

Outdoor Units

All communication wiring is 18/2 Stranded. Shielding is not required.

Nominal Capacity	SEE2R	EER2	HSPF2	Model Number	Min/Max Connections	Pipe Connections	Max Lift (ft.)	Min Line Length (ft.)	Max Line Length (ft.) (Equivalent)	Factory Charge	MCA	MOCP	Rec. Breaker	Rated Cooling / Heating Capacity	Operating Range	AHRI Number	Outdoor Dimensions		
Standard Heating Models (SYSTEM PERFORMANCE Non-Ducted/Mixed Indoor Units/Ducted)							Single Zone Piping Rules												
24,000	18/18	10.5/11	8.5/8	GMV-24WL/C-T(U)	1/4	3/8x5/8	98/98	10	328	5.3 lbs.	21	25	25	24,000 / 28,000	-4 - 118°F	204344210 / 202242130	2 / 2.5 Ton	3 / 4 / 5 Ton	
28,000	18/16.5	10.5/10	8.5/7.5	GMV-28WL/C-T(U)	1/4	3/8x5/8	98/98	10	328	5.3 lbs.	21	30	30	28,000 / 32,000	-4 - 118°F	204344211 / 202541562	(H x W x D)	(H x W x D)	
36,000	22/18	11.5/11	9.8/8.2	GMV-36WL/C-T(U)	1/7	3/8x5/8	164/131	10	394	7.3 lbs.	28.5	35	30	37,600 / 42,000	-4 - 118°F	206335353 / 206335356	31-1/8 x 38-9/16 x 14-3/16	53 x 35-3/8 x 13-3/8	
48,000	22/16	10.5/9.2	9.8/8.5	GMV-48WL/C-T(U)	1/8	3/8x5/8	164/131	10	394	7.3 lbs.	33	40	40	48,000 / 54,000	-4 - 118°F	206335354 / 206335357			
60,000	20/18	10.5/10	9.8/8.5	GMV-60WL/C-T(U)	1/10	3/8x3/4	164/131	10	394	10.11 lbs.	34.5	40	40	60,000 / 64,000	-4 - 118°F	206335355 / 206335358			
Ultra Heating Models (SYSTEM PERFORMANCE Non-Ducted/Mixed Indoor Units/Ducted)																			
36,000	23/20.75/18.5	13/12.25/11.5	9/8.85/8.7	GMV-V36WL/C-T(U)	1/7	3/8x5/8	164/131	10	213	8.82 lbs.	33.8	35	40	36,000 / 36,000	-22 - 129°F	211698448 / 213927641 / 211698446			
48,000	22/19.55/17.1	11.5/11/10.5	9.2/8.88/8.55	GMV-V48WL/C-T(U)	1/8	3/8x5/8	164/131	10	213	8.82 lbs.	38.8	40	40	48,000 / 48,000	-22 - 129°F	211698447 / 213927639 / 211698445			
60,000	21/19/17	11/10/9	9.2/8.75/8.3	GMV-V60WL/C-T(U)	1/10	3/8x3/4	164/131	10	213	9.7 lbs.	38.8	40	40	60,000 / 60,000	-22 - 129°F	211694660 / 213927640 / 211698444			

Common Indoor Units

Wall Mount	Compact Cassette	Standard Cassette	One Way Cassette	Two Way Cassette	Console	Floor Ceiling	Slim Ducted	Multi Position Air Handler	
								AHU Models	
GMV-ND06G/B4B-T(U)	GMV-ND05T/E-T(U)								
GMV-ND07G/B4B-T(U)	GMV-ND07T/E-T(U)		GMV-ND07TD/A-T(U)		GMV-ND07C/A-T(U)		GMV-ND07PHS/B-T(U)		
GMV-ND09G/B4B-T(U)	GMV-ND09T/E-T(U)		GMV-ND09TD/A-T(U)	GMV-ND09TS/B-T(U)	GMV-ND09C/A-T(U)		GMV-ND09PHS/B-T(U)	GMV-ND09A/B-T(U)	
GMV-ND12G/B4B-T(U)	GMV-ND12T/E-T(U)	GMV-ND12T/C-T(U)	GMV-ND12TD/A-T(U)	GMV-ND12TS/B-T(U)	GMV-ND12C/A-T(U)	GMV-ND12ZD/A-T(U)	GMV-ND12PHS/B-T(U)	GMV-ND12A/B-T(U)	
	GMV-ND15T/E-T(U)								
GMV-ND18G/B4B-T(U)	GMV-ND18T/E-T(U)	GMV-ND18T/C-T(U)		GMV-ND18TS/B-T(U)	GMV-ND18C/A-T(U)	GMV-ND18ZD/A-T(U)	GMV-ND18PHS/B-T(U)	GMV-ND18A/B-T(U)	
GMV-ND24G/B4B-T(U)		GMV-ND24T/C-T(U)		GMV-ND24TS/B-T(U)		GMV-ND24ZD/A-T(U)	GMV-ND24PHS/B-T(U)	GMV-ND24A/B-T(U)	
GMV-ND30G/B4B-T(U)								GMV-ND30A/B-T(U)	
GMV-ND36G/B4B-T(U)		GMV-ND36T/C-T(U)				GMV-ND36ZD/A-T(U)	GMV-ND36PHS/B-T(U)	GMV-ND36A/B-T(U)	
								GMV-ND42A/B-T(U)	
		GMV-ND48T/C-T(U)				GMV-ND48ZD/A-T(U)	GMV-ND48PHS/B-T(U)	GMV-ND48A/B-T(U)	
	Compact Grille	Standard Grille	One Way Grille	Two Way Grille			GMV-ND54PHS/B-T(U)		
	TF05	TF06	TD01	TE03				GMV-ND60A/B-T(U)	

Combination Rules








Outdoor Unit Model	Max IDU Connected	Min IDU Connected Capacity (BTU) (50%)	Max IDU Connected Capacity (BTU) (125%)*	
GMV-24WL/C-T(U)	4	12000	30000	Use the MultiPRO Selector software available at GreeComfort.com for systems using multiple Y-Branched, multiple headers, or combinations of Y-Branched and Headers. See "Ba- sic Piping Rules Defined" below.
GMV-28WL/C-T(U)	4	14000	35000	
GMV-36WL/C-T(U)	7	18000	45000	
GMV-48WL/C-T(U)	8	24000	60000	
GMV-60WL/C-T(U)	10	30000	75000	
GMV-V36WL/C-T(U)	7	18000	45000	
GMV-V48WL/C-T(U)	8	24000	60000	*For systems above 125%, the MultiPRO Selector software must be used.
GMV-V60WL/C-T(U)	10	30000	75000	

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 connectable is 16.		Enables centralized local control. Can control and monitor up to 16 MultiPRO 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 utilizes dry contacts.
XK46		YAPIF		XE70-33/H XE7C-24HC		CE52-24/F Central Controller		ME32-33/H 24V and Dry Contact Adapter	

*This guide is to be used for reference only and is not intended to replace the Installation Instructions or the design software. Always read and follow the software outputs and the Installation Instructions. *


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:				Allows the use of Multi-Position Air Handlers in downflow applications. For use with the following models and their corresponding, compatible downflow kits:			Provides superior air filtration with low static pressure losses. For use with the following models and their corresponding, compatible filter boxes:		
FLEXSPCKIT Single Point Wiring Kit for Electric Heat Kits	GMV-ND42A/B-T(U)	FLEXHTR15KW	GMVSPK1 MultiPRO Centralized Power Kit	Limit 15A	Multi-Position Air Handler Downflow Kit	GMV-ND36A/B-T(U)	CF8081	Horizontal Ducted MERV 13 Filter Boxes	GMV-ND(07,09)PHS-BT(U)	GFBHS-1
	GMV-ND48A/B-T(U)	FLEXHTR20KW				GMV-ND42A/B-T(U)	CF8081		GMV-ND(12-24)PHS-BT(U)	GFBHS-2
	GMV-ND54A/B-T(U)					GMV-ND48A/B-T(U)	CF8082		GMV-ND(30-54)PHS-BT(U)	GFBHS-3
	GMV-ND60A/B-T(U)					GMV-ND54A/B-T(U)	CF8082		GMV-ND60A/B-T(U)	CF8082
	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.			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		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				
GMVCGA01			CoolMaster		CoolMasterPRO					

Refrigerant Piping Installation Guidelines & Descriptions

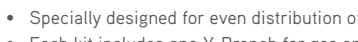
Refrigerant Piping

- Heat Pump has two pipes, liquid and gas
- Both must be insulated
- System mode is set by a user-determined Main indoor unit
- Twenty inches must be maintained between elbows, headers, and Y-Branches



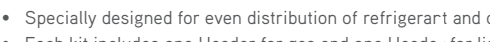
Y-Branches

- Specially designed for even distribution of refrigerant
- Each kit includes one Y-Branch for gas and one Y-Branch for liquid
- Simply use a tubing cutter for larger line sets
- If installed horizontally, they must be level
- If installed vertically, they must be plumb
- FQ01A/A is used for downstream capacities of less than 68kBtu
- FQ01B/A is used for downstream capacities of more than 68kBtu



Headers

- Specially designed for even distribution of refrigerant and oil
- Each kit includes one Header for gas and one Header for liquid
- Simply use a tubing cutter for larger line sets
- Must be installed horizontally and they must be level
- Liquid header is built with downward facing offset for installation next to gas header
- FQ14/H1 is used for 4 units or less
- FQ18/H1 is used for 8 units or less



Basic Piping Rules Defined

Note: The following is a basic set of rules for piping lengths. The MultipRO systems are capable of far greater lengths and more complex configurations. Use our MultipRO System Builder, MultipRO Selector, or see installation manual for more details.

SINGLE ZONE				DUAL AND MULTIZONE			
Single Zone Piping Limits	2 and 2.5T	3, 4, and 5T	3, 4, and 5T	Dual and Multi Zone MultiPRO			
		Standard	Ultra	Model	Liquid	Gas	
Max Length ODU to IDU: (Actual)	394'	492'	213'	2 Ton Outdoor Unit	3/8"	5/8"	5 to 9kBtu
Max Height ODU Above IDU:	98'	164'	164'	2.5 Ton Outdoor Unit	3/8"	5/8"	12 to 15kBtu
Max Height ODU Below IDU:	98'	131'	131'	3 Ton Outdoor Unit	3/8"	5/8"	18 to 48kBtu
				4 Ton Outdoor Unit	3/8"	5/8"	54 and 60kBtu
				5 Ton Outdoor Unit	3/8"	3/4"	Above 60kBtu
The piping sizes are determined by ODU				Note: these are basic limitations. Actual limitations are far greater. Use MultiPRO System Builder, MultiPRO Selector, or see installation manuals for more details.			
Model		Liquid	Gas				
2 Ton Outdoor Unit		3/8"	5/8"				
2.5 Ton Outdoor Unit		3/8"	5/8"				
3 Ton Outdoor Unit		3/8"	5/8"				
4 Ton Outdoor Unit		3/8"	5/8"				
5 Ton Outdoor Unit		3/8"	3/4"				
If necessary, reduce the piping size at the indoor unit				If necessary, reduce the piping size at the indoor unit.			
