

Outdoor Units

Nominal Capacity	SEER	EER	HSPF	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		
Single Fan Models (SYSTEM PERFORMANCE Non-Ducted Indoor Units)										Single Zone Piping Rules									
24,000	18.00	11.00	10.00	GMV-24WL/C-T(U)	1/4	3/8x5/8	98	10	394	5.3 lbs.	21	25	25	24,000 / 28,000	-4 - 118°F	204344210	2 / 2.5 Ton (H x W x D)	3 / 4 / 5 Ton (H x W x D)	
28,000	18.00	11.00	10.00	GMV-28WL/C-T(U)	1/4	3/8x5/8	98	10	394	5.3 lbs.	21	30	30	28,000 / 32,000	-4 - 118°F	204344211			
Dual Fan Models (SYSTEM PERFORMANCE Non-Ducted Indoor Units)																			
36,000	22.00	11.50	11.00	GMV-36WL/C-T(U)	1/7	3/8x5/8	164	10	492	7.3 lbs.	28.5	35	30	37,600 / 42,000	-4 - 118°F	206335353		31-1/8 x 38-9/16 x 14-3/16	53 x 35-3/8 x 13-3/8
48,000	22.00	11.50	10.80	GMV-48WL/C-T(U)	1/8	3/8x5/8	164	10	492	7.3 lbs.	33	40	40	48,000 / 54,000	-4 - 118°F	206335354			
60,000	21.00	11.00	11.00	GMV-60WL/C-T(U)	1/10	3/8x3/4	164	10	492	10.1 lbs.	34.5	40	40	60,000 / 64,000	-4 - 118°F	206335355			
Ultra Heat Systems (SYSTEM PERFORMANCE Non-Ducted Indoor Units)																			
36,000	20.50	13.00	11.70	GMV-36WL/B-T(U)	1/5	3/8x5/8	164	10	492	14.3 lbs.	37	50	40	36,000 / 45,000	-22 - 129°F	8654208			
48,000	20.00	12.50	11.00	GMV-48WL/B-T(U)	1/7	3/8x5/8	164	10	492	14.3 lbs.	37	50	40	48,000 / 54,000	-22 - 129°F	8654211			

Common Indoor Units

Wall Mount	Compact Cassette	Standard Cassette	One Way Cassette	Two Way Cassette	Console	Floor Ceiling	Slim Ducted	Multi Position Air Handler
GMV-ND06G/B4B-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-ND09T/C-T(U)	GMV-ND09TD/A-T(U)	GMV-ND09TS/B-T(U)	GMV-ND09C/A-T(U)	GMV-ND09ZD/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-ND15TS/B-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)

Common Combinations

Outdoor Models	Single Zone	Two Zones	Three Zones	Four Zones	Five Zones	Six to Ten Zones	
GMV-24WL/C-T(U)	12 24	9+9	9+18	6+6+6	7+7+7	Not applicable to these models	
	15 30	9+12	9+24	6+6+7			
	18	12+12	9+30	6+7+9			
GMV-28WL/C-T(U)	15 30	12+12		6+6+6+6	6+7+7+9		
	18 36	12+18		6+6+7+7			
	24	18+18		7+7+8+7			
GMV-36WL/C-T(U) & GMV-36WL/B-T(U) Ultra Heat Model	18 42	12+12		7+7+7+7			
	24	12+18					
	30	12+24					
	36	18+18					
GMV-48WL/C-T(U) & GMV-48WL/B-T(U) Ultra Heat Model	24	12+12	9+9+9	9+12+12	12+12+12	Use the Design Software when designing systems with 6 or more zones.	
	30	12+18	9+9+12	9+18+18	12+18+18		
	42	12+24	9+9+18	9+18+24	12+18+24		9+9+9+9
	48	18+18	9+9+24	9+24+24	12+24+24		9+9+9+12
	54	18+24	9+12+12	12+12+12	18+18+18		9+9+9+18
	60	24+24	9+12+18	12+12+18	18+18+24		9+9+9+24
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GMV-60WL/C-T(U)	30	12+18	9+9+9	9+12+24	12+12+24		9+9+9+9
	36	9+24	9+9+12	12+12+12	9+9+9+9		9+9+9+12
	48	12+12	9+9+18	12+12+18	9+9+9+12		9+9+9+18
	54	12+18	9+9+24	12+12+24	9+9+9+18		9+9+9+24
	60	12+24	9+12+12	12+18+18	9+9+9+24		9+9+9+12+12
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		24+24	9+12+18	12+18+24	9+9+9+24	9+9+9+12+12	
		30+30	9+18+18	18+18+18	9+9+9+24	9+9+9+12+12	
			9+18+24	18+18+24	9+9+9+24	9+9+9+12+12	

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Piping Rules

- Piping limitations are important and absolute. **NO EXCEPTIONS.**
- All piping lengths within the Piping Rules are in one direction, measuring the liquid line.

Control Options

<p>XK46</p>	<p>Wired Controller (Included with all Horizontal Ducted Units and AHU Kits). Optional for all others.</p>	<p>YAPIF</p>	<p>XE70-33/H</p>	<p>CE52-24/F Central Controller</p>	<p>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.</p>	<p>ME30-24/D1(BM) BACnet and Modbus Gateway</p>	<p>Converts GREE CAN bus to BACnet or Modbus building management protocols for monitoring and control of up to 16 MultiPRO systems and 160 indoor units.</p>
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Refrigerant Piping Installation Guidelines & Descriptions

<p>Refrigerant Piping</p> <ul style="list-style-type: none"> • Heat Pump has two pipes, liquid and gas • Mode changes occur in outdoor unit <p>Heat Pump Refrigerant Piping</p> <p>— Liquid — Low Pressure Gas</p>	<p>Y-Branches</p> <ul style="list-style-type: none"> • For even distribution of refrigerant to and from indoor units • Specially engineered for even flow • Different sizes dependent on capacity downstream 	<p>Headers</p> <ul style="list-style-type: none"> • Must be installed level • Cannot have Y-Branch downstream • Includes caps for unused ports
<p>Y-Branches Installation</p> <ul style="list-style-type: none"> • Cannot be sideways, will cause poor performance • Must be level or plumb within 15 degrees 	<p>Y-Branch Installation</p> <ul style="list-style-type: none"> • Must have 20" between Y-Branches, elbows, and between Y-Branches and elbows • Failure to meet these minimums can cause turbulence and refrigerant noise <p>Top or Bottom View</p>	<p>Y-Branch Equivalent Length</p> <ul style="list-style-type: none"> • Equals 20" (0.5m) • Used when calculating total piping and additional refrigerant charge

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																																																																																				
<p>Single Zone Piping Limits</p> <table border="1"> <tr> <th></th> <th>2 and 2.5T</th> <th>3, 4, and 5T</th> </tr> <tr> <td>Max Length ODU to IDU: (Equivalent)</td> <td>394'</td> <td>492'</td> </tr> <tr> <td>Max Height ODU Above IDU:</td> <td>98'</td> <td>164'</td> </tr> <tr> <td>Max Height ODU Below IDU:</td> <td>98'</td> <td>131'</td> </tr> </table>		2 and 2.5T	3, 4, and 5T	Max Length ODU to IDU: (Equivalent)	394'	492'	Max Height ODU Above IDU:	98'	164'	Max Height ODU Below IDU:	98'	131'	<p>2 and 2.5T</p>	<p>3, 4, and 5T</p>	<p>Single Zone MultiPRO</p> <p>The piping sizes are determined by ODU</p> <table border="1"> <thead> <tr> <th>Model</th> <th>Liquid</th> <th>Gas</th> </tr> </thead> <tbody> <tr> <td>2 Ton Outdoor Unit</td> <td>3/8"</td> <td>5/8"</td> </tr> <tr> <td>2.5 Ton Outdoor Unit</td> <td>3/8"</td> <td>5/8"</td> </tr> <tr> <td>3 Ton Outdoor Unit</td> <td>3/8"</td> <td>5/8"</td> </tr> <tr> <td>4 Ton Outdoor Unit</td> <td>3/8"</td> <td>5/8"</td> </tr> <tr> <td>5 Ton Outdoor Unit</td> <td>3/8"</td> <td>3/4"</td> </tr> </tbody> </table> <p>If necessary, reduce the piping size at the indoor unit</p>	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"	<p>Dual/Multi Zone Piping Limits</p> <table border="1"> <tr> <th></th> <th>2 and 2.5T</th> <th>3, 4, and 5T</th> </tr> <tr> <td>Max Length IDU to Y-Branch or Header:</td> <td>98'</td> <td>98'</td> </tr> <tr> <td>Max Height IDU to Y-Branch or Header:</td> <td>30'</td> <td>30'</td> </tr> <tr> <td>Max Height ODU Above IDU:</td> <td>98'</td> <td>98'</td> </tr> <tr> <td>Max Height ODU Below IDU:</td> <td>98'</td> <td>98'</td> </tr> </table> <p>Note: these are basic limitations. Actual limitations are far greater. Use MultiPRO System Builder, MultiPRO Selector, or see installation manuals for more details.</p>		2 and 2.5T	3, 4, and 5T	Max Length IDU to Y-Branch or Header:	98'	98'	Max Height IDU to Y-Branch or Header:	30'	30'	Max Height ODU Above IDU:	98'	98'	Max Height ODU Below IDU:	98'	98'	<p>2 and 2.5T</p>	<p>3, 4, and 5T</p>	<p>Dual and Multi Zone MultiPRO</p> <table border="1"> <thead> <tr> <th>Model</th> <th>Liquid</th> <th>Gas</th> <th>Model</th> <th>Liquid</th> <th>Gas</th> </tr> </thead> <tbody> <tr> <td>2 Ton Outdoor Unit</td> <td>3/8"</td> <td>5/8"</td> <td>5 to 9kBtu</td> <td>1/4"</td> <td>3/8"</td> </tr> <tr> <td>2.5 Ton Outdoor Unit</td> <td>3/8"</td> <td>5/8"</td> <td>12 to 15kBtu</td> <td>1/4"</td> <td>1/2"</td> </tr> <tr> <td>3 Ton Outdoor Unit</td> <td>3/8"</td> <td>5/8"</td> <td>18 to 48kBtu</td> <td>3/8"</td> <td>5/8"</td> </tr> <tr> <td>4 Ton Outdoor Unit</td> <td>3/8"</td> <td>5/8"</td> <td>54 and 60kBtu</td> <td>3/8"</td> <td>3/4"</td> </tr> <tr> <td>5 Ton Outdoor Unit</td> <td>3/8"</td> <td>3/4"</td> <td>Above 60kBtu</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table> <p>If necessary, reduce the piping size at the indoor unit.</p>	Model	Liquid	Gas	Model	Liquid	Gas	2 Ton Outdoor Unit	3/8"	5/8"	5 to 9kBtu	1/4"	3/8"	2.5 Ton Outdoor Unit	3/8"	5/8"	12 to 15kBtu	1/4"	1/2"	3 Ton Outdoor Unit	3/8"	5/8"	18 to 48kBtu	3/8"	5/8"	4 Ton Outdoor Unit	3/8"	5/8"	54 and 60kBtu	3/8"	3/4"	5 Ton Outdoor Unit	3/8"	3/4"	Above 60kBtu	N/A	N/A
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