TECHNICAL SPECIFICATIONS

PREMIUM MULTI-ZONE DUCTLESS HEAT PUMP SERIES



10 YEAR LIMITED WARRANTY
PARTS AND COMPRESSOR

R454B

ENERGY STAR

FEATURES

- **Very High Efficiency Rating**
  Exceptional energy performance, minimizing energy consumption and lowering costs.
- **Available Capacities**
  Choose from 27,000 BTU/h and 36,000 BTU/h for powerful heating and cooling solutions.
- **Energy Star & NEEP Certified**
  Recognized for energy efficiency, potentially qualifying for rebates, and supporting sustainability. Eligibility for local rebate programs offers additional cost savings—check local Qualified Product Lists for details.
- **Wi-Fi Kit Included**
  Comes with Wi-Fi capability in each indoor unit for easy remote management and monitoring.
- **User-Friendly Remote Control**
  Easily adjust Sleep Mode, LED light settings, room temperature, and power on/off for tailored comfort of each indoor unit.
- **Increased number of indoor units per model (4 and 5 units)**
  Provides greater flexibility for installations, accommodating various home or business layouts.
- **Enlarged operational space and improved diagnostic board**
  Simplifies installation and servicing, saving time for technicians and reducing maintenance costs.

ENVIRONMENTALLY RESPONSIBLE

Napoleon uses R-454B refrigerant, which offers improved energy efficiency and reduces greenhouse gas (GHG) emissions. This refrigerant has a significantly lower Global Warming Potential (GWP), no ozone depletion potential (ODP), and low toxicity. R-454B's GWP is over 75% lower than its predecessor , R-410A, and it exceeds EPA requirements for low-GWP refrigerants (<700 GWP).

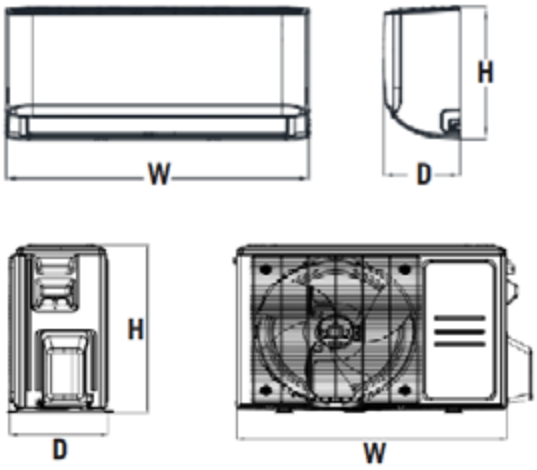
NOMENCLATURE



N	D	H	A	M	B	B	-	27	-	O
Brand	Configuration	Type (Heat Pump/or Cool Only)	Sales Channel	Single/ Multi	Refrigerant	Revision		Capacity in 000 BTU/h		Indoor/ Outdoor
N = Napoleon	*Ductless*	*Heat Pump*	*Distribution*	*Multi*	*B= R454B*	*A = Without Shut Off Valve B = With Shut Off Valve*		*27 or 36*		*O = Outdoor*

DUCTLESS SPECIFICATIONS

DIMENSIONS				
INDOOR UNIT INFORMATION	NDHAS22BB-09-I	NDHAS22BB-12-I	NDHAS22BB-18-I	NDHAS22BB-24-I
Width (mm/in)	802/31.57	802/31.57	1082/42.6	1082/42.6
Depth (mm/in)	200/7.87	200/7.87	234/9.21	234/9.21
Height (mm/in)	295/11.61	295/11.61	337/13.27	337/13.27
Net weight (lb/kg)	18.96/8.6	18.96/8.6	30.42/13.8	30.86/14
Gross weight (lb/kg)	24.25/11	24.25/11	39.68/18	40.56/18.4
OUTDOOR UNIT INFORMATION	NDHAMBB-27-0		NDHAMBB-36-0	
Width (mm/in)	946/37.24		980/38.58	
Depth (mm/in)	410/16.14		415/16.34	
Height (mm/in)	810/31.89		975/38.35	
Net weight (lb/kg)	168.43/76.4		211.86/96.1	
Gross weight (lb/kg)	179.67/81.5		244.71/111	



SYSTEM DATA		
	NDHAMBB-27-0	NDHAMBB-36-0
Cooling Capacity (BTU/h)	27,000	36,000
Heating Capacity (BTU/h)	27,000	36,000
Maximum indoor head connectivity	4	5
Power supply	208/230V,1Ph/60Hz	208/230V,1Ph/60Hz
Max.Input consumption	3620	4000
Max.Current	16	17.8
Min. Circuit ampacity	30	37
Max.Fuse	35	40
Refrigerant type	R454B	R454B
Compressor	Rotary	Rotary
Refrigerant charge(oz/kg)	120.63/3.42	134.04/3.8
Refrigerant pre-charge (ft/m)	24.6(7.5)x4	24.6(7.5)x5
Refrigerant charge unit	ozs	ozs
Additional refrigerant 1/4" Liquid pipe (g/m / oz/ft)	15/0.16	15/0.16
Additional refrigerant 3/8" Liquid pipe (g/m / oz/ft)	30/0.32	30/0.32
Outdoor air flow (Hi) CFM	2148.4	3037.2
Outdoor noise level dBA	61	65
GAS PIPE (mm/in)	3x9.52mm(3/8in)+1x12.7mm(1/2in)	3x9.52mm(3/8in)+2x12.7mm(1/2in)
LIQUID Pipe (mm/in)	4x6.35mm(1/4in)	5x6.35mm(1/4in)
Max. pipe length for all rooms (ft/m)	262.4/80	262.4/80
Max. pipe length for one indoor unit (ft/m)	114.8/35	114.8/35
Max height difference between indoor & outdoor unit (ft/m)	49.2/15	49.2/15
Operating Range	-30ºC (-22ºF) to 50ºC (122ºF)	-30ºC (-22ºF) to 50ºC (122ºF)

PERFORMANCE DATA – COOLING

DB – Dry Bulb WB – Wet Bulb TC:Total Cooling Capacity (BTU/hr) S/T:Sensible Cooling Capacity Ratio PI:Power Input(kW) Input – Total Power (kW)

AIRFLOW (CFM)	COOLING		INDOOR CONDITIONS																			
	OUTDOOR DB(°F)	ID WB(°F)	60.8°F(16.0°C)					64.4°F(18.0°C)					67°F(19.4°C)					71.6°F(22.0°C)				
		ID DB(°F)	73.4°F (23.0°C)	77.0°F (25.0°C)	80.0°F (26.7°C)	80.6°F (27.0°C)	84.2°F (29.0°C)	73.4°F (23.0°C)	77.0°F (25.0°C)	80.0°F(26.7°C)	80.6°F (27.0°C)	84.2°F (29.0°C)	73.4°F (23.0°C)	77.0°F (25.0°C)	80.0°F (26.7°C)	80.6°F (27.0°C)	84.2°F (29.0°C)	73.4°F (23.0°C)	77.0°F (25.0°C)	80.0°F (26.7°C)	80.6°F (27.0°C)	84.2°F (29.0°C)
1588	5°F (-15.0°C)	TC	31990	32033	32067	32069	32112	33918	33958	33991	33998	34038	35944	35991	36031	36037	36078	38110	38151	38193	38199	38246
		S/T	0.49	0.57	0.65	0.65	0.74	0.51	0.60	0.69	0.69	0.78	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88
		PI	2.64	2.64	2.64	2.64	2.65	2.80	2.80	2.80	2.80	2.81	2.96	2.97	2.97	2.97	2.98	3.14	3.15	3.15	3.15	3.15
	17°F (-8.3°C)	TC	32717	32761	32796	32797	32842	34688	34729	34764	34771	34812	36761	36809	36850	36856	36898	38976	39018	39061	39067	39115
		S/T	0.49	0.57	0.65	0.65	0.74	0.52	0.61	0.69	0.69	0.79	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.78	0.78	0.88
		PI	2.68	2.68	2.68	2.68	2.69	2.84	2.84	2.85	2.85	2.85	3.01	3.01	3.02	3.02	3.02	3.19	3.19	3.20	3.20	3.20
	35°F (1.7°C)	TC	34362	34408	34445	34447	34493	36433	36476	36512	36519	36562	38609	38659	38703	38710	38753	40936	40980	41025	41031	41082
		S/T	0.49	0.58	0.66	0.66	0.75	0.52	0.61	0.70	0.70	0.79	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89
		PI	2.39	2.39	2.39	2.39	2.40	2.53	2.53	2.54	2.54	2.54	2.68	2.69	2.69	2.69	2.69	2.84	2.85	2.85	2.85	2.85
	47°F (8.3°C)	TC	35976	36025	36064	36065	36114	38144	38190	38227	38235	38280	40423	40476	40521	40529	40574	42859	42906	42952	42959	43012
		S/T	0.50	0.58	0.66	0.66	0.75	0.53	0.62	0.70	0.70	0.80	0.56	0.65	0.74	0.74	0.85	0.59	0.69	0.79	0.79	0.90
		PI	2.58	2.59	2.59	2.59	2.59	2.74	2.74	2.75	2.75	2.75	2.90	2.91	2.91	2.91	2.91	3.08	3.08	3.08	3.09	3.09
	82°F (27.8°C)	TC	39593	39646	39689	39691	39744	41979	42029	42070	42079	42129	44487	44545	44594	44603	44653	47167	47219	47270	47278	47336
		S/T	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	3.34	3.35	3.35	3.35	3.36	3.54	3.55	3.55	3.55	3.56	3.76	3.76	3.76	3.77	3.77	3.98	3.99	3.99	3.99	4.00
	95°F (35.0°C)	TC	34768	34815	34852	34854	34901	36863	36907	36943	36951	36994	39066	39116	39160	39167	39211	41419	41464	41510	41516	41568
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	3.21	3.21	3.22	3.22	3.22	3.40	3.41	3.41	3.41	3.41	3.61	3.61	3.61	3.61	3.62	3.82	3.83	3.83	3.83	3.84
	110°F (43.0°C)	TC	28779	28817	28848	28850	28889	30513	30549	30579	30585	30622	32336	32378	32414	32420	32456	34284	34321	34359	34364	34407
		S/T	0.57	0.67	0.76	0.76	0.86	0.60	0.71	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00
		PI	2.75	2.75	2.76	2.76	2.76	2.91	2.92	2.92	2.92	2.92	3.09	3.09	3.10	3.10	3.10	3.27	3.28	3.28	3.28	3.29
	122°F (50.0°C)	TC	17538	17562	17581	17582	17605	18595	18617	18636	18639	18661	19706	19732	19754	19757	19779	20894	20916	20939	20942	20968
		S/T	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.95	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00
		PI	2.31	2.32	2.32	2.32	2.32	2.45	2.46	2.46	2.46	2.46	2.60	2.60	2.61	2.61	2.61	2.76	2.76	2.76	2.76	2.77
2029	5°F (-15.0°C)	TC	41765	41821	41867	41868	41925	44282	44335	44379	44387	44440	46928	46989	47041	47050	47102	49755	49810	49864	49871	49934
		S/T	0.49	0.57	0.65	0.65	0.74	0.51	0.60	0.69	0.69	0.78	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88
		PI	2.15	2.16	2.16	2.16	2.16	2.28	2.29	2.29	2.29	2.29	2.42	2.42	2.43	2.43	2.43	2.57	2.57	2.57	2.57	2.58
	17°F (-8.3°C)	TC	33613	33659	33695	33696	33742	35639	35681	35717	35724	35766	37768	37817	37860	37867	37909	40044	40087	40131	40137	40187
		S/T	0.49	0.57	0.65	0.65	0.74	0.52	0.61	0.69	0.69	0.79	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.78	0.78	0.88
		PI	1.81	1.81	1.81	1.81	1.81	1.92	1.92	1.92	1.92	1.92	2.03	2.03	2.04	2.04	2.04	2.15	2.15	2.16	2.16	2.16
	35°F (1.7°C)	TC	34434	34481	34518	34519	34566	36510	36553	36589	36596	36640	38691	38741	38784	38791	38835	41022	41067	41111	41118	41169
		S/T	0.49	0.58	0.66	0.66	0.75	0.52	0.61	0.70	0.70	0.79	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89
		PI	1.88	1.88	1.88	1.88	1.89	1.99	2.00	2.00	2.00	2.00	2.11	2.11	2.12	2.12	2.12	2.24	2.24	2.24	2.24	2.25
	47°F (8.3°C)	TC	37085	37135	37175	37177	37227	39320	39366	39405	39413	39460	41669	41723	41770	41777	41824	44180	44228	44276	44283	44338
		S/T	0.50	0.58	0.66	0.66	0.75	0.53	0.62	0.70	0.70	0.80	0.56	0.65	0.74	0.74	0.85	0.59	0.69	0.79	0.79	0.90
		PI	2.13	2.14	2.14	2.14	2.14	2.26	2.26	2.27	2.27	2.27	2.40	2.40	2.40	2.40	2.41	2.54	2.54	2.55	2.55	2.55
	82°F (27.8°C)	TC	37386	37436	37476	37478	37528	39639	39685	39725	39733	39780	42007	42061	42108	42116	42163	44538	44586	44635	44642	44697
		S/T	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	2.95	2.96	2.96	2.96	2.96	3.13	3.13	3.14	3.14	3.14	3.32	3.32	3.33	3.33	3.33	3.52	3.52	3.53	3.53	3.53
	95°F (35.0°C)	TC	40820	40875	40919	40921	40976	43280	43331	43374	43383	43434	45866	45926	45977	45985	46037	48629	48682	48735	48743	48804
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	3.58	3.59	3.59	3.59	3.60	3.80	3.80	3.81	3.81	3.81	4.03	4.03	4.04	4.04	4.04	4.27	4.27	4.28	4.28	4.28
	110°F (43.0°C)	TC	34389	34435	34472	34474	34520	36461	36505	36541	36548	36591	38640	38690	38733	38740	38783	40968	41012	41057	41063	41115
		S/T	0.57	0.67	0.76	0.76	0.86	0.60	0.71	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00
		PI	4.06	4.07	4.07	4.07	4.08	4.31	4.31	4.32	4.32	4.32	4.57	4.57	4.58	4.58	4.58	4.84	4.85	4.85	4.85	4.86
	122°F (50.0°C)	TC	17267	17290	17309	17310	17333	18308	18329	18348	18351	18373	19402	19427	19448	19452	19474	20571	20593	20615	20619	20644
		S/T	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.95	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00
		PI	2.49	2.49	2.49	2.49	2.50	2.64	2.64	2.64	2.64	2.65	2.79	2.80	2.80	2.80	2.80	2.96	2.96	2.97	2.97	2.97

PERFORMANCE DATA – HEATING

DB – Dry Bulb WB – Wet Bulb TC:Total Cooling Capacity (BTU/hr) S/T:Sensible Cooling Capacity Ratio PI:Power Input(kW) Input – Total Power (kW)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB(°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions(DB °F)					Indoor Conditions(DB °F)				
		60.8°F(16.0°C)	68°F(20.0°C)	70°F(21.1°C)	71.6°F(22.0°C)	75.2°F(24.0°C)	60.8°F(16.0°C)	68°F(20.0°C)	70°F(21.1°C)	71.6°F(22.0°C)	75.2°F(24.0°C)
1588	-22°F(-30.0°C)	15010	14710	14636	14578	14447	3.05	3.08	3.08	3.09	3.10
	-13°F(-25.0°C)	18047	17686	17597	17527	17369	3.21	3.23	3.24	3.25	3.26
	-4°F(-20.0°C)	23441	22973	22858	22766	22561	3.39	3.42	3.42	3.43	3.45
	5°F(-15.0°C)	28917	28339	28197	28084	27832	3.52	3.55	3.55	3.56	3.58
	17°F(-8.3°C)	29538	28948	28803	28688	28429	3.70	3.73	3.74	3.75	3.76
	35°F(1.7°C)	30045	29444	29297	29179	28917	3.05	3.07	3.08	3.09	3.10
	47°F(8.3°C)	39531	38741	38547	38393	38047	3.27	3.29	3.30	3.31	3.32
	64.4°F(18.0°C)	37769	37013	36828	36681	36351	2.44	2.46	2.46	2.47	2.48
2029	-22°F(-30.0°C)	22559	22108	21997	21909	21712	4.55	4.59	4.60	4.61	4.63
	-13°F(-25.0°C)	28763	28188	28047	27934	27683	4.77	4.81	4.82	4.83	4.85
	-4°F(-20.0°C)	35285	34580	34407	34269	33961	5.25	5.29	5.30	5.31	5.33
	5°F(-15.0°C)	36919	36181	36000	35856	35533	4.97	5.01	5.02	5.03	5.05
	17°F(-8.3°C)	42815	41959	41749	41582	41208	4.16	4.19	4.20	4.21	4.23
	35°F(1.7°C)	41990	41150	40944	40780	40413	4.11	4.15	4.16	4.16	4.18
	47°F(8.3°C)	46902	45964	45734	45552	45142	3.72	3.75	3.76	3.77	3.78
	64.4°F(18.0°C)	43389	42521	42309	42140	41760	3.56	3.59	3.60	3.61	3.62

MULTI-ZONE OUTDOOR COMBINATION RULES							
Multi DC Outdoor Unit		Avaliable Indoor	Optional Combination(Only run)				
			One unit	Two units	Three units	Four units	Five units
1 DRIVE 4	NDHAMBB-27-0	WALL MOUNTED: 9K/12K/18K/24K	18	9+9	9+9+9	9+9+9+9	
			24	9+12	9+9+12		
				9+18	9+9+18		
				9+24	9+12+12		
				12+12	12+12+12		
				12+18			
				12+24			
				18+18			
1 DRIVE 5	NDHAMBB-36-0	WALL MOUNTED: 9K/12K/18K/24K	24	9+9	9+9+9	9+9+9+9	9+9+9+9+9
				9+12	9+9+12	9+9+9+12	9+9+9+9+12
				9+18	9+9+18	9+9+9+18	
				9+24	9+9+24	9+9+12+12	
				12+12	9+12+12	9+9+12+18	
				12+18	9+12+18	9+12+12+12	
				12+24	9+12+24	12+12+12+12	
				18+18	9+18+18		
					12+12+12		
					12+12+18		
					12+12+24		
					12+18+18		

Note: If total indoor units load exceeds nominal capacity of outdoor unit, the practical output capacity of each indoor unit will Note: be correspondingly attenuated. This situation is very evidently during heating mode. Rules: Outdoor unit Capacity'0.66<= Indoor unit total capacity<= Outdoor unit Capacity 1.33