

CAMPERVAN SOLAR CALCULATOR

Enter data in this cell color

Cell showing progress calculation

Result cell color

This calculator sheet is for estimation of small vehicle solar systems. It is an aid and not a replacement for professional advice on electrical matters. Use caution with any DIY project, and that definitely includes electricity!

Watt calculator <i>(A*V=W)</i>	Amps	x	Volts	=	Watts
<i>Use this calculator to find Watts from known Amps and Volts</i>					

System Watt hour (Wh) calculator <i>Use this calculator to find your estimated energy usage per day</i>						
Component	Watts		Hours		Inverter inefficiency factor	Daily component energy usage Watt hours
		x		x		
		x		x		
		x		x		
		x		x		
		x		x		
		x		x		
		x		x		
		x		x		
		x		x		
		x		x		
		x		x		
Watt hour subtotal					=	
						x
System Inefficiency Factor Enter 1.2 for MPPT controller Enter 1.3 for PWM controller						
Daily Watt hours needed					=	Wh

Battery Size Calculator	Daily Watt Hours	/ 12V	=	Daily Amp Hours	=	Deep Cycle Lead Acid FLA or AGM	Ah	or	Lithium LiFePO4	Ah
	Recommended Inverter Max Size*	FLA** =		W	AGM =	W	Lithium =		W	

*this will vary based on specific battery discharge capabilities. Calculation gives a baseline for maximum battery health
**many hybrid (marine, golf cart) FLA batteries can discharge quicker than a true deep-cycle FLA, which will make this number bigger

Solar Panel Size Calculator	Daily Watt Hours	/	Daily sun hours (enter "4" if unsure)	=	Minimum Solar Watts	Charge Controller
			hours		W	Minimum size: 7.5A controller for every 100W of installed solar

Want to know more about electricity in a campervan? Visit www.ParkedInParadise.com/electrical