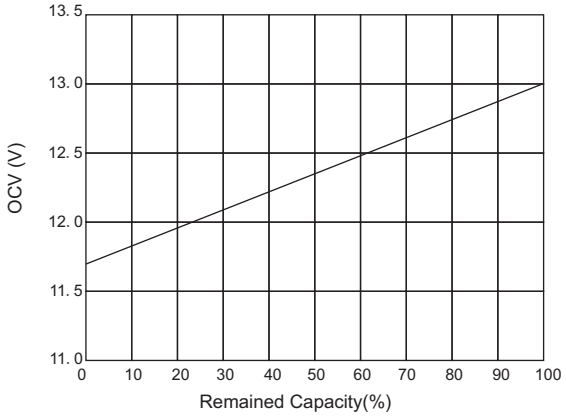
## Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



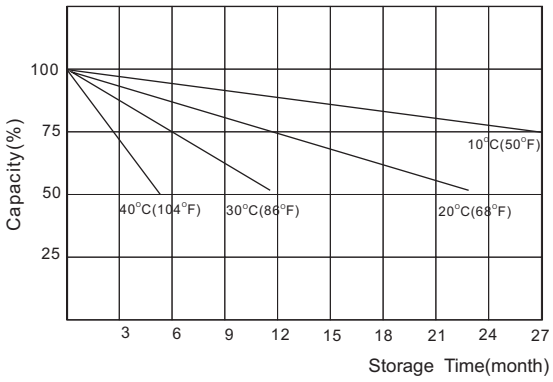

## Battery Voltage Vs. Charge Time




## Relationship of OCV Vs. State of Charge




## Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.40 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C≥(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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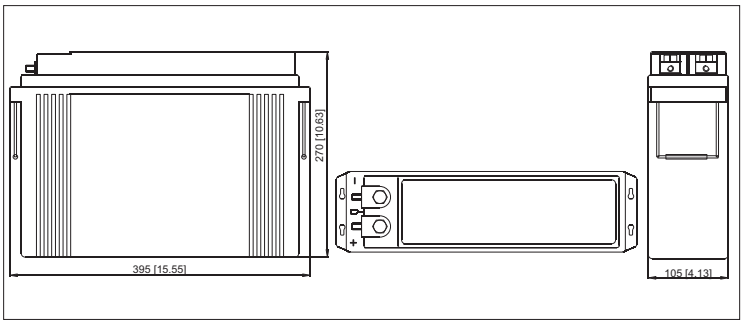
# Model: 6-GFM-85F

MP SERIES

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS glue seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℉).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-85F |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 85Ah (10hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 30kg |
| Internal Resistance | Approx 6.73mΩ |
| Operating Temperature Range | Operation(maximum): -40°C to 55°C(-40°F to 131°F)<br>Operation(recommended): 15°C to 25°C(59°F to 77°F)<br>Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 21.25A |
| Equalize and Cycle Serivice | 2.35V~2.40V/cell@25°C(77°F) |
| Self Discharge | The residual capacity is above 90% after 90 days storage(25°C/77°F) |
| Terminal | M6 Female |
| Terminal Hardware Torque | 10 ± 1.0Nm |
| Container Material | ABS (V0 optional) |

## Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 314 | 169 | 102 | 74.2 | 60.0 | 34.4 | 24.9 | 19.6 | 16.5 | 14.2 | 10.9 | 8.96 | 7.55 | 4.73 | 3.95 |
| 1.67V | 295 | 163 | 101 | 73.6 | 59.6 | 34.2 | 24.5 | 19.5 | 16.4 | 14.1 | 10.8 | 8.87 | 7.54 | 4.69 | 3.92 |
| 1.70V | 292 | 160 | 99.2 | 73.1 | 59.2 | 33.9 | 24.4 | 19.4 | 16.2 | 14.0 | 10.8 | 8.83 | 7.47 | 4.68 | 3.92 |
| 1.75V | 269 | 155 | 98.3 | 72.6 | 58.3 | 33.1 | 24.1 | 19.1 | 16.1 | 13.8 | 10.7 | 8.78 | 7.47 | 4.67 | 3.91 |
| 1.80V | 241 | 145 | 94.1 | 69.6 | 56.8 | 32.8 | 23.9 | 19.1 | 15.8 | 13.6 | 10.6 | 8.70 | 7.40 | 4.62 | 3.91 |
| 1.83V | 230 | 132 | 92.3 | 67.3 | 54.3 | 32.4 | 23.1 | 18.2 | 15.2 | 13.1 | 10.3 | 8.38 | 7.04 | 4.61 | 3.84 |
| 1.85V | 215 | 128 | 85.8 | 64.6 | 52.6 | 31.2 | 22.5 | 18.0 | 14.9 | 12.8 | 10.0 | 8.31 | 6.96 | 4.52 | 3.81 |

## Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 525 | 297 | 185 | 139 | 113 | 64.9 | 47.4 | 37.6 | 31.7 | 27.3 | 21.1 | 17.4 | 14.6 | 9.37 | 7.85 |
| 1.67V | 506 | 291 | 184 | 138 | 112 | 64.7 | 46.8 | 37.5 | 31.7 | 27.1 | 21.0 | 17.3 | 14.6 | 9.34 | 7.84 |
| 1.70V | 503 | 288 | 183 | 138 | 112 | 64.5 | 46.8 | 37.4 | 31.2 | 26.9 | 20.9 | 17.1 | 14.5 | 9.31 | 7.83 |
| 1.75V | 475 | 286 | 183 | 138 | 110 | 64.1 | 46.3 | 37.3 | 31.2 | 26.9 | 20.7 | 17.1 | 14.5 | 9.29 | 7.83 |
| 1.80V | 436 | 270 | 178 | 135 | 110 | 63.9 | 46.2 | 37.2 | 30.7 | 26.6 | 20.6 | 17.0 | 14.4 | 9.29 | 7.82 |
| 1.83V | 423 | 248 | 176 | 131 | 105 | 63.1 | 45.1 | 35.9 | 30.0 | 25.8 | 20.5 | 16.6 | 14.0 | 9.27 | 7.76 |
| 1.85V | 400 | 242 | 164 | 125 | 102 | 61.1 | 43.9 | 35.4 | 29.3 | 25.3 | 19.8 | 16.5 | 13.9 | 9.09 | 7.70 |

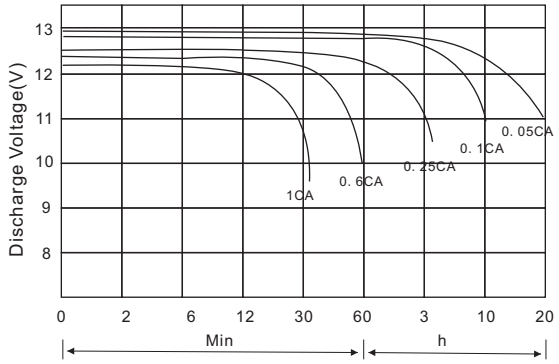
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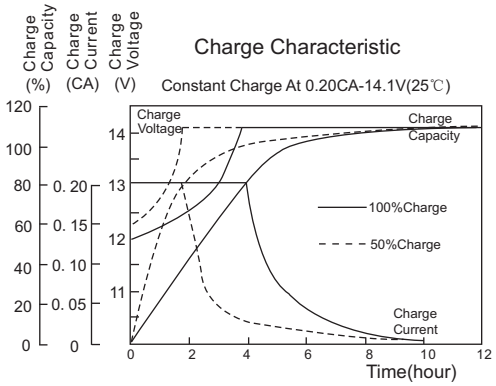
# Model: 6-GFM-85F

MP SERIES

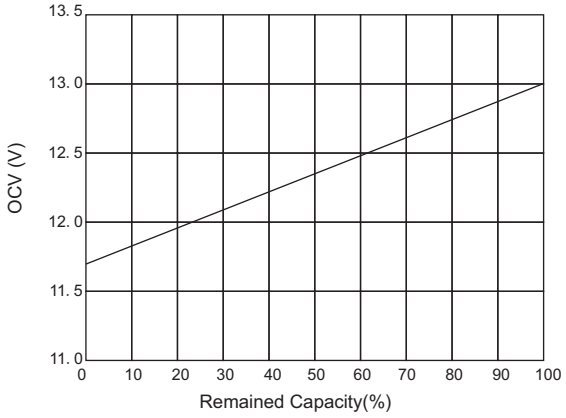
## Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



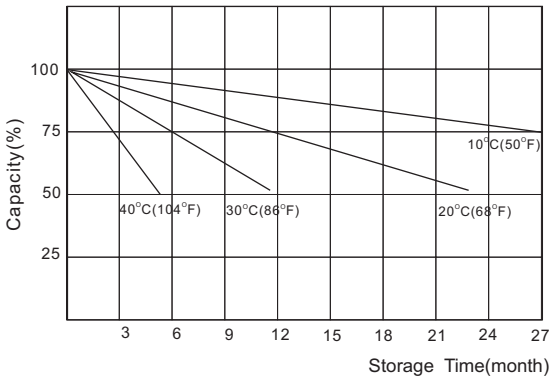

## Battery Voltage Vs. Charge Time




## Relationship of OCV Vs. State of Charge




## Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.45 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C≥(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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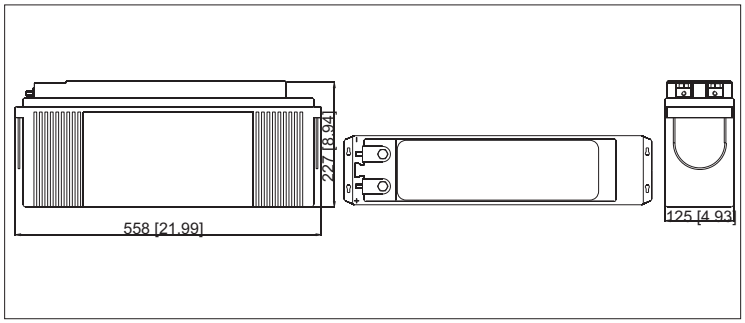
# Model: 6-GFM-100F

MP SERIES

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS glue seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℉).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-100F |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 100Ah (10hour rate) to 1.85V/cell @25°C(77°F) |
| Typical Weight | 39kg |
| Internal Resistance | Approx 4. 88mΩ |
| Operating Temperature Range | Operation(maximum): -40°C to 55°C(-40°F to 131°F)<br>Operation(recommended): 15°C to 25°C(59°F to 77°F)<br>Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 25A |
| Equalize and Cycle Serivice | 2.35V~2.40V/cell@25°C(77°F) |
| Self Discharge | The residual capacity is above 90% after 90 days storage(25°C/77°F) |
| Terminal | M6 Female |
| Terminal Hardware Torque | 10 ± 1. 0Nm |
| Container Material | ABS (V0 optional) |

## Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 325 | 175 | 106 | 76.7 | 62 | 35.6 | 27.9 | 21.4 | 19.2 | 16.1 | 12.5 | 11.3 | 8.75 | 5.44 | 4.54 |
| 1.67V | 305 | 169 | 104 | 76.2 | 61.7 | 35.4 | 27.4 | 21.3 | 19 | 16.1 | 12.4 | 11.2 | 8.72 | 5.39 | 4.5 |
| 1.70V | 302 | 166 | 103 | 75.6 | 61.2 | 35.1 | 27.2 | 21.1 | 18.8 | 16 | 12.4 | 11 | 8.7 | 5.38 | 4.5 |
| 1.75V | 278 | 160 | 102 | 75.1 | 60.3 | 34.2 | 26.9 | 20.9 | 18.6 | 15.9 | 12.1 | 10.8 | 8.67 | 5.37 | 4.5 |
| 1.80V | 249 | 150 | 97.4 | 72 | 58.7 | 33.9 | 26.7 | 20.8 | 18.1 | 15.6 | 12 | 10.6 | 8.64 | 5.31 | 4.49 |
| 1.83V | 238 | 137 | 95.5 | 69.6 | 56.2 | 33.5 | 25.8 | 19.9 | 17.5 | 15.1 | 11.9 | 10.4 | 8.62 | 5.3 | 4.42 |
| 1.85V | 223 | 133 | 88.7 | 66.8 | 54.4 | 32.2 | 25.1 | 19.6 | 17.1 | 14.7 | 11.5 | 10 | 8.58 | 5.2 | 4.38 |

## Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 543 | 307 | 191 | 144 | 117 | 67.1 | 53 | 41 | 36.8 | 31 | 24.3 | 20.2 | 16.9 | 10.8 | 9.02 |
| 1.67V | 523 | 301 | 190 | 143 | 116 | 67 | 52.3 | 41 | 36.6 | 31 | 24 | 20.1 | 16.8 | 10.7 | 9.02 |
| 1.70V | 520 | 298 | 190 | 143 | 116 | 66.7 | 52.3 | 40.8 | 36.3 | 31 | 24 | 19.7 | 16.7 | 10.7 | 9 |
| 1.75V | 485 | 296 | 189 | 143 | 114 | 66.3 | 51.7 | 40.8 | 36.1 | 30.9 | 23.5 | 19.6 | 16.6 | 10.7 | 9 |
| 1.80V | 453 | 280 | 185 | 139 | 114 | 66.1 | 51.6 | 40.6 | 35.3 | 30.6 | 23.4 | 19.6 | 16.6 | 10.7 | 8.98 |
| 1.83V | 437 | 256 | 182 | 135 | 109 | 65.3 | 50.4 | 39.2 | 34.5 | 29.7 | 23.5 | 19.1 | 16.3 | 10.7 | 8.92 |
| 1.85V | 414 | 250 | 169 | 130 | 106 | 63.2 | 49 | 38.6 | 33.7 | 29.1 | 22.8 | 18.9 | 16.2 | 10.5 | 8.85 |

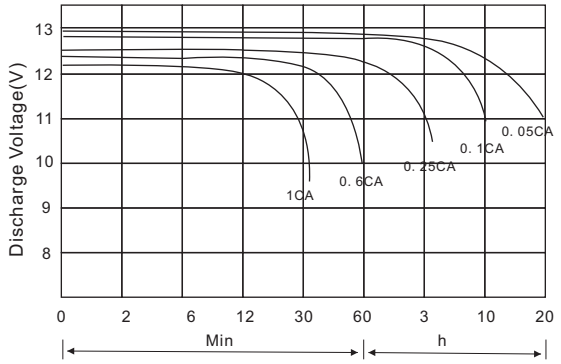
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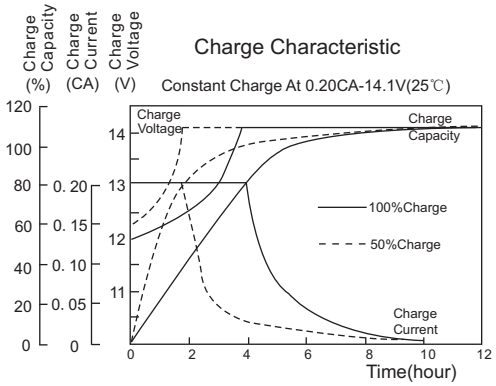
# Model: 6-GFM-100F

MP SERIES

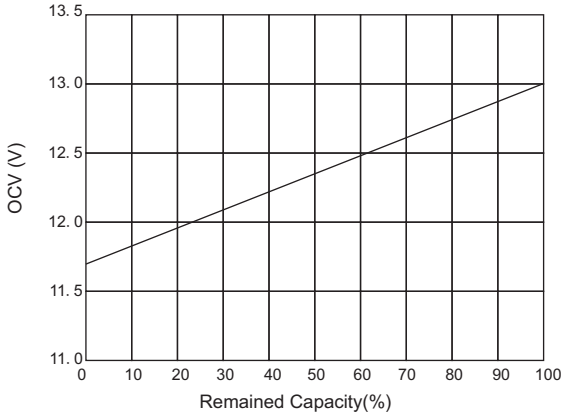
### Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



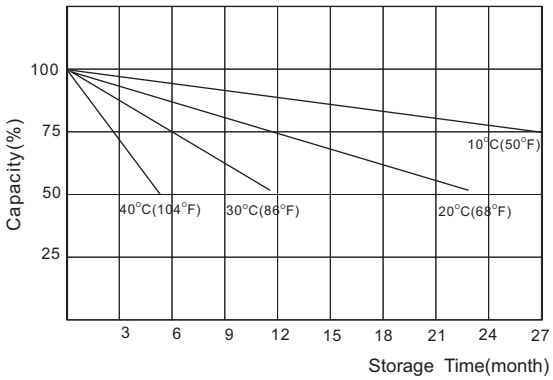

### Battery Voltage Vs. Charge Time




### Relationship of OCV Vs. State of Charge




### Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.45 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C⩾(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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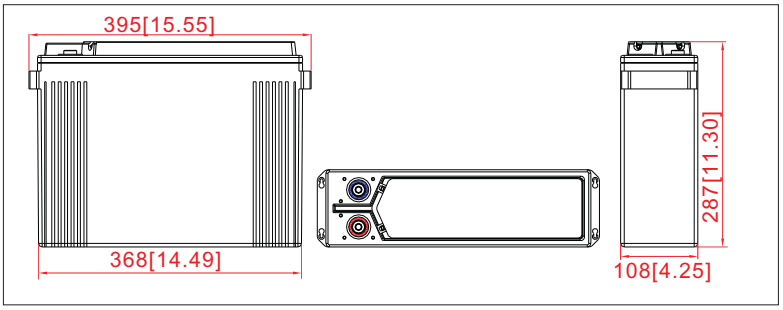
# Model: 6-GFM-100FB

**MP SERIES**

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS glue seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℃).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-100FB |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 100Ah (10hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 32kg |
| Internal Resistance | Approx 4.68 mΩ |
| Operating Temperature Range | Operation (maximum): -40°C to 55°C(-40°F to 131°F)<br>Operation (recommended): 15°C to 25°C(59°F to 77°F)<br>Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 25A |
| Equalize and Cycle Serivice | 2.35V~2.40V/cell@25°C(77°F) |
| Self Discharge | The residual capacity is above 90% after 90 days storage(25°C/77°F) |
| Terminal | M6 Female |
| Terminal Hardware Torque | 10 ± 1.0Nm |
| Container Material | ABS (V0 optional) |

## Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 325 | 175 | 106 | 76.7 | 62.0 | 35.6 | 27.9 | 21.4 | 19.2 | 16.1 | 12.5 | 10.6 | 8.75 | 5.44 | 4.54 |
| 1.67V | 305 | 169 | 104 | 76.2 | 61.7 | 35.4 | 27.4 | 21.3 | 19.0 | 16.1 | 12.4 | 10.5 | 8.72 | 5.39 | 4.50 |
| 1.70V | 302 | 166 | 103 | 75.6 | 61.2 | 35.1 | 27.2 | 21.1 | 18.8 | 16.0 | 12.4 | 10.5 | 8.70 | 5.38 | 4.50 |
| 1.75V | 278 | 160 | 102 | 75.1 | 60.3 | 34.2 | 26.9 | 20.9 | 18.6 | 15.9 | 12.1 | 10.4 | 8.67 | 5.37 | 4.50 |
| 1.80V | 249 | 150 | 97.4 | 72.0 | 58.7 | 33.9 | 26.7 | 20.8 | 18.1 | 15.6 | 12.0 | 10.2 | 8.64 | 5.31 | 4.49 |
| 1.83V | 238 | 137 | 95.5 | 69.6 | 56.2 | 33.5 | 25.8 | 19.9 | 17.5 | 15.1 | 11.9 | 9.89 | 8.62 | 5.30 | 4.42 |
| 1.85V | 223 | 133 | 88.7 | 66.8 | 54.4 | 32.2 | 25.1 | 19.6 | 17.1 | 14.7 | 11.5 | 9.75 | 8.58 | 5.20 | 4.38 |

## Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 543 | 307 | 191 | 144 | 117 | 67.1 | 53.0 | 41.0 | 36.8 | 31.0 | 24.3 | 20.2 | 16.9 | 10.8 | 9.02 |
| 1.67V | 523 | 301 | 190 | 143 | 116 | 67.0 | 52.3 | 41.0 | 36.6 | 31.0 | 24.0 | 20.1 | 16.8 | 10.7 | 9.02 |
| 1.70V | 520 | 298 | 190 | 143 | 116 | 66.7 | 52.3 | 40.8 | 36.3 | 31.0 | 24.0 | 19.7 | 16.7 | 10.7 | 9.00 |
| 1.75V | 485 | 296 | 189 | 143 | 114 | 66.3 | 51.7 | 40.8 | 36.1 | 30.9 | 23.5 | 19.6 | 16.6 | 10.7 | 9.00 |
| 1.80V | 453 | 280 | 185 | 139 | 114 | 66.1 | 51.6 | 40.6 | 35.3 | 30.6 | 23.4 | 19.6 | 16.6 | 10.7 | 8.98 |
| 1.83V | 437 | 256 | 182 | 135 | 109 | 65.3 | 50.4 | 39.2 | 34.5 | 29.7 | 23.5 | 19.1 | 16.3 | 10.7 | 8.92 |
| 1.85V | 414 | 250 | 169 | 130 | 106 | 63.2 | 49.0 | 38.6 | 33.7 | 29.1 | 22.8 | 18.9 | 16.2 | 10.5 | 8.85 |

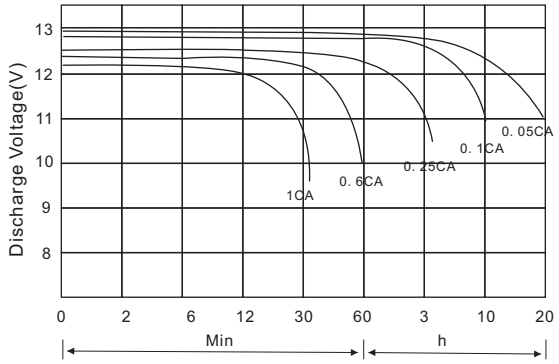
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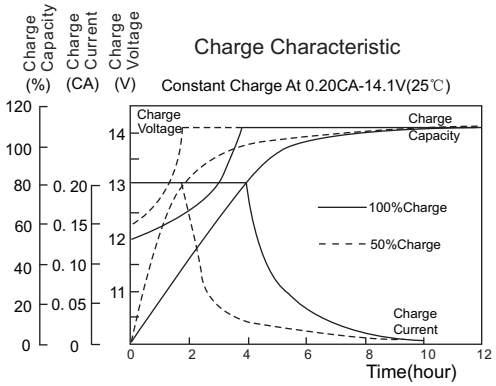
# Model: 6-GFM-100FB

**MP SERIES**

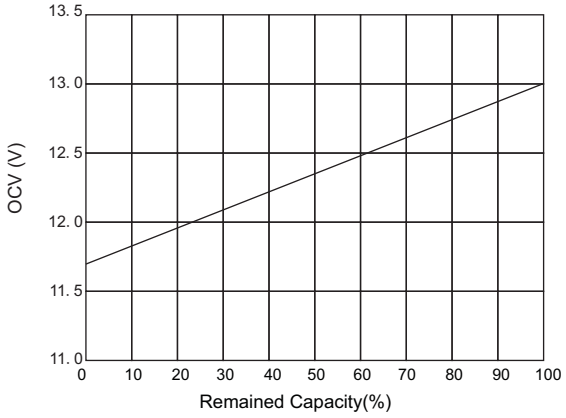
## Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



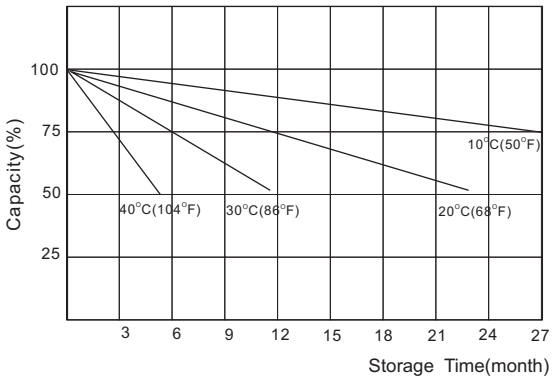

## Battery Voltage Vs. Charge Time




## Relationship of OCV Vs. State of Charge




## Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.45 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C⩾(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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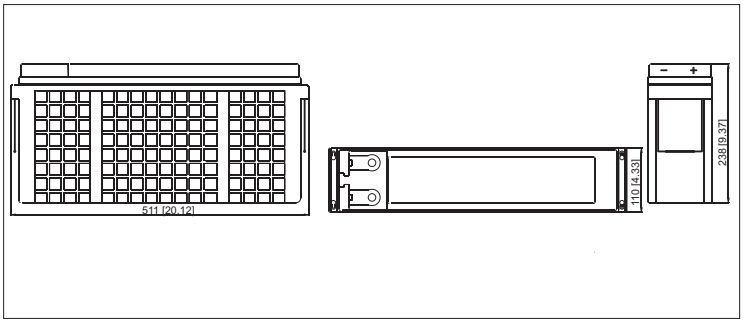
# Model: 6-GFM-105F

MP SERIES

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS heat seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℉).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-105F |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 100Ah (10hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 34kg |
| Internal Resistance | Approx 5.4mΩ |
| Operating Temperature Range | Operation(maximum): -40°C to 55°C(-40°F to 131°F)<br>Operation(recommended): 15°C to 25°C(59°F to 77°F)<br>Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 25A |
| Equalize and Cycle Serivice | 2.35V~2.40V/cell@25°C(77°F) |
| Self Discharge | The residual capacity is above 90% after 90 days storage(25°C/77°F) |
| Terminal | M6 Female |
| Terminal Hardware Torque | 10 ± 1.0Nm |
| Container Material | ABS (V0 optional) |

## Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 372 | 200 | 121 | 87.8 | 71.0 | 40.7 | 29.5 | 23.2 | 19.6 | 16.8 | 12.9 | 10.6 | 8.94 | 5.60 | 4.68 |
| 1.67V | 350 | 193 | 119 | 87.2 | 70.6 | 40.5 | 29.0 | 23.0 | 19.5 | 16.7 | 12.8 | 10.5 | 8.93 | 5.55 | 4.64 |
| 1.70V | 346 | 190 | 117 | 86.5 | 70.0 | 40.2 | 28.8 | 22.9 | 19.2 | 16.5 | 12.7 | 10.5 | 8.84 | 5.54 | 4.64 |
| 1.75V | 318 | 184 | 116 | 85.9 | 69.0 | 39.1 | 28.5 | 22.7 | 19.1 | 16.4 | 12.6 | 10.4 | 8.84 | 5.53 | 4.63 |
| 1.80V | 285 | 171 | 111 | 82.4 | 68.0 | 38.8 | 28.3 | 22.6 | 18.7 | 16.1 | 12.5 | 10.3 | 8.77 | 5.47 | 4.62 |
| 1.83V | 272 | 157 | 109 | 79.7 | 64.3 | 38.3 | 27.4 | 21.6 | 18.0 | 15.5 | 12.2 | 9.92 | 8.34 | 5.46 | 4.55 |
| 1.85V | 255 | 152 | 102 | 76.5 | 62.3 | 36.9 | 26.6 | 21.3 | 17.6 | 15.2 | 11.8 | 9.84 | 8.24 | 5.36 | 4.51 |

## Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 622 | 351 | 219 | 165 | 133 | 76.8 | 56.1 | 44.5 | 37.5 | 32.3 | 25.0 | 20.6 | 17.3 | 11.1 | 9.29 |
| 1.67V | 599 | 345 | 217 | 164 | 133 | 76.6 | 55.4 | 44.4 | 37.5 | 32.1 | 24.9 | 20.4 | 17.3 | 11.1 | 9.29 |
| 1.70V | 595 | 341 | 217 | 164 | 132 | 76.3 | 55.4 | 44.2 | 37.0 | 31.9 | 24.7 | 20.2 | 17.2 | 11.0 | 9.27 |
| 1.75V | 563 | 339 | 216 | 163 | 130 | 75.9 | 54.8 | 44.2 | 37.0 | 31.8 | 24.5 | 20.2 | 17.1 | 11.0 | 9.27 |
| 1.80V | 516 | 320 | 211 | 159 | 130 | 75.7 | 54.6 | 44.1 | 36.3 | 31.5 | 24.4 | 20.1 | 17.1 | 11.0 | 9.25 |
| 1.83V | 500 | 293 | 209 | 155 | 125 | 74.7 | 53.4 | 42.5 | 35.5 | 30.6 | 24.2 | 19.6 | 16.6 | 11.0 | 9.19 |
| 1.85V | 474 | 286 | 194 | 148 | 121 | 72.3 | 51.9 | 41.9 | 34.7 | 30.0 | 23.5 | 19.5 | 16.4 | 10.8 | 9.11 |

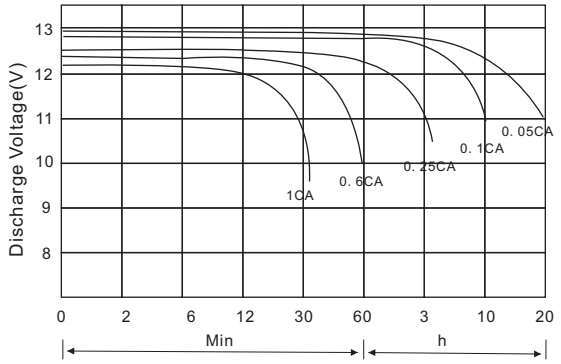
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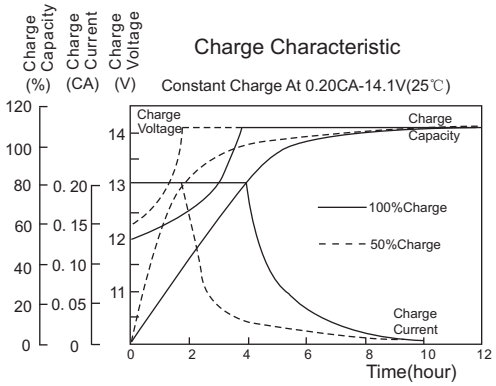
# Model: 6-GFM-105F

MP SERIES

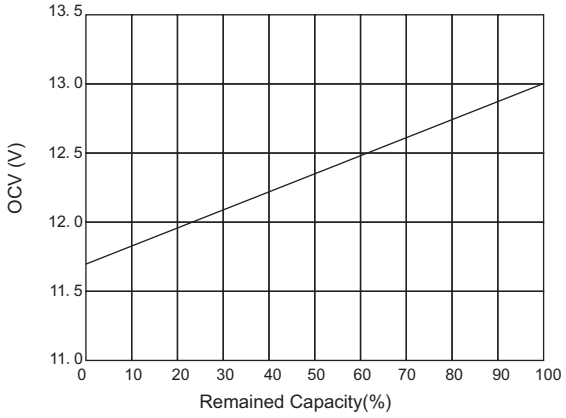
### Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



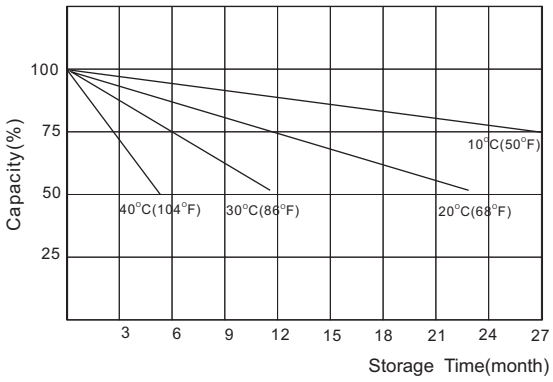

### Battery Voltage Vs. Charge Time




### Relationship of OCV Vs. State of Charge




### Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.40 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C≥(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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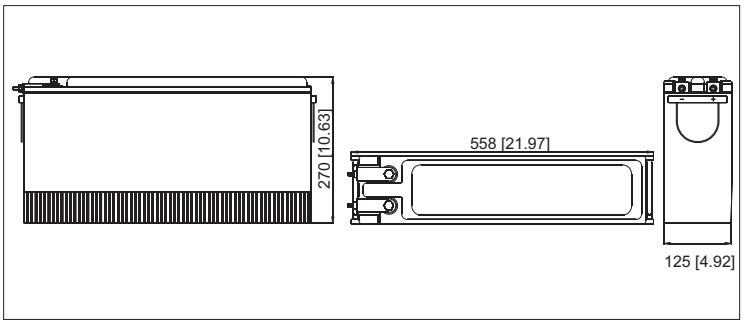
# Model: 6-GFM-125F

MP SERIES

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS heat seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℉).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-125F |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 125Ah (10hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 49kg |
| Internal Resistance | About 3. 88mΩ |
| Operating Temperature Range | Operation(maximum): -40°C to 55°C(-40°F to 131°F)<br>Operation(recommended): 15°C to 25°C(59°F to 77°F)<br>Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 31. 25A |
| Equalize and Cycle Serivice | 2.35V~2.40V/cell@25°C(77°F) |
| Self Discharge | The residual capacity is above 90% after 90 days storage(25°C/77°F) |
| Terminal | M6 Female |
| Terminal Hardware Torque | 10 ± 1. 0Nm |
| Container Material | ABS (V0 optional) |

## Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 406 | 218 | 132 | 95.9 | 77.5 | 44.5 | 34.8 | 26.7 | 24.0 | 20.1 | 15.7 | 13.0 | 10.9 | 6.80 | 5.68 |
| 1.67V | 382 | 211 | 130 | 95.2 | 77.1 | 44.2 | 34.2 | 26.6 | 23.8 | 20.1 | 15.5 | 12.9 | 10.8 | 6.74 | 5.63 |
| 1.70V | 378 | 207 | 128 | 94.5 | 76.5 | 43.9 | 34.0 | 26.4 | 23.5 | 20.1 | 15.5 | 12.7 | 10.7 | 6.72 | 5.63 |
| 1.75V | 347 | 201 | 127 | 93.8 | 75.4 | 42.8 | 33.6 | 26.1 | 23.2 | 19.9 | 15.3 | 12.6 | 10.7 | 6.71 | 5.62 |
| 1.80V | 311 | 187 | 122 | 90.0 | 73.4 | 42.4 | 33.4 | 26.1 | 22.6 | 19.5 | 15.2 | 12.5 | 10.6 | 6.64 | 5.61 |
| 1.83V | 297 | 171 | 119 | 87.0 | 70.2 | 41.9 | 32.3 | 24.8 | 21.9 | 18.8 | 14.8 | 12.0 | 10.2 | 6.63 | 5.52 |
| 1.85V | 278 | 166 | 111 | 83.5 | 68.1 | 40.3 | 31.4 | 24.5 | 21.4 | 18.4 | 14.4 | 11.9 | 10.1 | 6.50 | 5.47 |

## Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 679 | 384 | 239 | 180 | 146 | 83.9 | 66.2 | 51.3 | 46.0 | 38.7 | 30.4 | 25.2 | 21.2 | 13.5 | 11.3 |
| 1.67V | 654 | 377 | 237 | 179 | 145 | 83.7 | 65.3 | 51.2 | 45.8 | 38.8 | 30.0 | 25.1 | 21.0 | 13.4 | 11.3 |
| 1.70V | 650 | 373 | 237 | 179 | 145 | 83.4 | 65.3 | 51.0 | 45.4 | 38.7 | 30.0 | 24.6 | 20.8 | 13.4 | 11.3 |
| 1.75V | 607 | 370 | 236 | 178 | 142 | 82.9 | 64.7 | 50.9 | 45.1 | 38.6 | 29.7 | 24.5 | 20.8 | 13.3 | 11.3 |
| 1.80V | 567 | 349 | 231 | 174 | 142 | 82.7 | 64.5 | 50.8 | 44.1 | 38.2 | 29.7 | 24.4 | 20.7 | 13.4 | 11.2 |
| 1.83V | 546 | 320 | 228 | 169 | 136 | 81.6 | 63.0 | 49.0 | 43.1 | 37.1 | 29.4 | 23.8 | 20.3 | 13.3 | 11.2 |
| 1.85V | 518 | 313 | 212 | 162 | 132 | 79.0 | 61.3 | 48.3 | 42.1 | 36.4 | 28.5 | 23.6 | 20.2 | 13.1 | 11.1 |

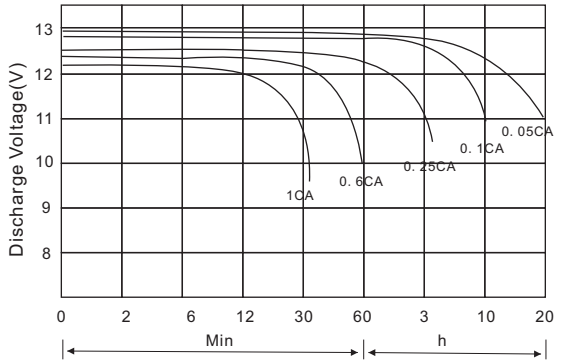
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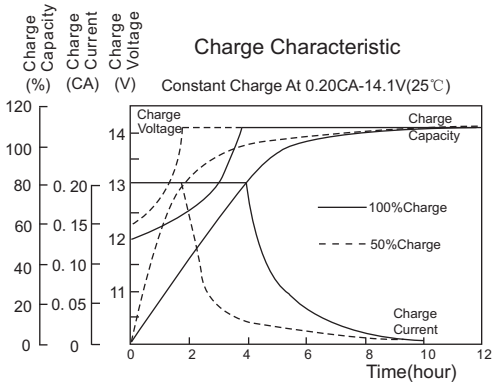
# Model: 6-GFM-125F

MP SERIES

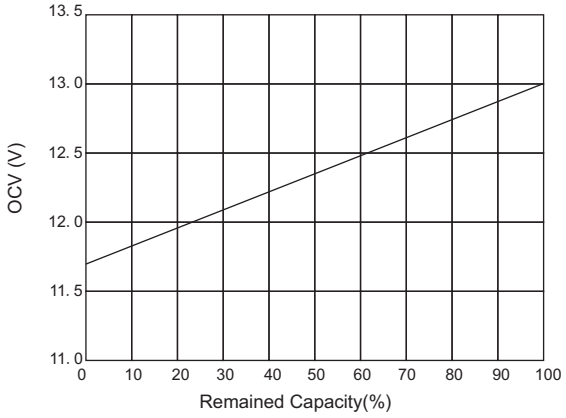
### Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



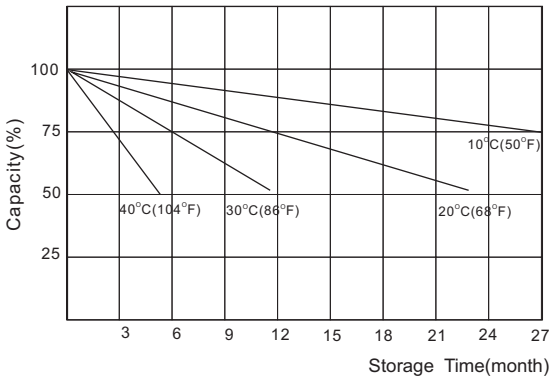

### Battery Voltage Vs. Charge Time




### Relationship of OCV Vs. State of Charge




### Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.45 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C≥(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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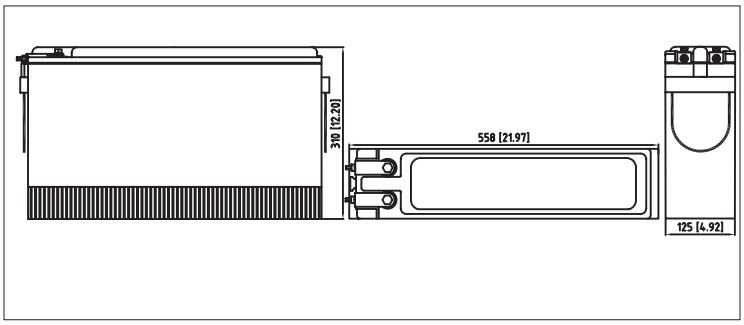
# Model: 6-GFM-150F

**MP series**

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS heat seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℉).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-150F |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 150Ah (10hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 51kg |
| Internal Resistance | Approx 4.46mΩ |
| Operating Temperature Range | Operation(maximum): -40°C to 55°C(-40°F to 131°F)<br>Operation(recommended): 15°C to 25°C(59°F to 77°F)<br>Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 37.5A |
| Equalize and Cycle Serivice | 2.35V~2.40V/cell@25°C(77°F) |
| Self Discharge | The residual capacity is above 90% after 90 days storage(25°C/77°F) |
| Terminal | M6 Female |
| Terminal Hardware Torque | 10 ± 1.0Nm |
| Container Material | ABS (V0 optional) |

## Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 567 | 305 | 185 | 134 | 108 | 62.1 | 45.0 | 35.3 | 29.8 | 25.6 | 19.7 | 16.2 | 13.6 | 8.54 | 7.13 |
| 1.67V | 533 | 294 | 182 | 133 | 108 | 61.7 | 44.2 | 35.1 | 29.7 | 25.4 | 19.5 | 15.9 | 13.6 | 8.47 | 7.07 |
| 1.70V | 528 | 289 | 179 | 132 | 107 | 61.2 | 44.0 | 34.9 | 29.2 | 25.2 | 19.4 | 15.9 | 13.5 | 8.45 | 7.07 |
| 1.75V | 485 | 280 | 177 | 131 | 105 | 59.7 | 43.4 | 34.5 | 29.0 | 25.0 | 19.2 | 15.9 | 13.5 | 8.42 | 7.06 |
| 1.80V | 435 | 261 | 170 | 126 | 102 | 59.2 | 43.2 | 34.4 | 28.4 | 24.5 | 19.1 | 15.7 | 13.4 | 8.34 | 7.05 |
| 1.83V | 414 | 239 | 167 | 121 | 98 | 58.4 | 41.7 | 32.9 | 27.5 | 23.7 | 18.6 | 15.1 | 12.7 | 8.32 | 6.93 |
| 1.85V | 388 | 232 | 155 | 117 | 95 | 56.3 | 40.6 | 32.4 | 26.8 | 23.1 | 18.1 | 15.0 | 12.6 | 8.16 | 6.88 |

## Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 948 | 536 | 334 | 251 | 203 | 117 | 85.6 | 67.8 | 57.2 | 49.3 | 38.2 | 31.3 | 26.4 | 16.9 | 14.2 |
| 1.67V | 913 | 526 | 331 | 250 | 202 | 117 | 84.4 | 67.7 | 57.2 | 49.0 | 37.9 | 31.1 | 26.4 | 16.8 | 14.2 |
| 1.70V | 907 | 520 | 331 | 249 | 202 | 116 | 84.4 | 67.4 | 56.4 | 48.6 | 37.7 | 30.9 | 26.1 | 16.8 | 14.1 |
| 1.75V | 858 | 516 | 330 | 249 | 199 | 116 | 83.6 | 67.4 | 56.3 | 48.5 | 37.3 | 30.8 | 26.1 | 16.8 | 14.1 |
| 1.80V | 787 | 488 | 322 | 243 | 198 | 115 | 83.3 | 67.2 | 55.4 | 48.0 | 37.3 | 30.7 | 26.1 | 16.8 | 14.1 |
| 1.83V | 763 | 447 | 318 | 236 | 190 | 114 | 81.4 | 64.7 | 54.2 | 46.6 | 36.9 | 29.9 | 25.3 | 16.7 | 14.0 |
| 1.85V | 723 | 436 | 296 | 226 | 184 | 110 | 79.2 | 63.9 | 52.8 | 45.7 | 35.8 | 29.7 | 25.0 | 16.4 | 13.9 |

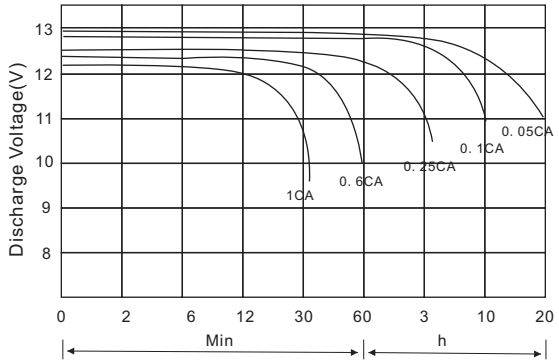
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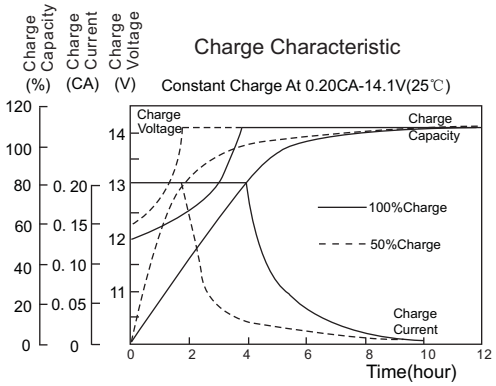
# Model: 6-GFM-150F

**MP series**

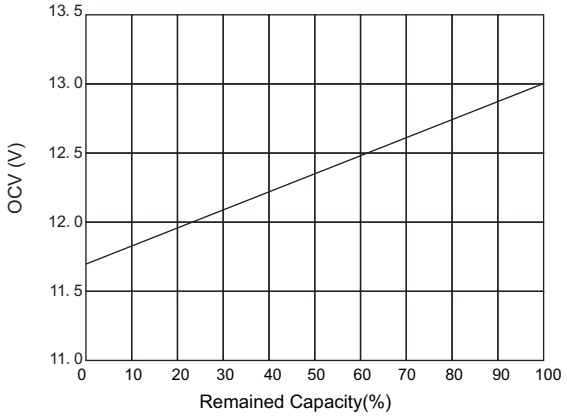
### Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



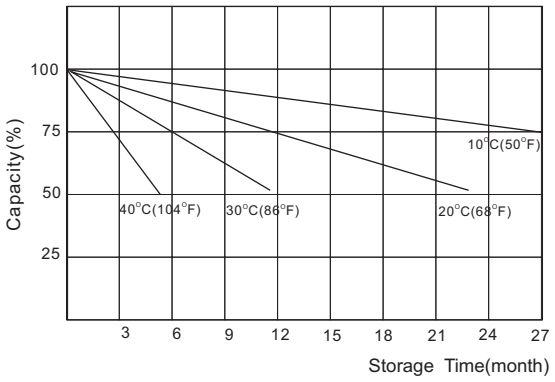

### Battery Voltage Vs. Charge Time




### Relationship of OCV Vs. State of Charge




### Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.45 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C≥(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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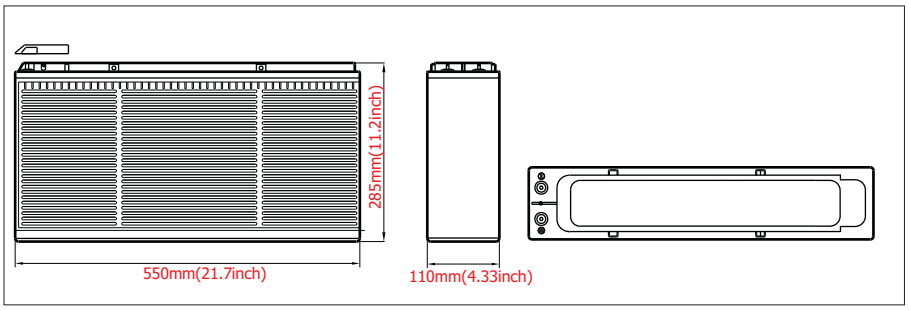
# Model: 6-GFM-150FB

**MP series**

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS heat seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℉).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-150FB |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 150Ah (10hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 44kg |
| Internal Resistance | Approx 4.00mΩ |
| Operating Temperature Range | Operation(maximum): -40°C to 55°C(-40°F to 131°F)<br>Operation(recommended): 15°C to 25°C(59°F to 77°F)<br>Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 37.5A |
| Equalize and Cycle Serivice | 2.35V~2.40V/cell@25°C(77°F) |
| Self Discharge | The residual capacity is above 90% after 90 days storage(25°C/77°F) |
| Terminal | M8 Female |
| Terminal Hardware Torque | 10 ± 1.0Nm |
| Container Material | ABS (V0 optional) |

## Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 488 | 262 | 159 | 115 | 93.0 | 53.3 | 41.8 | 32.0 | 28.0 | 24.2 | 18.8 | 15.5 | 13.2 | 8.16 | 6.81 |
| 1.67V | 458 | 253 | 156 | 114 | 92.5 | 53.0 | 41.0 | 31.8 | 27.8 | 24.1 | 18.6 | 15.2 | 13.0 | 8.09 | 6.75 |
| 1.70V | 454 | 249 | 154 | 113 | 91.8 | 52.6 | 40.8 | 31.7 | 28.4 | 24.1 | 18.6 | 15.3 | 12.9 | 8.07 | 6.75 |
| 1.75V | 417 | 241 | 153 | 112 | 90.5 | 51.3 | 40.4 | 31.4 | 27.9 | 23.9 | 18.4 | 15.2 | 12.9 | 8.05 | 6.75 |
| 1.80V | 374 | 225 | 146 | 108 | 88.2 | 50.9 | 40.1 | 31.3 | 27.2 | 23.4 | 18.3 | 15.0 | 12.8 | 7.97 | 6.74 |
| 1.83V | 356 | 205 | 143 | 105 | 84.3 | 50.2 | 38.8 | 29.8 | 26.3 | 22.5 | 17.8 | 14.4 | 12.3 | 7.95 | 6.63 |
| 1.85V | 334 | 199 | 133 | 101 | 81.7 | 48.4 | 37.7 | 29.4 | 25.6 | 22.1 | 17.2 | 14.3 | 12.2 | 7.80 | 6.57 |

## Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 815 | 461 | 287 | 216 | 175 | 101 | 79.5 | 61.5 | 55.3 | 46.5 | 36.5 | 29.9 | 25.5 | 16.2 | 13.5 |
| 1.67V | 785 | 452 | 285 | 215 | 174 | 101 | 78.4 | 61.5 | 55.0 | 46.5 | 36.1 | 29.7 | 25.3 | 16.1 | 13.5 |
| 1.70V | 780 | 447 | 285 | 214 | 173 | 99.7 | 78.4 | 61.2 | 54.4 | 46.5 | 36.0 | 29.5 | 25.0 | 16.1 | 13.5 |
| 1.75V | 728 | 443 | 284 | 214 | 171 | 99.7 | 77.6 | 61.2 | 54.1 | 46.3 | 35.6 | 29.4 | 25.0 | 16.1 | 13.5 |
| 1.80V | 680 | 419 | 277 | 209 | 170 | 99.7 | 77.3 | 61.0 | 52.9 | 45.9 | 35.6 | 29.3 | 24.9 | 16.1 | 13.5 |
| 1.83V | 656 | 384 | 274 | 202 | 164 | 97.7 | 75.6 | 58.7 | 51.8 | 44.5 | 35.2 | 28.5 | 24.4 | 16.0 | 13.4 |
| 1.85V | 621 | 375 | 255 | 195 | 159 | 94.8 | 73.5 | 58.0 | 50.5 | 43.6 | 34.2 | 28.4 | 24.2 | 15.7 | 13.3 |

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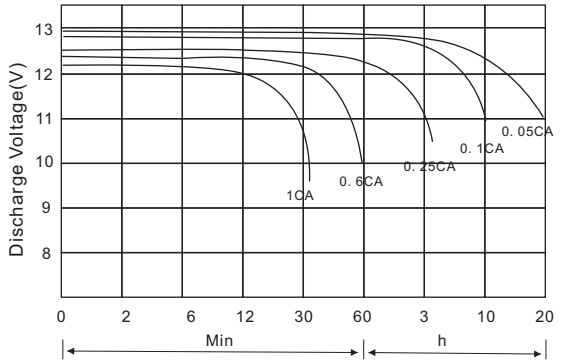
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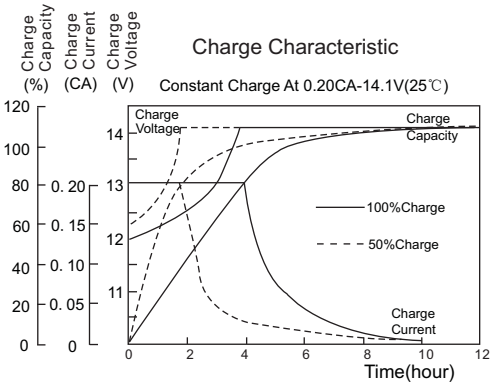
# Model: 6-GFM-150FB

**MP series**

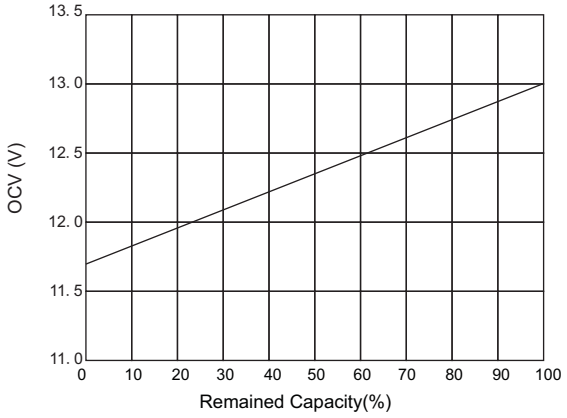
## Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



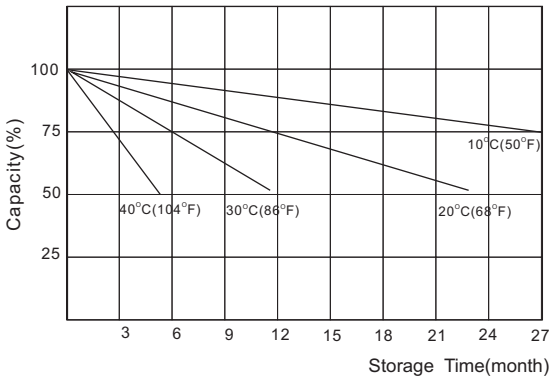

## Battery Voltage Vs. Charge Time




## Relationship of OCV Vs. State of Charge




## Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.45 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C⩾(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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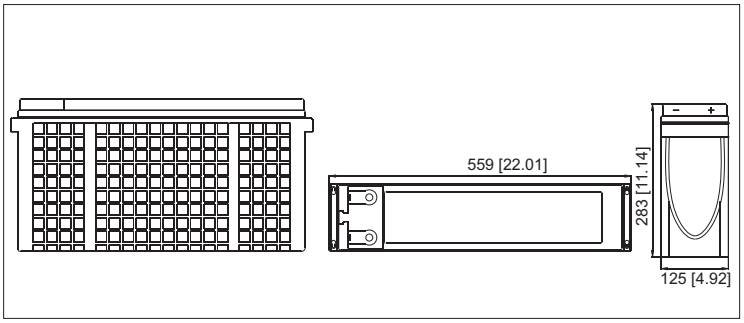
# Model: 6-GFM-155F

MP SERIES

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS heat seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℉).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-155F |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 155Ah (10hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 54kg |
| Internal Resistance | Approx 3.0mΩ |
| Operating Temperature Range | Operation(maximum): -40°C to 55°C(-40°F to 131°F)<br>Operation(recommended): 15°C to 25°C(59°F to 77°F)<br>Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 38.75A |
| Equalize and Cycle Serivice | 2.35V~2.40V@25°C(77°F) |
| Self Discharge | The residual capacity is above 87% after 90 days storage(25°C/77°F) |
| Terminal | M6 Female |
| Terminal Hardware Torque | 10 ± 1.0Nm |
| Container Material | ABS (V0 optional) |

## Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 504 | 271 | 164 | 119 | 96.1 | 55.1 | 43.2 | 33.1 | 28.9 | 25.0 | 19.4 | 16.0 | 13.6 | 8.43 | 7.04 |
| 1.67V | 473 | 261 | 161 | 118 | 95.6 | 54.8 | 42.4 | 32.9 | 28.7 | 24.9 | 19.2 | 15.7 | 13.4 | 8.36 | 6.98 |
| 1.70V | 469 | 257 | 159 | 117 | 94.9 | 54.4 | 42.2 | 32.8 | 29.3 | 24.9 | 19.2 | 15.8 | 13.3 | 8.34 | 6.98 |
| 1.75V | 431 | 249 | 158 | 116 | 93.5 | 53.0 | 41.7 | 32.4 | 28.8 | 24.7 | 19.0 | 15.7 | 13.3 | 8.32 | 6.97 |
| 1.80V | 386 | 232 | 151 | 112 | 91.1 | 52.6 | 41.4 | 32.3 | 28.1 | 24.2 | 18.9 | 15.5 | 13.2 | 8.24 | 6.96 |
| 1.83V | 368 | 212 | 148 | 108 | 87.1 | 51.9 | 40.1 | 30.8 | 27.2 | 23.3 | 18.4 | 14.9 | 12.7 | 8.22 | 6.85 |
| 1.85V | 345 | 206 | 137 | 104 | 84.4 | 50.0 | 39.0 | 30.4 | 26.5 | 22.8 | 17.8 | 14.8 | 12.6 | 8.06 | 6.79 |

## Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 842 | 476 | 297 | 223 | 181 | 104 | 82.1 | 63.6 | 57.1 | 48.0 | 37.7 | 30.9 | 26.3 | 16.7 | 14.0 |
| 1.67V | 811 | 467 | 294 | 222 | 180 | 104 | 81.0 | 63.5 | 56.8 | 48.0 | 37.3 | 30.7 | 26.1 | 16.6 | 14.0 |
| 1.70V | 806 | 462 | 294 | 221 | 179 | 103 | 81.0 | 63.2 | 56.2 | 48.0 | 37.2 | 30.5 | 25.8 | 16.6 | 14.0 |
| 1.75V | 752 | 458 | 293 | 221 | 177 | 103 | 80.2 | 63.2 | 55.9 | 47.8 | 36.8 | 30.4 | 25.8 | 16.6 | 14.0 |
| 1.80V | 703 | 433 | 286 | 216 | 176 | 103 | 79.9 | 63.0 | 54.7 | 47.4 | 36.8 | 30.3 | 25.7 | 16.6 | 13.9 |
| 1.83V | 678 | 397 | 283 | 209 | 169 | 101 | 78.1 | 60.7 | 53.5 | 46.0 | 36.4 | 29.5 | 25.2 | 16.5 | 13.8 |
| 1.85V | 642 | 388 | 263 | 201 | 164 | 98.0 | 76.0 | 59.9 | 52.2 | 45.1 | 35.3 | 29.3 | 25.0 | 16.2 | 13.7 |

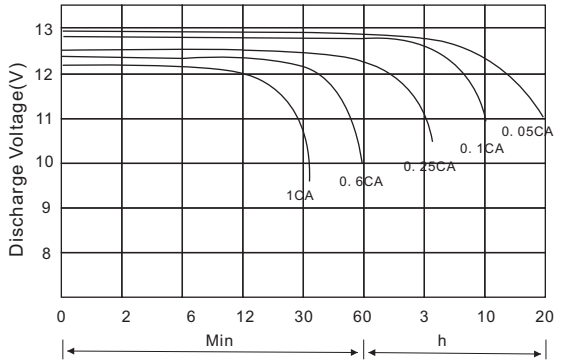
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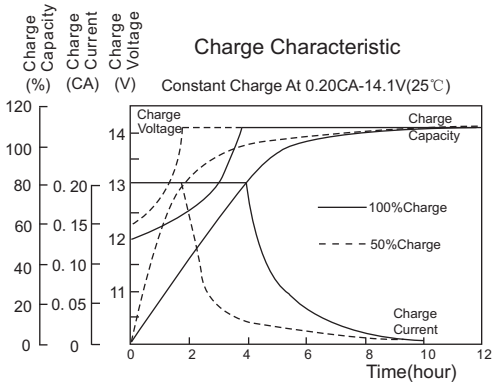
# Model: 6−GFM−155F

MP SERIES

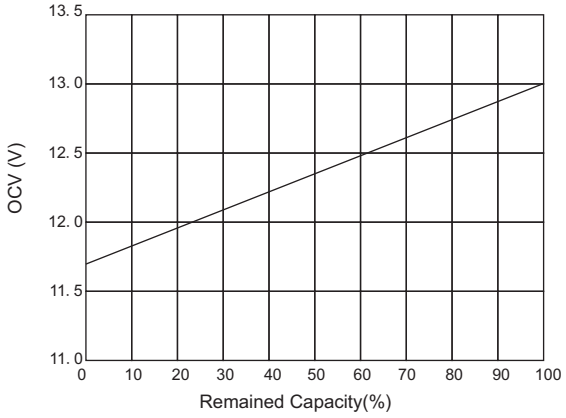
### Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



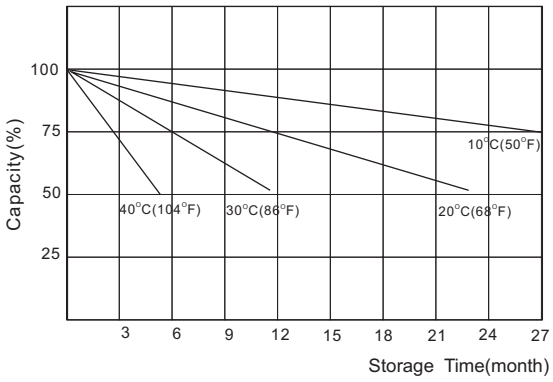

### Battery Voltage Vs. Charge Time




### Relationship of OCV Vs. State of Charge




### Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.45 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C⩾(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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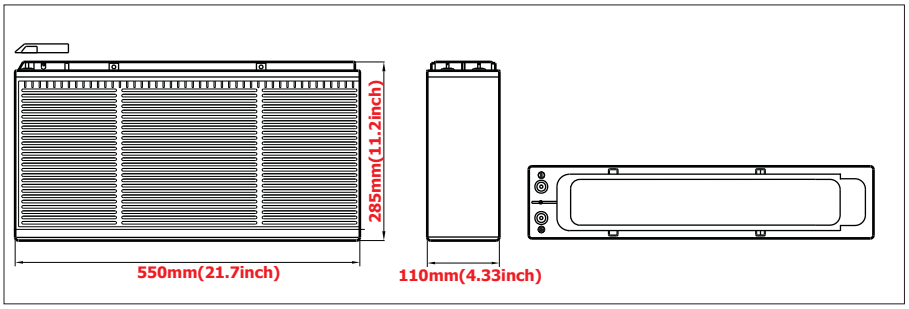
# Model: 6-GFM-155FC

**MP series**

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS heat seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℉).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-155FC |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 155Ah (10hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 48.5kg |
| Internal Resistance | Approx 4.00mΩ |
| Operating Temperature Range | Operation(maximum): -40°C to 55°C(-40°F to 131°F)<br>Operation(recommended): 15°C to 25°C(59°F to 77°F)<br>Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 39A |
| Equalize and Cycle Serivice | 2.35V~2.40V/cell@25°C(77°F) |
| Self Discharge | The residual capacity is above 90% after 90 days storage(25°C/77°F) |
| Terminal | M8 Female |
| Terminal Hardware Torque | 10 ± 1.0Nm |
| Container Material | ABS (V0 optional) |

**Constant current discharge ratings-amperes at 25°C**

| F.V/Time | 5min | 10min | 15min | 30min | 1h | 3h | 5h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 543 | 372 | 271 | 163 | 97.2 | 40.8 | 27.6 | 16.4 | 8.61 |
| 1.67V | 488 | 339 | 264 | 158 | 97.0 | 40.6 | 27.4 | 16.2 | 8.57 |
| 1.70V | 463 | 327 | 254 | 155 | 96.7 | 40.5 | 27.3 | 16.1 | 8.55 |
| 1.75V | 412 | 302 | 240 | 152 | 95.7 | 40.2 | 27.1 | 15.8 | 8.51 |
| 1.80V | 372 | 281 | 229 | 147 | 94.5 | 40.0 | 26.9 | 15.5 | 8.21 |
| 1.85V | 282 | 231 | 198 | 135 | 93.5 | 39.9 | 26.6 | 15.2 | 7.71 |

**Constant power discharge ratings-watts at 25°C**

| F.V/Time | 5min | 10min | 15min | 30min | 1h | 3h | 5h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 894 | 617 | 481 | 307 | 191 | 79.6 | 54.1 | 32.9 | 17.3 |
| 1.67V | 848 | 609 | 476 | 301 | 185 | 79.3 | 53.7 | 32.4 | 17.2 |
| 1.70V | 792 | 594 | 468 | 293 | 180 | 79.1 | 53.5 | 32.1 | 17.1 |
| 1.75V | 738 | 555 | 440 | 285 | 179 | 78.4 | 53.2 | 31.6 | 17.0 |
| 1.80V | 662 | 516 | 414 | 277 | 176 | 77.3 | 52.3 | 31.0 | 16.4 |
| 1.85V | 530 | 428 | 361 | 254 | 174 | 77.0 | 51.5 | 30.5 | 15.4 |

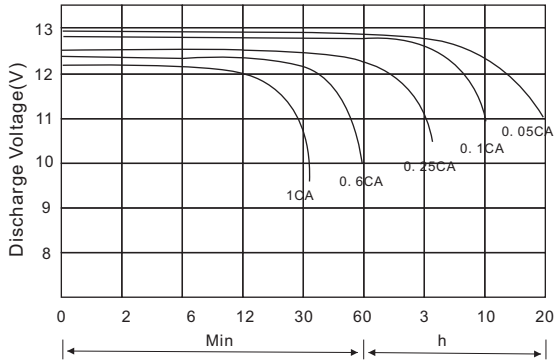
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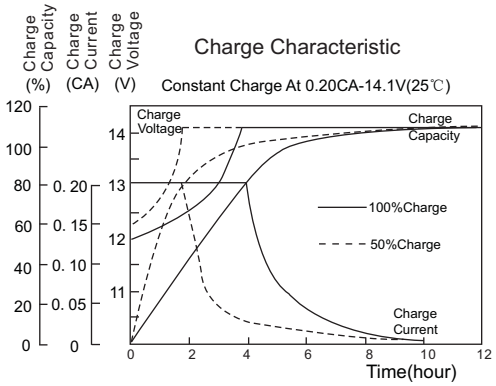
# Model: 6-GFM-155FC

**MP series**

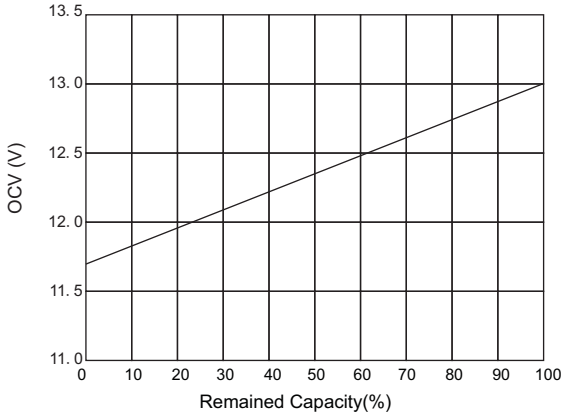
## Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



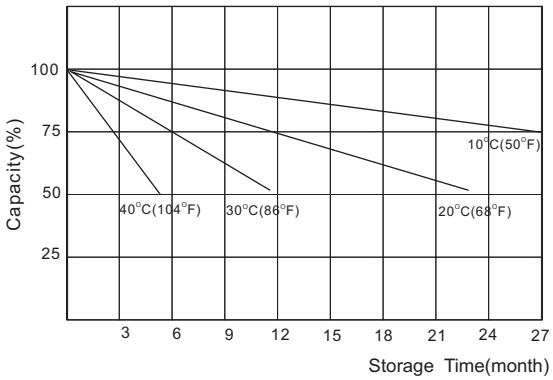

## Battery Voltage Vs. Charge Time




## Relationship of OCV Vs. State of Charge




## Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.40 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C⩾(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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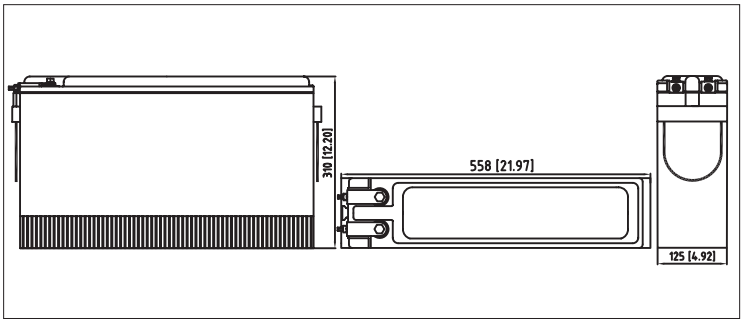
# Model: 6-GFM-170F

MP SERIES

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS heat seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℉).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-170F |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 170Ah (8 hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 56kg |
| Internal Resistance | Approx 3.22mΩ |
| Operating Temperature Range | Operation(maximum): -40°C to 55°C(-40°F to 131°F)<br>Operation(recommended): 15°C to 25°C(59°F to 77°F)<br>Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 42.5A |
| Equalize and Cycle Serivice | 2.35V~2.40V/cell@25°C(77°F) |
| Self Discharge | The residual capacity is above 90% after 90 days storage(25°C/77°F) |
| Terminal | M8 Female with adapter offering an M6 Male connection at the front(M8 optional) |
| Terminal Hardware Torque | 10 ± 1. 0Nm |
| Container Material | ABS (V0 optional) |

## Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 621 | 334 | 202 | 147 | 119 | 68.0 | 49.3 | 38.7 | 32.7 | 28.1 | 21.4 | 17.7 | 14.9 | 9.35 | 7.82 |
| 1.67V | 584 | 322 | 199 | 146 | 118 | 67.6 | 48.4 | 38.5 | 32.5 | 27.8 | 21.4 | 17.5 | 14.9 | 9.27 | 7.75 |
| 1.70V | 578 | 316 | 196 | 144 | 117 | 67.1 | 48.2 | 38.3 | 32.0 | 27.6 | 21.3 | 17.5 | 14.8 | 9.25 | 7.74 |
| 1.75V | 531 | 307 | 194 | 143 | 115 | 65.4 | 47.6 | 37.8 | 31.8 | 27.4 | 21.3 | 17.4 | 14.8 | 9.23 | 7.74 |
| 1.80V | 476 | 286 | 186 | 138 | 112 | 64.8 | 47.3 | 37.7 | 31.1 | 26.8 | 21.2 | 17.2 | 14.6 | 9.14 | 7.72 |
| 1.83V | 454 | 262 | 182 | 133 | 107 | 64.0 | 45.7 | 36.0 | 30.1 | 25.9 | 20.7 | 16.6 | 13.9 | 9.12 | 7.60 |
| 1.85V | 426 | 254 | 170 | 128 | 104 | 61.6 | 44.5 | 35.5 | 29.4 | 25.3 | 20.1 | 16.4 | 13.8 | 8.94 | 7.53 |

## Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 1038 | 587 | 366 | 275 | 223 | 128 | 93.7 | 74.3 | 62.7 | 54.0 | 41.8 | 34.3 | 28.9 | 18.5 | 15.5 |
| 1.67V | 1000 | 576 | 363 | 273 | 222 | 128 | 92.5 | 74.2 | 62.7 | 53.7 | 41.6 | 34.1 | 28.9 | 18.5 | 15.5 |
| 1.70V | 994 | 570 | 363 | 273 | 221 | 127 | 92.5 | 73.9 | 61.7 | 53.3 | 41.3 | 33.8 | 28.6 | 18.4 | 15.5 |
| 1.75V | 928 | 565 | 361 | 273 | 218 | 127 | 91.5 | 73.8 | 61.7 | 53.1 | 40.9 | 33.8 | 28.6 | 18.4 | 15.5 |
| 1.80V | 851 | 534 | 353 | 266 | 217 | 126 | 91.3 | 73.6 | 60.7 | 52.6 | 40.8 | 33.6 | 28.5 | 18.4 | 15.5 |
| 1.83V | 813 | 490 | 348 | 258 | 208 | 125 | 89.2 | 70.9 | 59.4 | 51.0 | 40.4 | 32.8 | 27.7 | 18.3 | 15.3 |
| 1.85V | 760 | 478 | 324 | 248 | 202 | 121 | 86.7 | 70.0 | 57.9 | 50.0 | 39.2 | 32.5 | 27.4 | 18.0 | 15.2 |

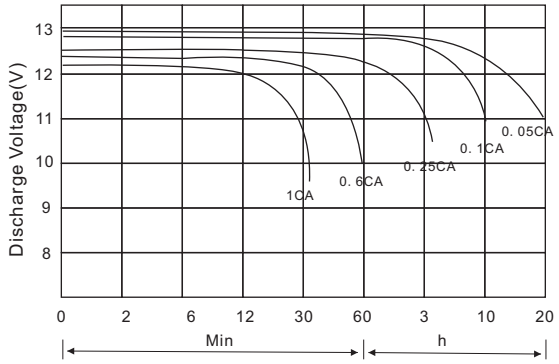
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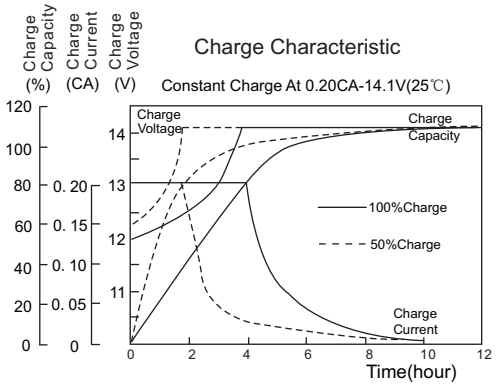
# Model: 6-GFM-170F

MP SERIES

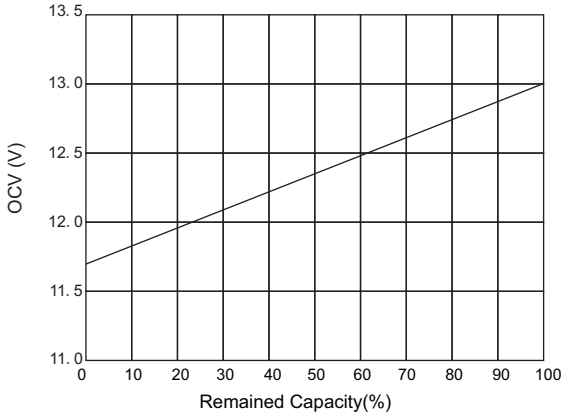
### Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



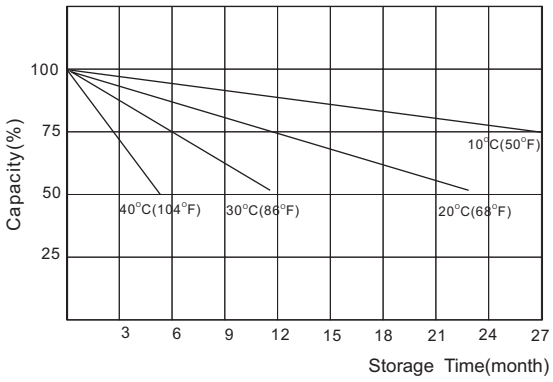

### Battery Voltage Vs. Charge Time




### Relationship of OCV Vs. State of Charge




### Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.40 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C⩾(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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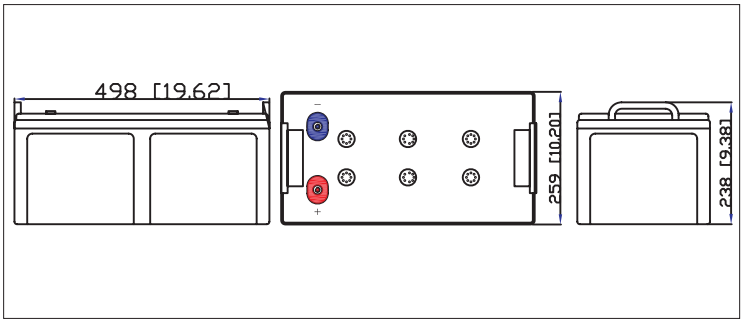
# Model: 6-GFM-200M

MP SERIES

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS glue seal technology between container and lid and patented post seal structure. The design float life is12 years at 25℃(77℉).



## Dimensions-mm[inch]




## Specifications

| Battery Model | 6-GFM-200M |
|---|---|
| Nominal Voltage | 12V |
| Rated Capacity | 200Ah (10hour rate) to 1.80V/cell @25°C(77°F) |
| Typical Weight | 74.5kg |
| Internal Resistance | About 2.8mΩ |
| Operating Temperature Range | Operation(maximum): -40°C to 55°C(-40°F to 131°F)<br>Operation(recommended): 15°C to 25°C(59°F to 77°F)<br>Storage: -20°C to 40°C(-4°F to 104°F) |
| Float Voltage | 2.25V/cell@25°C(77°F) |
| Recommended Maximum Charging Current Limit | 50A |
| Equalize and Cycle Serivice | 2.35V~2.40V@25°C(77°F) |
| Self Discharge | The residual capacity is above 87% after 90 days storage(25°C/77°F) |
| Terminal | M8 Female |
| Terminal Hardware Torque | 10 ± 1. 0Nm |
| Container Material | ABS (V0 optional) |

## Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 650 | 350 | 212 | 153 | 124 | 71.1 | 55.7 | 42.8 | 38.4 | 32.2 | 25.1 | 20.6 | 17.5 | 10.9 | 9.09 |
| 1.67V | 611 | 337 | 208 | 152 | 123 | 70.8 | 54.7 | 42.5 | 38.0 | 32.1 | 24.8 | 20.3 | 17.3 | 10.8 | 9.01 |
| 1.70V | 605 | 331 | 205 | 151 | 122 | 70.2 | 54.4 | 42.3 | 37.6 | 32.1 | 24.8 | 20.4 | 17.2 | 10.8 | 9.00 |
| 1.75V | 556 | 321 | 203 | 150 | 121 | 68.4 | 53.8 | 41.8 | 37.2 | 31.8 | 24.5 | 20.2 | 17.2 | 10.7 | 8.99 |
| 1.80V | 498 | 299 | 195 | 144 | 117 | 67.8 | 53.4 | 41.7 | 36.2 | 31.2 | 24.4 | 20.0 | 17.0 | 10.6 | 8.98 |
| 1.83V | 475 | 274 | 191 | 139 | 112 | 67.0 | 51.7 | 39.8 | 35.0 | 30.1 | 23.8 | 19.3 | 16.3 | 10.6 | 8.83 |
| 1.85V | 445 | 266 | 177 | 134 | 109 | 64.5 | 50.3 | 39.2 | 34.2 | 29.5 | 23.0 | 19.1 | 16.2 | 10.4 | 8.76 |

## Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

| End voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V | 1087 | 614 | 383 | 288 | 233 | 134 | 106 | 82.0 | 73.6 | 62.0 | 48.6 | 39.9 | 33.9 | 21.5 | 18.0 |
| 1.67V | 1047 | 603 | 380 | 286 | 232 | 134 | 105 | 81.9 | 73.3 | 61.9 | 48.1 | 39.6 | 33.6 | 21.5 | 18.0 |
| 1.70V | 1040 | 596 | 380 | 286 | 231 | 133 | 105 | 81.6 | 72.6 | 62.0 | 48.0 | 39.4 | 33.3 | 21.4 | 18.0 |
| 1.75V | 971 | 592 | 378 | 285 | 228 | 133 | 103 | 81.5 | 72.2 | 61.7 | 47.5 | 39.3 | 33.3 | 21.4 | 18.0 |
| 1.80V | 907 | 559 | 369 | 278 | 227 | 132 | 103 | 81.3 | 70.5 | 61.1 | 47.5 | 39.1 | 33.2 | 21.4 | 18.0 |
| 1.83V | 874 | 512 | 365 | 270 | 218 | 131 | 101 | 78.3 | 69.0 | 59.4 | 47.0 | 38.1 | 32.5 | 21.3 | 17.8 |
| 1.85V | 828 | 500 | 339 | 259 | 211 | 126 | 98.0 | 77.3 | 67.3 | 58.2 | 45.6 | 37.8 | 32.3 | 20.9 | 17.7 |

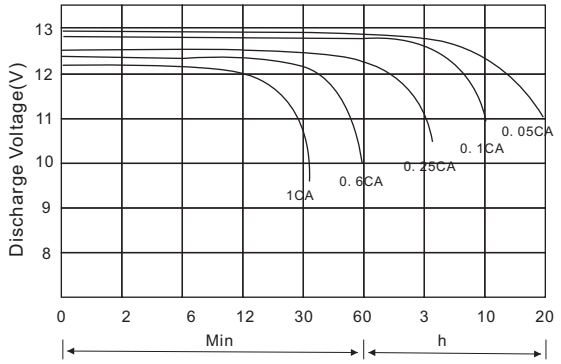
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stored energy solutions for a demanding world

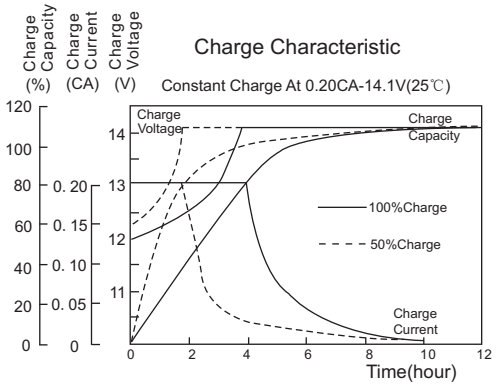
# Model: 6-GFM-200M

MP SERIES

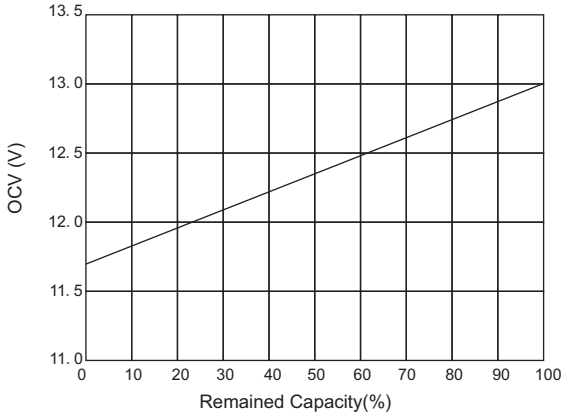
### Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



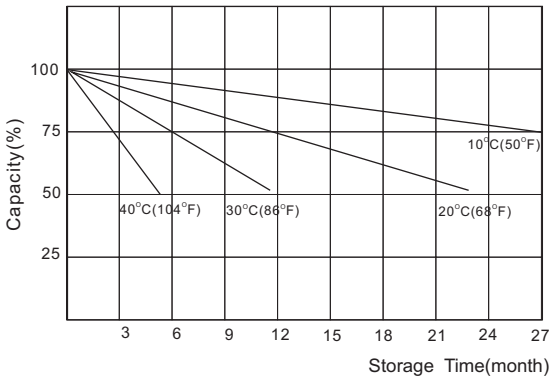

### Battery Voltage Vs. Charge Time




### Relationship of OCV Vs. State of Charge




### Capacity Retention Characteristic




## Charging Procedures

| Application | Charge Voltage (V/Cell) | | | Max. Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle | 25°C | 2.40 | 2.35~2.45 | 0. 25C |
| Standby | 25°C | 2.25 | 2.23~2.27 | |

## Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/Cell | 1.80 | 1.70 | 1.55 | 1.30 |
|---|---|---|---|---|
| Discharge Current (A) | 0.2C⩾(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |


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Pb


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