



12LS-9

12V 9Ah

Design lifetime 12 years +



The Q-Batteries LS series are valve regulated and maintenance-free AGM batteries (Absorbent glass mat technology), which have been developed especially for stand-by applications, such as in security technology, fire alarm technology or UPS. The batteries are characterized by excellent energy storage properties and a high level of reliability.

Application:

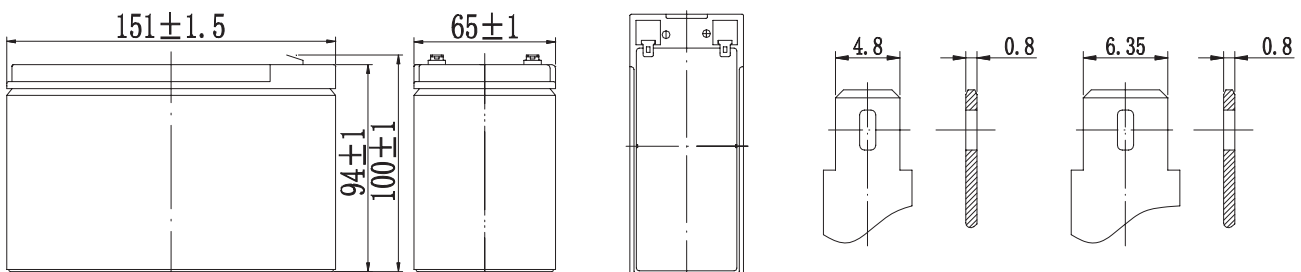
burglar-systems, UPS-systems,
fire-detecting-systems,
telecommunication-systems

Specification:

Voltage Per Unit	12 V		
Capacity	9 Ah (10 hr) cell voltage 1.8V / cell		
Cells Per Unit	6		
Weight	ca. 2.65 kg +/- 5%		
Max. Discharge Current	135 A (5 sec.)		
Internal Resistance	ca. 19m Ω		
Operating Temperature Range	Discharge:	Charge:	Storage:
Normal	- 15°C – 50°C	-10°C – 50°C	- 20°C – 50°C
Operating Temperature Range	25°C \pm 3°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	F1, F2		
Technology	AGM, Absorbent glass mat technology		
Container Material	A.B.S.		

Dimensions:

151mm Length x 65 mm Width x 94,5 mm (max. 100mm) Height



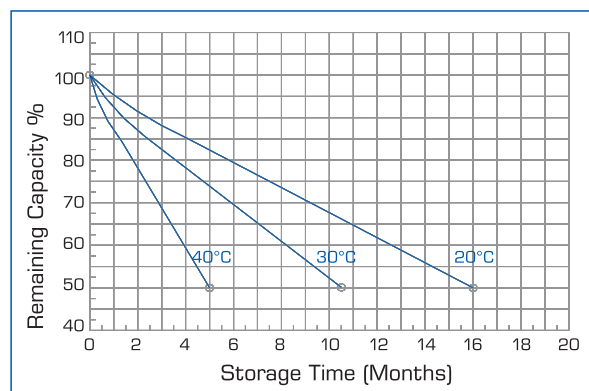
Constant current discharge characteristics: A (25°C)

F.V/Time	5min	10min	15min	30min	60min	2hr	3hr	4hr	5hr	10hr	20hr
9,60V	36.4	23.0	18.4	10.3	6.42	3.51	2.52	2.02	1.71	0.93	0.48
9.90V	35.3	22.3	18.0	10.1	6.32	3.49	2.50	2.01	1.70	0.93	0.47
10.2V	33.9	21.4	17.3	9.75	6.17	3.46	2.49	1.99	1.69	0.92	0.47
10.5V	32.4	20.4	16.7	9.52	6.04	3.40	2.47	1.98	1.68	0.92	0.47
10.8V	30.6	19.3	15.8	9.16	5.86	3.31	2.39	1.92	1.62	0.90	0.46

Constant current discharge characteristics: Watt (25°C)

F.V/Time	5min	10min	15min	30min	60min	2hr	3hr	4hr	5hr	10hr	20hr
9,60V	406	259	210	117	74.3	41.0	30.0	24.0	20.4	11.2	5.75
9.90V	394	251	204	115	73.2	40.8	29.7	23.8	20.3	11.2	5.73
10.2V	378	241	198	112	71.3	40.5	29.5	23.7	20.2	11.1	5.69
10.5V	361	230	190	109	69.9	39.8	29.3	23.5	20.1	11.0	5.66
10.8V	341	218	180	105	67.8	38.9	28.4	22.8	19.4	10.8	5.55

Storage characteristic:



Charging Method:

Recharge after use, at least every 6th month:

Cyclic charging voltage
14,5V bis 14,9V (25°C)

Float charging voltage (25°C)
13,6V bis 13,8V (25°C)

Maximum charging current
2,7A

Do not short circuit the battery.

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%