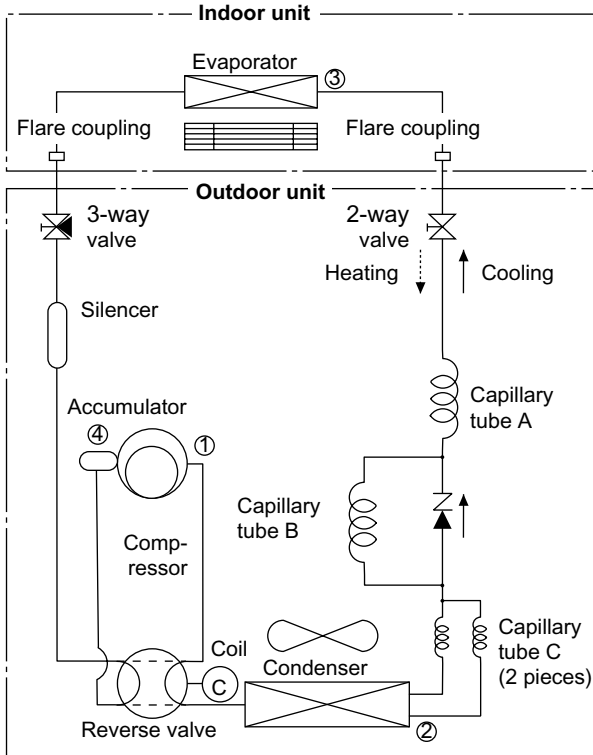


# CHAPTER 5. REFRIGERATION CYCLE AND PERFORMANCE CURVES

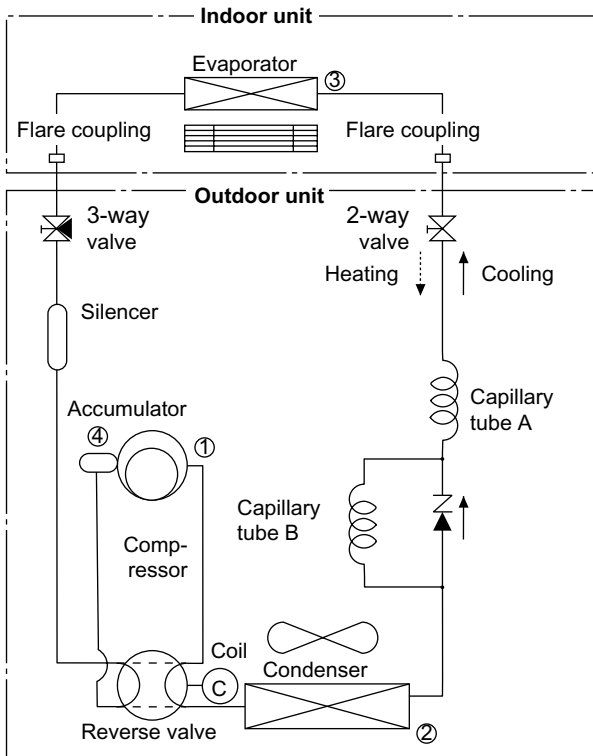
## [1] REFRIGERATION CYCLE

### 1. Refrigeration cycle

#### 1.1. AY-AP7FHR



#### 1.2. AY-AP9FHR



### 2. Standard conditions

		Cooling	Heating
Indoor side	Dry-bulb Temp.	27°C	20°C
	Relative Humidity	47%	–
Outdoor side	Dry-bulb Temp.	35°C	7°C
	Relative Humidity	40%	87%

\* REFRIGERANT PIPE LENGTH 5m

### 3. Temperature at each part and pressure in 3-way valve

NO. Condition	Model			
	AY-AP7FHR		AY-AP9FHR	
1	Cooling	Heating	Cooling	Heating
2	72°C	69°C	72°C	75°C
3	42°C	2°C	42°C	2°C
4	12°C	31°C	12°C	33°C
3-way valve pressure (MPaG)	1.03	2.25	0.95	2.35

### 4. Dimension of Capillary tube

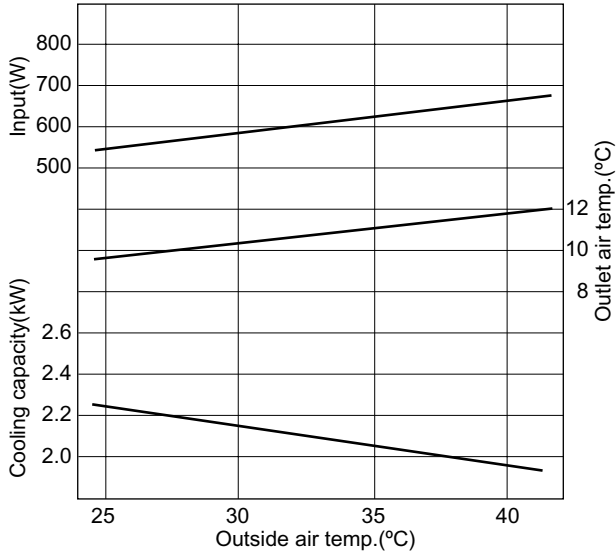
Model	AY-AP7FHR			AY-AP9FHR		
	O.D	I.D	L	O.D	I.D	L
Capillary tube A	φ2.7	φ1.3	600	φ2.7	φ1.3	250
Capillary tube B	φ2.7	φ1.3	500	φ2.7	φ1.3	850
Capillary tube C	φ2.7	φ1.5	150	–	–	–

**[2] PERFORMANCE CURVES**

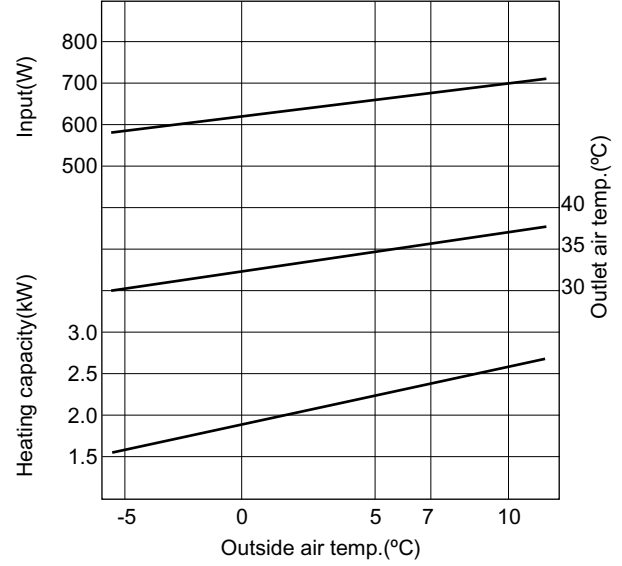
- NOTE: 1) Indoor fan speed : Hi  
 2) Vertical adjustment louver "45°", Horizontal adjustment louver "Front"  
 3) Indoor air temp. : Cooling 27°C, Heating 20°C  
 4) Power source : 230V, 50Hz

**1. AY-AP7FHR**

**1.1. Cooling**

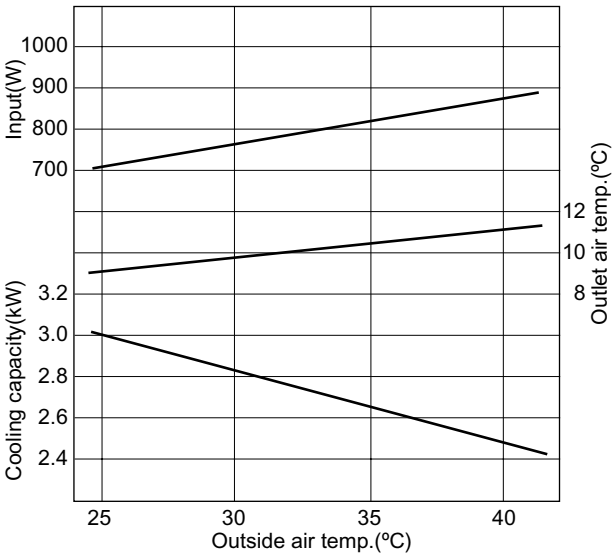


**1.2. Heating**



**2. AY-AP9FHR**

**2.1. Cooling**



**2.2. Heating**

