

POWER SUPPLY AH (AMP HOUR) CALCULATOR - For Deep Cycle Applications

HANDY HINTS

Your existing batteries (if available) will most likely have the relevant amp hour capacity detailed on the top label. If available simply type in your current battery capacity (amp hours) into our "Deep Cycle Battery Finder" to find your battery.

Alternatively you can measure your existing batteries (or the size of the battery compartment) to assist in determining the amp hour capacity. Type in the Length (L), Width (W) and Height of your batteries into our "Advanced Search" to determine your capacity options.

Your third option is to calculate your total power requirements and determine the most appropriate battery to meet your needs. Complete the "Equipment Power Consumption" calculation table which will determine your battery requirements.

EQUIPMENT POWER CONSUMPTION CALCULATION

	Box A	Box B	Box C	A x B x C		
12 Volt Appliances	Number of Appliances	Amps per Hour per Appliance #	Typical hours of use per day	Amps required per day @ 12 Volts DC		
Lights						
Television						
Radio / CD / GPS						
Air Compressor						
Refrigerator						
Pumps						
Winches / Anchors						
Other						
TOTAL DAILY AMP HOURS				<input type="text"/>	Box D	
' Safety factor' of 25% of your Total Daily Amp Hours (Box D x 1.25)				<input type="text"/>	Box E	
TOTAL DAILY AMPS inc safety factor (Box D + E)				<input type="text"/>	Box F	
Days of use before recharge				<input type="text"/>	Box G	
TOTAL AMPS REQUIRED (Box F x G)				<input type="text"/>	Box H	
60% Depth of Discharge (recommended for Sealed Maintenance Free batteries)				Box H divided by 0.6	<input type="text"/>	Box I
80% Depth of Discharge (recommended for Conventional flooded batteries)				Box H divided by 0.8	<input type="text"/>	Box J

Calculate the amps of your 12 volt appliances by dividing your watts by 12
If you have a 240 Volt system divide your watts by 240, then multiply amps x 20

Congratulations, you have completed your Equipment Power Consumption calculator

Now simply type your Amp Hour requirements (Box I or J) into our Advanced Search Battery Finder to select your battery
Remember to divide your Total Amp Hour capacity over the number of batteries you require

If you are still not sure of which battery you need, feel free to email or fax your worksheet to info@batteriesonline.com.au

Alternatively contact us during working hours on 1300 367 151. We will have a Batteries Online Technician contact you as soon as possible to assist in your battery selection.

TECHNICAL TIPS

To achieve maximum life from your deep cycle battery, you should not discharge the battery below the following levels:

Deep cycle SMF series should not be discharged below 40% state of charge.

Deep cycle Conventional series (flooded) should not be discharged below 20% state of charge.

Deep cycle AGM series should not be discharged below 20% state of charge.

Deep cycle GEL series should not be discharged below 20% state of charge.

All batteries should be charged up as soon as possible after usage (with the exception of GEL batteries which can be kept in a discharged state)

Storing discharged batteries will permanently reduce the the Amp Hour capacity and cycle life of your battery

The Power Consumption Calculation does not take into account the temperature of the application (but is accounted for in the safety factor)

Colder temperatures will cause additional Amp Hour loss

Higher temperatures will incur an increased self-rate of discharge

State of Charge	Wet or SMF Type	Gel Type	AGM Type
Fully Charged	12.70 - 12.60	12.95 - 12.85	12.90 - 12.8
75%	12.40	12.65	12.60
50%	12.20	12.35	12.30
25%	12.00	12.00	12.00
0%	11.80	11.80	11.80

Voltage readings relate to a 12 volt battery for 6 volt batteries simply divide by half.

Batteries must be removed from load (charge or discharge) for 24 hours to give an accurate reading