



# 6FM28G (12V28Ah)

**LONGWAY®** Standard battery is design for a general purpose by KaiYing Power. 6FM28G is a general purpose battery up to 8 years in float service or more than 260 cycles at 100% discharge in cycle service. As with all **LONGWAY®** batteries, all are rechargeable highly efficient, leak proof and maintenance free.





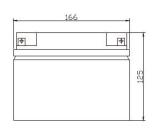
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| Ces     | TIFICA  | right.   |
| ISO 140 | 01:2004 | Standard |

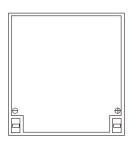


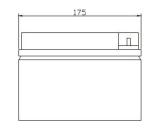
### Specifications:

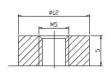
| opecifications.                     |   |  |  |  |  |
|-------------------------------------|---|--|--|--|--|
| Cells per Unit                      | 6   |  |  |  |  |
| Normal Voltage                      | 12V   |  |  |  |  |
| Capacity                            | 28Ah@20Hr-rate to 1.75V per cell@25℃                                |  |  |  |  |
| Weight                              | Approx.(9.0±3%) kg (19.84lbs)                                       |  |  |  |  |
| Maximum Discharge Current           | 280A(5sec)  |  |  |  |  |
| Internal Resistance                 | Approx. 10m $\Omega$ full charged @25 $^{\circ}$ C                  |  |  |  |  |
| Operating Temperature Range         | Discharge: -20°C~60°C   |  |  |  |  |
|                                     | Charge: 0°C~50°C  |  |  |  |  |
|                                     | Storage: -20℃~60℃   |  |  |  |  |
| Nominal Operating Temperature Range | 25℃±3℃  |  |  |  |  |
| Float Charging Voltage              | 13.7~13.9VDC/unit Average @25℃                                      |  |  |  |  |
| Maximum Charging Current            | 7.0A  |  |  |  |  |
| Equalization and Cycle Service      | 14.4V~15.0VDC/unit Average @ 25℃                                    |  |  |  |  |
| Self Discharge                      | LONGWAY Valve Regulated Lead Acid (VRLA) batteries can be stored    |  |  |  |  |
|                                     | for more than 6 months at 25 °C. Self-discharge ratio less than 3%  |  |  |  |  |
|                                     | per month at 25℃. Please charge batteries before using.             |  |  |  |  |
| Terminal                            | F5  |  |  |  |  |
| Container Material                  | ABS(UL94-HB)  |  |  |  |  |
|                                     | *Flammability resistance of (UL94-V0) can be available upon request |  |  |  |  |

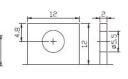
**Dimensions:** L175\*W166\*H126(TH126)











# Constant Current Discharge Characteristics (A, 25 $\mathcal{C}$ )

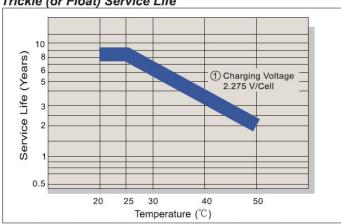
| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 9.60     | 83.4 | 68.9  | 54.1  | 32.9  | 18.2  | 10.9 | 8.24 | 5.29 | 3.41 | 2.84 | 1.49 |
| 9.90     | 80.9 | 66.8  | 53.0  | 32.2  | 17.8  | 10.9 | 8.20 | 5.26 | 3.39 | 2.83 | 1.48 |
| 10.2     | 79.3 | 65.4  | 51.9  | 31.6  | 17.5  | 10.8 | 8.12 | 5.21 | 3.38 | 2.82 | 1.48 |
| 10.5     | 74.7 | 63.4  | 50.3  | 30.6  | 16.9  | 10.7 | 8.04 | 5.16 | 3.37 | 2.81 | 1.47 |
| 10.8     | 68.4 | 61.5  | 49.3  | 30.0  | 16.6  | 10.6 | 7.96 | 5.10 | 3.36 | 2.80 | 1.47 |

## Constant Power Discharge Characteristics (Watt, 25 ℃)

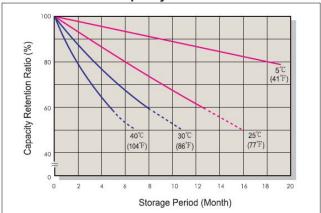
|          |      | J     |       | 1     | -, - , |     |      |      |      |      |      |
|----------|------|-------|-------|-------|--------|-----|------|------|------|------|------|
| F.V/TIME | 5min | 10min | 15min | 30min | 60min  | 2h  | 3h   | 5h   | 8h   | 10h  | 20h  |
| 9.60     | 901  | 752   | 600   | 369   | 207    | 127 | 96.9 | 62.5 | 40.9 | 33.9 | 17.9 |
| 9.90     | 874  | 730   | 582   | 362   | 203    | 126 | 96.4 | 62.2 | 40.7 | 33.8 | 17.8 |
| 10.2     | 856  | 715   | 570   | 354   | 199    | 125 | 95.5 | 61.6 | 40.6 | 33.6 | 17.7 |
| 10.5     | 807  | 692   | 552   | 343   | 193    | 124 | 94.5 | 60.9 | 40.4 | 33.5 | 17.7 |
| 10.8     | 739  | 672   | 542   | 337   | 189    | 122 | 93.6 | 60.3 | 40.3 | 33.4 | 17.6 |



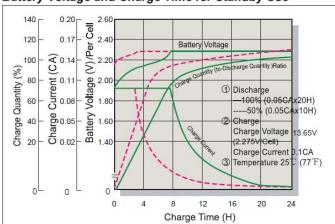
#### Trickle (or Float) Service Life



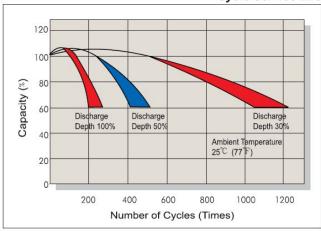
## Capacity Retention Characteristic



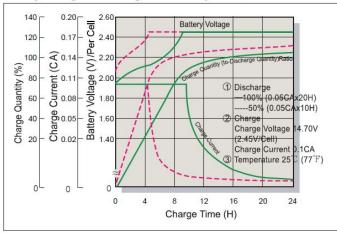
#### Battery Voltage and Charge Time for Standby Use



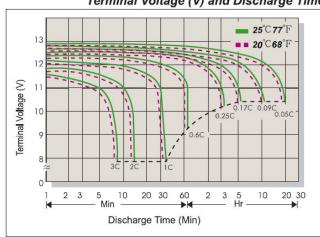
#### Cycle Service Life



#### Battery Voltage and Charge Time for Cycle Use



#### Terminal Voltage (V) and Discharge Time



#### **Charging Procedures**

| Application | CI          | Max. Charge |                 |         |  |
|-------------|-------------|-------------|-----------------|---------|--|
| Application | Temperature | Set Point   | Allowable Range | Current |  |
| Cycle Use   | 25°C(77°F)  | 2.45        | 2.40~2.50       | 0.050   |  |
| Standby     | 25°C(77°F)  | 2.275       | 2.25~2.30       | 0.25C   |  |

#### Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/cell | 1.75     | 1.70              | 1.65              | 1.60     |
|--------------------------------|----------|-------------------|-------------------|----------|
| Discharge<br>Current (A)       | 0.2C>(A) | 0.2C<(A)<br><0.5C | 0.5C<(A)<br><1.0C | (A)>1.0C |

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