



# Selecting Refrigerant Tubing Size And Calculating The Amount Of Additional Charge - Sanyo SPW- X483GH56 Installation Instruction

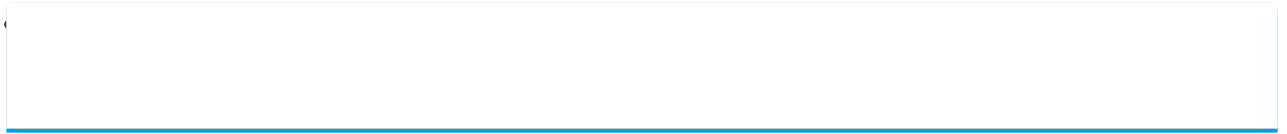
Eco multi system air conditioner



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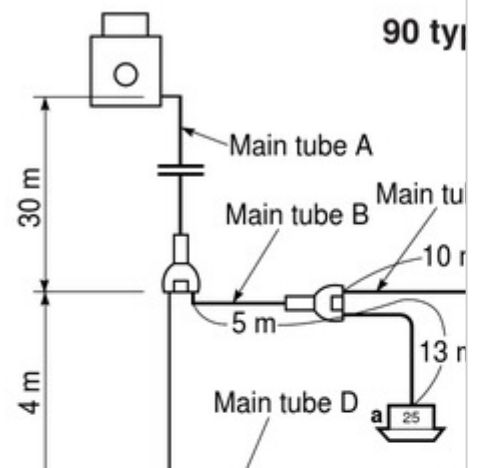
1-11. Selecting Refrigerant Tubing Size and Calculating the Amount of Additional Charge

Table 1-17. Selecting Refrigerant Tubing Size and Calculating the Amount of Additional Charge

Rating capacity

Type **Table 1-17** Unit: kw

Type	Type	Rating capacity	
		Cooling	Heating
25 type: a	25 type: a	7.3	8.0
12 type: b	12 type: b	3.6	4.2
9 type: c	9 type: c	2.8	3.2
18 type: d	18 type: d	5.6	6.3



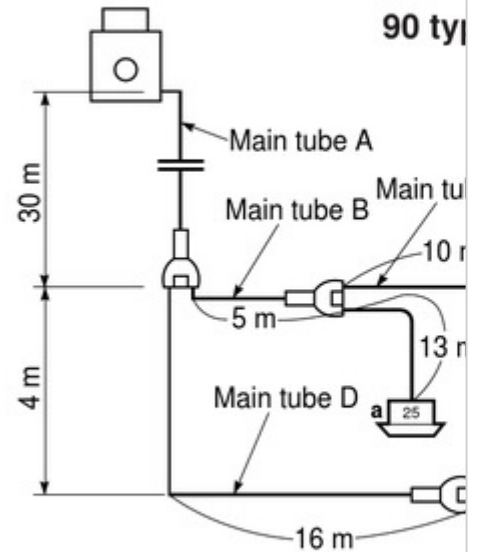
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The tubing size is selected and the amount of additional charge can be found in the table of refrigerant tubing sizes using the tubing system of each indoor unit.

**1-11 Selecting Refrigerant Tubing Size and Calculating the Amount of Addition**

Refrigerant amounts must be calculated for the amount of additional charge per 1m of narrow tube size. **Table 1-17** Unit: kw

Type	Rating capacity	
	Cooling	Heating
25 type: a	7.3	8.0
12 type: b	3.6	4.2
9 type: c	2.8	3.2
18 type: d	5.6	6.3
36 type: e	10.6	11.4



90 typ

Total amount

Unit: kw

Heating

8.0

4.2

3.2

6.3

11.4

■ The tubing size is selected and the amount of additional charge can be found in the table of refrigerant tubing sizes using the tubing system of each indoor unit.

Refrigerant amounts must be calculated for the amount of additional charge per 1m of

Total cooling capacity of the

unit after the distribution joint

$7.3 + 3.6 + 2.8 + 5.6 + 10.6$

$= 29.9 \text{ kw}$

$7.3 + 3.6 + 2.8 = 13.7 \text{ kw}$

$3.6 + 2.8 = 6.4 \text{ kw}$

$5.6 + 10.6 = 16.2 \text{ kw}$

$7.3 \text{ kw (13 m)}$

$3.6 \text{ kw (8 m)}$

$2.8 \text{ kw (18 m)}$

$5.6 \text{ kw (6 m)}$

$10.6 \text{ kw (10 m)}$

Main tube A

Main tube B

5 m

Main tube D

16 m

Wide tube

Narrow tube

$28.58 (1 \frac{1}{8})$

$12.7 (1/2)$

$19.05(3/4)$

$9.52 (3/8)$

**Table 1-18 Additional Refrigerant Charge**

		Total cooling capacity of the unit after the distribution joint	Wide tube	Narrow tube	① Tubing length
Main tube	A	$7.3 + 3.6 + 2.8 + 5.6 + 10.6 = 29.9 \text{ kw}$	28.58 (1 1/8)	12.7 (1/2)	30
	B	$7.3 + 3.6 + 2.8 = 13.7 \text{ kw}$	19.05(3/4)	9.52 (3/8)	5
	C	$3.6 + 2.8 = 6.4 \text{ kw}$	15.88(5/8)	9.52 (3/8)	10
	D	$5.6 + 10.6 = 16.2 \text{ kw}$	25.4 (1)	12.7 (1/2)	20
Distribution branch	25 type:a	7.3 kw (13 m)	15.88(3/8)	9.52 (3/8)	13
	12 type:b	3.6 kw (8 m)	12.7 (1/2)	9.52 (3/8)	8
	9 type:c	2.8 kw (18 m)	12.7 (1/2)	9.52 (3/8)	18
	18 type:d	5.6 kw (6 m)	15.88(5/8)	9.52 (3/8)	6
	36 type:e	10.6 kw (10 m)	19.05(3/4)	9.52 (3/8)	10
Total amount			—	—	—

15.88(5/8)

9.52 (3/8)

25.4 (1)

12.7 (1/2)

15.88(5/8)

9.52 (3/8)

12.7 (1/2)

9.52 (3/8)

12.7 (1/2)

9.52 (3/8)

15.88(5/8)

9.52 (3/8)

19.05(3/4)

9.52 (3/8)

—

—

12

S4179544

90 type

Main tube C

10 m

18 m

8 m

13 m

a

b

25

12

6 m

d

e

18

36

1 X 2

length

refrigerant

30 m

125 g/m

3,750 g

5 m

75 g/m

10 m

75 g/m

20 m

125 g/m

2,500 g

13 m

75 g/m

8 m

75 g/m

18 m

75 g/m

18 m

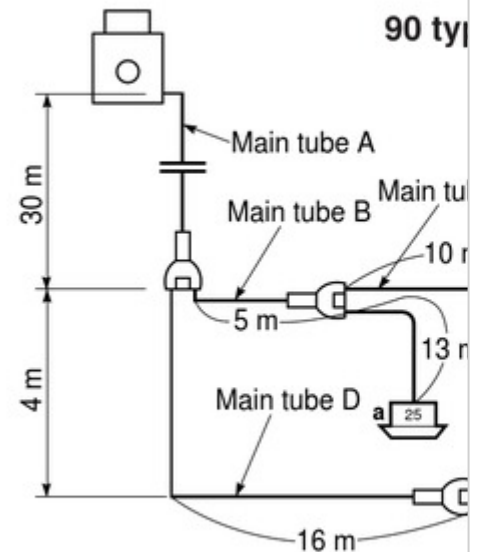
75 g/m

# 11. Selecting Refrigerant Tubing Size and Calculating the Amount of Addition

Table 1-17

Unit: kw

Type	Rating capacity	
	Cooling	Heating
25 type: a	7.3	8.0
12 type: b	3.6	4.2
9 type: c	2.8	3.2
18 type: d	5.6	6.3
36 type: e	10.6	11.4



■ The tubing size is selected and the amount of additional charge can be found using the refrigerant tubing sizes using the tubing system of each indoor unit.

Refrigerant amounts must be calculated for the amount of additional charge per 1m of

Table 1-18 Additional Refrigerant Charge

		Total cooling capacity of the unit after the distribution joint	Wide tube	Narrow tube	① Tubing length
Main tube	A	7.3 + 3.6 + 2.8 + 5.6 + 10.6 = 29.9 kw	28.58 (1 1/8)	12.7 (1/2)	30
	B	7.3 + 3.6 + 2.8 = 13.7 kw	19.05(3/4)	9.52 (3/8)	5
	C	3.6 + 2.8 = 6.4 kw	15.88(5/8)	9.52 (3/8)	10
	D	5.6 + 10.6 = 16.2 kw	25.4 (1)	12.7 (1/2)	20
	Distribution branch	25 type:a	7.3 kw (13 m)	15.88(3/8)	9.52 (3/8)
	12 type:b	3.6 kw ( 8 m)	12.7 (1/2)	9.52 (3/8)	8
	9 type:c	2.8 kw (18 m)	12.7 (1/2)	9.52 (3/8)	18
	18 type:d	5.6 kw ( 6 m)	15.88(5/8)	9.52 (3/8)	6
	36 type:e	10.6 kw (10 m)	19.05(3/4)	9.52 (3/8)	10
Total amount			—	—	—

1,350 g

6 m

75 g/m

10 m

75 g/m

—

—

11,500 g

c

10 m

0019\_M\_1

375 g

750 g

975 g

600 g

450 g

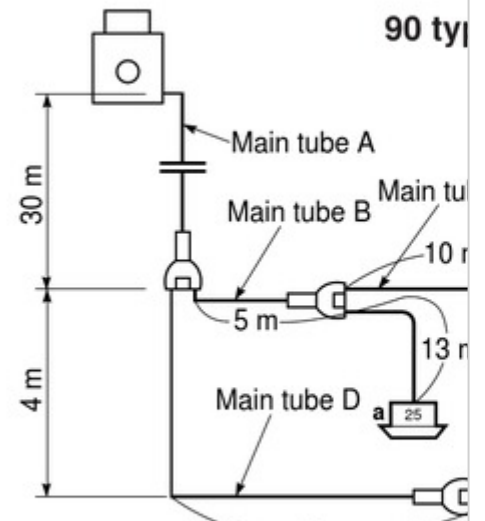
750 g

# 1-11. Selecting Refrigerant Tubing Size and Calculating the Amount of Addition

**Table 1-17**

Unit: kw

Type	Rating capacity	
	Cooling	Heating
25 type: a	7.3	8.0
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