12LS-33

12 V 35 Ah

Design lifetime: 10 years



Q-Batteries 12LS-33 is an AGM battery, which is designed for standby applications such as fire-detecting-systems, UPS or burglar-systems.

# Application:

UPS, security- and telecommunicationsystems etc.











## Specification:

Voltage Per Unit 12 V

Capacity 35 Ah @20hr-rate to 1.78V per cell @25°C

Cells Per Unit 6

Weight ca. 10,2 kg +/- 3%

Max. Discharge Current 330 A (5 sec.) Internal Resistance ca. 9,0m  $\Omega$ 

Operating Temperature Range Discharge: Charge: Storage:

Normal - 15°C - 50°C - 10°C - 50°C - 20°C - 50°C

Operating Temperature Range 25°C ± 5°C

Self Discharge Valve Regulated Lead Acid (VRLA) batteries can be stored for

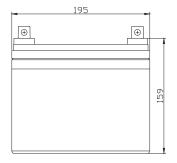
more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.

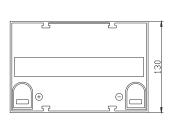
Terminal F11 (M6 bolt)

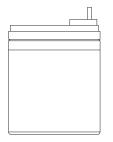
Container Material A.B.S. (UL94-HB)

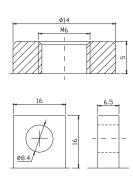
## Dimensions:

195 Length x 130 Width x 159 mm Height







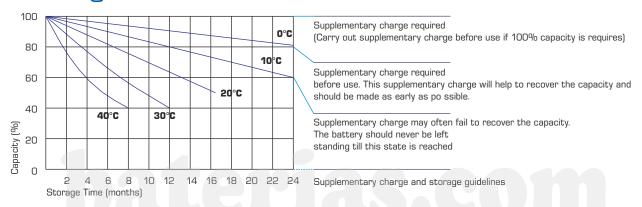




#### Constant current discharge characteristics: A (25°C)

| F.V/Time | 5 Min. | 10 Min. | 15 Min. | 30 Min. | 1 HR  | 2 HR  | 3 HR  | 4 HR  | 5 HR  | 8 HR  | 10 HR | 20 HR |
|----------|--------|---------|---------|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9.60 V   | 110.6  | 81.41   | 63.46   | 38.67   | 21.45 | 12.83 | 8.858 | 7.338 | 6.178 | 4.220 | 3.500 | 1.868 |
| 10.0 V   | 107.4  | 77.46   | 62:16   | 38.01   | 21.35 | 12.73 | 8.824 | 7.304 | 6.141 | 4.185 | 3.466 | 1.834 |
| 10.2 V   | 104.2  | 74.73   | 61.18   | 37.30   | 21.15 | 12.63 | 8.756 | 7.270 | 6.105 | 4.151 | 3.433 | 1.800 |
| 10.5 V   | 93.56  | 68.95   | 58.26   | 37.02   | 20.96 | 12.54 | 8.722 | 7.202 | 6.032 | 4.117 | 3.399 | 1.766 |
| 10.8 V   | 84.45  | 62.88   | 53.70   | 36.39   | 20.46 | 12.31 | 8.485 | 7.032 | 5.923 | 4.048 | 3.365 | 1.732 |
| 11.1 V   | 72.10  | 56.20   | 48.17   | 34.07   | 19.44 | 11.77 | 8.111 | 6.692 | 5.669 | 3.877 | 3.264 | 1.630 |

## 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                             |