



## 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 telecommunication systems etc.

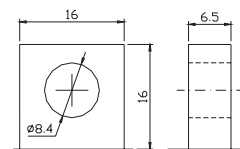
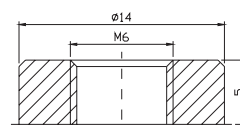
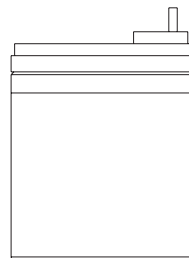
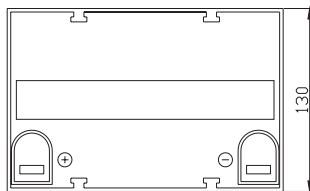
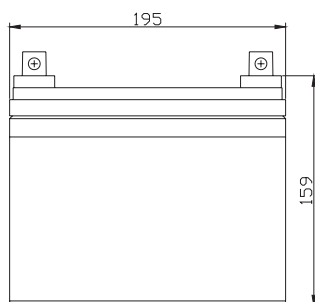


### Specification:

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 Normal	Discharge: - 15°C – 50°C	Charge: -10°C – 50°C	Storage: - 20°C – 50°C
Operating Temperature Range	25°C $\pm$ 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:

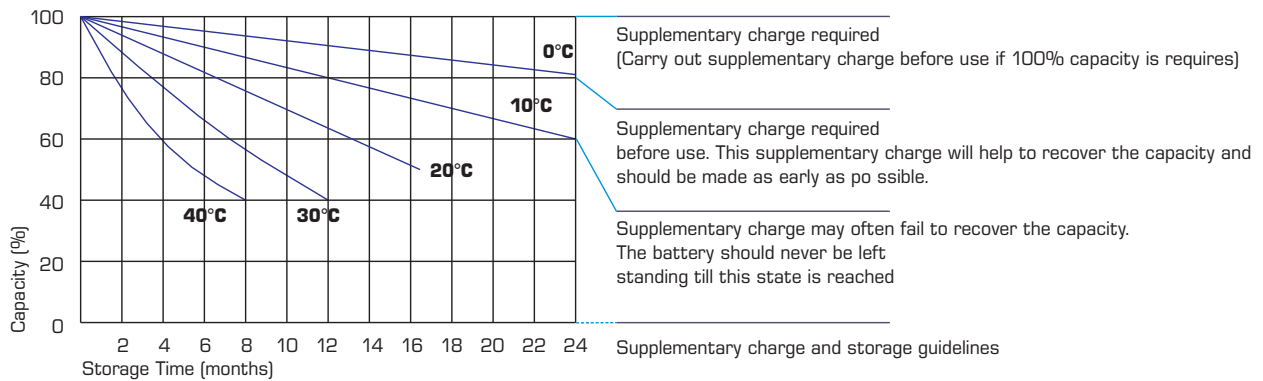
195 Length x 130 Width x 159 mm Height



## 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:

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