

VRV5
Heat pump
Piping restrictions

Maximum piping length				Maximum height difference			Total piping length
	Longest pipe from the outdoor unit or the last multi-outdoor piping branch	Longest pipe after first branch or multi-SV unit	Longest pipe from the outdoor unit to the last multi-outdoor piping branch	Indoor-to-outdoor	Indoor-to-indoor	Outdoor-to-outdoor	Piping length
	Actual / Equivalent	Actual	Actual / Equivalent	Outdoor unit higher than indoor unit / Indoor unit higher than outdoor unit			
	Maximum (A+B1+C1, A+B2+C2, A+B1+C3, A+B1+C4, A+F+G, A+B2+L)	Maximum (B1+C1, B2+C2, B3+C3, B1+D+C4, F+G, B2+L)	Maximum (G)	Maximum (H1)	Maximum (H2)	Maximum (H3)	Maximum
-VRV R32 DR indoor units only	165/190 m (*)3	40 m (*)1 (*)4	-	50/40 m (*)2	30 m	-	1000 m
Multi-outdoor unit combinations	135/160 m (*)3	40 m (*)1 (*)4	10/13 m	50/40 m (*)2	30m	5 m	900 m
AHU connection	Pair (*)5	50/55 m (*)7	40 m	10/13 m	40/40 m	-	5 m 150m (*)8
	Multi (*)6	165/190 m (*)3	40 m	10/13 m	40/40 m	15 m	5 m 1000 m
	Mix (*)8	165/190 m (*)3	40 m	10/13 m	40/40 m	15 m	5 m 1000 m

Maximum piping length		Maximum height difference
AHU connection	EEXRVA to AHU	EEXRVA to AHU
	(I)	(H4)
Pair (*)5	5 m	5 m
Multi (*)6	5 m	5 m
Mix (*)8	5 m	5 m

Notes

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 or -SV- unit is ≤ 40 m

b. It is required to size up gas and liquid piping between the first branch kit or -SV- unit and the last branch kit or last -SV- unit

c. When the piping size is increased, the piping length has to be counted as double

d. The piping length difference between the nearest indoor unit to the outdoor unit and the farthest indoor unit to the outdoor unit is ≤ 40 m
2. If all conditions below are met, the limitation can be extended up to 90 m
- a. Indoor units are VRV R32 DR only

b. If the outdoor units are positioned higher than the indoor units:

i. Size up the liquid piping

ii. A dedicated setting on the outdoor unit is required.

For more information, refer to the service manual.

c. If the outdoor units are positioned lower than the indoor units:

i. Size up the liquid piping

ii. A dedicated setting on the outdoor unit is required.

For more information, refer to the service manual.
3. If the equivalent piping length is > 90 m, size up the main liquid and gas piping.
4. Limit of 40 m between -SV- unit and indoor unit is depending on room size (cf. Safety system).
5. Pair AHU = system with 1 air handling unit connected to one outdoor unit system
6. Multiple air handling units (AHU) (EEXRVA + EEXACBEVE- kits).
7. The allowable minimum length is 5 m.
8. Mix of air handling units (EEXRVA+EEXACBEV) and VRV R32 DR indoor units.
9. Up to 3- piping branches are possible in case of an AHU with an interfaced heat exchanger.