RXMLQ-T
RXYLQ-T

VRV4
Heat pump
Piping restrictions 1/3

For the reference drawing, see page 2/3.

		Maximum piping length			Maximum height difference			Total piping length
		Longest pipe (A+[B,G,E,J]) Actual / (Equivalent)	After first branch (B,G,E,J) Actual	After first branch (for multi-outdoor) (D) Actual / (Equivalent)	Indoor-to-outdoor[3] (H1) Outdoor above indoor / (indoor above outdoor)	Indoor-to-indoor (H2)	Outdoor-to-outdoor (H3)	
Standard		165/(190)m [8]	40m[1]	10/(13)m	50/(40)m[3]	30m	5m	500m
VRV DX indoor units only								
Standard multi-combination								
All multi-outdoor-unit combinations except standard multi-outdoor-unit combinations		135/(160)m [8]	40m[1]	10/(13)m	50/(40)m[3]	30m	5m	300m
Hydrobox connection		135/(160)m [8]	40m	10/(13)m	50/(40)m	15m	5m	300m[5]
RA connection		100/(120)m [8]	50m[2]	-	50/(40)m	15m	-	250m
AHU connection	Pair	50/(55)m[4]	-	-	40/(40)m	-	-	-
	Multi [6]	120/(140)m [8]	40m	10/(13)m	40/(40)m	15m	5m	500m
	Mix [7]	120/(140)m [8]	40m	10/(13)m	40/(40)m	15m	5m	500m

Remark

For standard multi-outdoor-unit combinations, see 3D117167.

(1) If all conditions below are met, the limitation can be extended up to 90 m
  a. The piping length between all indoor units and the nearest branch kit is ≤ 40m.
  b. It is necessary to increase the size of the gas and liquid piping.
     If the increased pipe size is larger than the pipe size of the main pipe, also increase the size of the main pipe.
  c. When the piping size is increased, the piping length has to be counted as double.
     The total piping length has to be within limitations.
  d. The piping length difference between the nearest indoor unit from the first branch to the outdoor unit and the farthest indoor unit to the outdoor unit is ≤ 40m.

(2) If the piping length between the first branch and the BP box or VRV indoor unit is more than 20m, increase the length of the gas and liquid piping between the first branch and the BP box or VRV indoor unit.

(3) An extension to up to 90 m is possible without an additional option kit. Respect the following conditions:
  -> If the outdoor units are positioned higher than the indoor units:
  a. Size up the liquid piping
  b. A dedicated setting on the outdoor unit is required.
  -> If the outdoor units are positioned lower than the indoor units:
  a. 40~6Minimum connection ratio: 80%
     60~6Minimum connection ratio: 90%
     65~8Minimum connection ratio: 100%
     80~9Minimum connection ratio: 110%
  b. Size up the liquid piping
     A dedicated setting on the outdoor unit is required.

(4) The allowable minimum length is 5 m.

(5) In case of multi-outdoor-unit combinations.

(6) Multiple air handling units (AHU)(EKEXV + EKEQ kits).

(7) Mix of AHU units and VRV DX indoor

(8) If the equivalent piping length between is > 90m, size up the main liquid and gas piping.