

INTERFACE

AIR-HANDLING UNIT (AHU) DESIGN GUIDELINE

September 2015

[Model Name]

PAC-IF013B-E

PAC-SIF013B-E

Related document:

Refer to the following manual

- PAC-IF013B-E/PAC-SIF013B-E
INSTALLATION MANUAL

This guideline is a complement of section 7 "Requirement on local design" in the installation manual of PAC-IF013B-E/PAC-SIF013B-E. Please read it before reading this.

CONTENTS

1. Restriction on capacity step input to the interface unit 2
2. Power supply timing 2
3. Selection of indoor heat exchanger 3

1 Restriction on capacity step input to the interface unit

1.1 Timing of capacity step changes

If you input capacity step request , note the following points.

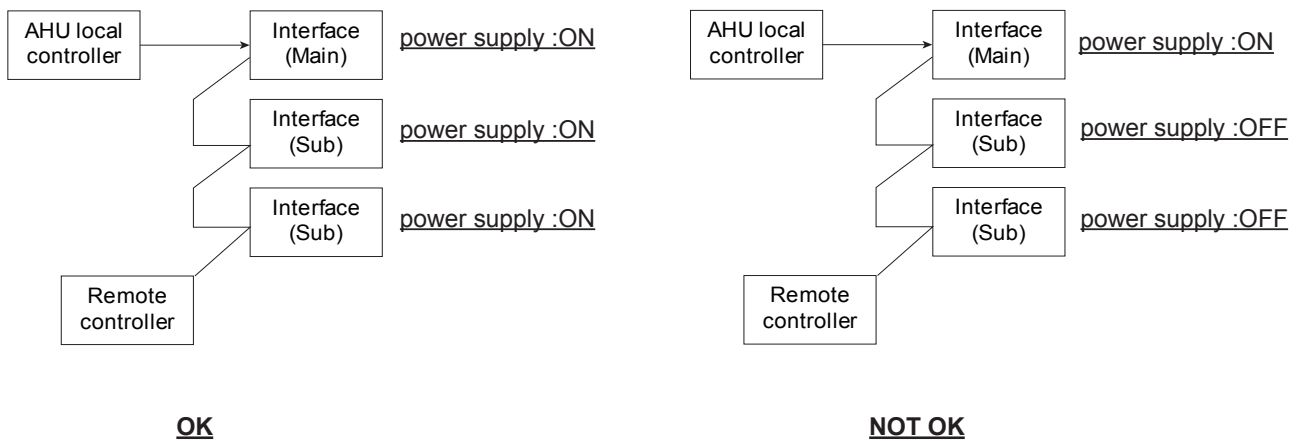
- (1)The supply air temperature must be stable before input the next step for capacity setting.
- (2)If (1) is difficult by the local controller, the change must be within 5 steps in a single request with at least 5 minutes interval between every change.
- (3)For 6 step changings or more (such as on start-up of operation), the interval between every change needs to be at least 10 minutes.

1.2 Capacity step request by analog input

If you input capacity step request by analog signal, use center value of each step.(Regarding center values, refer to the section 4 "Electrical work" in the installation manual.)

2 Power supply timing

When the intelligent multiple outdoor unit control is selected, supply power to the first interface unit, then the second interface unit within 1 minute. Otherwise system error will occur.(See figure 2-1)



<Fig.2-1>

3 Selection of indoor heat exchanger

When calculating capacity for designing AHU HEX (direct expansion coil), refer to standard conditions below. It is recommended to keep nominal capacity within 90%-110% under the standard condition.

<Standard conditions>

[1]COOLING

Evaporation temp.	10°C
Superheat at evaporator outlet	5°C
Expansion valve inlet temp.	40°C
Inlet air temp. (dry-bulb/wet-bulb)	27°C/19°C
Outdoor temp. (dry-bulb/wet-bulb)	35°C/27°C

[2]HEATING

Condensing temp.	45°C
Superheat at condenser inlet	20°C
Subcool at condenser outlet	5°C
Inlet air temp. (dry-bulb/wet-bulb)	20°C/15°C
Outdoor temp. (dry-bulb/wet-bulb)	7°C/6°C

<Nominal capacity>

Model capacity of outdoor unit	ZRP	35	50	60	71	100	125	140	200	250
	P	—	—	—	—	—	—	—	200	250
	SHW	—	—	—	80	112	140	—	230	—
COOLING (kW)		3.5	5.0	6.0	7.1	10.0	12.5	14.0	20.0	25.0
HEATING (kW)		4.1	6.0	7.0	8.0	11.2	14.0	16.0	22.4	27.0

This product is designed and intended for use in the residential,
commercial and light-industrial environment.



mitsubishi electric corporation

HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN

Authorised representative in EU: MITSUBISHI ELECTRIC EUROPE B.V.

HARMAN HOUSE, 1 GEORGE STREET, UXBRIDGE, MIDDLESEX UB8 1QQ, U.K.