

# Air-conditioners

Air-conditioning systems QUS 3206 / MDM NURUL AINI

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# Introduction

**Air conditioning** - is the process of altering the properties of to more favorable conditions.



### AIR HANDLER/ EVAPORATOR COIL

The cool refrigerant from the compressor (1) acts as a sponge to absorb the warm air supplied from the blower motor (2). The now cooled air is pushed through the air ducts and comes out through the supply (B).

### BLOWER MOTOR

Contrary to its name, it actually pulls hot air from inside the home into the return (A) and blows it across the evaporator coil (3).

### OUTDOOR COILS AND FAN

The warmed refrigerant from the air handler/evaporator coil (3) returns to the condenser (1) and expels heat in the refrigerant through the outdoor coils and fan.

4

### RETURN

Warm air inside the house is pulled into the return by the blower motor (2).

A

### THERMOSTAT

Set by the homeowner to the desired temperature; initiates the entire system.

C

### SUPPLY

Cold air from the air handler/evaporator coil (3) is expelled through the supply.

B

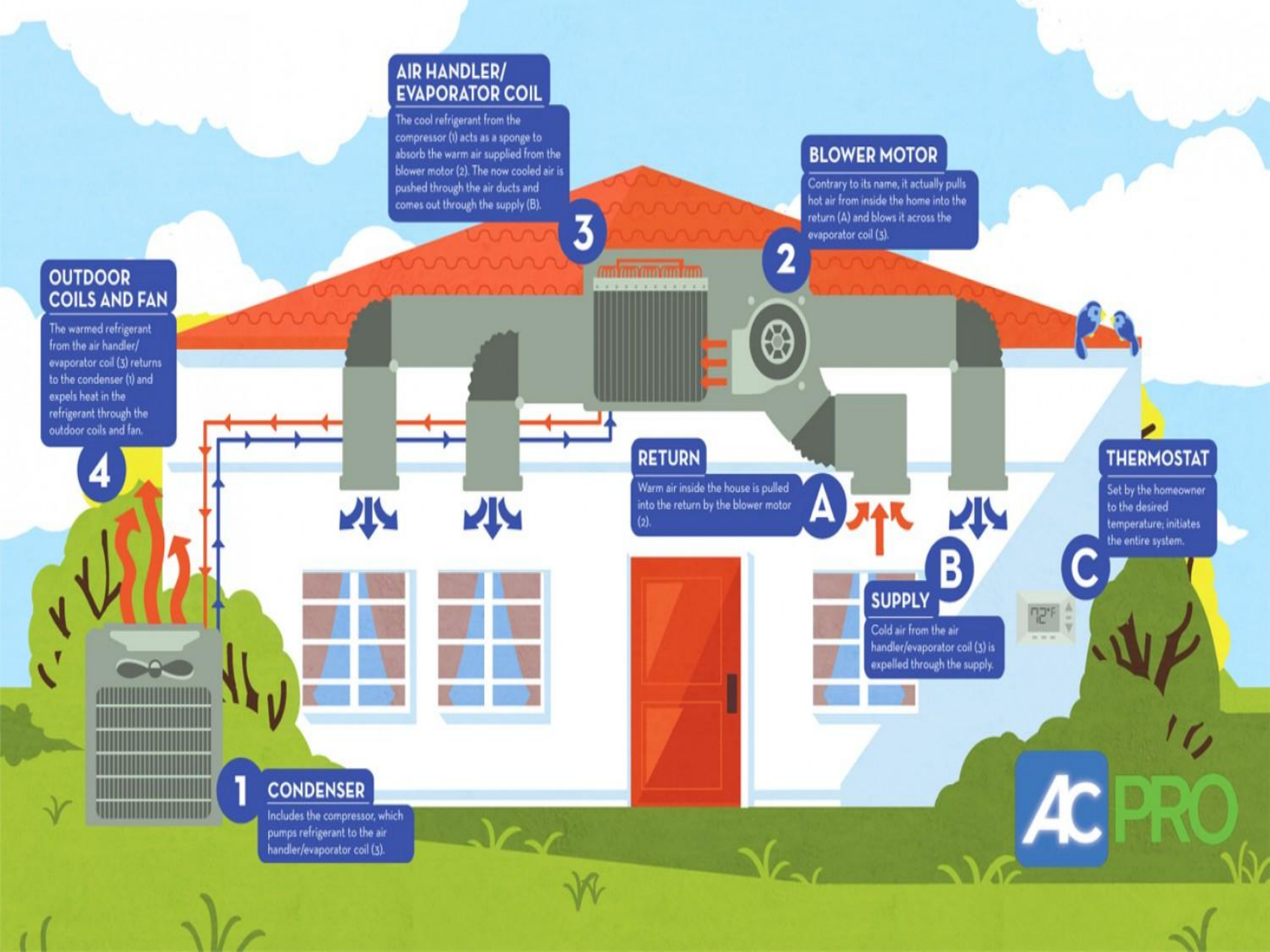
### 1 CONDENSER

Includes the compressor, which pumps refrigerant to the air handler/evaporator coil (3).

3

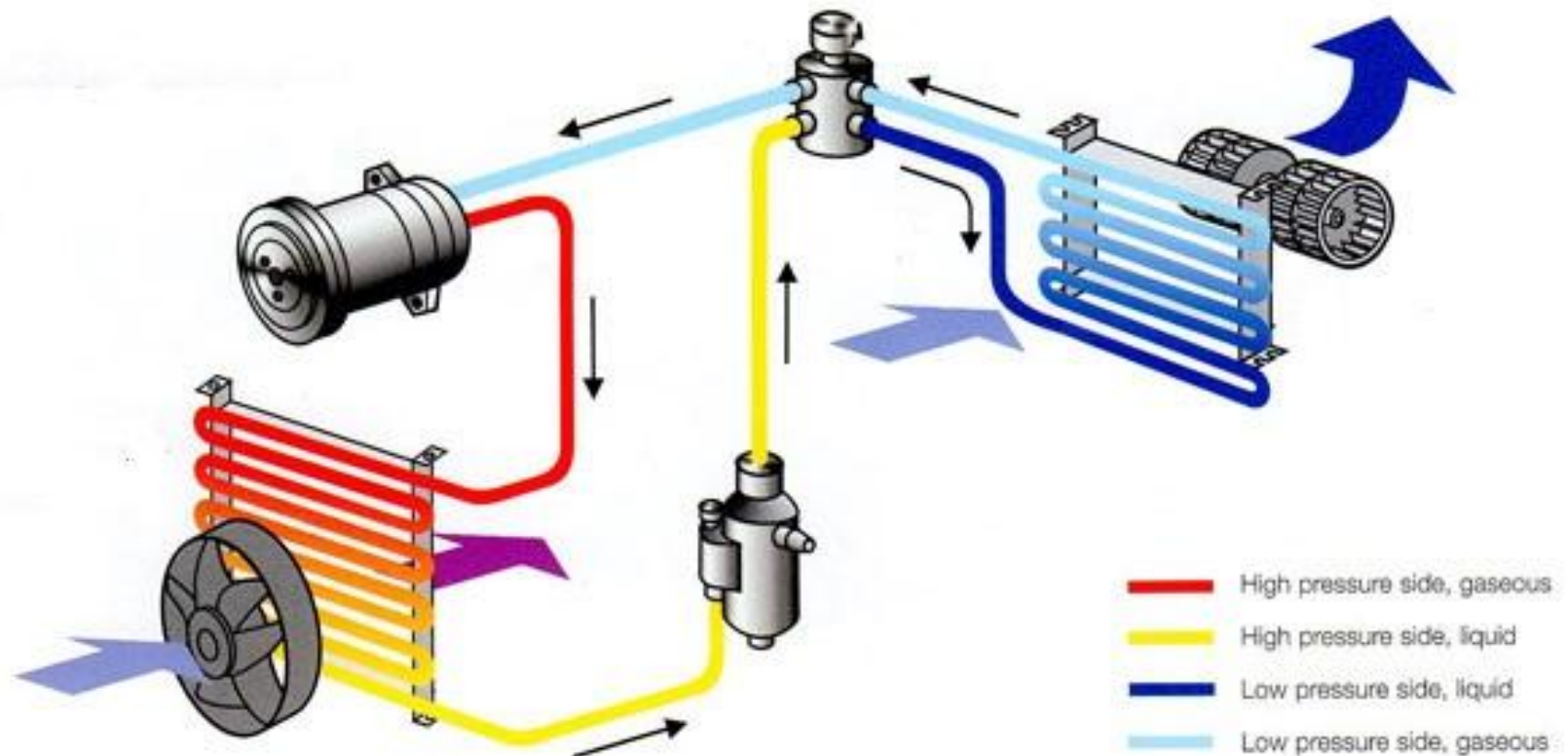
2

AC PRO



# Principles of air conditioning

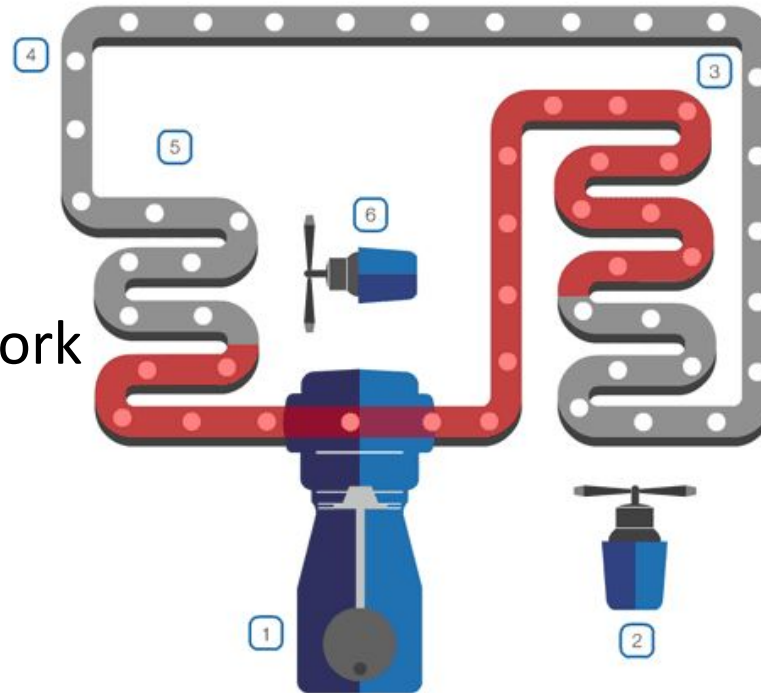
The goal is to keep it more comfortable inside the house than it is outside.





# Principles of air conditioning

1. Compressor
2. External Fan
3. Condensaor coil
4. Interconnecting Pipework
5. Evaporator coil
6. Indoor fan motor



01. Compressor / 02. External Fan / 03. Condenser Coil  
04. Interconnecting Pipework / 05. Evaporator Coil / 06. Indoor Fan Motor



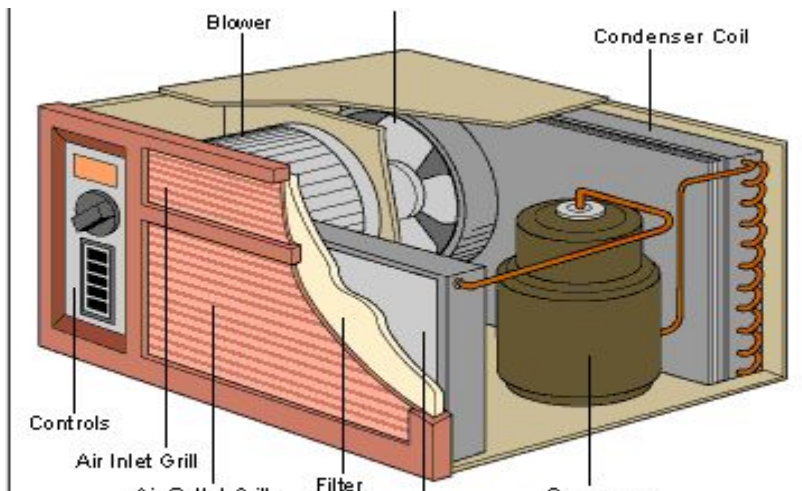
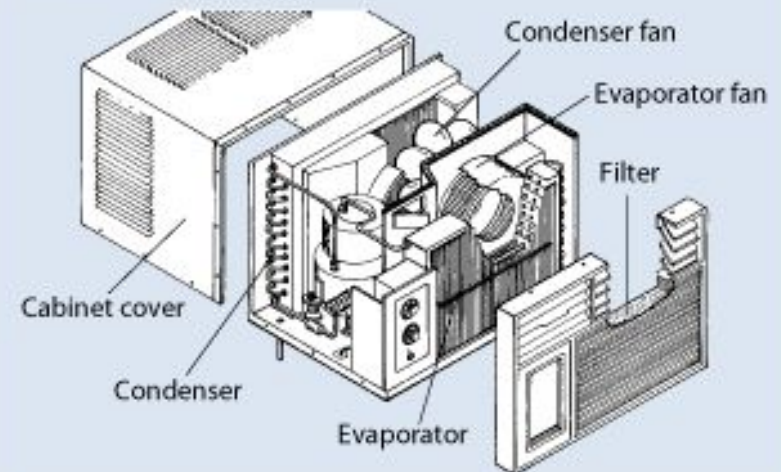
www.airconco.com

# Type of air conditioning

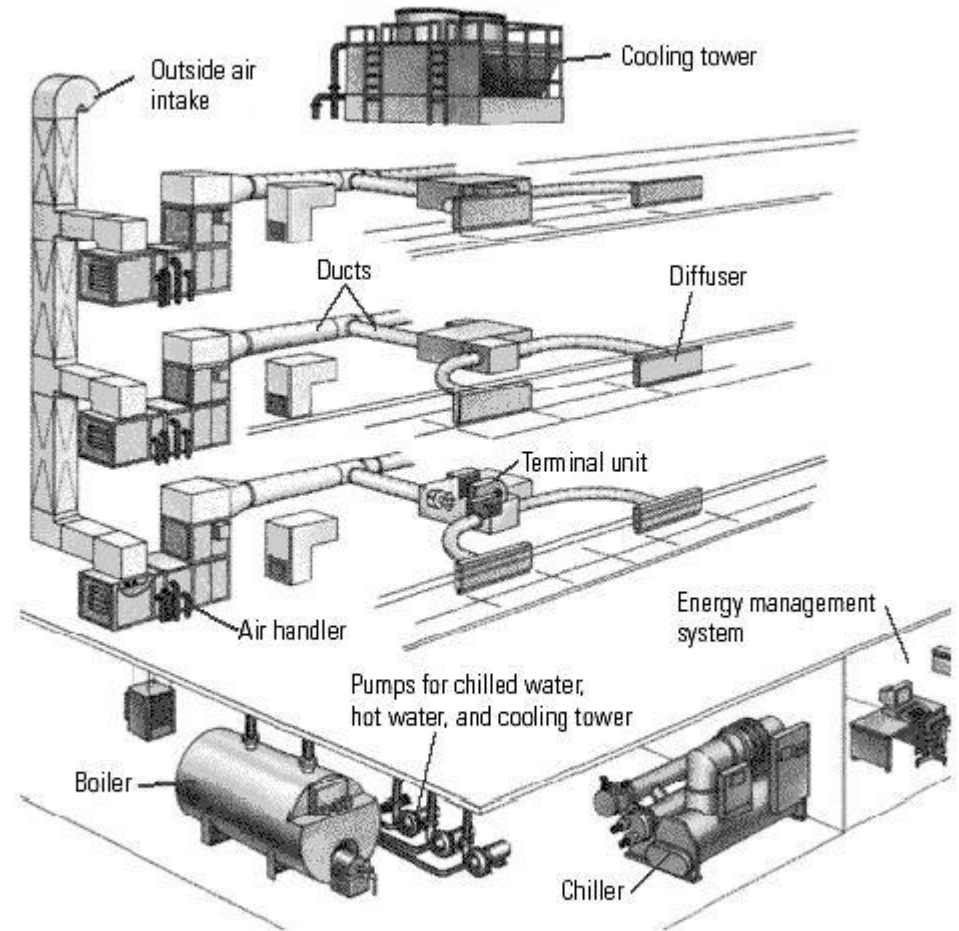
## Window air-conditioning system



### Room Air Conditioner

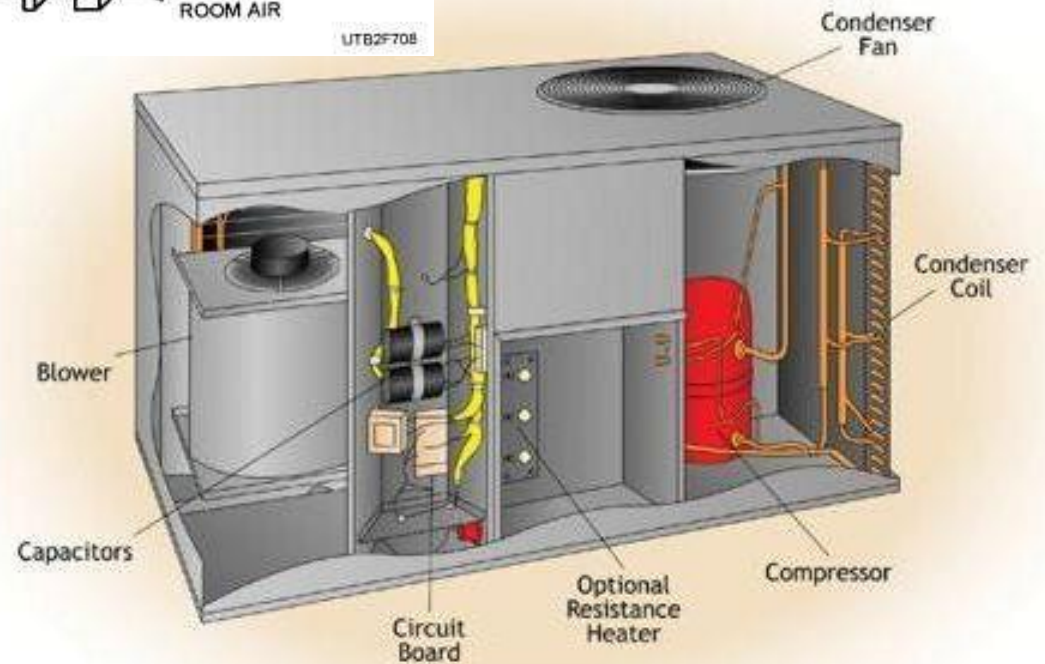
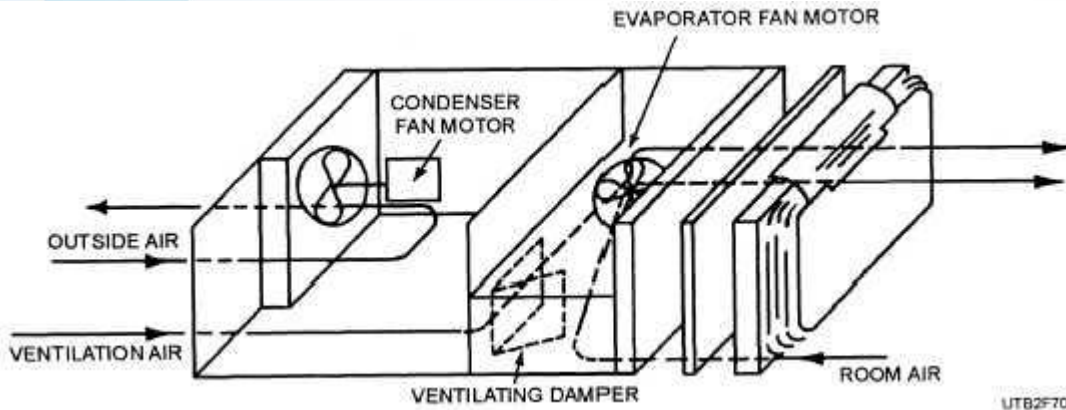


# Centralised air-conditioning system





# Package air-conditioning system



# Used sources

<http://www.cebit-america.com/common-air-conditioning-system-issues-improper-maintenance-can-turn-costly/>

<https://visual.ly/community/infographic/education/how-does-air-conditioning-system-work>

<http://www.constructionweekonline.com/article-41615-saudi-hvacr-market-to-grow-13-in-next-five-years/>

<https://www.airconco.com/how-does-air-conditioning-work/>

<https://www.hometips.com/how-it-works/air-conditioners-room-window.html>

[http://www.daviddarling.info/encyclopedia/W/AE\\_window\\_air\\_conditioner.html](http://www.daviddarling.info/encyclopedia/W/AE_window_air_conditioner.html)

<http://homeguides.sfgate.com/harmful-effects-window-unit-air-conditioners-89779.html>

<https://www.extra.com.br/arventilacao/arcondicionado/split/ar-condicionado-fujitsu-split-inverter-27000-btus-frio-aobr-30-jft-6666873.html>

<https://www.brighthubengineering.com/hvac/50160-chilled-water-central-air-conditioning-systems/>

<https://www.brighthubengineering.com/hvac/61457-packaged-air-conditioners-types-of-packaged-a-c/>

<http://constructionmanuals.tpub.com/14279/css/Figure-7-8-Air-handling-components-of-a-package-type-of-room-air-conditioner-245.htm>

A decorative graphic in the top-left corner consisting of a grid of squares in various shades of blue, from dark navy to light sky blue, arranged in a pattern that tapers off towards the right.

**Thank you very much  
for listening**