12LC-92

12 V 93 Ah



Q-Batteries Akku 12LC-92 battery is a special deep cycle battery which is designed for intensive cyclic discharge usage. Because of the very thick lead plates it's possible to achieve more cycles and longer lifetime.

Application:

Electric wheelchair, caravan/marine, cleaning machines, golf cart, vehicle lifts, solar energy system, u.v.m.











Specification:

Voltage Per Unit 12 V

Capacity 93 Ah @20hr-rate to 1.8V per cell @25°C

Cells Per Unit 6

Weight ca. 28,5 kg +/- 3%

Max. Discharge Current 900 A (5 sec.) Internal Resistance ca. 5.5 m Ω

Operating Temperature Range Discharge: Charge: Storage:

Normal $-15^{\circ}\text{C} - 50^{\circ}\text{C} - 10^{\circ}\text{C} - 50^{\circ}\text{C} - 20^{\circ}\text{C} - 50^{\circ}\text{C}$

Operating Temperature Range 25°C ± 5°C

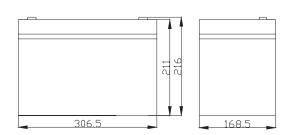
Self Discharge Valve Regulated Lead Acid (VRLA) batteries can be stored for

more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.

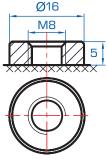
Terminal F12 (M8 bolt)

Container Material A.B.S. (UL94-HB)

Dimensions: 306.5 Length x 168.5 Width x 211 mm Height





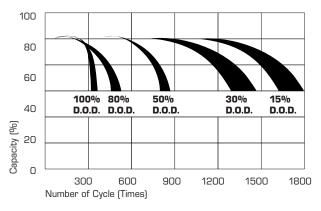




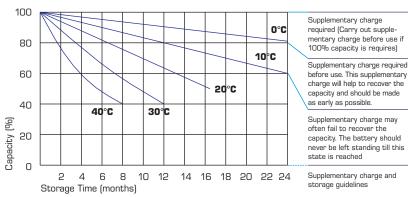
Constant current discharge characteristics: A (25°C)

| 5 Min. | 10 Min. | 15 Min. | 30 Min. | 1 HR | 2 HR | 3 HR | 4 HR | 5 HR | 8 HR | 10 HR | 20 HR |
|--------|-------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 295.5 | 217.6 | 169.6 | 103.4 | 57.33 | 34.29 | 23.68 | 19.61 | 16.51 | 11.28 | 9.35 | 4.99 |
| 287.0 | 207.0 | 166.1 | 101.6 | 57.07 | 34.03 | 23.58 | 19.52 | 16.41 | 11.19 | 9.26 | 4.90 |
| 278.5 | 199.7 | 163.5 | 99.70 | 56.54 | 33.77 | 23.40 | 19.43 | 16.32 | 11.09 | 9.17 | 4.81 |
| 250.1 | 184.3 | 155.7 | 98.95 | 56.01 | 33.51 | 23.31 | 19.25 | 16.12 | 11.00 | 9.08 | 4.72 |
| 225.7 | 168.1 | 143.5 | 97.26 | 54.68 | 32.91 | 22.68 | 18.79 | 15.83 | 10.82 | 8.99 | 4.63 |
| 192.7 | 150.2 | 128.7 | 91.05 | 51.95 | 31.45 | 21.68 | 17.89 | 15.15 | 10.36 | 8.72 | 4.36 |
| | 295.5 287.0 278.5 250.1 225.7 | 295.5 217.6 287.0 207.0 278.5 199.7 250.1 184.3 225.7 168.1 | 295.5 217.6 169.6 287.0 207.0 166.1 278.5 199.7 163.5 250.1 184.3 155.7 225.7 168.1 143.5 | 295.5 217.6 169.6 103.4 287.0 207.0 166.1 101.6 278.5 199.7 163.5 99.70 250.1 184.3 155.7 98.95 225.7 168.1 143.5 97.26 | 295.5 217.6 169.6 103.4 57.33 287.0 207.0 166.1 101.6 57.07 278.5 199.7 163.5 99.70 56.54 250.1 184.3 155.7 98.95 56.01 225.7 168.1 143.5 97.26 54.68 | 295.5 217.6 169.6 103.4 57.33 34.29 287.0 207.0 166.1 101.6 57.07 34.03 278.5 199.7 163.5 99.70 56.54 33.77 250.1 184.3 155.7 98.95 56.01 33.51 225.7 168.1 143.5 97.26 54.68 32.91 | 295.5 217.6 169.6 103.4 57.33 34.29 23.68 287.0 207.0 166.1 101.6 57.07 34.03 23.58 278.5 199.7 163.5 99.70 56.54 33.77 23.40 250.1 184.3 155.7 98.95 56.01 33.51 23.31 225.7 168.1 143.5 97.26 54.68 32.91 22.68 | 295.5 217.6 169.6 103.4 57.33 34.29 23.68 19.61 287.0 207.0 166.1 101.6 57.07 34.03 23.58 19.52 278.5 199.7 163.5 99.70 56.54 33.77 23.40 19.43 250.1 184.3 155.7 98.95 56.01 33.51 23.31 19.25 225.7 168.1 143.5 97.26 54.68 32.91 22.68 18.79 | 295.5 217.6 169.6 103.4 57.33 34.29 23.68 19.61 16.51 287.0 207.0 166.1 101.6 57.07 34.03 23.58 19.52 16.41 278.5 199.7 163.5 99.70 56.54 33.77 23.40 19.43 16.32 250.1 184.3 155.7 98.95 56.01 33.51 23.31 19.25 16.12 225.7 168.1 143.5 97.26 54.68 32.91 22.68 18.79 15.83 | 295.5 217.6 169.6 103.4 57.33 34.29 23.68 19.61 16.51 11.28 287.0 207.0 166.1 101.6 57.07 34.03 23.58 19.52 16.41 11.19 278.5 199.7 163.5 99.70 56.54 33.77 23.40 19.43 16.32 11.09 250.1 184.3 155.7 98.95 56.01 33.51 23.31 19.25 16.12 11.00 225.7 168.1 143.5 97.26 54.68 32.91 22.68 18.79 15.83 10.82 | 295.5 217.6 169.6 103.4 57.33 34.29 23.68 19.61 16.51 11.28 9.35 287.0 207.0 166.1 101.6 57.07 34.03 23.58 19.52 16.41 11.19 9.26 278.5 199.7 163.5 99.70 56.54 33.77 23.40 19.43 16.32 11.09 917 250.1 184.3 155.7 98.95 56.01 33.51 23.31 19.25 16.12 11.00 9.08 225.7 168.1 143.5 97.26 54.68 32.91 22.68 18.79 15.83 10.82 8.99 |

Life characteristics of cyclic use:



Storage characteristic:



Capacity Factors with different Temperature:

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