



## Variable Speed Ductless Split Systems

Single Zone Air Conditioners / Heat Pumps



## Variable Speed Ductless Split Systems

EMI E-verter Ductless Split Systems are an excellent alternative for cooling and heating indoor space when traditional systems are not practical or feasible. E-verter Split Systems are small in size and very flexible for zoning because no ductwork is required.

EMI E-verter Split Systems combination of an outdoor condenser and indoor air handler fits almost anywhere... simple to install and economical to operate and are ideal for a wide range of applications. Computer rooms, restaurants, apartments and condos, nursing homes, warehouse offices, schools, doctors' offices, hotels and motels.

EMI E-verter Split Systems' primary feature is the inverter-driven compressor that can modulate the speed at which it operates, adjusting the capacity to closely match the load and demand. This functioning reduces temperature swings, cycling, compressor noise and energy usage & costs, while more precisely maintaining comfort.

In this brochure you will find a variety of E-verter Split System options that are right for almost any application.

### E-verter Benefits

- Variable speed – load matching
- High efficiency
- 3:1 turn down increases reliability with less cycling
- Quiet operation
- Minimal room temperature swings
- Single or dual point power connections (without electric heat only)
- Turbo heat plus two stage heating with optional E-boost electric heat
- Widest selection of energy star eligible ductless products

### Inverter Technology

Inverter technology allows the compressor in the outdoor condensing unit to continuously adjust its speed to match the load and demand of the zone. This method is a substantial improvement on a conventional split system's efficiency because the system compressor will run longer, but at a lower speed, as the system approaches the set temperature. When demand is low, the speed of the compressor, and consequently the electric meter, will slow down; running down to ~1/3 of the rated capacity. This helps to maintain the room temperature with a higher degree of consistency and accuracy. When demand is high, the compressor will speed up, running at full capacity. The compressor does not start and stop nearly as often, which provides energy cost savings, as well as extends the life of the compressor, offering a significant overall payback. Since the compressor does not always run at the highest speed, there is a noise reduction at the outdoor condenser, and at the indoor air handler since it doesn't consistently have to run at the highest fan speed to satisfy demand.

### Wall Mounted Air Handlers



**WLHV Series Cooling & Heat Pump**  
(9,000 – 24,000 Btu/h, 2.6 – 7.0 kW)



Hand-Held  
Wireless  
Controller



Optional Wall  
Mounted Wired  
Controller

### WALL MOUNTED AIR HANDLERS

INDOOR MODEL OUTDOOR MODEL	WLHV09 S1CV9000	WLHV09 S1HV9000	WLHV12 S1CV2000	WLHV12 S1HV2000	WLHV18 S1CV8000	WLHV18 S1HV8000	WLHV24 S1CV4000	WLHV24 S1HV4000
Type	A/C	HP	A/C	HP	A/C	HP	A/C	HP
Energy Star Eligible	✓	✓	✓	✓	✓	✓		
Nominal Cooling (Btu/hr)	9,000	9,000	12,000	12,000	18,000	18,000	24,000	24,000
Min - Max Cooling (Btu/hr)	3,000–9,000	3,000–9,000	4,000–12,000	4,000–12,000	6,000–18,000	6,000–18,000	8,000–24,000	8,000–24,000
Nominal Heating (Btu/hr)		8,800		10,000		18,000		21,000
Min - Max Heating at 47°F (Btu/hr)		2,900–8,800		3,300–10,000		6,000–18,000		7,000–21,000
Low Temp Turbo Heating at 17°F (Btu/hr)		7,000		7,000		14,000		14,000
SEER	16.7	16.7	17.0	17.0	17.0	17.0	17.0	17.0
HSPF		8.2		8.5		9.5		9.5
EER	13.5	13.5	12.0	12.0	13.0	13.0	11.0	11.0
COP		3.2		3.0		3.5		3.2
Cooling Operating Range (°F)	60–115*	32–115	60–115*	32–115	60–115*	32–115	60–115*	32–115
Heating Operating Range (°F)		0–75		0–75		0–75		0–75
Line Length feet	100	100	100	100	100	100	100	100
<b>INDOOR UNIT</b>								
Voltage	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v
# of Fan Speeds	3+Auto	3+Auto	3+Auto	3+Auto	3+Auto	3+Auto	3+Auto	3+Auto
SOUND LEVELS: High (dBA)	45	45	45	45	56	56	56	56
Medium (dBA)	42	42	42	42	54	54	54	54
Low (dBA)	40	40	40	40	52	52	52	52
<b>OUTDOOR UNIT</b> <i>Transformer Kit required for 115Vac Condenser</i>								
Voltage	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v
Sound Level (low/high) (dBA)	61/64	61/64	61/64	61/64	65/68	65/68	65/69	65/69
<b>OPTIONS</b>								
E-boost Electric Heat (208/230v only) (kW)	3	3	3	3	3 & 5	3 & 5	3 & 5	3 & 5
** Low Ambient Cooling Range (°F)	0–32	0–32	0–32	0–32	0–32	0–32	0–32	0–32

\* Becomes 32–115°F with addition of optional Crank Case Heater Kit

\*\* Must add optional Crank Case Heater Kit (AC Only) and Wind Baffles Kit

ADDITIONAL  
SIZES COMING  
SOON

### Added Features Include:

- Sweep function on louvers provides a wide cooling area.
- Dry mode allows for dehumidification, with minimal change in room temperature.
- Selectable filter indicator notifies occupant when cleaning is required.
- Condensate pump accessory includes integral safety switch with 48" (1.2 m) available lift. Internal mount up to 24,000 Btu/h.
- Test mode overrides controls for easy start-up and diagnostics.

### Cassette Air Handlers



**CAHV Series Cooling & Heat Pump**  
(9,000 - 24,000 Btu/h, 2.6 - 7.0kW)



Hand-Held  
Wireless  
Controller



Optional Wall  
Mounted Wired  
Controller

#### CASSETTE AIR HANDLERS

INDOOR MODEL OUTDOOR MODEL	CAHV09 S1CV9000	CAHV09 S1HV9000	CAHV12 S1CV2000	CAHV12 S1HV2000	CAHV18 S1CV8000	CAHV18 S1HV8000	CAHV24 S1CV4000	CAHV24 S1HV4000
Type	A/C	HP	A/C	HP	A/C	HP	A/C	HP
Energy Star Eligible	✓		✓		✓	✓		
Nominal Cooling (Btu/hr)	9,000	9,000	12,000	12,000	18,000	18,000	24,000	24,000
Min - Max Cooling (Btu/hr)	3,000-9,000	3,000-9,000	4,000-12,000	4,000-12,000	6,000-18,000	6,000-18,000	8,000-24,000	8,000-24,000
Nominal Heating (Btu/hr)		8,400		8,800		17,000		19,000
Min - Max Heating at 47°F (Btu/hr)		2,800-8,400		2,900-8,800		5,600-17,000		6,200-19,000
Low Temp Turbo Heating at 17°F (Btu/hr)		7,000		7,000		14,000		14,000
SEER	15.0	15.0	15.8	15.8	17.0	17.0	17.0	17.0
HSPF		7.7		7.7		9.0		9.0
EER	13.0	13.0	12.0	12.0	13.0	13.0	11.0	11.0
COP		3.0		3.0		3.1		3.0
Cooling Operating Range (°F)	60-115*	32-115	60-115*	32-115	60-115*	32-115	60-115*	32-115
Heating Operating Range (°F)		0-75		0-75		0-75		0-75
Line Length (feet)	100	100	100	100	100	100	100	100
<b>INDOOR UNIT</b>								
Voltage	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v
# of Fan Speeds	3+Auto	3+Auto	3+Auto	3+Auto	3+Auto	3+Auto	3+Auto	3+Auto
SOUND LEVELS: High (dBA)	41	41	41	41	44	44	44	44
Medium (dBA)	40	40	40	40	43	43	43	43
Low (dBA)	39	39	39	39	42	42	42	42
<b>OUTDOOR UNIT</b>								
Voltage	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v
Sound Level (low/high) (dBA)	61/64	61/64	61/64	61/64	65/68	65/68	65/69	65/69
<b>OPTIONS</b>								
E-boost Electric Heat (208/230v only) (kW)	1½	1½	1½	1½	3	3	3	3
** Low Ambient Cooling Range (°F)	0-115	0-115	0-115	0-115	0-115	0-115	0-115	0-115

ADDITIONAL  
SIZES COMING  
SOON

\* Becomes 32-115°F with addition of optional Crank Case Heater Kit  
\*\* Must add optional Crank Case Heater Kit (AC Only) and Wind Baffles Kit

### Added Features Include:

- Factory installed condensate pump includes integral safety switch with 36" (0.9 m) available lift.
- Easily configured for fresh air intake and up to 2 branch discharge locations.
- Motorized discharge vanes on CAHV18-24.
- Infra-red compatible remote control with test mode CAHV models.
- Selectable filter indicator notifies occupant when unit needs filter cleaning.

## Universal Ceiling & Floor Mount Air Handlers



### UNHV Series Cooling & Heat Pump (9,000 - 24,000 Btu/h, 2.6 - 7.0 kW)

Single unit can be used in either  
a ceiling or floor mount application.



Hand-Held  
Wireless  
Controller



Optional Wall  
Mounted Wired  
Controller

### UNIVERSAL CEILING & UNIVERSAL FLOOR MOUNT AIR HANDLERS

INDOOR MODEL OUTDOOR MODEL	UNHV09 S1CV9000	UNHV09 S1HV9000	UNHV12 S1CV2000	UNHV12 S1HV2000	UNHV18 S1CV8000	UNHV18 S1HV8000	UNHV24 S1CV4000	UNHV24 S1HV4000
Type	A/C	HP	A/C	HP	A/C	HP	A/C	HP
Energy Star Eligible	✓	✓	✓	✓	✓	✓		
Nominal Cooling (Btu/hr)	9,000	9,000	12,000	12,000	18,000	18,000	24,000	24,000
Min - Max Cooling (Btu/hr)	3,000-9,000	3,000-9,000	4,000-12,000	4,000-12,000	6,000-18,000	6,000-18,000	8,000-24,000	8,000-24,000
Nominal Heating (Btu/hr)		8,800		10,000		18,000		21,000
Min - Max Heating at 47°F (Btu/hr)		2,900-8,800		3,300-10,000		6,000-18,000		7,000-21,000
Low Temp Turbo Heating at 17°F (Btu/hr)		7,000		7,000		14,000		14,000
SEER	16.7	16.7	17.0	17.0	17.0	17.0	17.0	17.0
HSPF		8.2		8.5		9.5		9.5
EER	13.5	13.5	12.0	12.0	13.0	13.0	11.0	11.0
COP		3.2		3.0		3.5		3.2
Cooling Operating Range (°F)	60-115*	32-115	60-115*	32-115	60-115*	32-115	60-115*	32-115
Heating Operating Range (°F)		0-75		0-75		0-75		0-75
Line Length feet	100	100	100	100	100	100	100	100
<b>INDOOR UNIT</b>								
Voltage	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v
# of Fan Speeds	3+Auto	3+Auto	3+Auto	3+Auto	3+Auto	3+Auto	3+Auto	3+Auto
SOUND LEVELS: High (dBA)	45	45	45	45	56	56	56	56
Medium (dBA)	42	42	42	42	54	54	54	54
Low (dBA)	40	40	40	40	52	52	52	52
<b>OUTDOOR UNIT</b>								
Voltage	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v	208/230v
Sound Level (low/high) (dBA)	61/64	61/64	61/64	61/64	65/68	65/68	65/69	65/69
<b>OPTIONS</b>								
E-boost Electric Heat (208/230v only) (kW)	3	3	3	3	3 & 5	3 & 5	3 & 5	3 & 5
** Low Ambient Cooling Range (°F)	0-32	0-32	0-32	0-32	0-32	0-32	0-32	0-32

ADDITIONAL  
SIZES COMING  
SOON

### Added Features Include:

- Multiple drain pans are factory installed, no field modification required.
- Dry mode allows for dehumidification, with minimal change in room temperature.
- Selectable filter indicator notifies occupant when cleaning is required.
- Easily configured for fresh air intake.
- Plastic filter grille standard, optional metal grille available.
- Condensate pump accessory includes integral safety switch with 48" (1.2 m) or 144" (3.6 m) available lift
- Optional wired or hand-held controller.

## Single Zone Condensers



### Single Zone S1CV Series Cooling

(9,000 - 24,000 Btuh, 2.6 - 7.0 kW)

### Single Zone S1HV Series Heat Pump

(9,000 - 24,000 Btuh, 2.6 - 7.0 kW)

#### SIDE DISCHARGE CONDENSERS – SINGLE ZONE

MODEL	NUMBER OF CIRCUITS	NOMINAL COOLING CAP. BTUH, (kW)	NOMINAL HEATING CAP. BTUH, (kW)
S1CV9000/S1HV9000	1	9,000 (2.6)	8,800 (2.6)
S1CV2000/S1HV2000	1	12,000 (3.5)	10,000 (2.9)
S1CV8000/S1HV8000	1	18,000 (5.2)	18,000 (5.3)
S1CV4000/S1HV4000	1	24,000 (7.0)	21,000 (6.2)

### Comfort Features:

- 3:1 turn down for increased comfort with decreased temperature swings.
- Single point power connection is standard. (Electric Heat models require Dual Point power connection.)
- Standard cooling operation down to 32°F (0°C) outside temperature.
- Standard heat pump heating operation down to 0°F (-13°C) outside temperature.
- Application flexibility with up to 100 EQUIVALENT feet (30.5 m) of interconnect refrigerant piping, supporting 35' (10.6 m) of elevation difference.
- Side discharge cabinet with durable injection molded base and enclosed compressor compartment for reduced noise.
- Coil ground clearance of 12" (0.3 m) provides added protection from the environment year round.
- Environmentally friendly R-410A refrigerant.
- Easy access connections for refrigerant gauges.
- Corrosion resistant, powder-coated steel cabinet with PVC coated wire guard coil protection.
- One year parts, five year compressor warranty.

### Options:

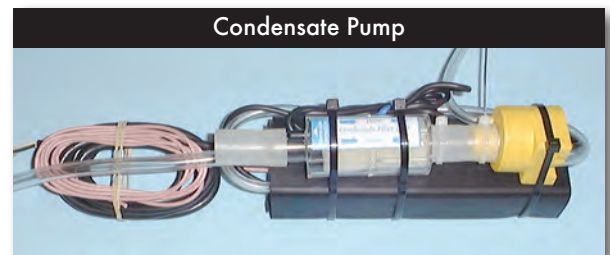
- Low ambient kits – field installed for cooling operation down to 0°F (-18°C).
- Hail guard/wind baffle/architectural louvers.
- 115v transformer kit – field installed for 9,000 and 12,000Btu/hr models (not available on systems with supplemental electric heat).

#### Hail Guard/Wind Baffle Accessory



## Accessories

- **Condensate Pump** – includes Integral Safety Switch.  
Provides available lift to Air Handlers as follows:  
Wall Mounted Air Handlers – to 48" (1.2m)  
Universal Air Handlers – to 48" (1.2m) or 144" (3.6m)
- **Hand-Held Wireless Controller** *(standard)*  
Convenient full function cooling and heating control included with every system.
- **Wired OEM Wall Control** *(optional)*  
Provides access to functions as cool or heat, timer, fan speed, temperature setting.
- **Interconnecting Cord Extension** *(optional)*  
Comes in 15' sections to locate Wired OEM Wall Control up to 150' away from the air handler.
- **Bi-Flow Filter Dryer** – Keeps moisture out of refrigerant *(field installed)*
- **Crank Case Heater** *(for Straight Cool Models)*  
*(standard on Heat Pump Models)*
- **Line Sets** *(requires insulation on both tubes)*
- **Architectural Louvers, Wind Baffles and Hail Guards**
- **Branch Duct Discharge Air Collar Kit**  
*(for Cassette Air Handlers)*
- **Merv 11 Filter** *(for Universal Air Handlers)*
- **Floor Mount Trim Kit** *(for Universal Air Handlers)*
- **Metal Return Grill and Filter** *(for Universal Air Handlers)*





## Variable Speed Ductless Split Systems

Single Zone Air Conditioners / Heat Pumps

**[www.e-verter.com](http://www.e-verter.com)**

For complete product information, please refer to individual unit specifications, installation and operation manual, and other product literature found on [www.enviromaster.com](http://www.enviromaster.com). Due to on-going product development, specifications are subject to change without notice.

**Contractor Assistance: 800.325.5479**



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