Block Diagram

Interface Properties
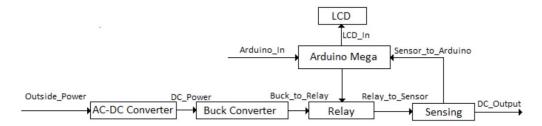
Interface	Properties
Outside_Power	120Vac - NEMA-15M Connector I_{Peak}: 5A
DC_Power	16Vdc output - Supply up to 3.5A
LCD_In	5V - LCD will display voltage and current values - The value must within 5% or 0.1V of real values.
Sensor_to_Arduino	Analog_input
Sensor_to_Relay	- Max current = 3.5A - Voltage = 16V
Arduino_In	7 - 12V - USB serial - Set current limit
Arduino_Out	Digital Output
Output_Control	Digital Output
Relay_Out	- Max current = 1.5A - Voltage = 16V
DC_Output	- Voltage Ripple < 0.25VP-P - Max Current = 1.5A - Output Voltage = 2-14V - Discharges To < 2V in under 5 Sec