**AIR CONDITIONER BLOCK DIAGRAM**

**S0LAR COLLECTOR**

**CONDENSER**

**EVAPORATOR**

**Cool Air Hot Air**

**Compressed Vapor**

**Vapor Refrigerant**

**Bypass Valve Bypass Valve**

**COMPRESSOR**

**First Thermal Valve**

**Liquid Refrigerant**

An air conditioner is an electrical device designed to remove heat and moisture from the interior of an occupied space. It is a procedure that is frequently utilised to create a more pleasant atmosphere for people.

* **FUNCTIONS OF AIR CONDITIONER:**
* The basic goal of air conditioner is to generate a comfortable room atmosphere for people.
* The temperature of electric gadgets is cooled using a unique sort of conditioning system.
* The air conditioner impacts the room air to keep individuals comfortable while not interfering with their productivity.
* **COMPONENTS OF AIR CONDITIONER:**
* **Evaporators:**

Inside the home, near the furnace, evaporators are air conditioning components. An extremely thin conduit connects it to the condenser. The air conditioner converts the high-pressure gas into a low-pressure liquid. Due to the decreased pressure, the liquid becomes a gas. The fluid, also known as the refrigerant, is what removes the heat from the and cools it down. In order for the fluid to be compressed again by the compressor, the evaporator emits it as a gas. All of this occurs in a cyclic pattern.

* **Compressor:**

The compressor is the system's engine since it operates with a fluid that easily converts gas to liquid. Its main job is to transform low-pressure gas into high-pressure gas with a high temperature. With the help of a created electrified gas, the gap areas between molecules are narrowed. The compressor discharges this electrified gas, also known as a refrigerant, into the condenser.

* **Thermostat:**

The thermostat regulates the heat energy inside and outside of an air conditioning system to keep the temperature constant. A thermostat can be set automatically, depending on the design.

* **Air Handler:**

The components of this air conditioner operate together to pull air to the evaporator and circulate cool air around the room. The passage of airflow in a room is facilitated by a duct system.

* **Condenser**:

A fan in the condenser coil cools the high-pressure gas and transforms it to a liquid. The evaporator worked with the product collected. Outside the house, the compressor and condenser are located.