



**Solar Series
Mini & Modular**

**Ultra Heating
Mini & Modular**

**Heat Recovery
Modular**

VRF

Variable Refrigerant Flow Modular & Mini Outdoor Units

FEATURES & SPECIFICATIONS

YMGI Group

601 Arrow Ln, O'Fallon, MO 63366 • 866-833-3138 | info@ymgigroup.com • ymgigroup.com



YMGI's Mission

To help build a sustainable and efficient green world.

YMGI's Commitment

YMGI is dedicated to designing, manufacturing and distributing the highest quality, energy saving and environmentally friendly air conditioner and heat pump products available on the market, while providing the best service and support to each of our customers.

Efficient, Reliable and Stylish

YMGI products quickly and quietly cool and heat your home, and business in the most efficient way possible. Both the indoor and outdoor units have a sleek contemporary style and color.

Quality Products

YMGI products are engineered and built with high quality parts that are designed for reliability and longevity. We stand behind our products and will work tirelessly to make sure you are completely satisfied with your system.



VRF



A FLEXIBLE AND AFFORDABLE VRF SYSTEM

YMGV's VRF Heat Pump systems are designed to deliver comfort year round. Effective in a wide range of outdoor ambient temperatures (as low as -4°F), YMGV VRF Heat Pump systems can meet all your heating and cooling needs, with no need for a supplemental heating system in certain climates. YMGV VRF systems can replace traditionally designed gas furnace and AC/HP coil & outdoor unit systems and save money on installation and operation.

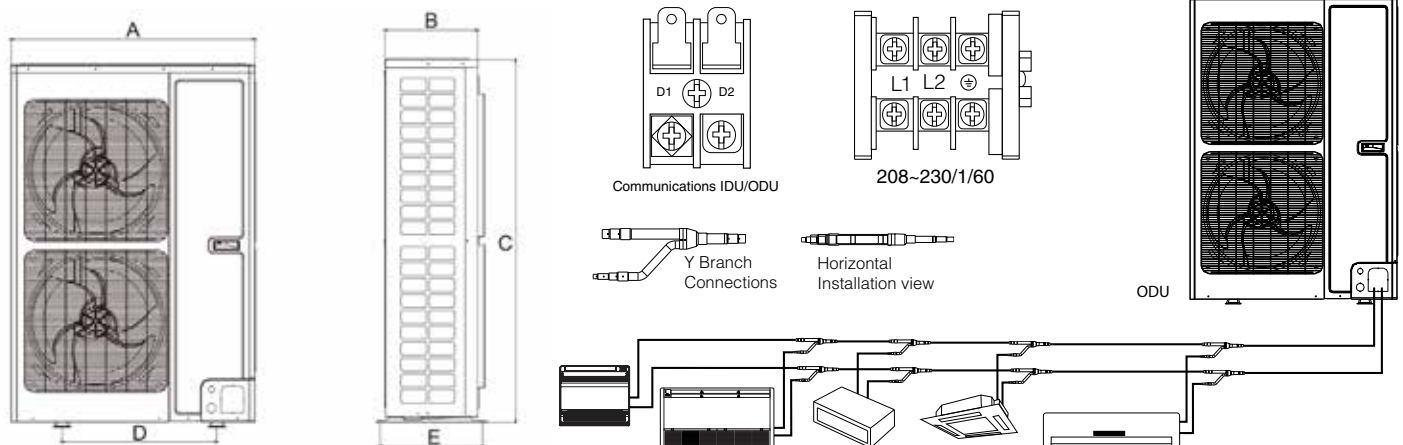


VRF Standard Heat Pump - Mini

VRF HEAT PUMP

Model	Unit	VRFO-36HP-V2B(55)5	VRFO-48HP-V2B(55)5	VRFO-60HP-V2B(55)5
Cooling Capacity	Btu/h	36,000	48,000	60,000
EER	Ducted	11.30	9.50	9.30
	Mixed Ducted	12.15	11.00	10.50
	Non-Ducted	13.00	12.50	12.00
SEER	Ducted	16.50	16.50	16.00
	Mixed Ducted	18.50	18.25	17.75
	Non-Ducted	20.50	20.00	19.50
Heating Capacity	Btu/h	45,000	54,000	66,000
HSPF	Ducted	10.30	10.20	9.70
	Mixed Ducted	11.00	10.60	10.10
	Non-Ducted	11.70	11.00	10.50
Air flow volume	CFM	3531	3531	4590
Heating Capacities at Different OD Ambient Temperatures	47 °F	100% / 45,000	100% / 54,000	100% / 66,000
	17 °F	100% / 45,000	100% / 54,000	100% / 66,000
	-4 °F	100% / 45,000	100% / 54,000	100% / 66,000
Sound Pressure Level	dB	56	57	63
Power Supply	V/∅/Hz	208~230/1/60	208~230/1/60	208~230/1/60
Power Input Cooling	Ducted	kW	3.2	4.45
	Ductless	kW	2.7	4.35
Power Input Heating	Ducted	kW	3.95	4.65
	Ductless	kW	3.3	4.40
MCA	A	37	37	37
MOP	A	50	50	50
Connection Method	-	Flare Connection	Flare Connection	Flare Connection
Refrigerant	-	R410A	R410A	R410A
Compressor Manufacturer	-	GR/LD	GR/LD	GR/LD
Compressor Type	-	Two-stage Variable Frequency Rotary	Two-stage Variable Frequency Rotary	Two-stage Variable Frequency Rotary
Compressor Quantity	No.	1	1	1
Motor Type	-	INVERTER	INVERTER	INVERTER
Fan Quantity	-	2	2	2
Capacity Adjustment Range	%~%	15%~120%	15%~120%	15%~120%
Maximum drive IDU NO.	unit	5	7	13
Max. Equivalent Connection Pipe Length	feet	360	360	540
Condenser Fin Color	-	Golden	Golden	Golden
Cooling Operation Ambient Temperature Range	°F	23° ~ 118°	23° ~ 118°	23° ~ 118°
Heating Operation Ambient Temperature Range	°F	-4° ~ 80.6°	-4° ~ 80.6°	-4° ~ 80.6°
Refrigerant Charge	oz	176.4	176.4	176.4
Low Ambient Cooling Function	-	YES	YES	YES
Outer Diameter Liquid Pipe	in.	3/8	3/8	3/8
Outer Diameter Gas Pipe	in.	5/8	5/8	3/4
Net Weight	lbs	242.6	242.6	273.4
Base Pan Heater	-	YES	YES	YES

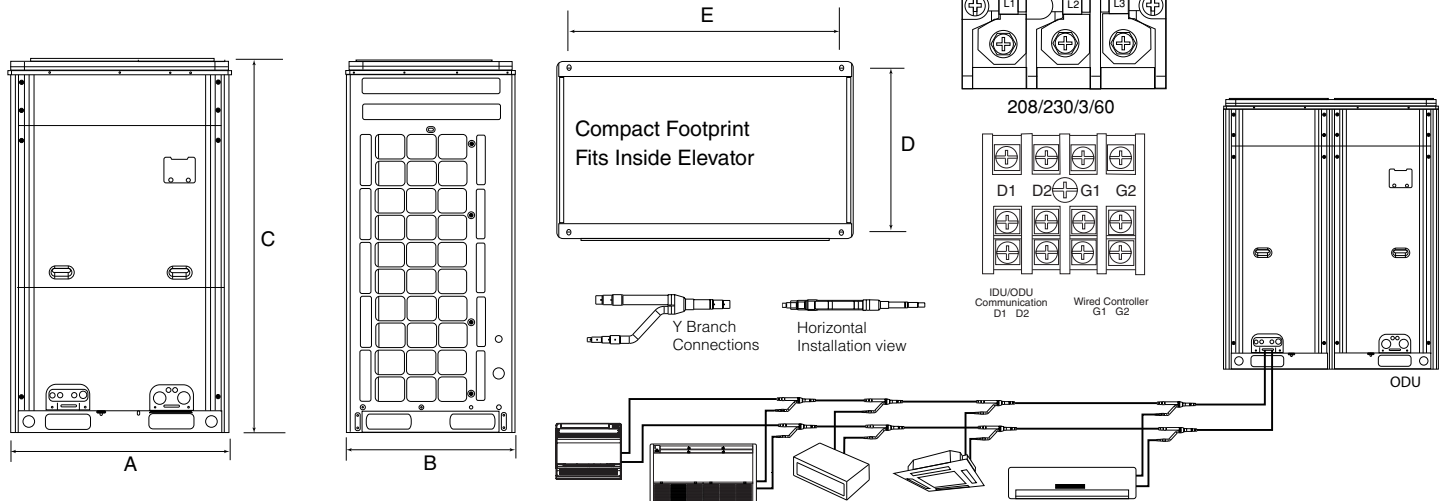
VRFO-36HP-V2B(55)5		VRFO-48HP-V2B(55)5		
A	B	C	D	E
35 3/8"	13 3/8"	53"	22 1/2"	14 7/8"
VRFO-60HP-V2B(55)5				
37"	12 5/8"	56 1/4"	24 7/8"	13 3/4"



VRF Standard Heat Pump - Modular

Model	Unit	VRFO-72HP-V2C(55)5
Cooling Capacity	Btu/h	69,000
Heating Capacity	Btu/h	77,000
Air flow volume	CFM	6700
ESP	WC	0.33"
Heating Capacities at Different OD Ambient Temperatures	47 °F	100% / 81,000
	17 °F	100% / 81,000
	-4 °F	100% / 81,000
EER Ducted / Mixed / Non-Ducted		11.10 / 12.40 / 13.70
IEER Ducted / Mixed / Non-Ducted		21.50 / 24.80 / 28.10
COP 47 Ducted / Mixed / Non-Ducted		3.40 / 3.81 / 4.22
COP 17 Ducted / Mixed / Non-Ducted		2.40 / 2.46 / 2.51
Sound Pressure/ Power Level		61/71
Power Supply	V/Ø/Hz	208~230/3/60
Power Input Cooling	Ducted	kW
	Ductless	kW
Power Input Heating	Ducted	kW
	Ductless	kW
MCA	A	40
MOP/HVAC Circuit Breaker	A	60
Connection Method	-	Brazing
Outer Diameter Liquid Pipe	in.	3/8
Outer Diameter Gas Pipe	in.	7/8
R410A Refrigerant Factory Charge	oz	236
Compressor Manufacturer	-	Hitachi
Compressor Type	-	Inverter Scroll Hermetic
Compressor Quantity	No.	1
Motor Type	-	Permanent Magnet Synchronous Motor
Fan Quantity/Type	-	1 Axial
Capacity Adjustment Range	%~%	12%~120%
Maximum No. of drive IDU	units	16
IDU Capacity Total	% ODU	50-150% zoning
Condenser Fin Color	-	Gold
Cooling Operation Ambient "Temperature Range	°F	23° ~ 126°
Net Weight	lbs	496
Heating Operation Ambient Temperature Range	°F	-4° ~ 75°
Base Pan Heater	-	YES

VRFO-72HP-V2C(55)5				
A	B	C	D	E
38 5/8"	30 1/8"	63 1/4"	28 3/4"	31 1/8"

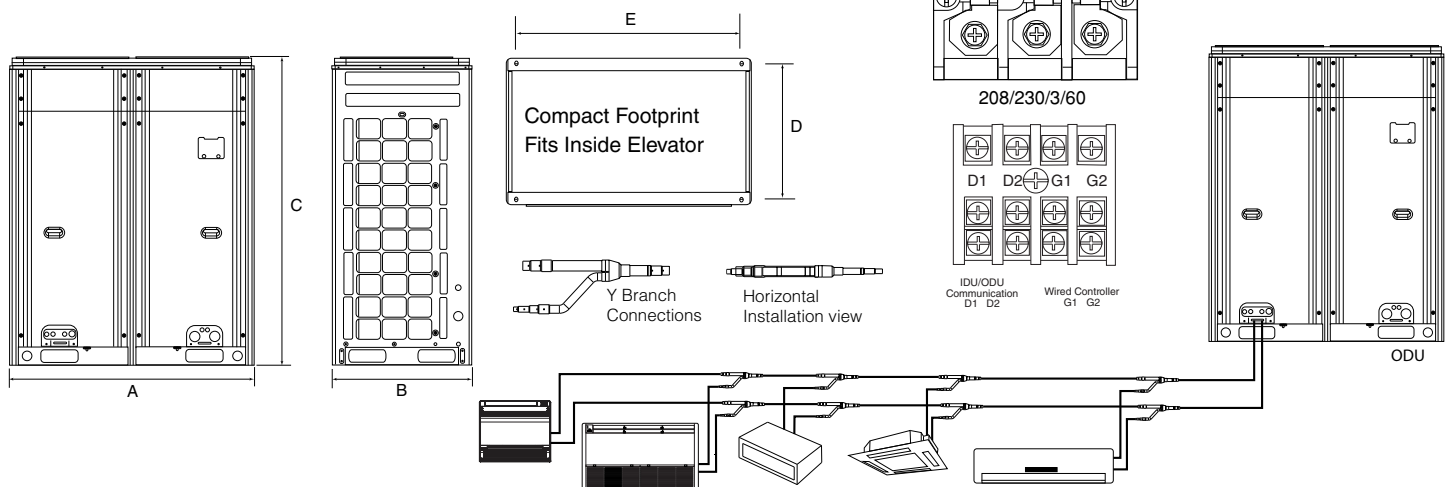


VRF Standard Heat Pump - Modular

VRF HEAT PUMP

Model		Unit	VRFO-96VP-V2C(55)5	VRFO-120VP-V2C(55)5
Cooling Capacity		Btu/h	92,000	114,000
Heating Capacity		Btu/h	103,000	129,000
Air flow volume		CFM	8240	8240
ESP		WC	0.33"	0.33"
Heating Capacities at Different OD Ambient Temperatures		47 °F	100% / 103,000	100% / 129,000
		17 °F	100% / 103,000	100% / 129,000
		-4 °F	100% / 103,000	100% / 129,000
EER Ducted / Mixed / Non-Ducted			11.20 / 12.20 / 13.20	11.20 / 11.80 / 12.40
IEER Ducted / Mixed / Non-Ducted			20.00 / 23.30 / 26.60	22.30 / 23.75 / 25.20
COP 47 Ducted / Mixed / Non-Ducted			3.40 / 3.78 / 4.15	3.95 / 3.63 / 3.30
COP 17 Ducted / Mixed / Non-Ducted			2.38 / 2.44 / 2.50	2.30 / 2.36 / 2.41
Sound Pressure/ Power Level		dB	61 / 72	61 / 72
Power Supply		V/Ø/Hz	208~230/3/60	208~230/3/60
Power Input Cooling	Ducted	kW		
	Ductless	kW	7.30	9.58
Power Input Heating	Ducted	kW		
	Ductless	kW	7.85	10.42
MCA		A	45	45
MOP/HVAC Circuit Breaker		A	70	70
Connection Method		-	Brazing	Brazing
Outer Diameter Liquid Pipe		in.	3/8	3/8
Outer Diameter Gas Pipe		in.	7/8	7/8
R410A Refrigerant Factory Charge		oz	345	345
Compressor Manufacturer		-	Hitachi	Hitachi
Compressor Type		-	Inverter Scroll Hermetic	Inverter Scroll Hermetic
Compressor Quantity		No.	2	2
Motor Type		-	Permanent Magnet Synchronous Motor	Permanent Magnet Synchronous Motor
Fan Quantity/Type		-	2 Axial	2 Axial
Capacity Adjustment Range		%~%	12%~120%	12%~120%
Maximum No. of drive IDU		units	23	23
IDU Capacity Total		% ODU	50-150% zoning	50-150% zoning
Condenser Fin Color		-	Gold	Gold
Cooling Operation Ambient Temperature Range		°F	23° ~ 126°	23° ~ 126°
Heating Operation Ambient Temperature Range		°F	-4° ~75°	-4° ~75°
Net Weight		lbs	793	793
Base Pan Heater		-	YES	YES

VRFO-96HP-V2C(55)5 VRFO-120HP-V2C(55)5				
A	B	C	D	E
52 3/4"	30 1/8"	63 1/4"	28 7/8"	47 1/2"



VRF Solar Series Heat Pump



SOLAR SERIES

A VRF SYSTEM POWERED BY THE SUN

YMGI's Solar Series VRF systems are designed to be the most efficient heating and cooling systems on the market today. Available with Photo Voltaic Solar Panel Arrays from 5-25 panels, YMGI's Solar Series systems will save you money, and are an environmentally friendly way to heat and cool.

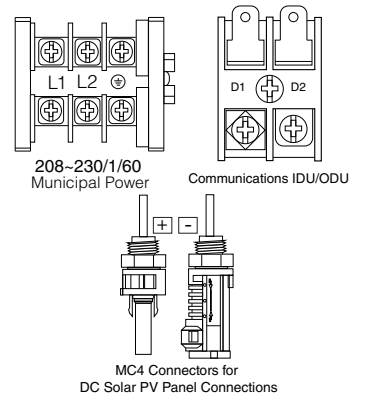
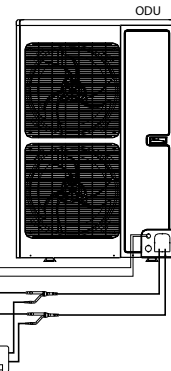
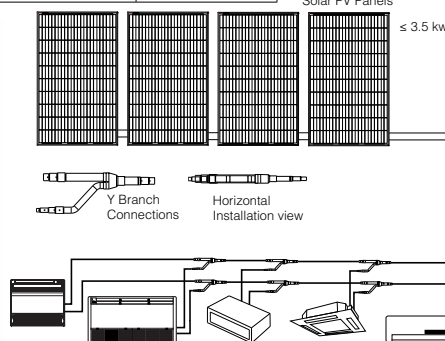
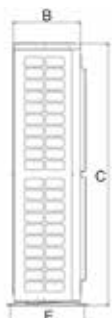


VRF Solar Series Heat Pump - Mini

Model		Unit	VRFO-36HP-S2B(55)5	VRFO-48HP-S2B(55)5	
Cooling Capacity		Btu/h / kW	36,000 / 10.6	48,000 / 14	
EER Without Solar Panels		Ducted	10.25	9.50	
		Mixed Ducted	11.25	11.00	
		Non-Ducted	12.25	12.50	
SEER	Without Solar Panels	Ducted	16.25	16.50	
		Mixed Ducted	17.25	18.25	
		Non-Ducted	20.5	20.00	
	With Solar Panels			26-40	26-40
	Heating Capacity		Btu/h / kW	45,000 / 13.2	54,000 / 15.8
HSPF		Ducted	10.20	10.20	
		Mixed Ducted	10.60	10.60	
		Non-Ducted	11.00	11.00	
Air flow volume		CFM	3531	3884	
Heating Capacities at Different OD Ambient Temperatures		47 °F	100% / 45,000	100% / 54,000	
		17 °F	100% / 45,000	100% / 54,000	
		-4 °F	100% / 45,000	100% / 54,000	
		-22 °F	80% / 36,000	80% / 43,200	
Sound Pressure Level		dB	53	54	
Power Supply		V/Ø/Hz	208/230/1/60	208/230/1/60	
Rated Input		kW	3.3	4.4	
Power Input Cooling	Ducted	kW	3.50	5.20	
	Ductless	kW	2.90	4.40	
Power Input Heating	Ducted	kW	3.70	5.30	
	Ductless	kW	3.30	5.40	
MCA		A	35	35	
MOP		A	60	60	
Liquid pipe		in.	3/8	3/8	
Gas Pipe		in.	5/8	5/8	
Connection Method		-	Flare Connection	Flare Connection	
Refrigerant		-	R410A	R410A	
Compressor Manufacturer		-	GREE	GREE	
Compressor Type		-	Two-stage VRF	Two-stage VRF	
Compressor Quantity		No.	1	1	
Motor Type		-	INVERTER	INVERTER	
Fan Quantity		-	2	2	
SEER (Ducted/Ductless IDUs)		-	16/18	16/18	
Capacity Adjustment Range		%~%	15%~120%	15%~120%	
Maximum drive IDU NO.		units	5	7	
Max. Equivalent Connection Pipe Length		feet	393.7	393.7	
Condenser Fin Color		-	Gold	Gold	
Cooling Operation Ambient Temperature Range		°F	23° ~ 118°	23 ~ 118	
Heating Operation Ambient Temperature Range		°F	-22° ~ 80.6°	-22 ~ 80.6	
Refrigerant Charge		oz	229.3	229.3	
Unit Dimensions (WxHxD)		in.	35 3/8 x 13 3/8 x 53	35 3/8 x 13 3/8 x 53	
Net Weight		lbs	321.9	321.9	
Low Ambient Cooling Function		-	YES	YES	
Base Pan Heater		-	YES	YES	
Maximum Number of IDU		Units	5	7	
Recommended Solar Panels 300w		Pcs.	10-12	13-16	

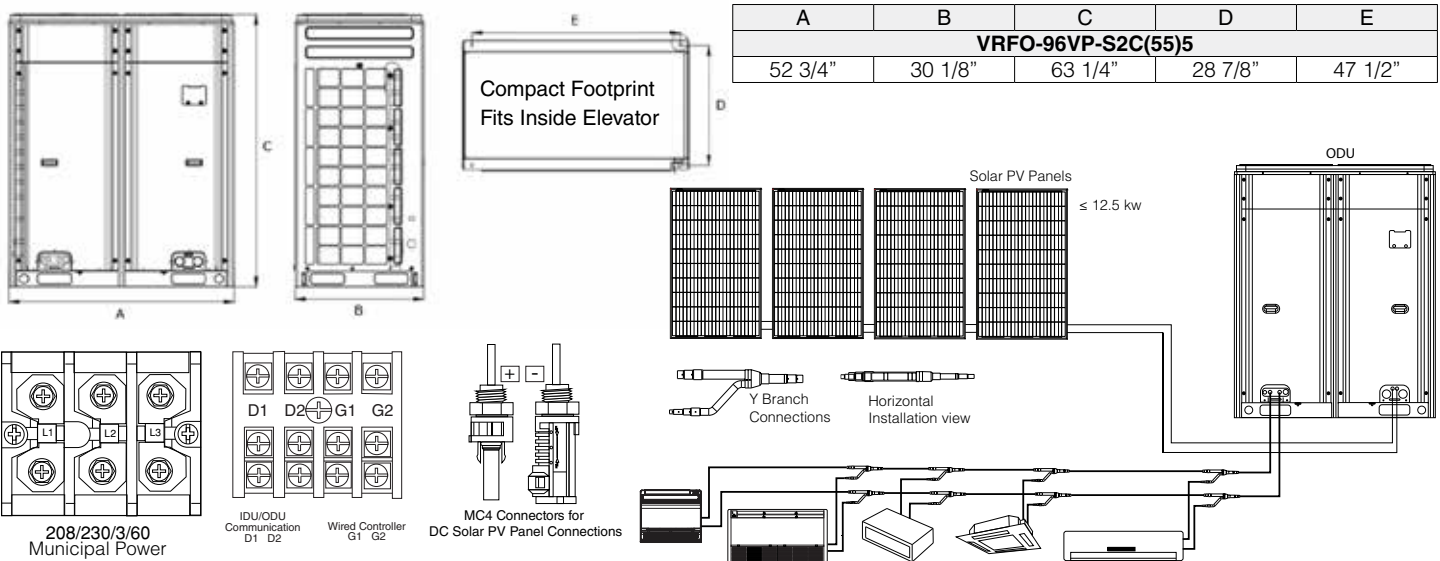
SOLAR SERIES

A	B	C	D	E
VRFO-36HP-S2B(55)5 & VRFO-48HP-S2B(55)5				
35 3/8"	13 3/8"	53"	22 1/2"	14 7/8"



VRF Solar Series Heat Pump - Modular

Model	Unit	VRFO-96VP-S2C(55)5	VRFO-192VP-S2C(55)5	VRFO-288VP-S2C(55)5
Cooling Capacity	Btu/h	96,000	192,000	288,000
Cooling Capacity	kW	28.1	56.2	84.3
Heating Capacity	Btu/h	108,000	216,000	324,000
Heating Capacity	kW	31.6	63.2	94.8
Heating Capacities at Different OD Ambient Temperatures	47 °F	100% / 108,000	100% / 108,000	100% / 108,000
	17 °F	100% / 108,000	100% / 108,000	100% / 108,000
	-4 °F	100% / 108,000	100% / 108,000	100% / 108,000
	-22 °F	80% / 86,400	80% / 86,400	80% / 86,400
EER Ducted / Mixed / Non-Ducted		11.20 / 12.20 / 13.20	11.20 / 12.20 / 13.20	11.20 / 12.20 / 13.20
IEER Ducted / Mixed / Non-Ducted		20.00 / 22.50 / 25.00	20.00 / 22.50 / 25.00	20.00 / 22.50 / 25.00
COP 47 Ducted / Mixed / Non-Ducted		3.30 / 3.65 / 4.00	3.30 / 3.65 / 4.00	3.30 / 3.65 / 4.00
COP 17 Ducted / Mixed / Non-Ducted		2.25 / 2.33 / 2.40	2.25 / 2.33 / 2.40	2.25 / 2.33 / 2.40
Air flow volume	m³/h	14000	14000	14000
	CFM	8240	8240	8240
Sound Pressure Level	dB	61/71	61/71	61/71
ESP Power	WC	0.33"	0.33"	0.33"
Power Supply	V/Ø/Hz	208~230/3/60	2 x 208~230/3/60	3 x 208~230/3/60
Power Input Cooling	Ducted	kW		
	Ductless	kW	7.30	7.30
Power Input Heating	Ducted	kW		
	Ductless	kW	7.85	7.85
MCA	A	45	2 x 45	3 x 45
MOP	A	70	70	70
Gas pipe	in.	3/8	2 x 3/8	3 x 3/8
Liquid Pipe	in.	7/8	2 x 7/8	3 x 7/8
Connection Method	-	Brazing	Brazing	Brazing
Compressor Manufacturer	-	Hitachi	Hitachi	Hitachi
Compressor Type	-	Inverter Scroll Hermetic	Inverter Scroll Hermetic	Inverter Scroll Hermetic
Compressor Quantity	No.	2	4	6
Motor Type	-	Permanent Magnet Synchronous Motor	Permanent Magnet Synchronous Motor	Permanent Magnet Synchronous Motor
Fan Quantity	-	2	4	6
SEER (Without / With Solar Panels)	-	20 / 26-38	20 / 26-38	20 / 26-38
Capacity Adjustment Range	%~%	12%~120%	12%~120%	12%~120%
Maximum No. of IDU	units	20	40	60
Max. Equivalent Connection Pipe Length	feet	541-1/4	541-1/4	541-1/4
Condenser Fin Color	-	Gold	Gold	Gold
Cooling Operation Ambient Temp. Range	°F	14 ~ 126°	14 ~ 126°	14 ~ 126°
Heating Operation Ambient Temp. Range	°F	-22 ~ 75°	-22 ~ 75°	-22 ~ 75°
R410A Refrigerant Charge	oz	398	2 x 398	3 x 398
Unit Dimensions (WxHxD)	in.	52 3/4 x 63 1/4 x 30 1/8	52 3/4 x 63 1/4 x 30 1/8	52 3/4 x 63 1/4 x 30 1/8
Net Weight	lbs	749	2 x 749	3 x 749
Low Ambient Cooling Function		YES	YES	YES
Maximum Number of Solar Panels @ 300W	Pcs	32	32	32



VRF Solar Series PERC Monocrystalline PV Module



- **Power Rating: 305W**
- **Frame color: Black**
- **Number of cells: 60 cells**
- **Frame Size: 35 mm**
- **Cell Type: Monocrystalline / N-type**
- **Tier 1**

Safety

- Protection against salt mist corrosion
- Protection for ammonia corrosion
- Product is certified by UL1703

Reliability

- Anti-PID products using advanced module technology
- World 1st company to pass “Thresher Test” and “On-site Power Measurement Validation” certificate
- Bankable products

Performance

- Withstand high system voltage up to 1500V to save BoS Cost
- Outstanding power output capability at low irradiance
- Withstand up to 2400Pa wind and 5400Pa snow loads, long lasting

SOLAR SERIES

Characteristics	
Module Type	SOLAR PANEL-PV-MC305BB
Maximum Power at STC -P _{mp} (W)	305
Open Circuit Voltage -V _{oc} (V)	39.9
Short Circuit Current -I _{sc} (A)	9.76
Maximum Power Voltage -V _{mp} (V)	32.3
Maximum Power Current -I _{mp} (A)	9.45
Module Efficiency STC-η _m (%)	18.75
Power Tolerance (W)	(0,+4.99)
Maximum System Voltage (V)	1000 or 1500(UL)
Maximum Series Fuse Rating (A)	20
Fire Performance	Type2 or Type1(UL)
Electrical Characteristics (NOCT)	
Maximum Power at NOCT -P _{mp} (W)	226
Open Circuit Voltage -V _{oc} (V)	36.8
Short Circuit Current -I _{sc} (A)	7.91
Maximum Power Voltage -V _{mp} (V)	30.4
Maximum Power Current -I _{mp} (A)	7.44
Temperature Characteristics	
P _{max} Temperature Coefficient -0.38%/°C	-0.40 % / °C
V _{oc} Temperature Coefficient -0.28 %/°C	-0.30 % / °C)
I _{sc} Temperature Coefficient +0.05 %/°C	0.04 % / °C
Operating Temperature -40~+85 °C	-0.42 % / °C
Mechanical Specifications	
External Dimensions	1640 x 992 x 35 mm / 64.57 x 39.06 x 1.37 inch
Weight	17.5 kg / 38.5 lbs
Solar Cells	Monocrystalline, 6 inch (60pcs.)
Front Glass	3.2 mm tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP67
Output Cables	12AWG,cable length:1000 mm
Connector	MC4 Compatible

VRF Solar Series PERC Monocrystalline PV Module

Mechanical Characteristics	
Dimensions (inches)	65 9/32" × 39 1/16" × 19/64"
Weight (lbs)	59.524
Front/ Back Tempered Glass (inches)	1/8"
Cell Arrangement	60 (6 × 10)
J-Box	IP67, Split J-Box
Connector	MC4 or MC4 Comparable
Cable Length	Anode 280mm, Cathode 150mm (custom-made)
Cable	TUV 4mm2
Packaging Configuration	30 pieces per pallet

Solar Series Converting Unit

Specifications	
Efficiency	
Max. efficiency	97.6%
Utilization ratio of PV power	98.3%
DC	
Max. DC Input power	12.5kw
Max. DC Input voltage	900V
MPPT voltage range	540V~780V
Rated Input Voltage	650V
Current for DC protection	33A
AC	
Rated grid voltage	208Vac / 220Vac / 380Vac / 415Vac+PE+N
Rated grid frequency	50Hz / 60Hz
Allowable grid voltage range	180V ~ 460V
Protection value of grid peak current	85A
Power factor (max load)	>0.99
Max. total harmonic distortion (max load)	<4%
Protection	
DC input protection	Supported
Input over-under voltage protection	Supported
Output over current protection	Supported
Anti-islanding protection (Optional set)	Supported
Input over-under voltage protection (Optional set)	Supported
Conventional Specifications	
Operation temperature	-25 ~ 60°C / -13 ~ 140 °C
Cooling way	Forced Air-cooled
Max. operation altitude	3000m / 9842ft
Relative humidity (no condensation)	0~100%

Ultra Heating Series



**80% Capacity
at -22°F**

A VRF SYSTEM THAT STANDS ALONE

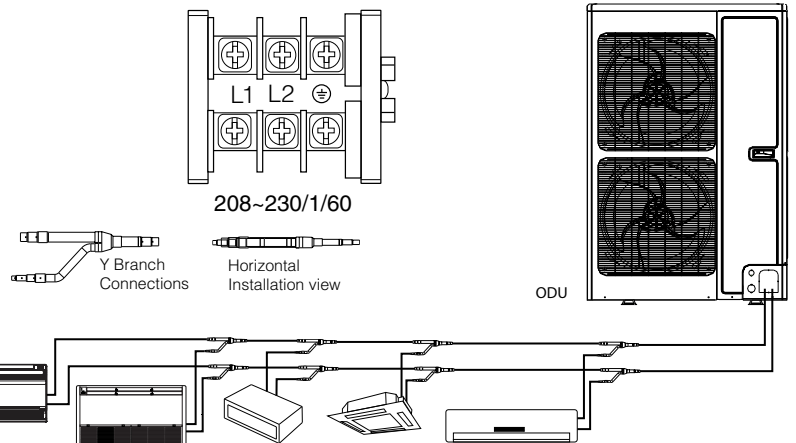
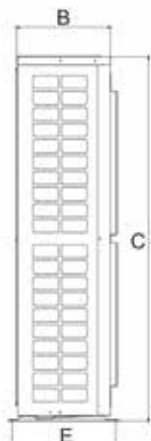
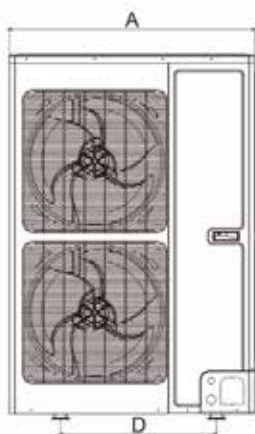
YMGi's UltraHeating VRF systems are designed to deliver comfort year round. Effective in a wide range of outdoor ambient temperatures (as low as -22°F), the YMGi UltraHeating VRF systems can meet all your heating and cooling needs, with no need for a supplemental heating system. A YMGi VRF system can replace traditionally designed gas furnace and AC/HP coil & outdoor unit systems, and YMGi systems save money on installation and operation.



VRF Ultra Heating Heat Pump - Mini

Model	Unit	VRFO-36HP-U2B(55)5	VRFO-48HP-U2B(55)5	
Cooling Capacity	Btu/h	36,000	48,000	
EER	Ducted	11.30	9.50	
	Mixed Ducted	12.15	11.00	
	Non-Ducted	13.00	12.50	
SEER	Ducted	16.50	16.50	
	Mixed Ducted	18.50	18.25	
	Non-Ducted	20.50	20.00	
Heating Capacity	Btu/h	45,000	54,000	
HSPF	Ducted	10.30	10.20	
	Mixed Ducted	11.00	10.60	
	Non-Ducted	11.70	11.00	
Heating Capacity	Btu/h	45,000	54,000	
Air flow volume	CFM	3531	3708	
Heating Capacities at Different OD Ambient Temperatures	47 °F	100% / 45,000	100% / 54,000	
	17 °F	100% / 45,000	100% / 54,000	
	-4 °F	100% / 45,000	100% / 54,000	
	-22 °F	80% / 36,000	80% / 43,200	
Sound Pressure Level	dB	56	57	
Power Supply	V/Ø/Hz	208/230/1/60	208/230/1/60	
Power Input Cooling	Ducted	kW	3.20	4.45
	Ductless	kW	2.70	4.35
Power Input Heating	Ducted	kW	3.95	4.65
	Ductless	kW	3.3	4.40
MCA	A	37	37	
MOP	A	50	50	
Liquid pipe	in.	3/8	3/8	
Gas Pipe	in.	5/8	5/8	
Connection Method	-	Flare Connection	Flare Connection	
Refrigerant	-	R410A	R410A	
Compressor Manufacturer	-	GR/LD	GR/LD	
Compressor Type	-	Two-stage Variable Frequency Rotary	Two-stage Variable Frequency Rotary	
Compressor Quantity	No.	1	1	
Motor Type	-	INVERTER	INVERTER	
Fan Quantity	-	2	2	
Capacity Adjustment Range	%~%	15%~120%	15%~120%	
Maximum drive IDU NO.	unit	5	8	
Max. Equivalent Connection Pipe Length	feet	393.7	393.7	
Condenser Fin Color	-	Gold	Gold	
Cooling Operation Ambient Temperature Range	°F	23° ~ 118°	23° ~ 118°	
Heating Operation Ambient Temperature Range	°F	-22° ~ 80.6°	-22° ~ 80.6°	
Refrigerant Charge	oz	229.3	229.3	
Unit Dimensions (WxHxD)	in.	35 3/8 x 53 x 13 3/8	35 3/8 x 53 x 13 3/8	
Net Weight	lbs	296.4	291	
Low Ambient Cooling Function	-	YES	YES	
Base Pan Heater	-	YES	YES	

A	B	C	D	E
VRFO-36HP-U2B(55)5 & VRFO-48HP-U2B(55)5				
35 3/8"	13 3/8"	53"	22 1/2"	14 7/8"



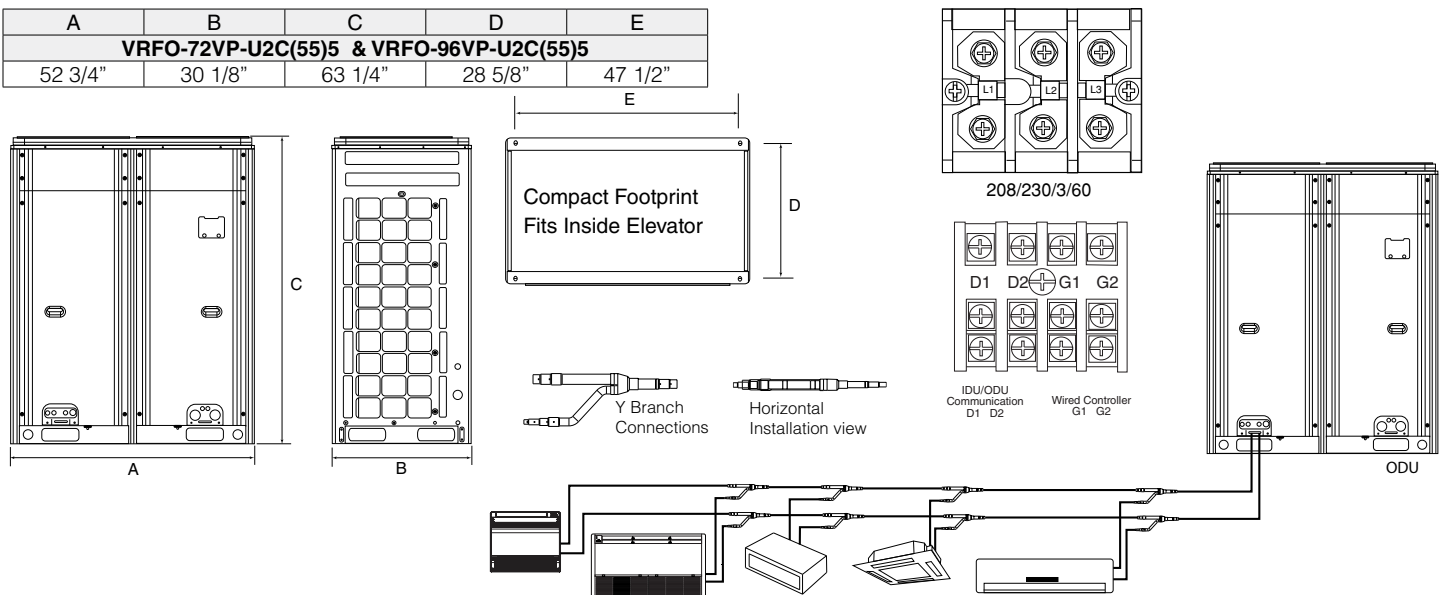
ULTRA HEATING SERIES

VRF Ultra Heating Heat Pump - Modular

ULTRA HEATING SERIES

Model	Unit	VRFO-72VP-U2C(55)5	VRFO-96VP-U2C(55)5
Cooling Capacity	kBtu/h	72,000	96,000
Heating Capacity	kBtu/h	81,000	108,000
Air flow volume	CFM	8240	8240
SEER	-	23.1	22.4
EER Ducted / Mixed / Non-Ducted		11.10 / 12.40 / 13.70	13.20 / 12.20 / 11.20
IEER Ducted / Mixed / Non-Ducted		21.50 / 24.80 / 28.10	26.60 / 23.30 / 20.00
COP 47 Ducted / Mixed / Non-Ducted		3.40 / 3.81 / 4.22	4.15 / 3.78 / 3.40
COP 17 Ducted / Mixed / Non-Ducted		2.40 / 2.46 / 2.51	2.50 / 2.44 / 2.38
Heating Capacities at Different OD Ambient Temperatures	47 °F	100% / 81,000	100% / 108,000
	17 °F	100% / 81,000	100% / 108,000
	-4 °F	100% / 81,000	100% / 108,000
	-22 °F	80% / 64,800	80% / 86,400
Sound Pressure Level	dB	61 / 71	61 / 72
Power Supply	V/Ø/Hz	208~230/3/60	208~230/3/60
Power Input Cooling	Ducted	kW	
	Ductless	kW	5.45
Power Input Heating	Ducted	kW	
	Ductless	kW	5.80
MCA	A	40	45
MOP	A	60	70
Liquid pipe	in.	3/8	3/8
Gas Pipe	in.	7/8	7/8
Connection Method	-	Brazing	Brazing
Refrigerant	-	R410A	R410A
Compressor Manufacturer	-	GREE	GREE
Compressor Type	-	Inverter Scroll Hermetic	Inverter Scroll Hermetic
Compressor Quantity	No.	2	2
Motor Type	-	Permanent Magnet Synchronous Motor	Permanent Magnet Synchronous Motor
Fan Quantity	-	2	2
Capacity Adjustment Range	%~%	12%~120%	12%~120%
Maximum No. of drive IDU	units	15	20
Max. Equivalent Connection Pipe Length	feet	541-1/4	541-1/4
Condenser Fin Color	-	Gold	Gold
Cooling Operation Ambient Temperature Range	°F	23° ~ 126°	23° ~ 126°
Heating Operation Ambient Temperature Range	°F	-22° ~ 75°	-22° ~ 75°
Refrigerant Charge	oz	387.2	387.2
Unit Dimensions (WxHxD)	in.	52 3/4 x 63 1/4 x 30 1/8	52 3/4 x 63 1/4 x 30 1/8
Net Weight	lbs	680	688
Low Ambient Cooling Function	-	YES	YES
Base Pan Heater	-	YES	YES

A	B	C	D	E
VRFO-72VP-U2C(55)5 & VRFO-96VP-U2C(55)5				
52 3/4"	30 1/8"	63 1/4"	28 5/8"	47 1/2"



Heat Recovery



HEAT & COOL SIMULTANEOUSLY

A VRF SYSTEM THAT IS EFFICIENT AND FLEXIBLE

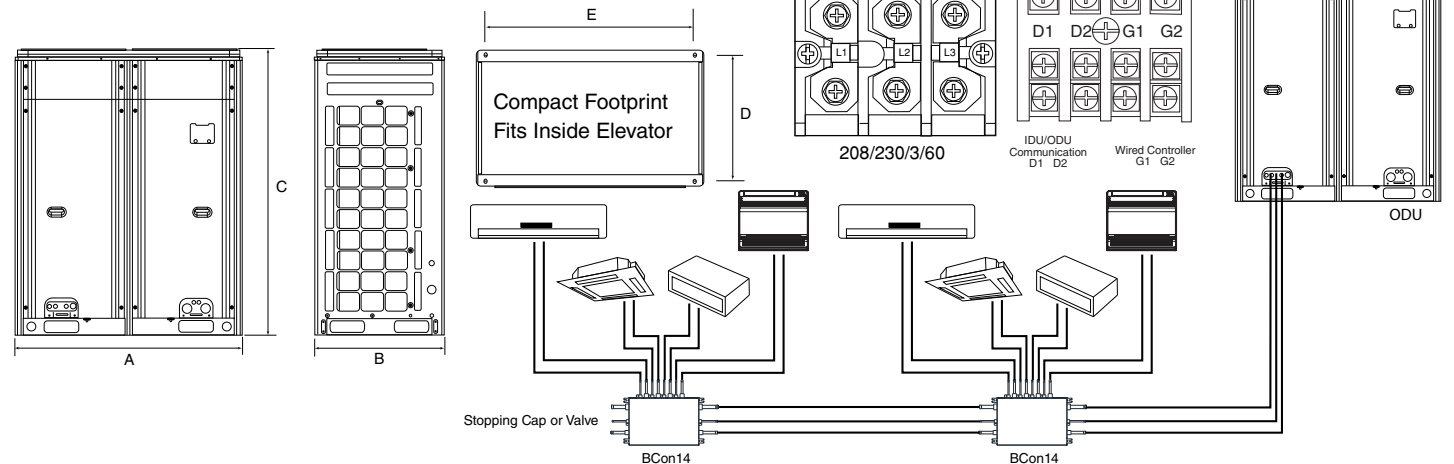
YMGI's Heat Recovery VRF systems are designed to deliver comfort year round. With YMGI's Heat Recovery VRF System, you can use the same system to simultaneously heat and cool multiple rooms. Replace traditionally designed gas furnace and AC/HP coil & outdoor unit systems. YMGI Heat Recovery VRF systems save money on installation and operation.



VRF Heat Recovery - Modular

Model	Unit	VRFO-72VR-V3C(55)5	VRFO-96VR-V3C(55)5	VRFO-120VR-V3C(55)5
Capacity Range	Ton	6	8	10
Cooling Capacity	Btu/h	72,000	96,000	120,000
Heating Capacity	Btu/h	81,000	108,000	135,000
Air flow volume	CFM	8240	8240	8240
ESP	WC	0.33"	0.33"	0.33"
EER	Ducted	11.00	11.00	11.00
	Mix-Ducted	11.50	11.10	11.25
	Non-Ducted	12.00	11.20	11.50
IEER	Ducted	21.50	20.50	22.80
	Mix-Ducted	23.25	22.00	23.40
	Non-Ducted	25.00	23.50	24.00
SCHE	Ducted	23.00	23.00	22.50
	Mix-Ducted	25.50	25.25	24.75
	Non-Ducted	28.00	27.50	27.00
COP47	Ducted	3.30	3.30	3.30
	Mix-Ducted	3.42	3.40	3.40
	Non-Ducted	3.53	3.50	3.50
COP17	Ducted	2.27	2.25	2.25
	Mix-Ducted	2.40	2.33	2.25
	Non-Ducted	2.52	2.40	2.25
Power Supply	V/Ø/Hz	208~230/3/60	208~230/3/60	208~230/3/60
Power Input Cooling	Ducted	kW		
	Ductless	kW	5.45	7.30
Power Input Heating	Ducted	kW		
	Ductless	kW	5.80	7.85
MCA	A	32	45	74
MOP/HVAC Circuit Breaker	A	50	60	100
Maximum No. of Connected IDU	-	13	16	20
Liquid pipe	in.	3/8	3/8	1/2
Gas Pipe Low Pressure	in.	3/4	7/8	1 1/8
Gas Pipe	in.	5/8	3/4	7/8
R410A Refrigerant Factory Charge	lbs.	21.2	24.7	26.0
Sound Pressure / Power Level	dB(A)	60 / 70	61 / 71	63 / 73
Cooling Operation Ambient Temp. Range	°F	23° ~ 126°	23° ~ 126°	23° ~ 126°
Heating Operation Ambient Temp. Range	°F	-4° ~ 75°	-4° ~ 75°	-4° ~ 75°
Net Weight	lbs	666	694	831
Base Pan Heater	-	YES	YES	YES

A	B	C	D	E
VRFO-72VR-V3C(55)5, VRFO-96VR-V3C(55)5, & VRFO-120VR-V3C(55)5				
52 3/4"	30 1/8"	63 1/4"	28 7/8"	47 1/2"



HEAT RECOVERY SERIES

Ultra Heating **Series**

Heat Recovery



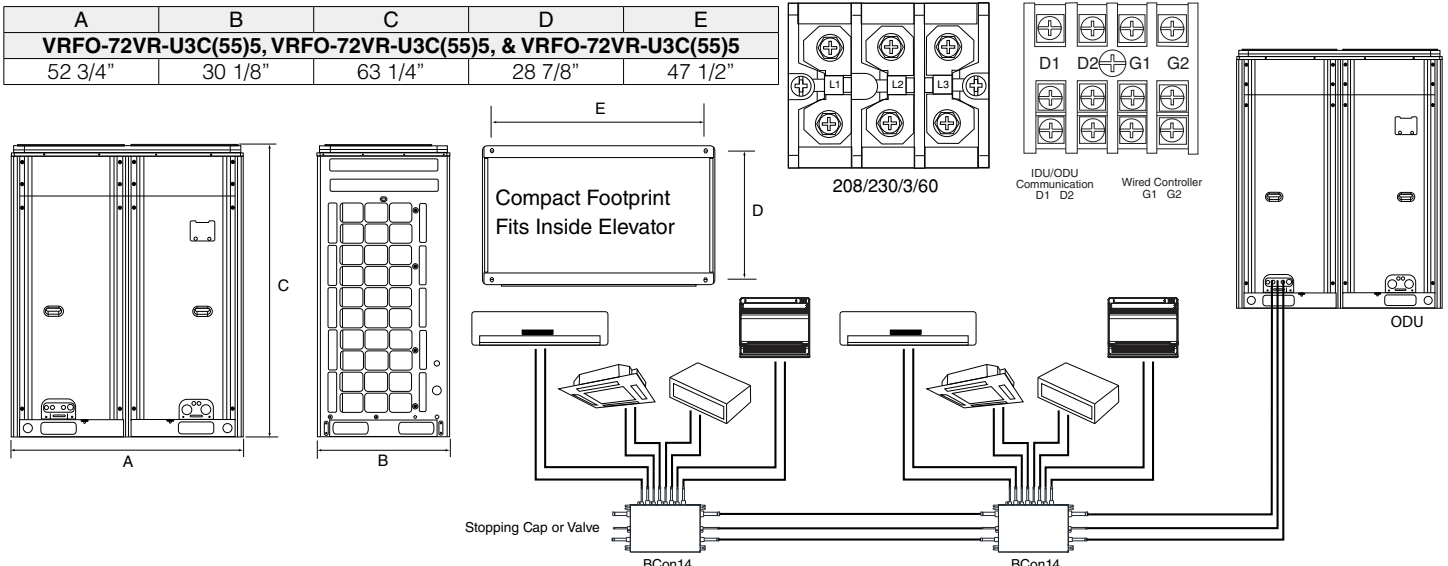
ULTRA HEATING VRF SYSTEM THAT IS EFFICIENT AND FLEXIBLE

All of the benefits and flexibility of YMGI's Heat Recovery VRF systems, and 80% efficiency at outdoor ambient temperatures as low as -22°F. Systems designed to deliver comfort year round. YMGI's Heat Recovery VRF System can simultaneously heat and cool multiple rooms. Replace traditionally designed gas furnace and AC/HP coil & outdoor unit systems. YMGI Ultra Heating Heat Recovery VRF systems save money on installation and operation.



VRF Ultra Heating Heat Recovery - Modular

Model		Unit	VRFO-72VR-U3C(55)5	VRFO-96VR-U3C(55)5	VRFO-120VR-U3C(55)5
Capacity Range		Ton	6	8	10
Cooling Capacity		Btu/h	72,000	96,000	120,000
Heating Capacity		Btu/h	81,000	108,000	135,000
Air flow volume		CFM	8240	8240	8240
ESP		WC	0.33"	0.33"	0.33"
EER		Ducted	11.00	11.00	11.00
		Mix-Ducted	11.50	11.10	11.25
		Non-Ducted	12.00	11.20	11.50
IEER		Ducted	21.50	20.50	22.80
		Mix-Ducted	23.25	22.00	23.40
		Non-Ducted	25.00	23.50	24.00
SCHE		Ducted	23.00	23.00	22.50
		Mix-Ducted	25.50	25.25	24.75
		Non-Ducted	28.00	27.50	27.00
COP47		Ducted	3.30	3.30	3.30
		Mix-Ducted	3.42	3.40	3.40
		Non-Ducted	3.53	3.50	3.50
COP17		Ducted	2.27	2.25	2.25
		Mix-Ducted	2.40	2.33	2.25
		Non-Ducted	2.52	2.40	2.25
Power Supply		V/∅/Hz	208~230/3/60	208~230/3/60	208~230/3/60
Power Input Cooling	Ducted	kW			
	Ductless	kW	5.45	7.30	9.58
Power Input Heating	Ducted	kW			
	Ductless	kW	5.80	7.85	10.42
MCA		A	35	39	74
MOP/HVAC Circuit Breaker		A	50	60	100
Maximum No. of Connected IDU		-	12	16	20
Liquid pipe		in.	3/8	3/8	1/2
Gas Pipe Low Pressure		in.	3/4	7/8	1 1/8
Gas Pipe		in.	5/8	3/4	7/8
R410A Refrigerant Factory Charge		lbs.	21.2	24.7	26.0
Sound Pressure / Power Level		dB(A)	60 / 70	61 / 71	63 / 73
Cooling Operation Ambient Temp. Range		°F	23° ~ 126°	23° ~ 126°	23° ~ 126°
Heating Operation Ambient Temp. Range		°F	-22° ~ 75°	-22° ~ 75°	-22° ~ 75°
Net Weight		lbs	666	694	831
Base Pan Heater		-	YES	YES	YES



HEAT RECOVERY SERIES

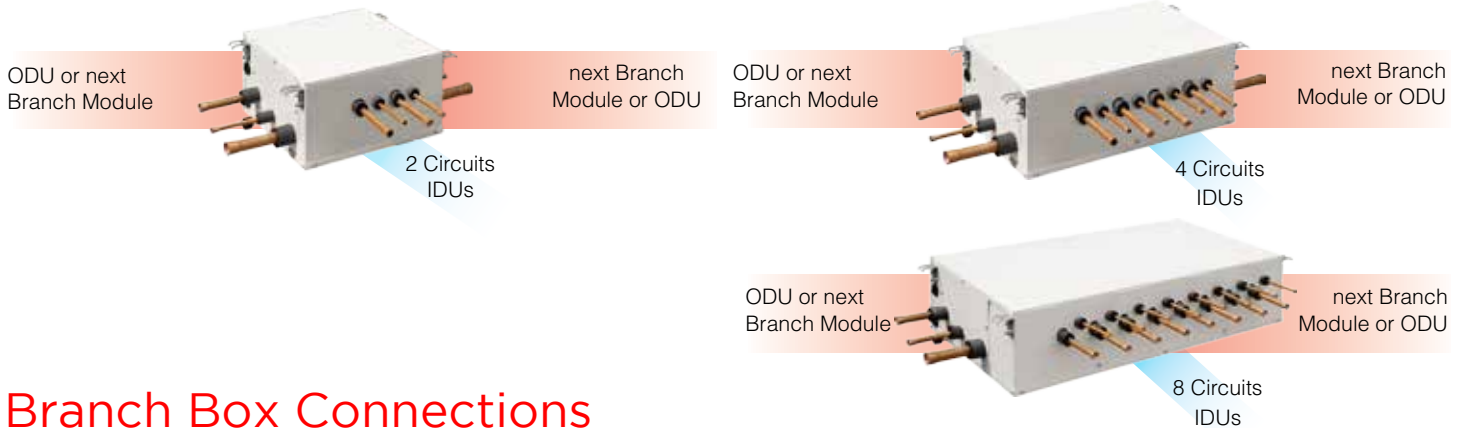
VRF Heat Recovery Branch Boxes

For VRF Systems Only

Single Direction Branch Boxes



Dual Direction Branch Boxes



Branch Box Connections

Model	Unit	VRFI-Bcon11-V2B(55)5	VRFI-Bcon14-V2B(55)5	VRFI-Bcon18-V2B(55)5
Max IDU Branches	-	1	4	8
No. of Connectable IDU of each Branch	-	8	8	8
Max. Capacity of each Branch	Btu/h	48000	48000	48000
Max Capacity of connectable IDU	Btu/h	48000	153000	222000
Power Supply	V/∅/Hz	208~230/1/60	208~230/1/60	208~230/1/60
Power Consumption	W	8	44	80
Maximum No. of Connected IDU	units	8	32	64
Liquid Outdoor Piping Connection	In.	∅ 3/8	∅ 1/2	∅ 5/8
Gas (Low Press.) Outdoor Piping Connection	In.	∅ 7/8	∅ 1 1/8	∅ 1 1/8
Gas (High Press.) Outdoor Piping Connection	In.	∅ 5/8	∅ 3/4	∅ 3/4
Liquid Indoor Piping Connection	In.	∅ 3/8	∅ 3/8	∅ 3/8
Gas Indoor Piping Connection	In.	∅ 5/8	∅ 5/8	∅ 5/8

Piping Parameters of VRF ODUs

	Mini VRF Systems			Modular VRF Systems			
	Allowable value		Fitting pipe	Allowable value		Fitting pipe	
	m	f		m	f		
Total length (actual length) of fitting pipe	300	984	L1+L2+L3+a+b+++c+d	≤1000	3280-3/4	L1+L2+L3+L4...+L10+A11+A12+...+D21+D22	
Length of farthest fitting pipe	Actual length	120	394	L1+L2+L3+d	≤165	541 1/4	L
	Equivalent length	150	492		≤190	623 1/4	—
From the 1st branch to the farthest indoor pipe	40	131	L2+L3+d	≤40	131 1/4	L12-L11	
Height difference between ODU and IDU	ODU at upper side	50	164	—	≤40	131 1/4	L7+L8+L10+D22
	ODU at lower side	40	131	—	≤90	295 1/4	—
Height difference between IDUs	15	49	—	≤30	98 1/2	h1	

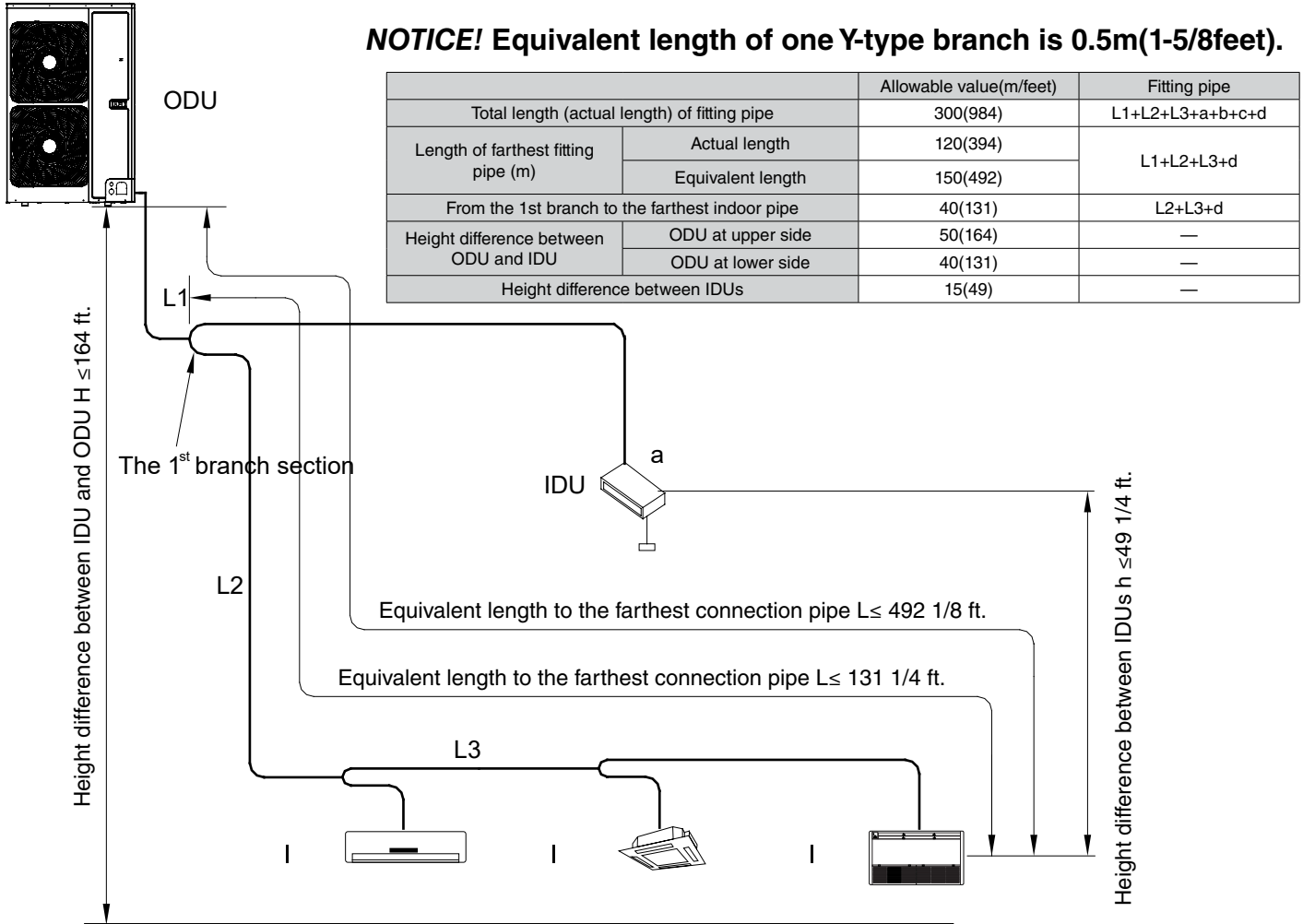


VRF Heat Pumps - Standard, Solar, & UltraHeating

Allowable Length and Height Difference of Connection Pipe

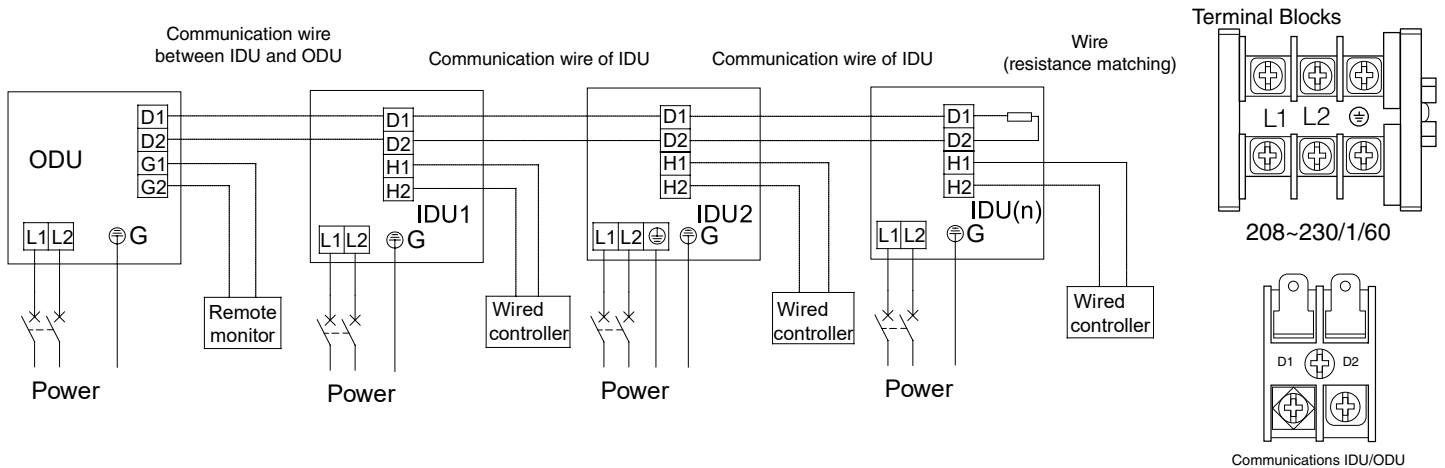
Y type branch joint is adopted to connect indoor and outdoor units.

NOTICE! Equivalent length of one Y-type branch is 0.5m(1-5/8feet).



Wiring Diagram

Connection of power cord and communication wire.
Separate power supply for Indoor and Outdoor.

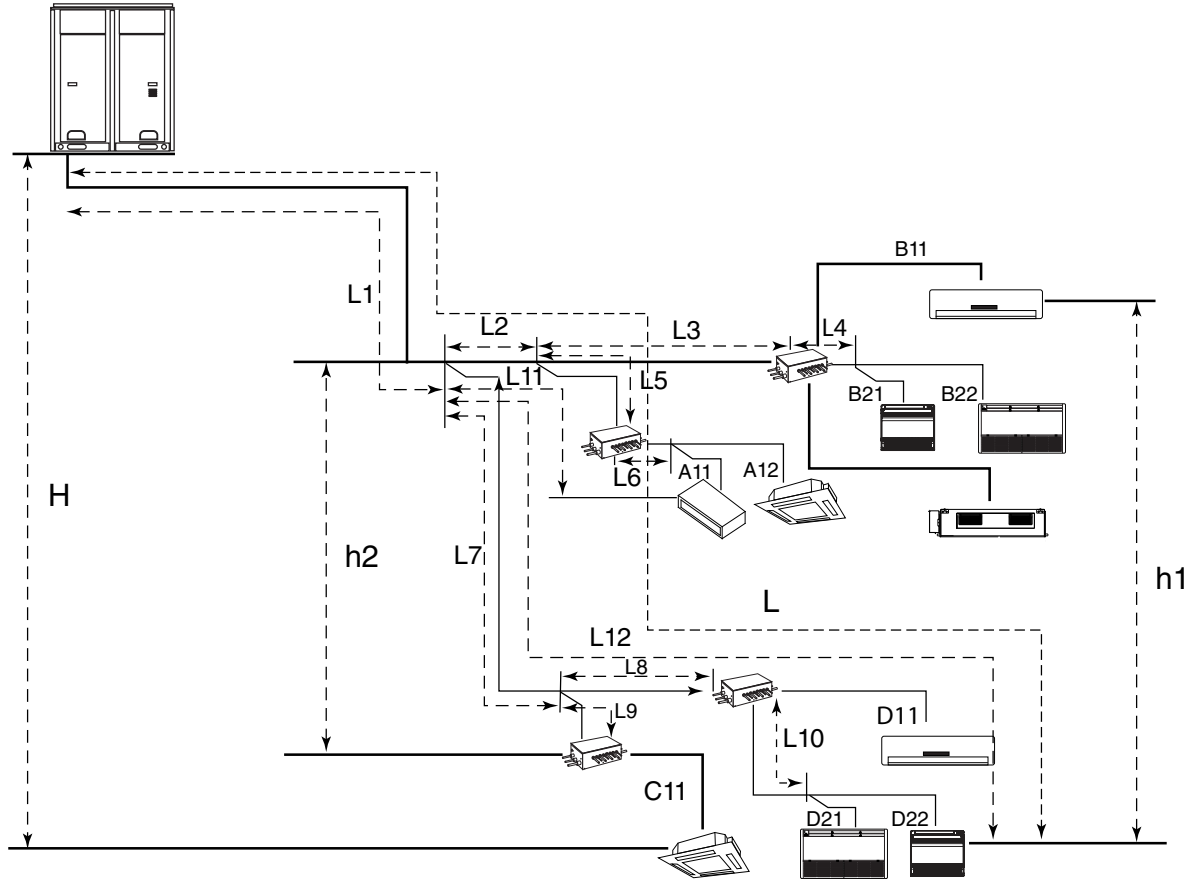


VRF Heat Recovery

Allowable pipe length and drop height among indoor and outdoor units

Y type branch joint is adopted to connect indoor and outdoor units. Connecting method is shown in the figure below.

Note: Equivalent length of one Y-type manifold is about 0.5m (21 in.).



NOTICE

- Normally, the pipe length from first branch of IDU to farthest is 40m(131' 3"). Under the following conditions, length can reach 90m(295' 3").
 - Actual length of pipe in total:
 $L1+L2 \times 2+L3 \times 2+L4 \times 2+\dots+L10 \times 2+x \text{ A11}+x \text{ A12}+\dots+x \text{ D21}+x \text{ D22} \leq 1000\text{m}(3280' 9")$.
 - Length between each IDU and its nearest branch A11, A12, B21, B22, D21, D22 $\leq 40\text{m}(131' 3")$.
 - Difference between the pipe length from first branch of IDU to farthest IDU and the pipe length from first branch of IDU to nearest IDU:
 $L12 - L11 \leq 40\text{m}(131' 3")$.
- When the outdoor unit is at upper side and height difference more than 50m(164ft.), please consult the company for the related technical requirements.
- When the maximum length of main pipe from ODU to first branch IDU is $\geq 90\text{m}(295' 3")$, then adjust the pipe size of gas and liquid pipe of main pipe according to the following table:

Size of connection between outdoor unit and the first indoor branch

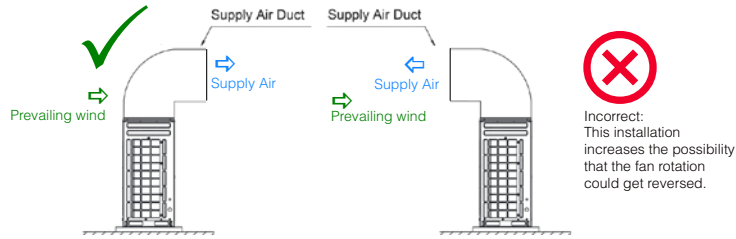
Outdoor Capacity C (Btu/h)	Low pressure gas pipe in.	Liquid pipe in.	High pressure gas pipe in.
$C \leq 72000$	No need to enlarge pipe size	No need to enlarge pipe size	No need to enlarge pipe size
$72000 < C \leq 96000$	No need to enlarge pipe size	$\varnothing 1/2$	$\varnothing 7/8$
$96000 < C \leq 120000$	No need to enlarge pipe size	$\varnothing 5/8$	$\varnothing 1 1/8$

- If the length between an IDU and its nearest branch is above 10m(32' 10"), then increase the size of liquid pipe of IDU (only if it is $\leq 6.35\text{mm}(1/4")$).

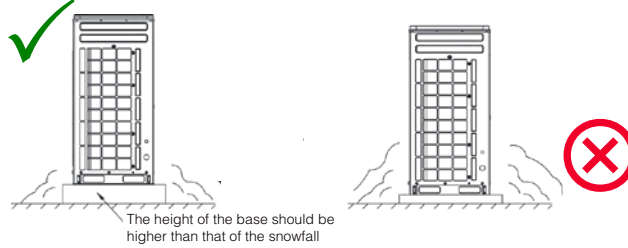
VRF Heat Pump & Heat Recovery

Seasonal Wind and Snow Considerations for Outdoor Unit Installations

Anti-Prevailing wind installation requirements for unit connecting exhaust duct:

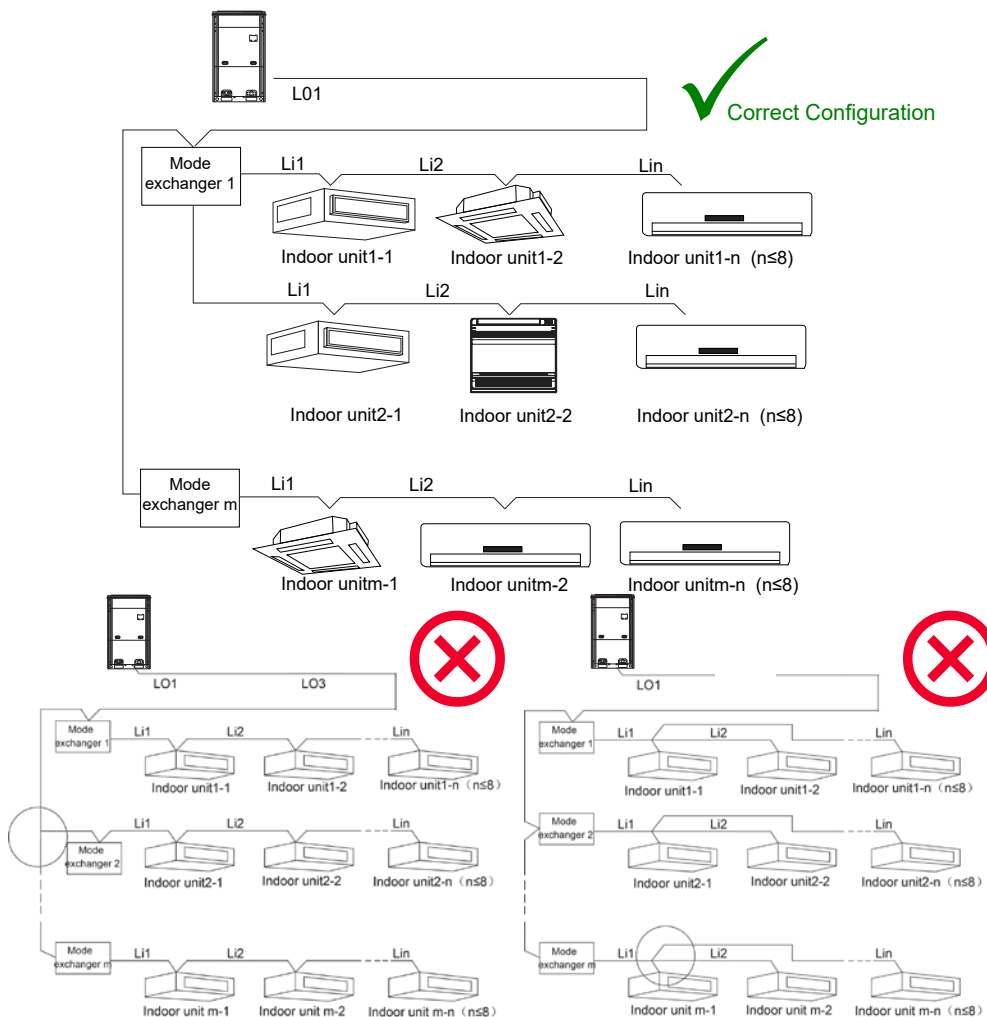


Take snow into consideration when installing the outdoor unit



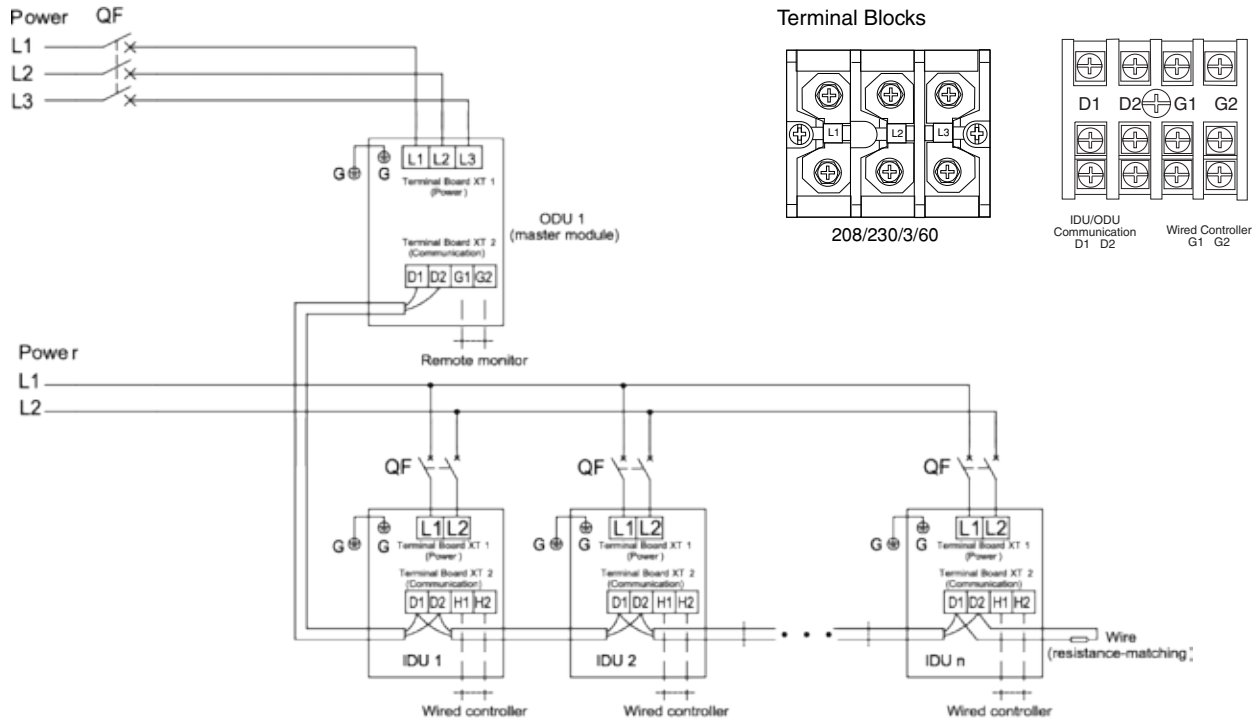
Connection mode of communication

All communication wires of HR must be connected in series rather than in star.



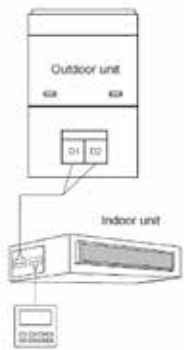
VRF Heat Pump & Heat Recovery

Wiring Diagram

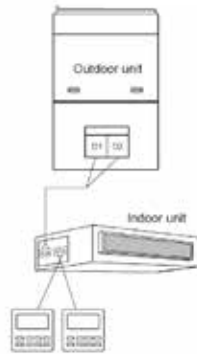


Connection of Communication Cord

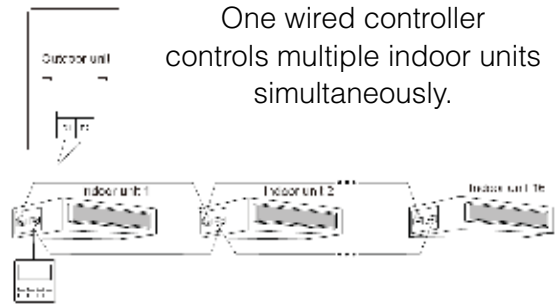
There are 4 ways to connect wired controller with indoor units' network:



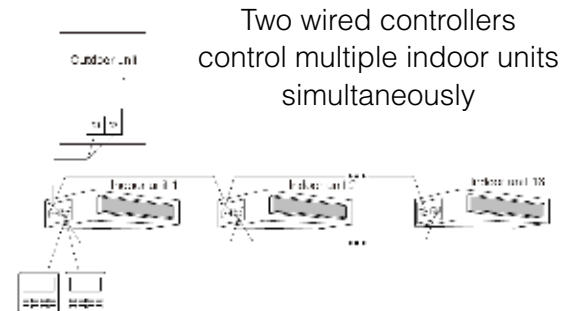
One wired controller controls one indoor unit



Two wired controllers control one indoor unit



One wired controller controls multiple indoor units simultaneously.



Two wired controllers control multiple indoor units simultaneously

VRF Heat Pump & Heat Recovery

Additional refrigerant charging

The Outdoor unit has been charged with refrigerant prior to delivery.

If the refrigerant pipeline is longer than 1m (39 3/8”), additional refrigerant may be required for field-installed connecting pipelines. Please refer to the following table for the correct amount of refrigerant. (Liquid pipe prevails)

How much additional refrigerant should be charged

Total refrigerant charging amount R= Pipeline charging amount (A) + Refrigerant charging amount (B) of every module

1. Pipeline charging amount

Added refrigerant quantity (A) for piping = Total System Liquid pipe length × Added refrigerant quantity for each meter (in.) of liquid pipe.

Diameter of liquid pipe

in.	1-1/8	1	7/8	3/4	5/8	1/2	3/8	1/4
OZ/in.	0.61	0.47	0.31	0.22	0.15	0.10	0.05	0.02

2. Refrigerant charging amount B of every module

IDU/ODU rated capacity collocation ratio C	Refrigerant charging amount B of every module kg (lbs)	Rated Capacity			
		Quantity of included IDUs	72000 Btu/h	96000 Btu/h	120000 Btu/h
50% ≤ C ≤ 90%	less than 4		0	0	0
	4 or less		0.5 (1.1)	0.5 (1.1)	0.5 (1.1)
90% < C ≤ 105%	less than 4		1 (2.2)	1 (2.2)	1.5 (3.3)
	4 to 7		3.5 (7.7)	2 (4.4)	3 (6.6)
	8 or less		4 (8.8)	3.5 (7.7)	5.5 (12.1)
105% < C ≤ 135%	less than 4		2 (4.4)	2 (4.4)	2.5 (5.5)
	4 to 7		4 (8.8)	3.5 (7.7)	4 (8.8)
	8 or less		4.5 (9.9)	4.5 (9.9)	5 (11.0)

THE YMGI ADVANTAGE

Ease of Installation

Easier to install than central systems, the hook-up between the VRF outdoor and indoor units generally requires only a three-in. hole through a wall for the conduit that contain the condensate drain hose, wires and refrigeration pipes. The VRF mini outdoor units can be located up to 393.7 feet from the indoor units, and 541.25 feet for modular outdoor units, making it possible to place the condensing unit where it can't be seen.

VRF outdoor condensing units are designed to be installed anywhere a central air conditioner or heat pump could be installed. The VRF mini models can also be hung on a wall, placed on a balcony, below a deck, in a garage, and several places where a central air conditioner would be impossible to fit.

Professionally trained YMGI-certified technicians can properly install your VRF system, ensuring your system provides you with a lifetime of worry-free comfort.



Technical Support

YMGI offers full technical support for all heating and cooling systems. If you have any questions about the operation of your unit, please consult your owner's manual. It will help you understand unit operation, various functions, and proper operation and maintenance of your system.

If your HVAC technician has any questions about installation or service, we provide technical assistance at **866-833-3138 ext.703**.



Customer Service

When you or your technician calls YMGI hotlines, you will always talk to a live person. Along with our commitment to quality, customer service is the most important part of our business. Our goal is to exceed your expectations. We value each and every customer.

YMGI Group

601 Arrow Ln. O'Fallon, Missouri 63366

2883 Atlantic Ave, Brooklyn, NY 11207

Phone: 1-866-833-3138

Fax: 1-866-377-3355

Sales:

sales@ymgigroup.com

Technical Support:

techsp@ymgigroup.com

Service & Warranty:

customerservice@ymgigroup.com



Warranty Overview

If you aren't satisfied, neither are we. Proper installation matters greatly to the performance and lifespan of your system. Having your system installed by a qualified HVAC installer is the first step.

If for any reason you do not receive a prompt response, you can call our 7/24-hour toll free number at 1-866-833-3138 ext.704 or email to us at customerservice@YMGIGroup.com.

To expedite service, please include a copy of your purchase invoice number, contractor installation invoice, unit model number and serial number, a full description of your problem, along with any photos or information that will help us resolve your issue as quickly as possible.

Credentials & Certification

All YMGI systems are ETL listed in both the U.S. and Canada. They are also certified by the AHRI and ENERGY STAR® to far exceed the current world standards for energy efficiency

Tax Credits

When purchasing your YMGI Symphony Series DC Inverter high energy efficiency system, don't forget to take advantage of any and all available federal tax credits. Many states and utility companies offer tax incentives. Be sure to check YMGIGroup.com to see what incentives are available in your area.

Quality & More Stylish Looks

YMGI units have clean, modern styling and complement any decor.

Thoroughly Tested Before Packaging

Each YMGI system is tested individually, and are packaged only after all safety, operational functions, features and cosmetic details have passed inspection. Our strict quality control tests following standards that are some of the highest of the industry.

Reliable Quality

YMGI products are designed using the latest technology and always keep the end user in mind. Using only highest quality parts, each YMGI unit is built to last. Best of all, every YMGI system is backed by our professional technical support and trouble-shooting guidance team.





Replace Traditionally Designed Gas Furnace + AC/HP Coil & Outdoor Unit Systems

QUALITY AND VERSATILITY

From single family homes to multi-floor office buildings, YMGI's economical and environmentally friendly VRF systems are built to provide the comfort and reliability your project demands. YMGI's

Outdoor Units are designed for easy installation, while being some of the most efficient and economical systems available.

This brochure features Air Source and Water Source VRF Mini and Modular Systems M6 Standard, Ultra Heating, Heat Recovery, with and without optional Solar PV Panels assistance.

YMGI Group

601 Arrow Ln, O'Fallon, MO 63366

www.ymgigroup.com

Tel: 866-833-3138 • Fax: 866-377-3355

Email: info@YMGIgroup.com

Sales Representative or Distributor: