

1. Model Selecting and Capacity Calculator

NOTE

- *1: If the longest tubing length (L1) exceeds 90 m (equivalent length), increase the sizes of the main tubes (LM) by 1 rank for the discharge tubes, suction tubes, and narrow tubes. (field supplied)
- *2: If the longest main tube length (LM) exceeds 50 m, increase the main tube size at the portion before 50 m by 1 rank for the suction tubes and discharge tubes. (field supplied)
(For the portion that exceeds 50 m, set based on the main tube sizes (LA) listed in the table on the following page.)
- *3: 24hp - 30hp of high efficiency combination is 300m.

Refrigerant Charge Amount at Shipment (for outdoor unit)

U-8MF2E8	U-10MF2E8	U-12MF2E8	U-14MF2E8	U-16MF2E8
8.3 kg	8.5 kg	8.8 kg	9.3 kg	9.3 kg

Additional Refrigerant Charge

Additional refrigerant charge amount is calculated from the liquid tubing total length as follows.

Required amount of additional refrigerant charge
 = [(Amount of additional refrigerant charge per meter of each size of liquid tube × its tube length) + (...) + (...)]
 + [(Necessary amount of additional refrigerant charge per outdoor unit + (...) + (...)]
 + [(Necessary amount of additional refrigerant charge per refrigerant circuit for 3 way system) + (...) + (...)]

* Always charge accurately using a scale for weighing.

* If the existing tubing is used and the amount of on-site refrigerant charge exceeds the value listed below, change the size of the tubing to reduce the amount of refrigerant.

Total amount of refrigerant for the system with 1 outdoor unit : 50 kg

Total amount of refrigerant for the system with 2 outdoor units : 80 kg

Total amount of refrigerant for the system with 3 outdoor units : 100 kg (However, 24hp - 30hp of high efficiency combination is 80kg.)

Amount of Additional Refrigerant Charge Per Meter, According to Liquid Tubing Size

Liquid tubing size	6.35	9.52	12.7	15.88	19.05	22.22	25.4
Amount of additional refrigerant charge/m (g/m)	26	56	128	185	259	366	490

Necessary Amount of Additional Refrigerant Charge Per Outdoor Unit

U-8MF2E8	U-10MF2E8	U-12MF2E8	U-14MF2E8	U-16MF2E8
8.0 kg	8.3 kg	8.5 kg	9.0 kg	9.0 kg

Necessary amount of additional refrigerant charge per refrigerant circuit for 3 way system (per 1 refrigerant circuit system)

Total actual tubing length	100m or less	200m or less	300m or less	400m or less	500m or less
Amount of additional refrigerant charge/system	—	2.0 kg	3.0 kg	5.0 kg	6.0 kg

System Limitations

Max. No. allowable connected outdoor units	3 *2
Max. capacity allowable connected outdoor units	135 kW (48 hp)
Max. connectable indoor units	52 *1
Max. allowable indoor/outdoor capacity ratio	50 – 150 % *3

*1: In the case of 22 hp (type 61.5 kW) or smaller units, the number is limited by the total capacity of the connected indoor units.

*2: Up to 3 units can be connected if the system has been extended.

*3: It is strongly recommended that you choose the unit so the load can become between 50 and 130%.