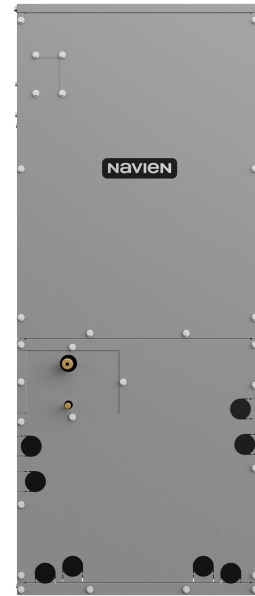


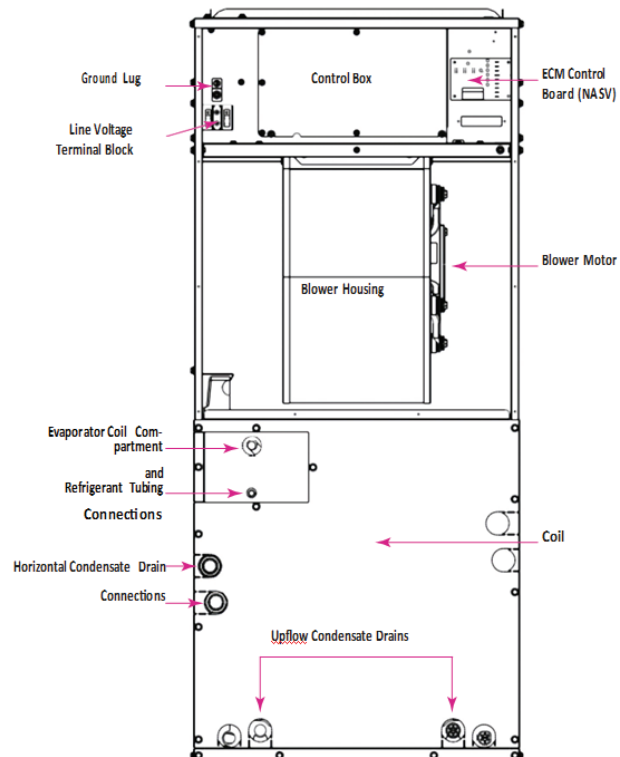
- Designed and approved for low GWP **R454B** refrigerant
- **NASS** uses a high efficient, **constant torque** ECM motor
- **NASV** uses a **variable speed** constant CFM high-efficiency ECM motor
- **NASS** supports 1-stage cooling
- **NASV** supports 2-stage cooling
- **Certified design** according to the latest edition of UL 60335-2-40
- Factory installed **refrigerant leak sensor** and mitigation control
- Factory installed **Thermostatic Expansion Valve** (TXV)
- **Primary** and **secondary** condensate drain connections
- Adjustable **blower ramping profiles** (NASV Series only)
- **4-Way Multi-Position** Installation (downflow requires a kit)
- Durable **powder coated** finish
- **40VA** Transformer
- Compatible with **24V thermostats**
- Coil constructed of **corrosion resistant** aluminum tube and fins
- **UV, heat and corrosion resistant** polymer drain pans
- **Fully insulated** cabinet to maintain efficiency
- Field Installed **Electric Heat Kits** (5-20 kW)
- **Navien Limited Warranty** - 10 year Parts / 90 days Labor (product must be registered)



NOMENCLATURE

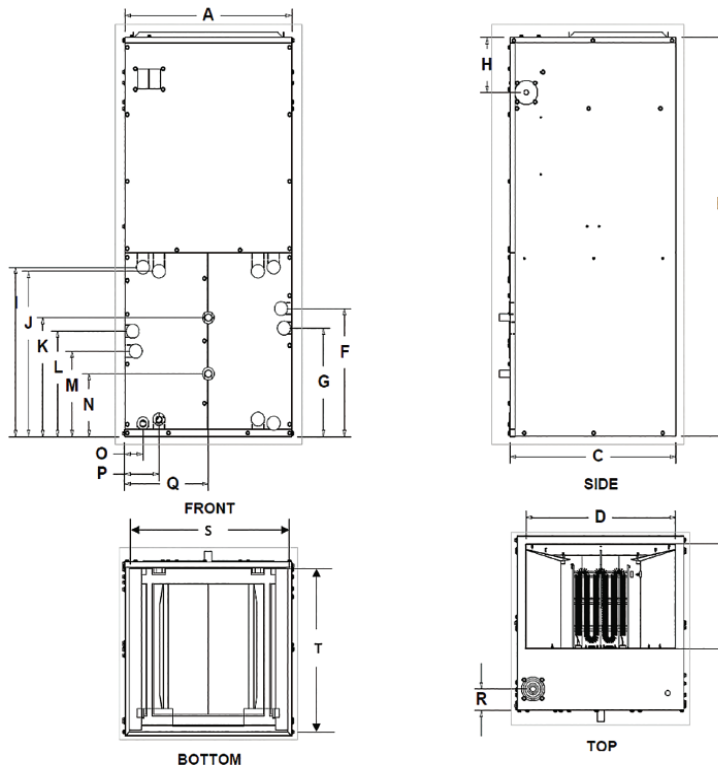
MODEL NUMBER NOMENCLATURE											
	N	A	S	V	36	C	2	T	2	A	1
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
I	Brand N = Navien										
II	Business Unit A = Air										
III	Product S = Single Piece										
IV	Blower Motor S = Constant Torque V = Variable Speed (ECM)										
V	Nominal Capacity 24 = 24,000 Btu/h 36 = 36,000 Btu/h 48 = 48,000 Btu/h 59 = 60,000 Btu/h										
VI	Width B = 17.5" C = 21.0" D = 24.5"										
VII	Refrigerant 1 = R410A 2 = R454B										
VIII	Expansion Device F = Fixed Orifice T = TXV E = EEV										
IX	Voltage 2 = 208/240V, 1-phase										
X	Major Revision Level										
XI	Minor Revision Level										

COMPONENTS



DIMENSIONS / SPECIFICATIONS

Models	2 TON	3 TON	4 TON	5 TON	2 TON	3 TON	4 TON	5 TON
	NASS24B	NASS36C	NASS48D	NASS59D	NASV24B	NASV36C	NASV48D	NASV59D
Capacity								
Cooling BTU/h	22600	32200	44000	54000	23400	34400	46500	56000
Heating @47°F BTU/h	23600	32600	44000	56000	25000	36000	45000	56000
Heating @17°F BTU/h	17500	23600	42500	45000	20000	25600	44000	47500
Evaporator Coil								
Coil Type	A-Coil							
Metering Device	TXV							
Liquid Line Connection ID, in (mm)	3/8 (9.5)							
Suction Line Connection ID, in (mm)	3/4 (19.2)		7/8 (22.2)		3/4 (19.2)		7/8 (22.2)	
Face Area, sq. in	3.56		6.32		3.56		6.32	
Tube Diameter, in	3/8				3/8			
Number of Rows	3				3			
Fins per Inch	16				16			
Coil Material	Aluminum							
Blower and Motor								
Nominal CFM (Cooling/Heating)	790	1050	1550	1650	700	1040	1550	1550
Motor HP	1/3	1/2	3/4		1/3	1/2	3/4	
Motor FLA - 208/240V	2.43/2.80	3.55/4.10	5.37/6.20		3.81/4.40	4.33/5.00	5.46/6.30	
Cabinet								
Orientations	Upflow, Downflow, Horizontal							
Dimensions H x W x D, in	43 x 17.5 x 21	48 x 21 x 21	58.9 x 24.5 x 21.8		43 x 17.5 x 21	48 x 21 x 21	58.9 x 24.5 x 21.8	
Dimensions H x W x D, cm	109 x 45 x 53	122 x 53 x 53	150 x 62 x 55		109 x 45 x 53	122 x 53 x 53	150 x 62 x 55	
Air Filter Size	16 x 20	20 x 20	20 x 24		16 x 20	20 x 20	20 x 24	
Configuration	Single Piece							
Net Weight lb (kg)	105 (47.6)	120 (54.4)	167 (75.8)	169 (76.7)	106 (48.1)	121 (54.9)	168 (76.2)	170 (77.1)
Shipping Weight lb (kg)	116 (52.6)	132 (59.9)	180 (81.65)	182 (77.1)	116 (52.6)	132 (59.9)	180 (81.7)	182 (82.6)



Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T
NASV/NASS 24	17.50	43.00	21.00	15.63	12.50	13.50	11.00	6.75	16.75	14.00	11.00	10.75	2.00	1.50	5.00	16.10	20.20
NASV/NASS 36	21.00	48.00	21.00	19.00	12.50	14.50	13.00	6.75	20.00	17.00	12.75	10.30	2.30	4.35	5.00	19.90	20.80
NASV/NASS 48, 59	24.50	58.88	21.75	22.25	14.25	19.75	17.25	6.75	26.00	23.00	16.75	14.35	2.30	4.35	4.50	23.50	20.70

Air Handler Dimensional Data - NASS/NASV Series

ELECTRICAL DATA

	NASS 24				NASS 36					NASS 48, 59					
Indoor Blower Motor Type	Constant Torque				Constant Torque					Constant Torque					
Indoor Blower Amps - 208/240VAC	2.43/2.80				3.55/4.10					5.37/6.20					
Heater – kW	0	5	8	10	0	5	8	10	15	0	5	8	10	15	20
Minimum Circuit Ampacity	3.5	29.54	45.17	55.58	6.25	32.29	46.79	58.33	84.37	7.75	33.79	49.42	59.83	85.67	111.91
Minimum Wire Size (194°F)	#14	#12	#8	#8	#14	#12	#8	#8	#4	#14	#12	#8	#6	#4	#3
Minimum Wire Size (167°F)	#14	#10	#6	#6	#14	#10	#6	#6	#4	#14	#10	#8	#6	#4	#2
Minimum Wire Size (140°F)	#14	#10	#6	#6	#14	#10	#6	#6	#3	#14	#10	#6	#4	#3	#1
Ground Wire Size	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maximum Overcurrent Protection Amps**	15	35	50	60	15	30	50	60	90	15	35	50	60	90	120

Wiring Requirements - NASS Series - Single Branch Circuit

	NASV 24				NASV 36					NASV 48, 59					
Indoor Blower Motor Type	ECM				ECM					ECM					
Indoor Blower Amps - 208/240VAC	3.81/4.40				4.33/5.00					5.46/6.30					
Heater – kW	0	5	8	10	0	5	8	10	15	0	5	8	10	15	20
Minimum Circuit Ampacity	5.5	31.54	47.17	56.48	6.25	32.29	47.92	58.33	84.37	7.88	33.92	49.54	59.96	86.00	112.04
Minimum Wire Size (194°F)	#14	#12	#8	#8	#14	#12	#8	#8	#4	#14	#12	#8	#6	#4	#3
Minimum Wire Size (167°F)	#14	#10	#8	#6	#14	#10	#8	#6	#4	#14	#10	#8	#6	#4	#2
Minimum Wire Size (140°F)	#14	#10	#6	#6	#14	#10	#6	#6	#3	#14	#10	#6	#4	#3	#1
Ground Wire Size	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Maximum Overcurrent Protection Amps**	15	35	60	60	15	35	90	60	90	15	35	50	60	90	120

Wiring Requirements - NASV Series - Single Branch Circuit

	NASS36		NASS48,59			
Circuit Number	1	2	1	2		
Indoor Blower Motor Type	CONSTANT TORQUE		CONSTANT TORQUE			
Indoor Blower Amps	3.55/4.10		5.37/6.20			
Heater - kW	15		15		20	
Circuit Number	1 (10kW)	2 (5kW)	1 (10kW)	2 (5kW)	1 (10kW)	2 (10kW)
Minimum Circuit Ampacity	57.21	31.17	59.83	26.04	59.83	52.08
Minimum Wire Size (90°C)	#8	#12	#8	#12	#8	#8
Minimum Wire Size (75°C)	#6	#10	#6	#10	#6	#6
Minimum Wire Size (60°C)	#6	#10	#6	#10	#6	#6
Ground Wire Size	*	*	*	*	*	*
Maximum Overcurrent Protection Amps **	60	35	60	30	60	60

Wiring Requirements - NASS Series - Dual Branch Circuit

	NASV36		NASV48,59			
Circuit Number	1	2	1		2	
Indoor Blower Motor Type	ECM		ECM			
Indoor Blower Amps	4.33/5.00		5.46/6.30			
Heater - kW	15		15		20	
Circuit Number	1 (10kW)	2 (5kW)	1 (10kW)	2 (5kW)	1 (10kW)	2 (10kW)
Minimum Circuit Ampacity	58.33	32.29	59.96	26.04	59.96	52.08
Minimum Wire Size (90°C)	#8	#12	#8	#12	#8	#8
Minimum Wire Size (75°C)	#6	#10	#6	#10	#6	#6
Minimum Wire Size (60°C)	#6	#10	#6	#10	#6	#6
Ground Wire Size	*	*	*	*	*	*
Maximum Overcurrent Protection Amps **	60	35	60	30	60	60

Wiring Requirements - NASV Series - Dual Branch Circuit

AIRFLOW DATA

Model Number	Motor HP	Volts 1 Ph. 50/60 Hz	Blower Wheel	Speed Tap	CFM @ 0.10" E.S.P	CFM @ 0.20" E.S.P	CFM @ 0.30" E.S.P	CFM @ 0.40" E.S.P	CFM @ 0.50" E.S.P	CFM @ 0.60" E.S.P
NASS24	0.33	208/240	10 X 7	1	861	786	708	638	547	615
				2	924	872	814	726	663	656
				3	1067	1013	963	894	826	758
				4	1139	1093	1042	982	918	857
				5	1220	1157	1105	1049	985	893
NASS36	0.5	208/240	10 X 8	1	1161	1135	1086	1056	1027	992
				2	1261	1228	1198	1153	1129	1100
				3	1361	1310	1286	1262	1227	1201
				4	1478	1431	1405	1383	1351	1309
				5	1568	1536	1507	1470	1440	1400
NASS48	0.75	208/240	12 X 9	1	1579	1560	1544	1491	1445	1397
				2	1685	1671	1626	1587	1544	1507
				3	1739	1746	1711	1674	1629	1579
				4	1802	1778	1809	1764	1718	1682
				5	1876	1870	1896	1870	1836	1782
NASS59	0.75	208/240	12 X 9	1	1579	1560	1544	1491	1445	1397
				2	1685	1671	1626	1587	1544	1507
				3	1745	1734	1745	1712	1656	1616
				4	1958	1953	1943	1919	1874	1828
				5	2038	2015	2010	2005	1977	1934

NASS Blower Performance Chart - Constant Torque Motors - Without Air Filter

Note Minimum CFM for Electric Heat: 5 - 10kW = 650 CFM; 15kW = 1000 CFM; 20 kW = 1400 CFM

Model Number	Nominal Tons	Motor HP	Volts 1 Ph. 50/60 Hz.	Blower Wheel	Wiring	Jumper	CFM							
							0.1" E.S.P	0.2" E.S.P	0.3" E.S.P	0.4" E.S.P	0.5" E.S.P	0.6" E.S.P	0.7" E.S.P	0.8" E.S.P
NASV24	1.5-2.0	1/3	208/240	9x6	G, Y1, Y2	A	1015	1029	1029	1034	1029	968	882	807
						B	976	988	991	991	994	964	880	804
						C	918	927	930	930	930	927	878	806
						D	813	820	820	816	813	813	806	795
					G, Y1	A	900	910	913	903	900	893	839	760
						B	816	812	809	801	794	789	784	762
						C	768	768	757	749	741	736	868	758
						D	685	681	670	660	653	640	630	623
NASV36	1.5-3.0	1/2	208/240	10x7	G, Y1, Y2	A	1641	1631	1611	1569	1532	1494	1455	1386
						B	1636	1616	1590	1585	1538	1500	1455	1398
						C	1502	1498	1498	1490	1486	1482	1445	1386
						D	1407	1416	1412	1407	1399	1399	1382	1373
					G, Y1	A	1575	1575	1569	1564	1554	1527	1494	1438
						B	1368	1362	1356	1356	1350	1344	1338	1325
						C	1151	1140	1146	1140	1135	1125	1119	1114
						D	1098	1098	1092	1092	1087	1081	1070	1059
NASV48/59	4.0-5.0	3/4	208/240	12x9	G, Y1, Y2	A	2098	2098	2098	2065	2032	1991	1963	1928
						B	2050	2057	2064	2057	2030	1996	1962	1927
						C	1854	1869	1869	1869	1862	1862	1854	1847
						D	1741	1751	1751	1751	1746	1741	1736	1736
					G, Y1	A	2026	2040	2040	2040	2033	2026	2019	1984
						B	1642	1653	1659	1664	1659	1659	1653	1648
						C	1517	1517	1523	1529	1529	1523	1523	1517
						D	1431	1435	1439	1439	1444	1444	1439	1435

NASV Blower Performance Chart - VSD Motors (Y1+Y2, W1, or W2) - Without Air Filter

- Note**
- 1) For single-stage cooling/heat pump systems, connect the wire from the "Y" thermostat terminal to both the "Y1" and "Y2" air handler low voltage pigtails to assure full nominal airflow.
 - 2) Continuous fan CFM is approximately 50% of the values shown in Table 5.
 - 3) Minimum CFM for Electric Heat: 5 - 10kW = 650 CFM; 15kW = 1000 CFM; 20 kW = 1400 CFM

ACCESSORIES

ELECTRIC HEATER KITS NOMENCLATURE					
	N	EH	V	05	B
	I	II	III	IV	V
I	Brand N=Navien				
II	Type EH=Electric Heater				
III	Motor Compatibility V=Varies				
IV	Capacity 05kw / 08kw / 10kw / 15kw / 20kw				
V	Cabinet Width B- 17.5" C- 21.0" D- 24.5"				

Electric Heater Kits	
Model #	Description
NEHV05B	Electric Heater Kit 05KW B Width
NEHV08B	Electric Heater Kit 08KW B Width
NEHV10B	Electric Heater Kit 10KW B Width
NEHV05C	Electric Heater Kit 05KW C Width
NEHV08C	Electric Heater Kit 08KW C Width
NEHV10C	Electric Heater Kit 10KW C Width
NEHV15C	Electric Heater Kit 15KW C Width
NEHV05D	Electric Heater Kit 05KW D Width
NEHV08D	Electric Heater Kit 08KW D Width
NEHV10D	Electric Heater Kit 10KW D Width
NEHV15D	Electric Heater Kit 15KW D Width
NEHV20D	Electric Heater Kit 20KW D Width

FILTER BASE NOMENCLATURE			
	N	AHFB	B
	I	II	III
I	Brand N=Navien		
II	Type AHFB=Filter Base		
III	Cabinet Width B-17.5" C-21.0" D-24.5"		

FILTER BASE NOMENCLATURE			
	N	AHDF	B
	I	II	III
I	Brand N=Navien		
II	Type AHFB=Filter Base		
III	Cabinet Width B-17.5" C-21.0" D-24.5"		

Filter Racks	
Part No.	Description
NAHFBB	Downflow Kit (24k)
NAHFBC	Downflow Kit (36k)
NAHFBD	Downflow Kit (48k, 59k)

Note: Compatible with 1" or 2" filters

Downflow Kits	
Part No.	Description
NAHDFB	Downflow Kit (24k)
NAHDFC	Downflow Kit (36k)
NAHDFD	Downflow Kit (48k, 59k)

Note: Includes new coil access door