# TMV- 6 Ultra Series

## 72,000 BTU / VRF SYSTEM

## SUBMITTAL DATA: TVRF-VQ72WM/C

| | | | | |
|---|---|---|---|---|
| Job Name | Location | | Date | |
| Purchaser | Engineer | | | |
| Submitted To | For | ☐ Reference | ☐ Approval | ☐ Construction |
| Unit Designation | Schedule No. | | | |

| AHRI CERTIFIED REF | |
|---|---|
| NON-DUCTED | 214797700 |
| DUCTED | 214797697 |




| | | | |
|---|---|---|---|
| **System Performance** | | | |
| Capacity Range | | Ton | 6 |
| Nominal Capacity | Cooling | kBtu/h | 72 |
| | Heating | kBtu/h | 81 |
| Sound Pressure Level | | dB(A) | 59 |
| Operating Temperature Range | Cooling | °C/°F | -15~52 / 5~125※ |
| | Heating | °C/°F | -30~24 / -22~75 |
| Cooling Capacity@95F (Ducted/Non-Ducted) | | kBtu/h | 69 / 69 |
| IEER(Ducted/Non-Ducted) | | - | 21.00 / 23.80 |
| Heating Capacity@47F (Ducted/Non-Ducted) | | kBtu/h | 77 / 77 |
| COP@47F(Ducted/Non-ducted) | | - | 4.00 / 4.40 |
| Heating Capacity@17F(Ducted/Non-ducted) | | kBtu/h | 68 / 68 |
| COP@17F(Ducted/Non-ducted) | | - | 2.25 / 2.25 |
| SCHE(Ducted/Non-ducted) | | - | 25.00 / 27.00 |
| **Electrical Data** | | | |
| Power Supply | | - | 208/230V, 3 Phase, 60Hz |
| Maximum Overcurrent Protection (MOP) | | A | 60.0 |
| Minimum Circuit Amps (MCA) | | A | 59.5 |
| **Fan** | | | |
| Type x Quantity | | - | Axial- flow x 2 |
| Air Flow Volume | | CFM | 5,738 |
| | | $m^3/h$ | 9,750 |
| Fan Motor Power Output | | W | 750+750 |
| **Compressor** | | | |
| Compressor Type x Quantity | | - | Inverter Scroll x 1 |
| Compressor Rated Load Amps (RLA) | | A | 41.0 |
| Oil Type | | - | FV68H |
| Oil Charge Volume | Compressor + others | L | 1.1+5.0 |
| **Connection Piping** | | | |
| Refrigerant Pipe | Gas ( High) | inch | 5/8" |
| | Gas( Low) | inch | 3/4" |
| | Liquid | inch | 3/8" |
| Refrigerant Type | | - | R410A |
| Refrigerant Pre-charged Amount | | kg/oz | 11.6 / 409 |
| **Dimension/Wight** | | | |
| Unit Dimensions (W x D x H) | | inch | 52-3/4 x 30-1/2 x 66-1/2 |
| | | mm | 1,340 x 775 x 1,690 |
| Weight | Net | kg/lbs | 340 / 750 |
| | Gross | kg/lbs | 385 / 783 |
| **Other** | | | |
| Capacity Diversity Range(IDUs/ODU) | | - | 50%~135% |
| Moisture Protection | | - | IPX4 |

※ Cooling at -15~5°C(5~23°F) is conditional



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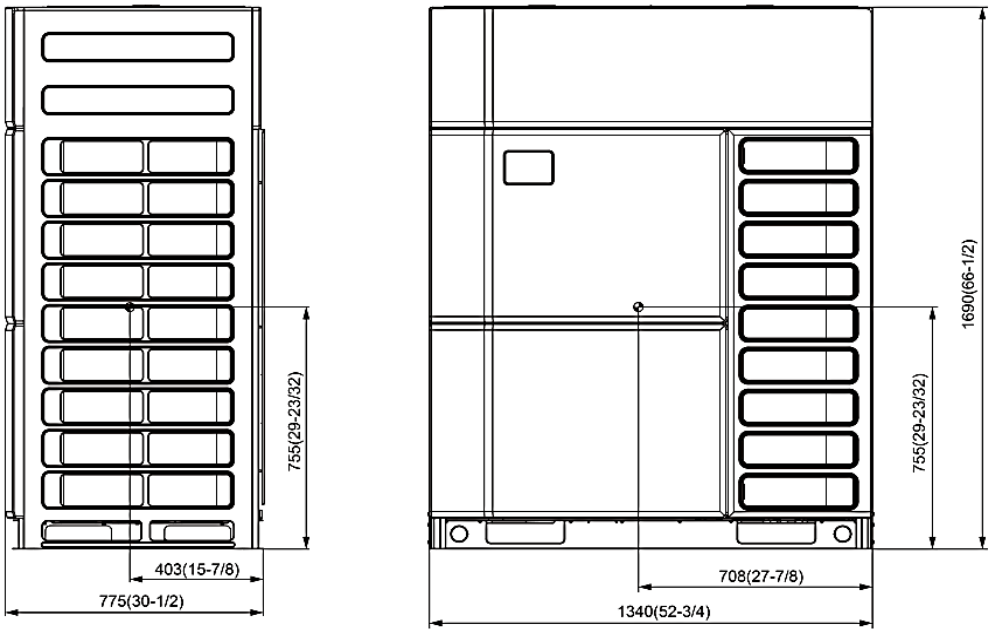
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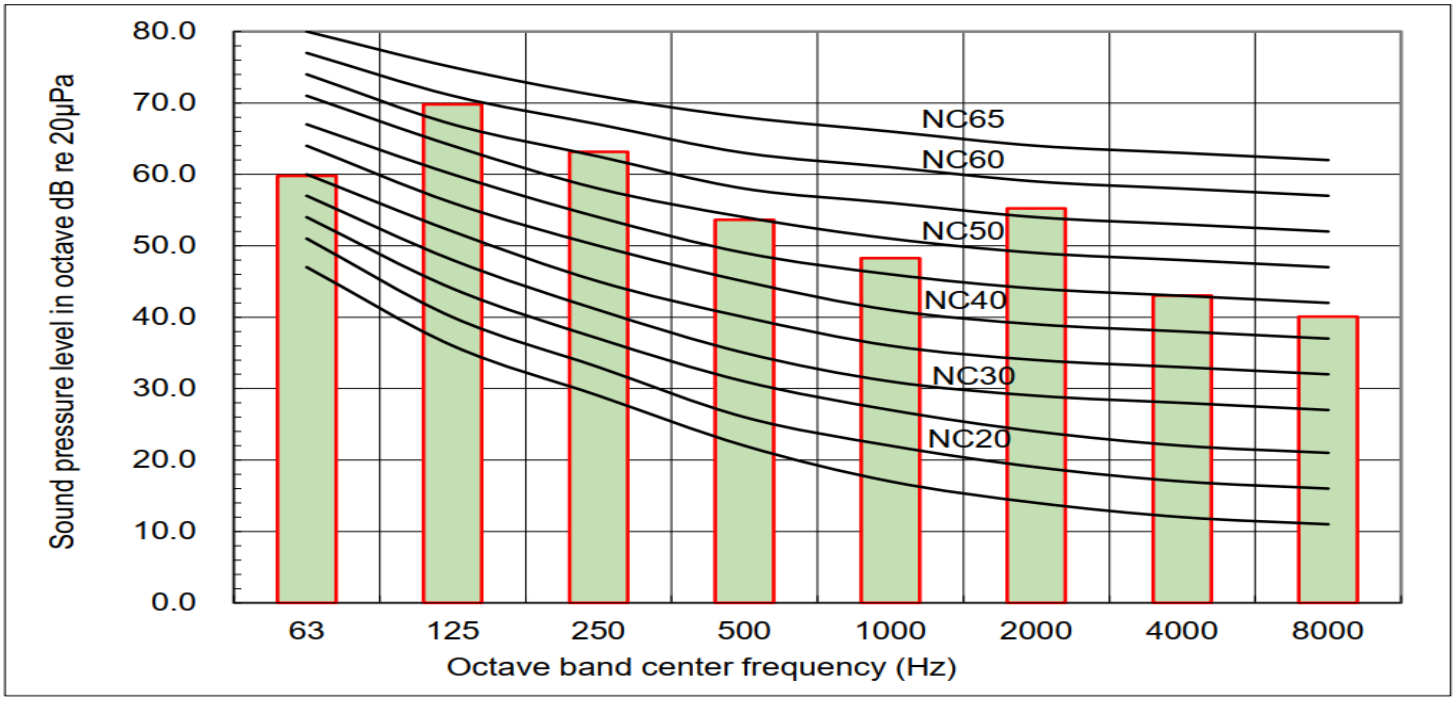
**TVRF-VQ72WM/C**

## Dimension and Gravity point

Unit:mm(inch)




## Acoustic Octave-band Sound Power Data






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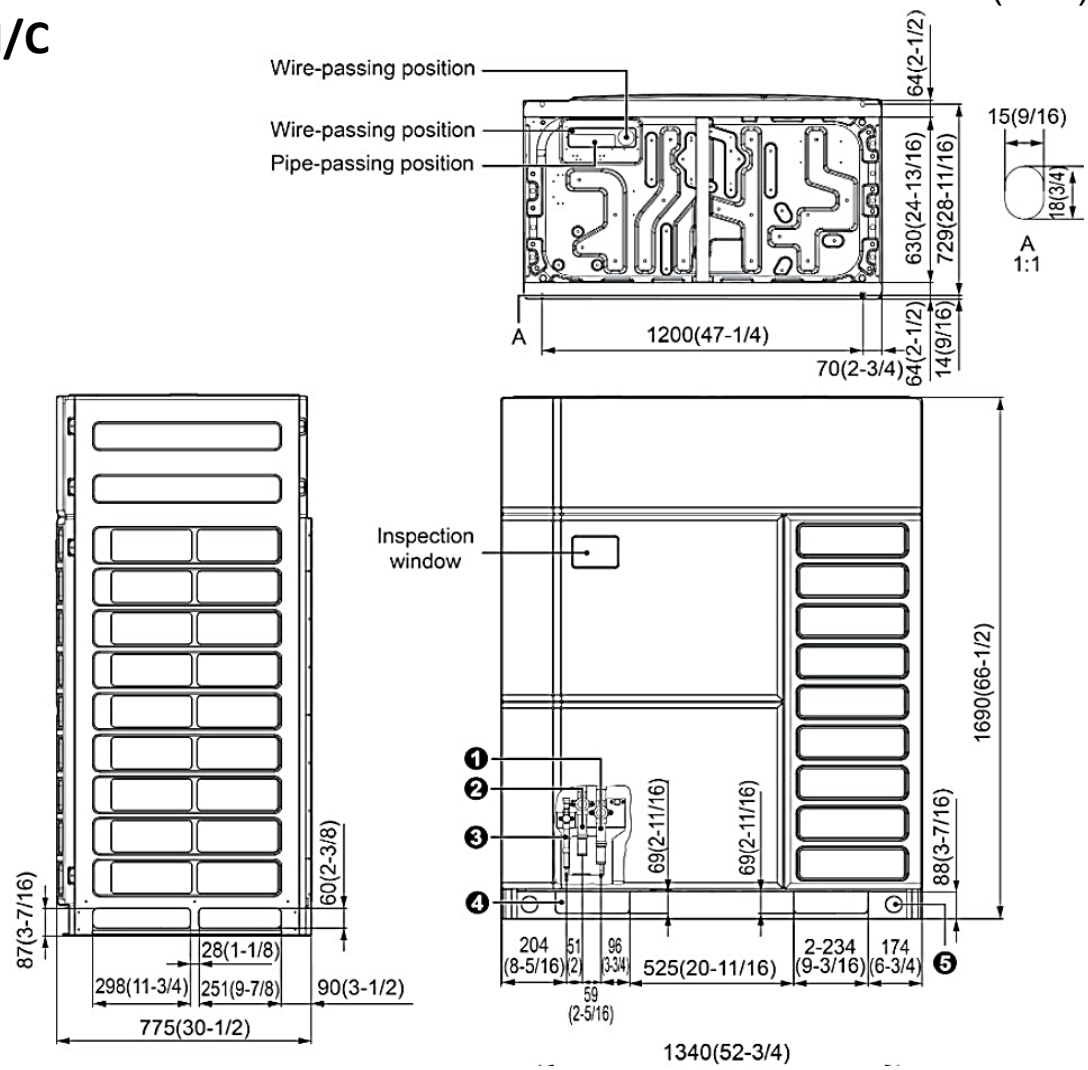
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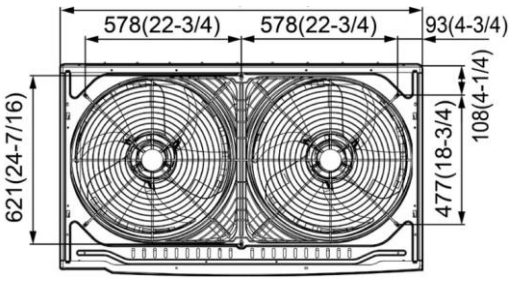
## Dimension and Installation Hole

Unit:mm(inch)

### TVRF-VQ72WM/C




| No | Name | Required Piping Size | Remark |
|---|---|---|---|
| ① | Low pressure gas pipe | ϕ19.05 (3/4) | For Heat Recovery Mode |
| ② | High pressure gas pipe | ϕ15.9 (5/8) | |
| ③ | Liquid pipe | ϕ9.52 (3/8) | |
| ② | Gas pipe | ϕ19.05 (3/4) | For Heat Pump Mode |
| ③ | Liquid pipe | ϕ9.52 (3/8) | |
| ④ | Pipe and wiring pass hole (L x W) | 234x69 (9-3/16 x 2-11/16) | / |
| ⑤ | Hoist hole | Φ50 (1-15/16) | / |






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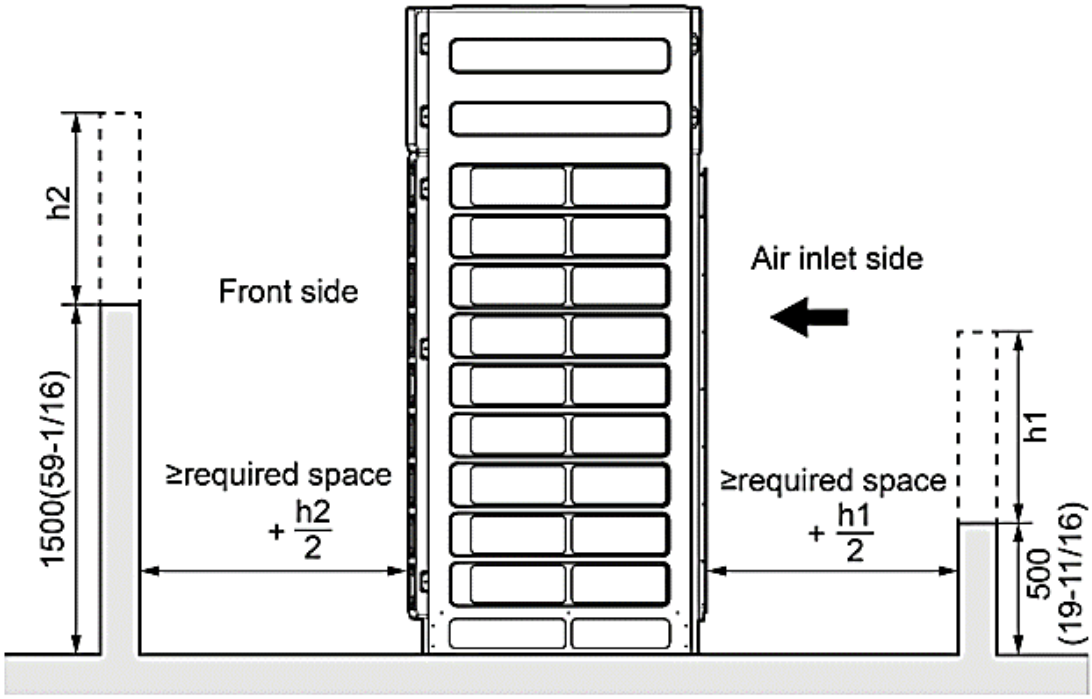
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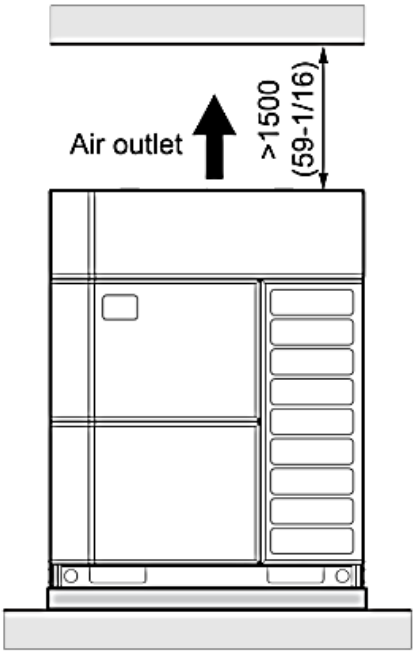
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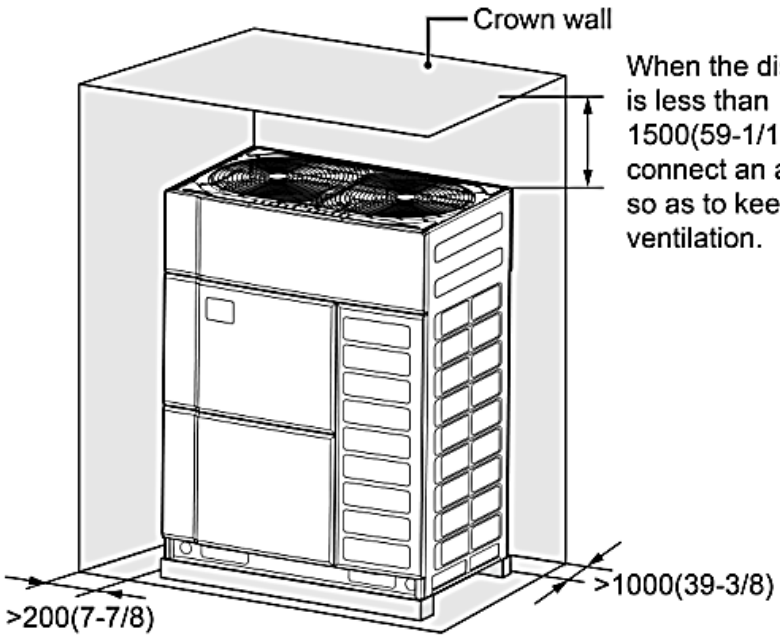
## Installation Space

**TVRF-VQ72WM/C**

Unit: mm(inch)



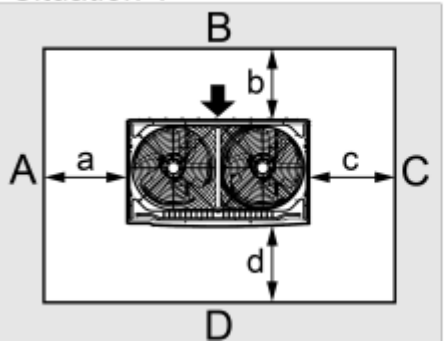

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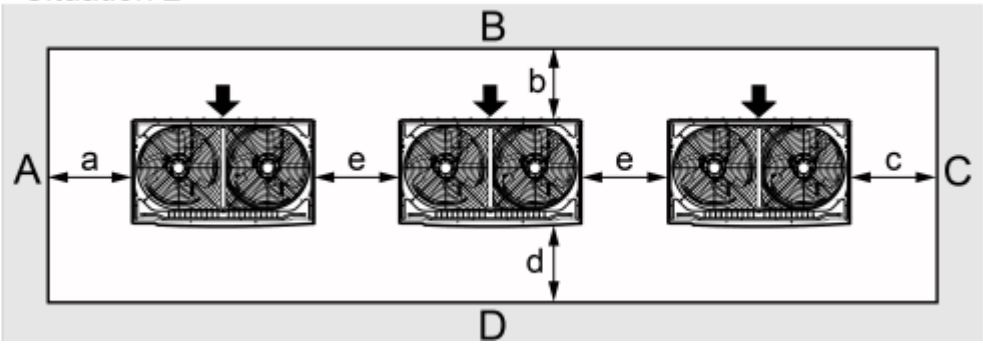
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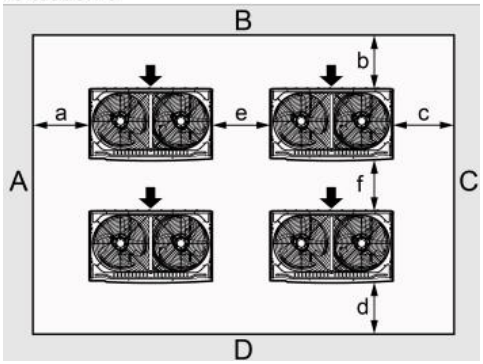
Situation 1



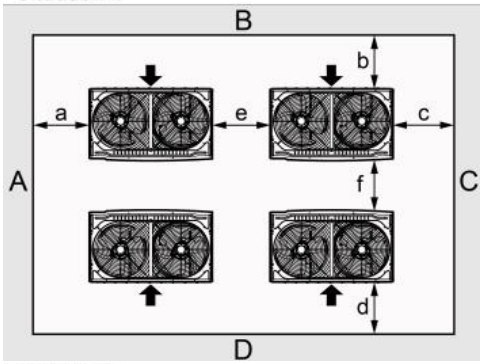

Situation 2



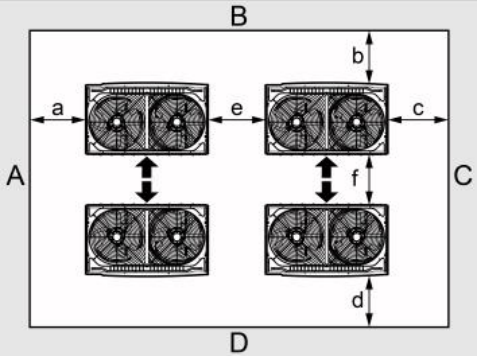

Situation 3




Situation 4




Situation 5




Unit: mm(inch)

| | A+B+C+D | A+B |
|---|---|---|
| Situation 1 | a≥300(11-13/16)<br>b≥100(3-15/16)<br>c≥100(3-15/16)<br>d≥500(19-11/16) | a≥300(11-13/16)<br>b≥300(11-13/16) |
| Situation 2 | a≥300(11-13/16)<br>b≥100(3-15/16)<br>c≥100(3-15/16)<br>d≥500(19-11/16)<br>e≥100(3-15/16) | a≥300(11-13/16)<br>b≥300(11-13/16)<br>e≥400(15-3/4) |
| Situation 3 | a≥300(11-13/16)<br>b≥100(3-15/16)<br>c≥100(3-15/16)<br>d≥500(19-11/16)<br>e≥200(7-7/8)<br>f≥600(23-5/8) | NA |
| Situation 4 | a≥300(11-13/16)<br>b≥100(3-15/16)<br>c≥100(3-15/16)<br>d≥100(3-15/16)<br>e≥200(7-7/8)<br>f≥500(19-11/16) | NA |
| Situation 5 | a≥300(11-13/16)<br>b≥500(19-11/16)<br>c≥100(3-15/16)<br>d≥500(19-11/16)<br>e≥200(7-7/8)<br>f≥900(35-7/16) | NA |

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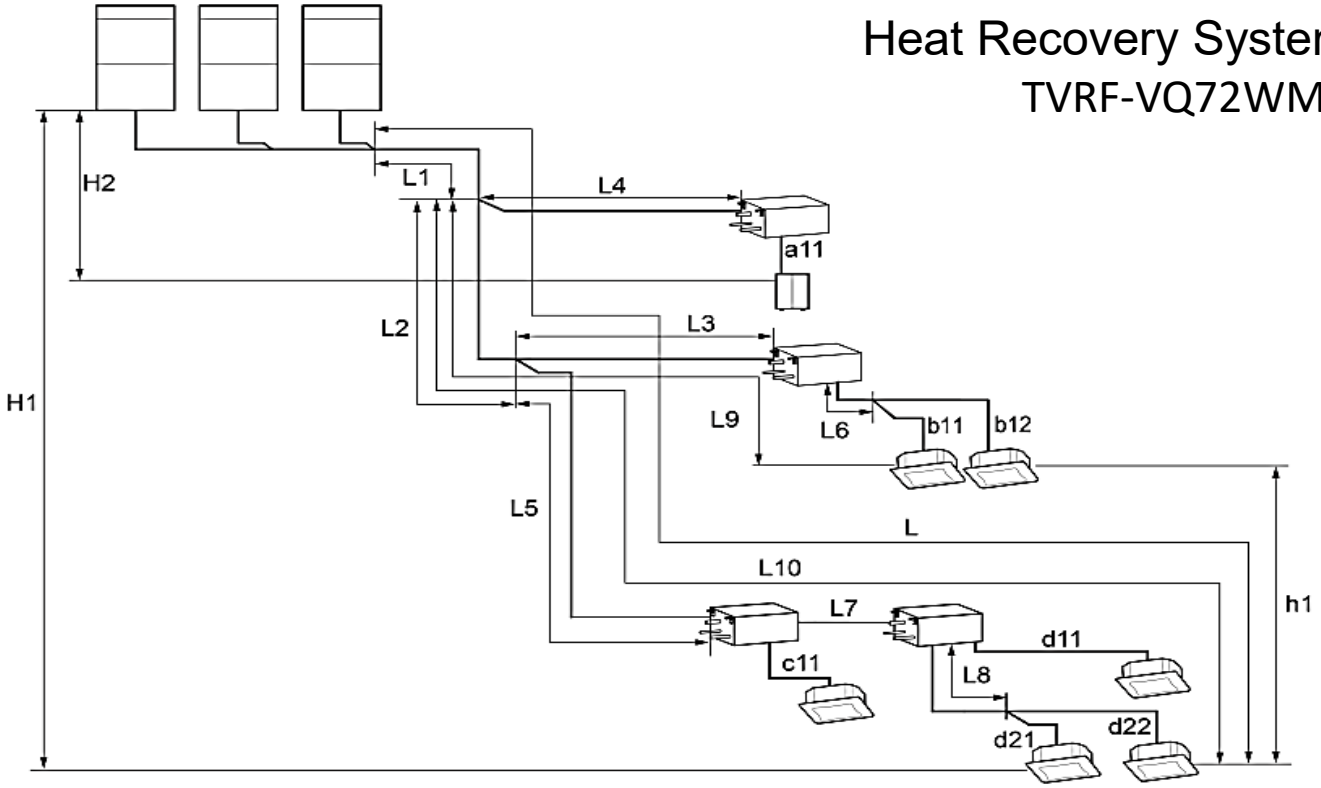
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# TMV- 6 Ultra Series

## 72,000 BTU / VRF SYSTEM

Heat Recovery System

TVRF-VQ72WM/C




L10: Length from the first branch to the farthest IDU;

L9: Length from the first branch to the nearest IDU;

Equivalent length of branch of IDU is 0.5m(1-3/4ft.).

| — | | Length(m)(ft.) | Fitting Pipe |
|---|---|---|---|
| Total length (actual length) of fitting pipe | | ≤1000(3280-3/4) | L1+(L2+L3+L4+…+L8)×2+a11+a12 +b21+b22+…+d21+d22 |
| Length of farthest fitting pipe | Actual length | ≤165(541-1/4) | L |
| | Equivalent length | ≤190(623-1/4) | — |
| Equivalent length from the first branch to the farthest indoor unit*1 | | ≤40(131-1/4) | L2+L5+L7+L8+d22 |
| Length between tandem mode exchange boxes | | ≤15(49-1/4) | L7 |
| Height difference between outdoor unit and indoor unit | Outdoor unit at upper | ≤90(295-1/4) | H1*2 |
| | Outdoor unit at lower | ≤90(295-1/4) | |
| Height difference between outdoor unit and hydro box | Outdoor unit at upper | ≤40(131-1/4) | H2 |
| | Outdoor unit at lower | ≤40(131-1/4) | |
| Maximum height difference between indoor units:h1 | | ≤30(98-1/2) | h1 |
| Length from the mode exchange box to the indoor unit with capacity over 48500Btu/h | | ≤20(65-5/8) | — |



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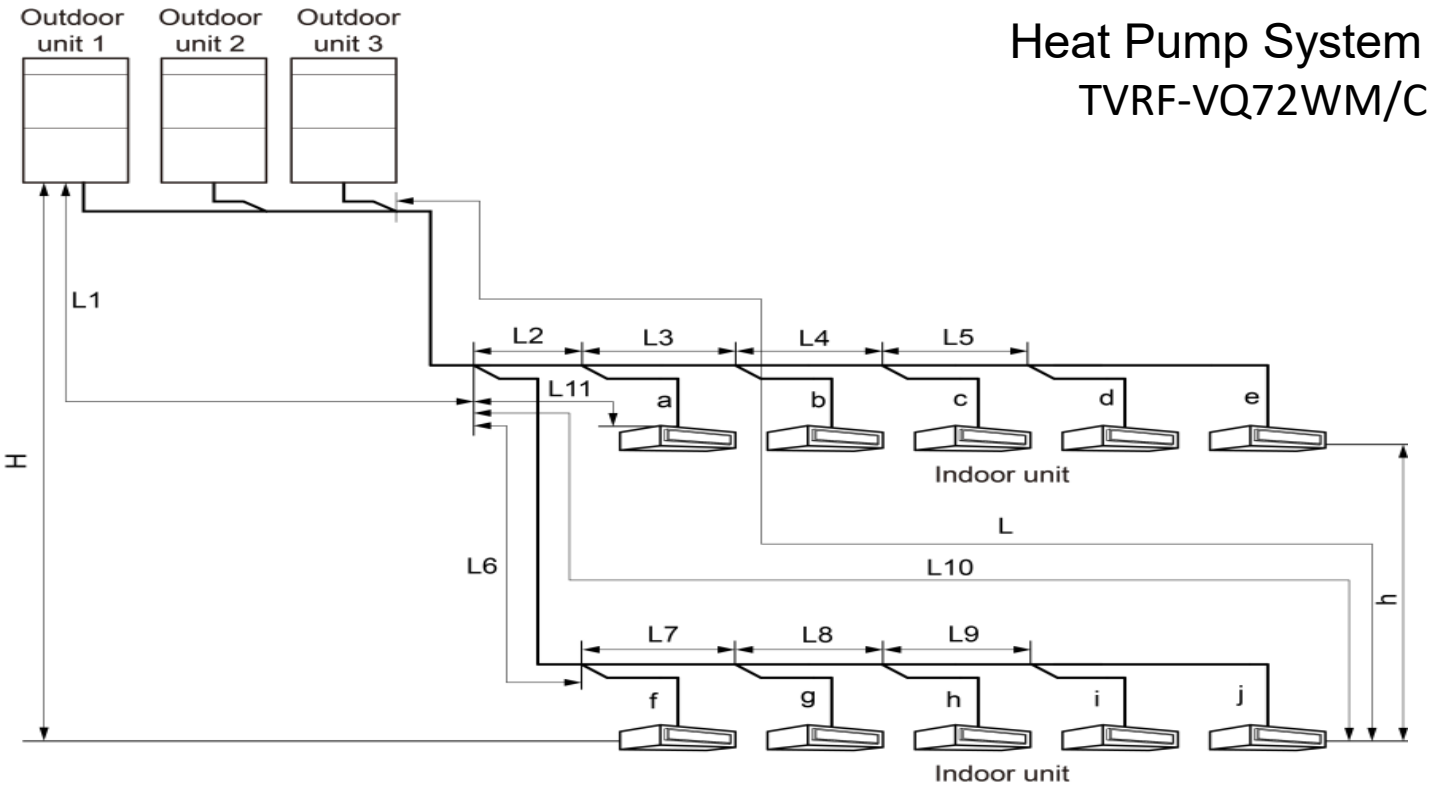
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# TMV- 6 Ultra Series

## 72,000 BTU / VRF SYSTEM

Heat Pump System

TVRF-VQ72WM/C




L10: Length from the first branch to the farthest IDU;

L9: Length from the first branch to the nearest IDU;

Equivalent length of branch of IDU is 0.5m(1-3/4ft.).

| — | | Length(m)(ft.) | Fitting Pipe |
|---|---|---|---|
| Total length (actual length) of fitting pipe | | ≤1000(3280-3/4) | L1+(L2+L3+L4+...+L9)×2+a+b+c+...+i+j |
| Length of farthest fitting pipe | Actual length | ≤165(541-1/4) | L |
| | Equivalent length | ≤190(623-1/4) | — |
| Equivalent length from the first branch to the farthest indoor unit*1 | | ≤40(131-1/4) | L6+L7+L8+L9+j |
| Height difference between outdoor unit and indoor unit | Outdoor unit at upper | ≤90(295-1/4) | H*2 |
| | Outdoor unit at lower | ≤90(295-1/4) | |
| Maximum height difference between indoor units:h1 | | ≤30(98-1/2) | h |



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