agm standard



12LS-2.9

12V 2,9Ah

Design lifetime 5 years



Q-Batteries Security Akku 12LS-2.9 is an AGM battery. It is designed for stand-by applications such as burglar-systems or UPS-systems.

AGM/

Bleivlies

USV

# Application:

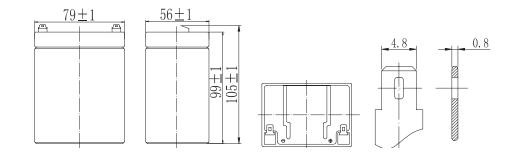
UPS, security- and telecommunicationsystems etc.

### **Specification:**

| Voltage Per Unit                      | 12 V  |                                    |                           |  |  |  |  |
|---------------------------------------|---|------------------------------------|---------------------------|--|--|--|--|
| Capacity                              | 2.9 Ah  | @20hr-rate to 1.75V per cell @25°C |                           |  |  |  |  |
| Cells Per Unit                        | 6   |                                    |                           |  |  |  |  |
| Weight                                | ca. 1.05 kg +/- 3kg   |                                    |                           |  |  |  |  |
| Max. Discharge Current                | 29 A (5 sec.)   |                                    |                           |  |  |  |  |
| Internal Resistance                   | ca. 42m $\Omega$  |                                    |                           |  |  |  |  |
| Operating Temperature Range<br>Normal | Discharge:<br>- 15°C – 50°C   | Charge:<br>-10°C – 50°C            | Storage:<br>- 20°C – 50°C |  |  |  |  |
| Operating Temperature Range           | 25°C ± 5°C  |                                    |                           |  |  |  |  |
| Self Discharge                        | Valve Regulated Lead Acid (VRLA) batteries can be stored for<br>more than 6 months at 25°C. Self-discharge ratio less than<br>3% per month at 25°C. Please charge batteries before using. |                                    |                           |  |  |  |  |
| Terminal                              | F1  |                                    |                           |  |  |  |  |
| Container Material                    | A.B.S. (UL94-HB)  |                                    |                           |  |  |  |  |

## Dimensions:

79 Length x 56 Width x 99 mm Height

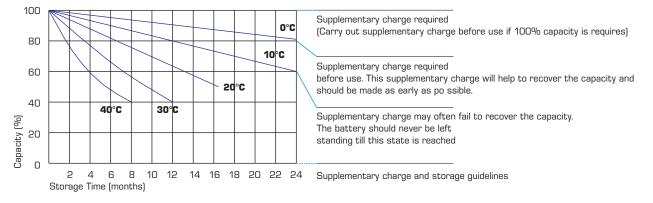




#### Constant current discharge characteristics: A (25°C)

| F.V/Time | 5 Min. | 10 Min. | 15 Min. | 30 Min. | 1 HR | 2 HR | 3 HR | 4 HR | 5 HR | 10 HR | 20 HR |
|----------|--------|---------|---------|---------|------|------|------|------|------|-------|-------|
| 9.60V    | 11.0   | 6.96    | 5.51    | 3.07    | 1.89 | 1.03 | 0.74 | 0.59 | 0.50 | 0.27  | 0.147 |
| 9.90V    | 10.7   | 6.75    | 5.38    | 3.01    | 1.86 | 1.02 | 0.74 | 0.59 | 0.50 | 0.27  | 0.147 |
| 10.2V    | 10.2   | 6.47    | 5.18    | 2.92    | 1.81 | 1.02 | 0.73 | 0.58 | 0.50 | 0.27  | 0.146 |
| 10.5V    | 9.81   | 6.19    | 5.00    | 2.85    | 1.77 | 1.00 | 0.73 | 0.58 | 0.49 | 0.27  | 0.145 |
| 10.8V    | 9.26   | 5.85    | 4.74    | 2.75    | 1.72 | 0.97 | 0.70 | 0.56 | 0.48 | 0.26  | 0.142 |
|          |        |         |         |         |      |      |      |      |      |       |       |

### Storage characteristic:



## Capacity Factors with different Temperature:

| Batte   | ery Type | -20°C | -10°C | 0°C | 5°C | 10°C | 20°C | 25°C | 30°C | 40°C | 45°C |
|---------|----------|-------|-------|-----|-----|------|------|------|------|------|------|
| GEL     | 6V & 12V | 50%   | 70%   | 83% | 85% | 90%  | 98%  | 100% | 102% | 104% | 105% |
| Battery | 2V       | 60%   | 75%   | 85% | 88% | 92%  | 99%  | 100% | 103% | 105% | 106% |
| AGM     | 6V & 12V | 46%   | 66%   | 76% | 83% | 90%  | 98%  | 100% | 103% | 107% | 109% |
| Battery | 2V       | 55%   | 70%   | 80% | 85% | 92%  | 99%  | 100% | 104% | 108% | 110% |

# Charging Method:

Charge the batteries at least once every six months, if they are stored at 25°C

| Constant Voltage (V) | -0.2C x 2h + 2.4–2.45V/Cell x 24h, max. Current 0.3CA |
|----------------------|---|
| Constant Current (A) | -0.2C x 2h + 0.1CA x 12h                              |
| Fast                 | -0.2C x 2h + 0.3CA x 4.0h                             |