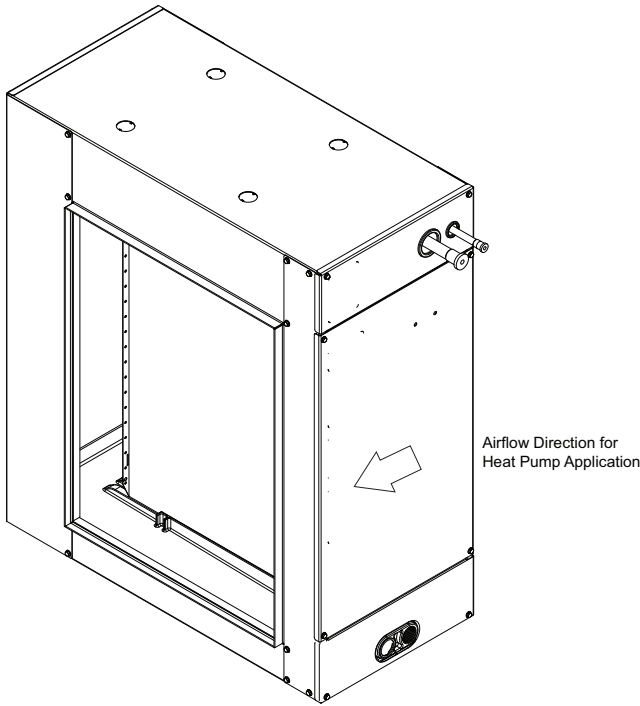




# CSPHP, CSRHP EVAPORATOR COIL SLAB COIL - CASED HORIZONTAL

## Product Data



CSPHP / CSRHP

A09540

The CSPHP and CSRHP evaporator coils incorporate tin plated copper tubing and proven standards for reliable system operation and performance throughout the life of a quality Payne Air Conditioner or Heat Pump system. Evaporator coils manufactured by Payne and installed as part of a total comfort system provide ARI-rated performance ratings and are additionally listed with UL and c-UL. The coils are available for systems utilizing both R-410A and R-22. The CSPHP and CSRHP are cased slab coils that are housed in a durable, 22 gauge, pre-painted taupe metallic cabinet. The fully-insulated cabinet (foil faced with R-2.1 insulation properties) provides for quiet, efficient operation of the evaporator coil. The coils are available in sizes 024 through 060 (2-5 tons).

### DESIGN FEATURES

**Performance** — Designed with performance in mind, these new slab coils offer low pressure drops to enhance system performance and airflow characteristics.

**Thermostatic Expansion Valves (TXV)** — All the Payne coils have refrigerant-specific, factory-installed TXVs.

**Durable Condensate Pans** — The corrosion-resistant drain pan is designed in a new “fiberglass reinforced thermoset polyester” material (FRTP) that offers unsurpassed pan strength.

**Refrigerant Connections** — The coils are provided with industry proven sweat-connections for leak-free operation to maintain system reliability. The refrigerant tubing comes out the top of the unit for ease of installation and service.

**Burst Pressure** — These coils meet or exceed burst pressure of 2100 psi which is at least three to five times the pressure they will see in actual application; good for either R-410A or R-22 refrigerant designs.

**UV Knockouts** — The cased coils also come with factory-installed UV knockouts for quick and easy installation of UV lights.

**Serviceability** — The coils are removable from the front of the unit without use of any tools, after the door is removed.

**Installation Flexibility** — The CSPHP and CSRHP evaporator coils are cased slab coils that provide flexibility for a wide variety of field applications. The unique design is great for all those horizontal applications. It should be noted that this new design maintains the same duct size openings as previous units, so replacement of present horizontal coils will be easy to convert.

**NOTE:** For cooling-only units, coil can be installed in either airflow direction. Heat pump applications require specific airflow direction to obtain performance.

**Tin Plated Copper Coils** — “T” models are built with special hairpins, tin plated to resist both general pitting corrosion and excessive indoor corrosion-Formicary Corrosion. (Formicary Corrosion is an industry phenomenon.)



CERTIFICATION APPLIES ONLY WHEN THE COMPLETE SYSTEM IS LISTED WITH ARI

# MODEL NUMBER NOMENCLATURE

1 2 3 4 5 6 7 8 9 10 11 12  
C S P H P 2 4 1 2 A T A

**Product**  
C = Coil

**Type**  
S – Slab

**Refrigerant Type**  
P = R-410A Refrigerant TXV  
R = R-22 TXV

**Coil Configuration**  
H – Horizontal

**Cabinet Finish**  
P = Painted

**Variations**  
A = Basic

**Tubing Design**  
T – Tin Plated Copper

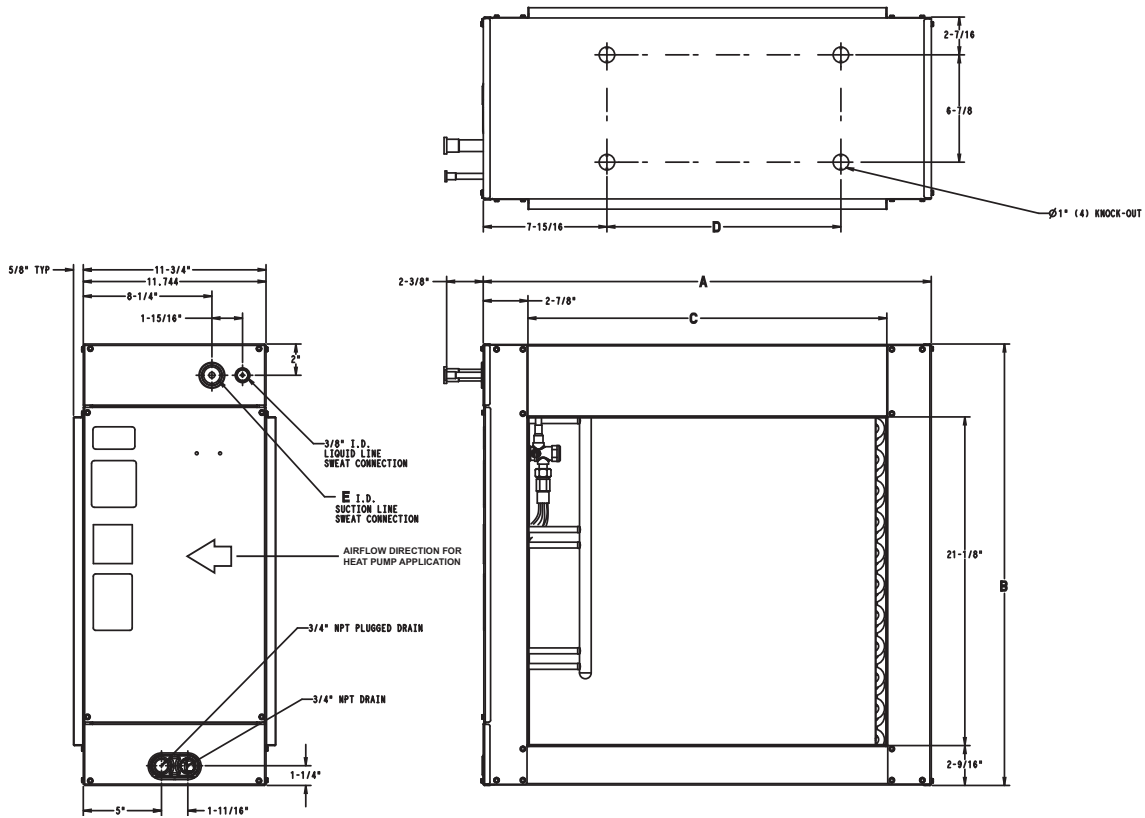
**Revision Level**  
A = 1st

**Cabinet Width**  
12 – 12-In. (305mm) Slab

**Unit Capacity**

24 = 2 Ton	42 = 3 1/2 Ton
30 = 2 1/2 Ton	48 = 4 Ton
36 = 3 Ton	60 = 5 Ton

CSPHP / CSRHP



A06523

## DIMENSIONS

UNIT	SERIES	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)	SHIPPING WT. lb. (kg)
CS(P,R)HP2412ATA	A	24-1/16 (612)	28-3/8 (721)	16-1/16 (408)	9-3/8 (238)	5/8 (16)	55.0 (25)
CS(P,R)HP3012ATA	A	24-1/16 (612)	28-3/8 (721)	16-1/16 (408)	9-3/8 (238)	3/4 (19)	56.0 (25)
CS(P,R)HP3612ATA	A	28-13/16 (732)	28-3/8 (721)	23-1/16 (586)	15-1/6 (383)	3/4 (19)	61.0 (28)
CS(P,R)HP4212ATA	A	28-13/16 (732)	28-3/8 (721)	23-1/16 (586)	15-1/16 (383)	3/4 (19)	63.0 (29)
CS(P,R)HP4812ATA	A	28-13/16 (732)	30-3/8 (772)	23-1/16 (586)	17-5/16 (440)	7/8 (22)	65.0 (29)
CS(P,R)HP6012ATA	A	38-15/16 (989)	30-3/8 (772)	33-13/16 (859)	24-13/16 (630)	7/8 (22)	82.5 (37)

## PERFORMANCE DATA

### COOLING CAPACITIES (MBH) - R-410A REFRIGERANT

CSPHP 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
2412	600	72 (22)	39.20	19.20	0.00	36.20	17.60	0.00	32.80	15.90	0.00	29.00	14.10	0.00	24.70	12.30	0.00
		67 (19)	33.00	19.90	0.00	29.90	18.20	0.00	26.40	16.40	0.00	22.50	14.50	0.01	18.10	12.60	0.01
		62 (17)	27.30	20.40	0.01	24.10	18.60	0.01	20.60	16.70	0.01	16.60	14.80	0.01	12.90	12.90	0.04
	800	72 (22)	47.90	23.30	0.00	44.40	21.50	0.00	40.30	19.60	0.00	35.60	17.50	0.00	30.40	15.30	0.01
		67 (19)	40.50	24.50	0.01	36.80	22.60	0.01	32.50	20.50	0.01	27.80	18.30	0.01	22.40	15.90	0.01
		62 (17)	33.70	25.60	0.02	29.80	23.50	0.02	25.50	21.30	0.02	20.70	19.00	0.02	16.60	16.60	0.07
	1000	72 (22)	54.90	26.60	0.00	50.90	24.80	0.00	46.30	22.70	0.00	41.10	20.30	0.01	35.10	17.90	0.02
		67 (19)	46.60	28.50	0.02	42.40	26.40	0.02	37.60	24.10	0.02	32.10	21.60	0.03	25.90	18.90	0.03
		62 (17)	38.90	30.10	0.03	34.50	27.80	0.03	29.60	25.30	0.03	24.30	22.80	0.04	19.90	19.90	0.11
3012	750	72 (22)	48.50	23.80	0.00	44.50	21.70	0.00	40.10	19.50	0.00	35.20	17.20	0.00	29.80	14.80	0.00
		67 (19)	40.70	24.50	0.01	36.60	22.30	0.01	32.20	20.00	0.01	27.20	17.60	0.01	21.80	15.20	0.01
		62 (17)	33.60	25.00	0.01	29.50	22.70	0.01	24.90	20.40	0.01	20.10	18.00	0.02	15.60	15.60	0.05
	1000	72 (22)	59.50	29.00	0.00	54.70	26.50	0.00	49.30	24.00	0.00	43.20	21.20	0.01	36.50	18.40	0.02
		67 (19)	50.10	30.30	0.02	45.10	27.70	0.02	39.60	24.90	0.03	33.50	22.10	0.03	26.70	19.10	0.03
		62 (17)	41.50	31.40	0.03	36.40	28.60	0.03	30.80	25.80	0.03	24.90	22.90	0.03	20.00	20.00	0.09
	1250	72 (22)	68.50	33.30	0.00	63.10	30.60	0.00	56.80	27.80	0.01	49.80	24.70	0.03	42.10	21.50	0.03
		67 (19)	57.80	35.30	0.04	52.10	32.40	0.04	45.80	29.30	0.04	38.70	26.00	0.04	30.80	22.70	0.05
		62 (17)	48.00	36.90	0.05	42.10	33.80	0.05	35.80	30.60	0.05	29.10	27.40	0.06	23.80	23.80	0.13
3612	900	72 (22)	57.20	28.00	0.00	52.70	25.60	0.00	47.70	23.10	0.00	42.00	20.50	0.00	35.70	17.80	0.00
		67 (19)	48.10	29.00	0.00	43.50	26.50	0.01	38.30	23.80	0.01	32.60	21.10	0.01	26.20	18.20	0.01
		62 (17)	39.80	29.80	0.01	35.10	27.10	0.01	29.80	24.40	0.01	24.10	21.50	0.01	18.70	18.70	0.05
	1200	72 (22)	69.90	34.00	0.00	64.50	31.30	0.00	58.40	28.40	0.00	51.50	25.30	0.00	43.80	22.10	0.01
		67 (19)	59.00	35.80	0.01	53.40	32.80	0.02	47.10	29.70	0.02	40.10	26.40	0.02	32.10	23.00	0.02
		62 (17)	49.00	37.20	0.02	43.20	34.10	0.02	36.80	30.90	0.02	29.90	27.50	0.03	24.00	24.00	0.08
	1500	72 (22)	80.10	38.90	0.00	74.10	36.00	0.00	67.10	32.80	0.00	59.20	29.40	0.02	50.40	25.70	0.02
		67 (19)	67.80	41.50	0.03	61.50	38.30	0.03	54.30	34.90	0.03	46.20	31.20	0.03	37.10	27.30	0.04
		62 (17)	56.50	43.80	0.04	49.90	40.30	0.04	42.70	36.70	0.04	34.90	32.90	0.04	28.80	28.80	0.12
4212	1050	72 (22)	70.70	34.70	0.00	65.00	31.60	0.00	58.60	28.40	0.00	51.50	25.10	0.00	43.70	21.70	0.00
		67 (19)	59.40	35.70	0.00	53.50	32.50	0.01	47.00	29.10	0.01	39.80	25.70	0.01	31.90	22.20	0.01
		62 (17)	49.00	36.50	0.01	43.00	33.20	0.01	36.50	29.70	0.01	29.40	26.30	0.01	22.80	22.80	0.05
	1400	72 (22)	87.00	42.30	0.00	80.00	38.80	0.00	72.20	35.10	0.00	63.40	31.10	0.00	53.60	27.00	0.01
		67 (19)	73.20	44.30	0.02	66.00	40.50	0.02	58.00	36.50	0.02	49.10	32.30	0.02	39.30	28.00	0.02
		62 (17)	60.60	45.80	0.02	53.20	41.80	0.03	45.10	37.70	0.03	36.50	33.50	0.03	29.20	29.20	0.08
	1750	72 (22)	100.30	48.70	0.00	92.40	44.90	0.00	83.30	40.70	0.00	73.20	36.30	0.02	61.90	31.60	0.03
		67 (19)	84.60	51.60	0.03	76.40	47.40	0.03	67.20	42.90	0.04	56.80	38.20	0.04	45.40	33.30	0.04
		62 (17)	70.20	54.00	0.04	61.70	49.50	0.04	52.50	44.90	0.04	42.70	40.10	0.05	35.00	35.00	0.12
4812	1200	72 (22)	75.30	36.80	0.00	69.30	33.70	0.00	62.60	30.40	0.00	55.10	26.90	0.00	46.70	23.30	0.00
		67 (19)	63.30	38.10	0.00	57.10	34.80	0.01	50.30	31.30	0.01	42.60	27.70	0.01	34.20	23.90	0.01
		62 (17)	52.30	39.20	0.01	46.00	35.70	0.01	39.10	32.00	0.01	31.60	28.40	0.02	24.70	24.70	0.05
	1600	72 (22)	91.80	44.60	0.00	84.60	41.00	0.00	76.40	37.20	0.00	67.30	33.10	0.01	57.00	28.80	0.02
		67 (19)	77.40	47.00	0.02	69.90	43.10	0.02	61.60	38.90	0.02	52.20	34.60	0.03	41.80	30.10	0.03
		62 (17)	64.20	48.90	0.03	56.50	44.80	0.03	48.00	40.50	0.03	39.00	36.10	0.03	31.50	31.50	0.09
	2000	72 (22)	105.00	51.00	0.00	96.90	47.20	0.00	87.60	42.90	0.01	77.20	38.40	0.03	65.50	33.60	0.03
		67 (19)	88.80	54.40	0.04	80.40	50.20	0.04	70.80	45.60	0.04	60.10	40.70	0.04	48.10	35.60	0.04
		62 (17)	73.90	57.40	0.04	65.10	52.80	0.05	55.50	48.00	0.05	45.50	43.10	0.06	37.60	37.60	0.13
6012	1600	72 (22)	98.90	48.20	0.00	91.10	44.20	0.00	82.40	40.00	0.00	72.60	35.60	0.00	61.70	30.90	0.01
		67 (19)	83.20	50.20	0.01	75.20	46.00	0.01	66.30	41.40	0.02	56.30	36.70	0.02	45.30	31.90	0.02
		62 (17)	68.90	51.80	0.02	60.70	47.30	0.02	51.60	42.60	0.02	41.80	37.90	0.02	33.00	33.00	0.07
	2000	72 (22)	114.90	55.80	0.00	106.00	51.40	0.00	95.80	46.70	0.00	84.50	41.70	0.01	71.80	36.30	0.02
		67 (19)	96.80	58.90	0.02	87.60	54.10	0.02	77.30	49.00	0.03	65.70	43.60	0.03	52.80	38.00	0.03
		62 (17)	80.30	61.40	0.03	70.80	56.30	0.03	60.30	51.00	0.03	49.10	45.50	0.04	39.70	39.70	0.10
	2400	72 (22)	128.30	62.30	0.00	118.50	57.60	0.00	107.10	52.50	0.01	94.60	47.00	0.02	80.40	41.10	0.03
		67 (19)	108.40	66.40	0.04	98.10	61.20	0.04	86.60	55.70	0.04	73.70	49.80	0.04	59.20	43.60	0.05
		62 (17)	90.10	69.90	0.05	79.50	64.40	0.05	67.90	58.60	0.05	55.60	52.60	0.06	45.90	45.90	0.13

See notes on page 5.

**LEGEND:**

**CFM** — Cubic Ft per Minute

**EWB** — Entering Wet Bulb (°F)

**LWB** — Leaving Wet Bulb (°F)

**TC** — Total Cooling Capacity 1000 Btuh

**BF** — Bypass Factor

**MBH** — 1000 Btuh

**SHC** — Sensible Heat Capacities (1000 Btuh)

**CSPHP / CSRHP**

**PERFORMANCE DATA (cont)**

**COOLING CAPACITIES (MBH) - R-22 REFRIGERANT**

CSRHP 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
2412	600	72 (22)	38.70	18.80	0.00	36.10	17.50	0.00	33.10	16.20	0.00	29.70	14.70	0.00	25.60	13.00	0.00
		67 (19)	32.90	20.20	0.00	30.20	18.90	0.00	27.00	17.40	0.00	23.20	15.60	0.00	18.70	13.70	0.01
		62 (17)	27.60	21.50	0.01	24.70	20.00	0.01	21.30	18.30	0.01	17.40	16.40	0.01	14.30	14.30	0.09
	800	72 (22)	44.90	21.90	0.00	42.00	20.60	0.00	38.70	19.20	0.00	34.70	17.50	0.00	30.10	15.70	0.01
		67 (19)	38.40	24.20	0.01	35.30	22.70	0.01	31.70	21.10	0.01	27.50	19.30	0.01	22.40	17.10	0.01
		62 (17)	32.30	26.30	0.02	29.20	24.70	0.02	25.50	22.90	0.02	21.30	20.80	0.03	18.10	18.10	0.14
	1000	72 (22)	49.30	24.40	0.01	46.30	23.10	0.01	42.80	21.60	0.01	38.40	19.90	0.02	33.40	18.00	0.02
		67 (19)	42.30	27.50	0.02	39.10	26.00	0.02	35.20	24.30	0.02	30.60	22.40	0.03	25.40	20.20	0.03
		62 (17)	35.90	30.40	0.03	32.50	28.80	0.03	28.70	26.90	0.04	24.70	24.70	0.06	21.50	21.50	0.18
3012	750	72 (22)	50.70	24.60	0.00	47.00	22.80	0.00	42.80	20.80	0.00	37.80	18.70	0.00	31.80	16.20	0.00
		67 (19)	42.90	26.20	0.01	39.10	24.20	0.01	34.40	21.90	0.01	28.90	19.40	0.01	22.70	16.70	0.01
		62 (17)	35.70	27.40	0.01	31.40	25.20	0.01	26.60	22.70	0.02	21.40	20.20	0.02	17.40	17.40	0.11
	1000	72 (22)	59.60	29.00	0.00	55.30	27.00	0.00	50.40	24.80	0.01	44.80	22.40	0.01	38.30	19.80	0.02
		67 (19)	50.60	31.40	0.02	46.20	29.20	0.02	41.10	26.90	0.02	34.90	24.10	0.03	27.40	21.00	0.03
		62 (17)	42.40	33.60	0.03	37.80	31.30	0.03	32.20	28.50	0.03	26.40	25.60	0.05	22.10	22.10	0.15
	1250	72 (22)	66.20	32.40	0.01	61.60	30.40	0.02	56.20	28.10	0.03	49.90	25.50	0.03	42.90	22.80	0.04
		67 (19)	56.50	35.80	0.04	51.50	33.50	0.04	45.90	31.00	0.04	39.50	28.20	0.04	31.30	24.80	0.05
		62 (17)	47.50	39.00	0.04	42.50	36.50	0.05	36.90	33.70	0.05	30.70	30.40	0.08	26.20	26.20	0.20
3612	900	72 (22)	53.00	25.70	0.00	49.30	24.00	0.00	45.10	22.00	0.00	40.20	19.90	0.00	34.60	17.60	0.00
		67 (19)	45.00	27.60	0.01	41.20	25.70	0.01	36.70	23.50	0.01	31.40	21.10	0.01	25.00	18.40	0.01
		62 (17)	37.70	29.30	0.01	33.60	27.10	0.01	28.80	24.70	0.01	23.40	22.10	0.02	19.20	19.20	0.10
	1200	72 (22)	61.60	30.00	0.00	57.50	28.20	0.00	52.70	26.10	0.00	47.00	23.80	0.01	40.60	21.20	0.01
		67 (19)	52.50	33.00	0.02	48.20	30.90	0.02	43.10	28.60	0.02	37.30	26.00	0.02	30.00	23.00	0.02
		62 (17)	44.20	35.70	0.02	39.70	33.50	0.02	34.60	30.90	0.02	28.70	28.00	0.04	24.30	24.30	0.15
	1500	72 (22)	67.80	33.40	0.01	63.50	31.60	0.02	58.40	29.50	0.02	52.20	27.00	0.02	45.10	24.30	0.03
		67 (19)	58.10	37.50	0.03	53.40	35.40	0.03	47.80	32.90	0.03	41.50	30.20	0.03	34.10	27.20	0.04
		62 (17)	49.10	41.30	0.04	44.30	39.00	0.04	39.00	36.30	0.04	33.30	33.30	0.07	28.80	28.80	0.19
4212	1050	72 (22)	69.40	33.70	0.00	64.40	31.20	0.00	58.50	28.50	0.00	51.80	25.60	0.00	44.40	22.50	0.00
		67 (19)	58.70	35.80	0.01	53.40	33.10	0.01	47.40	30.20	0.01	40.60	27.00	0.01	32.40	23.50	0.01
		62 (17)	48.90	37.60	0.01	43.40	34.70	0.01	37.30	31.60	0.01	30.20	28.20	0.02	24.50	24.50	0.09
	1400	72 (22)	81.50	39.60	0.00	75.80	37.00	0.00	69.20	34.10	0.00	61.40	30.80	0.01	52.40	27.20	0.01
		67 (19)	69.30	43.10	0.02	63.30	40.10	0.02	56.20	36.90	0.02	48.10	33.30	0.02	39.10	29.50	0.02
		62 (17)	58.00	46.20	0.02	51.70	42.90	0.02	44.70	39.50	0.03	37.10	35.80	0.04	31.10	31.10	0.14
	1750	72 (22)	90.50	44.40	0.00	84.40	41.70	0.01	77.20	38.70	0.02	68.80	35.20	0.03	58.80	31.30	0.03
		67 (19)	77.30	49.20	0.03	70.70	46.10	0.03	63.00	42.60	0.04	54.00	38.70	0.04	44.00	34.60	0.04
		62 (17)	65.00	53.60	0.04	58.20	50.20	0.04	50.50	46.40	0.05	42.80	42.40	0.07	37.00	37.00	0.18
4812	1200	72 (22)	67.50	32.70	0.00	62.70	30.50	0.00	57.20	28.00	0.00	50.80	25.20	0.00	43.50	22.20	0.00
		67 (19)	57.20	35.10	0.01	52.20	32.60	0.01	46.40	29.90	0.01	39.80	26.90	0.01	32.30	23.60	0.01
		62 (17)	47.80	37.30	0.01	42.60	34.50	0.01	36.70	31.60	0.01	30.10	28.40	0.02	24.80	24.80	0.10
	1600	72 (22)	78.20	38.20	0.00	73.00	35.90	0.00	66.80	33.20	0.01	59.60	30.20	0.01	51.10	26.80	0.02
		67 (19)	66.70	42.00	0.02	61.10	39.30	0.02	54.50	36.30	0.02	46.80	32.90	0.02	38.20	29.40	0.03
		62 (17)	56.10	45.50	0.03	50.20	42.50	0.03	43.50	39.20	0.03	36.60	35.80	0.04	31.20	31.20	0.15
	2000	72 (22)	86.10	42.50	0.02	80.60	40.20	0.02	74.00	37.40	0.03	66.10	34.30	0.03	56.90	30.70	0.03
		67 (19)	73.80	47.70	0.04	67.80	45.00	0.04	60.60	41.80	0.04	52.20	38.20	0.04	42.60	34.30	0.04
		62 (17)	62.30	52.60	0.04	56.10	49.50	0.05	49.10	46.00	0.05	42.10	42.10	0.08	36.70	36.70	0.20
6012	1600	72 (22)	96.20	46.70	0.00	89.40	43.60	0.00	81.70	40.20	0.00	72.70	36.40	0.00	62.50	32.20	0.01
		67 (19)	81.50	50.60	0.01	74.50	47.10	0.01	66.40	43.30	0.01	57.10	39.10	0.02	46.60	34.70	0.02
		62 (17)	68.10	54.00	0.02	60.90	50.30	0.02	52.60	46.20	0.02	43.80	41.90	0.03	36.80	36.80	0.11
	2000	72 (22)	107.40	52.50	0.00	99.90	49.30	0.00	91.40	45.60	0.01	81.60	41.50	0.02	70.40	37.10	0.02
		67 (19)	91.30	57.90	0.02	83.60	54.20	0.02	74.70	50.20	0.03	64.40	45.70	0.03	52.60	40.80	0.03
		62 (17)	76.60	62.80	0.03	68.70	58.90	0.03	59.80	54.50	0.03	50.40	49.70	0.05	43.60	43.60	0.16
	2400	72 (22)	116.00	57.40	0.01	108.20	54.00	0.02	99.10	50.30	0.03	88.50	46.00	0.03	76.60	41.40	0.03
		67 (19)	98.90	64.20	0.03	90.80	60.50	0.04	81.20	56.20	0.04	70.30	51.60	0.04	57.60	46.40	0.04
		62 (17)	83.40	70.70	0.04	75.10	66.60	0.05	65.80	62.00	0.05	56.70	56.70	0.09	49.50	49.50	0.20

See notes on page 5.

**LEGEND:**

- CFM — Cubic Ft per Minute
- EWB — Entering Wet Bulb (°F)
- LWB — Leaving Wet Bulb (°F)
- TC — Total Cooling Capacity 1000 Btuh
- BF — Bypass Factor
- MBH — 1000 Btuh
- SHC — Sensible Heat Capacities (1000 Btuh)

**NOTES:**

1. Contact manufacturer for cooling capacities at conditions other than shown in table.
2. Formulas:  
 Leaving db = entering db -  $\frac{\text{sensible heat cap.}}{1.09 \times \text{CFM}}$   
 Leaving wb = 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. All units have sweat suction-tube connection and a liquid-tube connection. For 1-1/8-in. system suction tube, 3/4 x 1-1/8-in. suction tube connection adapter is available as accessory.
8. The CSPHP coils can be used in any properly designed system using R-410A refrigerant.
9. The CSRHP coils can be used in any properly designed system using R-22 refrigerant.
10. 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.
11. Bypass Factor = 0 indicates no psychometric solution. Use bypass factor of next lower EWB for approximation.

**CSPHP / CSRHP**

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.

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

**PERFORMANCE DATA (cont)**

**COIL STATIC PRESSURE DROP (in. w.c.) R-410A AND R-22 REFRIGERANTS**

UNIT SIZE	STANDARD CFM																			
	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	
2412	Dry																			
	0.060	0.081	0.104	0.129	0.155	0.186	0.217													
	Wet																			
	0.069	0.096	0.129	0.162	0.198	0.237	0.278													
3012	Dry																			
	0.044	0.060	0.077	0.097	0.116	0.140	0.165	0.190	0.219											
	Wet																			
	0.050	0.071	0.093	0.116	0.144	0.172	0.203	0.235	0.269											
3612	Dry																			
	0.043	0.058	0.074	0.089	0.107	0.127	0.150	0.172	0.197	0.224	0.252									
	Wet																			
	0.048	0.066	0.086	0.104	0.128	0.154	0.182	0.212	0.245	0.280	0.317									
4212	Dry																			
			0.065	0.079	0.095	0.113	0.134	0.154	0.176	0.197	0.220	0.246	0.268							
	Wet																			
			0.076	0.094	0.114	0.137	0.163	0.189	0.215	0.245	0.273	0.303	0.332							
4812	Dry																			
			0.063	0.076	0.091	0.105	0.121	0.138	0.157	0.175	0.195	0.217	0.238	0.260	0.284					
	Wet																			
			0.080	0.101	0.123	0.149	0.175	0.206	0.215	0.231	0.261	0.291	0.325	0.361	0.394					
6012	Dry																			
					0.051	0.060	0.069	0.079	0.090	0.101	0.113	0.125	0.138	0.153	0.165	0.180	0.195	0.211	0.227	
	Wet																			
					0.063	0.076	0.089	0.102	0.118	0.135	0.155	0.175	0.193	0.214	0.235	0.258	0.279	0.302	0.325	

**CSPHP / CSRHP**