

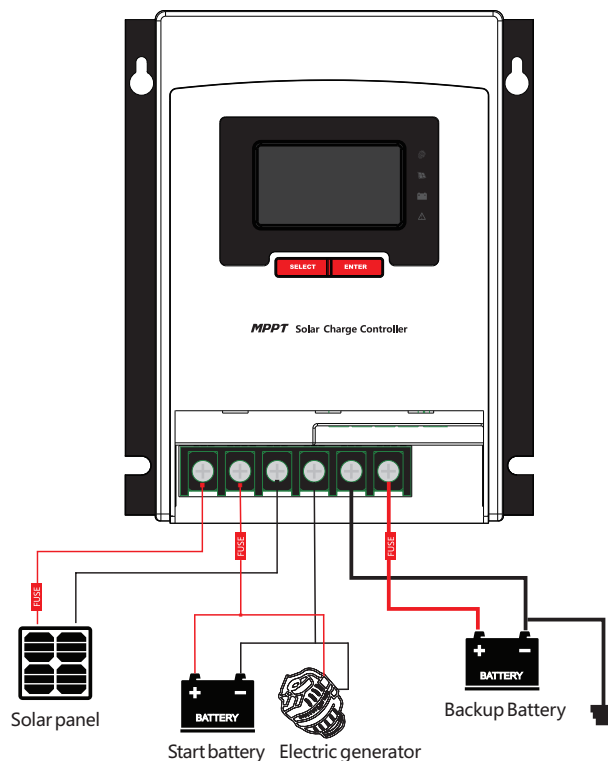
MPPT Solar & Generator DC Charging Controller



Main Features

- ◆ Sealed battery, gel battery, vented battery, lithium battery and user-defined battery can all be used as backup battery.
- ◆ Available for intelligent generator and conventional generator, automatic recognition of generator type through ignition signal.
- ◆ The charging working modes divides into PV charges backup battery, generator charges backup battery, PV and generator charge backup battery and PV charges starter battery.
- ◆ Backup battery charging voltage line loss compensation function makes the battery charging voltage control more accurate.
- ◆ Backup battery temperature sampling function and temperature compensation function of lead-acid battery can effectively extend the lifespan of battery.
- ◆ TTL communication, provide technical support for communication protocol to facilitate the secondary development of applications.
- ◆ Support external remote switch control charging.
- ◆ Parameters can be monitored and set by mobile phone APP and PC monitoring setting software
- ◆ High quality aluminum radiator and high temperature derating process ensure reliable and efficient operation under various working conditions

Electrical wiring diagrams



Product Specification Parameter

Parameter		Value	
Model		MD1230N05	MD1250N05
Backup Battery System Voltage		12V	
Backup Battery Voltage Range		9~16V DC	
Backup Battery Type		Sealed Battery, Gel Battery, Vented Battery, Lithium Iron Phosphate Battery, User-defined Battery	
Rated Charging Current		30A	50A
Maximum PV Input Voltage		50V DC	
Max. power point voltage range		17~36V	
Maximum PV Input Current		27A	45A
Solar Panel Charging Mode		Buck MPPT	
MPPT Efficiency		> 99%	
PV input power is recommended		400W	700W
Generator (Starter Battery) System Voltage		12V	
Starter Battery Type		Lead-acid Battery	
Maximum Generator Input Voltage		20V DC	
Maximum Generator Input Current		35A	60A
Generator Voltage Range	Conventional Generator	13.2 ~ 16V DC	
	Intelligent (Euro 6 Standard) Generator	12 ~ 16V DC	
Generator charging mode		Buck , Boost , Buck-Boost	
Generator output power is recommended	12V Backup Battery	400W	700W
PV charges the starter battery	Charging Voltage	13.8V	
	Charging Current	≤15A	≤25A
No-load loss		<0.6W	
Maximum Charging Conversion Efficiency		98%	
Temperature compensation factor		-3mV/°C/2V (Default value, the value of lead-acid battery can be set) ;No temperature compensation function for lithium battery	
Communication method		TTL	
Protection Function		Overcharging Protection, Overcurrent Protection, Overtemperature Protection, Generator Reverse Connection Protection, Solar Panel Reverse Connection Protection, Backup battery Reverse connection protection, Anti-reverse Charging Protection at night	
Operating temperature		- 35°C ~ 65°C	
Altitude		≤3000m	
Waterproof level		IP32	
Product dimensions		221*175.8*82.4mm	