

# C Rates Equivalence Table

Charge & Discharge Rates			Battery Capacities									Current In / Out
Decimal C Rate	Fraction C/ Rate	Hr Rate Hours	100Ah	120Ah	200Ah	240Ah	300Ah	360Ah	400Ah	480Ah	500Ah	
(Ah x)	(Ah÷)											
C0.01	C/100	100	1	1.2	2	2.4	3	3.6	4	4.8	5	
C0.02	C/50	50	2	2.4	4	4.8	6	7.2	8	9.6	10	
C0.03	C/33	33	3	3.6	6	7.2	9	10.8	12	14.4	15	
C0.04	C/25	25	4	4.8	8	9.6	12	14.4	16	19.2	20	
C0.05	C/20	20	5	6	10	12	15	18	20	24	25	
C0.0625	C/16	16	6.25	7.5	12.5	15	18.75	22.5	25	30	31.25	
C0.0714	C/14	14	7.14	8.57	14.28	17.14	21.42	25.71	28.57	34.28	35.71	
C0.083	C/12	12	8.33	10	16.66	20	25	30	33.33	40	41.66	
C0.1	C/10	10	10	12	20	24	30	36	40	48	50	
C0.125	C/8	8	12.25	15	25	30	37.5	45	50	60	62.5	
C0.25	C/4	4	25	30	50	60	75	90	100	120	125	
C0.5	C/2	2	50	60	100	120	150	180	200	240	250	
C1	C/1	1	100	120	200	240	300	360	400	480	500	

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- The Ah ratings as shown are the Ah capacity ratings of batteries or banks of batteries, they are based on the industry standard of a 20 hour (C0.05) discharge rate. For this reason the c0.05 row is highlighted to show the current that could be drawn theoretically for 20 hours.
- Note that some manufactures might use the 10 hour rate, to specify the Ah capacity, representing a more conservative estimate. A 10 hour rated battery of 100Ah will have slightly more capacity than a 20 hour rated battery as the 10 hour testing process is more demanding on the battery.
- Remember to never fully discharge a battery. Normally only ever run to a depth of discharge DOD of around 50% to 65% for lead acid, although lithium can be discharged far more, as per manufacturers guidelines.
- The hour rates shown do **not** represent how much time you can actually draw these currents!
- **Multiplying** the Ah rating by the decimal C Rate will give you the Current in or out.
- **Dividing** the Ah rating by the 'Fractional C/ Rate' or the Hour Rate will also give you the current in or out.

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