

**Outdoor Units**

Model Number	Nominal Capacity	EER	IEER	SCHE	Cooling Capacity (95°F)	High Heat Capacity @ (47°F)	High COP (47°F)	Low Heating Capacity (17°F)	Low COP (17°F)	Operating Range	Voltage	Min/Max Connections	Liquid Pipe Connection	High Pressure Gas Pipe Connection	Low Pressure Gas Pipe Connection	Factory Charge	MCA	MOCP	Sound Pressure level db(A)	AHRI Number	Net Weight	Gross Weight	Outdoor Dimensions (W X H X D)
<b>Standard Heat Pump / Heat Recovery Models(SYSTEM PERFORMANCE Non-Ducted/Ducted Indoor Units)</b>																							
GMV-Q72WM/C-F(U)	72,000	10.25	21.20	31.00	69,000	77,000	3.95	62,000	2.25	(- 13°F) - (126°F)DB	208/230-3-60	1 / 13	3/8	5/8	3/4	21.16	51	60	58	213880756 / 213880759	584	606	36 - 5/8 x 30 - 1/2 x 66 - 1/2
GMV-Q96WM/C-F(U)	96,000	9.90	21.30	25.00	92,000	103,000	4.00	75,000	2.25	(- 13°F) - (126°F)DB	208/230-3-60	1 / 16	3/8	3/4	7/8	25.57	59.5	60	59	213928534 / 213928536	750	783	52 - 3/4 x 30 - 1/2 x 66 - 1/2
GMV-Q120WM/C-F(U)	120,000	9.00	21.50	25.00	114,000	129,000	3.60	81,000	2.25	(- 13°F) - (126°F)DB	208/230-3-60	1 / 19	1/2	7/8	1 - 1/8	25.57	62.1	70	60	213880757 / 213880760	750	783	52 - 3/4 x 30 - 1/2 x 66 - 1/2
GMV-Q144WM/C-F(U)	144,000	9.40	20.70	28.00	138,000	154,000	3.50	96,000	2.07	(- 13°F) - (126°F)DB	208/230-3-60	1 / 23	1/2	7/8	1 - 1/8	25.79	91.7	100	61	213928535 / 213928537	882	915	52 - 3/4 x 30 - 1/2 x 66 - 1/2
GMV-Q168WM/C-F(U)	168,000	9.00	19.50	27.50	160,000	176,000	3.30	99,000	2.07	(- 13°F) - (126°F)DB	208/230-3-60	1 / 26	5/8	7/8	1 - 1/8	25.79	95.3	100	62	213880758 / 213880761	882	915	52 - 3/4 x 30 - 1/2 x 66 - 1/2
<b>Ultra Heat Pump / Heat Recovery Models(SYSTEM PERFORMANCE Non-Ducted/Ducted Indoor Units)</b>																							
GMV-VQ72WM/C-F(U)	72,000	11.80	23.80	27.00	69,000	77,000	4.40	68,000	2.25	(- 22°F) - (126°F)DB	208/230-3-60	1 / 13	3/8	5/8	3/4	25.57	59.5	60	58	213885853 / 213885856	750	783	52 - 3/4 x 30 - 1/2 x 66 - 1/2
GMV-VQ96WM/C-F(U)	96,000	10.00	20.90	29.00	92,000	103,000	4.00	75000.00	2.25	(- 22°F) - (126°F)DB	208/230-3-60	1 / 16	3/8	3/4	7/8	25.79	91.7	100	60	213885854 / 213885857	882	915	52 - 3/4 x 30 - 1/2 x 66 - 1/2
GMV-VQ120WM/C-F(U)	120,000	10.00	20.40	29.50	114,000	129,000	3.94	81000.00	2.25	(- 22°F) - (126°F)DB	208/230-3-60	1 / 19	1/2	7/8	1 - 1/8	25.79	91.7	100	62	213885855 / 213885858	882	915	52 - 3/4 x 30 - 1/2 x 66 - 1/2

**Common Indoor Units**

Wall Mount	Compact Cassette	Standard Cassette	New D Mode I Standard Cassette	One Way Cassette	MultiPositon Air Handlers	100% Fresh Air Processing	Electric Heater Kits
							Reference product submittal for electric Heater kit size requirements
GMV-ND**G/B4B-T(U) 06, 07, 12, 18, 24, 30, 26	GMV-ND**T/E-(U) 05, 07, 09, 12, 18	GMV-ND**T/C-T(U) 12, 18, 48	GMV-ND**T/D-T(U) 09, 12, 18, 24, 36	GMV-ND**TD/A-T(U) 07, 09, 12	GMV-ND**A/B-T(U) 12, 18, 24, 30, 36, 42, 48, 54, 60	GMV-NDX**P/A-T(U) 48, 54, 72, 96	FLEXHTR*KW 5, 8, 10, 15, 20
	<b>Compact Grille</b>	<b>Standard Grille</b>	<b>Standard Grille</b>	<b>One Way Grille</b>			
	TF05	TF06	TF06	TD01			
Two Way Cassette	Console	Floor Ceiling	Slim Duct	Slim Duct D Model	Large Slim Duct	AHU Kits	
GMV-ND**TS/B-T(U) 09, 12, 18, 24	GMV-ND**C/A-T(U) 07, 09, 12	GMV-ND**ZD/A-T(U) 09, 12, 18, 24, 36, 48	GMV-ND**PHS/B-T(U) 07, 09, 12, 18, 24, 36, 48, 54	GMV-ND**PHS/D-T(U) 07, 09, 12, 18, 24, 36, 48, 54	GMV-ND**PHS/D-T(U) 07, 09, 12, 18, 24, 36, 48, 54	GMV-N**U/C-T(U) 12, 24, 48, 96, 192	
<b>One Way Grille</b>							
TD03							



**Combination Rules**



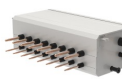



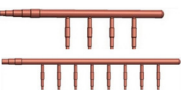
Outdoor Unit Model	Max IDU Connected	Min IDU Connected Capacity (BTU)(50%)	Max IDU Connected Capacity (BTU)(125%)	
GMV-Q72WM/C-F(U)	13	36,000	90,000	Download and install the GMV Selection Software available at GREECOMMERCIAL.COM for systems requiring twinning kits.(ML01A or ML01R). Reference the basic Piping Rules Defined below. *For systems above the 125%, the GMV Selection Software must be used.*
GMV-Q96WM/C-F(U)	16	48,000	120,000	
GMV-Q120WM/C-F(U)	19	60,000	150,000	
GMV-Q144WM/C-F(U)	23	72,000	180,000	
GMV-Q168WM/C-F(U)	26	84,000	210,000	
GMV-VQ72WM/C-F(U)	13	36,000	90,000	
GMV-VQ96WM/C-F(U)	16	48,000	120,000	
GMV-VQ120WM/C-F(U)	19	60,000	150,000	

**Control Options**

	Wired Controller included with all Horizontal Ducted Units and AHU Kits. Optional for all others		Wireless remote control Included with Ductless Units		Included with Multiposition Air Handler. Optional for others. Controller with 7-day programmable function. Max indoor unit connection is 16.		Enables centralized local control. Can control and monitor up to 16 Systems with up to 255 indoor units. Expanded option also available.  Enables 7-Day programming, grouping, and function lockout.		Enables the use of third-party 24V Thermostat and other control systems that utilize dry contacts.  *Requires field installed 24V 40VA transformer. Field provided by others.
<b>XK46</b>		<b>YAPIF</b>		<b>XE70-33/H XE7C-24HC</b>		<b>CE52-24/F Central Controller</b>		<b>ME32-33/H 24V and Dry Contact Adaptor *</b>	

\*This guide is to be used for reference only and is not intended to replace the installation instructions or the GMV Selection Software. Always read and follow the GMV Selection Software outputs and the installation instructions\*

**\*Required Accessory for Heat Recovery applications**








2 Port Mode Exchanger 208/230-1-60		4 Port Mode Exchanger 208/230-1-60		8 Port Mode Exchanger 208/230-1-60		HR Branching Joints for Outdoor Units & Mode Exchanger GMV5 & GMV6		Y-Type Branching Joints for Indoor & Outdoor Units		Y-Type Branching Joints for Indoor Units and Mode Exchanger		T-Type Manifolds		
	GMV6 Heat Recovery 2 Port Mode Exchanger Box. Maximum Capacity of connectable of IDUs. 54000 Btu/H Per branch. Total Btu/H Capacity 96000		GMV6 Heat Recovery 4 Port Mode Exchanger Box. Maximum Capacity of connectable of IDUs. 54000 Btu/H Per branch. Total Btu/H Capacity 154000		GMV6 Heat Recovery 8 Port Mode Exchanger Box. Maximum Capacity of connectable of IDUs. 54000 Btu/H Per branch. Total Btu/H Capacity 290000									
NCHS2D(U)		NCHS4D(U)		NCHS8D(U)		FQ01Na/A	<17,100	FQ01A/A	<68,000	FQ01A/A	<68,000	FQ14/H1	< 136,000	4 Port
						FQ02Na/A	17,100 - 76,400	FQ01B/A	68,000 - 102,000	FQ01B/A	68,000 - 102,000	FQ18/H1	136,000 - 232,000	8 Port
						FQ03Na/A	76,400 - 95,500	FQ02/A	102,000 - 239,000					
						FQ04Na/A	95,500 - 232,00	FQ03/A	> 239,000					
						FQ05Na/A	232,000 - 327,500							

**Basic Piping Rules Defined**

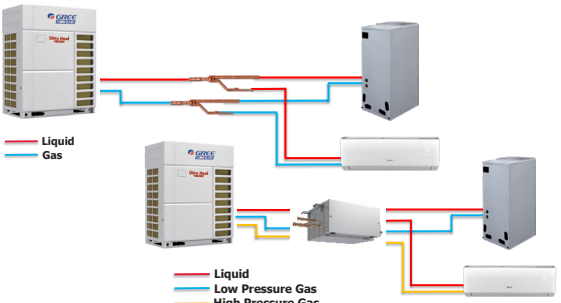
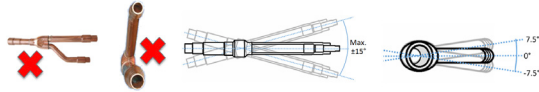
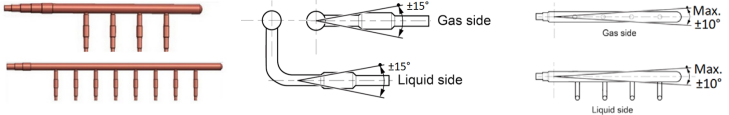
Note: The following is a basic set of rules for piping lengths. These systems are capable of far greater lengths and more complex configurations. Use our VRF Selector available on GreeCommercial.com

SINGLE ZONE				DUAL AND MULTIZONE														
<b>Single Zone Max Pipe Length</b>		<b>Model</b>	<b>Model</b>	<b>Gas</b>	<b>Dual/Multi Zone Piping Limits</b>		<b>Dual and Multi Zone MultiPRO</b>											
ODU to IDU:	295' 98'	6 Ton System	3/8"	3/4"	Max Length ODU to Y-Branch or Header:	295'	ODU	Liquid Pipe	High Pressure Gas	Low Pressure Gas	Model	Liquid	Gas					
Max Height ODU Above IDU:	295' 50'	8 Ton System	3/8"	7/8"	Max Length IDU to Y-Branch. Header or Mode Box:	131'*	6 Ton	3/8	5/8	5 to 9kBtu	5K to 9K	1/4"	3/8"					
Max Height ODU Below IDU:	295' 98'	The piping sizes are determined by ODU				Max Height ODU Above IDU:	295'	8 Ton	3/8	3/4	12 to 15kBtu	12K to 15K	1/4"	1/2"				
Max Height ODU Below IDU:	98' 98'				Max Height ODU Below IDU:	295'	10 Ton	1/2	7/8	18 to 48kBtu	18K to 48K	3/8"	5/8"					
					Max Height Difference Between IDU:	98'	12 Ton	1/2	7/8	54 and 60kBtu	54K to 72K	3/8"	3/4"					
					* For indoor units 15k and below, if the line set is over 50' from the Branch, Header, or Mode Exchanger, the line set size will increase to 3/8" x 1/2". All larger capacity units use the original piping size in thefound in the chart to the right. The maximum is piping length is 131'							14 Ton	5/8	7/8	Above 60kBtu	96K	3/8"	7/8"

**Accessories**

	Provides a single connection for power for dual-circuit heat kits. For use with the following models and their corresponding, compatible electric heat kits:	<b>MultiPRO Centralized Power Kit</b>	Enables the providing of fused high voltage power from the outdoor unit.	Limit 15A		Multi-Position Air Handler Downflow Kit	Allows the use of Multi-Position Air Handlers in downflow applications. For use with the following models and their corresponding, compatible downflow kits:		Horizontal Ducted MERV 13 Filter Boxes	Provides superior air filtration with low static pressure losses. For use with the following models and their corresponding, compatible filter boxes:
FLEXXSPCKIT	GMV-ND42A/B-T(U) FLEXXHTR15KW GMV-ND48A/B-T(U) FLEXXHTR20KW GMV-ND54A/B-T(U) GMV-ND60A/B-T(U)						GMV-ND36A/B-T(U) CF8081 GMV-ND42A/B-T(U) CF8081 GMV-ND48A/B-T(U) CF8082 GMV-ND54A/B-T(U) CF8082 GMV-ND60A/B-T(U) CF8082			GMV-ND(07,09)PHS-BT(U) GFBHS-1 GMV-ND(12-24)PHS-BT(U) GFBHS-2 GMV-ND(30-54)PHS-BT(U) GFBHS-3
	Enables remote monitoring and control of MultiPRO systems with up to six indoor units via a plug-and-play device and iocControl app for smartphones.		CoolMaster	Enables remote monitoring and control of up to 16 MultiPRO systems with up to 32 indoor units via a plug-and-play device and iocControl app for smartphones. Provides local BMS integration via BACnet IP/MSTP and/or Modbus RTU/TCP and Home Automation via Modbus IP/RTY/ASCII/Rest API		CoolMasterPRO	Enables remote monitoring and control of up to 16 MultiPRO systems with up to 255 indoor units via a plug-and-play device and iocControl app for smartphones. Provides local BMS integration via BACnet IP/MSTP and/or Modbus RTU/TCP and Home Automation via Modbus IP/RTY/ASCII/Rest API		CoolinkHub+CoolPlug	Enables remote monitoring and control of MultiPRO systems via a plug-and-play device and iocControl app for smartphones. Each controlled indoor unit requires one CoolPlug. Up to 16 IDU/CoolPlugs can connect to a CoolLinkHub.

**Refrigerant Piping Installation Guidelines & Descriptions**

Refrigerant Piping	Y-Branched	Headers
<ul style="list-style-type: none"> <li>Heat Pump has two pipes: Liquid and Gas</li> <li>Heat Recovery has three pipes: Liquid, Suction, and Hot Gas</li> <li>All piping must be insulated</li> <li>System mode is set by a user-determined Main indoor unit</li> <li>Twenty inches must be maintained between elbows, headers, and Y-Branched</li> </ul> 	<ul style="list-style-type: none"> <li>Specially designed for even distribution of refrigerant</li> <li>Each kit includes one Y-Branch for gas and one Y-Branch for liquid</li> <li>Simply use a tubing cutter for larger line sets</li> <li>If installed horizontally, they must be level</li> <li>If installed vertically, they must be plumb</li> <li>FQ01A/A is used for downstream capacities of less than 68kBtu</li> <li>FQ01B/A is used for downstream capacities of more than 68kBtu</li> </ul> 	<ul style="list-style-type: none"> <li>Specially designed for even distribution of refrigerant and oil</li> <li>Each kit includes one Header for gas and one Header for liquid</li> <li>Simply use a tubing cutter for larger line sets</li> <li>Must be installed horizontally and they must be level</li> <li>Liquid header is built with downward facing offset for installation next to gas header</li> <li>FQ14/H1 is used for 4 units or less</li> <li>FQ18/H1 is used for 8 units or less</li> </ul> 

Commercial MultiPro is also available in Standard Heat Pump or Heat Recovery 460W/ 3 Ph.