



azar **nasim**  
AIR CONDITIONING COMPANY

---

## DUCTED SPLIT



## Introduction

---

Ducted split air conditioner consists of indoor and outdoor units. This split systems are ideally suited for apartments, modern villas, offices and small shops. Cool air is supplied in the summer and warm air is supplied in the winter.

Azar Nasim ducted split systems are designed and manufactured in different models and cooling capacities from 2 TR to 5 TR at nominal AHRI conditions.

## Outdoor Unit

---

The outdoor unit contains the high-efficient scroll compressor and a heat exchanging coil (Condenser) and an axial fan which blows air across the gold-fin coil. Cooling mode is switched to heating using a special 4-way valve. The housing of outdoor unit is made of aluminum profile, carbon- steel and galvanized metal sheet with appropriate thickness, then corrosion resistance is enhanced through the powder spraying technology (electro-static paint coating). The unit have high and low pressure protection, high temperature protection, compressor overloading protection, phase sequence protection.

## Indoor Unit

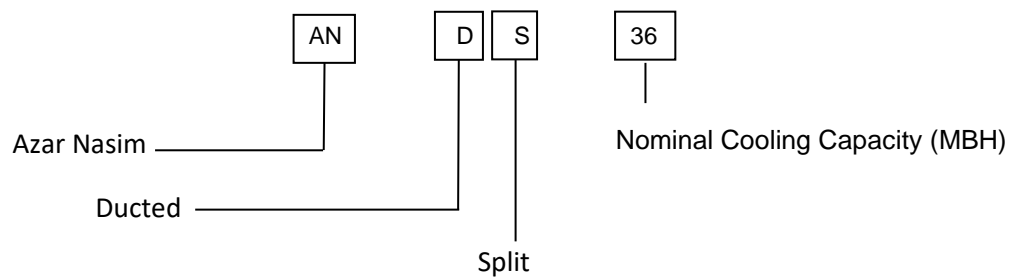
---

The concealed indoor unit, also contains a heat exchanging coil (DX coil) that cools the air in your space. A centrifugal forward fan then blows the filtered and conditioned air (800 to 1600 CFM) through the ducts installed in dropped ceiling to the outlet diffusers of each room. There are a wide range of grilles available to match in with your interior design and they can be positioned to suit the room size and shape to ensure even air distribution for maximum comfort with minimal noise. External static pressure of these units is up to 100 Pa; to supply desired airflow in your space.

Its possible to install the hot water coil inside the indoor unit. For temperature and operation control can be used a digital intelligent thermostat.



## Nomenclature



## Recommended Suction and Liquid Line length

Model	Max.lengthh	Max. Height
AN DS	Meter	
24	25	15
30	25	15
36	30	20
42	30	20
48	50	25
60	50	25

## Refrigerant Piping

Correct design and size of refrigerant piping is necessary for proper operation. The refrigerant piping generally should be designed to accomplish the following:

- a. To ensure proper refrigerant feed to the evaporator.
- b. To provide practical refrigerant line sizes without excessive pressure drop.
- c. To maintain uniform return of lubricating oil to the compressor.
- d. To prevent refrigerant from entering the compressor in liquid phase and causing compressor damage due to “slugging”
- e. It is necessary to install the oil trap, according to piping conditions and distance between indoor and outdoor units.
- f. Suction and liquid piping must be insulated.



Table 2

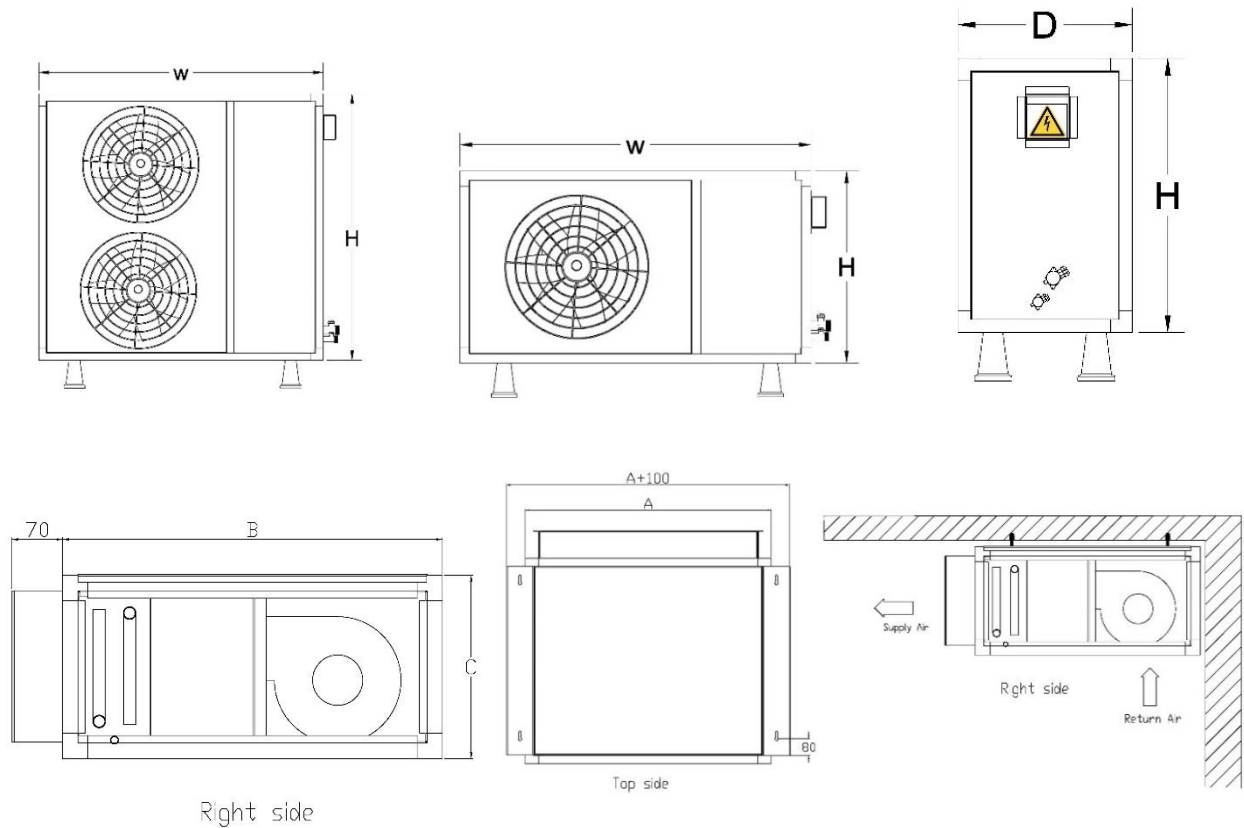
**Ducted Split  
 Technical Data**

Model		AN DS-24	AN DS-30	AN DS-36	AN DS-42	AN DS-48	AN DS-60	
Nominal Cooling Capacity (Btu/hr)		24000	30000	36000	42000	48000	60000	
Heating Capacity (Btu/hr)		25392	30477	34982	41126	52218	63310	
Indoor Unit	Air Flow Rate (CFM)	800	800	1000	1200	1400	1600	
	Current (A)	1.5	1.5	1.9	2.2	2.4	2.5	
	Power Input (kW)	0.16	0.16	0.18	0.2	0.22	0.25	
	Power Supply(V/Ph/Hz)	220/1~/50						
	External Static Pressure (In.W.G.)	0.3	0.3	0.3	0.3	0.4	0.4	
	DX Coil	Row	3					
		Fin Per Inch	12					
	Drain Size (In)	3/4	3/4	3/4	3/4	3/4	3/4	
	Noise Level (dB)	48	48	50	50	53	53	
	Weight (kg)	46	46	55	50	64	72	
Outdoor Unit	Compressor Type	Scroll						
	Refrigerant	R22						
	Rated COP/EER	3.31	3.65	3.41	3.41	3.55	3.63	
	Liquid Line Size (In)	3/4	3/4	3/4	3/4	7/8	7/8	
	Gas Line Size (In)	1/2	1/2	1/2	1/2	1/2	1/2	
	Current (A)	8.28	9.05	10.95	12.88	6.16	7.8	
	power Input (kW)	1.74	1.94	2.35	2.76	3.39	4.05	
	No. Of Fan	1	1	1	1	2	2	
	Power Supply(V/Ph/Hz)	220/1~/50				380/3~/50		
	Quantity Of Fan	1	1	1	1	2	2	
	Air Flow Rate (CFM)	3000	3000	3000	4200	6000	6000	
	Ambient Temperature Operation Range (°F)	62-126	62-126	62-126	62-126	62-126	62-126	
	Weight (kg)	85	85	95	110	140	160	

**Note:**

- Cooling capacities are based on Indoor temperature 80° F DB, 67° F WB; outdoor temperature 105° F DB, 75° F WB.

## Dimensions



Model		AN DS-24	AN DS-30	AN DS-36	AN DS-42	AN DS-48	AN DS-60
Indoor Unit	A	900	900	1050	1250	1250	1400
	B	750	750	750	750	750	750
	C	360	360	360	360	400	400
Outdoor Unit	W	1260	1310	1530	1710	1260	1310
	H	770	820	820	820	1370	1770
	D	300	300	300	300	300	300

# CONTACT US!

---

- Central Office : 021-48402
- Customer Voice : (ext6)
- Central Office Fax : (ext116)
- Factory Phone : 086-45250025
- Factory Fax : 086-45250022
- Email : [info@azarnasim.com](mailto:info@azarnasim.com)
- Address : No,304,The 3th Floor,  
Toupaz Complex, Next to Yaran Park, After Abazar Cross  
roads, Ayatollah Kashani Blvd,The Second Sq.Of Sadeghieh  
Tehran, IRAN.