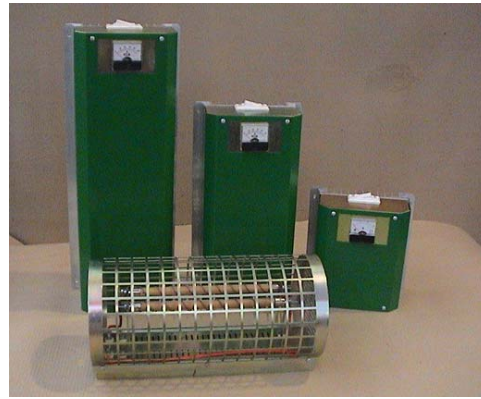


# African Windpower

## Charge Controller Information

### Contents

1. General information
2. Controller Description
3. Installation instructions
4. Electrical schematic
5. Cable and fuse ratings



### 1. General Information

Controller Voltage	12v	24v	36v	48v
Code	AWP36CC-12	AWPCC36-24	AWP36CC-36	AWP36CC-48
Dimensions (mm)	550x220x120	400x220x120	220x220x120	220x220x120
Weight (Kgs)	8	6	3	3
Factory set Dump volts	14V	28V	42V	56V
Factory set Pre dump volts	13V	26V	40V	52V
Code	AWP36DL-12	AWP39DL-24	AWP36DL-36	AWP36DL-48
Dimensions (mm)	470x160x160	470x160x160	470x160x160	470x160x160
Weight (Kg)	2	2	2	2

### 2. Controller Description

The charge controller rectifies the 3 phase AC current from the wind turbine producing DC current to charge batteries. The controller has a Brake switch connected to the input terminals, which can be used to stop the turbine in moderate winds and keep the turbine braked. The meter on the controller front panel indicates the amount of current produced by the wind turbine. When the battery voltage reaches the Pre-dump voltage, set by P1 on the control card, a relay switches on. The contacts of this relay can be used to turn on some useful load which will use the excess energy rather than have it burnt off in heat when the battery reaches the higher dump voltage. When the battery reaches this higher “Float” voltage set by P2, a power transistor on the control card begins to divert pulses of current to the 1200W Dump Load which dissipates the extra power in heat.

### 3. Installation Instructions

The AWP Charge controller should be mounted on a vertical surface in a dry well ventilated area near to the battery.

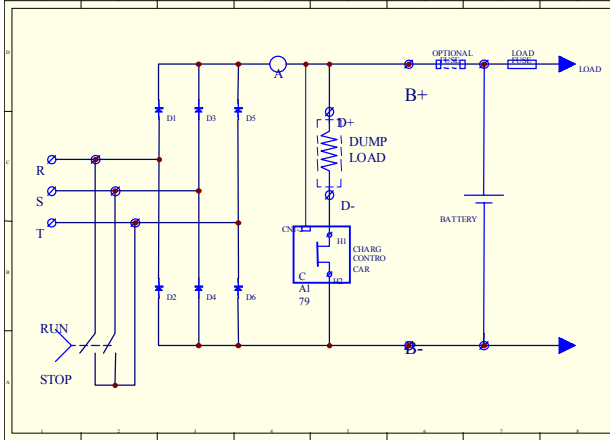
**NOTE :** Never allow the Wind Turbine to feed power to the Controller before the battery and dump load are connected. The turbine develops high voltages when not loaded and this causes serious damage to the controller. To prevent damage put the Brake Switch to the STOP position, then after crimping suitable lugs to the three cables from the wind generator, connect the cables to the terminals marked R S T. These connections can be made in any order. The dump load should be connected to the two terminal marked Dump Load + and – and can be connected in any order. The battery must be connected with the CORRECT polarity to the terminals marked Battery + and Battery-. Reversal of these connections will destroy the rectifier diodes in the controller. It is advisable to connect the controller to the battery via a suitable fuse near to the battery. Please note the Pre Dump relay is for control only – it should

not carry load current. It should be used to turn on a larger relay or electronic switch that can carry higher currents.

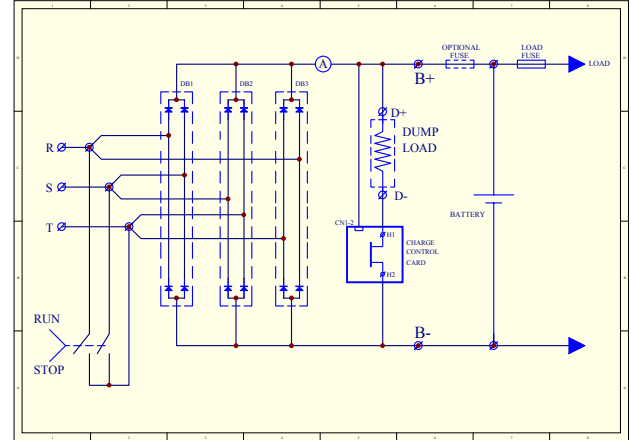
**NOTE :** When disconnecting any part of the electrical system , first stop the generator with the Brake switch and leave it parked until all components have been reconnected correctly.

## 4. Electrical schematics

### a. 12V and 24V Versions



### b. 36V and 48V Versions



## 5. Ratings for cables and fuses

Controller Voltage	12	24	36	48
Battery Fuse	100 Amp	50 Amp	40 Amp	30 Amp
Battery Cable Size	16mm	10mm	10mm	6mm
Dump Load Cable Size	10mm	8mm	6mm	6mm
Turbine Cable cross section 50 meters run	16mm	10mm	6mm	4mm
Turbine Cable cross section 100 meters run	25mm	16mm	10mm	6mm
Turbine cable cross section 150 meters run	32mm	25mm	16mm	10mm

