

Quattro DC-Solar 5000VA / 48 volt / ??W Solar / 660Ah battery

A system that combines DC Solar energy with mains backup !! VERHAAL NOG NIET AANGEPAST !!

Introduction

How to give priority to Solar when available (assistants)

MCO: story needs to be changed so the solar bit is also in there. A simple system for mains backup combined with solar power. When mains power is available the loads are powered directly. If the mains is not available, the loads are powered with the energy from solar and the batteries. When the mains is available again the power will be supplied directly from the mains and the batteries will be charged again.

How long is the autonomy? (ie. how long can it run on batteries)

The run time on batteries depends on the power consumption. If the power consumption is high like during the day then time available will be short. During the night when power consumption is low, it will be the other way around. The runtime below is calculated without and with solar power available to give a general idea.

Average load	Run time	
	No Solar	With Solar about 400W
100 W	24 Hours	more then 24 hours
800 W	2.5 Hours	5 hours

Note that these times are calculated to discharge the battery to 50%, which is the recommended maximum for GEL and AGM batteries.

Parts

- 1x - CMP121620000 - [MultiPlus Compact 12/1600/70-16 230V VE.Bus Inverter/Charger](#)
- 1x - SCC010050200 - [BlueSolar MPPT 100/50 \(12/24V-50A\)](#)
- 1x - BAM010700000 - [Battery Monitor BMV700](#)
- 2x - BAT412201080 - [12V/220Ah AGM Deep Cycle Battery](#)
- 2x - Battery link cables
- Solar panels - [Solar panel information](#)

Notes for batteries

- We recommend using deep-cycle GEL or AGM batteries. At least 200Ah blocks.
- Cable cross section: The Multiplus 1600 comes with 35mm² battery cables of 1.5m included. If longer cables are needed, a cable with a thicker cross section may be needed. Check the table in this document: [For more information on battery cables](#)

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