

Lead Acid Battery - Battery Regulation

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Battery model	Rated capacity(in Ah) and capacity fade (in %)	Power (in W) and power fade (in %)	Internal resistance (in Ω) and internal resistance increase (in %)	Where applicable, energy round trip efficiency and its fade (in %)	The expected life-time of the battery under the reference conditions for which it has been designed, in terms of cycles, except for non-cycle applications, and calendar years
12V/8Ah AGM Deep Cycle Batt.	20h rate capacity: 7Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 4.32W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx.30m Ω ; 0%/year	97%; 2%/100 cycle	$\geq 400@80\%DOD$ (Failure cut-off capacity < 60%)
12V/14Ah AGM Deep Cycle Batt	20h rate capacity: 12Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 8.1W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx. 16m Ω ; 30%/year	97%; 2%/100 cycle	$\geq 400@80\%DOD$ (Failure cut-off capacity < 60%)
12V/22Ah AGM Deep Cycle Batt.	20h rate capacity: 20Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 15W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx. 15m Ω ; 30%/year	97%; 2%/100 cycle	$\geq 400@80\%DOD$ (Failure cut-off capacity < 60%)
12V/110Ah AGM Deep Cycle Batt.	20h rate capacity: 110Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 75W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx.5.7m Ω ; 30%/year	97%; 2%/100 cycle	$\geq 400@80\%DOD$ (Failure cut-off capacity < 60%)
12V/110Ah AGM Deep Cycle Batt. (M8)	20h rate capacity: 110Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 75W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx.5.7m Ω ; 30%/year	97%; 2%/100 cycle	$\geq 400@80\%DOD$ (Failure cut-off capacity < 60%)
12V/110Ah Gel Deep Cycle Batt.	20h rate capacity: 110Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 75W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx.5.7m Ω ; 30%/year	97%; 2%/100 cycle	$\geq 450@80\%DOD$ (Failure cut-off capacity < 60%)
12V/130Ah AGM Deep Cycle Batt	20h rate capacity: 130Ah ; 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 79.2W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx.5.3m Ω ; 30%/year	97%; 2%/100 cycle	$\geq 400@80\%DOD$ (Failure cut-off capacity < 60%)
12V/130Ah Gel Deep Cycle Batt.	20h rate capacity: 130Ah ; 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 79.2W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx.5.3m Ω ; 30%/year	97%; 2%/100 cycle	$\geq 450@80\%DOD$ (Failure cut-off capacity < 60%)

12V/165Ah AGM Deep Cycle Batt	20h rate capacity: 165Ah ; 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 106.2W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx.4.5mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD (Failure cut-off capacity < 60%)
12V/165Ah AGM Deep Cycle Batt. (M8)	20h rate capacity: 165Ah ; 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 106.2W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx.4.5mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD (Failure cut-off capacity < 60%)
12V/165Ah Gel Deep Cycle Batt.	20h rate capacity: 165Ah ; 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 106.2W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx.4.5mΩ; 30%/year	97%; 2%/100 cycle	≥450@80%DOD (Failure cut-off capacity < 60%)
12V/220Ah AGM Deep Cycle Batt.	20h rate capacity: 220Ah ; 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 147W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx.4.0mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD (Failure cut-off capacity < 60%)
12V/220Ah AGM Deep Cycle Batt. (M8)	20h rate capacity: 220Ah ; 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 147W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx.4.0mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD (Failure cut-off capacity < 60%)
12V/220Ah Gel Deep Cycle Batt	20h rate capacity: 220Ah ; 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 147W/battery 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	approx.4.0mΩ; 30%/year	97%; 2%/100 cycle	≥450@80%DOD (Failure cut-off capacity < 60%)
12V/38Ah AGM Deep Cycle Batt	20h rate capacity: 40Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 28.2W/battery 0-1 month : 3% 2-3 month : 6% 4-7 month : 21% 8-10 month : 30% 11-13 month : 40%	approx.9.5mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD (Failure cut-off capacity < 60%)
12V/60Ah AGM Deep Cycle Batt	20h rate capacity: 55Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 34.8W/battery 0-1 month : 3% 2-3 month : 6% 4-7 month : 21% 8-10 month : 30% 11-13 month : 40%	approx.7.2mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD (Failure cut-off capacity < 60%)
12V/60Ah Gel Deep Cycle Batt.	20h rate capacity: 55Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 34.8W/battery 0-1 month : 3% 2-3 month : 6% 4-7 month : 21% 8-10 month : 30% 11-13 month : 40%	approx.7.2mΩ; 30%/year	97%; 2%/100 cycle	≥450@80%DOD (Failure cut-off capacity < 60%)

12V/90Ah AGM Deep Cycle Batt.	20h rate capacity: 80Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 49.2W/battery 0-1 month : 3% 2-3 month : 6% 4-7 month : 21% 8-10 month : 30% 11-13 month : 40%	approx.6.5mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD (Failure cut-off capacity < 60%)
12V/90Ah AGM Deep Cycle Batt. (M6)	20h rate capacity: 80Ah ; 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 49.2W/battery 0-1 month : 3% 2-3 month : 6% 4-7 month : 21% 8-10 month : 30% 11-13 month : 40%	approx.6.5mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD (Failure cut-off capacity < 60%)
12V/90Ah Gel Deep Cycle Batt.	20h rate capacity: 80Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 49.2W/battery 0-1 month : 3% 2-3 month : 6% 4-7 month : 21% 8-10 month : 30% 11-13 month : 40%	approx.6.5mΩ; 30%/year	97%; 2%/100 cycle	≥450@80%DOD (Failure cut-off capacity < 60%)
6V/240Ah AGM Deep Cycle Batt	20h rate capacity: 240Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 80.7W/battery 0-1 month : 3% 2-3 month : 6% 4-7 month : 21% 8-10 month : 30% 11-13 month : 40%	approx.3.2mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD (Failure cut-off capacity < 60%)
12V/115Ah AGM Telecom Batt. (M8)	20h rate capacity: 110Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 72.6W/battery 0-1 month : 3% 2-3 month : 6% 4-7 month : 21% 8-10 month : 30% 11-13 month : 40%	approx.6mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD (Failure cut-off capacity < 60%)
12V/165Ah AGM Telecom Batt. (M8)	20h rate capacity: 165Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 91.2W/battery 0-1 month : 3% 2-3 month : 6% 4-7 month : 21% 8-10 month : 30% 11-13 month : 40%	approx.4.5mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD (Failure cut-off capacity < 60%)
12V/200Ah AGM Telecom Batt. (M8)	20h rate capacity: 200Ah 0-1 month: 3% 2-3 month: 6% 4-7 month: 21% 8-10 month: 30% 11-13 month: 40%	20h rate power: 121.8W/battery 0-1 month : 3% 2-3 month : 6% 4-7 month : 21% 8-10 month : 30% 11-13 month : 40%	approx.4.0mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD (Failure cut-off capacity < 60%)
12V/15Ah AGM Super Cycle Batt. (M5)	20h rate capacity: 15Ah 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	20h rate power: 9W 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	approx.12.2mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD
12V/25Ah AGM Super Cycle Batt. (M5)	20h rate capacity: 25Ah 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	20h rate power: 15W 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	approx.10.5mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD

12V/38Ah AGM Super Cycle Batt. (M5)	20h rate capacity: 38Ah 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	20h rate power: 22.8W 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	approx. 9.8mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD
12V/60Ah AGM Super Cycle Batt. (M6)	20h rate capacity: 60Ah 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	20h rate power: 36W 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	approx. 7.5mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD
12V/100Ah AGM Super Cycle Batt. (M6)	20h rate capacity: 100Ah 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	20h rate power: 60W 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	approx. 4.8mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD
12V/125Ah AGM Super Cycle Batt. (M8)	20h rate capacity: 125Ah 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	20h rate power: 75W 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	approx. 4.5mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD
12V/170Ah AGM Super Cycle Batt. (M8)	20h rate capacity: 170Ah 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	20h rate power: 102W 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	approx. 3.8mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD
12V/230Ah AGM Super Cycle Batt. (M8)	20h rate capacity: 230Ah 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	20h rate power: 138W 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	approx. 3.5mΩ; 30%/year	97%; 2%/100 cycle	≥400@80%DOD
12V/265Ah Gel Deep Cycle Batt. (M8)	20h rate capacity: 265Ah 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	20h rate power: 159W 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	approx. 3.1mΩ; 30%/year	97%; 2%/100 cycle	≥600@60%DOD
Lead Carbon Battery 12V/106Ah (M8)	20h rate capacity: 106Ah 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	20h rate power: 63.6W 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	approx. 3.5mΩ; 30%/year	97%; 2%/100 cycle	≥2000@60%DOD
Lead Carbon Battery 12V/160Ah (M8)	20h rate capacity: 160Ah 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	20h rate power: 96W 0-1 month: 0% 2-3 month: 4% 4-7 month: 10% 8-10 month: 17% 11-13 month: 25%	approx. 3.2mΩ; 30%/year	97%; 2%/100 cycle	≥2000@60%DOD

Note: The above power values are all theoretical calculation values.

