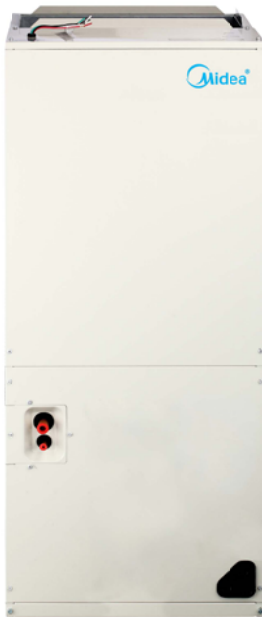




Heating & Air Conditioning

L AHU Tech Guide

Single Piece Multi-Position Air Handlers



DESCRIPTION

This fan coil unit provides user-flexibility with installation options for upflow, downflow or horizontal applications. These versatile models may be used for split-system cooling or heat pump operation. Compact cabinets along with return air options - in both the upflow and horizontal positions—allow this unit to fit into tight spaces such as attics, crawl spaces, and closets.

FEATURES

- Anti-rust, painted galvanized steel cabinet, 500 hours salt spray test.
- Low noise: fully-insulated design helps to minimize indoor noise level.
- Removing the front panel will allow the blower and coil assemblies to easily slide out for maintenance and ease of trouble shooting.
- Two drainage spouts for easy installation.
- Multi speed blower motors allow for flexible design and adds to the unit’s quiet operation and comfort
- Multi-position configuration allows for four types of installation.
- Auxiliary electrical heater (5kW, 7.5kW, 10kW, 15kW, 20kW) box; filter and thermostat optional.
- ARI Certified & ETL Listed.

NOTE: For matching condensing units and performance data, refer to condenser technical guides.
Due to continuous product improvement, specifications are subject to change without notice.
Visit us at www.midea.com or www.mideaaircon.com

WARRANTY

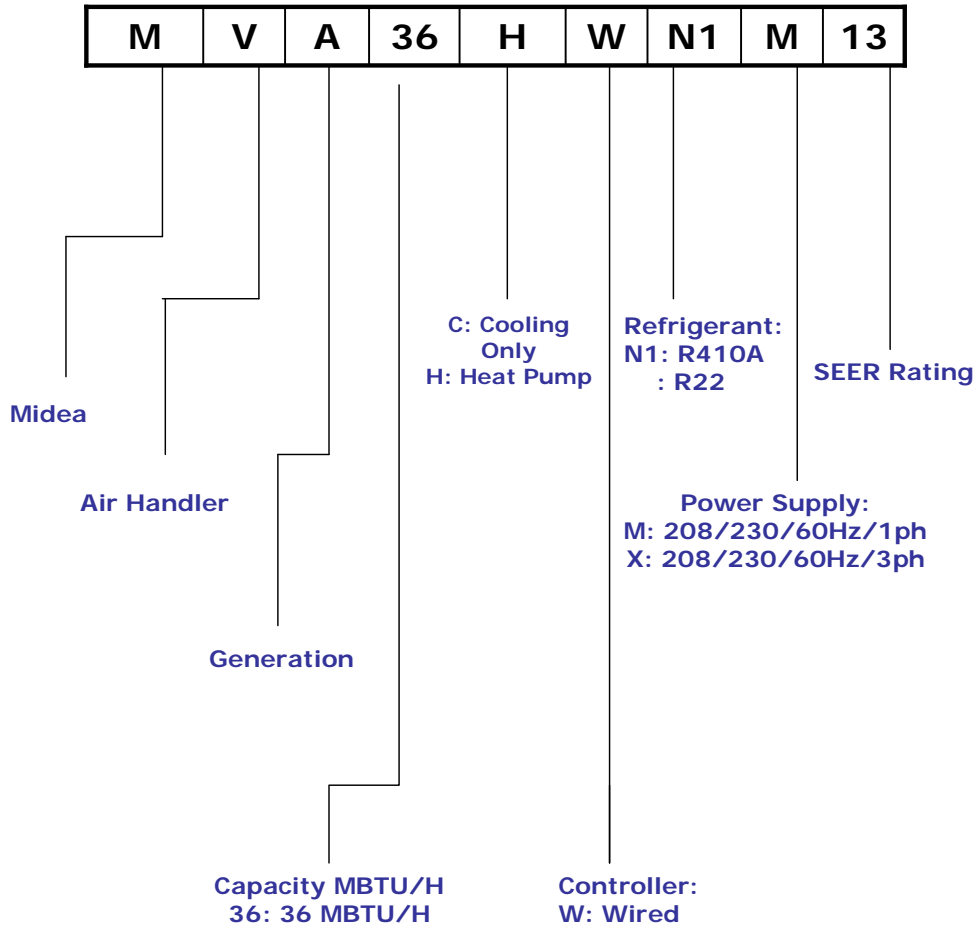
Standard 5-Year limited parts

Tested in accordance with:



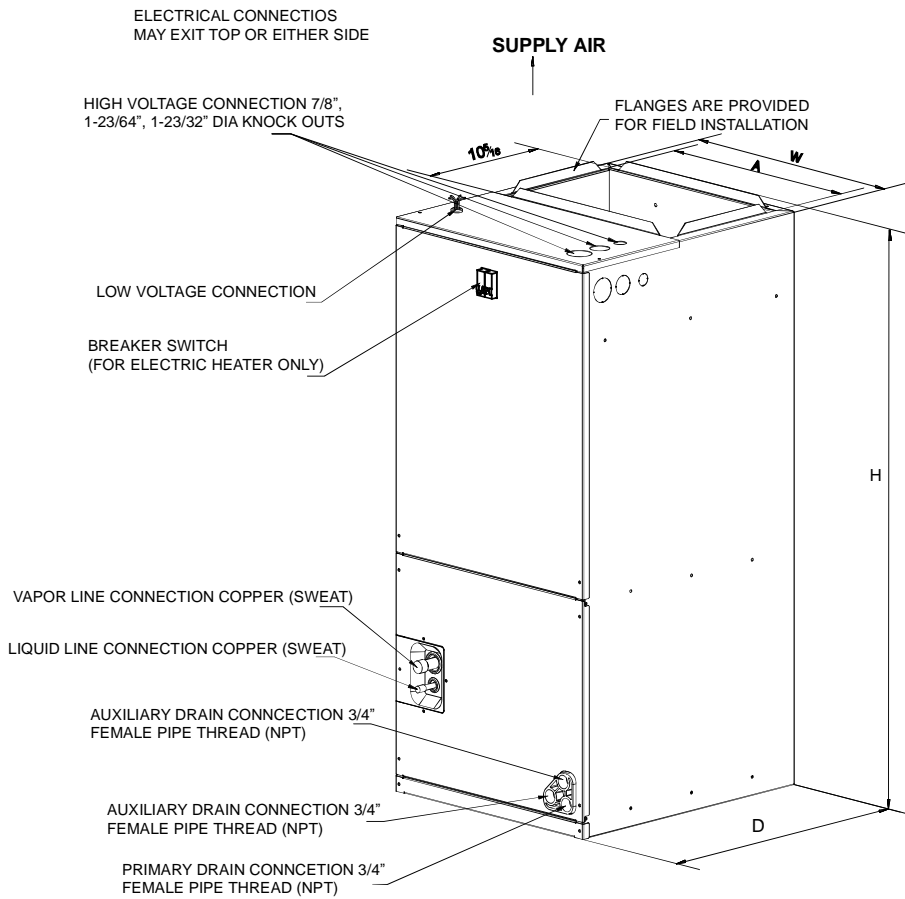
NOMENCLATURE

MIDEA SINGLE PIECE AIR HANDLER
NOMENCLATURE



DIMENSIONS

NOTE: 25" CLEARANCE IS REQUIRED IN THE FRONT OF THE UNIT FOR FILTER AND COIL MAINTENANCE.



UPFLOW UNIT SHOWN;
UNIT MAY BE INSTALLED UPFLOW, DOWNFLOW,
HORIZONTAL RIGHT, OR LEFT AIR SUPPLY.

Model Size	Dimension				Liquid/Vapor Size	Unit Weight/Shipping Weight
	H	W	D	A		
MVA-18HWN1-M13	41-3/8	18-1/8	20-1/2	16	3/8"/3/4"	106/119
MVA-24HWN1-M13	41-3/8	18-1/8	20-1/2	16	3/8"/3/4"	106/119
MVA-30HWN1-M13	41-3/8	18-1/8	20-1/2	16	3/8"/3/4"	119/132
MVA-36HWN1-M13	46-1/2	19-5/8	21-5/8	18	3/8"/3/4"	141/156
MVA-42HWN1-M13	46-1/2	19-5/8	21-5/8	18	3/8"/3/4"	141/156
MVA-48HWN1-M13	54-1/2	22	24	19-1/2	3/8"/7/8"	171/187
MVA-60HWN1-M13	54-1/2	22	24	19-1/2	3/8"/7/8"	171/187

COIL TECHNICAL DATA

Model	Application	Face Area (Sq.Ft.)	Tube Rows	Fins Per Inch	Coil SlabSize (W×H)	Tube Geometry	Tube Dia.	Fin Type	TXV
MVA-18HWN1-M13	A/C & HP	3	4	16	13-1/4X16-3/8	0.526x0.827	9/32	Hydrophilic Aluminum	None
MVA-24HWN1-M13	A/C & HP	3	4	16	13-1/4X16-3/8	0.526x0.827	9/32	Hydrophilic Aluminum	None
MVA-30HWN1-M13	A/C & HP	3	5	16	13-1/4X16-3/8	0.526x0.827	9/32	Hydrophilic Aluminum	None
MVA-36HWN1-M13	A/C & HP	4	5	16	16-1/2X17-1/2	0.526x0.827	9/32	Hydrophilic Aluminum	None
MVA-42HWN1-M13	A/C & HP	4	5	16	16-1/2X17-1/2	0.526x0.827	9/32	Hydrophilic Aluminum	None
MVA-48HWN1-M13	A/C & HP	6	5	16	21-1/2X20-1/8	0.526x0.827	9/32	Hydrophilic Aluminum	None
MVA-60HWN1-M13	A/C & HP	6	5	16	21-1/2X20-1/8	0.526x0.827	9/32	Hydrophilic Aluminum	None

AIRFLOW PERFORMANCE DATA

Model Number	Motor Speed	CFM									
		External Static Pressure-Inches W. C.									
		0	0.1	0.16	0.2	0.3	0.4	0.5	0.6	0.7	0.8
MVA-18HWN1-M13	Low	551	509	-	462	393	345	280	-	-	-
	Middle	661	622	-	577	506	443	400	-	-	-
	High	-	-	-	-	-	-	590	550	487	400
MVA-24HWN1-M13	Low	646	623	-	592	553	506	453	-	-	-
	Middle	815	802	-	771	733	681	613	-	-	-
	High	-	-	-	-	-	-	780	695	607	515
MVA-30HWN1-M13	Low	962	913	886	870	813	750	690	-	-	-
	Middle	1094	1043	1012	988	927	861	788	-	-	-
	High	1374	1311	1268	1240	1164	1084	996	910	828	744
MVA-36HWN1-M13	Low	1129	1088	1061	1040	988	941	819	-	-	-
	Middle	1317	1268	1237	1217	1157	1111	1027	-	-	-
	High	1643	1581	1544	1518	1446	1356	1261	1123	915	812
MVA-42HWN1-M13	Low	1239	1203	1178	1161	1117	1070	1000	-	-	-
	Middle	1480	1431	1399	1379	1319	1259	1187	-	-	-
	High	1738	1682	1639	1618	1548	1477	1378	1286	1042	908
MVA-48HWN1-M13	Low	1471	1427	1395	1374	1316	1247	1180	-	-	-
	Middle	1729	1678	1646	1625	1558	1491	1402	-	-	-
	High	2045	1992	1951	1928	1847	1763	1677	1563	1450	1317
MVA-60HWN1-M13	Low	1786	1740	1709	1688	1630	1562	1489	-	-	-
	Middle	2140	2071	2039	2006	1932	1799	1677	-	-	-
	High	2357	2276	2225	2188	2100	2004	1902	1764	1554	1393

NOTE: Above airflow performance data is based on no filter installed.

Physical and Electrical Data

Model	Blower		Motor		Voltage	Filter Size
	Dia.	H	HP	Rated RPM		
MVA-18HWN1-M13	10-3/4	8	1/6	1075	208/230V,1ph	16×20
MVA-24HWN1-M13	10-3/4	8	1/4	1075	208/230V,1ph	16×20
MVA-30HWN1-M13	10-1/4	9-3/16	1/4	1075	208/230V,1ph	16×20
MVA-36HWN1-M13	10-3/4	10-1/4	1/2	1075	208/230V,1ph	18×20
MVA-42HWN1-M13	10-3/4	10-1/4	1/2	1075	208/230V,1ph	18×20
MVA-48HWN1-M13	10-3/4	10-1/4	1/2	1075	208/230V,1ph	20×22
MVA-60HWN1-M13	10-3/4	10-1/4	3/4	1075	208/230V,1ph	20×22

ELECTRICAL DATA

Model	Circuit Ampacity	Minimum Circuit Ampacity	Max. O.C.P. ¹ Amps/Type	Wire Size A.W.G.	
				Power Wiring	Signal Wiring
MVA-18HWN1-M13	0.68	1	15	14	18
MVA-24HWN1-M13	0.95	1.5	15	14	18
MVA-30HWN1-M13	1.48	2	15	14	18
MVA-36HWN1-M13	1.63	3	15	14	18
MVA-42HWN1-M13	1.8	3	15	14	18
MVA-48HWN1-M13	2.11	3	15	14	18
MVA-60HWN1-M13	2.79	4	15	14	18

1. O.C.P. = Over Current Protection device, must be HACR type Circuit Breaker or Time Delay Fuse.

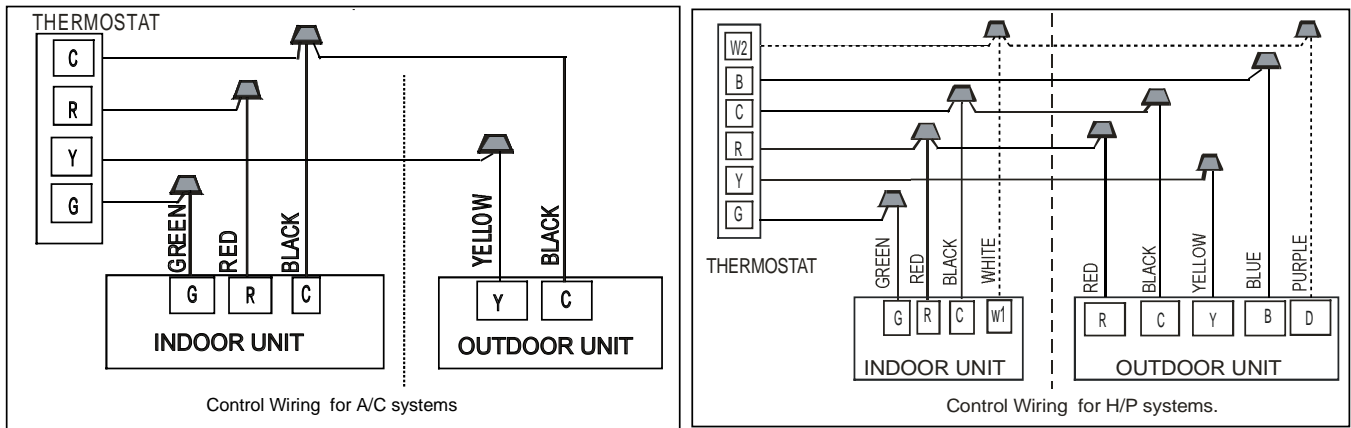
ELECTRICAL HEATER DATA

Air Handler Model	Heater Model	Electric Heat (KW)	MIN. Circuit. Ampacity		MAX. Fuse or Breaker (HACR) Ampacity	
			230	208	230	208
MVA-18HWN1-M13	EHK05A	5	27.2	24.6	30	25
	EHK08A	7.5	40.8	36.9	45	40
	EHK10A	10	54.4	49.2	60	50
MVA-24HWN1-M13	EHK05A	5	27.2	24.6	30	25
	EHK08A	7.5	40.8	36.9	45	40
	EHK10A	10	54.4	49.2	60	50
MVA-30HWN1-M13	EHK05A	5	27.2	24.6	30	25
	EHK08A	7.5	40.8	36.9	45	40
	EHK10A	10	54.4	49.2	60	50
MVA-36HWN1-M13	EHK05A	5	27.2	24.6	30	25
	EHK08A	7.5	40.8	36.9	45	40
	EHK10A	10	54.4	49.2	60	50
	EHK-15B	15	81	74	90	80
	EHK-20B	20	108	98	110	100

ELECTRICAL HEATER DATA

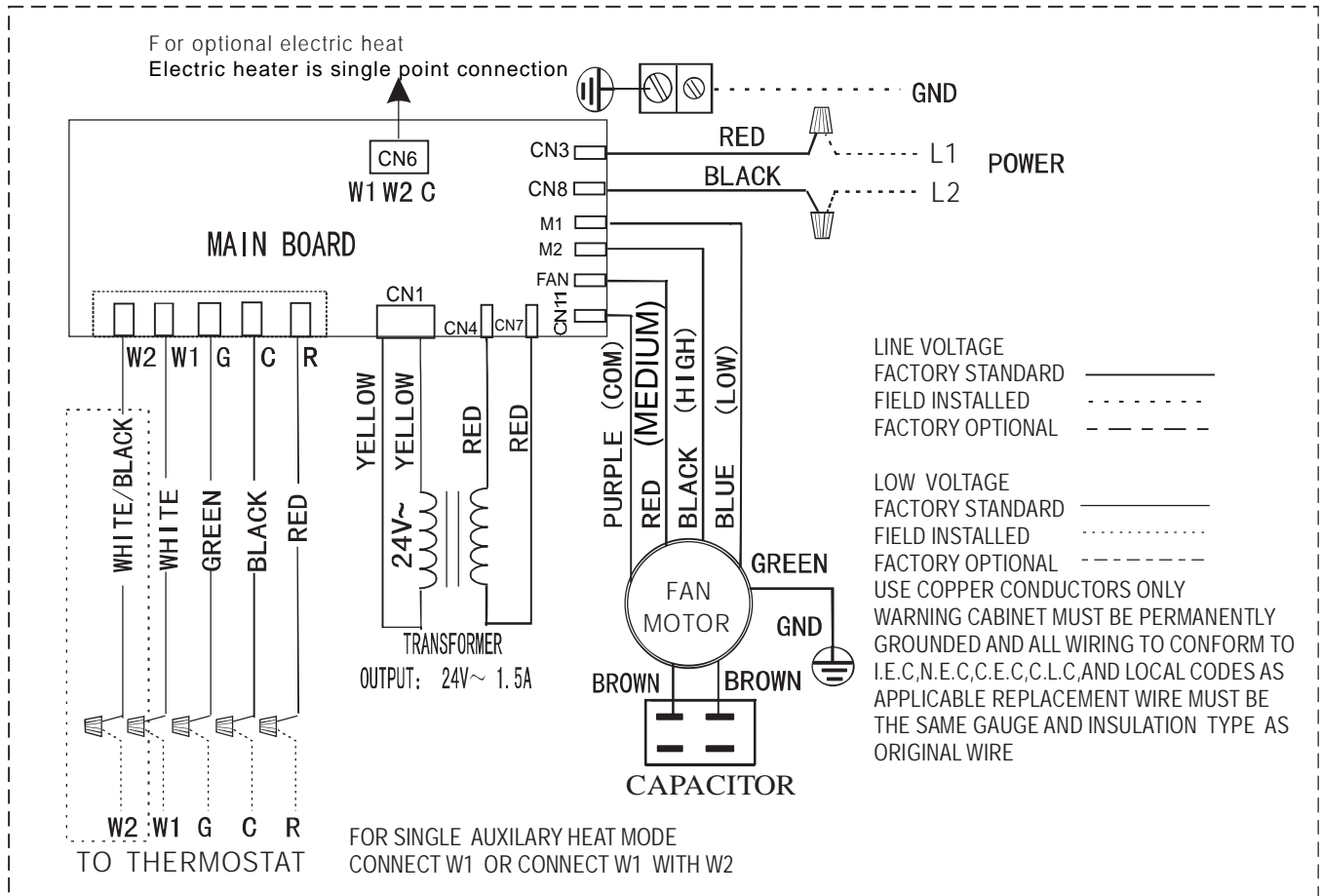
MVA-42HWN1-M13	EHK05A	5	27.2	24.6	30	25
	EHK08A	7.5	40.8	36.9	45	40
	EHK10A	10	54.4	49.2	60	50
	EHK-15B	15	81	74	90	80
	EHK-20B	20	108	98	110	100
MVA-48HWN1-M13	EHK05A	5	27.2	24.6	30	25
	EHK08A	7.5	40.8	36.9	45	40
	EHK10A	10	54.4	49.2	60	50
	EHK-15B	15	81	74	90	80
	EHK-20B	20	108	98	110	100
MVA-60HWN1-M13	EHK05A	5	27.2	24.6	30	25
	EHK08A	7.5	40.8	36.9	45	40
	EHK10A	10	54.4	49.2	60	50
	EHK-15B	15	81	74	90	80
	EHK-20B	20	108	98	110	100

FIELD WIRING CONNECTION



Note for HP: B Terminal is used for RV valve - RV valve defaults to heating mode and is energized for cooling.

Wiring Diagram For A/C and H/P Systems



Note:Description of fan speed switch

- 1.Default as medium speed of factory settings.
- 2.High speed wiring: Switch to high speed (black wire) and connect with FAN terminal, while medium speed (red wire) connect with M2 terminal.
- 3.Low speed wiring: Switch to low speed (blue wire) and connect with FAN terminal, while medium speed (red wire) connect with M1 terminal.

Terminal	Fan	M1	M2
Medium	Red	Blue	Black
High	Black	Blue	Red
Low	Blue	Red	Black