

KeepRite®



ENH4X Product Specifications

HORIZONTAL EVAPORATOR COILS

ALL CASED N COIL MODELS

- 2 thru 5 Tons
- Available for environmentally sound R-410A systems
- Bolt-on TXV metering device factory installed on all models (equalizer tube brazed in)
- Two condensate drain connections
- Cabinet widths match flush with ICP 17-1/2", 21" and 24-1/2" gas furnace cabinets (field fabricated transitions required to match other ICP furnace models)
- Removable front access panel
- Hemmed flanges for safer handling
- Foil faced insulation
- Non-sweat cabinet, even at extreme conditions
- Cabinets meet or exceed 2% air leakage codes
- Sturdy, pre-painted steel cabinet
- Horizontal installation
- Aluminum hairpin/return-bend/fin "N" coil with the latest high-tech fin design



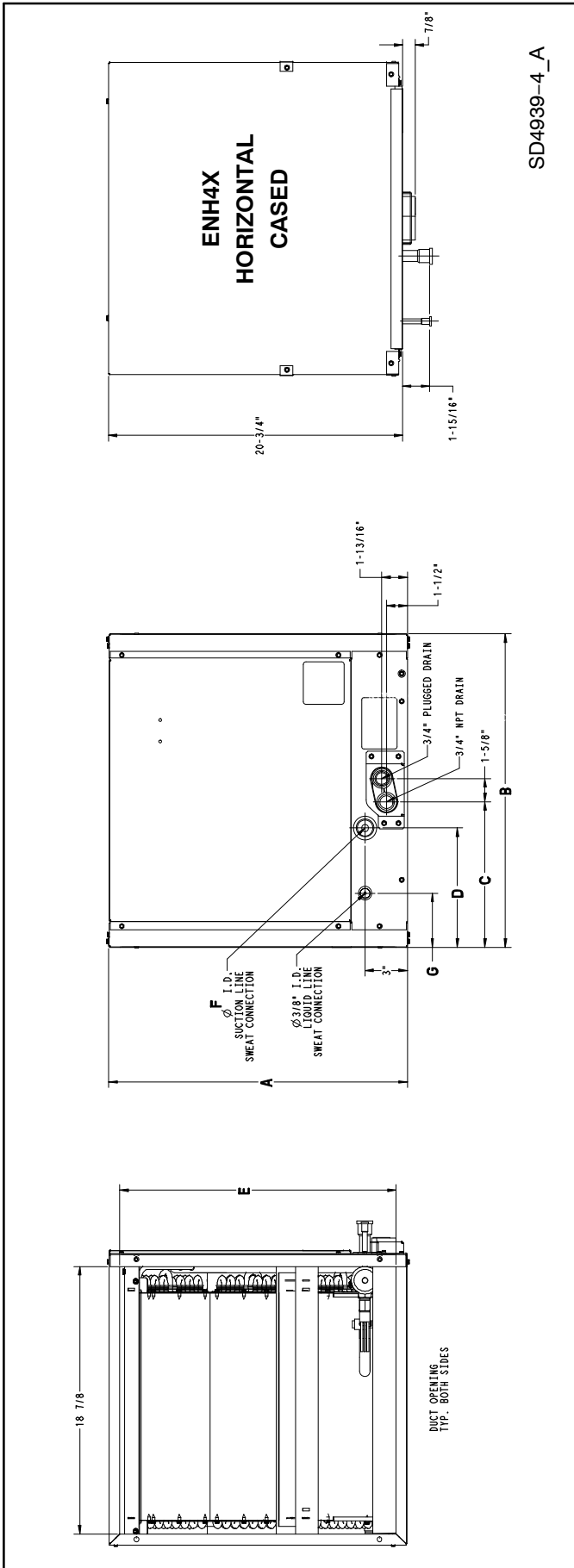
Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.



WARRANTY*

- 5 year parts limited warranty
 - With timely registration, an additional 5 year parts limited warranty
- * Applies to original purchaser/homeowner, some limitations may apply. See Warranty certificate for complete details.

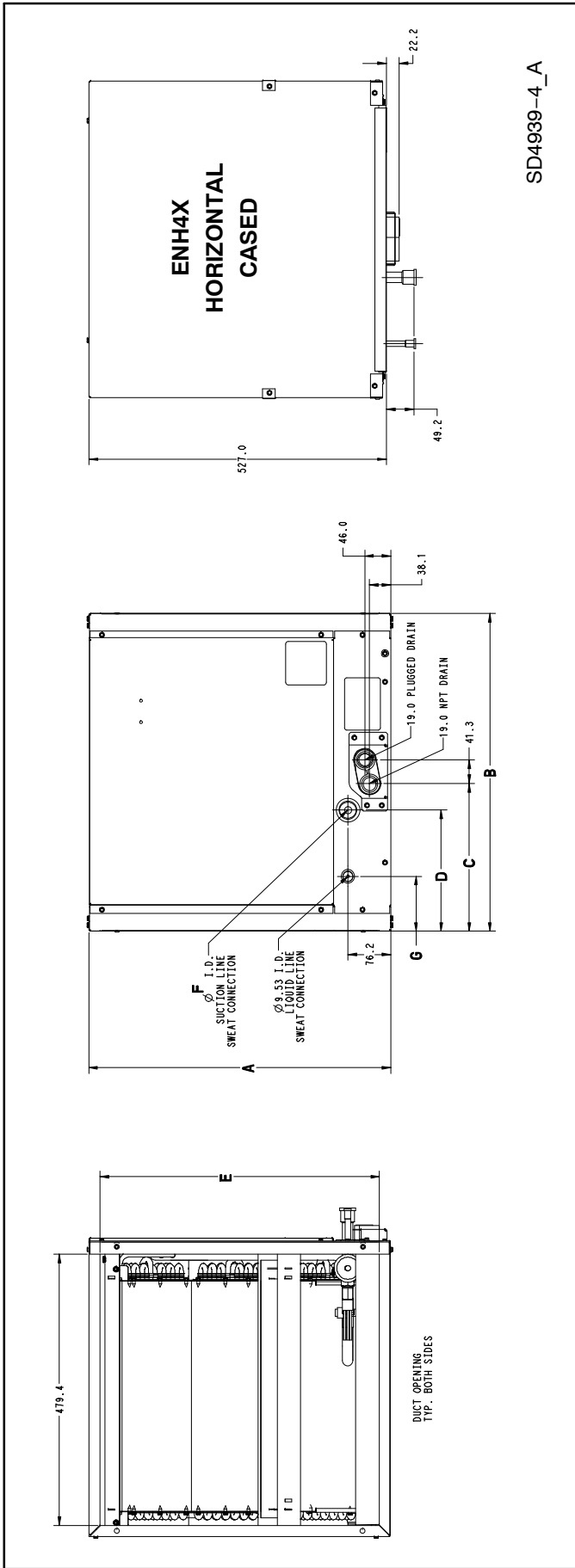
COIL MODEL NUMBER IDENTIFICATION GUIDE										
Digit Position	1	2	3	4	5	6,7	8	9,10	11	12
	E	N	H	4	X	18	L	17	A	1
E = Evaporator										
B = Builder										
D = Standard										
N = N Coil		TYPE								
A = Uncased										
D = Cased Upflow/Downflow										
H = Cased Horizontal										
M = Cased Multiposition (Upflow/Downflow/Horizontal)										
W = Cased Upflow/Downflow for narrower furnaces		INSTALLATION								
4 = Environmentally Sound R-410A				REFRIGERANT						
P = Piston										
X = TXV				METERING DEVICE						
18 = 18,000 BTUH = 1-1/2 tons										
19 = 18,000 BTUH = 1-1/2 tons										
24 = 24,000 BTUH = 2 tons										
30 = 30,000 BTUH = 2-1/2 tons										
31 = 30,000 BTUH = 2-1/2 tons										
36 = 36,000 BTUH = 3 tons										
37 = 36,000 BTUH = 3 tons										
42 = 42,000 BTUH = 3-1/2 tons										
43 = 42,000 BTUH = 3-1/2 tons										
48 = 48,000 BTUH = 4 tons										
60 = 60,000 BTUH = 5 tons										
61 = 60,000 BTUH = 5 tons				NOMINAL CAPACITY						
L = Aluminum						HAIRPIN MATERIAL				
17 = 17-1/2"										
21 = 21"										
24 = 24-1/2"								WIDTH		
Sales Digit (Major Revision)										
Engineering Digit (Minor Revision)										



DIMENSIONAL DATA — ENH4X

Model	Size (tons)	Inches - English (MM - SI Metric)								Shipping Weight lbs (kg)	
		A	B	C	D	E	F	G	Aluminum		
ENH4X24L17	2	17-1/2 (445)	19 (483)	10-3/4 (273)	9-5/16 (237)	16 (406)	5/8 (16)	3-13/16 (97)	40 (18)		
ENH4X30L17	2-1/2	17-1/2 (445)	22-1/16 (560)	10-5/16 (262)	8-7/16 (214)	16 (406)	3/4 (19)	3-13/16 (97)	50 (23)		
ENH4X31L17	2-1/2	17-1/2 (445)	27-1/2 (699)	12-7/16 (316)	7-13/16 (198)	16 (406)	3/4 (19)	3-1/16 (81)	44 (20)		
ENH4X36L17	3	17-1/2 (445)	22-1/16 (560)	10-5/16 (262)	8-7/16 (214)	16 (406)	3/4 (19)	3-13/16 (97)	50 (22)		
ENH4X42L21	3-1/2	21 (533)	22-1/16 (560)	10-5/16 (262)	8-7/16 (214)	19-1/2 (495)	7/8 (22)	3-13/16 (97)	59 (27)		
ENH4X43L21	3-1/2	21 (533)	30-1/8 (766)	15-3/16 (385)	10-1/2 (266)	19-1/2 (495)	7/8 (22)	5 (127)	59 (27)		
ENH4X48L21	4	21 (533)	28-1/16 (713)	13-3/16 (335)	8-7/16 (214)	19-1/2 (495)	7/8 (22)	3-13/16 (97)	71 (32)		
ENH4X60L24	5	24-1/2 (622)	29 (737)	14-1/8 (359)	9-5/16 (237)	23 (584)	7/8 (22)	3-13/16 (97)	81 (37)		
ENH4X61L24	5	24-1/2 (622)	29-1/16 (738)	14-1/16 (357)	9-5/16 (237)	23 (584)	7/8 (22)	3-7/8 (98)	88 (40)		

SI Metric Drawing – ENH4X



PHYSICAL DATA

ENH4X	Model Size								
	24L17	30L17	31L17	36L17	42L21	43L21	48L21	60L24	61L24
Nominal Acceptable CFM Range									
CFM (L/s) – min	700 (330)	875 (413)	1050 (496)	1225 (578)	1400 (661)	1750 (826)			
CFM (L/s) – max	900 (425)	1125 (531)	1350 (637)	1600 (755)	1800 (849)	2000 (944)			
Coil Data (all coils 2 slab "A" configuration, lanced sine wave bare aluminum fin)									
Face Area ft ² (m ²)	4.01 (0.37)	4.68 (0.43)	4.68 (0.43)	5.35 (0.50)	6.68 (0.62)	8.02 (0.75)	8.02 (0.75)		
Each Slab H x L in. (mm)	12 x 16 (305 x 406)	14 x 16 (356 x 406)	14 x 16 (356 x 406)	16 x 16 (406 x 406)	20 x 16 (508 x 406)	24 x 16 (610 x 406)	24 x 16 (610 x 406)		
Fins Per Inch	16	16	16	16	16	16	16		
Refrigerant Line Connections (sweat)									
Liquid in. (mm)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)		
Suction in. (mm)	3/4 (19)	3/4 (19)	7/8 (22)	7/8 (22)	7/8 (22)	7/8 (22)	7/8 (22)		

COOLING CAPACITIES (MBH) (cont)																	
UNIT SIZE	INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR °F (°C)														
			30 (-1)			35 (2)			40 (4)			45 (7)			50 (10)		
	CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
48	1200	72 (22)	79.30	38.70	0.00	72.90	35.40	0.00	65.70	31.90	0.00	57.70	28.20	0.00	48.80	24.40	0.01
		67 (19)	66.60	40.20	0.02	60.00	36.60	0.02	52.70	32.90	0.02	44.60	29.10	0.02	35.70	25.10	0.03
		62 (17)	55.00	41.30	0.03	48.30	37.60	0.03	40.90	33.80	0.03	33.10	30.00	0.03	26.30	26.30	0.07
	1600	72 (22)	96.00	46.60	0.00	88.30	42.90	0.00	79.60	38.90	0.00	69.90	34.50	0.03	59.10	30.00	0.04
		67 (19)	80.90	49.20	0.04	72.90	45.00	0.04	64.10	40.70	0.05	54.20	36.10	0.05	43.30	31.40	0.05
		62 (17)	67.00	51.20	0.05	58.80	46.80	0.05	49.90	42.30	0.05	40.70	37.90	0.05	33.30	33.30	0.11
	2000	72 (22)	109.40	53.10	0.00	100.70	49.10	0.00	90.90	44.60	0.03	79.90	39.80	0.05	67.50	34.70	0.06
		67 (19)	92.40	56.70	0.06	83.40	52.20	0.07	73.30	47.40	0.07	62.00	42.20	0.07	49.50	36.90	0.07
		62 (17)	76.70	59.70	0.07	67.50	54.90	0.08	57.40	49.90	0.08	47.20	44.90	0.08	39.50	39.50	0.16
60	1600	72 (22)	103.20	50.40	0.00	94.40	45.90	0.00	84.80	41.10	0.00	74.10	36.30	0.00	62.40	31.20	0.02
		67 (19)	86.40	52.10	0.02	77.50	47.20	0.02	67.80	42.30	0.02	57.10	37.20	0.03	45.40	32.10	0.03
		62 (17)	71.20	53.30	0.03	62.20	48.30	0.03	52.40	43.30	0.03	42.30	38.30	0.03	33.50	33.50	0.07
	2000	72 (22)	120.70	58.70	0.00	110.40	53.60	0.00	99.00	48.20	0.00	86.40	42.50	0.02	72.60	36.70	0.03
		67 (19)	101.20	61.30	0.03	90.70	55.70	0.04	79.20	50.00	0.04	66.60	44.10	0.04	52.80	38.10	0.05
		62 (17)	83.40	63.20	0.05	72.80	57.40	0.05	61.40	51.60	0.05	49.70	46.00	0.05	40.30	40.30	0.11
	2400	72 (22)	135.60	65.80	0.00	124.10	60.30	0.00	111.20	54.40	0.01	97.00	48.00	0.04	81.30	41.50	0.05
		67 (19)	113.90	69.30	0.05	102.10	63.20	0.06	89.10	56.90	0.06	74.80	50.30	0.06	59.20	43.60	0.06
		62 (17)	94.10	72.10	0.06	82.10	65.70	0.06	69.30	59.30	0.06	56.40	53.00	0.07	46.50	46.50	0.14
61	1600	72 (22)	142.31	69.71	0.00	131.14	64.12	0.00	118.67	58.20	0.00	104.55	51.83	0.01	88.62	45.08	0.02
		67 (19)	119.05	72.45	0.02	107.63	66.45	0.02	94.79	60.09	0.02	80.30	53.36	0.02	63.94	46.26	0.02
		62 (17)	97.96	74.63	0.03	86.21	68.29	0.02	73.29	61.74	0.02	59.53	55.08	0.03	48.11	48.11	0.09
	2000	72 (22)	164.20	80.16	0.00	151.58	74.13	0.00	137.25	67.52	0.02	121.04	60.38	0.03	102.61	52.74	0.03
		67 (19)	137.68	84.38	0.04	124.66	77.75	0.04	109.89	70.63	0.04	93.13	63.00	0.04	74.14	54.89	0.04
		62 (17)	113.54	87.89	0.04	100.05	80.79	0.04	85.34	73.48	0.04	69.79	65.96	0.05	57.86	57.86	0.12
	2400	72 (22)	182.47	89.12	0.00	168.62	82.68	0.02	152.91	75.56	0.04	134.97	67.83	0.04	114.48	59.50	0.05
		67 (19)	153.40	94.82	0.05	139.05	87.71	0.05	122.70	80.00	0.05	104.07	71.67	0.06	82.87	62.74	0.06
		62 (17)	126.74	99.73	0.06	111.87	92.08	0.06	95.76	84.19	0.06	78.98	76.01	0.07	66.58	66.58	0.16

Legend:

CFM – Cubic Ft. per Minute EWB – Entering Wet Bulb LWB – Leaving Wet Bulb TC – Gross Cooling Capacity 1000 Btuh
 SHC – Gross Sensible Capacity 1000 Btuh BF – Bypass Factor MBH – 1000 Btuh

See notes following.

NOTES:

1. Contact manufacturer for cooling capacities at conditions other than shown in table.
2. Formulas:

$$\text{Leaving db} = \text{entering db} - \frac{\text{sensible heat cap.}}{1.09 \times \text{CFM}}$$

$$\text{Leaving wb} = \text{wb corresponding to enthalpy of air leaving coil (h}_{LWB})$$

$$h_{LWB} = h_{EWB} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{CFM}}$$
 Where h_{EWB} = enthalpy of air entering coil
3. SHC is based on 80°F (27°C) db temperature of air entering the evaporator coil.
 Below 80°F (27°C) db, subtract (Correction Factor x CFM) from SHC.
 Above 80°F (27°C) db, add (Correction Factor x CFM) to SHC.
4. Direct interpolation is permissible. Do not extrapolate.
5. Fan motor heat has not been deducted.
6. All data points are based on 10°F (-12°C) superheat leaving coil and use of thermostatic expansion valve (TXV) device.
7. The ENH4X coils can be used in any properly designed system using R-410A refrigerant.
8. Before using maximum cfm shown in table, check coil static pressure drop to ensure system blower can provide necessary static pressure needed for coil and duct systems.
9. Bypass Factor = 0 indicates no psychometric solution. Use bypass factor of next lower EWB for approximation.

BYPASS FACTOR	ENTERING AIR DRY BULB TEMPERATURE °F (°C)					
	79 (26)	78 (26)	77 (25)	76 (24)	75 (24)	Under 75 (24)
	81 (27)	82 (28)	83 (28)	84 (29)	84 (29)	Above 85 (29)
Correction Factor						
0.10	0.98	1.96	2.94	3.92	4.91	Use formula shown below
0.20	0.87	1.74	2.62	3.49	4.36	
0.30	0.76	1.53	2.29	3.05	3.82	

Interpolation is permissible.

$$\text{Correction Factor} = 1.09 \times (1 - \text{BF}) \times (\text{db} - 80)$$

COIL STATIC PRESSURE DROP (in. w.c.)																				
UNIT SIZE	Standard CFM																			
	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	
24	Dry																			
	0.048	0.068	0.090	0.112	0.140	0.170	0.203													
	Wet																			
30	0.064	0.091	0.122	0.150	0.188	0.224	0.263													
	Dry																			
	0.042	0.060	0.080	0.102	0.128	0.157	0.188	0.222	0.259											
31	Wet																			
	0.055	0.076	0.104	0.127	0.158	0.190	0.225	0.266	0.309											
	Dry																			
36	0.031	0.046	0.063	0.083	0.105	0.130	0.156	0.193	0.230											
	Wet																			
	0.039	0.056	0.075	0.097	0.121	0.149	0.179	0.212	0.249											
42	Dry																			
	0.043	0.061	0.082	0.103	0.128	0.157	0.189	0.221	0.259	0.299	0.341									
	Wet																			
43	0.056	0.079	0.107	0.133	0.166	0.200	0.236	0.276	0.315	0.361	0.413									
	Dry																			
	0.030	0.041	0.054	0.066	0.082	0.099	0.118	0.137	0.158	0.180	0.205	0.231	0.259							
48	Wet																			
	0.043	0.059	0.078	0.101	0.126	0.153	0.181	0.207	0.234	0.260	0.288	0.319	0.354							
	Dry																			
60		0.040	0.052	0.066	0.081	0.098	0.117	0.137	0.156	0.183	0.205	0.233								
	Wet																			
		0.049	0.062	0.079	0.096	0.114	0.138	0.162	0.189	0.216	0.239	0.27								
61	Dry																			
			0.047	0.060	0.075	0.092	0.110	0.130	0.152	0.176	0.204	0.230	0.256	0.284	0.318					
	Wet																			
66			0.053	0.067	0.085	0.104	0.125	0.147	0.172	0.200	0.228	0.259	0.292	0.327	0.365					
	Dry																			
					0.062	0.073	0.084	0.097	0.111	0.126	0.138	0.154	0.172	0.190	0.210	0.228	0.251	0.273	0.293	
72	Wet																			
					0.082	0.096	0.112	0.129	0.145	0.163	0.171	0.191	0.212	0.235	0.258	0.283	0.310	0.336	0.366	
	Dry																			
84										0.196	0.216	0.238	0.259	0.286	0.312	0.336	0.363	0.390		
	Wet																			
											0.208	0.233	0.259	0.281	0.307	0.339	0.368	0.400	0.431	