## 'VMH' UltraV Single/Multi Zone Ductless Mini-Splits







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  $-22^{\circ}$  to  $86^{\circ}$  F  $(48\text{K:} -13^{\circ}$  to  $86^{\circ}$  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.

**Warranty**—10 year compressor, 7 year parts for residential single zone

Multi- zone: 7 years on compressor, 2 years on parts (Some limitations apply; see printed warranty for details.)

Comfort-Cire.



#### **Features**

- Multiple Modes—Cooling, dehumidification only, and heating
  - Sleep mode 24-hour timer
  - Turbo mode 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

## SINGLE ZONE





Note: See page 5 for Indoor Unit specifications

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

FEATURES	A-VMH09SU-I*	A-VMH12SU-I*	A-VMH18SU-1* matched set only A-VMH18SU-1A*3	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)	311/2	311/2	331/4	371/4
Height (inches)	2113/16	21 13/16	27 5/8	31 <sup>7</sup> / <sub>8</sub>
Depth (inches)	I3 <sup>1</sup> / <sub>8</sub>	I3 <sup>1</sup> / <sub>8</sub>	<b>14</b> <sup>5</sup> /16	169/16
Net Wt/Shipping Wt (lbs.)	88.2/93.7	88.2/93.7	107.4/115.1	135.6/148.8
<b>ELECTRICAL DATA OUTDOOR U</b>	NIT ‡			
Main Power Connection		Outdoor Uni	t 208/230-1-60	
Min. Circuit Ampacity	9A	9A	18A	20A
Max. Fuse/HACR Circuit Breaker	15A	I5A	25A	30A
Indoor/Outdoor Connecting Cable Type	I 4AWG / 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 Length <sup>1</sup>	82 feet	82 feet	98 feet	I 64 feet
Max. Elevation (outdoor) <sup>2</sup>	33 feet	33 feet	66 feet	82 feet

- <sup>‡</sup> Always follow local, state and national electrical codes
- <sup>1</sup> Min. 10 ft. line set recommended
- <sup>2</sup> Oil traps should be installed every 16.5 to 23 feet (5-7m) when the outdoor unit is installed above the indoor unit
- <sup>3</sup> A-VMH18SU-I only for use with B-VMH18SU-I

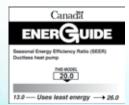


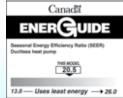


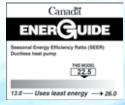


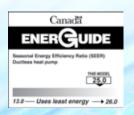












#### **MULTI ZONE**

#### **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 U	NIT 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 DA	TA OUTDOOR UN	IT*	
Main Power Connection		Outdoor Unit 2	08/230-1-60	
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 ι	ınshielded 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 idnoor 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.

- <sup>1</sup> For single indoor unit installation; min. 10 ft. line set length required.
- <sup>2</sup> 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.







**Warranty**—10 year compressor, 7 year parts for residential single zone

3 Multi- zone: 7 years on compressor, 2 years on parts (Some limitations apply; see printed warranty for details.)

## **MULTI ZONE**

FLOOR/CEILING	MOUNT IN	DOOR 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
	DIME	NSIONS		
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



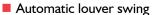
#### **HIGH WALL MOUNT INDOOR UNITS** B-VMH18SU-1 B-VMH09SU-1 B-VMH12SU-1 B-VMH24SU-1 **FEATURES** B-VMH18SU-1A\* 24,000 **Cooling Capacity BTUH** 9,000 12,000 17,000 **Heating Capacity BTUH** 10,900 11,800 18,000 24,000 Air Flow Range (CFM) 418/324/247 418/324/247 599/411/353 794/647/500 3 Fan Speeds 3 3 3 Dehumidification (Pts/Hr) 2.32 2.75 3.59 5.49 Sound Level Range (dBA) 45/36/27 46/36/27 50/45/39 48/39/29 62° to 90° F Cooling; 62° to 86° F Heating (on remote) Temperature Setting

AIR DIRECTION				
Horiz./Vert. Modulating	Yes	Yes	Yes	Yes
	DIN	<b>1ENSIONS</b>		
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"

<sup>\*</sup>B-VMH18SU-1A not for use with A-VMH18SU-1

#### **Features**

- '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



Self diagnostics









#### **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

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	
	E	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	

<sup>\*</sup>Ceiling cassettes require the use of a decorative cover panel.

#### WIRED PROGRAMMABLE CONTROLLER

17317100001195



7800-206





## Indoor Unit Mix 'n' Match Possibilities

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

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%.

Zones	Indoor Units	Total BTUH
Zolles		
	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
A-VMH48PU-1 2, 3, 4, or 5 Units	9+9+12+18	48,000
2, 3, 4, 01 3 011113	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



### 'KMH' UltraV Series

Single Zone Ductless Mini-Splits



## Sealed unit failure within 12 months – replace with new unit

10 year compressor, 7 year parts for residential

5 year compressor, 5 year parts for commercial

Requires installation of a *MARS* Surge Protection device, and must be reflected on a Kerr invoice to the contractor

Original owner, non-transferrable

Requires warranty registration on the MARS website

Requires return of unit to Kerr and subject to inspection by MARS

Final determination of unit replacement upon review by MARS technical support













