



# 12LS-90

12V 90Ah

Design lifetime 10 years



Q-Batteries Security Akku 12LS-90 is an AGM battery with VdS-approval. It is designed for stand-by applications such as burglar-systems or UPS-systems.

## Application:

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

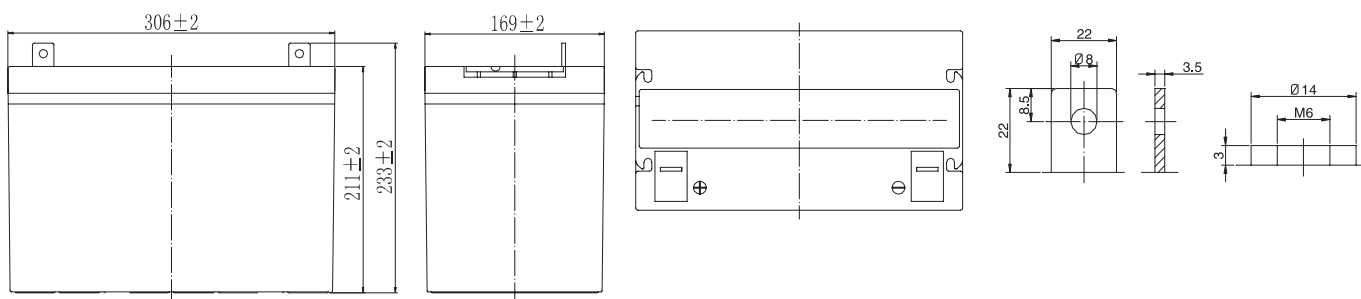


## Specification:

Voltage Per Unit	12 V		
Capacity	90 Ah (10 h) cell voltage 1.8V / cell		
Cells Per Unit	6		
Weight	ca. 29,5 kg +/- 3%		
Max. Discharge Current	650 A (5 sec.)		
Internal Resistance	ca. 4,5m $\Omega$		
Operating Temperature Range	Discharge:	Charge:	Storage:
Normal	- 15°C – 50°C	-10°C – 50°C	- 20°C – 50°C
Operating Temperature Range	25°C $\pm$ 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	F4, F11, F12		
Technology	AGM, Absorbent glass mat technology		
Container Material	A.B.S. (UL94-HB)		

## Dimensions:

306 Length x 169 Width x 214 mm Height



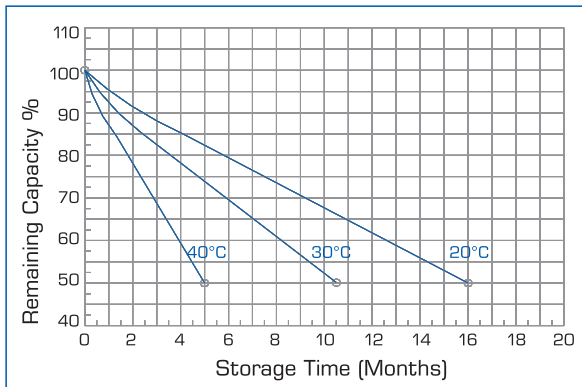
## Constant current discharge characteristics: A (25°C)

FV/Time	5 min	10min	15min	20min	30min	45min	60min	2HR	3HR	5HR
9,60V	297	209	171	137	96.8	72.2	58.9	32.9	23.6	16.5
9,90V	288	203	167	133	94.9	70.7	58.0	32.7	23.5	16.4
10,2V	276	194	161	129	92.0	68.6	56.5	32.4	23.3	16.3
10,5V	264	186	155	124	89.8	66.9	55.4	31.9	23.1	16.2
10,8V	249	175	147	118	86.5	64.4	53.7	31.1	22.4	15.7

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

FV/Time	5 min	10min	15min	20min	30min	45min	60min	2HR	3HR	5HR
9,60V	541	393	330	264	187	139	114	64.1	46.5	32.7
9,90V	524	381	322	258	183	136	112	63.7	46.2	32.5
10,2V	503	365	310	248	178	132	109	63.2	45.9	32.3
10,5V	481	350	300	240	173	129	107	62.2	45.6	32.1
10,8V	454	330	284	227	167	124	104	60.7	44.2	31.1

## Storage characteristic:



## Charging Method:

Recharge after use, at least every 6th month:

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

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

Maximum charging current  
27A

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%