



DUCTLESS MINI-SPLIT SYSTEMS

Product Catalog



**CHOOSE RELIABILITY
AND EFFICIENCY.**

DUCTLESS MINI-SPLITS.

The comfort solution.

“S” Series • 15 SEER



*Inverter Technology
Single Zone Heat Pump or Cooling only*

“D” Series • 17 SEER



*Inverter Technology
Single Zone Heat Pump*

“InverterFlex” Series • up to 22 SEER



*Inverter Technology
Multi Zone Heat Pump*

“UltraV” Series • up to 25 SEER



*Inverter Technology
Single Zone Heat Pump*

Ductless mini-split systems are a great solution to a wide variety of installation challenges, giving contractors the ability to add cooling and heating in locations that previously seemed impossible. They're ideal when installing ductwork is difficult, prohibitively expensive, or simply impractical. Residential and commercial structures, new construction and existing buildings, are candidates for mini-splits.

Basically a mini-split does away with the need for ductwork. Like a regular split system A/C or heat pump, the condenser is located outdoors; one or more air handlers are placed indoors. The two are connected by electrical and refrigerant lines that run through a small hole in an exterior wall, generally 3" in diameter or less.

In addition to eliminating the need for ducting, one of the other big advantages of mini-split systems is true zone control. The air handler is dedicated to the room being conditioned and is controlled by a wireless remote. That room can be kept at a temperature and humidity level different from the rest of the house or building.

Multi-zone systems for up to five rooms (or one large space) feature a single condenser that handles one, two, three, four or five air handlers. Each air handler is independently controlled, with its own remote and electronic-based climate controls to regulate temperature and humidity levels, as well as air flow. Units in a bedroom and a home office, for instance, can be programmed for different hours of operation with the 24-hour timer, or two classrooms situated side by side can be set at different temperatures. (although units cannot operate in heating and cooling modes simultaneously).

Mini-split systems have the flexibility to fit virtually anywhere and with SEER ratings up to 25, they're also economical to operate.

Where can you use a Mini-Split?

Common applications include:

- Historic homes (the aesthetics of the exterior are maintained)
- Homes with hydronic heat
- Residential additions such as a sunroom or bedroom
- Rooms with inadequate heating and/or cooling
- Vacation homes and cabins
- Schools (individual classroom control)
- Church sanctuaries and fellowship halls
- Nursing homes and hospitals
- Restaurants
- Remote offices such as those inside a warehouse or factory
- Utility transfer stations
- Arena sky boxes
- ATMs and office lobbies



THERE'S MORE TO COMFORT

Than just temperature . . .

MINI-SPLITS AND INDOOR AIR QUALITY

According to the EPA, the air inside our homes is often more polluted than outside air. What's needed to protect yourself from airborne contaminants is a high quality filtration system, and that's just what you get with all ductless mini-splits.

In fact, our high wall mount indoor units are equipped with a superior filtration system. The nano silver ion filter releases silver ions that eliminate bacteria in the air, while the gold fin coating on the evaporator itself inhibits the growth and spreading of bacteria into the living space. Ceiling cassettes also have a special evaporator coating to prevent the breeding and dissemination of airborne bacteria.

Additionally, the units can be operated in the dehumidification mode without cooling or heating. This removes excess humidity from the indoor air, one of the keys to preventing the growth of mold, mildew and other contaminants.

Advantages of an Inverter Ductless Mini-Split System

Quiet Operation—The indoor air handler is “library quiet,” operating so quietly you may not realize it's on, because the compressor operates at low frequency most of the time with no on/off cycling and the fan delivers balanced airflow

Easy Installation—All it takes to connect the outdoor condenser and the indoor air handler is a hole about 3” in diameter to run refrigerant lines, condensate drain and electrical wires between the two components

Efficiency—Units are designed to be energy efficient with high SEER ratings that meet or exceed government mandated standards; and only the room or area being used is conditioned, potentially decreasing electricity usage when compared to traditional systems

Attractive Appearance—High wall models feature a low profile indoor unit in a clean white finish that blends with any décor; ceiling cassettes have a white panel that virtually disappears in ceiling installations

Security—With a room air conditioner, there's always the worry that access to the home can be gained through the window where the unit is mounted; that worry is eliminated with a ductless system

Consistent Comfort—Electronic climate controls regulate operation to maintain a preset temperature level; auto swing airflow continually adjusts the air direction for a gentle, breeze-like effect preferred by most people; auto mode adjusts the temperature and fan speed to maintain the setpoint you've selected

Simple Operation—One fully featured remote is included for each indoor air handler or ceiling cassette, making it simple to select the mode, set the temperature and the timer, and change the airflow direction; ceiling cassettes and ducted units also come with a wired wall-mount thermostat.

How does a Mini-Split work?

Cooling without Ductwork

A ductless mini-split air conditioner works the same way central air conditioning does with one big difference—there's no ductwork.

Both the central system and the mini-split can be classified as split systems because they consist of an outdoor condensing unit and an indoor air handler/evaporator. With a central A/C system, the indoor components include a cooling coil and an air handler (the furnace's blower or a separate air handler) that circulate the conditioned air throughout the structure by way of the ductwork.

The mini-split indoor unit functions as both the indoor coil and the air handler, delivering conditioned air directly into a single room without sending it through any ductwork.

Heat Pump Models

A heat pump mini-split operates in basically the same manner, but adds heating capability. In the summer it transfers heat from inside the home to the outdoors. A reversing valve makes it possible for the unit to reverse this procedure during cold weather, absorbing heat from the outdoors and transferring it indoors to warm the space (yes, there is warm air outside, even when it's below freezing).

Heat Gain/Loss

One of the advantages this "ductless" operation provides is efficiency. In a central system, the cooled air absorbs heat as it travels through the ductwork. The longer the duct run, the greater the temperature gain. In winter, heat can also be lost as the conditioned air travels through the ducts.

Don't forget that it takes air pressure to move the conditioned air through the ducting system and that involves some noise from the fan and the actual movement of air. A mini-split system, however, is ultra-quiet because it doesn't have to push the warm or cool air through many feet of ductwork.



This diagram shows a typical high wall mount installation:

- The condensing unit is installed outdoors while the air handler is mounted inside on an exterior wall. A hole approximately 3" in diameter is drilled through the wall. The lines that carry refrigerant from the air handler to the condensing unit and back run through this hole.
- A communication wire runs between the two components: power is supplied by the outdoor unit so there are no cords and plugs visible on the interior. A bracket mounted to the wall supports the high wall mount air handler.
- A drain line runs from the air handler to the outside to carry away condensate.

Ductless mini-splits can save you money when it comes to adding on to your house. If your current HVAC system is correctly sized for your existing structure, it may not have the capacity to handle the new square footage. Rather than replacing the entire system, you can cool and heat your new space with a mini-split—and save the cost of installing ductwork.

SVH Series

FEATURES

Super Efficient

- Rated as high as 16.0 SEER and 11.0 EER

Whisper Quiet

- High tech fan in the indoor unit delivers balanced air flow

Temperature Compensation

- Indoor unit adjusts automatically as needed to eliminate stratification between ceiling and floor temps

Auto Swing

- Continually adjusts air flow direction for a gentle, breeze-like effect

Multiple Modes

- Cooling, dehumidification only, air circulation and heat plus:
 - Sleep mode
 - 24-hour timer
 - Turbo mode

Auto Operation

- Automatically adjusts to maintain a constant temperature/humidity level

Superior Filtration

- Nano silver air filter releases silver ions that eliminate bacteria in the air while gold fin evaporator coating prevents the breeding and spreading of bacteria

Leak Detection

- Signals if unit begins losing refrigerant charge

Auto Restart

- Reverts to the last setting following a power failure

Auto Defrost

- On heat pump models; also crankcase heater to keep oil warm and reduce the need for defrosting

Comfort-Aire®

SINGLE ZONE HEAT PUMP

208-230V

9,000 to 24,000 BTUH



Indoor Unit



Outdoor Unit



Energy Verified
Rendement
Énergétique Véri



Warranty

Standard warranty or Extended warranty available with product registration.
See warranty document for details or visit www.marsdelivers.com

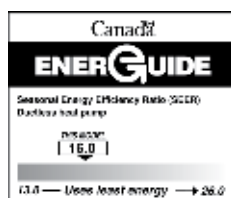
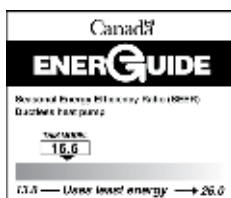
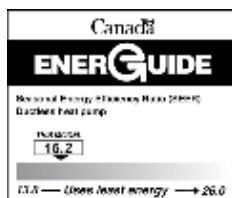
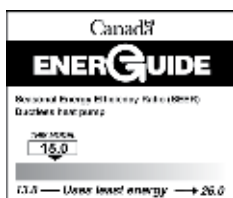
SVH Series

FEATURES	Heat Pump Models					
	SVH09SA-0	SVH09SA-1	SVH12SA-0	SVH12SA-1	SVH18SA-1	SVH24SA-1
Power Supply	115V	208/230V	115V	208/230V	208/230V	208/230V
Cooling Capacity (BTUH)	9,000	9,000	12,000	12,000	18,000	24,000
SEER/ EER	15.2/10.0	15.0/10.5	16.0/10.0	15.5/10.2	15.5/11.0	15.0/9.0
HSPF	9	8.8	9	9.3	9.8	8.8
Cooling Amps	8	3.7	10.4	5.3	7.3	11.8
Dehumidification (Pts/Hr.)	1.0	1.0	1.2	1.2	1.8	2.5
Heating Capacity (BTUH)	9,800	9,800	12,000	12,000	18,000	24,000
Heating Amps	8.60	4.50	5.65	5.40	7.60	11.30
INDOOR UNIT						
Air flow (CFM)	265/212/159	265/212/159	318/241/176	318/241/176	424/341/200	565/447/341
Fan Speeds (Cool/Heat/Fan)	3	3	3	3	3	3
Sound Level (dBA) H-M-L	41/35/26	41/36/27	41/36/28	42/36/27	43.5/36/34.5	45/38/32
AIR DIRECTION						
Vertical Adjustment	Remote	Remote	Remote	Remote	Remote	Remote
Horizontal (left/right)	Manual	Manual	Manual	Manual	Manual	Manual
Auto Swing Up and Down	Standard	Standard	Standard	Standard	Standard	Standard
INDICATOR LAMPS						
Defrost	Standard	Standard	Standard	Standard	Standard	Standard
Temperature Setting	Remote Temperature Set Range: 62°F to 86°F					
INDOOR UNIT DIMENSIONS						
Width (inches)	28-1/8	28-1/8	31-3/4	31-3/4	37-3/4	40-7/8
Height (inches)	11-1/4	11-1/4	11-1/4	11-1/4	11-7/8	12-7/8
Depth (inches)	7-5/8	7-5/8	7-3/4	7-3/4	8-3/8	8-5/8
Net Wt/Shipping Wt (lbs.)	15.9/20.5	15.9/20.5	17.2/22	17.2/22	22.9/29.5	29.3/36.6
OUTDOOR UNIT DIMENSIONS						
Width (inches)	30-3/8	30-3/8	30-3/8	30-3/8	31-1/2	33-1/4
Height (inches)	21-7/8	21-7/8	21-7/8	21-7/8	21-7/8	27-5/8
Depth (inches)	11-7/8	11-7/8	11-7/8	11-7/8	13-1/8	14-1/4
Net Wt/Shipping Wt (lbs.)	61.5/66.6	57.1/62.4	65/70.1	60.6/66.4	80.5/87.1	105.2/112.4
ELECTRICAL DATA OUTDOOR UNIT*						
Main Power Connection	Outdoor Unit	Outdoor Unit	Outdoor Unit	Outdoor Unit	Outdoor Unit	Outdoor Unit
Min. Circuit Ampacity	15	15	15	15	15	15
Max. Fuse/HACR Circuit Breaker	15	15	20	15	20	25
Recommended Indoor/Outdoor Connecting Cable*	14 AWG / 4 conductor 600V THHN unshielded bare copper					
LINE SETS O.D. (inch)						
Liquid Connection (flare) (inch)	1/4	1/4	1/4	1/4	1/4	3/8
Suction Connection (flare) (inch)	3/8	3/8	1/2	1/2	1/2	5/8
Maximum Line Set Length¹	82	82	82	82	98	98
Maximum Elevation (outdoor)²	33	32	33	33	66	66

*Always follow local, state and national electrical codes. ¹ Min. 10 ft. line set recommended.

² Oil traps should be installed every 16.5 to 23 feet (5-7m) when the outdoor unit is installed above the indoor unit.

Design, specifications and performance data subject to change without notice.



"This product complies with all California product labeling laws including, but not limited to, the Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65."

DV Series

Our "DV" Series, rated up to 17.7 SEER, offers economical zone control because only the room or area being used is conditioned and inverter technology matches the compressor speed to the room's changing temperature requirements.

A wireless remote makes it easy to select both temperature and mode, and a handy holder comes with the remote. With the "Follow" feature activated, the remote detects the temperature at its location and the unit adjusts operation to reach the set point wherever the remote is located in the room.

The indoor air handler features a sleek design that extends just $7\frac{3}{8}$ " to $8\frac{5}{16}$ " into the room, depending on the model. And the air handler has a self-cleaning evaporator coil with gold fin anti-corrosive coating which prevents bacteria from breeding and spreading.

Not only is the air handler visually unobtrusive, it's also so quiet you'll forget it's even there. Fan speed and mode can be selected so the air flow provides the comfort needed without being disruptive. All models feature three fan speeds.

Built with quality components, the system includes a three minute delay at start-up to protect the compressor from short cycling and, for heat pump models, to prevent cold air blow.

Ambient operating temperature:
cooling 5° to 122° F, heating 5° to 86° F.

FEATURES

- **Super Efficient**—Rated as high as 17.7 SEER and 11.5 EER
- **Whisper Quiet**—High tech fan in the indoor unit delivers balanced air flow
- **Temperature Compensation**—Indoor unit adjusts automatically as needed to eliminate stratification between ceiling and floor temps
- **Auto Swing**—Continually adjusts air flow direction for a gentle, breeze-like effect
- **Multiple Modes**—Cooling, dehumidification only, air circulation (heating in heat pump models) plus:
 - Sleep mode • 24-hour timer • Turbo mode
- **Auto Operation**—Automatically adjusts to maintain a constant temperature humidity level
- **Superior Filtration**—Nano silver air filter releases silver ions that eliminate bacteria in the air while gold fin evaporator coating prevents the breeding and spreading of bacteria
- **Leak Detection**—Signals if unit begins losing refrigerant charge
- **Auto Restart**—Reverts to the last setting following a power failure
- **Auto Defrost**—On heat pump models; also sump and crankcase heater to keep oil warm and reduce the need for defrosting

Comfort-Care®

SINGLE ZONE HEAT PUMPS

*Twelve models to choose from
9,000 to 24,000 BTUH*



Indoor Unit



Outdoor Unit



*Includes a fully featured
wireless remote*



*optional
wired thermostat
(requires accessory
display)*

Warranty—6 years on compressor, 5 years on parts
(Some limitations apply; see printed warranty for details.)

Single zone heat pump models with inverter technology

DV SERIES

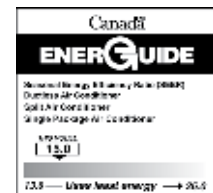
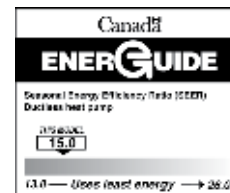
FEATURES	Heat Pump Models				
	DVH09SF-0	DVH12SF-0	DVH12SF-1	DVH18SF-1	DVH24SF-1
Power Supply	115-1-60	115-1-60	208/230	208/230-1-60	208/230-1-60
Cooling Capacity (BTUH)	9,000	12,000	12,000	18,000	24,000
SEER/ EER	17.0/11.5	17.2/10.5	17.5/11	17.7/11.0	16.0/9.0
HSPF	9.0	9.0	9.0	9.8	9.0
Cooling Amps	7	10.4	4.8	7.2	11.2
Dehumidification (Pts/Hr.)	2.1	2.5		3.8	5.5
Heating Capacity (BTUH)	9,500	12,000	11,800	18,000	24,000
Heating Amps	8.4	10	4.5	8.5	10.7
INDOOR UNIT					
Air flow (CFM)	247/177/129	294/212/141	294/206/141	388/265/224	589/459/335
Fan Speeds (Cool/Heat/Fan)	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3
Sound Level (dBa) H-M-L	36.5/-/22	38/-/24	38/30/23	44/-/26.5	45.5/-/33
AIR DIRECTION					
Vertical Adjustment	Remote	Remote	Remote	Remote	Remote
Horizontal (left/right)	Manual	Manual	Manual	Manual	Manual
Auto Swing Up and Down	Standard	Standard	Standard	Standard	Standard
INDICATOR LAMPS					
ON/OFF	Standard	Standard	Standard	Standard	Standard
24 Hr. Timer/Sleep Mode	Standard	Standard	Standard	Standard	Standard
Defrost	Standard	Standard	Standard	Standard	Standard
Temperature Setting	Remote Temperature Set Range: 62°F to 86°F				
INDOOR UNIT DIMENSIONS					
Width (inches)	28 ⁷ / ₁₆	31 ⁹ / ₁₆	31 ⁹ / ₁₆	38	42 ⁹ / ₁₆
Height (inches)	11 ⁷ / ₁₆	11 ¹¹ / ₁₆	11 ¹¹ / ₁₆	12 ⁹ / ₁₆	13 ⁹ / ₁₆
Depth (inches)	7 ³ / ₈	7 ⁷ / ₁₆	7 ⁷ / ₁₆	8 ¹ / ₂	8 ¹⁵ / ₁₆
Net Wt/Shipping Wt (lbs.)	16.5/20.9	18.7/22.5	18.3/23.8	26.0/34.2	29.1/37.0
OUTDOOR UNIT DIMENSIONS					
Width (inches)	30 ⁵ / ₁₆	30 ⁵ / ₁₆	30 ⁵ / ₁₆	31 ¹ / ₂	36
Height (inches)	21 ⁷ / ₈	21 ⁷ / ₈	21 ⁷ / ₈	21 ¹³ / ₁₆	23 ¹⁵ / ₁₆
Depth (inches)	11 ¹³ / ₁₆	11 ¹³ / ₁₆	11 ¹³ / ₁₆	13 ³ / ₈	14 ⁹ / ₁₆
Net Wt/Shipping Wt (lbs.)	63.9/69.4	65.0/70.5	70.1/75.4	80.5/87.1	136.7/147.3
ELECTRICAL DATA OUTDOOR UNIT*					
Main Power Connection	Outdoor Unit	Outdoor Unit	Outdoor Unit	Outdoor Unit	Outdoor Unit
Min. Circuit Ampacity	15	15	15	15	18
Max. Fuse/HACR Circuit Breaker	20	20	20	20	25
Recommended Indoor/Outdoor Connecting Cable*	14 AWG / 4 conductor 600V THHN unshielded bare copper				
LINE SETS O.D. (inch)					
Liquid Connection (flare) (inch)	1/4	1/4	1/4	1/4	3/8
Suction Connection (flare) (inch)	3/8	1/2	1/2	1/2	5/8
Maximum Line Set Length ¹	82 feet	82 feet	82 feet	98 feet	98 feet
Maximum Elevation (outdoor) ²	33 feet	33 feet	33 feet	66 feet	66 feet
ACCESSORIES					
Wired Thermostat/ Ready Display	7603-950	7603-950	7603-950	7603-950	7603-951

* Always follow local, state and national electrical codes.

¹ Min. 10 ft. line set recommended.

² Oil traps should be installed every 16.5 to 23 feet (5-7m) when the outdoor unit is installed above the indoor unit.

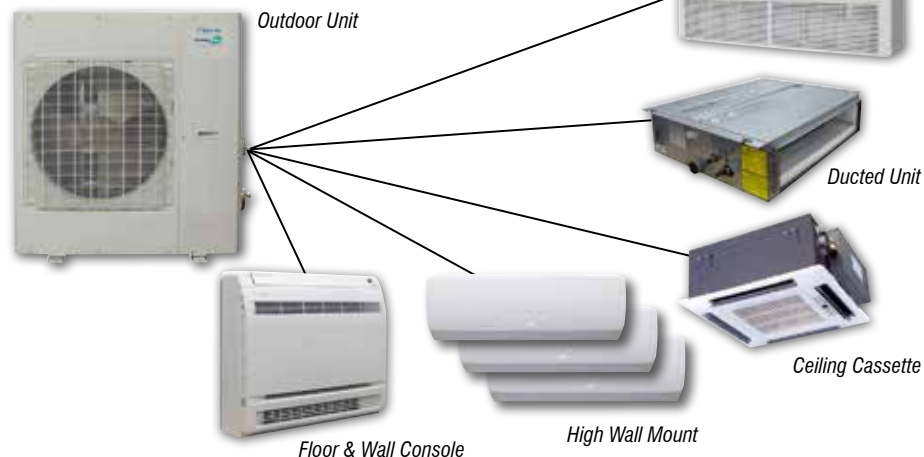
Design, specifications and performance data subject to change without notice.



Due to ongoing product improvements, specifications and dimensions are subject to change and correction without notice or incurring obligations. Determining the application and suitability for use of any product is the responsibility of the installer. Additionally, the installer is responsible for verifying dimensional data on the actual product prior to beginning any installation preparations. Third party incentive and rebate programs have precise requirements as to product performance and certification. All products meet applicable regulations in effect on date of manufacture; however, certifications are not necessarily granted for the life of a product. Therefore, it is the responsibility of the applicant to determine whether a specific model qualifies for these incentive/rebate programs.

"This product complies with all California product labeling laws including, but not limited to, the Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65."

InverterFlex® Series



MULTI-ZONE HEAT PUMPS

18,000 to 42,000 BTUH

Our InverterFlex® multi-zone units let you condition one up to five rooms with just one outdoor unit (depending on model). The contractor can design a system that best meets the load requirements of each room being conditioned because indoor air handlers can be mixed and matched—all five types of units shown can be used in the same installation.

These 9,000, 12,000, 18,000, 21,000 and 24,000 BTUH indoor units can be mixed, up to the point that their combined capacity reaches the total allowable system capacity—see the chart inside. All units must operate in the same mode except “fan” only can always be selected. True zone control is possible because each air handler operates independently and has its own wireless remote.

InverterFlex® models incorporate all the advantages of twin rotary inverter compressor technology. The compressor speed is variable, depending on the load demand. Most of the time the unit runs at low frequency, saving energy while maintaining comfort, but ramping up to higher frequency when needed. Temperature fluctuations and compressor on/off cycling are eliminated, and indoor air quality is enhanced because air is constantly being pulled through the filter and dehumidified.

InverterFlex® systems are also great for larger spaces such as fellowship halls and commons areas: install multiple units for quiet, efficient, easily controlled comfort.

FEATURES

(Varies according to type of indoor unit)

- **Auto Swing**—Continually adjusts air direction for a gentle, breeze like effect preferred by most people
- **Multiple Modes**—Cooling, heating, fan only, dehumidification only, plus:
 - Sleep mode
 - 24-hour timer
 - Turbo mode
 - Auto mode
- **Intelligent Pre-Heating**—Enhances comfort by preventing cold air blow
- **Auto Operation**—Automatically selects the mode required to maintain a constant temperature/humidity level
- **“Follow” Function**—Senses temperature at the remote and adjusts air flow for comfort and efficiency at its location
- **Superior Filtration**—Air filters are designed to help enhance indoor air quality
- **Auto Defrost**—Defrosts only when necessary to save energy, limit downtime
- **Self-Clean Mode**—Dries out indoor unit when not in use to prevent mold growth
- **Low Ambient Operation**

Comfort-Aire®

Warranty—7 years on compressor, 5 years on parts
(Some limitations apply; see printed warranty for details.)



Mix and match indoor units up to the maximum BTUHs allowed for each system—see chart for possible combinations.

Order outdoor and indoor units separately:

“A” indicates outdoor unit and “B” indicates indoor units.

For instance, a 36,000 BTUH tri-zone might consist of one A-VFH36QB-1, one B-VFH09FA-1, one B-VFH18CA-1 and one B-VFH09MB-1A.

Advantages of Inverter Technology

The inverter on a mini-split is like the cruise control on a vehicle. The inverter-driven compressor automatically adjusts its speed to quickly reach and then maintain the set point. When maximum capacity is not needed, the compressor speed decreases—and with it the power output also decreases, resulting in improved energy efficiency. Once the set point is reached, the system “cruises along,” keeping the temperature constant, but responding if the demand changes.

- Reaches the desired temperature quickly
- Provides precise temperature control and continuous dehumidification (cooling mode)
- Extends component life by eliminating on-off cycling
- Operates at ultra-quiet level
- Saves energy by matching the compressor speed to the demand; rated at 16 SEER and up to 10.2 EER
- Delivers extra heating capacity even at low ambient temperatures

OUTDOOR UNITS					
FEATURES	A-VFH18DB-1	A-VFH24TB-1	A-VFH30QB-1	A-VFH36QB-1	A-VFH42PB-1
Power Supply	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
System Cooling Cap. (BTUH)	18,000	24,000	29,000	34,000	39,000
Min./Max. Cooling Cap. (BTUH)‡	7,000/21,000	7,500/33,000	8190/33,400	8,900/35,800	8,900/40,950
SEER/EER	22.00/12.50	21.00/12.50	21.00/12.50	21.00/12.48	21.00/10.43
HSPF	10.5	10.5	10.5	10.5	10.2
High Heating (BTUH) @ 47°F	19,000	29,500	32,000	41,000	45,000
Low Heating (BTUH) @ 17°F	15,600	19,860	22,500	28,700	30,000
Min./Max. Heating Cap. (BTUH)‡	8,530/22,600	7,500/35,000	8,200/32,400	8,871/44,356	8,871/46,062
Sound Pressure (dBA)	56	59	59	61	61
OUTDOOR UNIT DIMENSIONS					
Width (inches)	37 5/8	38 1/2	38 1/2	42 7/8	42 7/8
Height (inches)	27 1/2	31 1/8	31 1/8	43 3/8	43 3/8
Depth (inches)	15 5/8	16 7/8	16 7/8	17 3/8	17 3/8
Net Wt/Shipping Wt (lbs.)	115/125	153/164	145/154	198/216	198/216
ELECTRICAL DATA OUTDOOR UNIT*					
Main Power Connection	Outdoor Unit	Outdoor Unit	Outdoor Unit	Outdoor Unit	Outdoor Unit
Min. Circuit Ampacity	15A	20A	26A	28A	29A
Max. Fuse/HACR Circuit Breaker	25A	30A	30A	35A	40A
LINE SET LENGTHS**					
Maximum Line Set Length ¹	33 feet	33 feet	33 feet	82 feet	82 feet
Max. Total Length All Zones	98 feet	172 feet	230 feet	210 feet	262 feet
Maximum Elevation (outdoor) ²	25 feet	25 feet	25 feet	49 feet	49 feet

‡Actual performance will vary based on the application, including the size(s) and mix of indoor units installed.



Ambient Operating Temperature Range:
23° - 118.5° F (cooling);
5° - 80.5° F (heating)

*Always follow local, state and national electrical codes. Main power connection is 208-230V.

**See the IOM regarding various adapters and fittings which may be included with outdoor and/or indoor models for making connections.

Recommended Indoor/Outdoor Connecting Cable (SJOW)— 14 AWG / 4 conductor 600V THHN unshielded stranded bare copper, not to exceed 98 feet between indoor and outdoor units.

¹ For single indoor unit installation; min. 10 ft. line set length recommended.

² Oil traps should be installed every 16.5 to 23 feet (5-7m) when the outdoor unit is installed above the indoor unit.

NOTE: Maximum line set length varies based on number of indoor units installed. See IOM for details.



FLOOR/CEILING MOUNT INDOOR UNITS

FEATURES	B-VFH09UA-1	B-VFH12UA-1	B-VFH18UA-1	B-VFH24UA-1
Cooling Capacity BTUH	8,500	11,900	17,000	22,800
Heating Capacity BTUH	9,500	13,100	18,700	27,400
Air Flow Range (CFM)	383/324/265	383/324/265	559/412/294	736/530/412
Fan Speeds	5	5	5	5
Dehumidification (Pts/Hr)	1.69	2.96	3.80	5.28
Sound Level Range (dBA)	36 to 50	36 to 50	40 to 55	44 to 58
Temperature Setting	On Remote: 61°F - 86°F			
DIMENSIONS				
Width (inches)	48	48	48	48
Height (inches)	27 ⁵ / ₁₆	27 ⁵ / ₁₆	27 ⁵ / ₁₆	27 ⁵ / ₁₆
Depth (inches)	8 ⁷ / ₈	8 ⁷ / ₈	8 ⁷ / ₈	8 ⁷ / ₈
Net Wt/Shipping Wt (lbs)	88.2/110.2	88.2/110.2	88.2/110.2	99.2/119.1
Liquid-Suction (flare)**	1/4" - 3/8"	1/4" - 3/8"	1/4" - 1/2"	3/8" - 5/8"

Features

- 'Follow' feature on remote
- Multiple modes: auto, turbo, sleep, fan only, dehumidify only, 24 Hour timer
- Intelligent pre-heat
- Self-diagnosis



Low profile cabinet

Low ambient:
23° - 118° F cooling, 5° to 70° F heating

Features

- Auto operation
- Multiple modes: turbo, sleep, fan only, dehumidification only, 24 Hour timer
- 'Follow' feature on remote
- Energy saver function
- Intelligent pre-heat
- Self diagnosis



Low profile cabinet is less than 9" deep



Low ambient:
41° - 118° F cooling, 5° to 80.6° F heating

FLOOR MOUNT INDOOR UNITS

FEATURES	B-VFH09FA-1	B-VFH12FA-1	B-VFH18FA-1
Cooling Capacity BTUH	9,000	12,000	18,000
Heating Capacity BTUH	9,500	13,000	19,800
Air Flow Range (CFM)	383 - 188	441 - 206	494 - 241
Fan Speeds	75	5	5
Dehumidification (Pts/Hr)	1.69	2.96	3.80
Sound Level Range (dBA)	25 to 40	27 to 43	33 to 48
Temperature Setting	On Remote or Wired Wall Thermostat: 61°F to 86°F		
AIR DIRECTION			
Vertical Modulating	Yes	Yes	Yes
DIMENSIONS			
Width (inches)	27 ⁹ / ₁₆	27 ⁹ / ₁₆	27 ⁹ / ₁₆
Height (inches)	23 ⁵ / ₈	23 ⁵ / ₈	23 ⁵ / ₈
Depth (inches)	8 ⁷ / ₁₆	8 ⁷ / ₁₆	8 ⁷ / ₁₆
Net Wt/Shipping Wt (lbs)	24.25/30.9	24.25/30.9	24.25/30.9
Liquid-Suction (flare)**	1/4" - 3/8"	1/4" - 3/8"	1/4" - 1/2"

DUCTED INDOOR UNITS

FEATURES	B-VFH09DA-1	B-VFH12DA-1	B-VFH18DA-1	B-VFH21DA-1	B-VFH24DA-1
Cooling Capacity BTUH	8,500	11,900	15,300	20,400	22,800
Heating Capacity BTUH	9,500	13,100	18,700	22,600	27,400
Air Flow Range (CFM)	265/177/147	324/235/177	412/351/294	588/441/324	588/441/324
Fan Speeds	3	3	3	3	3
Dehumidification (Pts/Hr)	1.69	2.96	3.80	4.23	5.28
Sound Level Range (dBA)	31 to 37	32 to 39	33 to 41	34 to 52	34 to 52
Temperature Setting	On Remote: 61°F - 86°F				
DIMENSIONS					
Width (inches)	27 ⁹ / ₁₆	27 ⁹ / ₁₆	35 ⁷ / ₁₆	43 ⁵ / ₁₆	43 ⁵ / ₁₆
Height (inches)	7 ⁷ / ₈	7 ⁷ / ₈	7 ⁷ / ₈	7 ⁷ / ₈	7 ⁷ / ₈
Depth (inches)	24 ³ / ₁₆	24 ³ / ₁₆	24 ³ / ₁₆	24 ³ / ₁₆	24 ³ / ₁₆
Net Wt/Shipping Wt (lbs)	48.5/59.5	50.7/63.9	59.5/79.4	68.3/90.4	68.3/90.4
Liquid-Suction (flare)**	1/4" - 3/8"	1/4" - 3/8"	1/4" - 1/2"	3/8" - 5/8"	3/8" - 5/8"

Features

- 'Follow' feature on remote for comfort
- Multiple modes: auto, turbo, sleep, fan only
- 24 Hour timer
- Intelligent pre-heat
- Wireless remote and wired thermostat
- Self diagnostics
- Includes water pump



Wired thermostat



Low ambient:
67° - 115° F cooling, 5° to 75° F heating

HIGH WALL MOUNT INDOOR UNITS

FEATURES	B-VFH09MB-1	B-VFH12MB-1	B-VFH18MB-1	B-VFH24MB-1
Cooling Capacity BTUH	9,000	12,000	18,000	20,800
Heating Capacity BTUH	9,800	13,000	19,000	21,500
Air Flow Range (CFM)	224 - 430	224 - 453	282 - 588	459-736
Fan Speeds	5	75	5	7
Dehumidification (Pts/Hr)	1.69	2.96	3.80	5.28
Sound Level Range (dBA)	21 to 42	22 to 43	33 to 51	37-50
Temperature Setting	On Remote: 61°F to 86°F			
AIR DIRECTION				
Horiz./Vert. Modulating	Yes	Yes	Yes	Yes
Four-Way Modulating	Yes	Yes	Yes	Yes
DIMENSIONS				
Width (inches)	34 ¹ / ₁₆	34 ¹ / ₁₆	40 ¹ / ₁₆	46 ³ / ₈
Height (inches)	11 ¹ / ₂	11 ¹ / ₂	12 ⁹ / ₁₆	12 ⁷ / ₈
Depth (inches)	8 ¹ / ₄	8 ¹ / ₄	9	10 ³ / ₈
Net Wt/Shipping Wt (lbs)	24.25/30.9	24.25/30.9	30.9/41.9	39.7/48.5
Liquid-Suction (flare)**	1/4" - 1/2"	1/4" - 1/2"	1/4" - 1/2"	3/8" - 5/8"

Features

- 'Follow' feature on remote for comfort
- Multiple modes: auto, turbo, sleep, fan only
- 24 Hour timer
- Intelligent pre-heat
- Automatic louver swing
- Wireless remote
- Silver ion filtration
- Self diagnostics



Low ambient:
23° - 118° F cooling, 5° to 70° F heating



Features

- Auto operation, 24-hour timer
- Multiple modes: turbo, sleep, fan only, dehumidification only
- Intelligent pre-heat
- Washable air filter
- Automatic louver swing
- Self diagnostics
- Wireless remote and wired wall thermostat
- 'Follow' feature on remote for comfort
- Fits 24" x 24" ceiling tile opening



Wired thermostat

Low ambient:

23° - 118° F cooling, 5° to 70° F heating

CEILING CASSETTES

FEATURES	B-VFH12CA-1	B-VFH18CA-1	B-VFH24CA-1
Cooling Capacity BTUH	12,000	14,400	22,800
Heating Capacity BTUH	13,000	16,000	27,400
Air Flow Range (CFM)	265-294-353	265-294-353	500-559-694
Fan Speeds	3	3	3
Dehumidification (Pts/Hr)	2.96	3.80	5.28
Sound Level Range (dBA)	42/44/46	42/44/46	35/37/39
Temperature Setting	On Remote or Wired Wall Thermostat: 61°F to 86°F		
AIR DIRECTION			
Horiz./Vert. Modulating	No	No	No
Four-Way Modulating	Yes	Yes	Yes
DIMENSIONS			
Width (inches)	22 ⁷ / ₁₆	22 ⁷ / ₁₆	33 ¹ / ₁₆
Length (inches)	22 ⁷ / ₁₆	22 ⁷ / ₁₆	33 ¹ / ₁₆
Height (inches)	9 ¹ / ₁₆	9 ¹ / ₁₆	9 ⁷ / ₁₆
Net Wt/Shipping Wt (lbs)	39.6/ 50.7	39.6/ 50.7	61.7/ 77.2
Decorative Cover Panel Panel Dimensions (inches)	Panel Part#: C-VFH1218CA 25 ⁵ / ₈ x 25 ⁵ / ₈ x 2		Panel Part#: C-VFH24CA 33 ¹ / ₁₆ x 33 ¹ / ₁₆ x 2 ³ / ₈
Liquid-Suction (flare)**	1/4" - 3/8"	1/4" - 1/2"	3/8" - 5/8"



You can see how one outdoor condenser is used in conjunction with multiple indoor air handlers in a single structure. Air handlers can be installed up to 82' (depending on model) from the condenser, so you can place the condenser in the best location for your landscaping. A hole approximately 3" in diameter is drilled through the exterior wall to accommodate the lines carrying refrigerant. Also, a communication wire runs between each indoor unit and the condenser, and a drain line from each indoor unit carries condensate away. Power is supplied by the outdoor unit so there are no cords or plugs visible on the interior.

Indoor Unit Mix 'n' Match Possibilities

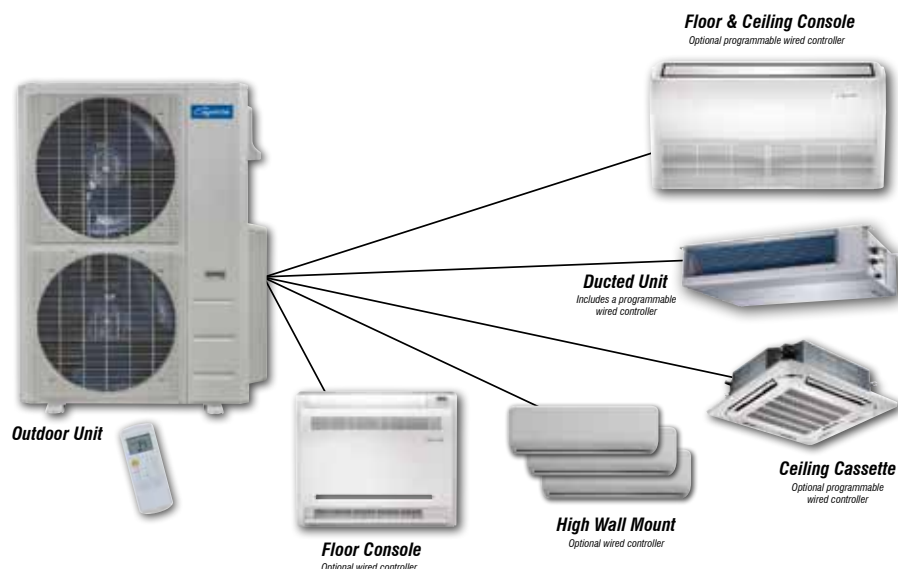
The total capacity for ALL indoor units cannot exceed 150% of the stated condenser capacity. For best performance, the indoor units' total capacity should be 100% or less of the condenser capacity. When a system is sized beyond 100% of the condenser capacity, the compressor may not provide full capacity for all indoor units: sizing above 100% is generally specified when one or more of the indoor units will not be in use most of the time. Also, the total capacity for ALL indoor units cannot be less than 50% of the condenser's capacity.

Zones	Indoor Units*	Total BTUH	Zones	Indoor Units*	Total BTUH	Zones	Indoor Units*	Total BTUH
A-VFH18DB 1-2 Units	9K	9,000	A-VFH42PB 1, 2, 3, 4 or 5 Units	9K + 9K	18,000	A-VFH42PB 1, 2, 3, 4 or 5 Units	9K + 9K + 21K	39,000
	12K	12,000		9K + 12K	21,000		9K + 9K + 24K	42,000
	18K	18,000		9K + 18K	27,000		9K + 12K + 12K	33,000
	21K	21,000		12K + 12K	24,000		9K + 12K + 18K	39,000
	9K + 9K	18,000		12K + 18K	30,000		9K + 12K + 24K	45,000
	9K + 12K	21,000		12K + 24K	36,000		9K + 18K + 18K	45,000
A-VFH24TB 1, 2 or 3 Units	12K	12,000		18K + 18K	36,000		9K + 18K + 24K	51,000
	18K	18,000		18K + 24K	42,000		9K + 24K + 24K	57,000
	21K	21,000		24K + 24K	48,000		12K + 12K + 12K	36,000
	24K	24,000		9K + 9K + 9K	27,000		12K + 12K + 18K	42,000
	9K + 9K	18,000		9K + 9K + 12K	30,000		12K + 12K + 24K	48,000
	9K + 12K	21,000		9K + 9K + 18K	36,000		12K + 18K + 18K	48,000
	9K + 18K	27,000		9K + 9K + 24K	42,000		12K + 18K + 21K	51,000
	9K + 21K	30,000		9K + 12K + 12K	33,000		12K + 18K + 24K	54,000
	12K + 12K	24,000		9K + 12K + 18K	39,000		12K + 24K + 24K	60,000
	12K + 18K	30,000		9K + 12K + 24K	45,000		18K + 18K + 18K	54,000
	12K + 21K	33,000		9K + 18K + 18K	45,000		18K + 18K + 24K	60,000
	18K + 18K	36,000		9K + 18K + 24K	51,000		9K + 9K + 9K + 9K	36,000
	9K + 9K + 9K	27,000		12K + 12K + 12K	36,000		9K + 9K + 9K + 12K	39,000
	9K + 9K + 12K	30,000		12K + 12K + 18K	42,000		9K + 9K + 9K + 18K	45,000
	9K + 12K + 12K	33,000		12K + 12K + 24K	48,000		9K + 9K + 9K + 21K	48,000
A-VFH30QB 1, 2, 3 or 4 Units	9K + 9K + 18K	36,000		12K + 18K + 18K	48,000		9K + 9K + 9K + 24K	51,000
	18K	18,000		18K + 18K + 18K	54,000		9K + 9K + 12K + 12K	42,000
	21K	21,000		9K + 9K + 9K + 9K	36,000		9K + 9K + 12K + 18K	48,000
	24K	24,000		9K + 9K + 9K + 12K	39,000		9K + 9K + 12K + 24K	54,000
	9K + 9K	18,000		9K + 9K + 9K + 18K	45,000		9K + 9K + 18K + 18K	54,000
	9K + 12K	21,000		9K + 9K + 9K + 24K	51,000		9K + 9K + 18K + 24K	60,000
	9K + 18K	27,000		9K + 9K + 12K + 12K	42,000		9K + 12K + 12K + 12K	45,000
	9K + 21K	30,000		9K + 9K + 12K + 18K	48,000		9K + 12K + 12K + 18K	51,000
	12K + 12K	24,000		9K + 12K + 12K + 12K	45,000		9K + 12K + 12K + 24K	57,000
	12K + 18K	30,000		9K + 12K + 12K + 18K	51,000		9K + 12K + 18K + 18K	57,000
	18K + 18K	36,000		12K + 12K + 12K + 12K	48,000		9K + 18K + 18K + 18K	63,000
	18K + 21K	39,000	A-VFH42PB 1, 2, 3, 4 or 5 Units	21K	21,000		12K + 12K + 12K + 12K	48,000
	9K + 9K + 9K	27,000		24K	24,000		12K + 12K + 12K + 18K	54,000
	9K + 9K + 12K	30,000		9K + 12K	21,000		12K + 12K + 12K + 24K	60,000
	9K + 12K + 12K	33,000		9K + 18K	27,000		12K + 12K + 18K + 18K	60,000
	9K + 9K + 18K	36,000		9K + 21K	30,000		9K + 9K + 9K + 9K + 9K	45,000
	9K + 9K + 21K	39,000		9K + 24K	33,000		9K + 9K + 9K + 9K + 12K	48,000
	9K + 12K + 18K	39,000		12K + 12K	24,000		9K + 9K + 9K + 9K + 18K	54,000
	12K + 12K + 12K	36,000		12K + 18K	30,000		9K + 9K + 9K + 9K + 24K	60,000
	12K + 12K + 18K	42,000		12K + 21K	33,000		9K + 9K + 9K + 12K + 12K	51,000
	9K + 9K + 9K + 9K	36,000		12K + 24K	36,000		9K + 9K + 9K + 12K + 18K	57,000
	9K + 9K + 9K + 12K	39,000		18K + 18K	36,000		9K + 9K + 9K + 18K + 18K	63,000
	9K + 9K + 12K + 12K	42,000		18K + 24K	42,000		9K + 9K + 12K + 12K + 12K	54,000
A-VFH36QB 1, 2, 3 or 4 Units	18K	18,000		24K + 24K	48,000		9K + 9K + 12K + 12K + 18K	60,000
	21K	21,000		9K + 9K + 9K	27,000		9K + 12K + 12K + 12K + 12K	57,000
	24K	24,000		9K + 9K + 12K	30,000		12K + 12K + 12K + 12K + 12K	60,000
	9K + 24K	33,000		9K + 9K + 18K	36,000			

VMH UltraV Series

SINGLE/MULTI ZONE MINI-SPLITS

9,000 to 24,000 BTUH



Our new UltraV Series will heat or cool when outdoor temperatures reach -22° F. Multi-zone units run at 100% capacity at 5° F. Single zones maintain 100% capacity at 0° F!

This makes these units well suited to installations requiring year 'round conditioning, both residential and light commercial. Operating range:

Cooling -22° to 122° F
Heating -22° to 86° F (48K: -13° to 86° F)

Advanced inverter technology means the room will reach the preset temperature quickly and that the temperature will be constant without the fluctuations that occur in other systems due to on-off cycling. Energy usage is kept to a minimum as units run at low frequency most of the time. However, when required the unit ramps up automatically to reach and maintain the comfort level.

Comfort-Cire®

FEATURES

Multiple Modes

- Cooling, dehumidification only, and heating
 - Sleep mode
 - Turbo mode
 - 24-hour timer
 - Auto mode

Auto Swing

- Continually adjusts air flow direction for a gentle, breeze-like effect

Remote Control

- Makes it easy to program and operate the unit

Enhanced Filtration

- Gold fin filter delivers improved indoor air quality

Defrost Control

- Longer defrost cycle effectively removes any frost accumulation on the coil as needed

"Follow" Feature

- Remote senses temperature where occupant is, automatically adjusts to maintain setpoint

Rotary Compressor

- Designed for wide operating range and minimal vibration

Warranty—7 years on compressor, 5 years on parts
(Some limitations apply; see printed warranty for details.)

SINGLE ZONE



Note: See page 5 for Indoor Unit specifications

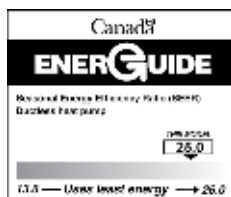
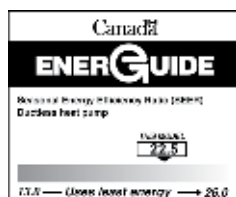
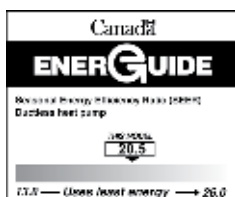
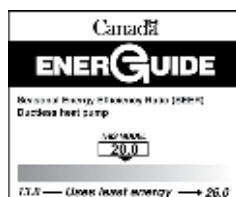
For one to one matches with all indoor "B" units.

FEATURES	A-VMH09SU-1*	A-VMH12SU-1*	A-VMH18SU-1A*	A-VMH24SU-1*
Power Supply	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
Cooling Capacity (BTUH)	9,000	12,000	17,000	24,000
SEER	25.00	22.50	20.00	20.00
EER	14.50	12.50	12.50	12.50
HSPF	11.20	12.00	10.30	10.30
Cooling Amps	2.7	4.2	5.95	8.4
Dehumidification (Pts/Hr.)	2.32	2.75	3.59	5.49
Hi Heating Cap. (BTUH) @ 47°F	10,900	11,800	18,000	24,000
Lo Heating Cap. (BTUH) @ 0°F	11,021	12,201	18,008	24,085
Heating Amps	3.63	4.24	7.4	10.9
OUTDOOR UNIT DIMENSIONS				
Width (inches)	31-1/2	31-1/2	33-1/4	37-1/4
Height (inches)	21-13/16	21-13/16	27-5/8	31-7/8
Depth (inches)	13-1/8	13-1/8	14-5/16	16-9/16
Net Wt/Shipping Wt (lbs.)	88.2/93.7	88.2/93.7	107.4/115.1	135.6/148.8
ELECTRICAL DATA OUTDOOR UNIT ‡				
Main Power Connection	Outdoor Unit 208/230-1-60			
Min. Circuit Ampacity	9A	9A	18A	20A
Max. Fuse/HACR Circuit Breaker	15A	15A	25A	30A
Indoor/Outdoor Connecting Cable Type	14AWG / 4 conductor 600V THHN unshielded stranded bare copper			
LINE SETS O.D. (inch)				
Liquid Connection (flare) (in.)	1/4	1/4	1/4	3/8
Suction Connection (flare) (in.)	3/8	1/2	1/2	5/8
Max. Line Set Length¹	82 feet	82 feet	98 feet	164 feet
Max. Elevation (outdoor)²	33 feet	33 feet	66 feet	82 feet

‡ Always follow local, state and national electrical codes

¹ Min. 10 ft. line set recommended

² Oil traps should be installed every 16.5 to 23 feet (5-7m) when the outdoor unit is installed above the indoor unit



UltraV Series

Mix and match indoor units up to the maximum BTUHs allowed for each system—see chart for possible combinations.

Order outdoor and indoor units separately:

“A” indicates outdoor unit and
“B” indicates indoor units.

Advantages of Inverter Technology

The inverter on a mini-split is like the cruise control on a vehicle. The inverter-driven compressor automatically adjusts its speed to quickly reach and then maintain the set point. When maximum capacity is not needed, the compressor speed decreases—and with it the power output also decreases, resulting in improved energy efficiency. Once the set point is reached, the system “cruises along,” keeping the temperature constant, but responding if the demand changes.

- Reaches the desired temperature quickly
- Provides precise temperature control and continuous dehumidification (cooling mode)
- Extends component life by eliminating on-off cycling
- Operates at ultra-quiet level
- Saves energy by matching the compressor speed to the demand; rated up to 25 SEER and 14.5 EER
- Delivers extra heating capacity even at low ambient temperatures

OUTDOOR UNITS				
FEATURES	A-VMH18DU-1	A-VMH28TU-1	A-VMH36QU-1	A-VMH48PU-1
Cooling Capacity	19000	28000	36000	48000
SEER	21.5	22	21.5	18.5
EER	12.5	13	13.5	11.0
HSPF 4	9.8	10.4	10.5	10.0
Heating at 5 F°-15°C° Maximum capacity	20000	28000	35800	37800
Air flow (CFM)	2130	2130	4500	4500
Fan Speeds (Hi/Med/Lo)	150/200/250/300/400/ 500/600/750/900/1000	150/200/250/300/400/ 500/600/750/900/1000	150/200/250/300/400/ 500/600/700/800/870	150/200/250/300/ 400/500/600/700/ 800/870
Sound Level (dBA) H-M-L	63.4	62.3	64	64
OUTDOOR UNIT DIMENSIONS				
Width (inches)	37.24	37.24	37.48	37.48
Height (inches)	31.89	31.89	52.48	52.48
Depth (inches)	16.14	16.14	16.34	16.34
Net Wt/Shipping Wt (lbs.)	150/161	157/168	224/255	224/255
ELECTRICAL DATA OUTDOOR UNIT*				
Main Power Connection	Outdoor Unit 208/230-1-60			
Min. Circuit Ampacity	25	30	35	35
Max Fuse/HACR. Circuit Breaker	35	45	50	50
Indoor/Outdoor Connecting Cable Type	14 awg/ 4 conductor 600V THNN unshielded stranded bare copper			
MAX. HEIGHT DIFFERENCE BETWEEN INDOOR UNITS				
Liquid Connection (flare) (in.)	2 x 1/4"	3 x 1/4"	4 x 1/4"	5 x 1/4"
Suction Connection (flare) (in.)	2 x 3/8"	3 x 3/8"	3 x 3/8" 1 x 1/2"	3 x 3/8" 2 x 1/2"
Max. length for all rooms	131	197	262	262
Max. length for one indoor unit	82	98	115	115
Max. height difference between indoor units	33	33	33	33

**Actual performance will vary based on the application, including the size(s) and mix of indoor units installed.*



Ambient Operating Temperature Range:
-22° - 122° F (cooling)
-22° - 86° F (heating)
(48K: -13° to 86° F)

* Always follow local, state and national electrical codes. Main power connection is 208-230V.

**See the IOM regarding various adapters and fittings which may be included with outdoor and/or indoor models for making connections.

Required Indoor/Outdoor Connecting Cable (SJOW)— 14 AWG / 4 conductor 600V THHN unshielded stranded bare copper, not to exceed 115 feet between indoor and outdoor units.

¹ For single indoor unit installation; min. 10 ft. line set length required.

² Oil traps should be installed every 16.5 to 23 feet (5-7m) when the outdoor unit is installed above the indoor unit.

NOTE: Maximum line set length varies based on number of indoor units installed. See IOM for details.



MULTI ZONE

FLOOR/CEILING MOUNT INDOOR UNITS		
FEATURES	B-VMH18UU-1	B-VMH24UU-1
Cooling Capacity BTUH	18,000	24,000
Heating Capacity BTUH	18,000	24,000
Air Flow Range (CFM)	666/595/525	880/770/650
Fan Speeds	3	3
Dehumidification (Pts/Hr)	6.16	7.04
Sound Level Range (dBA)	47/44/39	58.5/55/52
Modulating	YES	YES
Temperature Setting On Remote or Wired Controller:	62~86	62~86
DIMENSIONS		
Width (inches)	42.05	42.05
Height (inches)	26.57	26.57
Depth (inches)	9.25	9.25
Net Wt/Shipping Wt (lbs)	55.12/65.48	55.12/66.14
Liquid-Suction (flare)	1/4" x 1/2"	3/8" x 5/8"

Features

- 'Follow' feature on remote
- Multiple modes: auto, turbo, sleep, fan only, dehumidify only, 24 Hour timer
- Intelligent pre-heat
- Self diagnostics



Features

- Auto operation
- Multiple modes: turbo, sleep, fan only, dehumidification only, 24 Hour timer
- 'Follow' feature on remote
- Energy saver function
- Intelligent pre-heat
- Self diagnostics



FLOOR MOUNT INDOOR UNITS	
FEATURES	B-VMH12FU-1
Cooling Capacity BTUH	12,000
Heating Capacity BTUH	12,000
Air Flow Range (CFM)	365/318/248
Fan Speeds	3
Dehumidification (Pts/Hr)	3.08
Sound Level Range (dBA)	45/41/35
Temperature Setting On Remote or Wired Wall Controller:	62~86
AIR DIRECTION	
Modulating	YES
DIMENSIONS	
Width (inches)	27.56
Height (inches)	23.62
Depth (inches)	8.27
Net Wt/Shipping Wt (lbs)	32.41/42.77
Liquid-Suction (flare)	1/4" X 1/2"

DUCTED INDOOR UNITS				
FEATURES	B-VMH09DU-1	B-VMH12DU-1	B-VMH18DU-1	B-VMH24DU-1
Cooling Capacity BTUH	9,000	12,000	18,000	24,000
Heating Capacity BTUH	9,000	12,000	18,000	24,000
Air Flow Range (CFM)	353/283/177	353/283/177	530/450/371	776/694/435
Fan Speeds	3	3	3	3
Dehumidification (Pts/Hr)	2.82	3.08	6.16	7.04
Sound Level Range (dBA)	38/25/32	38/26/33.5	39/37/35	44/--/--
ESP in. WG	0-0.16	0-0.16	0-0.40	0-0.64
Temperature Setting On Remote or Wired Wall Controller:	62~86	62~86	62~86	62~86
DIMENSIONS				
Width (inches)	27.56	27.56	34.65	43
Height (inches)	7.87	7.87	8.27	10
Depth (inches)	17.72	17.72	28.53	30
Net Wt/Shipping Wt (lbs)	37.5/48.3	37.5/48.3	54/66	87/103
Liquid -Suction (flare)	1/4" x 3/8"	1/4" x 1/2"	1/4" x 1/2"	3/8" x 5/8"

Features

- Multiple modes: auto, turbo, sleep, fan only
- 24 Hour timer
- Intelligent pre-heat
- Wired programmable controller
- Self diagnostics



MULTI ZONE

HIGH WALL MOUNT INDOOR UNITS

FEATURES	B-VMH09SU-1 Smartphone	B-VMH12SU-1 Smartphone	B-VMH18SU-1A*	B-VMH24SU-1
	B-VMH09SU-1C Programmable wired controller	B-VMH12SU-1C Programmable wired controller		
Cooling Capacity BTUH	9,000	12,000	17,000	24,000
Heating Capacity BTUH	10,900	11,800	18,000	24,000
Air Flow Range (CFM)	418/324/247	418/324/247	599/411/353	794/647/500
Fan Speeds	3	3	3	3
Dehumidification (Pts/Hr)	2.32	2.75	3.59	5.49
Sound Level Range (dBA)	45/36/27	46/36/27	48/39/29	50/45/39
Temperature Setting	62° to 90° F Cooling; 62° to 86° F Heating (on remote)			
AIR DIRECTION				
Horiz./Vert. Modulating	Yes	Yes	Yes	Yes
DIMENSIONS				
Width (inches)	32.87	32.87	38.98	46.69
Height (inches)	11.02	11.02	12.40	13.39
Depth (inches)	7.80	7.80	8.58	10.16
Net Wt/Shipping Wt (lbs)	19.8/25.4	19.8/26.7	26.9/34.8	40.1/50.3
Liquid-Suction (flare)**	1/4" - 3/8"	1/4" - 1/2"	1/4" - 1/2"	3/8" - 5/8"

Features

- All high wall heads come with a remote
- Optional 7800-207 wired programmable controller for -1C models (must order separate)
- 'Follow' feature on remote for comfort (except 24K model)
- Multiple modes: auto, turbo, sleep, fan only (no turbo on 24K model)
- 24 Hour timer
- Intelligent pre-heat
- Automatic louver swing
- Self diagnostics
- Smartphone Compatible



B-VMH24CU-1

B-VMH09, 12, 18CU-1



Features

- Auto operation, 24-hour timer
- Multiple modes: turbo, sleep, fan only, dehumidification only
- Intelligent pre-heat
- Washable air filter
- Automatic louver swing
- Self diagnostics
- Wireless remote
- 'Follow' feature on remote for comfort
- 9, 12, 18 fit 24" x 24" ceiling tile opening
- Condensate removal pump
- Optional wired non-programmable controller 7800-206 (must order separate)



CEILING CASSETTES*

FEATURES	B-VMH09CU-1	B-VMH12CU-1	B-VMH18CU-1	B-VMH24CU-1
Cooling Capacity BTUH	9,000	12,000	18,000	24,000
Heating Capacity BTUH	9,000	12,000	18,000	24,000
Air Flow Range (CFM)	600/520/460	574/490/422	956/825/746	1400/1250/1000
Fan Speeds	3	3	3	3
Dehumidification (Pts/Hr)	2.82	3.08	6.16	7.04
Sound Level Range (dBA)	41/39/37	41/38/35	46/43/41	51/47/43
Temperature Setting On Remote or Wired Wall Thermostat:	62~86	62~86	62~86	62~86
AIR DIRECTION				
Modulating	YES	YES	YES	YES
DIMENSIONS				
Width (inches)	22.44	22.44	22.44	33.07
Height (inches)	10.24	10.24	10.24	8.07
Depth (inches)	22.44	22.44	22.44	33.07
Net Wt/Shipping Wt (lbs)	35.27/41.88	35.27/41.88	39.68/46.3	45.19/52.91
REFRIGERANT LINE CONNECTIONS	1/4" X 3/8" Flare	1/4" X 1/2" Flare	1/4" X 1/2" Flare	3/8" X 5/8" Flare
Decorative Cover Panel*	C-VMH91218CU-1	C-VMH91218CU-1	C-VMH91218CU-1	C-VMH24CU-1
Panel Dimensions (inches)	25.47x25.47x1.97	25.47x25.47x1.97	25.47x25.47x1.97	37.4x37.4x2.17
Net Wt/Shipping Wt (lbs)	5.51/9.92	5.51/9.92	5.51/9.92	11.02/17.64

*Ceiling cassettes require the use of a decorative cover panel.

WIRED PROGRAMMABLE CONTROLLER

7800-207



- VMHxxSU-1C models
- Ducted Indoor Units

WIRED NON-PROGRAMMABLE CONTROLLER

7800-206



- Ceiling Cassettes
- High Wall SD Series
- Ducted Indoor Units

MULTI ZONE

Indoor Unit Mix 'n' Match Possibilities

Zones	Indoor Units*	Total BTUH
A-VMH18DU-1 1, 2 units	12	12,000
	9+9	18,000
	9+12	21,000
A-VMH28TU-1 1, 2 or 3 units	24	24,000
	9+9	18,000
	9+12	21,000
	9+18	27,000
	9+24	33,000
	12+12	24,000
	12+18	30,000
	12+24	36,000
	18+18	36,000
	9+9+9	27,000
	9+9+12	29,000
	9+9+18	36,000
	9+12+12	33,000
	12+12+12	36,000
A-VMH36QU-1 1, 2, 3 or 4 Units	24	24,000
	9+18	27,000
	9+24	33,000
	12+12	24,000
	12+18	30,000
	12+24	36,000
	18+18	36,000
	18 + 24	42,000
	9+9+9	27,000
	9+9+12	29,000
	9+9+18	36,000
	9+12+12	33,000
	9+12+18	39,000
	9+18+18	45,000
	12+12+12	36,000
	12+12+18	42,000
	12+18+18	48,000
	12+12+24	48,000
	9+9+9+9	36,000
	9+9+9+12	39,000
	9+9+9+18	45,000
	9+9+12+12	42,000
	9+9+12+18	48,000
	9+12+12+12	45,000

Zones	Indoor Units	Total BTUH
A-VMH48PU-1 2, 3, 4, or 5 Units	9+24	33,000
	12+24	36,000
	18+18	36,000
	18+24	42,000
	24+24	48,000
	9+9+18	36,000
	9+12+12	33,000
	9+12+18	39,000
	9+18+18	45,000
	9+18+24	51,000
	9+24+24	57,000
	12+12+12	36,000
	12+12+18	42,000
	12+18+18	48,000
	12+12+24	48,000
	12+18+24	54,000
	12+24+24	60,000
	9+9+9+9	36,000
	9+9+9+12	39,000
	9+9+9+18	45,000
	9+9+9+24	51,000
	9+9+12+24	63,000
	9+9+12+12	42,000
	9+9+12+18	48,000
	9+9+12+24	54,000
	9+9+18+24	60,000
	9+12+12+12	45,000
	9+12+12+18	51,000
	9+12+12+24	57,000
	12+12+12+12	48,000
	12+12+12+18	54,000
	12+12+12+24	60,000
	12+12+18+18	60,000
	9+9+9+9+9	45,000
	9+9+9+9+12	48,000
	9+9+9+9+18	54,000
	9+9+9+9+24	60,000
	9+9+9+12+12	51,000
	9+9+9+12+18	57,000
	9+9+9+12+24	63,000
	9+9+9+18+18	63,000
	9+9+12+12+12	54,000
	9+9+12+12+18	60,000
	9+12+12+12+12	57,000
	9K+9K+9K+18K+18K	63,000
	9K+9K+12K+12K+12K	54,000
	9K+9K+12K+12K+18K	60,000
	9K+12K+12K+12K+12K	57,000

When choosing styles, use only one Floor/Ceiling Mount indoor unit per mix,

Formula

1) Total rated indoor section capacity must be at least 66% of the outdoor section rated capacity.

2) Total rated indoor section capacity may not exceed outdoor section capacity by more than 33%.

VMH 30-36 SD Series

FEATURES

Attractive Cabinet

- Indoor units feature a slim profile with rounded corners and sleek grilles that mount high on a wall to be unobtrusive

Multiple Modes

- Cooling, heating, dehumidification only and fan only
 - Sleep Mode
 - 24-hour timer
 - Turbo mode
 - Auto mode

Random Swing

- Continually adjusts fan speed and air direction for a gentle, breeze-like effect that's preferred by most people

Remote Control

- Makes it easy to program and operate the unit

Multi-Stage Filtration

- Includes ionizer to remove microscopic particles, active carbon and dust filter, and freshening filter for improved indoor air quality

Low Ambient Operation

- Cooling mode functions even when the outdoor temperature reaches 5°F

Defrost Control

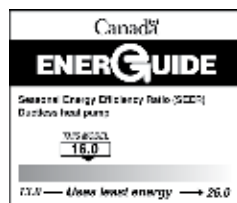
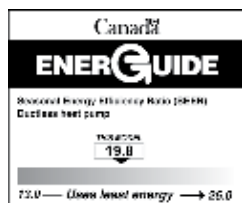
- Automatically removes any frost that may accumulate on the coil

Auto Restart

- Reverts to the last setting following a power failure

Low Ambient Operation

- Cooling 5° - 122°F, Heating 5° - 86°F



Comfort-Aire®

SINGLE ZONE HEAT PUMP

208-230V

30,000 to 36,000 BTUH

Inverter

SD Model



Indoor Unit



Outdoor Unit



optional
wired thermostat



Energy Verified
Rendement
Énergétique Vêri



Warranty

Standard warranty or Extended warranty available with product registration.
See warranty document for details or visit www.marsdelivers.com

VMH 30-36 SD Series

FEATURES	Heat Pump Models	
	VMH30SD-1	VMH36SD-1
Power Supply	208/230-1-60	208/230-1-60
Cooling Capacity (BTUH)	30,000	36,000
SEER/EER	19.80/ 11.50	16.00/ 8.60
HSPF	9.40	8.50
Cooling Amps	11.5	18.5
Dehumidification (Pts/Hr.)	6.8	8.0
Heating Cap. (BTUH) @ 17°F / Heat Amps	18,500/ 15.0	21,000/ 18.3
INDOOR UNIT		
Air flow (CFM)	677/589/471	677/589/471
Fan Speeds (Hi/Med/Lo)	3	3
Sound Level (dBA) H-M-L	49/42/37.5	48.5/44/38
Optional Wired Thermostat	Yes	Yes
AIR DIRECTION		
Vertical Adjustment	Remote	Remote
Horizontal (left/right)	Manual	Manual
Auto Swing	Remote	Remote
INDICATOR LAMPS		
ON/OFF	Yes	Yes
24 Hr. Timer	Yes	Yes
Defrost	Yes	Yes
Temperature Setting Range	On Remote: 62° F to 88° F	
INDOOR UNIT DIMENSIONS		
Width (inches)	46 ⁵ / ₈	46 ⁵ / ₈
Height (inches)	13 ¹ / ₂	13 ¹ / ₂
Depth (inches)	10 ¹ / ₈	10 ¹ / ₈
Net Wt/Shipping Wt (lbs.)	40.1/50.2	40.5/50.2
OUTDOOR UNIT DIMENSIONS		
Width (inches)	37 ¹ / ₄	37 ¹ / ₄
Height (inches)	31 ⁷ / ₈	31 ⁷ / ₈
Depth (inches)	16 ⁵ / ₈	16 ⁵ / ₈
Net Wt/Shipping Wt (lbs.)	136.5/149.5	145.5/158.3
ELECTRICAL DATA OUTDOOR UNIT ‡		
Main Power Connection	Outdoor Unit	
Min. Circuit Ampacity	20A	25A
Max. Fuse/HACR Circuit Breaker	30A	35A
Indoor/Outdoor Connecting Cable Type	14AWG / 4 conductor 600V THHN unshielded stranded bare copper	
LINE SETS O.D. (inch)		
Liquid Connection (flare) (in.)	3/8	3/8
Suction Connection (flare) (in.)	5/8	5/8
Max. Line Set Length ¹	164 feet	213 feet
Max. Elevation (outdoor) ²	82 feet	98 feet

‡ Always follow local, state and national electrical codes Main power connection is 208/230V, depending on model

¹ Min. 10 ft. line set required

² Oil traps should be installed every 16.5 to 23 feet (5-7m) when the outdoor unit is installed above the indoor unit

"This product complies with all California product labeling laws including, but not limited to, the Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65."

MINI-SPLIT COMPONENTS

Installation Components

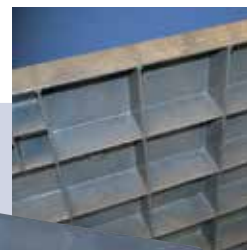
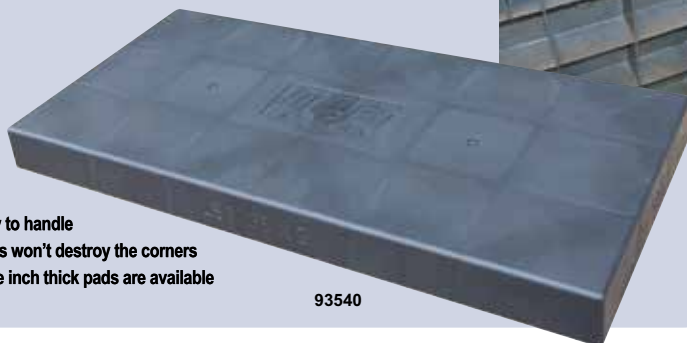
MARS A/C Condenser Pads

Features & Benefits:

- UV stable – prevents weathering or cracking • Chemical resistant
- Solid wall construction • Will not chip or crack • Lightweight
- Textured surface – prevents unit from sliding
- Unique footpads – prevent unit from sinking into ground

MARS NO.	DESCRIPTION	CASE QTY.
93540	18" x 38" x 3"	16
93577	24" x 24" x 3"	64
93578	24" x 36" x 3"	16

- Rugged, easy to handle
- Weed wackers won't destroy the corners
- Two and three inch thick pads are available



MARS Flexible Mini-Split Line Set Connectors

MARS flexible line set connectors provide ease of installation for mini-split indoor evaporator units. Flexible line sets allow for line set connection prior to mounting the unit on the wall. Flexible line sets eliminate copper line kinking during the installation process and provide for future ease of service of the AC unit. All flex line sets are 36in. in length to facilitate installation of wall mount evaporators.

Features

- High pressure stainless steel braided line rated to 800 psi
- R410a compatible
- 3 inch copper stubs
- 36 inch overall length



MARS NO.	DESCRIPTION	CASE QTY.
52345	1/4" X 36" Mini Split Flex Line Set	1
52346	3/8" X 36" Mini Split Flex Line Set	1
52347	1/2" X 36" Mini Split Flex Line Set	1
52348	5/8" X 36" Mini Split Flex Line Set	1

MERCURY Mini-Split Pump Kit

Mercury pumps are designed for wall mount ductless mini-split AC units and evaporator coil applications. Pump mounting is flexible and can be installed in the evaporator unit, duct channel or above the unit in the ceiling.

Kit Includes – Pump, reservoir with safety switch, adapter, cable ties, tubing to connect pump and reservoir, velcro mounting tape for ease of installation and service.

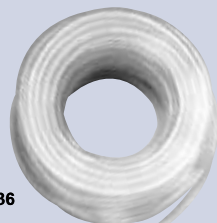
- Self priming, fully potted pump
- Silent operation
- 26 Ft lift
- 2.6 Gallon per hour condensate capacity
- Standard safety switch provides connections for unit shut down and alarm.
- For use with equipment up to 25,000 BTU's



MARS NO.	VOLTAGE	HEAD	0 FT.	13 FT.	20 FT.	26 FT.
21790	115 V 60Hz	GPH	2.64	2.38	1.59	0.92
21791	115/220 V 60Hz	GPH	2.64	2.38	1.59	0.92

MARS Clear Vinyl Tubing

79131-36



MARS NO.	DESCRIPTION	CASE QTY.
79131	1/4" ID clear tubing 32 PSI - .375 O.D.	100 feet
79132	3/8" ID clear tubing 27 PSI - .500 O.D.	100 feet
79133	1/2" ID clear tubing 24 PSI - .625 O.D.	100 feet
79134	5/8" ID clear tubing 21 PSI - .750 O.D.	100 feet
79135	3/4" ID clear tubing 19 PSI - .890 O.D.	100 feet
79136	7/8" ID clear tubing 16 PSI - 1.015 O.D.	50 feet

MARS Heavy Duty PVC Braided Line Tubing

79045-79050



MARS NO.	DESCRIPTION	WORKING PRESSURE	BURST PRESSURE	CASE QTY.
79045	1/4" ID - .407 OD	120 PSI	360 PSI	50 Feet
79046	3/8" ID - .532 OD	120 PSI	360 PSI	50 Feet
79047	1/2" ID - .673 OD	90 PSI	270 PSI	50 Feet
79048	5/8" ID - .822 OD	90 PSI	270 PSI	50 Feet
79049	3/4" ID - .986 OD	90 PSI	270 PSI	50 Feet
79050	7/8" ID - 1.111 OD	60 PSI	180 PSI	50 Feet

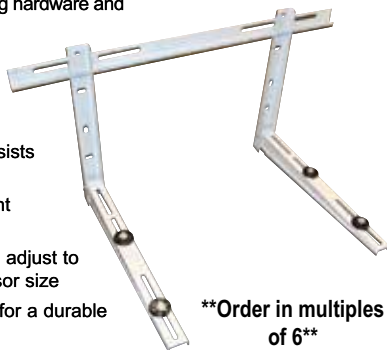
MINI-SPLIT COMPONENTS

MARS Universal Mini-Split Condenser Wall Mount Brackets

MARS mini-split brackets are available in four sizes to accommodate mounting of popular mini-split compressors.

Bracket kits include mounting hardware and vibration absorbers for a professional installation. Pre-assembled vertical supports speed installation.

- Powder Coat Finish - resists rust and corrosion
- Mounting and attachment hardware included
- Bracket width and depth adjust to accommodate compressor size
- Vibration pads included for a durable and quiet installation
- Pre-assembled vertical supports reduce installation time



****Order in multiples of 6****

MARS NO.	SIZE H x L x W	LOAD CAPACITY (LBS)
93640	14.5" x 18" x 33.5"	260
93641	18" x 22" x 33.5"	330
93642	18" x 24" x 33.5"	400
93643	19" x 30" x 47.5"	440

MARS Putty

MARS Putty is non-hardening, non-toxic and can be shaped by hand to any form, and reused if necessary, for plugging openings through foundations, sealing around electrical boxes, refrigeration tube entry and so much more.



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY.
93520	1 lb. Slug - Boxed	1	50
93521	5 lb. Slug - Boxed	1	10
93522	2 lb. Slug - Boxed	1	24

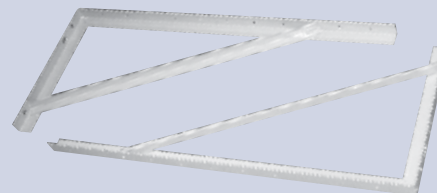
MARS Corrugated Condensate Drain Line

- Ideal for Ductless Mini-Split
- 5/8" Diameter, 20 Ft. Long
- Flexible Ivory
- Corrugated non-kink



MARS NO.	DESCRIPTION	MARS PACK
79127	5/8" Diameter x 20 ft long, Condensate Drain Line	1

MARS A/C Mounting Brackets



Heavy duty engineered steel A/C brackets are used for mounting A/C condensers and heat pumps on vertical walls. Brackets include mounting holes and are finished in a durable gray powder coat.

MARS NO.	DESCRIPTION	MARS PACK
93630	30" Powder Coated Steel Bracket	1 Pair
93631	36" Powder Coated Steel Bracket	1 Pair
93632	42" Powder Coated Steel Bracket	1 Pair
93636	48" Powder Coated Steel Bracket	1 Pair

* Load or wall load limitations is restricted by strength of hardware used

MARS Mini-Split Run Capacitors

MARS mini-split motor run capacitors are epoxy/resin sealed and widely used as the start-up and/or run capacitor for your motor. They feature very small dissipation factor and inherent temperature rise, high insulation resistance, and stable capacitance.

Technical Specification:

- Ambient temperature: 70° C
- Rated voltage: 450 VAC
- Capacitance tolerance: ±5
- 50/60 Hz
- Standard: IEC252-2001



MARS NO.	DESCRIPTION	DIMENSIONS		
		H	D	W
12380	1 MFD X 450V	1-1/2	X 1/2	X 1
12381	1.5 MFD X 450V	1-1/2	X 1/2	X 1
12382	2 MFD X 450V	1-1/2	X 1/2	X 1
12383	2.5 MFD X 450V	1-1/2	X 3/4	X 1-1/4
12384	3 MFD X 450V	1-1/2	X 3/4	X 1-1/4
12385	3.5 MFD X 450V	1-7/8	X 3/4	X 1-3/8
12386	4 MFD X 450V	1-7/8	X 3/4	X 1-3/8
12388	5 MFD X 450V	1-7/8	X 7/8	X 1-3/8
12390	6 MFD X 450V	1-7/8	X 1	X 1-1/2

MINI-SPLIT COMPONENTS

MARS 60 Amp Non-Fused Disconnect with Internal Surge

MARS Disconnect with integrated surge protector provides a unitized design for quick and clean installation. The metal weather-resistant enclosure provides additional robustness and security. MARS Surge Protectors provide the performance necessary to protect critical components in high efficiency mini-split and unitary HVAC equipment.

Features:

- Side open disconnect
- Integrated internal surge protector
- Thermally Protected MOV's
- Metal-weather resistant enclosure
- External - Green & Red LED Status Indicators
- cULus rating
- 3 Year Warranty
- \$7,500 Connected Equipment Warranty

Specifications Disconnect:

- Single phase 240V
- 10,000 Amp rating
- NEMA 3R enclosure
- Weather proof enclosure
- Available in fused and non-fused

Surge Protector Ratings:

- 120/240V Single (Split) Phase 50/60Hz
- Short Circuit Current Rating
 - 22,000 Amps
- MCOV L-N 150V / L-L 330V
- Voltage Protection Rating
 - L-N 800V / L-L 1200V
- UL 1449 4th Edition
- Type 1 or 2 Surge Protection Rating

Protects:

- Compressors
- Heat Pumps
- Ideal for Ductless System
- Inverter Boards
- ECM Motors
- Control Boards
- Transformers
- Relays
- Sensors



MARS NO.	DESCRIPTION	VOLTAGE	WIRE CONFIGURATION	SPD TYPE	MCOV	ENCLOSURE	UL 1449 4TH EDITION
83915	60 Amp Non-Fused	120/240	L1,L2,L/N-G	1 or 2	150/300	NEMA 3R, Rainproof	cULus
83916	30 Amp Fused	120/240V	L1,L2,L/N-G	1 or 2	150/300	NEMA 3R, Rainproof	cULus
83917	60 Amp Fused	120/240V	L1,L2,L/N-G	1 or 2	150/300	NEMA 3R, Rainproof	cULus
MARS NO.	DESCRIPTION						
83914	Replacement Surge Module						

MARS HVAC Surge Protective Device

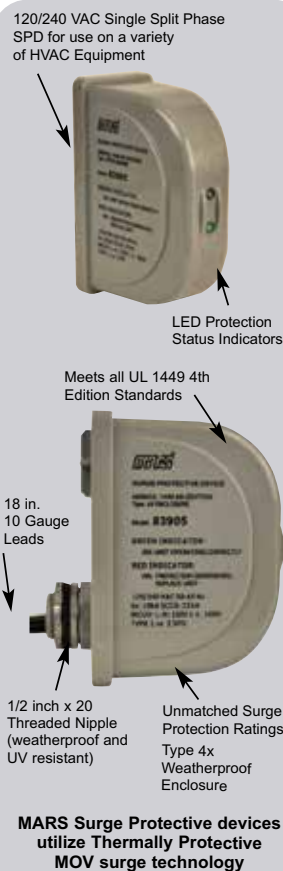
The MARS SPD is designed to protect your HVAC equipment from power spikes, surges and transients. Power spikes and surges can damage compressors, control boards, sensors and ECM motors resulting in costly repairs and down time. The MARS SPD utilizes Thermally Protected MOV technology to provide safe and reliable surge protection.

Protects:

- Compressors
- Heat Pumps
- Ideal for Ductless Systems
- Inverter Boards
- ECM Motors
- Control Boards
- Transformers
- Relays
- Sensors

Features:

- Easy Installation to Disconnect
- Weatherproof 4X Enclosure
- 18" Pre-stripped Leads
- Green & Red LED Status Indicators
- Thermally Protected MOVs
- 120/240V Single (Split) Phase 50/60Hz
- Short Circuit Current Rating
 - 22,000 Amps
- MCOV L-N 150V / L-L 330V
- Voltage Protection Rating
 - L-N 800V / L-L 1200V
- UL 1449 4th Edition
- Type 1 or 2 Surge Protection Rating
- 3 Year Warranty
- \$7,500 Connected Equipment Warranty



MARS Surge Protective devices utilize Thermally Protective MOV surge technology

MARS NO.	VOLTAGE	WIRE CONFIGURATION	SPD TYPE	MCOV	ENCLOSURE	UL 1449 4TH EDITION
83905	120/240	L1,L2,L/N-G	1 or 2	150/300	Type 4X	cULus
83907	240	L1,L2,L/N-G	1 or 2	150/300	Type 4X	cULus

MARS HVAC Surge Protective Device

The MARS 83904 SPD is designed specifically for 120V furnace and air handler applications. The furnace and air handler contain components that must be protected from surges such as, ECM motors, Control Boards, Transformers. The MARS Surge utilizes thermally protected MOV technology for safe and reliable protection of equipment. The 120V Surge Device is easy to install with only 2 wires to connect.

Protects:

- Ideal for 120V Ductless Systems
- Furnace & Air Handlers
- Inverter Boards
- ECM Motors
- Control Boards
- Transformers
- Relays
- Sensors

Features:

- Easy 2 Wire Installation
- 10" Pre-stripped Leads
- Green LED Status Indicator
- Thermally Protected MOVs
- 120V Single Phase 50/60Hz
- Short Circuit Current Rating
 - 10,000 Amps
- MCOV L-N 150V
- Voltage Protection Rating
 - L-N 700V
- UL 1449 4th Edition
- Type 1 or 2 Surge Protection Rating
- 3 Year Warranty
- \$7,500 Connected Equipment Warranty



MARS Surge Protective devices utilize Thermally Protective MOV surge technology

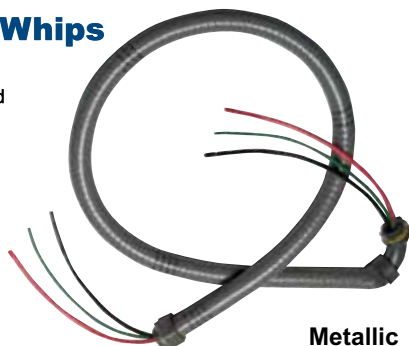
MARS NO.	VOLTAGE	WIRE CONFIGURATION	SPD TYPE	MCOV	ENCLOSURE	UL 1449 4TH EDITION
83904	120	L1,L2,L/N-G	1 or 2	150	Type 2	cULus

MINI-SPLIT COMPONENTS

Mini-Split Components

MARS A/C Whips

- Assembly UL listed
- Extra long wire for easy hook up
- Bagged individually



Non-Metallic Fittings

MARS NO.	DESCRIPTION	MARS NO.
84131	4' x 1/2" x 10 gauge	84132
84133	4' x 3/4" x 8 gauge	84134
84135	6 x 1/2 x 10 gauge	84136
84137	6' x 3/4" x 8 gauge	84138
84139	8' x 1/2" x 10 gauge	-
84141	8' x 3/4" x 8 gauge	-
84143	10' x 3/4" x 8 gauge	-

Metallic Fittings

Mini-Split Wire



COMPACT 600 CABLE: 600V, UL, UV RATED, DIRECT BURIAL

84473	14/4 Solid THHN Compact 600 – 50' Roll
84474	14/4 Solid THHN Compact 600 – 250' Reel
84479	14/4 Stranded THHN Compact 600V – 50' Roll
84480	14/4 Stranded THHN Compact 600V – 250' Reel

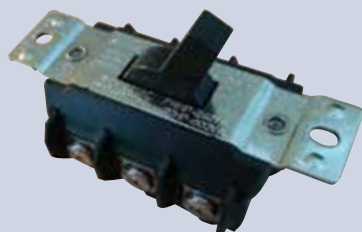
SHIELDED LOW VOLTAGE CABLE: 300V, NEC 725/800, ETL, CMR/CL3R

84485	16/2 Stranded Shielded – 50' Roll
84484	16/2 Stranded Shielded – 250' Roll
84491	16/4 Stranded Shielded – 50' Reel
84492	16/4 Stranded Shielded – 250' Reel
84482	18/2 Stranded BC Shielded – 500' Reel
84478	18/4 Stranded BC Shielded – 50' Roll
84483	18/4 Stranded BC Shielded – 500' Reel

EZ-IN™ CABLE: 600V, UL, ALL PURPOSE, UV RATED, DIRECT BURIEL

84486	14/4 Stranded E-Z In, 600V, 50' Roll
84487	14/4 Stranded E-Z In, 600V, 250' Reel

3 Pole Mini-Split Safety Disconnect Switch



MARS NO.	DESCRIPTION	MARS PACK	CASE QTY
84711	30A-600V 3 Pole 3Ph AC Motor Switch(Bulk)	1	100

Local codes require a disconnect switch to safely shut off power for indoor mini-split AC and Heat Pumps. The disconnect switch will break both power lines L1 and L2 along with the high voltage communicating line to meet local code requirements.

- UL 30 amp rated motor disconnect
- 3 pole • 600V max

MARS Disconnect Boxes Side Open Pullout



MARS NO	DESCRIPTION	STD. PACK
80315	60 amp non-fused	6
80316	30 amp fused	6
80317	60 amp fused	6

Front Open Pullout



- Market leader
- High quality box
- UL & CUL
- NEMA 3R, rainproof
- Single phase
- Pullout type

#1 Best Seller!

MARS NO.	DESCRIPTION	MARS PACK
83315	60 amp non fused	6
83316	30 amp fused	6
83317	60 amp fused	6
83396	Compact 30 amp fused	6



MARS No. 83335

Description:
Generic brand 60 amp non-fused

MARS Pk: 6

MINI-SPLIT COMPONENTS

MARS Refrigerant Line Set Cover by Cover Guard

The Cover Guard refrigerant line set cover system is the only system available you can adjust to fit your installation. Cover system adjusts to accommodate a single line set or a multi-head ductless installation. Line sets, drain lines and control cables can all be hidden for a clean looking installation. Stock one system that is adjustable on the jobsite and eliminate the need to stock standard and large cover sizes.

Features:

- The only size adjustable line set cover system - One size for every job
- Accommodates new thicker line set insulation sizes
- Perfect for Residential, Ductless multi-head systems and Commercial
- Accepts multiple sets of refrigerant lines, cable and drain lines
- Covers interlock for a secure and strong installation
- Protective "peel off film" protects cover from dirt and scratches
- UV Resistant plastic – will not chalk or fade
- Paintable

93724 Wall Duct Installation Kit includes:

- 3 ea. 93710 4 ft Line Duct Channel
- 2 ea. 93713 Couplers
- 1 ea. 93716 90° Elbow
- 1 ea. 93718 Wall Inlet
- 1 ea. 93714 End Cap
- Cam Screws & Clips



93710

Line Set Cover and fittings expand or compress to fit the job!



Toll Free: 800-445-4155

Fax: 631-348-7160

MARS Technical Help Line: 800-678-9888

M-F 8 am - 5 pm EST

MARS Universal Remote Control for Mini-Split Units

MARS Universal Remote will operate with virtually any mini-split produced in any region of the world. Programming is accomplished by inputting your mini-split brand code or use the easy and intuitive self learn mode to set-up the remote to operate your Mini-Split. Operates with 2 AAA batteries.

- One touch function with LCD display
- Braille enabled
- Celsius or fahrenheit display
- Clock display
- 24 Hr. on/off timer for energy savings
- Displays room temperature
- Energy saver feature
- Automatically determines heat or cool mode



MARS NO.	DESCRIPTION	MARS PACK
65775	Mini-Split Universal Remote	1



WHAT DO WE MEAN BY ENERGY EFFICIENCY?

In recent years, heating and cooling manufacturers have made significant advances in the efficiency of systems in terms of energy usage. This is an especially important purchase consideration as fuel prices continue to rise.

Cooling efficiency is measured by a Seasonal Energy Efficiency Ratio (SEER) rating. The higher the number, the more efficient the equipment. Our Comfort-Aire UltraV systems are rated up to 25.0 SEER.

Heating efficiency is shown by a Heating Season Performance Factor (HSPF). This is an estimate calculated by dividing the seasonal heating output by the seasonal power consumption in watts. UltraV units are rated as high as 14.5, which is considered very good.

All heating and cooling equipment comes with an Energy Guide label which shows the estimated energy usage—you can use these labels to compare equipment efficiency. Your dealer can help you determine which system is best for you, taking into account a number of factors including the average number of yearly cooling and heating days in your area of the country, in addition to your individual needs.

READY TO BUY?

SOME THINGS TO CONSIDER

When you buy Comfort-Aire products, you're purchasing the peace of mind that comes from dealing with a company that has a long track record of success. We have a well-deserved reputation not only for quality products, but also for standing behind these products with excellent warranty and support programs. Also, you'll find our web site is a convenient resource: owners' manuals can be downloaded and your installer can access technical information and service manuals.

Due to ongoing product improvements, specifications and dimensions are subject to change and correction without notice or incurring obligations. Determining the application and suitability for use of any product is the responsibility of the installer. Additionally, the installer is responsible for verifying dimensional data on the actual product prior to beginning any installation preparations.

Third party incentive and rebate programs have precise requirements as to product performance and certification.

All products meet applicable regulations in effect on date of manufacture; however, certifications are not necessarily granted for the life of a product. Therefore, it is the responsibility of the applicant to determine whether a specific model qualifies for these incentive/rebate programs.

"This product complies with all California product labeling laws including, but not limited to, the Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65."

