

Heat Pumps Manufactured by Polar Bear Water Source Heat Pump Mfg. Inc.

A. "PBSM" Vertical Water to Air Models

These models have the highest Btu output in the industry, efficiencies ranging from 3.7 to 5.1. All Models are available in Voltages offered by Copeland Compressors. All units use ECM Fan motors and or 3 Phase motors with Inverters. All models are designed and sized to heat and air condition the appropriate sized home to the 100% level, electric back-up is only used as emergency back-up in case of failure.

PBSM Represents a Model Family, the letter D represents 230 Volt single phase power, S12 represents twin desuperheaters totaling 12,000 btu for domestic hot water production, K20 represents the 20 Kilowatt duct heater.

(PBSM-65" Models) Largest Vertical Single Compressor Models, Cabinet H64", W28", D36"

Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PBSM-96DS12K20	(83,000)	96,000 COP 4.0	82,000 COP 3.6	98,000 SEER 16.8	92,000 SEER 16.1
PBSM-78DS12K20	(70,000)	78,000 COP 4.2	68,000 COP 3.8	84,000 SEER 17.1	78,000 SEER 16.4
PBSM-68DS12K20 (Step 1) (60,000) (Step 2)		46,000 COP 4.4	40,000 COP 3.9	50,000 SEER 17.9	46,000 SEER 17.1
		68,000 COP 4.3	60,000 COP 3.8	74,000 SEER 17.6	68,000 SEER 16.7
PBSM-64DS12K20	(57,000)	64,000 COP 4.3	56,000 COP 3.8	70,000 SEER 17.6	64,000 SEER 16.7

B. “PBVE” Vertical Water to Air ModelsType equation here.

These models have the highest Btu output in the industry per compressor size, efficiencies ranging from 3.7 to 5.1 All Models are available in Voltages offered by Copeland Compressors. All units use ECM Fan motors. All models are designed and sized to heat and air condition the appropriate sized home to the 100% level, electric back-up is only used as emergency back-up in case of failure. PBVE Represents a Model Family, the letter D represents 230 Volt single phase power, S12 represents twin desuperheaters totaling 12,000 btu for domestic hot water production, K20 represents the 20 Kilowatt duct heater, K15 represents 15 Kilowatt duct heater.

(PBVE-59” Models) Standard Single Compressor Models, Cabinet Size H59”, W28”, D34”

Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PBVE-64DS12K20 (Step1) (60,000)		42,000 COP 4.2	38,000 COP 3.7	47,000 SEER 17.6	43,000 SEER 16.8
(Step 2)		64,000 COP 4.3	56,000 COP 3.8	70,000 SEER 17.6	64,000 SEER 16.7
PBVE-60DS12K20 (57,000)		60,000 COP 4.1	50,000 COP 3.7	66,000 SEER 17.2	60,000 SEER 16.3
PBVE- 56DS12K15 (step-1) (51,000)		37,000 COP 4.4	34,000 COP 3.9	40,000 SEER 17.9	37,000 SEER 17.1
(step-2)		56,000 COP 4.3	50,000 COP 3.8	60,000 SEER 17.6	56,000 SEER 16.7
PBVE- 55DS12K15 (50,000)		55,000 COP 4.3	49,000 COP 3.8	59,000 SEER 17.6	55,000 SEER 16.7
PBVE-48DS12K15 (42,000)		48,000 COP 4.4	40,000 COP 3.9	49,000 SEER 17.6	46,000 SEER 16.7
PBVE-46DS12K15 (step-1) (40,000)		31,000 COP 4.4	26,000 COP 3.9	31,000 SEER 17.6	29,000 SEER 16.7
(step-2)		46,000 COP 4.3	38,000 COP 3.8	47,000 SEER 17.6	44,000 SEER 16.7
PBVE-40DS12K10 (step-1) (35,000)		26,000 COP 4.4	23,000 COP 3.9	28,000 SEER 17.6	26,000 SEER 16.7
(step-2)		40,000 COP 4.3	34,000 COP 3.8	42,000 SEER 17.4	38,000 SEER 16.5
PBVE-34S12K10 (step-1) (30,000)		24,000 COP 4.4	20,000 COP 3.9	24,000 SEER 17.6	23,000 SEER 16.7
(step-2)		34,000 COP 4.3	30,000 COP 3.8	36,000 SEER 17.4	34,000 SEER 16.5

C. “PBMC” Vertical Water to Air ModelsType equation here.

These models have the highest Btu output in the industry per compressor size, efficiencies ranging from 3.7 to 5.1 All Models are available in Voltages offered by Copeland Compressors. All units use ECM Fan motors. All models are designed and sized to heat and air condition the appropriate sized home to the 100% level, electric back-up is only used as emergency back-up in case of failure. PBMC Represents a Model Family, the letter D represents 230 Volt single phase power, S6 represents twin desuperheaters totaling 6,000 btu for domestic hot water production, K10 represents the 10 Kilowatt duct heater, K5represents 5 Kilowatt duct heater.

(PBMC-54” Models) Standard Single Compressor Models, Cabinet Size H54”, W26”, D26”

Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PBMC-36S6K10	(36,000)	36,000 COP 4.3	30,000 COP 3.8	38,000 SEER 17.4	34,000 SEER 16.5
PBMC-35S6K10 (Step-1)	(35,000)	23,000 COP 4.3	19,000 COP 3.8	24,000 SEER 17.4	22,000 SEER 16.5
(step-2)		35,000 COP 4.2	29,000 COP 3.7	37,000 SEER 17.1	33,000 SEER 16.2
PBMC-32S6K10	(31,000)	32,000 COP 4.2	27,000 COP 3.9	34,000 SEER 17.4	30,000 SEER 16.8
PBMC-30S6K10 (step-1)	(30,000)	31,000 COP 4.4	26,000 COP 3.7	33,000 SEER 17.1	29,000 SEER 16.2
(step-2)		21,000 COP 4.3	17,000 COP 3.6	22,000 SEER 16.9	19,000 SEER 16.1
PBMC-28S6K10 (step-1)	(26,000)	28,000 COP 4.4	23,000 COP 3.7	30,000 SEER 17.1	27,000 SEER 16.2
(step-2)		19,000 COP 4.3	15,000 COP 3.6	20,000 SEER 16.9	17,000 SEER 16.1
PBMC-26S6K10	(25,000)	26,000 COP 4.3	22,000 COP 3.6	28,000 SEER 16.9	25,000 SEER 16.1

D. “PBSC” Vertical Water to Air Models Utilizing Scroll Compressors

These models have the highest Btu output in the industry per compressor size, efficiencies ranging from 3.7 to 5.1 All Models are available in Voltages offered by Copeland Compressors. All units use ECM Fan motors. All models are designed and sized to heat and air condition the appropriate sized home to the 100% level, electric back-up is only used as emergency back-up in case of failure. PBSC Represents a Model Family, the letter D represents 230 Volt single phase power, S6 represents twin desuperheaters totaling 6,000 btu for domestic hot water production, K10 represents the 10 Kilowatt duct heater, K5 represents 5 Kilowatt duct heater.

(PBSC-46” Models) Standard Single Compressor Models, Cabinet Size H46”, W24”, D24”

Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PBSC-26DK5 (step-1)	(26,000)	26,000 COP 4.4	22,000 COP 3.7	28,000 SEER 17.1	25,000 SEER 16.2
(step-2)		17,000 COP 4.3	15,000 COP 3.6	19,000 SEER 16.9	17,000 SEER 16.1
PBSC-24DK5	(24,000)	24,000 COP 4.3	20,000 COP 3.6	26,000 SEER 16.9	23,000 SEER 16.1
PBSC-20DK5 (step-1)	(20,000)	20,000 COP 4.4	17,000 COP 3.7	22,000 SEER 17.1	19,000 SEER 16.2
(step-2)		13,000 COP 4.3	12,000 COP 3.6	15,000 SEER 16.9	13,000 SEER 16.1
PBSC-14DK5	(14,000)	16,000 COP 4.3	14,000 COP 3.6	18,000 SEER 16.9	16,000 SEER 16.1

E. “PBRC” Condo Water to Air Models Utilizing Rotary Compressors

These models have the highest Btu output in the industry per compressor size, efficiencies ranging from 3.7 to 5.1 All Models are available in Voltages offered by Rotary Compressors. All units use ECM Fan motors. All models are designed and sized to heat and air condition the appropriate sized home to the 100% level, electric back-up is only used as emergency back-up in case of failure. PBRC Represents a Model Family, the letter D represents 230 Volt single phase power,

(PBCD-72” Models) Condo Heat Pumps with built in HRV, “Heat Recovery Ventilators”

Dimensions: H 72”, W 22”, D 26”

Model	Nominal Rotary Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PBSC-26DK5	(20,000)	14,500	12,500	16,000	14,000
Step 1		COP 4.6	COP 3.9	SEER 17.4	SEER 16.8
Step 2		22,000	19,000	24,000	21,000
		COP 4.4	COP 3.7	SEER 17.1	SEER 16.2
PBSC-24DK5	(18000)	20,000	17,000	23,000	20,000
		COP 4.3	COP 3.6	SEER 16.9	SEER 16.1
PBSC-20DK5	(15,000)	17,000	14,000	18,000	16,000
		COP 4.4	COP 3.7	SEER 17.1	SEER 16.2
PBSC-14DK5	(12,000)	13,000	11,000	14,000	12,000
		COP 4.3	COP 3.6	SEER 16.9	SEER 16.1
PBSC-14DK5	(8600)	9,000	8,000	10,000	9,000
		COP 4.3	COP 3.6	SEER 16.9	SEER 16.1

F. “PBHS” Horizontal Split Configuration, Water to Air Heat Pumps

These models are made up of two separate cabinets, a Compressor cabinet and an Air Handler Cabinet. They also have the highest Btu output in the industry per compressor size, efficiencies ranging from 3.7 to 5.1 All Models are available in Voltages offered by Scroll Compressors. All units use ECM Fan motors. All models are designed and sized to heat and air condition the appropriate sized home to the 100% level, electric back-up is only used as emergency back-up in case of failure. PBHS Represents a Model Family, the letter D represents 230 Volt single phase power. Compressor sizes from 83,000 to 57,000

(PBHS Models) Horizontal Split Heat Pumps, (2) separate cabinets separated by up to 100 feet

PBHS Compressor only Cabinets H31.5”, L48”, D42”
Air Handler Cabinets H28”, L42”, D32”

Water to Air Heat Pumps in a Split Configuration, options include Desuperheaters, Duct Heaters
Compressor Sizing from 60,000 to 83,000 in dual compressor models.

Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PBHS-96DS12K20	(83,000)	96,000 COP 4.0	82,000 COP 3.6	98,000 SEER 16.8	92,000 SEER 16.1
The above unit comes with either 1 or 2 Air handler Cabinets, efficiencies are with (2) A/Hs					
PBHS-78DS12K20	(70,000)	78,000 COP 4.2	68,000 COP 3.8	84,000 SEER 17.1	78,000 SEER 16.4
PBHS-68DS12K20 (Step 1)	(60,000)	46,000 COP 4.4	40,000 COP 3.9	50,000 SEER 17.9	46,000 SEER 17.1
(Step 2)		68,000 COP 4.3	60,000 COP 3.8	74,000 SEER 17.6	68,000 SEER 16.7
PBHS-64DS12K20	(57,000)	64,000 COP 4.3	56,000 COP 3.8	70,000 SEER 17.6	64,000 SEER 16.7

G. "PHHS" Horizontal Split Configuration, Water to Air Heat Pumps

These models are made up of two separate cabinets, a Compressor cabinet and an Air Handler Cabinet. They also have the highest Btu output in the industry per compressor size, efficiencies ranging from 3.7 to 5.1 All Models are available in Voltages offered by Scroll Compressors. All units use ECM Fan motors. All models are designed and sized to heat and air condition the appropriate sized home to the 100% level, electric back-up is only used as emergency back-up in case of failure. PBHS Represents a Model Family, the letter D represents 230 Volt single phase power. Compressor sizes from 60,000 to 30,000

PHHS Compressor only Cabinets H28", L36", D36" Air Handler Cabinets H28", L42", D32"

(PHHS Models) Horizontal Split Heat Pumps, (2) separate cabinets separated by up to 100 feet

Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PHHS-64DS12K20 (Step1) (60,000)		42,000 COP 4.2	38,000 COP 3.7	47,000 SEER 17.6	43,000 SEER 16.8
(Step 2)		64,000 COP 4.3	56,000 COP 3.8	70,000 SEER 17.6	64,000 SEER 16.7
PHHS-60DS12K20 (57,000)		60,000 COP 4.1	50,000 COP 3.7	66,000 SEER 17.2	60,000 SEER 16.3
PHHS- 56DS12K15 (step-1) (51,000)		37,000 COP 4.4	34,000 COP 3.9	40,000 SEER 17.9	37,000 SEER 17.1
(step-2)		56,000 COP 4.3	50,000 COP 3.8	60,000 SEER 17.6	56,000 SEER 16.7
PHHS- 55DS12K15 (50,000)		55,000 COP 4.3	49,000 COP 3.8	59,000 SEER 17.6	55,000 SEER 16.7
PHHS-48DS12K15 (42,000)		48,000 COP 4.4	40,000 COP 3.9	49,000 SEER 17.6	46,000 SEER 16.7
PHHS-46DS12K15 (step-1) (40,000)		31,000 COP 4.4	26,000 COP 3.9	31,000 SEER 17.6	29,000 SEER 16.7
(step-2)		46,000 COP 4.3	38,000 COP 3.8	47,000 SEER 17.6	44,000 SEER 16.7
PHHS-40DS12K10 (step-1) (35,000)		26,000 COP 4.4	23,000 COP 3.9	28,000 SEER 17.6	26,000 SEER 16.7
(step-2)		40,000 COP 4.3	34,000 COP 3.8	42,000 SEER 17.4	38,000 SEER 16.5
PHHS-34S12K10 (step-1) (30,000)		24,000 COP 4.4	20,000 COP 3.9	24,000 SEER 17.6	23,000 SEER 16.7
(step-2)		34,000 COP 4.3	30,000 COP 3.8	36,000 SEER 17.4	34,000 SEER 16.5

H. "PHHO" One Cabinet Horizontal Configuration, Water to Air Heat Pumps

The highest Btu output in the industry per compressor size, efficiencies ranging from 3.7 to 5.1
All Models are available in Voltages offered for Scroll Compressors. ECM Fan motors.

PBHO Compressor and Air Handler combined H28", L72", D32"

Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PBHO-96DS12K20	(83,000)	96,000 COP 4.0	82,000 COP 3.6	98,000 SEER 16.8	92,000 SEER 16.1
PBHO-78DS12K20	(70,000)	78,000 COP 4.2	68,000 COP 3.8	84,000 SEER 17.1	78,000 SEER 16.4
PBHO-68DS12K20 (Step 1)	(60,000)	46,000 COP 4.4	40,000 COP 3.9	50,000 SEER 17.9	46,000 SEER 17.1
(Step 2)		68,000 COP 4.3	60,000 COP 3.8	74,000 SEER 17.6	68,000 SEER 16.7
PBHO-64DS12K20	(57,000)	64,000 COP 4.3	56,000 COP 3.8	70,000 SEER 17.6	64,000 SEER 16.7
PHHO- 56DS12K15 (step-1)	(51,000)	37,000 COP 4.4	34,000 COP 3.9	40,000 SEER 17.9	37,000 SEER 17.1
(step-2)		56,000 COP 4.3	50,000 COP 3.8	60,000 SEER 17.6	56,000 SEER 16.7
PHHO- 55DS12K15	(50,000)	55,000 COP 4.3	49,000 COP 3.8	59,000 SEER 17.6	55,000 SEER 16.7
PHHO-48DS12K15	(42,000)	48,000 COP 4.4	40,000 COP 3.9	49,000 SEER 17.6	46,000 SEER 16.7
PHHO-46DS12K15 (step-1)	(40,000)	31,000 COP 4.4	26,000 COP 3.9	31,000 SEER 17.6	29,000 SEER 16.7
(step-2)		46,000 COP 4.3	38,000 COP 3.8	47,000 SEER 17.6	44,000 SEER 16.7
PHHO-40DS12K10 (step-1)	(35,000)	26,000 COP 4.4	23,000 COP 3.9	28,000 SEER 17.6	26,000 SEER 16.7
(step-2)		40,000 COP 4.3	34,000 COP 3.8	42,000 SEER 17.4	38,000 SEER 16.5
PHHO-34S12K10 (step-1)	(30,000)	24,000 COP 4.4	20,000 COP 3.9	24,000 SEER 17.6	23,000 SEER 16.7
(step-2)		34,000 COP 4.3	30,000 COP 3.8	36,000 SEER 17.4	34,000 SEER 16.5

I. "PBHC" One Cabinet Horizontal Configuration, Water to Air Heat Pumps

The highest Btu output in the industry per compressor size, efficiencies ranging from 3.7 to 5.1
All Models are available in Voltages offered for Scroll Compressors. ECM Fan motors.

Horizontal configuration with compressor sizing ranging from 16,000 to 30,000
Desuperheaters and Duct Heater Options.

PBHC Compressor and Air Handler combined H26", L66", D28"

PBHC-34S12K10	(step-1)	(30,000)	24,000	20,000	24,000	23,000
			COP 4.4	COP 3.9	SEER 17.6	SEER 16.7
	(step-2)		34,000	30,000	36,000	34,000
			COP 4.3	COP 3.8	SEER 17.4	SEER 16.5
PBHC-26DK5	(Step 1)	(20,000)	14,500	12,500	16,000	14,000
			COP 4.6	COP 3.9	SEER 17.4	SEER 16.8
	(Step 2)		22,000	19,000	24,000	21,000
			COP 4.4	COP 3.7	SEER 17.1	SEER 16.2
PBHC-24DK5		(18000)	20,000	17,000	23,000	20,000
			COP 4.3	COP 3.6	SEER 16.9	SEER 16.1
PBHC-20DK5		(15,000)	17,000	14,000	18,000	16,000
			COP 4.4	COP 3.7	SEER 17.1	SEER 16.2
PBHC-14DK5		(12,000)	13,000	11,000	14,000	12,000
			COP 4.3	COP 3.6	SEER 16.9	SEER 16.1
PBHC-14DK5		(8600)	9,000	8,000	10,000	9,000
			COP 4.3	COP 3.6	SEER 16.9	SEER 16.1

(J) "PBST" Vertical Water to Air Triple Function units

These units are fully functioning Heating and Cooling Heat Pumps but with the added ability to provide "Demand Hot Water". This Triple function heat pump designed for homes with outdoor pools. Pools can be heated on demand and or operate for free rejecting house heat directly into a outdoor pool.

Actual COP or SEER ratings are much higher as these units also provide free pool heating when the heat pump is Air-conditioning the home.

PBST Model	H65", W28", D36" Compressors range from 83,000 to 40,000 Btu				
Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PBST-96DS12K20	(83,000)	96,000 COP 4.0	82,000 COP 3.6	98,000 SEER 16.8	92,000 SEER 16.1
PBST-78DS12K20	(70,000)	78,000 COP 4.2	68,000 COP 3.8	84,000 SEER 17.1	78,000 SEER 16.4
PBST-68DS12K20 (Step 1)	(60,000)	46,000 COP 4.4	40,000 COP 3.9	50,000 SEER 17.9	46,000 SEER 17.1
(Step 2)		68,000 COP 4.3	60,000 COP 3.8	74,000 SEER 17.6	68,000 SEER 16.7
PBST-64DS12K20	(57,000)	64,000 COP 4.3	56,000 COP 3.8	70,000 SEER 17.6	64,000 SEER 16.7
PBST- 56DS12K15 (step-1)	(51,000)	37,000 COP 4.4	34,000 COP 3.9	40,000 SEER 17.9	37,000 SEER 17.1
(step-2)		56,000 COP 4.3	50,000 COP 3.8	60,000 SEER 17.6	56,000 SEER 16.7
PBST- 55DS12K15	(50,000)	55,000 COP 4.3	49,000 COP 3.8	59,000 SEER 17.6	55,000 SEER 16.7
PBST-48DS12K15	(42,000)	48,000 COP 4.4	40,000 COP 3.9	49,000 SEER 17.6	46,000 SEER 16.7
PBST-46DS12K15 (step-1)	(40,000)	31,000 COP 4.4	26,000 COP 3.9	31,000 SEER 17.6	29,000 SEER 16.7
(step-2)		46,000 COP 4.3	38,000 COP 3.8	47,000 SEER 17.6	44,000 SEER 16.7

(K) "PBHT" Horizontal Water to Air Triple Function units

These units are fully functioning Heating and Cooling Heat Pumps but with the added ability to provide "Demand Hot Water". This Triple function heat pump designed for homes with outdoor pools. Pools can be heated on demand and or operate for free rejecting house heat directly into a outdoor pool.

Actual COP or SEER ratings are much higher as these units also provide free pool heating when the heat pump is Air-conditioning the home.

PSHT Model H31.5", W48", D42" Compressors range from 83,000 to 40,000 Btu
Horizontal Air Handlers, H28", W42", D32", are paired with the above compressor cabinets.

Air Handler

Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PBHT-96DS12K20	(83,000)	96,000 COP 4.0	82,000 COP 3.6	98,000 SEER 16.8	92,000 SEER 16.1
PBHT-78DS12K20	(70,000)	78,000 COP 4.2	68,000 COP 3.8	84,000 SEER 17.1	78,000 SEER 16.4
PBHT-68DS12K20 (Step 1)	(60,000)	46,000 COP 4.4	40,000 COP 3.9	50,000 SEER 17.9	46,000 SEER 17.1
(Step 2)		68,000 COP 4.3	60,000 COP 3.8	74,000 SEER 17.6	68,000 SEER 16.7
PBST-64DS12K20	(57,000)	64,000 COP 4.3	56,000 COP 3.8	70,000 SEER 17.6	64,000 SEER 16.7
PBHT- 56DS12K15 (step-1)	(51,000)	37,000 COP 4.4	34,000 COP 3.9	40,000 SEER 17.9	37,000 SEER 17.1
(step-2)		56,000 COP 4.3	50,000 COP 3.8	60,000 SEER 17.6	56,000 SEER 16.7
PBHT- 55DS12K15	(50,000)	55,000 COP 4.3	49,000 COP 3.8	59,000 SEER 17.6	55,000 SEER 16.7
PBHT-48DS12K15	(42,000)	48,000 COP 4.4	40,000 COP 3.9	49,000 SEER 17.6	46,000 SEER 16.7
PBHT-46DS12K15 (step-1)	(40,000)	31,000 COP 4.4	26,000 COP 3.9	31,000 SEER 17.6	29,000 SEER 16.7
(step-2)		46,000 COP 4.3	38,000 COP 3.8	47,000 SEER 17.6	44,000 SEER 16.7

L. "PBWW" Water to Water Heat Pumps

Water to Water Heat Pumps are just that, strictly Water to Water units producing either hot water or chilled water. Cabinet Sizes are: (H31.5", W48", D42"), (H26", W36", D36")

Compressors available range from single 20,000 Btu to 83,000 Btu

Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PBWW-83DS12	(83,000)	83,000 COP 4.0	74,000 COP 3.6	80,000 SEER 16.8	72,000 SEER 16.1
PBWW-70DS12	(70,000)	70,000 COP 4.2	62,000 COP 3.8	68,000 SEER 17.1	62,000 SEER 16.4
PBWW-60DS12	(Step 1)(60,000)	39,600 COP 4.4	35,000 COP 3.9	37,000 SEER 17.9	34,000 SEER 17.1
	(Step 2)	60,000 COP 4.3	53,000 COP 3.8	57,000 SEER 17.6	51,000 SEER 16.7
PBWW-57DS12	(57,000)	57,000 COP 4.3	50,000 COP 3.8	55,000 SEER 17.6	49,500 SEER 16.7
PBWW-51DS12	(step-1) (51,000)	34,000 COP 4.4	30,000 COP 3.9	32,000 SEER 17.9	28,500 SEER 17.1
	(step-2)	51,000 COP 4.3	44,800 COP 3.8	48,000 SEER 17.6	43,200 SEER 16.7
PBWW- 50DS12	(50,000)	50,000 COP 4.3	44,000 COP 3.8	48,000 SEER 17.6	44,000 SEER 16.7
PBWW-42DS12	(42,000)	42,000 COP 4.4	36,500 COP 3.9	40,000 SEER 17.6	36,000 SEER 16.7
PBWW-40DS12	(step-1) (40,000)	26,400 COP 4.4	23,200 COP 3.9	26,000 SEER 17.6	22,400 SEER 16.7
	(step-2)	40,000 COP 4.3	35,200 COP 3.8	38,000 SEER 17.6	34,000 SEER 16.7
PBWW-30S12K10	(step-1)(30,000)	19,800 COP 4.4	17,400 COP 3.9	18,500 SEER 17.6	16,500 SEER 16.7
	(step-2)	30,000 COP 4.3	26,400 COP 3.8	28,000 SEER 17.4	25,000 SEER 16.5
PBWW-20DK5	(Step 1) (20,000)	13,200 COP 4.6	11,600 COP 3.9	11,800 SEER 17.4	10,500 SEER 16.8
	(Step 2)	20,000 COP 4.4	17,600 COP 3.7	18,000 SEER 17.1	16,000 SEER 16.2

M. "PBWW" Water To Water To Air Heat Pumps

These units are "Water to Water" units which have the Water Fan Coil built directly into the Heat Pump Cabinet. Often these units can be engineered to work without storage tanks. These heat pumps provide hot water for both Infloor heating and forced air at the same time as well as air conditioning. Compressor sizing ranges from 20,000 Btu up to 83,000 Btu. Cabinet styles include the Vertical 64" and 59" as well as both Horizontal 31.5" and 28" Cabinet models.

Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PBWW-83DS12	(83,000)	83,000 COP 4.0	74,000 COP 3.6	80,000 SEER 16.8	72,000 SEER 16.1
PBWW-70DS12	(70,000)	70,000 COP 4.2	62,000 COP 3.8	68,000 SEER 17.1	62,000 SEER 16.4
PBWW-60DS12	(Step 1)(60,000)	39,600 COP 4.4	35,000 COP 3.9	37,000 SEER 17.9	34,000 SEER 17.1
	(Step 2)	60,000 COP 4.3	53,000 COP 3.8	57,000 SEER 17.6	51,000 SEER 16.7
PBWW-57DS12	(57,000)	57,000 COP 4.3	50,000 COP 3.8	55,000 SEER 17.6	49,500 SEER 16.7
PBWW-51DS12	(step-1) (51,000)	34,000 COP 4.4	30,000 COP 3.9	32,000 SEER 17.9	28,500 SEER 17.1
	(step-2)	51,000 COP 4.3	44,800 COP 3.8	48,000 SEER 17.6	43,200 SEER 16.7
PBWW- 50DS12	(50,000)	50,000 COP 4.3	44,000 COP 3.8	48,000 SEER 17.6	44,000 SEER 16.7
PBWW-42DS12	(42,000)	42,000 COP 4.4	36,500 COP 3.9	40,000 SEER 17.6	36,000 SEER 16.7
PBWW-40DS12	(step-1) (40,000)	26,400 COP 4.4	23,200 COP 3.9	26,000 SEER 17.6	22,400 SEER 16.7
	(step-2)	40,000 COP 4.3	35,200 COP 3.8	38,000 SEER 17.6	34,000 SEER 16.7
PBWW-30S12K10	(step-1)(30,000)	19,800 COP 4.4	17,400 COP 3.9	18,500 SEER 17.6	16,500 SEER 16.7
	(step-2)	30,000 COP 4.3	26,400 COP 3.8	28,000 SEER 17.4	25,000 SEER 16.5
PBWW-20DK5	(Step 1) (20,000)	13,200 COP 4.6	11,600 COP 3.9	11,800 SEER 17.4	10,500 SEER 16.8
	(Step 2)	20,000 COP 4.4	17,600 COP 3.7	18,000 SEER 17.1	16,000 SEER 16.2

N. "PWWT" Water to Water Triple Function with or without an Air Handler

These units are "Water to Water" units which may have the Water Fan Coil built directly into the Heat Pump Cabinet or not. These heat pumps provide hot water for both Infloor heating and forced air, air conditioning and outdoor pool heating on demand or for free on air conditioning. Compressor sizing ranges from 20,000 Btu up to 83,000 Btu. Cabinet styles include the Vertical 64" and 59" as well as both Horizontal 31.5" and 28" Cabinet models.

The COP and or SEER is much higher then stated as during the summer months, pool heating is absolutely free when ever the home is being air conditioned.

Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PWWT-83DS12	(83,000)	83,000 COP 4.0	74,000 COP 3.6	80,000 SEER 16.8	72,000 SEER 16.1
PWWT-70DS12	(70,000)	70,000 COP 4.2	62,000 COP 3.8	68,000 SEER 17.1	62,000 SEER 16.4
PWWT-60DS12	(Step 1)(60,000)	39,600 COP 4.4	35,000 COP 3.9	37,000 SEER 17.9	34,000 SEER 17.1
	(Step 2)	60,000 COP 4.3	53,000 COP 3.8	57,000 SEER 17.6	51,000 SEER 16.7
PWWT-57DS12	(57,000)	57,000 COP 4.3	50,000 COP 3.8	55,000 SEER 17.6	49,500 SEER 16.7
PWWT-51DS12	(step-1) (51,000)	34,000 COP 4.4	30,000 COP 3.9	32,000 SEER 17.9	28,500 SEER 17.1
	(step-2)	51,000 COP 4.3	44,800 COP 3.8	48,000 SEER 17.6	43,200 SEER 16.7
PWWT- 50DS12	(50,000)	50,000 COP 4.3	44,000 COP 3.8	48,000 SEER 17.6	44,000 SEER 16.7
PWWT-42DS12	(42,000)	42,000 COP 4.4	36,500 COP 3.9	40,000 SEER 17.6	36,000 SEER 16.7
PWWT-40DS12	(step-1) (40,000)	26,400 COP 4.4	23,200 COP 3.9	26,000 SEER 17.6	22,400 SEER 16.7
	(step-2)	40,000 COP 4.3	35,200 COP 3.8	38,000 SEER 17.6	34,000 SEER 16.7

O. “PBDH” Dehumidification For Indoor Pools

Polar Bear manufacturers 2 Vertical Heat Pump configurations and 2 Horizontal Heat Pump configurations, these units are primarily used for Indoor Pools.

Vertical Units: H65”, W36”, D36” and H59”, W36”, D34”

Compressor sizes range from 40,000 Btu to 83,000

**Horizontal Units: Compressor Cabinet H31.5”, W48”, D42” and H26”, W36”, D36”
Air Handler Cabinet H 26”, W42”, D38”**

Model	Copeland Compressor	86F. EWT Cool Btu
PBDH-83DS12	(83,000)	86,000
PBDH-70DS12	(70,000)	73,000
PBDH-60DS12	(60,000)	400,000
	(Step 1)	64,000
	(Step 2)	
PBDH-57DS12	(57,000)	60,000
PBDH-51DS12	(51,000)	36,000
	(step-1)	54,000
	(step-2)	
PBDH- 50DS12	(50,000)	53,000
PBDH-42DS12	(42,000)	44,000
PBDH-40DS12	(40,000)	30,000
	(step-1)	42,000
	(step-2)	

P. "PASD" Heating, Cooling and absolute Dehumidification

These Polar Bear units provide both Heating and Air Conditioning along with absolute dehumidification control. Used in homes or applications where humidity is a problem. Standard Vertical or horizontal Heat Pumps with two Air Coils similar to Pool dehumidification Systems. These units will absolutely control humidity first when cooling when installed in high humidity situations. The added advantage on heating is there are two air coils now to extract maximum heat.

Vertical Units: H64", W36", D36" and H59", W36", D34"
Compressor sizes range from 36,000 Btu to 83,000

Horizontal Units: Compressor Cabinet H31.5", W48", D42" and H26", W36", D36"
Air Handler Cabinet H 26", W42", D38"

Model	Copeland Compressor	50F. EWT Heat Btu	32F. EWT Heat Btu	50F. EWT Cool Btu	70F. EWT Cool Btu
PBSM-96DS12K20	(83,000)	96,000 COP 4.0	82,000 COP 3.6	98,000 SEER 16.8	92,000 SEER 16.1
PBSM-78DS12K20	(70,000)	78,000 COP 4.2	68,000 COP 3.8	84,000 SEER 17.1	78,000 SEER 16.4
PBSM-68DS12K20 (Step 1) (60,000)		46,000 COP 4.4	40,000 COP 3.9	50,000 SEER 17.9	46,000 SEER 17.1
(Step 2)		68,000 COP 4.3	60,000 COP 3.8	74,000 SEER 17.6	68,000 SEER 16.7
PBSM-64DS12K20	(57,000)	64,000 COP 4.3	56,000 COP 3.8	70,000 SEER 17.6	64,000 SEER 16.7
PBVE- 56DS12K15 (step-1) (51,000)		37,000 COP 4.4	34,000 COP 3.9	40,000 SEER 17.9	37,000 SEER 17.1
(step-2)		56,000 COP 4.3	50,000 COP 3.8	60,000 SEER 17.6	56,000 SEER 16.7
PBVE- 55DS12K15	(50,000)	55,000 COP 4.3	49,000 COP 3.8	59,000 SEER 17.6	55,000 SEER 16.7
PBVE-48DS12K15	(42,000)	48,000 COP 4.4	40,000 COP 3.9	49,000 SEER 17.6	46,000 SEER 16.7
PBVE-46DS12K15 (step-1) (40,000)		31,000 COP 4.4	26,000 COP 3.9	31,000 SEER 17.6	29,000 SEER 16.7
(step-2)		46,000 COP 4.3	38,000 COP 3.8	47,000 SEER 17.6	44,000 SEER 16.7