

# VMH UltraV Series

## VMH-V Series



## SINGLE/MULTI ZONE MINI-SPLITS

6,000 to 55,000 BTUH

Our 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:

	Single-Zone	Multi-Zone
Cooling=	-22° to 75 °F	5° to 122 °F
Heating=	-22° to 75 °F	-22° to 75 °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.

## 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

### Easy Repair & Maintenance

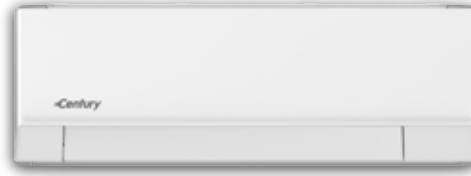
- Indoor high wall heads disassemble in 1 minute



**Warranty**—10 years on compressor, 10 years on parts  
(Some limitations apply; see printed warranty for details.)

[www.century-hvac.com](http://www.century-hvac.com)

# SINGLE ZONE



Note: See page 5 for Indoor Unit specifications



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

FEATURES	A-VMH06SV-1	A-VMH09SV-1	A-VMH12SV-1	A-VMH18SV-1	A-VMH24SV-1	A-VMH33SV-1*
<b>Power Supply</b>	208/230V,1Ph, 60Hz	208/230V,1Ph, 60Hz	208/230V,1Ph, 60Hz	208/230V,1Ph, 60Hz	208/230V,1Ph, 60Hz	208/230V,1Ph, 60Hz
<b>Cooling Capacity (BTUH)</b>	6,000	9,000	12,000	18,000	24,000	33,000
<b>SEER2</b>	26.5	28.1	25.5	21.5	21.5	19.5
<b>EER2</b>	15.8	16.2	14	12.5	13	12
<b>HSPF2</b>	13.6	11.5	10.4	11.3	11.4	10
<b>Cooling Amps</b>	3.3	2.5	3.72	6.3	8.1	18.1
<b>Hi Heating Cap. (BTUH) @ 17°F</b>	8,500	9,500	10,100	15,000	21,200	28,800
<b>Heating Amps</b>	3.92	4.1	4.1	7.3	10.9	20.5
<b>OUTDOOR UNIT DIMENSIONS</b>						
<b>Width (inches)</b>	30.12	31.69	31.69	35.04	37.24	37.24
<b>Height (inches)</b>	21.85	21.81	21.81	26.5	31.89	31.89
<b>Depth (inches)</b>	11.93	12.99	12.99	13.46	16.14	16.14
<b>Net Wt/Shipping Wt (lbs.)</b>	63.71	74.07	73.63	100.97	134.48	134.48
<b>ELECTRICAL DATA OUTDOOR UNIT †</b>						
<b>Main Power Connection</b>	Outdoor Unit 208/230-1-60					
<b>Min. Circuit Ampacity</b>	13	15	15	20	25	36
<b>Max. Fuse/HACR Circuit Breaker</b>	15	15	15	25	35	40
<b>Indoor/Outdoor Connecting Cable Type</b>	14AWG / 4 conductor 600V THHN unshielded stranded bare copper					
<b>LINE SETS O.D. (inch)</b>						
<b>LINE SETS O.D. (inch)</b>	1/4 x 3/8	1/4 x 3/8	1/4 x 1/2	1/4 x 1/2	3/8 x 5/8	3/8 x 3/4
<b>Max. Line Set Length<sup>1</sup></b>	82	82	82	98	164	164
<b>Max. Elevation (outdoor)<sup>2</sup></b>	32	32	32	65	82	82

‡ 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





## 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 23 SEER2 and 13.6 EER2
- Delivers extra heating capacity even at low ambient temperatures
- Has internal Pan Heater

OUTDOOR UNITS						
FEATURES	A-VMH18DV-1	A-VMH28TV-1	A-VMH36QV-1	A-VMH36QV-1A*	A-VMH48PV-1	A-VMH55PV-1*
Cooling Capacity	19,000	28,000	36,000	36,000	48,000	55,000
SEER2	22	23	22.2	22.4	21.8	18.8
EER2	12.5	12.5	13.6	12.5	11.7	10.5
HSPF4 2	9.8	10.6	10.3	10.9	9.8	9.3
Heating at 5 F°-15°C° Maximum capacity	19,000	24,000	36,000	37,000	48,000	46,000
Operating Range - Cooling	5° - 122 °F			-22° - 122 °F	5° - 122 °F	
Operating Range - Heating	-22° - 75 °F			-22° - 75 °F	-22° - 75 °F	
Sound Level (dBa) H-M-L	61	63	63	65	65	61
OUTDOOR UNIT DIMENSIONS						
Width (inches)	37.24	37.24	37.48	38.58	37.48	37.48
Height (inches)	31.89	31.89	52.48	38.39	52.48	52.48
Depth (inches)	16.14	16.14	16.34	16.34	16.34	16.34
Net Wt/Shipping Wt (lbs.)	138.23/149.03	167.99/179.67	223.11/253.97	213.85/246.92	238.32/269.84	233.03/265.87
ELECTRICAL DATA OUTDOOR UNIT*						
Main Power Connection	Outdoor Unit 208/230-1-60					
Min. Circuit Ampacity	20	25	40	40	40	40
Max Fuse/HACR. Circuit Breaker	25	40	60	60	60	60
Indoor/Outdoor Connecting Cable Type	14 awg/ 4 conductor 600V THHN unshielded stranded bare copper					
LINE SETS O.D. (inch)						
Liquid Connection (flare) (in.)	2 x 1/4"	3 x 1/4"	4 x 1/4"	4 x 1/4"	5 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" 1 x 1/2"	3 x 3/8" 2 x 1/2"	3 x 3/8" 2 x 1/2"
Max. length for all rooms	131	197	262	262	262	262
Max. length for one indoor unit	82	98	115	115	115	115
Max. height difference between indoor units	33	33	33	33	33	33

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



A-VMH18DV-1

**Ambient Operating Temperature Range:**  
5° - 122 °F (cooling)  
-22° - 75 °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.

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.**



# 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

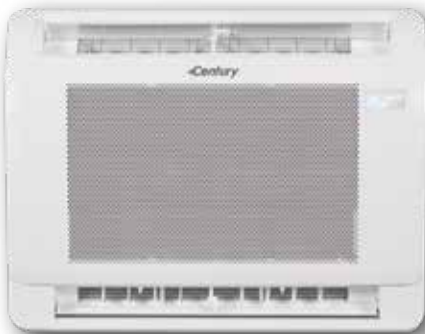
- 'Follow' feature on remote
- Multiple modes: auto, turbo, sleep, fan only, dehumidify only, 24 Hour timer
- Intelligent pre-heat
- Self diagnostics



Optional wired controllers: **7800-206** - non-programmable, **17317100001195** - programmable (must order separate)

## Features

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



FLOOR MOUNT INDOOR UNITS	
FEATURES	B-VMH12FV-1
Cooling Capacity BTUH	12,000
Heating Capacity BTUH	12,000
Air Flow Range (CFM)	265/324/377
Fan Speeds	3
Dehumidification (Pts/Hr)	3.07
Sound Level Range (dBA)	25/39/42
Temperature Setting On Remote or Wired Wall Controller:	62-86
AIR DIRECTION	
Modulating	Top/Bottom
DIMENSIONS	
Width (inches)	31.26
Height (inches)	24.45
Depth (inches)	7.87
Net Wt/Shipping Wt (lbs)	32.85/41.45
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 **17317100A36321**
- Self diagnostics

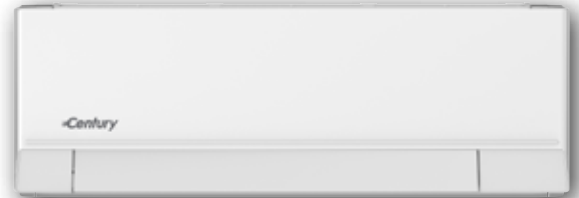


## Features

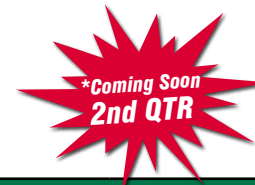
- All high wall heads come with a remote
- Optional **#17317100001195** wired programmable controller (*must order separate*)
- 'Follow' feature on remote for comfort
- Multiple modes: auto, turbo, sleep, fan only
- 24 Hour timer
- Intelligent pre-heat
- Automatic louver swing
- Self diagnostics
- Smartphone compatible
- Easy to repair & maintain - high wall heads disassemble in 1 minute



**B-VMH06SV-1 to B-VMH24SV-1**



**B-VMH30SG-1 & B-VMH36SG-1**  
(for multi-zone units only)



HIGH WALL MOUNT INDOOR UNITS								
FEATURES	B-VMH06SV-1	B-VMH09SV-1	B-VMH12SV-1	B-VMH18SV-1	B-VMH24SV-1	B-VMH33SV-1*	B-VMH30SG-1	B-VMH36SG-1
Cooling Capacity BTUH	6,000	9,000	12,000	18,000	24,000	33,000	30,000	36,000
Heating Capacity BTUH	6,000	9,000	12,000	18,000	24,000	35,000	30,000	36,000
Air Flow Range (CFM)	168/318	177/336	177/336	306/524	319/612	424/894	383/647	383/640
Fan Speeds	3	3	3	3	3	3	3	3
Sound Level Range (dBA)	45/36/27	46/36/27	48/39/29	50/45/39	46/39/25	52/46/35	46/41/33	48/42/36
Temperature Setting	62° to 90° F Cooling; 62° to 86° F Heating (on remote)							
AIR DIRECTION								
Horiz./Vert. Modulating	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DIMENSIONS								
Width (inches)	31.30	31.30	31.30	39.63	44.88	44.88	44.88	44.88
Height (inches)	11.61	11.61	11.61	12.56	14.57	14.57	14.57	14.57
Depth (inches)	8.86	8.86	8.86	9.41	10.83	10.83	10.83	10.83
Net Wt/Shipping Wt (lbs)	22.71/28.88	22.71/28.88	22.93/28.88	27.12/35.71	43.65/54.89	43.43/55.11	43.65/54.89	43.65/54.89
Liquid-Suction (flare)	1/4" - 3/8"	1/4" - 3/8"	1/4" - 1/2"	1/4" - 1/2"	3/8" - 5/8"	3/8" - 3/4"	3/8" - 5/8"	3/8" - 5/8"

\* Unit will be available Q2



### WIRED NON-PROGRAMMABLE CONTROLLER

7800-206

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



### WIRED PROGRAMMABLE CONTROLLER

17317100001195

- High Wall SV Series
- Ducted Indoor Units

# MULTI ZONE



## 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 controller **7800-206** (must order separate)

CEILING CASSETTES*				
FEATURES	B-VMH09CU-1	B-VMH12CU-1	B-VMH18CU-1	B-VMH24CV-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-VMH24CV-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.

\*\*Unit is Smartphone Compatible



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 115' (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.



# MULTI-POSITION AIR HANDLER

Ducted Units		
FEATURES	B-VMH18AV-1	B-VMH24AV-1
Cooling Capacity BTUH	18,000	23,000
Heating Capacity BTUH	19,000	26,000
Air Flow Range (CFM)	489 - 577	630 - 759
Fan Speeds	3	3
Sound Level Range (dBA)	35 / 37 / 39	38 / 39.5 / 41
Volts / Hz / Phase	208 / 230, 1, 60	208 / 230, 1, 60
Voltage Range	187 - 253	187 - 253
Cooling Input Power (W)	1440	1840
Cooling Rated Current (A)	9.1	9
Heating Input Power (W)	1540	2130
Heating Rated Current (A)	9.3	10
Min. Circuit Ampacity	3	4
Max. Fuse	15	15
COP	3.62	3.58
Wireless Remote Control	YES	YES
Wired Programmable Control	YES	YES
Smart Phone Capable	YES	YES
Width (inches)	21.02	21.02
Height (inches)	45	45
Depth (inches)	17.52	17.52
NET WT / Shipping Wt. (lbs)	106.70 / 127.21	106.70 / 127.21
Liquid / Suction Size (inches)	1/4" X 1/2"	3/8" X 5/8"



## Features

- Aluminum-alloy traditional fin-and-tube coil construction for maximum durability and corrosion resistance
- Efficient and quiet ECM blower motor
- Accepts traditional 24VAC thermostats for convenience and advanced control options
- Optional electric resistance heat kits (up to 15kW) provides auxiliary heat source for comfort during the worst conditions
- Beautiful and durable gloss enameled-steel construction with insulated construction provides less than 2% cabinet leakage
- Built-in return filter rack for 20"x 20"x 1" Filter
- Wired programmable control included



Auxiliary Heat Kits									
	Power of Electric Heater	1.5 ton / 18K	2 ton / 24K	Number of Circuits	Voltage	Circuit 1 MCA	Circuit 2 MCA	Circuit 1 Max. Fuse	Circuit 2 Max. Fuse
Optional Electric Heater	ECD3KW	YES	NO	1	208/230V	14A/16A	-	15A/20A	-
	ECD5KW	YES	YES	1	208/230V	23A/27A	-	25A/30A	-
	ECD8KW	YES	YES	1	208/230V	37A/42A	-	40A/45A	-
	ECD10KW	YES	YES	1	208/230V	46A/53A	-	50A/60A	-
	ECD15KW	NO	YES	2	208/230V	23A/27A	46A/53A	25A/30A	50A/60A



Wired programmable control



PLENUM SIZES	
SUPPLY AIR	18+24K= 12"D x 16"W
RETURN AIR	18+24K= 20"D x 16"W



"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."

*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.*