

6. RANGE OF USAGE & LIMITAIONS

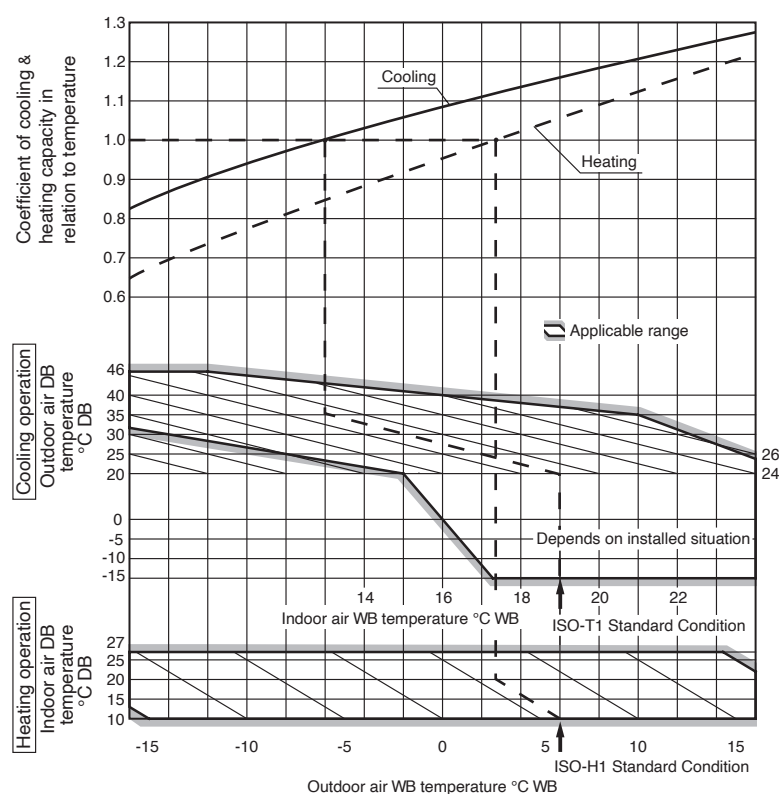
Item	Model	SRK20ZS-WF, -WFB, -WFT SRK25ZS-WF, -WFB, -WFT SRK35ZS-WF, -WFB, -WFT
Indoor return air temperature (Upper, lower limits)		Cooling operation : Approximately 18 to 32°C DB Heating operation : Approximately 10 to 30°C DB (Refer to the selection chart.)
Outdoor air temperature (Upper, lower limits)		Cooling operation : Approximately -15 to 46°C DB Heating operation : Approximately -15 to 24°C DB (Refer to the selection chart.)
Refrigerant line (one way) length		Max. 20m
Vertical height difference between outdoor unit and indoor unit		Max. 10m (Outdoor unit is higher.) Max. 10m (Outdoor unit is lower.)
Power source voltage		Rating $\pm 10\%$
Voltage at starting		Min. 85% of rating
Frequency of ON-OFF cycle		Max. 4 times/h (Inching prevention 10 minutes)
ON and OFF interval		Min. 3 minutes

Selection chart

Correct the cooling and heating capacity in accordance with the conditions as follows. The net cooling and heating capacity can be obtained in the following way.

Net capacity = Capacity shown on specification × Correction factors as follows

(1) Coefficient of cooling and heating capacity in relation to temperature



(2) Correction of cooling and heating capacity in relation to one way length of refrigerant piping

It is necessary to correct the cooling and heating capacity in relation to the one way piping length between the indoor and outdoor units.

Piping length [m]	7	10	15	20
Cooling	1.0	0.99	0.975	0.965
Heating	1.0	1.0	1.0	1.0

(3) Correction relative to frosting on outdoor heat exchanger during heating

In additions to the foregoing corrections (1), (2) the heating capacity needs to be adjusted also with respect to the frosting on the outdoor heat exchanger.

Air inlet temperature of outdoor unit in °CWB	-15	-10	-9	-7	-5	-3	-1	1	3	5 or more
Adjustment coefficient	0.95	0.95	0.94	0.93	0.91	0.88	0.86	0.87	0.92	1.00

How to obtain the cooling and heating capacity

Example : The net cooling capacity of the model SRK35ZS-WF with the piping length of 15m, indoor wet-bulb temperature at 19.0°C and outdoor dry-bulb temperature 35°C is

$$\text{Net cooling capacity} = \frac{3.5}{\text{SRK35ZS-WF}} \times \frac{0.975}{\text{Length 15m}} \times \frac{1.0}{\text{Factor by air temperatures}} \approx 3.4 \text{ kW}$$