Capacity correction factor by the length of refrigerant piping (Reference)
Rate of change in capacity by the main piping length

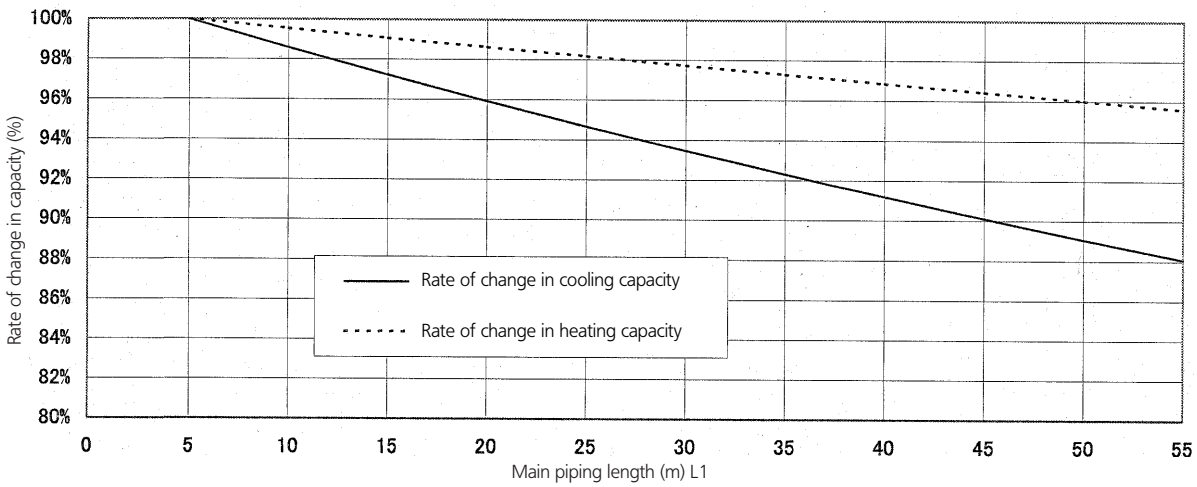
Rate of change in cooling capacity

Main piping length	5	10	15	20	25	30	35	40	45	50	55
Rate of change in cooling capacity	100.0%	98.6%	97.2%	95.9%	94.7%	93.5%	92.3%	91.2%	90.1%	89.1%	88.1%

Rate of change in heating capacity

Main piping length	5	10	15	20	25	30	35	40	45	50	55
Rate of change in heating capacity	100.0%	99.5%	99.1%	98.6%	98.2%	97.7%	97.3%	96.9%	96.4%	96.0%	95.6%

Rate of change in capacity by the main piping length



In both cases, the outdoor unit is in inferior or superior position for the indoor unit, the rate of change in capacity is the same.

Rate of change in capacity by the branch piping length

(1) Refrigerant piping connection diameter
liquid ϕ6.4
gas ϕ15.9

	Rate of change in capacity	
Piping length	Cooling	Heating
3	100.0%	100.0%
5	99.6%	99.9%
10	98.7%	99.6%
15	97.9%	99.3%

(2) Refrigerant piping connection diameter
liquid ϕ6.4
gas ϕ12.7

	Rate of change in capacity	
Piping length	Cooling	Heating
3	100.0%	100.0%
5	99.1%	99.5%
10	96.9%	98.2%
15	94.8%	97.0%

(3) Refrigerant piping connection diameter
liquid ϕ6.4
gas ϕ9.5

	Rate of change in capacity	
Piping length	Cooling	Heating
3	100.0%	100.0%
5	98.0%	98.8%
10	93.4%	96.0%
15	89.3%	93.5%

Piping size for field connection (mm)

		RA		SA	
		liquid	gas	liquid	gas
(KW)	25	ϕ6.4	ϕ9.5	ϕ6.4	ϕ9.5
	35				
	50		ϕ12.7		ϕ15.9
	60				
	71		ϕ15.9	ϕ9.5	

Notes

1 These figures illustrate the rate of change in capacity of a standard indoor unit system at maximum load (with the thermostat set to maximum) under standard conditions. Moreover, under partial load conditions there is only a minor deviation from the rate of change in capacity shown in the above figures.

2 With this outdoor unit, evaporating pressure constant control when cooling, and condensing pressure constant control when heating is carried out.

System layout of piping Piping length: L1 = 5m L2 = 3m

