# J SERIES DUCTLESS SPLIT SYSTEMS



**FRIEDRICH** 

1883

## Advanced Inverter Ductless from Friedrich

#### **ENERGY STAR® MODELS**

Friedrich offers a wide variety of ENERGY STAR® models in both single and multizone configurations with SEERS up to 28.0 and EERs up to 16.1.

Many utility companies offer rebates on ductless systems. Contact your local energy provider or visit http://www.dsireusa.org

#### INVERTER VARIABLE CAPACITY ADVANTAGES

Inverter technology allows each system to adjust capacity output to provide only the amount of cooling needed at a given time. For example, an 18000 Btu system will operate even more efficiently at 15500 Btu or less if that's all that's needed, reducing energy consumption and improving comfort.

#### **SOFT START TECHNOLOGY**

Friedrich soft start technology starts the compressor with significantly reduced amperage at start up, saving energy versus compressors utilizing locked rotor amperage (LRA).

#### **OPTIMIZED AIRFLOW**

The indoor unit's 4-way air swing quickly disperses cool air to all four corners of the room to provide comfort throughout the room within a few minutes. The 'Surge Air' feature moves air at an even higher speed for rapid cooling.

#### **ZERO DUCT LOSS**

The DOE reports that ducted systems lose an average of 25-40% in performance due to leaks, cracks or disconnections in ductwork.

No ductwork means that ductless systems do not experience duct loss, saving energy and money.

#### **NO DIRTY AIR DUCTS\***

Now there's no need to clean dirty air ducts that can harbor dust, germs and allergens that are eventually blown into your home or office.

#### ZONE COOLING FLEXIBILITY

Independently condition up to eight (8) separate zones using only a single outdoor unit. Achieve the ultimate in comfort and energy control by cooling or heating only the zones that are in use. And, because each zone is independent of the others, comfort settings can vary.





Protects the outdoor coil against deterioration and extends the life of the unit especially in harsh coastal environments.

<sup>\*</sup>Ductless wall-mounted and ceiling cassette models

# Heat and cool up to 8 zones utilizing wall-mounted, ceiling cassette and The Insider™ concealed ducted models.





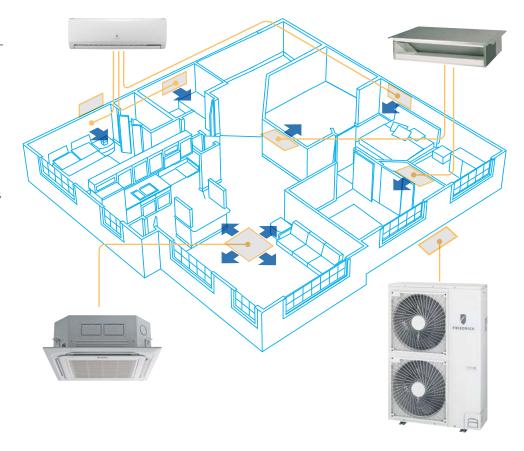


# Enjoy the flexibility to mix and match systems to fit your application.

#### ZONE COOLING AND HEATING PROVIDES UNMATCHED CUSTOMIZED COMFORT AND ENERGY SAVINGS

Occupants have the ability to set the temperature of each zone to their preferred comfort level\*, or turn off units in unoccupied rooms without affecting other zones.

That's the beauty and efficiency of a Friedrich Multizone System.



<sup>\*</sup>Multizone units cannot heat and cool simultaneously.

# The Advantages of Friedrich's Precision Inverter System

Single or multizone, Friedrich ductless is superior to conventional systems

Precision Inverter technology varies the compressor, the outdoor and the indoor fan speeds, eliminating constant compressor start-ups/shutdowns that traditional systems require to maintain the set temperature. Soft start technology starts the compressor with minimal amperage at start up, saving energy versus compressors utilzing locked rotor amperage (LRA).

This is especially beneficial in multizone systems where room temperature set points vary and some indoor units may be turned off in unoccupied rooms.

Each system can adjust capacity and cooling output to provide only the amount of cooling needed at a given time. The result is optimal comfort with low energy costs.

TRADITIONAL SYSTEM	INVERTER SYSTEM
At initial start up, a fixed capacity system slowly reaches the set temperature.	At initial start up, utilizes variable capacity to quickly reach the set temperature.
Complete shutdown once set temperature is achieved.	Reduces capacity as set temperature is achieved.
Temperature within the space rises until 2nd system start up.	
System works at full capacity to again reach set temperature.	Variable capacity maintains set tem- perature keeping space comfortable with reduced energy consumption.
System cycles on and off continually to maintain the set temperature.	

The twin-rotary compressor and inverter drive provide superior performance for perfect comfort and optimized energy efficiency.

Friedrich J Series ductless utilizes an inverter drive coupled with variable speed, twin rotary compressors for optimal performance and increased energy efficiency.

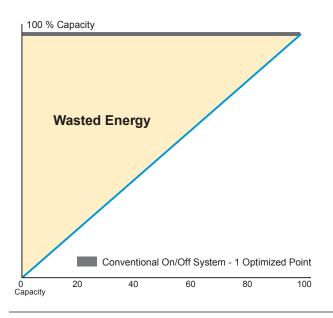


FEATURE	ADVANTAGE	BENEFIT
Inverter Drive	Accelerated cooling and heat- ing performance	Temperature set-point is reached faster
Variable Speed Compressor	Smooth, modulated frquency for temperature maintenance	Comfortable indoor climate maintained con- sistently. Load matching comfort
Inverter Soft Start Technology	Low rotation speed at start- up keeping power current minimal	Eliminates power spikes that can affect appliances and cause energy spikes
Inverter Long, Slow Run	No compressor start/stop like conventional systems	Energy used more ef- fectively and system can last longer
Twin-Rotary Compressor	BLDC Motor, Light weight, compact design, 30~120 Hz	Highly efficient, low noise, lowest vibration

# No other system matches the efficiency and performance of Friedrich's Precision Inverter

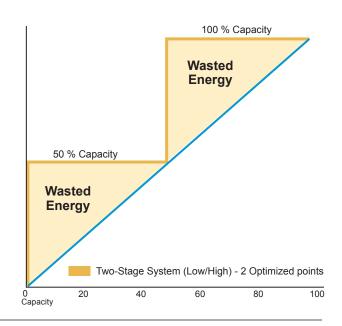
#### **CONVENTIONAL SYSTEMS**

Run at a single capacity, turning on and off to reach the desired set point. This means they run at full speed each time, resulting in high energy consumption.



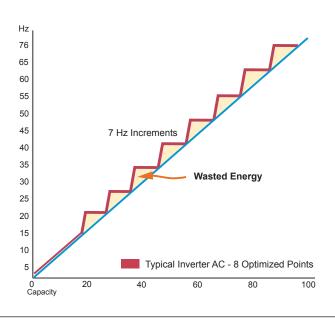
#### TWO-STAGE AIR CONDITIONERS

Won't significantly reduce your energy use. These units only run at 2 speeds, 50% and 100%, also resulting in high energy consumption.



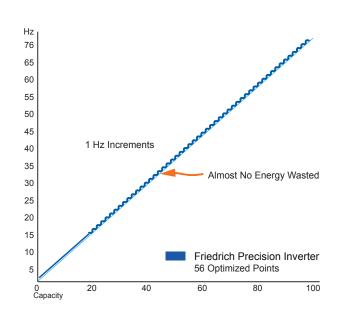
#### **TYPICAL INVERTER SYSTEMS**

Make changes in **7 Hz increments** allowing the unit to run at variable speeds, delivering a more precise heating-cooling solution.



#### FRIEDRICH PRECISION INVERTER SYSTEMS

Make changes in 1 Hz increments allowing the unit to run at variable speeds, delivering the most precise heating-cooling solution.



# Attractive and high efficiency options for cooling and heating residential and light commercial spaces.

Wall-mounted models mount high on an exterior wall. The attractive, neutral finish blends well with just about any decor. The units can be used individually or as part of a multizone system to condition multiple spaces or a large area.

#### **RESIDENTIAL APPLICATIONS**

- Room additions/renovations
- Homes without ductwork
- Bedrooms and family rooms
- Garage workshops
- Sunrooms
- Guest quarters

#### **COMMERCIAL APPLICATIONS**

- Hotels and other lodging
- Computer rooms and server rooms
- Restaurant kitchen and prep
- Offices in warehouse spaces
- Multi-level office
- Storage facilities
- Buildings where security concerns prevent the use of window units
- Internal areas without exterior wall access





# Super High Efficiency and Zone Cooling Capability

With Friedrich Ductless Split Systems, you can cool and heat single or multiple rooms more quietly and efficiently than window air conditioners or traditional central air systems, and without the expense of ductwork. You can control individual room temperatures, and heat or cool only the areas that are occupied.

#### Features for comfort and convenience



#### **SMART AIRFLOW**

Friedrich electronically controlled louvers direct air flow upward for cooling and downward for heating to deliver airflow where it's needed most.

#### **AUTO RESTART**

Unit restarts at previous settings after power interruption.



#### ZONE COOLING FLEXIBILITY

Enjoy the ability to set room temperatures individually when utilizing a multizone system.



#### **CROSS FLOW FAN**

The cross flow design of the indoor fan creates an ultraquiet, yet powerful air flow.



#### NO DIRTY AIR DUCTS

No ductwork means there is no ductwork that can harbor dirt, dust and airborne allergens.



#### SURGE COOL/HEAT

When you want to cool down or heat up the room quickly, this super high fan speed provides rapid cooling or heating.



#### **AUTO CLEAN**

Removes moisture from the indoor coil to help reduce mold and musty odors



#### PRECISION INVERTER®

Friedrich *Precision Inverter* delivers a precise heating-cooling solution. It maintains the set temperature without the constant on-off cycling of traditional systems and outperforms standard inverter systems.

# Many models qualify for rebates

Many utility companies offer rebates on ductless air conditioners. Contact your local energy provider for information on ductless rebates or visit: http://www.dsireusa.org

Find a factory trained
Friedrich ductless installer
at www.friedrich.com

#### Features you'll find with Friedrich Ductless Systems:

System Type	Wall-mounted Single Zone	Wall-mounted Multizone	Cassette Single Zone	Cassette Multizone	The Insider™ Single Zone	The Insider™ Multizone
Installation	Wall	Wall	Ceiling	Ceiling	Ceiling	Ceiling
Cool only	Y	N	N	N	N	N
Heat pump	Y	Υ	Υ	Y	Υ	Υ
115 volt cool only models	Y	N	N	N	N	N
Inverter driven compressor	Y	Υ	Υ	Υ	Υ	Υ
SEER	Up to 28.0	Up to 22.0	Up to 19.0	Up to 22.0	Up to 17.6	Up to 18.2
Auto changeover	Y	N	Υ	N	Υ	N
Low ambient cooling operation	0°F*/0°F†	-4° F**	5° F	-4° F**	5° F	-4° F **
Low ambient heating operation	-4°F/-13°F†	-4° F	-4° F	-4° F	-4° F	-4° F
24- Hr. Programmable timer	Y	Υ	Υ	Υ	N	N
Remote control	Y	Υ	Υ	Υ	N	N
Wall controller option	Y	Υ	Υ	Υ	Υ	Υ
7-Day Programmability (with wall controller)	Y	Υ	Υ	Y	Υ	Υ
Auto restart	Y	Υ	Υ	Y	Υ	Υ
Surge cool/heat	Y	Υ	Υ	Υ	N	N
Dry mode	Y	Υ	Υ	Y	Υ	Υ
Auto Clean	Y	Υ	N	N	N	N
Advanced Corrosion Protection	Y	Y	Y	Y	Υ	Y
4-way auto swing	Y	Y	Y	Y	N	N
Washable, antimicrobial air filters	Y	Y	Y	Y	Y	Y
Auto shut flaps when unit is off	Y	Y	Y	Y	N	N
Louver Position Steps (Fan/Cool/Heat)	6/6/6	6/6/6	4/5/4	4/5/4	N	N

<sup>\*</sup>Installation of an optional Low Ambient Wind Baffle Kit will allow operation down to 0°F in cooling mode.

#### **AUTO CLEAN**

Indoor blower runs to remove dust, dirt and moisture from the coil after system is shutdown.

#### **SURGE COOL/HEAT**

Allows quick cooling/heating. In this mode, the unit will operate at 100% for 30 minutes to cool/heat the room rapidly.

#### **BUILT-IN LOW AMBIENT STANDARD**

Allows wall-mounted units to operate in temperatures as low as 14° F in cooling mode (HM09YJA and HM12YJA as low as 0°F). Concealed ducted and cassette models can operate down to 5° F.

#### **AUTO CHANGEOVER (SINGLE ZONE ONLY)**

Automatically changes over from cool to heat and heat to cool to maintain the set temperature.

#### **AUTO RESTART**

Auto restart function allows system to resume with previous settings in the event of a power shutdown. (Power supply must be restored).

#### **DRY MODE**

Reduces the humidity when cooling needs are low.

#### **4-WAY AUTO SWING**

Louvers will automatically move up/down and left /right to maintain a uniform room temperature.

#### **ADVANCED CORROSION PROTECTION**

Protects the outdoor coil against deterioration and extends the life of the unit especially in harsh coastal environments.

<sup>&</sup>lt;sup>†</sup>HM09YJA and HM12YJA operate down to 0°F cooling and -13°F heating without wind baffle kit.

<sup>\*\*</sup>Installation of an optional Low Ambient Wind Baffle Kit will allow operation down to -4°F in cooling mode.

# The indoor cross-flow fan and a low vibration compressor provide ultra quiet operation indoors and outdoors.

#### **ULTRA QUIET CROSS-FLOW FAN**

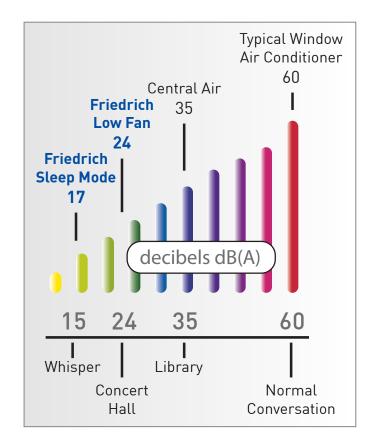
An electronically controlled cross-flow fan creates an ultra quiet, yet powerful air flow into the room.

# LOW VIBRATION, TWIN-ROTARY COMPRESSOR

Friedrich's twin-rotary compressor has a unique design that reduces vibration for lower sound levels outdoors.

#### **BLDC FAN MOTOR**

Brushless, digitally commutated motor with accurate speed control that makes the electrical and mechanical operation smoother, more reliable and more efficient.



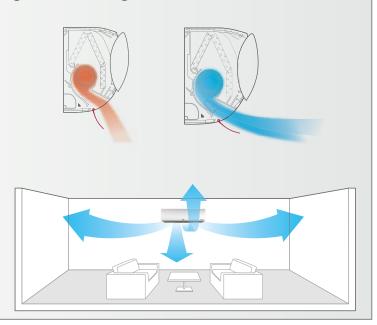
## Powerful airflow for faster heating and cooling.

#### **OPTIMUM AIR FLOW**

Air is directed downward in heating mode and angled upward during cooling mode so the room feels more comfortable, faster.

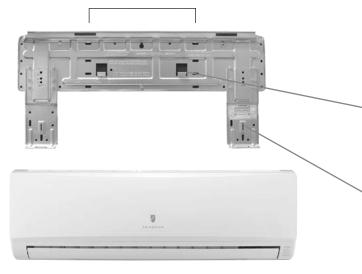
#### **LARGE FANS**

Powerful fans move the air across the room- up to 39 feet away. That means faster cooling and heating and you feel comfortable sooner no matter where you are in the room.



# Convenient installation features that will get your ductless running in no time.

#### A SET OF 16 INCH ON-CENTER HOLES



Model MW12C1J indoor unit and hanging bracket shown. Bracket appearance will vary by model.

#### **UNIQUE MOUNTING BRACKET**

#### 16" ON-CENTER

The hanging bracket comes with a set of holes that are placed 16" apart from each other to help you attach the bracket securely to "16 on center" wall studs.

#### **LEVEL-LINE LEDGES**

Incorporated "Level-Line Ledges" ensure a straight wall mount and frees both hands for an easy single-person installation.

#### **TAPE MEASURE ASSIST\***

The integrated "blade grip" securely keeps measuring tape in place. The "blade grip" gives you a helping hand when installing the bracket to the wall.

\*Not on models HM09YJA, HM12YJA.



#### **WALL STAND-OFF BRACKET**

The clip keeps sufficient space between the unit and the wall creating more room for installation. Feature varies by model.

#### **SPACIOUS TUBING AREA**

Ample space was created to facilitate tubing installation and placement.

#### REFRIGERATION LINE SETS (REQUIRED ACCESSORY)

Kit#	Length Ft.	Liquid	Suction
T32150	15'	1/4"	3/8"
T32350	35′	1/4"	3/8"
T42150	15'	1/4"	1/2"
T42350	35'	1/4"	1/2"
T53150	15'	3/8"	5/8"
T53350	35'	3/8"	5/8"

#### **LOW AMBIENT WIND BAFFLE KIT\***

Wind baffle allows operation down to 0°FWB on single zone heat pumps, and down to -4°FWB on Multizone units.

\*Models HM09YJA and HM12YJA operate down to O°FWB without a baffle kit.

WIND BAFFLE	USED WITH			
DLAWB1	9000 - 12000 Btu wall-mounted single zone models			
DLAWB2	18000 - 36000 Btu wall-mounted single zone models			
DLAWB3	24000-36000 Btu Multizone			
DLAWB4*	48000 Btu Multizone			
* 48000 Btu Multizone requires 2 wind baffle kits.				

#### **VENTILATION KIT**

Ventilation kit allows conditioned fresh air to be brought directly into the unit.

VENTILATION KIT	USED WITH
DVKA, DVKB (both required)	24000-36000 Btu cassette models

#### **THERMOSTAT\***

DWC2-Wired, 7-day fully programmable wall thermostat.

\*Not available for HM09YJA and HM12YJA.

#### CEILING CASSETTE GRILLES (REQUIRED ACCESSORY)

Required decorative grille for ceiling cassette models

DECORATIVE GRILLE	USED WITH
DCG1218	MC12Y3JM, MC18Y3JM - 12000 and 18000 Btu models
DCG2436	MC24Y3J , MC36Y3J- 24000 and 36000 Btu models

#### **DDC1 DRY CONTACT ACCESSORY FOR J-SERIES\***

- Allows 3rd party thermostats
- Allows door switch or occupancy sensors

\*Not for HM09YJA and HM12YJA.

# DLAWB1, DLAWB2, DLAWB3, DLAWB4





DWC2



DCG1218, DCG2436



DDC1

#### **ADAPTER FOR 5/16" SERVICE VALVES**

- Adapter is available through Friedrich parts distributors.
- All R410A models have 1/2"-20 UNF (5/16" SAE) X 1/4" SAE thread per inch charging and vacuuming ports.
- An adapter must be used for 1/4" gauges.

# Single Zone • Wall-mounted

9000-18000 Btu. Cool only models with features for convenient operation, care-free comfort and years of dependability.

#### **FEATURES**

- Precision Inverter® technology (variable speed compressor)
- Soft start compressor
- BLDC motors
- High efficiency for low operating cost
- DiamonGold Advanced Corrosion Protection™
- Auto Clean indoor coil
- Cooling/Fan mode
- Surge cool
- Natural air flow
- 4-Way auto swing
- Ultra quiet operation
- Sleep mode
- Dry mode
- Auto restart
- Built-in low ambient standard, down to 14°F (Cooling mode) down to 0°F with optional wind baffle

WIRELESS REMOTE CONTROL

- 24-hour on/off timer
- Wall stand-off bracket





\*Models M18CJ, and components MW18C3J, MR18C3J, are not available for sale in AZ, CA, NM or NV.



MR09C1J, MR12C1J











PERFORMANCE RATINGS		Single Zone Wall-Mounted - Cool Only		
		9k	12k	18k
SYSTEM MODEL NO.		M09CJ	M12CJ	M18CJ*
INDOOR MODEL		MW09C1J	MW12C1J	MW18C3J*
OUTDOOR MODEL		MR09C1J	MR12C1J	MR18C3J*
SPECIFICATIONS				
CAPACITY COOLING (RATED)	Btu	9,000	10,600	17,000
CAPACITY COOLING (MIN~MAX)	Btu	3,070~12,120	3,070~13,660	3,070~20,470
COOLING AMPS		6	7.3	6.3
SENSIBLE HEAT RATIO		.71	.71	.72
SEER		21.5	21.5	18.0
EER		13.3	13.0	12.0
ENERGY STAR		YES	YES	N0
MOISTURE REMOVAL	Pts/h	2.3	2.7	4.2
AIRFLOW (QUIET, LOW, MED, HIGH)	CFM	124/212/272/335	124/212/272/335	300/371/441/512
SOUND RATING - INDOOR	dB-A	19 / 24 / 33 / 38	19 / 24 / 33 / 39	29 / 35 / 40 / 45
SOUND RATING - OUTDOOR	dB-A	45	45	53
OPERATING RANGE ( 0°F WITH WIND BAFFLE)	°FDB	14(0)~118	14(0)~118	14(0)~118
EST. YEARLY OPERATING COST	\$	61	81	127
ELECTRICAL DATA			'	'
POWER SOURCE	٧	115/60/1	115/60/1	208/230/60/1
MINIMUM AMPACITY	Α	12	12	19
COOLING WATTS	W	677	815	1417
MAX. TD FUSE/BREAKER	Α	20	20	25
POWER AND COMMUNICATION CABLE	No. x AWG	4 x 14	4 x 14	4 x 14
REFRIGERATION SYSTEM				•
REFRIGERANT		R410A	R410A	R410A
COMPRESSOR TYPE		Single Rotary	Single Rotary	Twin Rotary
CONNECTIONS		Flare	Flare	Flare
LIQUID LINE O.D.	in	1/4	1/4	1/4
SUCTION LINE O.D.	in	3/8	3/8	1/2
FACTORY PRECHARGE	ft	41	41	25
REFRIGERANT CHARGE	OZ	36	36	48
MIN./MAX. LINE LENGTH	ft	7~66	7~66	10~66
MAX. HEIGHT DIFFERENCE	ft	33	33	33
DIMENSIONS & WEIGHT			,	
INDOOR UNIT				
WXHXD	in	35-1/4 x 11-	-1/4 x 8-5/16	40-5/8 x 12-7/8 x 9-5/8
NET WEIGHT	lbs	23	23	32
SHIPPING WEIGHT	lbs	27	27	40
OUTDOOR UNIT				
WXHXD	in	30-5/16 x 21-	5/16 x 11-5/16	34-5/16 x 25-7/8 x 12-5/8
NET WEIGHT	lbs	78	78	97
SHIPPING WEIGHT	lbs	79	79	101
TOTAL NET WEIGHT	lbs	101	101	129
TOTAL SHIPPING WEIGHT	lbs	106	106	169

<sup>\*</sup>Models M18CJ and components MW18C3J and MR18C3J are not available for sale in AZ, CA, NM or NV.

Your operating costs will depend on your utility rates and use. The estimated operating cost is based on a electricity cost of \$ .12 per kWh. For more information, visit www.ftc.gov/energy.

Due to continuing research in new energy-saving technology, specifications are subject to change without notice.









# Single Zone • Wall-mounted

9000 & 12000 Btu. Top cooling and heating performance in extreme climates. 28.0 SEER - our highest efficiencies ever!

#### **FEATURES**

- Precision Inverter® technology (variable speed compressor)
- Soft start compressor
- BLDC motor
- High efficiency for low operating cost
- DiamonBlue Advanced Corrosion Protection<sup>®</sup>
- Auto Clean indoor coil
- Cooling/Heating/Fan/Auto mode
- Surge Cool/Heat
- Natural air flow
- Ultra quiet operation
- Sleep mode
- Auto restart
- Auto changeover
- 24-hour on/off timer
- ENERGY STAR® qualified model
- Hidden display (only visible during operation)

#### **OPERATION IN EXTREME CONDITIONS**

- Low ambient operation down to 0° F (Cooling mode)
- Low ambient operation down to -13° F (Heating mode)



WIRELESS REMOTE CONTROL



MWH09Y3JA, MWH12Y3JA



MRH09Y3JA, MRH12Y3JA









PERFORMANCE RATINGS		Single Zone Wall-Mounted - Heat Pumps		
		9k	12k	
SYSTEM MODEL NO.		HM09YJA	HM12YJA	
INDOOR MODEL	ĺ	MWH09Y3JA	MWH12Y3JA	
OUTDOOR MODEL		MRH09Y3JA	MRH12Y3JA	
SPECIFICATIONS		<u>.</u>		
CAPACITY COOLING (RATED)	Btu	9,000	12,000	
CAPACITY COOLING (MIN~MAX)	Btu	3600-10000	4000-13500	
CAPACITY HEATING@47°F (RATED)	Btu	10,715	12,957	
CAPACITY HEATING @17°F (RATED)	Btu	6,433	8,030	
CAPACITY HEATING (MIN~MAX)	Btu	3600-10500	4000-14000	
COOLING AMPS		2.3	4.6	
HEATING AMPS		3.4	4.8	
SENSIBLE HEAT RATIO		0.85	0.85	
SEER		28.0	25.0	
EER		16.1	15.5	
HSPF		12.5	12.0	
ENERGY STAR		Yes	Yes	
MOISTURE REMOVAL	Pts/h	1.90	2.54	
AIRFLOW (QUIET, LOW, MED, HIGH)	CFM	416/384/355/279	598/536/446/345	
SOUND RATING - INDOOR	dB-A	39/34/31/28	45/41/39/36	
	dB-A	55		
SOUND RATING - OUTDOOR	°F		55 0° 115°	
OPERATING RANGE (COOLING)		0°-115°	0°-115°	
OPERATING RANGE (HEATING)	°F	-13°-75°	-13°-75°	
EST. YEARLY OPERATING COST	\$			
ELECTRICAL DATA		000/000//0/4	000 1000 110 14	
POWER SOURCE	V	208/230/60/1	208/230/60/1	
MINIMUM AMPACITY	A	10A	12A	
COOLING WATTS	W	560	775	
HEATING WATTS	W	770	850	
MAX. TD FUSE/BREAKER	A	15	15	
POWER AND COMMUNICATION CABLE N	o. x AWG	4 x 14	4 x 14	
REFRIGERATION SYSTEM				
REFRIGERANT		R410A	R410A	
COMPRESSOR TYPE		Rotary	Rotary	
CONNECTIONS		Flare	Flare	
LIQUID LINE O.D.	in	1/4	1/4	
SUCTION LINE O.D.	in	3/8	3/8	
FACTORY PRECHARGE	ft	24.6	24.6	
REFRIGERANT CHARGE	oz	38.8	45.9	
MIN./MAX. LINE LENGTH	ft	65.4	65.4	
MAX. HEIGHT DIFFERENCE	ft	16.4	16.4	
DIMENSIONS & WEIGHT				
INDOOR UNIT				
WXHXD	in	32 7/8 x 11 x 8 11/16	36 x 12 3/8 x 9 5/16	
NET WEIGHT	lbs	19.8	28.6	
SHIPPING WEIGHT	lbs	24.2	33.0	
OUTDOOR UNIT				
WXHXD	in	31 7/8 x 23 x 11	31 7/8 x 23 x 11	
NET WEIGHT	lbs	72.6	72.6	
SHIPPING WEIGHT			79.2	
TOTAL NET WEIGHT	lbs	92.4	101.2	
TOTAL SHIPPING WEIGHT	lbs	103.4	112.2	

Your operating costs will depend on your utility rates and use. The estimated operating cost is based on a electricity cost of \$ .12 per kWh. For more information, visit www.ftc.gov/energy.

Due to continuing research in new energy-saving technology, specifications are subject to change without notice.









# Single Zone • Wall-mounted

18000 - 36000 Btu. Features for comfort and convenience year 'round. In heating mode, units use approximately 1/4 of the energy required by electric heat.

#### **FEATURES**

- Precision Inverter® technology (variable speed compressor)
- Soft start compressor
- High efficiency for low operating cost
- DiamonGold Advanced Corrosion Protection™
- Auto Clean indoor coil
- Cooling/Heating/Fan mode
- Surge Cool/Heat
- Natural air flow
- 4-Way auto swing
- Ultra quiet operation
- Sleep mode
- Dry mode
- Auto restart
- Auto changeover
- Built-in low ambient standard, down to 14° F (Cooling mode), down to 0° F with wind
- Low ambient operation down to -4° F (Heating mode)
- 24-hour on/off timer







**WIRELESS** REMOTE CONTROL



MR18Y3J,



MR24Y3J, MR36Y3J









PERFORMANCE RATINGS		Single Zone Wall-Mounted - Heat Pumps			
		18k	24k	36k	
SYSTEM MODEL NO.		M18YJ	M24YJ	M36YJ	
INDOOR MODEL		MW18Y3J	MW24Y3J	MW36Y3J	
OUTDOOR MODEL		MR18Y3J	MR24Y3J	MR36Y3J	
SPECIFICATIONS					
CAPACITY COOLING (RATED)	Btu	17,000	22,000	33,000	
CAPACITY COOLING (MIN~MAX)	Btu	3,070~20,470	3,070~30,030	3,070~34,000	
CAPACITY HEATING @47° F (RATED)	Btu	20,200	27,000	35,200	
CAPACITY HEATING @17° F (RATED)	Btu	13,200	17,900	23,200	
CAPACITY HEATING (MIN~MAX)	Btu	3,070~30,700	3,070~38,898	3,070~38,900	
COOLING AMPS		7	7.9	17.0	
HEATING AMPS		7.3	10.7	16.2	
SENSIBLE HEAT RATIO		.73	.72	.78	
SEER		18.0	21.5	17.5	
EER		12.0	12.5	8.15	
HSPF		9.7	11.0	10.0	
ENERGY STAR		YES	YES	No	
MOISTURE REMOVAL	Pts/h	4.2	5.5	6.5	
AIRFLOW (QUIET, LOW, MED, HIGH)	CFM	300/371/441/512	300/389/512/600	459/530/706/848	
SOUND RATING - INDOOR	dB-A	29 / 35 / 40 / 45	33 / 39 / 43 / 46	37 / 40 / 44 / 49	
SOUND RATING - OUTDOOR	dB-A	53	54	55	
OPERATING RANGE COOLING (WIND BAFFLE)	°F	14(0)~118	14(0)~118	14(0)~118	
OPERATING RANGE HEATING	°F	-4~75	-4~75	-4~75	
EST. YEARLY OPERATING COST	\$	127	158	395	
ELECTRICAL DATA		.=/		5.0	
POWER SOURCE	٧	230/208/60/1	208/230/60/1	230/208/60/1	
MINIMUM AMPACITY	Α	19	19	19	
COOLING WATTS	W	1416	1760	4024	
HEATING WATTS	W	1680	2380	3840	
MAX. TD FUSE/BREAKER	Α	20	35	35	
POWER AND COMMUNICATION CABLE	No. x AWG	4 x 14	4 x 14	4 x 14	
REFRIGERATION SYSTEM					
REFRIGERANT		R410A	R410A	R410A	
COMPRESSOR TYPE		Twin Rotary	Twin Rotary	Twin Rotary	
CONNECTIONS		Flare	Flare	Flare	
LIQUID LINE O.D.	in	1/4	3/8	3/8	
SUCTION LINE O.D.	in	1/2	5/8	5/8	
FACTORY PRECHARGE	ft	25	25	25	
REFRIGERANT CHARGE	OZ	48	78	78	
MIN./MAX. LINE LENGTH	ft	10~66	10~164	10~164	
MAX. HEIGHT DIFFERENCE	ft	33	98	98	
DIMENSIONS & WEIGHT					
INDOOR UNIT					
WXHXD	in	40-5/8 x 12-7/8 x 9-5/8	46-7/8 x 13-5/8 x10-3/8	46-7/8 x 13-5/8 x 10-3/8	
NET WEIGHT	lbs	31	40	40	
SHIPPING WEIGHT	lbs	40	46	46	
OUTDOOR UNIT			1		
WXHXD	in	34-5/16 x 25-7/8 x 12-5/8	34-5/16 x 31-1/2 x12-5/8	34-5/16 x 31-1/2 x12-5/8	
NET WEIGHT	lbs	97	125	125	
SHIPPING WEIGHT	lbs	101	132	132	
TOTAL NET WEIGHT	lbs	128	165	165	
TOTAL SHIPPING WEIGHT	lbs	141	178	178	
		L			

Your operating costs will depend on your utility rates and use. The estimated operating cost is based on a electricity cost of \$ .12 per kWh. For more information, visit www.ftc.gov/energy.

Due to continuing research in new energy-saving technology, specifications are subject to change without notice.









# Single Zone - Ceiling Cassette

24000 and 36000 Btu. Indoor units are typically installed in a drop ceiling. The unit mounts flush to the ceiling for a clean look and efficient installation.

#### **FEATURES**

- Precision Inverter® technology (variable speed compressor)
- Soft start compressor
- Internal condensate pump with 27 1/2" lift\* included
- Natural air flow
- 4-Way cooling
- Surge Cool/Heat
- Cooling/Heating/Fan mode
- Dry mode
- Sleep mode
- Built-in low ambient standard, down to 5° F (Cooling mode)
- Low ambient operation down to -4° F (Heating mode)

• \* Lift from drain pan to the highest point 27 1/2"

• Independent vane control

- 3 Fan speeds
- Evaporator frost control
- 24-hour on/off timer
- Auto restart
- Auto changeover
- Temperature display on remote
- Ultra-quiet turbo fan
- DiamonGold Advanced Corrosion Protection™
- Clean, modern look
- Flexible installation
- ENERGY STAR® qualified models
- Precise air distribution
- Capable of branch duct to adjacent closet or bathroom

Low profile indoor unit is recessed into the ceiling for a clean look and greater clearance.

NOTE: Grilles are sold separately.

See optional accessories on page 11.





MR36UY3J



MC36Y3J





MC24Y3J

MR24UY3J



**WIRELESS** 

REMOTE CONTROL



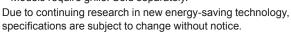




PERFORMANCE RATINGS		Single Zone Cassette - Heat Pumps		
		24k	36k	
SYSTEM MODEL NO.		C24YJ	C36YJ	
INDOOR MODEL		MC24Y3J	MC36Y3J	
OUTDOOR MODEL	,	MR24UY3J	MR36UY3J	
SPECIFICATIONS		1411/240133	1411/300133	
CAPACITY COOLING (RATED)	Btu	24,000	36,000	
CAPACITY COOLING (MIN~MAX)	Btu	9,700~26,700	14,000~42,000	
CAPACITY COOLING (MIN~MAX)  CAPACITY HEATING @47° F (RATED)	Btu	27,000	40,000	
CAPACITY HEATING @47 F (RATED)	Btu	18,600	26,000	
CAPACITY HEATING (MIN~MAX)	Btu	10,900~30,000	14,500~45,000	
COOLING AMPS	Diu	15.1	20.2	
HEATING AMPS		16.0	24.0	
SENSIBLE HEAT RATIO		.77	.76	
SEER		17.0	19.0	
EER		12.6	13.5	
HSPF		9.7	9.5	
ENERGY STAR *	-	Yes	Yes	
MOISTURE REMOVAL	Pts/h	5.1	7.7	
AIRFLOW (LOW, MED, HIGH )	CFM	459 / 530 / 600	918 / 989 / 1,060	
SOUND RATING - INDOOR H/M/L	dB(A)	38/36/34	46/44/43	
SOUND RATING - OUTDOOR	dB(A)	62	67	
OPERATING RANGE (COOLING)	°FDB	5~118	5~118	
OPERATING RANGE (COOLING)	°FWB	-4~64	J~118 -4~64	
EST. YEARLY OPERATING COST	\$	172	240	
ELECTRICAL DATA	Ψ	172	240	
POWER SOURCE	V	208/230/60/1	208/230/60/1	
MINIMUM AMPACITY	A	18.1	24.5	
COOLING WATTS	W	1910	2970	
MAX. TD FUSE/BREAKER	A	30	40	
POWER AND COMMUNICATION CABLE	-	4 x 14	4 x 14	
REFRIGERATION SYSTEM	NO. X AVVO	4 X 14	4 X 14	
REFRIGERANT		R410A	R410A	
COMPRESSOR TYPE			Twin Rotary	
CONNECTIONS		Twin Rotary		
LIQUID LINE O.D.		Flare 3/8	Flare 3/8	
· ·	in	5/8	5/8	
SUCTION LINE O.D.	in	-	-	
FACTORY PRECHARGE	ft	25	25	
REFRIGERANT CHARGE	0Z	71	120	
MIN./MAX. LINE LENGTH MAX. HEIGHT DIFFERENCE	ft	25~164	25~246	
	ft	98	98	
DIMENSIONS & WEIGHT				
INDOOR UNIT		22 1/1/ v.0 1/1/ 22 1/1/	22 1/1/ v 11 2/0 22 1/4/	
WXHXD	in	33-1/16 x 8-1/16 x 33-1/16	33-1/16 x 11-3/8 x 33-1/16	
NET WEIGHT	lbs	45	54	
SHIPPING WEIGHT	lbs	58	65	
INDOOR UNIT GRILLE** W X H X D	in	37-3/8 x 15/16 x 37-3/8	37-3/8 x 15/16 x 37-3/8	
INDOOR UNIT GRILLE** NET WEIGHT	lbs	11	11	
OUTDOOR UNIT		00.0/4/ 00.0/0 40	07.40/00 5/ 0/0 40	
WXHXD	in	37-7/16 x 32-7/8 x 13	37-13/32 x 54-3/8 x 13	
NET WEIGHT	lbs	132	203	
SHIPPING WEIGHT	lbs	146	227	
TOTAL NET WEIGHT	lbs	178	257	
TOTAL SHIPPING WEIGHT	lbs	203	293	

Your operating costs will depend on your utility rates and use. The estimated operating cost is based on a electricity cost of \$ .12 per kWh. For more information, visit www.ftc.gov/energy.

<sup>\*\*</sup>Models require grille. Sold separately.









<sup>\*</sup>System meets ENERGY STAR® published minimums.

# Single Zone ■ The Insider™ Concealed Ducted

24000 and 36000 Btu. Indoor unit is installed in the ceiling or furr down for unobtrusive installation.

#### **FEATURES**

- Precision Inverter® technology (variable speed compressor)
- Soft start compressor
- BLDC motor
- Internal condensate pump with 27 1/2" lift\* included
- Cooling/Heating/Fan mode
- Built-in low ambient standard, down to 5° F (Cooling mode)
- Low ambient operation down to -4° F (Heating mode)
- Dry mode
- 3 Fan speeds
- Auto restart
- Auto changeover
- Control lock function on controller
- External Static Pressure Range (ESP)
  - 24,000 (0.1 0.78) WC
  - 36,000 (0.15 0.6) WC



MD24Y3J, MD36Y3J

\* Lift from drain pan to highest point 27 1/2"



WIRED WALL CONTROLLER



MR24UY3J



MR36UY3J









PERFORMANCE RATINGS		Single Zone - The Insider™ Co	ncealed Ducted Heat Pumps
		24k	36k
SYSTEM MODEL NO.		D24YJ	D36YJ
INDOOR MODEL		MD24Y3J	MD36Y3J
OUTDOOR MODEL		MR24UY3J	MR36UY3J
SPECIFICATIONS		1411/240103	1-111.000103
CAPACITY COOLING (RATED)	Btu	24,000	36,000
CAPACITY COOLING (MIN~MAX)	Btu	9,700~26,700	16,000~41,400
CAPACITY HEATING @47°F (RATED)	Btu	27,000	40,000
CAPACITY HEATING @17°F (RATED)	Btu	17.600	24,600
CAPACITY HEATING (MIN~MAX)	Btu	10,900~30,000	17,500~48,000
COOLING AMPS	Diu	15.1	20.8
HEATING AMPS		15.1	21.4
SENSIBLE HEAT RATIO		.68	.67
SEER		17.0	17.6
EER		12.0	12.1
HSPF		10.0	9.2
ENERGY STAR		No	No
MOISTURE REMOVAL	Pts/h	7.0	10.6
AIRFLOW (LOW, MED, HIGH )	CFM	530 / 618 / 688	706 / 953 / 1,130
SOUND RATING - INDOOR H/M/L	dB(A)	38/36/35	39/38/37
SOUND RATING - OUTDOOR	dB(A)	62	67
OPERATING RANGE (COOLING)	°F	5~118	5~118
OPERATING RANGE (HEATING)	°F	-4~64	-4~64
EST. YEARLY OPERATING COST	\$	180	268
ELECTRICAL DATA			
POWER SOURCE		208/230/60/1	208/230/60/1
MINIMUM AMPACITY	Α	18.1	24.5
COOLING WATTS	W	2000	2910
MAX. TD FUSE/BREAKER	Α	30	40
POWER AND COMMUNICATION CABLE	No. x AWG	4 x 14	4 x 14
REFRIGERATION SYSTEM			
REFRIGERANT		R410A	R410A
COMPRESSOR TYPE		Twin Rotary	Twin Rotary
CONNECTIONS		Flare	Flare
LIQUID LINE O.D.	in	3/8	3/8
SUCTION LINE O.D.	in	5/8	5/8
FACTORY PRECHARGE	ft	25	25
REFRIGERANT CHARGE	0Z	71	120
MIN./MAX. LINE LENGTH	ft	25~164	25~246
MAX. HEIGHT DIFFERENCE	ft	98	98
DIMENSIONS & WEIGHT			
INDOOR UNIT			
WXHXD	in	46-9/16 x 11-3/4 x 17-3/4	48-1/2 x 15 x 23-1/4
NET WEIGHT	lbs	73	125
SHIPPING WEIGHT	lbs	95	139
OUTDOOR UNIT			
WXHXD	in	37-7/16 x 32-7/8 x 13	37-7/16 x 54-3/8 x 13
NET WEIGHT	lbs	132	203
SHIPPING WEIGHT	lbs	146	227
TOTAL NET WEIGHT	lbs	205	327
TOTAL SHIPPING WEIGHT	lbs	240	366
	(63	2-70	

Your operating costs will depend on your utility rates and use. The estimated operating cost is based on a electricity cost of \$ .12 per kWh. For more information, visit www.ftc.gov/energy.

Due to continuing research in new energy-saving technology, specifications are subject to change without notice.







## Multizone - Wall-mounted

High efficiency heat pumps with features for comfort and convenience year 'round. In heating mode, units use approximately 1/4 of the energy required by electric heat.

#### **FEATURES**

- Precision Inverter® technology (variable speed compressor)
- Soft start compressor
- High efficiency for low operating cost
- DiamonGold Advanced Corrosion Protection™
- Auto Clean indoor coil
- Cooling/Heating/Fan mode
- Surge Cool/Heat
- Natural air flow
- 4-Way auto swing
- Ultra quiet operation
- Sleep mode
- Dry mode
- Auto restart
- Built-in low ambient standard, down to 5° F (Cooling mode), down to -4° F with wind baffle
- Low ambient operation down to -4° F (Heating mode)
- 24-hour on/off timer
- Wall stand-off bracket



**WIRELESS** 

REMOTE CONTROL



MR36TQY3JMA











MR48DEY3JM









FRIEDRICH

PERFORMANCE RATINGS			Multizone Wall-Mou	inted - Heat Pumps	
		7k	9k	12k	18k
INDOOR MODEL		MW07Y3JM	MW09Y3J	MW12Y3J	MW18Y3J
SPECIFICATIONS					
CAPACITY COOLING (RATED)	Btu	7,000	9,000	11,200	17,000
CAPACITY HEATING (RATED)	Btu	8,100	10,800	13,300	20,200
MOISTURE REMOVAL	Pts/h	NA	2.3	2.7	4.2
AIRFLOW (QUIET, LOW, MED, HIGH)	CFM	162/177/198	124/212/272/335	124/212/272/335	300/399/509/622
SOUND RATING - INDOOR	dB-A	26/30/33	19 / 24 / 33 / 38	19 / 24 / 33 / 39	29 / 35 / 40 / 45
ELECTRICAL DATA					
POWER SOURCE	V, Ø, Hz	230/208-60-1	230/208-60-1	230/208-60-1	230/208-60-1
REFRIGERATION SYSTEM					
CONNECTIONS		Flare	Flare	Flare	Flare
LIQUID LINE O.D.	in	1/4	1/4	1/4	1/4
SUCTION LINE O.D.	in	3/8	3/8	3/8	1/2
DIMENSIONS & WEIGHT					
WXHXD	in	34-7/8 x11-1/4 x 8-1/4	35-1/4 x11-1/4 x 8-1/4	35-1/4 x 11-1/4 x 8-1/4	40-5/8 x 12-7/8 x 9-5/8
NET WEIGHT	lbs	20	23	23	31
SHIPPING WEIGHT	lbs	26	27	27	40

PERFORMANCE RATINGS	Multi Outdoor			
		24k	36k	48k
OUTDOOR MODEL		MR24DY3JMA	MR36TQY3JMA	MR48DEY3JM
SPECIFICATIONS				
POWER SOURCE		208/230/60/1	208/230/60/1	208/230/60/1
EST. YEARLY OPERATING COST	\$	122~125	170~245	346~400
RUNNING CURRENT COOLING MIN.~RATED~MAX.	Α	1.7~6.4~9.0	2.9~10.7~15.7	4.6~16.7~24.8
RUNNING CURRENT HEATING MIN.~RATED~MAX.	Α	1.8~7.8~11.2	3.3~11.9~18.3	6.2~18.8~26.2
POWER INPUT COOLING MIN.~RATED~MAX.	W	390~1480~2070	670~2460~3610	970~3840~5710
POWER INPUT HEATING MIN.~RATED~MAX.	W	420~1800~2580	760~2740~4210	1420~4320~6020
POWER AND COMMUNICATION CABLE	No. x AWG	4 X 14	4 X 14	4 X 14
DIMENSIONS WXHXD	inch	34-1/4 x 25-3/4 x12-5/8	37-7/16 x 32-7/8 x 15 1/2	37-3/8 × 54-5/16 × 13
NET WEIGHT	lbs	99	137	214
SHIPPING WEIGHT	lbs	139	148	236
REFRIGERATION SYSTEM				
REFRIGERANT		R410A	R410A	R410A
FACTORY PRECHARGE	ft	74	98	Main: 16.4, Branch 131.2
LIQUID LINE O.D.	in	1/4	1/4	3/8
SUCTION LINE O.D.	in	3/8	3/8	3/4
MIN./MAX. LINE LENGTH (EACH)	ft	10~82	10~82	10~49*
MIN./MAX. LINE LENGTH (TOTAL)	ft	75~246	75~246	30~476*
MAX. HEIGHT DIFFERENCE	ft	49	49	98*
SOUND PRESSURE LEVEL COOLING	Α	51	52	54
SOUND PRESSURE LEVEL HEATING	Α	51	55	56
OPERATING RANGE COOLING (WIND BAFFLE)	°F DB	14 (-4) ~ 118	14 (-4) ~ 118	14 (-4) -118
OPERATING RANGE HEATING	°F WB	-4 ~ 64	-4 ~ 64	-4 ~ 64
MINIMUM AMPACITY	Α	14.3	17.9	27.3
MAX. TD FUSE/BREAKER	Α	20	25	40

<sup>\*</sup>System requires branch box D4PBB. See page 33 for piping guidelines. For branch box to indoor line sizes, please see Indoor System Components Chart. Your operating costs will depend on your utility rates and use. The estimated operating cost is based on a electricity cost of \$ .12 per kWh. For more information, visit www.ftc.gov/energy.

Due to continuing research in new energy-saving technology, specifications are subject to change without notice.







# Multizone ■ Ceiling Cassette

Indoor units are typically installed in a drop ceiling. The grille fits almost flush with the ceiling for a clean look and efficient installation.

#### **FEATURES**

- Inverter technology (variable speed compressor)
- Soft start compressor
- Internal condensate pump with 23" lift\* included
- · Natural air flow
- 4-Way cooling
- Cooling/Heating/Fan mode
- Dry mode
- Night Quiet Operation
- Built-in low ambient standard, down to 14° F (Cooling mode)
- Low ambient operation, down to -4° F (Heating mode)
- 3 Fan speeds

- Evaporator frost control
- 24-hour on/off timer
- Auto restart
- Temperature display on remote
- Ultra-quiet turbo fan
- DiamonGold Advanced Corrosion Protection™
- Clean, modern look
- Flexible installation
- ENERGY STAR® qualified models
- Precise air distribution
- Capable of branch duct to adjacent closet or bathroom



NOTE: Grilles are sold separately.

• See optional accessories on page 11.



MC12Y3JM, MC18Y3JM



WIRELESS REMOTE CONTROL

\*Lift from drain pan to highest point 23"



MR24DY3JMA



MR36TQY3JMA



MR48DEY3JM









PERFORMANCE RATINGS		Multizone Cassette - Heat Pumps			
		12k	18k		
INDOOR MODEL		MC12Y3JM	MC18Y3JM		
SPECIFICATIONS					
CAPACITY COOLING (RATED)	Btu	12,000	18,000		
CAPACITY HEATING (RATED)	Btu	13,800	19,000		
MOISTURE REMOVAL	Pts/h	4.2	4.2		
AIRFLOW ( LOW, MED, HIGH)	CFM	247 / 283 /335	388 / 424 / 459		
SOUND RATING - INDOOR	dB-A	32/35/38	34/37/38		
ELECTRICAL DATA					
POWER SOURCE	V, Ø, Hz	208/230, 1, 60	208/230, 1, 60		
POWER AND COMMUNICATION CABLE	No. x AWG	4 x 14	4 x 14		
REFRIGERATION SYSTEM					
CONNECTIONS		Flare	Flare		
LIQUID LINE O.D.	in	1/4	1/4		
SUCTION LINE O.D.	in	3/8	1/2		
DIMENSIONS & WEIGHT					
WXHXD	in	22-7/16 x 8-7/16 x 22-7/16	22-7/16 x 10-3/32 x 22-7/16		
NET WEIGHT	lbs	31	33		
SHIPPING WEIGHT	lbs	36	42		
INDOOR UNIT GRILLE* W X H X D	in	27-9/16 x 7/8 x 27-9/16	27-9/16 x 7/8 x 27-9/16		
INDOOR UNIT GRILLE* NET WEIGHT	lbs	7	7		

PERFORMANCE RATINGS		Multi Outdoor			
		24k	36k	48k	
OUTDOOR MODEL		MR24DY3JMA	MR36TQY3JMA	MR48DEY3JM	
SPECIFICATIONS					
POWER SOURCE		208/230/60/1	208/230/60/1	208/230/60/1	
EST. YEARLY OPERATING COST	\$	122~125	170~245	346~400	
RUNNING CURRENT COOLING MIN.~RATED~MAX.	Α	1.7~6.4~9.0	2.9~10.7~15.7	4.6~16.7~24.8	
RUNNING CURRENT HEATING MIN.~RATED~MAX.	Α	1.8~7.8~11.2	3.3~11.9~18.3	6.2~18.8~26.2	
POWER INPUT COOLING MIN.~RATED~MAX.	W	390~1480~2070	670~2460~3610	970~3840~5710	
POWER INPUT HEATING MIN.~RATED~MAX.	W	420~1800~2580	760~2740~4210	1420~4320~6020	
POWER AND COMMUNICATION CABLE	No. x AWG	4 X 14	4 X 14	4 X 14	
DIMENSIONS W X H X D	inch	34-1/4 x 25-3/4 x12-5/8	37-7/16 x 32-7/8 x 15 1/2	37-3/8 × 54-5/16 × 13	
NET WEIGHT	lbs	99	137	214	
SHIPPING WEIGHT	lbs	139	148	236	
REFRIGERATION SYSTEM					
REFRIGERANT		R410A	R410A	R410A	
FACTORY PRECHARGE	ft	74	98	Main: 16.4, Branch 131.2	
LIQUID LINE O.D.	in	1/4	1/4	3/8	
SUCTION LINE O.D.	in	3/8	3/8	3/4	
MIN./MAX. LINE LENGTH (EACH)	ft	10~82	10~82	10~49*	
MIN./MAX. LINE LENGTH (TOTAL)	ft	75~246	75~246	30~475*	
MAX. HEIGHT DIFFERENCE	ft	49	49	98*	
SOUND PRESSURE LEVEL COOLING	Α	51	52	54	
SOUND PRESSURE LEVEL HEATING	Α	51	55	56	
OPERATING RANGE COOLING (WIND BAFFLE)	°F DB	14 (-4) ~ 118	14 (-4) ~ 118	14 (-4) -118	
OPERATING RANGE HEATING	°F WB	-4 ~ 64	-4 ~ 64	-4 ~ 64	
MINIMUM AMPACITY	Α	14.3	17.9	27.3	
MAX. TD FUSE/BREAKER	Α	20	25	40	

<sup>\*</sup>System requires branch box D4PBB. See page 33 for piping guidelines. For branch box to indoor line sizes, please see Indoor System Components Chart \*\*Models require grille. Grille sold separately.

Your operating costs will depend on your utility rates and use. The estimated operating cost is based on a electricity cost of \$ .12 per kWh. For more information, visit www.ftc.gov/energy.

Due to continuing research in new energy-saving technology, specifications are subject to change without notice.







# Multizone ■ The Insider™ Concealed Ducted

Indoor unit is installed in the ceiling or furr down for unobtrusive installation. Conditioned or non-conditioned air can be added to ducting to allow fresh air into the conditioned space whenever required.

#### **FEATURES**

- Inverter technology (variable speed compressor)
- Soft start compressor
- Internal condensate pump with 23" lift\* included
- Cooling/Heating/Fan mode
- Dry mode
- 3 Fan speeds
- Auto restart
- Control lock function
- External Static Pressure Range (ESP)
  - 9,000 ( 0.0 0.20) WC
  - 12,000 ( 0.0 0.20) WC
  - 18,000 ( 0.0 0.20) WC

<sup>\*</sup> Lift from drain pan to the highest point. Use external drain pump for installations requiring condensate lift exceeding 23"



MD09Y3JM, MD12Y3JM, MD18Y3JM



WIRED WALL CONTROLLER



MR24DY3JMA



MR36TQY3JMA



MR48DEY3JM









PERFORMANCE RATINGS	Multizone - The Insider™ Concealed Ducted Heat Pumps			
		9k	12k	18k
INDOOR MODEL		MD09Y3JM	MD12Y3JM	MD18Y3JM
SPECIFICATIONS				
CAPACITY COOLING (RATED)	Btu	9,000	12,000	18,000
CAPACITY HEATING (RATED)	Btu	10,400	13,800	19,000
MOISTURE REMOVAL	Pts/h	2.5	2.5	4.2
AIRFLOW ( LOW, MED, HIGH)	CFM	194 / 247 / 318	265 / 300 / 335	406 / 477 / 530
SOUND RATING - INDOOR	dB-A	30 / 26 / 23	26/31/33	29/31/34
ELECTRICAL DATA				
POWER SOURCE		208/230, 1, 60	208/230, 1, 60	208/230, 1, 60
POWER AND COMMUNICATION CABLE	No. x AWG	4 x 14	4 x 14	4 x 14
REFRIGERATION SYSTEM				
CONNECTIONS		Flare	Flare	Flare
LIQUID LINE O.D.	in	1/4	1/4	1/4
SUCTION LINE O.D.	in	3/8	3/8	1/2
DIMENSIONS & WEIGHT				
WXHXD	in	30-15/32 x 7-15/32 x 27-9/16	32-9/32 x 7-15/32 x 22-5/8	43-5/16 x 7-15/32 x 22-5/8
NET WEIGHT	lbs	39	45	58
SHIPPING WEIGHT	lbs	45	51	65

PERFORMANCE RATINGS		Multi Outdoor				
		24k	36k	48k		
OUTDOOR MODEL		MR24DY3JMA	MR36TQY3JMA	MR48DEY3JM		
SPECIFICATIONS						
POWER SOURCE		208/230/60/1	208/230/60/1	208/230/60/1		
EST. YEARLY OPERATING COST	\$	122~125	170~245	346~400		
RUNNING CURRENT COOLING MIN.~RATED~MAX.	Α	1.7~6.4~9.0	2.9~10.7~15.7	4.6~16.7~24.8		
RUNNING CURRENT HEATING MIN.~RATED~MAX.	Α	1.8~7.8~11.2	3.3~11.9~18.3	6.2~18.8~26.2		
POWER INPUT COOLING MIN.~RATED~MAX.	W	390~1480~2070	670~2460~3610	970~3840~5710		
POWER INPUT HEATING MIN.~RATED~MAX.	W	420~1800~2580	760~2740~4210	1420~4320~6020		
POWER AND COMMUNICATION CABLE	No. x AWG	4 X 14	4 X 14	4 X 14		
DIMENSIONS WXHXD	inch	34-1/4 x 25-3/4 x12-5/8	37-7/16 x 32-7/8 x 15 1/2	37-3/8 × 54-5/16 × 13		
NET WEIGHT	lbs	99	137	214		
SHIPPING WEIGHT	lbs	139	148	236		
REFRIGERATION SYSTEM						
REFRIGERANT		R410A	R410A	R410A		
FACTORY PRECHARGE	ft	74	98	Main 16.4, Branch 131.2		
LIQUID LINE O.D.	in	1/4	1/4	3/8		
SUCTION LINE O.D.	in	3/8	3/8	3/4		
MIN./MAX. LINE LENGTH (EACH)	ft	10~82	10~82	10~49*		
MIN./MAX. LINE LENGTH (TOTAL)	ft	75~246	75~246	30~475*		
MAX. HEIGHT DIFFERENCE	ft	49	49	98*		
SOUND PRESSURE LEVEL COOLING	Α	51	52	54		
SOUND PRESSURE LEVEL HEATING	Α	51	55	56		
OPERATING RANGE COOLING (WIND BAFFLE)	°F DB	14 (-4) ~ 118	14 (-4) ~ 118	14 (-4) -118		
OPERATING RANGE HEATING	°F WB	-4 ~ 64	-4 ~ 64	-4 ~ 64		
MINIMUM AMPACITY	Α	14.3	17.9	27.3		
MAX. TD FUSE/BREAKER	Α	20	25	40		

<sup>\*</sup>System requires branch box D4PBB. See page 33 for piping guidelines. For branch box to indoor line sizes, please see Indoor System Components Chart. Your operating costs will depend on your utility rates and use. The estimated operating cost is based on a electricity cost of \$ .12 per kWh. For more information, visit www.ftc.gov/energy.

 $\label{thm:continuing} \ Due \ to \ continuing \ research \ in \ new \ energy-saving \ technology, \ specifications \ are \ subject \ to \ change \ without \ notice.$ 







## Mix-and-match a combination of indoor units that does not exceed the maximum connected capacity, and is within the recommended parameters:



#### MR24DY3JMA:

FOR (2) ZONES:

Minimum combination must be 50% of nameplate capacity

FOR (3) ZONES:

Select any combination of (3) indoor

#### Combinations SHOULD NOT:

Exceed the maximum allowable total indoor unit connected capacity of 33,000 Btu.

#### MR36TQY3JMA:

FOR (2) ZONES:

Minimum combination must be 50% of nameplate capacity

FOR (3) ZONES:

Select any combination of (3) indoor units with no more than (2) 18,000 Btu indoor units plus (1) other indoor unit.

FOR (4) ZONES:

Select any combination of (4) indoor

#### Combinations SHOULD NOT:

Exceed the maximum allowable total indoor unit connected capacity of 48,000 Btu.

#### MR48DEY3JM:

FOR (2) ZONES:

Minimum combination must be 50% of nameplate capacity

FOR (3) ZONES:

Select any combination of (3\*) indoor units per system. \*Combination must be 50% of nameplate capacity.

FOR (4) THROUGH (8) ZONES: With (3) 18,000 Btu indoor units only a 7,000 or 9,000 Btu indoor can be used.

#### Combinations SHOULD NOT:

- 1. Exceed the maximum allowable total indoor unit connected capacity of 65,000 Btu.
- 2. Be below the minimum connectible capacity of 24,000 Btu.

## MULTIZONE CONFIGURATIONS

#### INDOOR SYSTEM COMPONENTS

MODEL NUMBER	Btu COOLING	REVERSE CYCLE HEAT Btu	VOLTAGE	Rated Amps	LINE SIZE DISCHARGE O.D. (IN.)	LINE SIZE SUCTION O.D. (IN.)	HEIGHT	WIDTH	DEPTH
Wall-mounte	d Units								
MW07Y3JM	7000	8100	230	0.20	1/4"	3/8"	11-1/4"	34-7/8"	8-1/4"
MW09Y3J	9000	10800	230	0.40	1/4"	3/8"	11-1/4"	35-1/4"	8-1/4"
MW12Y3J	11200	13300	230	0.40	1/4"	3/8"	11-1/4"	35-1/4"	8-1/4"
MW18Y3J	17000	20200	230	0.40	1/4"	1/2"	12-7/8"	40-5/8"	9-5/8"
Ceiling Casse	ettes								
MC12Y3JM	12000	13800	230	0.25	1/4"	3/8"	8-7/16"	22-7/16"	22-7/16"
MC18Y3JM	18000	19000	230	0.25	1/4"	1/2"	10-3/32"	22 7/16"	22-7/16"
The Insider™	Concealed Du	cted Compo	nents						
MD09Y3JM	9000	10400	230	0.40	1/4"	3/8"	7-15/32"	27 9/16"	27 9/16"
MD12Y3JM	12000	13800	230	0.40	1/4"	3/8"	7-15/32"	32-9/32"	22 5/8"
MD18Y3JM	18000	20800	230	0.40	1/4"	1/2"	7-15/32"	43-5/16"	22 5/8"

## OUTDOOR SYSTEM COMPONENTS

	MODEL NUMBER	Btu COOLING Min. / Nom / Max.	REVERSE CYCLE HEAT Btu Min. / Nom / Max.	VOLTAGE	HEIGHT	WIDTH	DEPTH
Ì	MR24DY3JMA	10,800 / 20,000 / 25,000	11,880 / 24,000 / 28,800	208/230	25 3/4	34 1/4	12 5/8
Ì	MR36TQY3JMA	10,800 / 32,000 / 38,400	11,880 / 36,000 / 41,600	208/230	32 7/8	37 7/16	15 1/2
	MR48DEY3JM	14,400 / 48,000 / 58,000	15,840 / 54,000 / 61,000	208/230	54 5/16	37 3/8	13

Friedrich Model Number	AHRI Reference Number	IndoorType	System Capacity	EER	SEER	High Heat 47°F	HSPF	Low Heat 17°F
	8915232	Non-ducted Indoor Units	20000	13.50	21.70	24000	10.60	14500
MR24DY3JMA	8915233	Ducted Indoor Units	17800	11.50	17.50	22400	9.80	14000
	8915234	Mixed Ducted and Non-ducted Indoor Units	18900	12.50	19.60	23200	10.20	14250
	8915235	Non-Ducted Indoor Units	32000	13.00	22.00	36000	10.00	20000
MR36TQY3JMA	8915236	Ducted Indoor Units	28000	11.00	18.20	34000	9.70	19500
	8915240	Mixed Ducted and Non-ducted Indoor Units	30000	12.00	20.10	35000	9.85	19750
	8915237	Non-Ducted Indoor Units	48000	12.50	19.50	54000	10.00	35000
MR48TQY3JM	8915238	Ducted Indoor Units	44000	10.80	17.50	50000	9.70	33600
	8915239	Mixed Ducted and Non-ducted Indoor Units	46000	11.65	18.50	52000	9.85	34300

# REFRIGERATION LINE SETS MINIMUM/MAXIMUM LENGTHS SINGLE ZONE

Single Zone				
System Model	Outdoor	Indoor	Min. (ft.)	Max. (ft.)
HM09YJA	HMR09Y3JA	HMW09Y3JA	10	65
HM12YJA	HMR12Y3JA	HMW12Y3JA	10	65
M18YJ	MR18Y3J	MW18Y3J	10	66
M09CJ	MR09C1J	MW09C1J	7	66
M12CJ	MR12C1J	MW12C1J	7	66
M18CJ	MR18C3J	MW18C3J	10	66
M24CJ	MR24C3J	MW24C3J	10	98
M24YJ	MR24Y3J	MW24Y3J	10	164
M36YJ	MR36Y3J	MW36Y3J	10	164
HM09YJ				
HM12YJA	MHR12Y3JA	MHW12Y3JA	10	49
C24YJ	MR24UY3J	MC24Y3J	25	164
C36YJ	MR36UY3J	MC36Y3J	25	246
D24YJ	MR24UY3J	MD24Y3J	25	164
D36YJ	MR36UY3J	MD36Y3J	25	246

# REFRIGERATION LINE SETS MINIMUM/MAXIMUM LENGTHS MULTIZONE | 24,000 AND 36,000 BTUs

Multizone Outdoor			ial Zone engths	Combined System Line Lengths
		Min. (ft.) Max. (ft.)		Max. (ft.)
MR24DY3JMA	Dual Zone	10*	82	246
MR24DY3JMA	Tri Zone	10*	82	246
MR36TQY3JMA	Dual Zone	10*	82	246
MR36TQY3JMA	Tri or Quad Zone	10*	82	246

#### TORQUE WRENCH SETTINGS

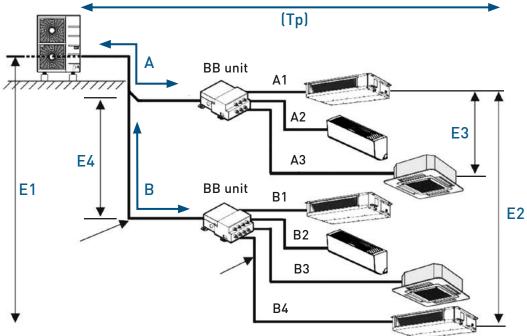
Outside l	Diameter			
mm	inch	N.m	lbf.ft	
Ø6.35	1/4	14~18	1.4~1.8	10~13
Ø9.52	3/8	34~42	3.5~4.3	25~31
Ø12.7	1/2	49~61	5.0~6.2	36~45
Ø15.88	5/8	69~82	7.0~8.4	51~60
Ø19.05	3/4	100~120	10.0~12.2	73~88

For a Tri Zone or Quad Zone System: The combined lengths must equal at least 75 ft.

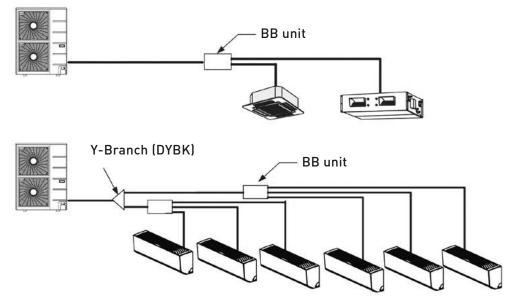
<sup>\*</sup>The combined line lengths of the individual zones must equal the minimum line length for the selected multizone system. For a Dual Zone System: The combined lengths must equal at least 25 feet.

# REFRIGERATION LINE SETS MINIMUM/MAXIMUM LENGTHS MULTIZONE | 48,000 BTU

Multizone 48,000 BTU/h Eight Zone				
System Pipe Lengths	Total piping length (Outdoor to Indoor ) (Tp)		(ft.)	≤476
	Outdoor to Branch box (A, B)	Min.	(ft.)	10
		Max.	(ft.)	≤180
	Total branch piping length (Branch Box to indoor units) (A1-A3, B1-B4)		(ft.)	≤295
	Branch box to Indoor units	Min.	(ft.)	10
		Max.	(ft.)	≤49
Max. Elevations	If outdoor unit is above or below indoor unit (E1)		(ft.)	≤98
	Between the farthest two indoor units (E3)		(ft.)	≤49
	Between branch distribution unit and farthest connected indoor unit(s) (E2)		(ft.)	≤33
	Between branch boxes (E4)		(ft.)	≤49



## SINGLE AND DUAL BB CONFIGURATIONS





Branch boxes have up to 4 outlets and do not require separate power, they are powered from the condenser.



#### WIRED WALL CONTROLLER

DWC2- Works with all Friedrich J Series ductless models except HM09Y3JA and HM12Y3JA

#### **PROGRAMMABLE SETTINGS**

- Simple program (1 to 7 hour) ON/OFF
- Sleep program
- ON/OFF at set time

- 7 Day schedule
- Holiday schedule

#### WIRELESS DIAGNOSTIC TOOL FOR FRIEDRICH J SERIES\* DUCTLESS SPLIT SYSTEMS

## Monitor and diagnose J Series Ductless Systems for quick service responses

#### 3 EASY STEPS:

- Download the Friedrich
   Diagnostic App from
   Google Play or App Store
- 2. Connect DWTST module to the outdoor unit
- 3. Begin monitoring unit





DWTST



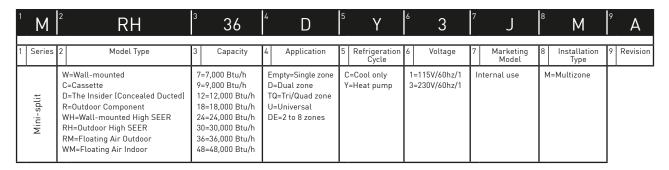
Technician can observe various data points, such as:

- Thermistor temps
- DC link voltage
- Fan RPM
- EEV pulse
- Error codes
- Trouble shooting guide
- Input voltage
- Amperage

#### **IMPORTANT**

\*Friedrich DWTST works with Friedrich J Series Ductless Split Systems, <u>except HM09Y3JA and HM12Y3JA</u>. Not for use with other Friedrich models or other brands. Applications are subject to change without notice.

#### NOMENCLATURE



All Friedrich ductless split products require a licensed contractor for installation.



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