



12LS-3.4

12V 3,4Ah

VdS G112069

Design lifetime 5 years



Q-Batteries Security Akku 12LS-3.4 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

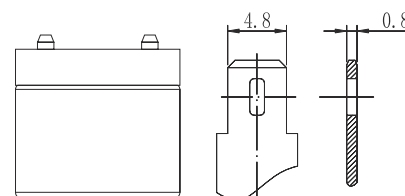
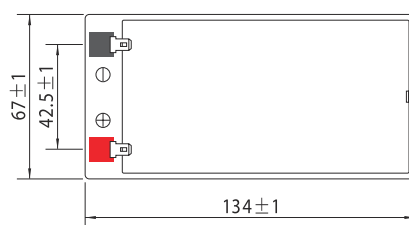
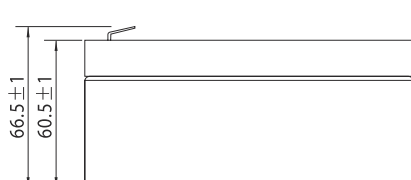


Specification:

Voltage Per Unit	12 V		
Capacity	3,4 Ah (20 h) cell voltage 1.8V / cell		
Cells Per Unit	6		
Weight	ca. 1,35 kg +/- 3%		
Max. Discharge Current	52,5 A (5 sec.)		
Internal Resistance	ca. 45m Ω		
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	F1		
Container Material	A.B.S. (UL94-HB)		

Dimensions:

134 Length x 67 Width x 60,5 mm (max. 66,5) Height



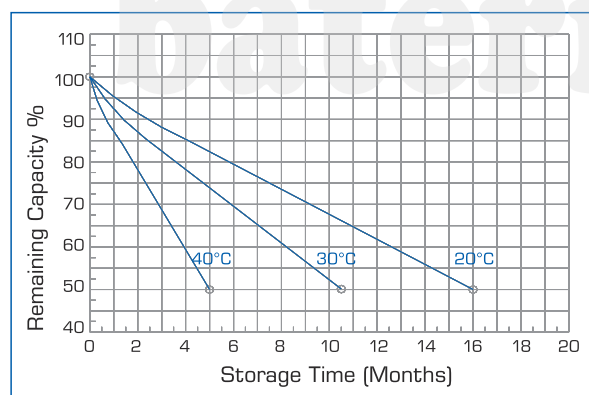
Constant current discharge characteristics: A (25°C)

FV/Time	5 Min.	10 Min.	15 Min.	20 Min.	30 Min.	45 Min.	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	8 HR	10 HR	20 HR
1.85 V/cell	6.67	5.12	4.24	3.67	2.83	2.09	1.76	1.04	0.81	0.66	0.54	0.47	0.378	0.316	0.173
1.80 V/cell	8.90	6.54	5.12	4.33	3.34	2.43	1.97	1.14	0.88	0.71	0.58	0.50	0.401	0.326	0.175
1.75 V/cell	10.10	7.19	5.60	4.66	3.47	2.52	2.06	1.18	0.89	0.72	0.60	0.52	0.408	0.334	0.177
1.70 V/cell	11.10	7.83	5.97	4.90	3.61	2.62	2.13	1.21	0.92	0.74	0.61	0.53	0.413	0.341	0.180
1.65 V/cell	12.20	8.45	6.35	5.20	3.81	2.69	2.18	1.23	0.96	0.77	0.63	0.54	0.42	0.348	0.182
1.60 V/cell	13.50	9.20	6.79	5.54	4.03	2.80	2.20	1.28	0.99	0.79	0.65	0.55	0.424	0.352	0.183

Constant current discharge characteristics: Watt (25°C)

FV/Time	5 Min.	10 Min.	15 Min.	20 Min.	30 Min.	45 Min.	1 HR	2 HR	3 HR	4 HR	5 HR	6 HR	8 HR	10 HR	20 HR
1.85 V/cell	12.20	9.50	7.91	6.91	5.40	4.01	3.40	2.02	1.59	1.29	1.06	0.92	0.746	0.625	0.343
1.80 V/cell	16.20	11.90	9.40	8.05	6.28	4.63	3.78	2.19	1.70	1.37	1.13	0.98	0.789	0.643	0.346
1.75 V/cell	17.90	12.90	10.20	8.58	6.46	4.76	3.94	2.26	1.72	1.40	1.16	1.01	0.801	0.660	0.349
1.70 V/cell	19.10	13.80	10.70	8.90	6.69	4.93	4.05	2.32	1.77	1.44	1.18	1.03	0.811	0.672	0.355
1.65 V/cell	20.80	14.70	11.30	9.40	7.00	5.01	4.11	2.34	1.84	1.48	1.21	1.05	0.822	0.685	0.360
1.60 V/cell	22.40	15.60	11.90	9.90	7.34	5.19	4.13	2.42	1.88	1.52	1.25	1.07	0.828	0.691	0.361

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 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

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%