



**TECHNICAL GUIDE**

**VERTICAL HYDRONIC WALL MOUNT AIR HANDLERS**

**FOR USE WITH SPLIT-SYSTEM COOLING & HEAT PUMPS**

**MODELS: HWN18 - 36 AND HWW18 - 36**



Due to continuous product improvement, specifications are subject to change without notice.

Additional rating information can be found at [www.ahridirectory.org](http://www.ahridirectory.org).

**DESCRIPTION**

The wall mount air handlers are designed for front or bottom return air position. Offset hanging brackets attach to unit to allow hanging inside closet or it can be installed in the wall with a decorative grill.

The wall mount air handler can be ordered with factory or field installed hot water heat kits. They can also be ordered with a piston metering, R22 TXV factory installed, or R410A TXV factory installed.

**FEATURES**

**Cabinet** – All wall mount air handlers’ cabinet is sturdy, galvanized steel and fully insulated with 1/2” foil faced insulation to prevent sweating and mold growth, to provide excellent R-value. Stick pins ensure insulation remains in place. Units ship with disposable filter in filter rack.

**Modular Hydronic Heat Kits** – Available with circuit breakers. Available in 2, 3 & 4 row, providing 16,000 to 59,000 BTU’s of heat. Heat kits are easily installed in the field using mox plugs or can be ordered factory-installed. Freeze stat is standard, wired into circulating pump control circuit. Controls are accessible from the front for easy service. Hydronic Heat kits are available with or without circulating pump and check valve. Units are provided with auxiliary relay for remote pump. Schrader ports are standard on water-out manifold, hose bib available as an option,

**Blower** – Direct drive multi-speed blowers circulate air quietly and efficiently. Motor speeds can be easily selected via motor terminals. Swing mounted blowers can be easily removed for service.

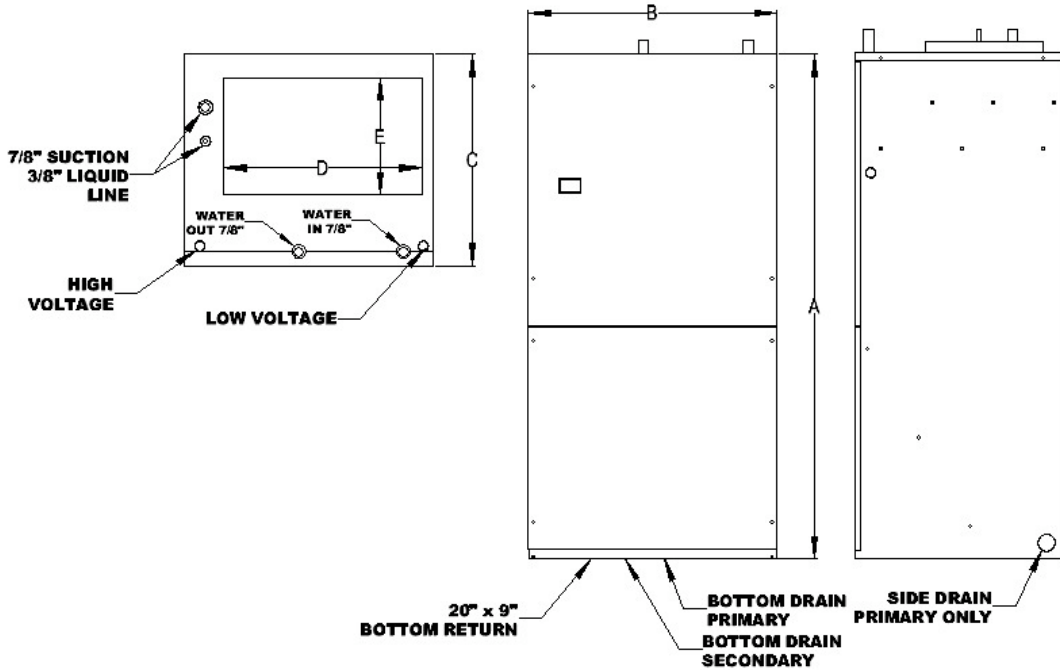
**DX Coil** – High efficiency rifled copper tubes enhanced aluminum fins provide maximum heat transfer. All coils tested at 500 psi then nitrogen pressurized and factory sealed for maximum reliability. Liquid-line Schrader allows pre-installation pressure testing. Most 13 SEER matches can be obtained using the factory installed piston metering device. Field installable TXVs are also available for both R22 and R410A refrigerants.

Drain pan offers bottom primary and secondary drain connections or alternate right side primary. All connections are 3/4” FPT. Access door allows for coil cleaning.

FOR DISTRIBUTION USE ONLY – NOT TO BE USED AT POINT OF RETAIL SALE

**PHYSICAL DIMENSIONS**

Models	Dimensions					Wiring Knockouts		Refrigerant Connections Line Size	
	A	B	C	D	E	High Volt	Low Volt	Liquid	Suction
	Height	Width	Depth						
HW(N,W)18	44-1/2	22	18-3/4	17-5/8	10-1/2	1-3/32	7/8	3/8	7/8
HW(N,W)24	44-1/2	22	18-3/4	17-5/8	10-1/2				
HW(N,W)30	44-1/2	22	18-3/4	17-5/8	10-1/2				
HW(N,W)36	44-1/2	22	18-3/4	17-5/8	10-1/2				



**COIL TECHNICAL DATA**

Models	Application	Refrig. Conn Types	Face Area (Sq.Ft.)	Rows Deep	Fins Per Inch	Coil Size	Tube Geometry	Tube Dia	Fin Type
HW(N,W)18	Cooling / Heat Pump	Sweat	2.5	3	16	20 x 18	1 x 0.866	3/8 rifled	Lanced
HW(N,W)24			2.5	4	16	20 x 18			
HW(N,W)30			3	4	12	24 x 18			
HW(N,W)36			3	4	14	24 x 18			

**ARI CERTIFIED MATCH-UPS: TCGD**

Air Handler	ARI Number	Outdoor Model	SEER	EER	NET MBTUH		Rated CFM
					Total	Sens	
HW(W,N)242T1*	3015916	TCGD18S21S1	14.00	11.40	18.00	14.35	600
HW(W,N)182T1*	3015915		14.00	11.25	18.00	14.35	
HW(W,N)18055	3015913		13.50	11.25	18.00	14.35	
HW(W,N)242T1*	3016445	TCGD24S21S1	14.00	11.15	24.00	18.84	800
HW(W,N)30068	3016448		13.00	11.05	24.00	18.21	
HW(W,N)24059	3016443		13.00	11.15	24.00	18.84	
HW(W,N)362T1*	3016456	TCGD30S21S1	14.00	11.05	29.80	22.91	1000
HW(W,N)302T1*	3016452		13.50	11.00	29.00	22.07	
HW(W,N)36074	3016454		13.00	11.05	29.80	22.91	
HW(W,N)30068	3016450		13.00	11.00	29.00	22.07	
HW(W,N)362T1*	3016439	TCGD36S21S1	13.50	11.00	34.20	26.68	1200
HW(W,N)36074	3016438		13.00	11.00	34.20	26.68	

\*Equipped with non bleed TXV. Must use H model (TCGD\*\*S21S1H) or field installed hard start kit. For models without an "H", refer to Tech Guide for kit number reference.

<b>Additional R-22 Charge<sup>5</sup> / Orifice Size for TCGD Air Conditioners</b>				
Outdoor Unit	TCGD18 S21S1(H)	TCGD24 S21S1(H)	TCGD30 S21S1(H)	TCGD36 S21S1(H)
Required Orifice or TXV <sup>1,2</sup>	.055 / S1-4190	.059 / .068 / S1-4190	.068 / .074 / S1-4190	.074 / S1-4190
Factory R22 Charge, lbs-oz	3 - 2	4 - 0	4 - 3	4 - 5
<b>Indoor Coil<sup>3,4</sup></b>				
	<b>Additional Charge, oz.</b>			
HW(N,W)18*	55 + 0	-	-	-
	4190 + 0	-	-	-
HW(N,W)24*	-	59 + 1	-	-
	4190 + 7	4190 + 1	-	-
HW(N,W)30*	-	68 + 11	68 + 3	-
	-	-	4190 + 3	-
HW(N,W)36*	-	-	74 + 0	74 - 3
	-	-	4190 + 0	4190 - 3

1. For applications requiring a TXV use GuardianAire non-bleed bi-directional TXV.
2. Approved metering device shipped with the indoor unit.
3. All GuardianAire air handlers ship with blower off delays.
4. Models require start kits for TXV matches. Outdoor models with "H" on the end of the model number have factory-installed start kits. For models without an "H", refer to tech guide for kit number reference.
5. Suggested charge adder only. For reliable performance, always charge the system to 15°F subcooling for TXV or 10° superheat for orifice at ARI A-conditions.

#### ARI CERTIFIED MATCH-UPS: TCGDS4

Air Handler	ARI Number	Outdoor Model	SEER	EER	NET MBTUH		Rated CFM
					Total	Sens	
HW(W,N)184T1*	3023375	TCGD18S41S1	13.00	11.25	18.00	14.35	600
HW(W,N)244T1*	3023377		13.50	11.40	18.00	14.35	
HW(W,N)244T1*	3023379	TCGD24S41S1	13.00	11.15	24.00	18.84	800
HW(W,N)304T1*	3023381		13.50	11.05	24.00	18.21	
HW(W,N)304T1*	3023383	TCGD30S41S1	13.00	11.00	28.60	21.99	1000
HW(W,N)364T1*	3023385		14.00	11.05	29.40	22.74	
HW(W,N)364T1*	3023387	TCGD36S41S1	13.50	11.05	35.40	27.07	1200

\*Equipped with non bleed TXV. No need for field installed hard start kit.

<b>Additional R-410A Charge<sup>5</sup> / Orifice Size for TCGDS4 Air Conditioners</b>				
Outdoor Unit	TCGD18S41S1	TCGD24S41S1	TCGD30S41S1	TCGD36S41S1
Required Orifice or TXV <sup>1,2</sup>	S1-4200	S1-4200	S1-4200	S1-4200
Factory R410A Charge, lbs-oz	3 - 3	3 - 13	3 - 14	4 - 9
<b>Indoor Coil<sup>3,4</sup></b>				
	<b>Additional Charge, oz.</b>			
HW(N,W)18*	4200 + 0			
HW(N,W)24*	4200 + 0	4200 + 1		
HW(N,W)30*		4200 + 11	4200 + 4	
HW(N,W)36*			4200 + 4	4200 - 4

1. For applications requiring a TXV use GuardianAire non-bleed bi-directional TXV.
2. Approved metering device shipped with indoor unit.
3. All GuardianAire air handlers ship with blower off delays.
4. No need for field installed hard start kit.
5. Suggested charge adder only. For reliable performance, always charge the system to 15°F subcooling for TXV or 10° superheat for orifice at ARI A-conditions.

**ARI CERTIFIED MATCH-UPS: GCGD**

Air Handler	ARI Number	Outdoor Model	SEER	EER	NET MBTUH		Rated CFM
					Total	Sens	
HW(W,N)182T1*	3024083	GCGD18S21S1	14.00	11.25	18.00	14.35	600
HW(W,N)24059	3024078		13.50	11.25	18.00	14.35	
HW(W,N)242T1*	3024086		14.00	11.40	18.00	14.35	
HW(W,N)24059	3024082	GCGD24S21S1	13.00	11.15	24.00	18.84	800
HW(W,N)242T1*	3040285		14.00	11.15	24.00	18.21	
HW(W,N)30068	3024088		13.00	11.05	24.00	18.84	
HW(W,N)30068	3024180	GCGD30S21S1	13.00	11.00	29.00	22.91	1000
HW(W,N)302T1*	3024182		13.50	11.00	29.00	22.07	
HW(W,N)36074	3024184		13.00	11.05	29.80	22.91	
HW(W,N)362T1*	3024186		14.00	11.05	29.80	22.07	
HW(W,N)36074	3024188		13.00	11.00	34.20	26.68	
HW(W,N)362T1*	3024190	GCGD36S21S1	13.50	11.00	34.20	26.68	1200

\*Equipped with non bleed TXV. No need for field installed hard start kit.

**Additional R-22 Charge<sup>5</sup> / Orifice Size for GCGD Air Conditioners**

Outdoor Unit	GCGD18 S21S1(H)	GCGD24 S21S1(H)	GCGD30 S21S1(H)	GCGD36 S21S1(H)
Required Orifice or TXV <sup>1,2</sup>	.055 / S1-4190	.059 / .068 / S1-4190	.068 / .074 / S1-4190	.074 / S1-4190
Factory R22 Charge, lbs-oz	3 - 2	4 - 0	4 - 3	4 - 5
Indoor Coil <sup>3,4</sup>	Additional Charge, oz.			
HW(N,W)18*	55 + 0	-	-	-
	4190 + 0	-	-	-
HW(N,W)24*	-	59 + 1	-	-
	4190 + 0	4190 + 1	-	-
HW(N,W)30*	-	68 + 0	68 + 3	-
	-	-	4190 + 3	-
HW(N,W)36*	-	-	74 + 0	74 - 3
	-	-	4190 + 0	4190 - 3

1. For applications requiring a TXV use GuardianAire non-bleed bi-directional TXV.

2. Approved metering device shipped with indoor unit.

3. All GuardianAire air handlers ship with blower off delays.

4. No need for field installed hard start kit.

5. Suggested charge adder only. For reliable performance, always charge the system to 15°F subcooling for TXV or 10° superheat for orifice at ARI A-conditions.

**ARI CERTIFIED MATCH-UPS: H2RD**

Air Handler	ARI Number	Outdoor Model	SEER	EER	NET MBTUH		Rated CFM
					Total	Sens	
HW(W,N)242T1*	3015897	H2RD018S06	13.50	11.40	18.00	14.35	600
HW(W,N)182T1*	3015896		13.50	11.25	18.00	14.35	
HW(W,N)24059	3016429		13.00	11.40	18.00	14.35	
HW(W,N)18055	3015895		13.00	11.25	18.00	14.35	
HW(W,N)302T1*	3015901	H2RD024S06	13.50	11.15	23.20	17.88	800
HW(W,N)242T1*	3015899		13.50	11.25	23.80	18.76	
HW(W,N)30068	3015900		13.00	11.15	23.20	17.88	
HW(W,N)24059	3015898		13.00	11.25	23.80	18.76	
HW(W,N)362T1*	3015907	H2RD030S06	13.50	11.35	30.00	22.99	1000
HW(W,N)302T1*	3015903		13.50	11.20	30.00	22.49	
HW(W,N)36074	3015905		13.00	11.35	30.00	22.99	
HW(W,N)30068	3015882		13.00	11.20	30.00	22.49	
HW(W,N)362T1*	3015911	H2RD036S06	13.50	11.30	36.00	27.32	1200
HW(W,N)36074	3015909		13.00	11.30	36.00	27.32	

\*Equipped with non bleed TXV. No need for field installed hard start kit.

**Additional R-22 Charge<sup>5</sup> / Orifice Size for HRD Air Conditioners**

Outdoor Unit	H2RD018S06	H2RD024S06	H2RD030S06	H2RD036S06
Required Orifice or TXV <sup>1,2</sup>	.055 / .059 / S1-4190	.059 / .068 / S1-4190	.068 / .074 / S1-4190	.074 / S1-4190
Factory R22 Charge, lbs-oz	4 - 9	6 - 3	5 - 13	6 - 0
Indoor Coil <sup>3,4</sup>	Additional Charge, oz.			
HW(N,W)18*	55 + 1	-	-	-
	4190 + 1	-	-	-
HW(N,W)24*	59 + 6	59 + 3	-	-
	4190 + 6	4190 + 3	-	-
HW(N,W)30*	-	68 + 12	68 + 10	-
	-	4190 + 12	4190 + 10	-
HW(N,W)36*	-	-	74 + 10	74 + 8
	-	-	4190 + 10	4190 + 8

1. For applications requiring a TXV use GuardianAire non-bleed bi-directional TXV.
2. Approved metering device shipped with the indoor unit.
3. All GuardianAire air handlers ship with blower off delays.
4. No need for field installed hard start kit.
5. Suggested charge adder only. For reliable performance, always charge the system to 15°F subcooling for TXV or 10° superheat for orifice at ARI A-conditions.

**ARI CERTIFIED MATCH-UPS: H1ZD**

Air Handler	ARI Number	Outdoor Model	SEER	EER	NET MBTUH		Rated CFM
					Total	Sens	
HW(W,N)244T1*	3015884	H1ZD018S06	13.50	11.50	18.00	14.35	600
HW(W,N)184T1*	3015883		13.50	11.25	18.00	14.35	
HW(W,N)304T1*	3015889	H1ZD024S06	13.50	11.05	23.60	18.05	800
HW(W,N)244T1*	3015887		13.50	11.15	24.00	18.84	
HW(W,N)364T1*	3015894	H1ZD030S06	13.50	11.35	30.00	22.99	1000
HW(W,N)304T1*	3015891		13.50	11.20	29.40	22.24	
HW(W,N)364T1*	3016159	H1ZD036S06	13.50	11.30	36.00	27.32	1200

\*Equipped with non bleed TXV. No need for field installed hard start kit.

**Additional R-410A Charge<sup>5</sup> / Orifice Size for HZD Air Conditioners**

Outdoor Unit	H1ZD018S06	H1ZD024S06	H1ZD030S06	H1ZD036S06
Required Orifice or TXV <sup>1,2</sup>	S1-4200	S1-4200	S1-4200	S1-4200
Factory R410A Charge, lbs-oz	6 - 1	6 - 2	6 - 5	7 - 13
Indoor Coil <sup>3,4</sup>	Additional Charge, oz.			
HW(N,W)18*	4200 + 2	-	-	-
HW(N,W)24*	4200 + 8	4200 + 1	-	-
HW(N,W)30*	-	4200 + 8	4200 + 11	-
HW(N,W)36*	-	-	4200 + 11	4200 + 10

1. For applications requiring a TXV use GuardianAire non-bleed bi-directional TXV.
2. Approved metering device shipped with indoor unit.
3. All GuardianAire air handlers ship with blower off delays.
4. No need for field installed hard start kit.
5. Suggested charge adder only. For reliable performance, always charge the system to 15°F subcooling for TXV or 10° superheat for orifice at ARI A-conditions.

**ARI CERTIFIED MATCH-UPS: E1RD**

Air Handler	ARI NUMBER	Outdoor Model	SEER	EER	NET MBTUH			HSPF	Rated CFM
					@ 47°	Total	Sens		
HW(W,N)182T1*	3016411	E1RD018S06	14.00	12.00	18.10	18.00	14.40	8.50	600
HW(W,N)18055	3016459		13.00	12.00	18.10	18.00	14.40	8.50	
HW(W,N)302T1*	3016461	E1RD024S06	13.50	11.35	23.00	23.60	17.94	8.20	800
HW(W,N)30068*	3016463		13.00	11.35	23.00	23.60	17.94	8.20	
HW(W,N)24059	3016465	E1RD030S06	13.00	11.45	23.00	24.00	18.96	8.40	1000
HW(W,N)362T1*	3016467		13.50	11.35	31.00	28.80	22.46	8.15	
HW(W,N)36074	3016469		13.00	11.35	31.00	28.80	22.46	8.15	
HW(W,N)302T1*	3016471		13.50	11.20	31.00	28.00	21.84	8.00	

HW(W,N)362T1*	3016473	E1RD036S06	13.00	11.35	36.00	33.80	26.36	8.90	1200
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\*Equipped with non bleed TXV. No need for field installed hard start kit.

Additional R-22 Charge <sup>5</sup> / Orifice Size for ERD Air Conditioners				
Outdoor Unit	E1RD018S06	E1RD024S06	E1RD030S06	E1RD036S06
Required Orifice or TXV <sup>1,2</sup>	.055 / S1-4190	.059 / .068 / S1-4190	.074 / S1-4190	S1-4190
Factory R22 Charge, lbs-oz	4 - 9	6 - 3	5 - 13	6 - 0
Indoor Coil <sup>3,4</sup>	Additional Charge, oz.			
HW(N,W)18*	55 - 1	-	-	-
	4190 - 1	-	-	-
HW(N,W)24*	-	59 - 10	-	-
HW(N,W)30*	-	68 + 0	-	-
	-	4190 + 0	4190 + 4	-
HW(N,W)36*	-	-	74 + 0	-
	-	-	4190 + 0	4190 - 13

1. For applications requiring a TXV use GuardianAire non-bleed bi-directional TXV.

2. Approved metering device shipped with indoor unit.

3. All GuardianAire air handlers ship with blower off delays.

4. No need for field installed hard start kit.

5. Suggested charge adder only. For reliable performance, always charge the system to 15°F subcooling for TXV or 10° superheat for orifice at ARI A-conditions.

#### ARI CERTIFIED MATCH-UPS: E1ZD

Air Handler	ARI NUMBER	Outdoor Model	SEER	EER	NET MBTUH			HSPF	Rated CFM
					@ 47°	Total	Sens		
HW(W,N)244T1*	3016475	E1ZD018S06	13.50	11.40	18.10	18.00	14.40	8.55	600
HW(W,N)184T1*	3016477		13.50	11.25	18.00	18.00	14.40	8.35	
HW(W,N)304T1*	3016479	E1ZD024S06	13.00	11.00	24.00	22.20	17.54	8.95	800
HW(W,N)364T1*	3016481	E1ZD030S06	13.00	11.00	30.00	28.40	22.44	7.95	1000
HW(W,N)304T1*	3016483		13.00	11.00	30.00	27.80	21.68	7.80	
HW(W,N)364T1*	3016485	E1ZD036S06	13.00	11.00	36.00	34.20	26.68	8.55	1200

\*Equipped with non bleed TXV. No need for field installed hard start kit.

Additional R-410A Charge <sup>5</sup> / Orifice Size for EZD Air Conditioners				
Outdoor Unit	E1ZD018S06	E1ZD024S06	E1ZD030S06	E1ZD036S06
Required Orifice or TXV <sup>1,2</sup>	S1-4200	S1-4200	S1-4200	S1-4200
Factory R410A Charge, lbs-oz	6 - 1	8 - 7	9 - 7	9 - 13
Indoor Coil <sup>3,4</sup>	Additional Charge, oz.			
HW(N,W)18*	4200 + 2	-	-	-
HW(N,W)24*	4200 + 8	-	-	-
HW(N,W)30*	-	4200 + 6	4200 - 7	-
HW(N,W)36*	-	-	4200 - 7	4200 - 7

1. For applications requiring a TXV use GuardianAire non-bleed bi-directional TXV.

2. Approved metering device shipped with indoor unit.

3. All GuardianAire air handlers ship with blower off delays.

4. No need for field installed hard start kit.

5. Suggested charge adder only. For reliable performance, always charge the system to 15°F subcooling for TXV or 10° superheat for orifice at ARI A-conditions.

#### ARI CERTIFIED MATCH-UPS: THGDS2

Air Handler	ARI NUMBER	Outdoor Model	SEER	EER	NET MBTUH			HSPF	Rated CFM
					@ 47°	Total	Sens		
HW(N,W)18055	3061791	THGD18S21S1	13.00	11.25	17.20	18.00	14.40	8.00	600
HW(N,W)182T1*	3061792		13.50	11.25	17.20	18.00	14.40	8.00	
HW(N,W)24059	3061790		13.00	11.40	17.30	18.00	14.40	8.20	
HW(N,W)242T1*	3061794		13.50	11.40	17.30	18.00	14.40	8.20	
HW(N,W)30068	3061796		13.00	11.30	17.20	18.00	13.86	8.05	
HW(N,W)302T1*	3061798		13.50	11.30	17.20	18.00	13.86	8.05	
HW(N,W)24059	3061800	THGD24S21S1	13.00	11.35	23.40	24.00	18.96	8.15	800
HW(N,W)242T1*	3061802		13.50	11.35	23.40	24.00	18.96	8.15	
HW(N,W)30068	3061804		13.00	11.25	23.20	24.00	18.24	8.00	
HW(N,W)302T1*	3061806		13.50	11.25	23.20	24.00	18.24	8.00	

HW(N,W)36074	3061808		13.00	11.40	23.40	24.00	18.72	8.15	
HW(N,W)362T1*	3061810		13.50	11.40	23.40	24.00	18.72	8.15	
HW(N,W)302T1*	3061812	THGD30S21S1	13.00	11.00	29.00	28.40	21.87	7.70	1000
HW(N,W)362T1*	3061814		13.50	11.00	29.00	29.00	22.62	7.75	
HW(N,W)362T1*	3061816	THGD36S21S1	13.00	11.00	34.00	34.20	26.68	8.45	1200

\*Equipped with non bleed TXV. No need for field installed hard start kit.

Additional R-22 Charge <sup>5</sup> / Orifice Size for THGDS2 Heat Pumps				
Outdoor Unit	THGD18S21S1	THGD24S21S1	THGD30S21S1	THGD36S21S1
Required Orifice or TXV <sup>1,2</sup>	.055 / .059 / .068 S1-4190	.059 / .068 / .074 S1-4190	.074 / S1-4190	S1-4190
Factory R22 Charge, lbs-oz	7 - 3	7 - 7	8 - 12	9 - 1
Indoor Coil <sup>3,4</sup>	Additional Charge, oz.			
HW(N,W)18*	55 + 0	-	-	-
	4190 + 0	-	-	-
HW(N,W)24*	59 + 8	59 + 7	-	-
	4190 + 8	4190 + 7	-	-
HW(N,W)30*	68 + 22	68 + 7	-	-
	4190 + 22	4190 + 7	4190 + 3	-
HW(N,W)36*	-	74 + 7	-	-
	-	4190 + 7	4190 + 3	4190 + 3

1. For applications requiring a TXV use GuardianAire non-bleed bi-directional TXV.

2. Approved metering device shipped with indoor unit.

3. All GuardianAire air handlers ship with blower off delays.

4. No need for field installed hard start kit.

5. Suggested charge adder only. For reliable performance, always charge the system to 15°F subcooling for TXV or 10° superheat for orifice at ARI A-conditions.

#### ARI CERTIFIED MATCH-UPS: GHGDS2

Air Handler	ARI NUMBER	Outdoor Model	SEER	EER	NET MBTUH			HSPF	Rated CFM
					@ 47°	Total	Sens		
HW(N,W)18055	3074402	GHGD18S21S1	13.00	11.25	17.20	18.00	14.40	8.00	600
HW(N,W)182T1*	3074404		13.50	11.25	17.20	18.00	14.40	8.00	
HW(N,W)24059	3074406		13.00	11.40	17.30	18.00	14.40	8.20	
HW(N,W)242T1*	3074408		13.50	11.40	17.30	18.00	14.40	8.20	
HW(N,W)30068	3074410		13.00	11.30	17.20	18.00	13.86	8.05	
HW(N,W)302T1*	3074412		13.50	11.30	17.20	18.00	13.86	8.05	
HW(N,W)24059	3074414	GHGD24S21S1	13.00	11.35	23.40	24.00	18.96	8.15	800
HW(N,W)242T1*	3074416		13.50	11.35	23.40	24.00	18.96	8.15	
HW(N,W)30068	3074418		13.00	11.25	23.20	24.00	18.24	8.00	
HW(N,W)302T1*	3074420		13.50	11.25	23.20	24.00	18.24	8.00	
HW(N,W)36074	3074422		13.00	11.40	23.40	24.00	18.72	8.15	
HW(N,W)362T1*	3074424		13.50	11.40	23.40	24.00	18.72	8.15	
HW(N,W)302T1*	3074426	GHGD30S21S1	13.00	11.00	29.00	28.40	21.87	7.70	1000
HW(N,W)362T1*	3074428		13.50	11.00	29.00	29.00	22.62	7.75	
HW(N,W)362T1*	3074432	GHGD36S21S1	13.00	11.00	34.00	34.20	26.68	8.45	1200

\*Equipped with non bleed TXV. No need for field installed hard start kit.

Additional R-22 Charge <sup>5</sup> / Orifice Size for GHGDS2 Heat Pumps				
Outdoor Unit	GHGD18S21S1	GHGD24S21S1	GHGD30S21S1	GHGD36S21S1
Required Orifice or TXV <sup>1,2</sup>	.055 / .059 / .068 S1-4190	.059 / .068 / .074 S1-4190	.074 / S1-4190	S1-4190
Factory R22 Charge, lbs-oz	7 - 3	7 - 7	8 - 12	9 - 1
Indoor Coil <sup>3,4</sup>	Additional Charge, oz.			
HW(N,W)18*	55 + 0	-	-	-
	4190 + 0	-	-	-
HW(N,W)24*	59 + 8	59 + 7	-	-
	4190 + 8	4190 + 7	-	-

HW(N,W)30*	68 + 22	68 + 7	-	-
	4190 + 22	4190 + 7	4190 + 3	-
HW(N,W)36*	-	74 + 7	-	-
	-	4190 + 7	4190 + 3	4190 + 3

1. For applications requiring a TXV use GuardianAire non-bleed bi-directional TXV.
2. Approved metering device shipped with indoor unit.
3. All GuardianAire air handlers ship with blower off delays.
4. No need for field installed hard start kit.
5. Suggested charge adder only. For reliable performance, always charge the system to 15°F subcooling for TXV or 10° superheat for orifice at ARI A-conditions.

#### ARI CERTIFIED MATCH-UPS: THGDS4

Air Handler	ARI NUMBER	Outdoor Model	SEER	EER	NET MBTUH			HSPF	Rated CFM
					@ 47°	Total	Sens		
HW(W,N)184T1*	3174978	THGD18S41S1	13.00	11.25	17.20	17.60	14.26	8.00	600
HW(W,N)244T1*	3174980		13.50	11.40	17.30	18.00	14.40	8.20	
HW(W,N)304T1*	3174982		13.50	11.30	17.20	17.90	13.78	8.05	
HW(W,N)244T1*	3174979	THGD24S41S1	13.00	11.25	23.20	24.00	18.96	8.05	800
HW(W,N)304T1*	3174983		13.50	11.15	23.20	23.40	18.02	7.90	
HW(W,N)364T1*	3174986		13.50	11.25	23.20	24.00	18.72	8.05	
HW(W,N)304T1*	3174981	THGD30S41S1	13.00	11.00	28.00	27.60	21.53	7.70	1000
HW(W,N)364T1*	3174984		13.00	11.00	28.20	28.20	22.28	7.70	
HW(W,N)364T1*	3174985	THGD36S41S1	13.00	11.00	35.00	34.20	26.68	7.95	1200

\*Equipped with non bleed TXV. No need for field installed hard start kit.

#### Additional R410a Charge<sup>5</sup> for THGDS4 Heat Pumps

Outdoor Unit	THGD18S41S1	THGD24S41S1	THGD30S41S1	THGD36S41S1
Required Orifice or TXV <sup>1,2</sup>	S1-4200	S1-4200	S1-4200	S1-4200
Factory R410 Charge, lbs-oz	6 – 5	8 – 7	9 – 12	9 – 15
Indoor Coil <sup>3,4</sup>	Additional Charge, oz.			
HW(N,W)18*	4200 + 0	-	-	-
HW(N,W)24*	4200 + 7	4200 + 8	-	-
HW(N,W)30*	4200 + 19	4200 + 21	4200 - 4	-
HW(N,W)36*	-	4200 + 21	4200 - 4	4200 - 4

1. For applications requiring a TXV use GuardianAire non-bleed bi-directional TXV.
2. Approved metering device shipped with indoor unit.
3. All GuardianAire air handlers ship with blower off delays.
4. No need for field installed hard start kit.
5. Suggested charge adder only. For reliable performance, always charge the system to 15°F subcooling for TXV or 10° superheat for orifice at ARI A-conditions.

#### NOMINAL COOLING CAPACITY

Models	Rated CFM	Entering Air °F (Dry/Wet Bulb)	MBTUH @ Evaporator Temp & Corresponding Pressure °F/PSIG			
			35°F / 61.5 psig	40°F / 68.5 psig	45°F / 76.0 psig	50°F / 84.0 psig
HW(N,W)18	600	85/72	24.0	21.8	19.5	17.0
		80/67	22.6	20.3	18.0	15.6
		75/62	21.5	19.1	16.5	13.9
		70/57	21.1	18.4	15.3	11.9
HW(N,W)24	800	85/72	32.2	29.2	26.1	22.7
		80/67	30.1	27.2	24.0	20.8
		75/62	27.6	24.8	22.0	17.9
		70/57	23.2	22.0	20.2	13.1
HW(N,W)30	1000	85/72	40.0	36.5	32.5	28.4
		80/67	38.0	34.0	30.0	25.7
		75/62	33.6	29.2	27.7	22.2
		70/57	33.0	29.4	25.6	21.6
HW(N,W)36	1200	85/72	46.5	42.3	37.8	33.3
		80/67	45.2	39.9	35.0	29.9
		75/62	38.4	35.2	32.3	26.2
		70/57	35.5	32.6	30.2	23.6

## ACCESSORIES

Refer to Price Manual for specific model numbers.

**TXV Kits** – TXV kits are available for applications and converting R22 to R410a or as a service replacement. All kits are bolt-on and require no brazing to install.

## LIMITATIONS

These units must be wired and installed in accordance with all national and local safety codes. Voltage limits are as follows:

Air Handler Voltage	Voltage Code	Normal Operating Voltage Range
120-1-60	06	108-132

1. Rated in accordance with ARI Standard 110, utilization range "A".

Airflow must be within the minimum and maximum limits approved for electric heat, evaporator coils and outdoor units.

Entering Air Temperature Limits			
Wet Bulb Temp. °F		Dry Bulb Temp. °F	
Min.	Max.	Min.	Max.
57	72	65	95

## AIR FLOW DATA – 120 Volt

Models	Blower Motor Speed	HP	AMPS	120 Volt				
				CFM <sup>1</sup> @ External Static Pressure - IWC				
				0.10	0.20	0.30	0.40	0.50
HW(N,W)18	LOW	0.20	2.8	725	714	690	650	600
HW(N,W)24	HIGH	0.20	2.8	1000	972	930	888	823
HW(N,W)30	LOW	0.33	5.4	1095	1081	1062	1034	1000
HW(N,W)36	HIGH	0.33	5.4	1396	1358	1313	1261	1200

1. Includes return air filter and coil.

All air handlers units are ETL Listed up to 0.50" W.C. external static pressure, including air filter, wet coil and largest KW size heater, unless otherwise note.

## APPLICATION FACTORS – RATED CFM VS. ACTUAL CFM

% of Rated Airflow	80%	90%	Rated CFM	110%	120%
Capacity Factor	0.96	0.98	1.00	1.02	1.03

## PHYSICAL & ELECTRICAL DATA

Models	HW(N,W)18		HW(N,W)24		HW(N,W)30		HW(N,W)36	
Blower – Diameter x Width								
Motor	HP	1/5	1/5	1/3	1/3			
	Nominal RPM	.075	.075	.075	.075			
Voltage	120							
Amps	Full Load (230)	2.8	2.8	5.4	5.4			
Filter <sup>1</sup>	Type	Disposable						
	Size	20 x 20 x 1						
Ship Weight (lbs.)		110	110	118	118			

1. Factory supplied.

## HEATING & COOLING PERFORMANCE & ELECTRICAL DATA – 120-1-60

Models	Heater Models	Heating Coil		Heating Capacity BTU/hr @ 3 GPM			Electrical Data	
				Entering water temp			Min Cir Ampacity	Max Fuse or Cir Brkr
		Row	Size	120°	140°	180°		
HW(N,W)18	S1-WK0602L/P011	2	18" x 10-1/2"	16100	22800	36300	4.1	15
	S1-WK0603L/P011	3		18500	26100	41600		
HW(N,W)24	S1-WK0602L/P011	2		18200	25800	41200	4.1	
	S1-WK0603L/P011	3		21200	29900	47700		
HW(N,W)30	S1-WK0602L/P011	2		19900	28100	45000	7.4	
	S1-WK0603L/P011	3		23200	32800	52400		
	S1-WK0604L/P011	4		24300	34400	54900		
HW(N,W)36	S1-WK0602L/P011	2		21200	30000	48000	7.4	
	S1-WK0603L/P011	3		24800	35200	56200		
	S1-WK0604L/P011	4		26100	36900	59000		