



## 12LS-24

12V 24Ah

VdS G112075

Design lifetime 5 years



Q-Batteries Security Akku 12LS-24 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

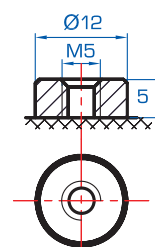
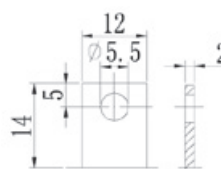
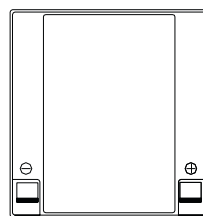
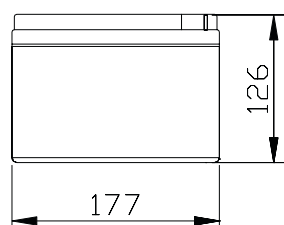
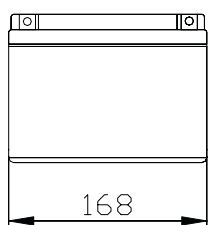


### Specification:

Voltage Per Unit	12 V		
Capacity	24 Ah (20 h) cell voltage 1.7V / cell		
Cells Per Unit	6		
Weight	ca. 8,0 kg +/- 3%		
Max. Discharge Current	288 A (5 sec.)		
Internal Resistance	ca. 13m $\Omega$		
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	F3, F13		
Container Material	A.B.S. (UL94-HB)		

### Dimensions:

168 Length x 177 Width x 126 mm Height



F13 (Schraubanschluss M5)

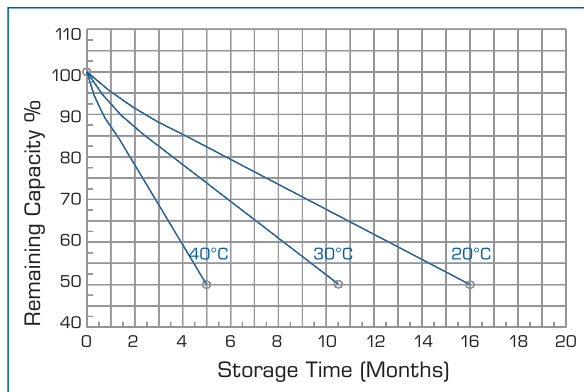
## Constant current discharge characteristics: A (25°C)

FV/Time	5 Min.	10 Min.	15 Min.	30 Min.	1 HR	2 HR	3 HR	4 HR	5 HR	10 HR	20 HR
9,60 V	84,0	67,2	48,0	27,6	19,7	15,6	8,40	6,07	4,13	2,26	1,22
10,2 V	76,8	60,0	43,2	26,4	19,2	15,4	8,28	6,00	4,08	2,23	1,20
10,8 V	60,0	43,2	38,4	21,6	18,7	14,9	7,92	5,76	4,03	2,18	1,18

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

FV/Time	5 Min.	10 Min.	15 Min.	30 Min.	1 HR	2 HR	3 HR	4 HR	5 HR	10 HR	20 HR
9,60 V	152,9	122,6	88,4	53,5	37,4	30,0	16,1	11,7	7,97	4,39	2,40
10,2 V	139,7	110,6	79,6	49,2	36,5	29,5	15,9	11,6	7,87	4,37	2,38
10,8 V	109,2	84,0	70,8	40,1	35,5	28,6	15,2	11,1	7,80	4,25	2,28

## Storage characteristic:



## Charging Method:

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

Constant Voltage (V)  
 $-0.2C \times 2h + 2.4-2.45V/Cell \times 24h$ , max. Current 0.3CA

Constant Current (A)  
 $-0.2C \times 2h + 0.1CA \times 12h$

Fast  
 $-0.2C \times 2h + 0.3CA \times 4.0h$

## 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%