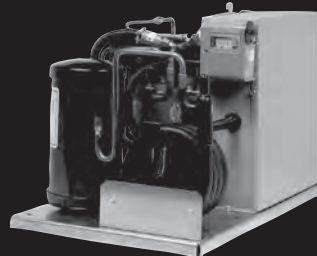
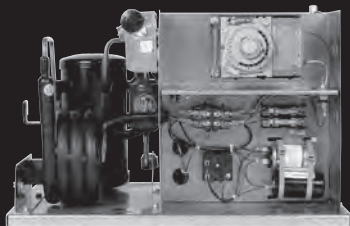


## WATER-COOLED CONDENSING UNITS

### Technical Guide

Models HWN | Hermetic • ZWN | Scroll • SWN | Semi-Hermetic



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## NOMENCLATURE - HWN & ZWN MODELS

ZW	N	030	L	6	B
Compressor	Application	Equiv. HP	Temp.	Refrigerant	Voltage
HW = Hermetic ZW = Scroll	N = Indoor	005 = 1/2HP 008 = 3/4HP 010 = 1HP 01* = 1-1/2HP 02* = 2HP 03* = 3HP 04* = 4HP 05* = 5HP 060 = 6HP	H = High L = Low X = Medium/Low	6 = R-404A/507/ R407A/R407C, R448A/R449A	B = 208/230/1/60 C = 208/230/3/60 D = 460/3/60

## NOMENCLATURE - SWN MODELS

S	W	N	0500	M	6	C
Compressor	Model	Application	Model Size	Temp.	Refrigerant	Electrical Code
S = Semi-Hermetic Reciprocating	W = Water-Cooled	N = Indoor	0075 - 2200	L = Low M = Medium E = Extra Low	6 = R-404A/507/ R407A/ R407C/407F, R448A/R449A	B = 208/230/1/60 C = 208/230/3/60 D = 460/3/60 E = 575/3/60 G = 230/1/60

## FEATURES & BENEFITS - HWN & ZWN Models

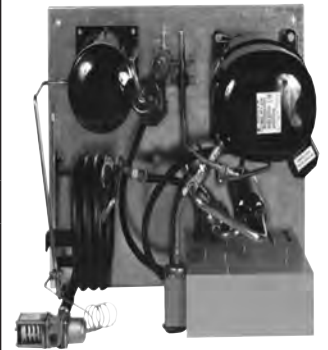
### Construction

- Component location and unit size are all optimized for easy field replacements or new installations where space is limited.
- Extra space is provided inside the electrical box for service and installation of additional components.
- Copeland® hermetic and scroll compressors for low and medium temperature operation.
- All units are provided with a water regulating valve for superior head pressure control.
- An extra capacity receiver with liquid shut-off valve is provided for installations with long refrigerant lines.
- A pumpdown switch is provided on all models for field servicing.



### Serviceability

- Easy access to the large electrical panel for service diagnostics or options.
- Color-coded wire harnesses are all labeled and coded for easy identification.
- A suction line rotolock service valve is provided on the compressor for service.
- An additional shut off valve is mounted in the discharge line of the compressor for quick and easy isolation of the compressor for service.
- Schrader® valves permit recovery of refrigerant isolated in compressor for quick and easy compressor change if ever needed.



### Quality

- Piping is laid out to minimize stress and vibration for quieter operation.
- Easy to verify leak-free unit by checking for the nitrogen holding charge with the Schrader® valve on the discharge or suction service valve.
- Encapsulated, automatic reset, high pressure control, and an adjustable low pressure control with flexible refrigerant hose to reduce possibility for leaks.
- A helix tube in tube water-cooled condenser is standard with refrigerant counter flow for optimum condensing unit efficiency.
- Every unit is put into a vacuum and subjected to a rigorous leak test. This results in a clean, dry and leak free unit every time.
- Electrical circuits are factory tested for functional integrity.
- Every unit is run tested and cycled on both the high and low pressure controls.



### Option

- Sight glass (optional) is easily viewable from the front to monitor the refrigerant charge.
- Factory-installed suction filter available as option for additional system protection.

## APPLICATION DATA - HWN & ZWN

### Installation Precautions

All units are factory charged with dry nitrogen which must be evacuated prior to installation.

Water valves must be adjusted during initial start-up to design condensing pressure for the selected refrigerant.

HW "X6" models with RS compressors are not suitable for R-507.

### Retrofit Installations

If a P.O.E. model is used in a retrofit, the old mineral oil must be completely removed from the system or at least reduced to no more than 5% of the total oil charge. Polyolester oil is very hygroscopic. Take extra precautions to limit exposure to the atmosphere.

### Leveling Units

Unit must be level to insure proper oil return to the compressor.

### Condenser Water Temperature

Maximum leaving water temperature is 105°F on all models.

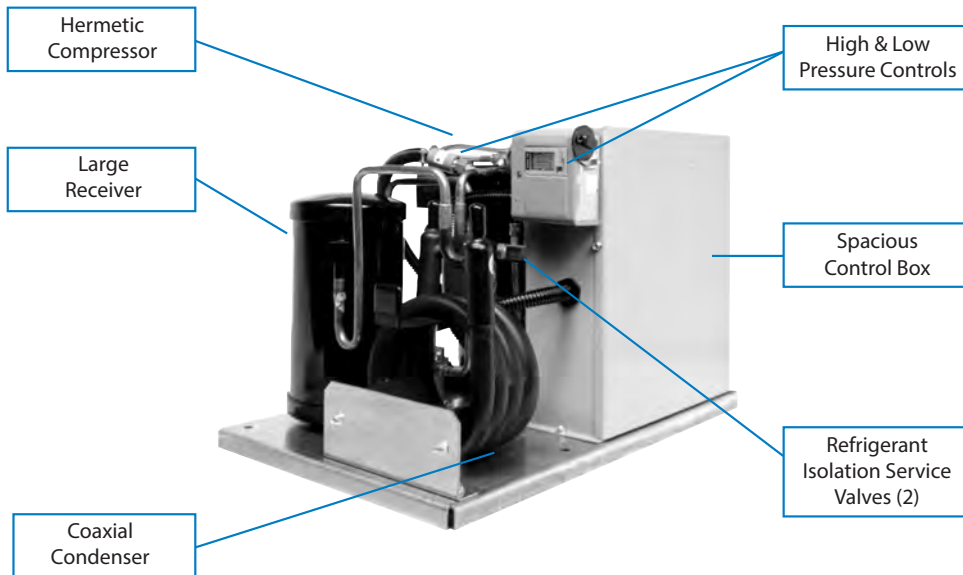
### Condenser Water Treatment

The use of untreated or improperly treated water may result in scaling premature erosion or corrosion. A qualified water treatment specialist is recommended for proper results.

### Engineering Aids

Total Heat of Rejection (THR) all units:  
 $THR = BTUH + (KW \times 1000 \times 3.4 \times 1.0)$

Water Temperature Rise ( $\Delta T_w$ ) through  
 water cooled condenser:  
 $\Delta T_w = THR \div (GPM \times 60 \times 8.4)$



## SPECIFICATIONS & OPTIONS - HWN & ZWN

Features & Specifications	HW	ZW
Compressor mounting (rubber grommets)	Standard	Standard
Compressor discharge service valve (in line brass base valve)	Standard	Standard
Compressor suction service valve - rotolock	Standard	Standard
Large capacity refrigerant receiver (up to 100 ft. runs)	Standard	Standard
Receiver service valve (located on outlet)	Standard	Standard
Coaxial condenser (counterflow tube in tube)	Standard	Standard
Extra large electric box (encloses all options and capacitors)	Standard	Standard
Electric conduit (UL recognized, high impact, flame retardant copolymer)	Standard	Standard
Low pressure control switch (adjustable)	Standard	Standard
High pressure encapsulated safety switch (fixed)	Standard	Standard
Super hose on low pressure control (higher leak resistance)	Standard	Standard
Voltage 208-230 - 1ph - 60hz	Standard	Standard
Voltage 208-230 -3ph - 60hz	Standard	Standard
Voltage 460 - 3ph - 60hz	Standard	Standard
Pump down control switch (pre-wired)	Standard	Standard
Water valve (mounted on condenser inlet)	Standard	Standard
Agency approvals UL, ULC	Standard	Standard
Electrical Options	HW	ZW
Air defrost timer	Option	Option
Electric defrost timer	Option	Option
Electric defrost timer with contactor	Option	Option
Compressor crankcase heater <sup>1</sup>	Option	Option
Beacon II™ Control	Option	Option
Mechanical Options	HW	ZW
Liquid line drier & sight glass assembly (sweat) <sup>2</sup>	Option	Option
Liquid line solenoid valve (230V coil)	Option	Option
Suction filter with bypass	Option	Option
Suction accumulator	Option	Option
Suction accumulator & filter	Option	Option
Two-tiered stacking rack for field assembly	Option	Option

<sup>1</sup> Crankcase heaters are not required for indoor operation but are included on some HW models. Field wiring is required. ZW models crankcase heaters are not available.

<sup>2</sup> Required on ZW "L6" models



The Beacon II system is a pre-assembled, factory installed refrigeration system featuring an integrated microcomputer-based electronic control board. System orders (including matching unit coolers) are now available for all HW & ZW models.

The Beacon II system replaces the expansion valve, solenoid valve, room thermostat, defrost control timer. It comes factory preset thereby eliminating all of the expensive and time consuming fine tuning and adjustments necessary for a good system installation. For additional information, see the Beacon II bulletin or contact your local Sales Representative.

## PERFORMANCE DATA - HWN MODELS

### High Temperature Models - R-404A

Model	Compressor		Suction Temperature °F	
			35°F	40°F
HWN005H6	RST45C1E	BTU/H	7,370	8,160
		GPM	1.3	1.5
		PSI	1.0	1.2
HWN009H6	RST64C1E	BTU/H	11,190	12,310
		GPM	1.8	2.1
		PSI	2.1	2.6
HWN010H6	RST70C1E	BTU/H	12,430	13,900
		GPM	2.0	2.3
		PSI	2.3	2.9
HWN015H6	CS10K6E	BTU/H	18,510	20,830
		GPM	3.3	3.9
		PSI	1.6	2.2
HWN025H6	CS14K6E	BTU/H	25,060	27,910
		GPM	4.8	5.7
		PSI	3.2	4.2
HWN032H6	CS20K6E	BTU/H	36,490	40,790
		GPM	5.6	6.8
		PSI	2.7	3.7

Capacity ratings conditions: 85°F entering water, 110°F condensing, 25°F ITD, 0°F subcooling

### High Temperature Models - R-407C

Model	Compressor		Suction Temperature °F	
			35°F	40°F
HWN005H6	RST45C1E	BTU/H	7,160	8,050
		GPM	3.6	4.6
		PSI	4.9	7.0
HWN009H6	RST64C1E	BTU/H	11,320	12,720
		GPM	4.9	5.9
		PSI	10.0	13.1
HWN010H6	RST70C1E	BTU/H	11,400	12,760
		GPM	4.8	5.7
		PSI	9.7	12.5

Capacity ratings conditions: 85°F entering water, 110°F condensing, 25°F ITD, 0°F subcooling

## PERFORMANCE DATA - HWN MODELS

### Low Temperature Models - R-404A

Model	Compressor		Suction Temperature °F					
			-30 °F	-25°F	-20°F	-10°F	0°F	10°F
HWN011L6	CF04K6E	BTUH	2,080	2,810	3,570	5,310	7,590	10,680
		GPM	0.5	0.7	1.0	1.6	3.0	6.0
		PSI	0.2	0.4	0.6	1.4	3.7	7.4
HWN014L6	CF06K6E	BTUH	3,770	4,810	5,990	8,700	11,780	15,070
		GPM	1.0	1.3	1.5	2.5	4.0	5.0
		PSI	0.8	1.2	1.5	3.4	7.4	8.0
HWN025L6	CF09K6E	BTUH	5,560	7,040	8,720	12,590	17,060	21,970
		GPM	1.0	1.5	2.0	3.5	5.8	8.5
		PSI	0.2	0.6	0.8	2.0	4.4	8.5
HWN031L6	CF12K6E	BTUH	7,550	9,510	11,570	16,060	21,180	27,140
		GPM	1.25	2.5	3.4	5.75	9.5	11.0
		PSI	0.6	1.2	1.9	4.4	9.8	12.0

Capacity ratings conditions: 85°F entering water, 105°F condensing, 20°F ITD, 0°F subcooling. (ITD = Condensing temperature - entering condenser water temperature)

BTUH = British Thermal Units (All capacities are rated at 60 Hz operation)

GPM = Gallons per Minute (Water flow rate)

PSI = Pounds per Square Inch (Water pressure drop through condenser)

### Extended Temperature Models - R-404A

Model	Compressor		Suction Temperature °F						
			-25°F	-20°F	-10°F	0°F	10°F	20°F	30°F
HWN005X6	RST45C1E	BTUH	1,280	1,665	2,460	3,290	4,220	5,270	6,480
		GPM	0.2	0.2	0.4	0.7	0.9	1.2	1.6
		PSI	0.2	0.2	0.2	0.3	0.5	0.9	1.4
HWN008X6	RST55C1E	BTUH	2,060	2,340	3,070	4,010	5,140	6,460	7,950
		GPM	0.4	0.5	0.7	1.0	1.4	1.9	2.6
		PSI	0.2	0.3	0.4	0.6	1.1	1.7	3.0
HWN009X6	RST64C1E	BTUH	2,480	2,880	3,820	4,970	6,320	7,870	9,620
		GPM	0.2	0.2	0.5	0.9	1.4	1.8	2.4
		PSI	0.2	0.2	0.3	0.7	1.3	2.1	3.2
HWN010X6	RST70C1E	BTUH	1,600	2,335	3,770	5,200	6,800	8,700	11,200
		GPM	0.3	0.3	0.4	1.1	1.5	1.8	2.7
		PSI	0.3	0.3	0.3	0.9	1.5	2.1	3.9
HWN015X6	CS10K6E	BTUH	2,000	2,815	4,580	6,930	9,710	12,900	16,300
		GPM	0.6	0.8	1.0	1.5	2.3	3.3	4.8
		PSI	0.2	0.3	0.4	0.5	0.9	1.6	3.1
HWN020X6	CS12K6E	BTUH	2,650	3,615	5,670	8,340	11,490	15,100	19,200
		GPM	0.8	0.9	1.6	1.8	2.8	4.3	6.6
		PSI	0.4	0.4	0.5	0.6	1.2	2.6	4.3
HWN025X6	CS14K6E	BTUH	3,840	4,900	7,160	10,140	13,630	17,500	21,800
		GPM	0.2	0.5	1.1	1.8	3.2	4.7	7.2
		PSI	0.1	0.2	0.5	0.8	1.7	4.2	6.6
HWN030X6	CS18K6E	BTUH	4,590	5,825	8,570	12,600	17,400	22,700	28,300
		GPM	0.5	0.9	1.5	2.9	4.9	8.0	10.5
		PSI	0.2	0.4	0.6	1.4	3.3	8.0	10.4
HWN032X6	CS20K6E	BTUH	4,650	6,505	10,110	14,210	19,220	25,600	34,000
		GPM	0.5	0.8	1.3	1.8	2.6	5.0	9.5
		PSI	0.2	0.4	0.6	0.8	1.1	2.2	6.6

Capacity ratings conditions: 85°F entering water, 105°F condensing, 20°F ITD, 0°F subcooling. (ITD = Condensing temperature - entering condenser water temperature)

BTUH = British Thermal Units (All capacities are rated at 60 Hz operation)

GPM = Gallons per Minute (Water flow rate)

PSI = Pounds per Square Inch (Water pressure drop through condenser)

## PERFORMANCE DATA - HWN MODELS

### Extended Temperature Models- R-407C

Model	Compressor		Suction Temperature °F						
			-25°F	-20°F	-10°F	0°F	10°F	20°F	30°F
HWN005X6	RST45C1E	BTUH	1,650	1,780	2,220	2,920	3,890	5,120	6,630
		GPM	0.3	0.4	0.6	0.9	1.3	1.8	2.8
		PSI	0.1	0.2	0.3	0.5	0.9	1.6	3.4
HWN008X6	RST55C1E	BTUH	1,300	1,690	2,560	3,570	4,780	6,240	8,010
		GPM	0.2	0.4	0.8	1.2	1.7	2.7	4.8
		PSI	0.1	0.2	0.4	0.8	1.5	3.1	7.3
HWN009X6	RST64C1E	BTUH	1,710	2,220	3,350	4,670	6,260	8,170	10,490
		GPM	0.5	0.5	0.6	1.2	1.9	2.7	4.1
		PSI	0.25	0.3	0.3	1.1	2.1	3.8	7.8
HWN010X6	RST70C1E	BTUH	1,310	2,010	3,400	4,850	6,460	8,340	10,590
		GPM	0.5	0.5	0.7	1.3	1.9	2.7	4.1
		PSI	0.4	0.4	0.4	1.2	2.3	3.8	7.6

Capacity ratings conditions: 85°F entering water, 105°F condensing, 20°F ITD, 0°F subcooling.

### Extended Temperature Models - R-448A/R-449A

Model	Compressor		Suction Temperature °F						
			-25°F	-20°F	-10°F	0°F	10°F	20°F	30°F
HWN005X6	RST45C1E	BTUH	-	-	2,170	2,970	3,990	5,270	6,850
		GPM	-	-	0.6	0.9	1.3	1.9	3.3
		PSI	-	-	0.3	0.5	1.0	1.8	4.3
HWN008X6	RST55C1E	BTUH	-	-	2,820	3,740	5,040	6,690	8,700
		GPM	-	-	0.9	1.3	1.9	3.5	8.9
		PSI	-	-	0.5	1.0	1.8	4.8	16.8
HWN009X6	RST64C1E	BTUH	-	-	3,590	4,820	6,440	8,440	10,820
		GPM	-	-	0.9	1.4	2.1	3.0	4.8
		PSI	-	-	0.7	1.4	2.6	4.6	10.2
HWN010X6	RST70C1E	BTUH	-	-	3,710	5,060	6,610	8,380	10,390
		GPM	-	-	0.9	1.4	2.0	2.8	4.1
		PSI	-	-	0.6	1.4	2.5	4.1	7.6

Capacity ratings conditions: 85°F entering water, 105°F condensing, 20°F ITD, 0°F subcooling.



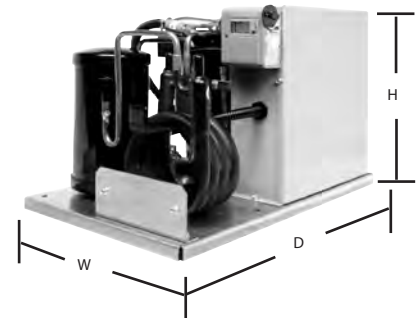
## UNIT SPECIFICATIONS - HWN MODELS

Model	Compressor	Connections (in.)				Receiver 90% Full Lbs.	Dimensions (in.)			Net Wt. (lbs.)
		Suction (ODS)	Liquid (ODS)	Water In (FPT)	Water Out (MPT)		D	W	H	
<i>High Temperature Models</i>										
HWN005H6	RST45C1E	1/2	3/8	1/2	1/2	5.5	22	14	17	98
HWN009H6	RST64C1E	5/8	3/8	1/2	1/2	5.5	22	14	17	103
HWN010H6	RST70C1E	5/8	3/8	1/2	1/2	5.5	22	14	17	107
HWN015H6	CS10K6E	5/8	3/8	1/2	1/2	9.0	27	22	21	148
HWN025H6	CS14K6E	7/8	3/8	1/2	1/2	9.0	27	22	21	152
HWN032H6	CS20K6E	7/8	1/2	1/2	1/2	20.0	27	22	28	182
<i>Extended Temperature Models</i>										
HWN005X6	RST45C1E	1/2	3/8	1/2	1/2	5.5	22	14	17	98
HWN008X6	RST55C1E	1/2	3/8	1/2	1/2	5.5	22	14	17	98
HWN009X6	RST64C1E	5/8	3/8	1/2	1/2	5.5	22	14	17	103
HWN010X6	RST70C1E	5/8	3/8	1/2	1/2	5.5	22	14	17	107
HWN015X6	CS10K6E	5/8	3/8	1/2	1/2	9.0	27	22	21	148
HWN020X6	CS12K6E	7/8	3/8	1/2	1/2	9.0	27	22	21	148
HWN025X6	CS14K6E	7/8	3/8	1/2	1/2	9.0	27	22	21	152
HWN030X6	CS18K6E	7/8	1/2	1/2	1/2	20.0	27	22	28	172
HWN032X6	CS20K6E	7/8	1/2	1/2	1/2	20.0	27	22	28	182
<i>Low Temperature Models</i>										
HWN011L6	CF04K6E	5/8	3/8	1/2	1/2	9.0	27	22	21	114
HWN014L6	CF06K6E	5/8	3/8	1/2	1/2	9.0	27	22	21	114
HWN025L6	CF09K6E	5/8	3/8	1/2	1/2	9.0	27	22	21	120
HWN031L6	CF12K6E	7/8	1/2	1/2	1/2	20.0	27	22	28	136

ODS = Outside Diameter Sweat

FPT = Female Pipe Thread

MPT = Male Pipe Thread



## ELECTRICAL DATA - HWN MODELS

Model Number	Compressor Number	Power Supply			Compressor		Beacon II™ or Air Defrost		Electric Defrost		Def. Htr.	Evap. Fan
		Volts	Ph	Hz <sup>+</sup>	RLA	LRA	MCA	MOPD	MCA	MOPD	Amps	Amps
<i>High Temperature Models</i>												
HWN005H6B	RST45C1E-CAV	208-230	1	60	4.5	26.5	15.0	15	-	-	-	-
HWN009H6B	RST64C1E-CAV	208-230	1	60	7.6	43	15.0	15	-	-	-	-
HWN010H6B	RST70C1E-PFV	208-230	1	60	6.9	34.2	15.0	15	-	-	-	-
HWN010H6C	RST70C1E-TFC	208-230	3	60	4.7	31	15.0	15	-	-	-	-
HWN015H6B	CS10K6E-PFV	208-230	1	60	11.1	56	15.0	25	-	-	-	-
HWN015H6C	CS10K6E-TF5	208-230	3	60	7.2	51	15.0	15	-	-	-	-
HWN025H6B	CS14K6E-PFV	208-230	1	60	12.4	61	20.0	25	-	-	-	-
HWN025H6C	CS14K6E-TF5	208-230	3	60	8.5	55	15.0	15	-	-	-	-
HWN032H6B	CS20K6E-PFV	208-230	1	60	17.9	96	22.4	40	-	-	-	-
HWN032H6C	CS20K6E-TF5	208-230	3	60	13.3	75	20.0	30	-	-	-	-
<i>Extended Temperature Models</i>												
HWN005X6B	RST45C1E-CAV	208-230	1	60	4.6	26.5	15.0	15	20.0	20	15	8.0
HWN008X6B	RST55C1E-CAV	208-230	1	60	6.1	33.7	15.0	15	20.0	20	15	8.0
HWN009X6B	RST64C1E-CAV	208-230	1	60	8.0	43.0	15.0	15	20.0	20	15	6.0
HWN010X6B	RST70C1E-PFV	208-230	1	60	6.3	34.2	15.0	15	20.0	20	15	7.0
HWN010X6C	RST70C1E-TFC	208-230	3	60	4.2	31.0	15.0	15	20.0	20	15	8.6
HWN015X6B	CS10K6E-PFV	208-230	1	60	9.8	56.0	15.0	20	24.0	25	19	6.0
HWN015X6C	CS10K6E-TF5	208-230	3	60	6.7	51.0	15.0	15	20.0	20	15	7.0
HWN020X6B	CS12K6E-PFV	208-230	1	60	9.8	56.0	15.0	20	24.0	25	19	6.0
HWN020X6C	CS12K6E-TF5	208-230	3	60	6.7	51.0	15.0	15	25.0	25	19	9.0
HWN025X6B	CS14K6E-PFV	208-230	1	60	11.2	61.0	15.0	20	29.0	30	23	6.0
HWN025X6C	CS14K6E-TF5	208-230	3	60	8.2	55.0	15.0	15	24.0	25	19	9.0
HWN025X6D	CS14K6E-TFD	460	3	60	4.2	28.0	15.0	15	20.0	20	15	8.3
HWN030X6B	CS18K6E-PFV	208-230	1	60	14.4	82.0	18.0	30	38.0	40	30	12.0
HWN030X6C	CS18K6E-TF5	208-230	3	60	9.4	65.5	15.0	20	29.0	30	23	7.0
HWN032X6B	CS20K6E-PFV	208-230	1	60	16.7	96.0	21.0	30	38.0	50	30	12.0
HWN032X6C	CS20K6E-TF5	208-230	3	60	10.3	75.0	15.0	20	29.0	30	23	7.0
HWN032X6D	CS20K6E-TFD	460	3	60	4.6	40.0	15.0	15	24.0	25	19	10.0
<i>Low Temperature Models</i>												
HWN011L6B	CF04K6E-PFV	208-230	1	60	9.6	59.2	15.0	15	20.0	20	15	8.0
HWN011L6C	CF04K6E-TF5	208-230	3	60	6.4	52.0	15.0	15	20.0	20	15	8.0
HWN014L6B	CF06K6E-PFV	208-230	1	60	11.4	59.2	15.0	20	20.0	25	23	4.0
HWN014L6C	CF06K6E-TF5	208-230	3	60	7.0	52.0	15.0	15	20.0	20	19	9.0
HWN025L6B	CF09K6E-PFV	208-230	1	60	16.7	87.0	20.0	30	25.0	35	30	6.0
HWN025L6C	CF09K6E-TF5	208-230	3	60	10.2	72.2	15.0	20	20.0	25	19	7.0
HWN031L6B	CF12K6E-PFV	208-230	1	60	19.0	105.0	21.0	35	38.0	50	30	12.0
HWN031L6C	CR12K6E-TF5	208-230	3	60	11.9	85.0	15.0	20	29.0	30	23	7.0
HWN031L6D	CF12K6E-TFD	460	3	60	5.9	42.0	15.0	15	24.0	25	19	10.0

<sup>+</sup> Consult Factory for 50 hz applications

RLA values have been calculated by dividing the maximum continuous current (MCC) by 1.56, per UL and National Electrical Code Standard.

RLA = Rated Load Amps

LRA = Locked Rotor Amps

MCA = Minimum Circuit Ampacity

MOPD = Maximum Overload Protection Device

## PERFORMANCE DATA - ZWN MODELS

### Extended Temperature Models - R-404A

Model	Compressor		Suction Temperature °F							
			-25°F	-20°F	-10°F	0°F	10°F	20°F	30°F	40°F
ZWN010X6	ZS09KAE	BTUH	3,860	4,370	5,530	6,950	8,680	10,770	13,270	16,230
		GPM	1.0	1.1	1.3	1.4	1.9	2.5	3.4	4.9
		PSI	0.2	0.4	0.8	1.4	2.3	3.4	5.7	10.0
ZWN015X6	ZS13KAE	BTUH	5,330	6,020	7,620	9,580	11,970	14,850	18,290	22,380
		GPM	1.0	1.2	1.4	1.5	2.3	3.2	4.4	6.2
		PSI	1.0	1.0	1.2	1.3	1.5	1.7	2.8	4.8
ZWN020X6	ZS15KAE	BTUH	6,420	7,260	9,190	11,550	14,420	17,900	22,050	26,970
		GPM	1.0	1.3	1.5	2.3	3.3	4.6	6.5	9.6
		PSI	1.0	1.1	1.2	1.5	1.8	3.0	5.4	10.8
ZWN025X6	ZS19KAE	BTUH	7,200	8,140	10,300	12,950	16,170	20,070	24,720	30,240
		GPM	1.0	1.5	2.0	2.2	3.2	4.7	6.8	9.9
		PSI	1.0	1.2	1.4	1.6	2.0	3.0	5.4	10
ZWN030X6	ZS21KAE	BTUH	9,010	10,230	12,840	16,070	19,740	24,110	29,310	35,200
		GPM	1.2	1.3	1.6	2.0	2.7	4.4	6.8	10.8
		PSI	0.6	0.6	0.7	0.9	1.2	1.8	3.7	8.1
ZWN035X6	ZS26KAE	BTUH	11,270	12,740	15,910	19,930	24,490	29,950	36,400	43,650
		GPM	4.6	5.1	5.2	5.6	6.0	6.8	8.8	12.0
		PSI	1.9	1.9	1.9	2.1	2.3	2.6	3.9	6.7
ZWN045X6	ZS29KAE	BTUH	12,810	14,390	17,960	22,870	28,480	35,030	42,320	50,100
		GPM	5.1	5.2	5.5	5.8	6.8	8.5	11.9	15.1
		PSI	1.9	1.9	2.0	2.1	2.6	3.7	6.6	9.8
ZWN055X6	ZS38K4E	BTUH	15,920	18,050	22,640	28,420	34,970	42,780	51,980	62,350
		GPM	3.1	3.4	4.8	5.8	7.5	10.3	14.5	21.0
		PSI	0.5	0.6	1.0	1.1	2.2	3.8	7.0	13.1
ZWN060X6	ZS45K4E	BTUH	19,220	21,820	27,360	34,160	41,850	51,090	62,130	74,750
		GPM	3.1	3.3	5.0	6.9	9.0	12.6	17.7	23.9
		PSI	0.8	0.8	1.2	1.2	2.0	3.7	6.8	10.1

Capacity ratings conditions: 85°F entering water, 105°F condensing, 20°F ITD, 0°F subcooling. (ITD = Condensing temperature - entering condenser water temperature)

BTUH = British Thermal Units (All capacities are rated at 60 Hz operation)

GPM = Gallons per Minute (Water flow rate)

PSI = Pounds per Square Inch (Water pressure drop through condenser)

## PERFORMANCE DATA - ZWN MODELS

### Extended Temperature Models - R-407A

Model	Compressor		Suction Temperature °F							
			-25°F	-20°F	-10°F	0°F	10°F	20°F	30°F	40°F
ZWN010X6	ZS09KAE	BTUH	3,510	4,170	5,510	6,980	8,680	10,710	13,170	16,170
		GPM	1.0	1.1	1.2	1.3	1.8	2.3	3.2	4.7
		PSI	0.5	0.8	1.0	1.3	2.0	3.0	5.0	9.4
ZWN015X6	ZS13KAE	BTUH	4,780	5,680	7,510	9,520	11,830	14,600	17,960	22,050
		GPM	1.0	1.0	1.2	1.3	2.0	2.9	4.1	5.9
		PSI	1.0	1.2	1.3	1.5	1.8	2.0	2.5	4.4
ZWN020X6	ZS15KAE	BTUH	5,760	6,850	9,060	11,470	14,260	17,600	21,650	26,580
		GPM	1.0	1.0	1.3	2.1	3.0	4.2	6	9.0
		PSI	1.0	1.2	1.5	1.8	2.0	2.6	4.6	9.9
ZWN025X6	ZS19KAE	BTUH	6,500	7,720	10,220	12,950	16,090	19,860	24,420	29,990
		GPM	1.1	1.4	1.8	2.1	2.9	4.3	6.3	9.6
		PSI	1.0	1.0	1.0	1.1	1.5	2.6	4.8	9.5
ZWN030X6	ZS21KAE	BTUH	7,530	9,140	12,570	16,450	20,950	26,250	32,510	-
		GPM	1.0	1.1	1.2	3.6	6.3	10.2	18.9	-
		PSI	1.0	1.0	1.0	1.1	3.3	7.4	18.6	-
ZWN035X6	ZS26KAE	BTUH	8,360	10,140	13,950	18,260	23,260	29,130	36,090	-
		GPM	2.3	2.8	4.1	5.5	7.1	9.5	14.2	-
		PSI	1.0	1.0	1.0	1.8	2.8	4.4	8.9	-
ZWN045X6	ZS29KAE	BTUH	9,370	11,360	15,630	20,460	26,050	32,640	40,430	-
		GPM	2.8	3.5	4.9	6.5	8.4	12.0	18.8	-
		PSI	0.5	0.6	1.5	2.4	3.6	6.7	13.5	-
ZWN055X6	ZS38K4E	BTUH	13,950	15,910	20,880	27,140	34,580	43,090	52,560	-
		GPM	3.3	4.0	5.6	7.9	11.8	17.7	24.7	-
		PSI	0.4	0.7	1.3	2.4	4.8	9.9	16.7	-
ZWN060X6	ZS45K4E	BTUH	16,780	19,220	25,210	32,660	41,480	51,610	62,980	-
		GPM	3.4	4.4	6.8	9.8	14.4	21.4	29.8	-
		PSI	0.2	0.5	1.1	2.3	4.7	9.4	15.3	-

Capacity ratings conditions: 85°F entering water, 105°F condensing, 20°F ITD, 0°F subcooling.

## PERFORMANCE DATA - ZWN MODELS

### Extended Temperature Models - R-407C

Model	Compressor		Suction Temperature °F							
			-25°F	-20°F	-10°F	0°F	10°F	20°F	30°F	40°F
ZWN010X6	ZS09KAE	BTUH	1,640	2,490	4,220	6,040	8,000	10,170	12,610	15,370
		GPM	1.0	1.0	1.1	1.2	1.7	2.2	3.0	4.3
		PSI	1.0	1.2	1.3	1.5	1.8	2.9	4.6	8.2
ZWN015X6	ZS13KAE	BTUH	2,240	3,400	5,760	8,240	10,910	13,870	17,190	20,960
		GPM	1.0	1.2	1.3	1.6	1.8	2.8	3.8	5.3
		PSI	1.0	1.1	1.3	1.5	1.8	2.0	2.3	3.8
ZWN020X6	ZS15KAE	BTUH	2,700	4,100	6,940	9,930	13,160	16,720	20,720	25,260
		GPM	1.2	1.5	1.7	2.0	2.7	3.9	5.6	8.0
		PSI	1.1	1.4	1.6	1.9	2.0	2.3	4.1	8.1
ZWN025X6	ZS19KAE	BTUH	3,040	4,620	7,830	11,200	14,840	18,870	23,390	28,510
		GPM	1.0	1.3	1.5	2.1	2.7	4.0	5.9	8.6
		PSI	1.0	1.0	1.0	1.1	1.3	2.3	4.3	7.9
ZWN030X6	ZS21KAE	BTUH	4,090	6,210	10,520	15,050	19,940	25,340	31,410	-
		GPM	1.0	1.0	2.0	2.7	5.5	9.2	16.6	-
		PSI	1.0	1.0	1.0	1.0	2.6	6.2	15.7	-
ZWN035X6	ZS26KAE	BTUH	4,530	6,890	11,670	16,690	22,120	28,110	34,840	-
		GPM	1.4	2.0	3.4	4.9	6.6	8.7	12.4	-
		PSI	1.0	1.0	1.0	1.5	2.5	3.8	7.1	-
ZWN045X6	ZS29KAE	BTUH	5,080	7,720	13,080	18,710	24,790	31,510	39,050	-
		GPM	1.9	2.6	4.1	5.8	7.7	11	16.8	-
		PSI	0.5	0.5	1.0	2.0	3.1	5.7	11.5	-
ZWN055X6	ZS38K4E	BTUH	13,910	15,870	20,830	27,070	34,500	42,990	52,430	-
		GPM	3.2	3.9	5.5	7.8	11.7	17.5	24.5	-
		PSI	0.4	0.7	1.3	2.3	4.7	9.7	16.4	-
ZWN060X6	ZS45K4E	BTUH	16,740	19,170	25,150	32,580	41,380	51,490	62,820	-
		GPM	3.4	4.3	6.7	9.7	14.3	21.1	29.5	-
		PSI	0.2	0.5	1.1	2.3	4.7	9.2	15.1	-

Capacity ratings conditions: 85°F entering water, 105°F condensing, 20°F ITD, 0°F subcooling.

## PERFORMANCE DATA - ZWN MODELS

### Extended Temperature Models - R-448A/R-449A

Model	Compressor		Suction Temperature °F							
			-25°F	-20°F	-10°F	0°F	10°F	20°F	30°F	40°F
ZWN010X6	ZS09KAE	BTUH	2,870	3,660	5,120	6,560	8,170	10,100	12,540	15,670
		GPM	0.8	1.0	1.6	2.1	2.8	3.9	5.6	7.8
		PSI	0.8	0.9	1.6	2.6	4.0	7.2	5.6	7.8
ZWN015X6	ZS13KAE	BTUH	3,930	5,010	7,010	8,990	11,190	13,840	17,180	21,460
		GPM	0.2	0.7	1.6	2.5	3.5	5.0	7.2	11.1
		PSI	-0.5	-0.1	0.5	1.1	2.0	3.4	6.5	13.6
ZWN020X6	ZS15KAE	BTUH	4,740	6,050	8,460	10,840	13,490	16,690	20,720	25,870
		GPM	0.8	1.4	2.5	3.7	5.2	7.4	11.1	15.9
		PSI	0.2	0.4	1.2	2.1	3.6	6.9	13.7	22.2
ZWN025X6	ZS19KAE	BTUH	5,330	6,790	9,500	12,190	15,160	18,750	23,290	29,080
		GPM	0.2	0.9	2.3	3.6	5.3	7.8	11.4	16.0
		PSI	0.1	0.7	0.9	1.9	3.6	6.7	12.4	19.7
ZWN030X6	ZS21KAE	BTUH	7,860	9,510	13,110	17,200	21,910	27,350	33,650	40,920
		GPM	1.2	1.4	1.6	4.1	7.0	12.0	20.8	30.9
		PSI	0.8	1.0	1.2	1.4	3.9	9.7	21.2	34.3
ZWN035X6	ZS26KAE	BTUH	10,480	11,560	14,440	18,330	23,270	29,320	36,540	44,980
		GPM	2.7	3.1	4.1	5.5	7.1	9.6	14.9	22.1
		PSI	0.2	0.4	1.0	1.8	2.8	4.5	9.6	16.8
ZWN045X6	ZS29KAE	BTUH	9,980	12,070	16,630	21,830	27,800	34,710	42,700	51,920
		GPM	2.9	3.6	5.1	6.8	9.1	13.7	20.7	28.6
		PSI	0.2	0.7	1.6	2.6	4.1	8.4	15.4	23.3
ZWN055X6	ZS38K4E	BTUH	14,040	15,900	21,050	27,890	36,130	45,500	55,730	66,540
		GPM	3.8	4.4	5.9	8.5	12.9	19.4	27.0	35.2
		PSI	0.6	0.9	1.4	2.7	5.6	11.6	18.8	26.6
ZWN060X6	ZS45K4E	BTUH	17,010	19,230	25,350	33,440	43,230	54,420	66,720	79,840
		GPM	4.1	5.0	7.3	10.5	15.7	23.5	32.5	42.2
		PSI	0.1	0.4	1.3	2.6	5.5	10.9	17.2	23.9

Capacity ratings conditions: 85°F entering water, 105°F condensing, 20°F ITD, 0°F subcooling.

## PERFORMANCE DATA - ZWN MODELS

### Low Temperature Models- R-404A

Model	Compressor R-404A		Suction Temperature °F					
			-40°F	-30°F	-25°F	-20°F	-10°F	0°F
ZWN020L6	ZF06K4E	BTUH	4,600	6,090	6,890	7,760	9,690	11,970
		GPM	1.3	1.6	1.8	2.1	2.7	3.8
		PSI	1.1	1.7	2.1	2.6	3.9	6.8
ZWN025L6	ZF08K4E	BTUH	5,960	7,730	8,730	9,820	12,300	15,240
		GPM	1.8	2.1	2.4	2.8	3.7	5.4
		PSI	0.6	0.8	0.9	1.1	2	3.7
ZWN030L6	ZF09K4E	BTUH	6,380	8,270	9,300	10,500	13,200	16,300
		GPM	1.8	2.3	2.6	3.0	4.3	6.5
		PSI	0.6	0.9	1.1	1.3	2.6	4.1
ZWN035L6	ZF11K4E	BTUH	7,900	10,170	11,500	12,900	16,200	20,200
		GPM	1.9	2.7	3.2	4.7	5.2	7.5
		PSI	0.8	1.3	1.7	3.1	3.6	7.1
ZWN045L6	ZF13K4E	BTUH	8,570	11,480	13,200	15,000	19,100	23,800
		GPM	2.6	3.6	4.5	5.2	8.0	10.1
		PSI	1.2	2.1	2.9	3.6	8.0	10
ZWN055L6	ZF15K4E	BTUH	11,080	14,480	16,400	18,500	23,300	28,900
		GPM	2.9	4.3	5.5	6.3	9.0	11.3
		PSI	1.5	2.6	3.8	4.7	8.6	12.3
ZWN060L6	ZF18K4E	BTUH	13,260	17,260	19,500	22,000	27,700	34,500
		GPM	2.5	4.2	4.5	5.5	9.0	13.1
		PSI	1.1	1.8	2.1	2.6	6.0	11.1

Capacity ratings conditions: 85°F entering water, 105°F condensing, 20°F ITD, 0°F subcooling. (ITD = Condensing temperature - entering condenser water temperature)

BTUH = British Thermal Units (All capacities are rated at 60 Hz operation)

GPM = Gallons per Minute (Water flow rate)

PSI = Pounds per Square Inch (Water pressure drop through condenser)

### Low Temperature Models - R-407A

Model	Compressor		Suction Temperature °F					
			-40°F	-30°F	-25°F	-20°F	-10°F	0°F
ZWN020L6	ZF06K4E	BTUH	3,860	5,180	5,950	6,800	8,750	-
		GPM	1.7	2.2	2.5	3	4.4	-
		PSI	1.9	2.8	3.5	4.5	8.7	-
ZWN025L6	ZF08K4E	BTUH	4,770	6,390	7,340	8,390	10,810	-
		GPM	2.2	2.9	3.3	3.9	6.3	-
		PSI	0.8	1.2	1.6	2.2	4.6	-
ZWN030L6	ZF09K4E	BTUH	5,520	7,090	8,170	9,400	12,140	15,050
		GPM	2.6	3.4	3.9	4.6	9.1	18
		PSI	1.1	1.7	2.2	2.9	7.4	16.3
ZWN035L6	ZF11K4E	BTUH	6,850	8,800	10,150	11,700	15,170	18,840
		GPM	3.1	4	4.8	5.8	8.9	14.6
		PSI	1.5	2.4	3.2	4.3	9.7	21.3
ZWN045L6	ZF13K4E	BTUH	7,880	9,980	11,460	13,180	17,270	21,990
		GPM	3.9	5.2	6.2	7.6	13.4	24.2
		PSI	2.3	3.6	4.9	7.3	18.9	41.9
ZWN055L6	ZF15K4E	BTUH	10,020	12,530	14,270	16,310	21,210	27,040
		GPM	4.8	6.7	8.3	10.1	14.3	19.1
		PSI	3	5.2	7.4	10.6	20.4	35.9
ZWN060L6	ZF18K4E	BTUH	12,020	15,150	17,280	19,740	25,580	—
		GPM	4	5.9	7.5	9.5	27.8	—
		PSI	1.5	2.9	4.4	6.5	32.2	—

Capacity ratings conditions: 85°F entering water, 105°F condensing, 20°F ITD, 0°F subcooling.

## PERFORMANCE DATA - ZWN MODELS

### Low Temperature Models - R-407C

Model	Compressor		Suction Temperature °F					
			-40°F	-30°F	-25°F	-20°F	-10°F	0°F
ZWN020L6	ZF06K4E	BTUH	3,580	4,840	5,550	6,340	8,170	-
		GPM	1.5	2.0	2.2	2.6	3.7	-
		PSI	1.5	2.4	2.9	3.6	6.4	-
ZWN025L6	ZF08K4E	BTUH	-	-	-	-	-	-
		GPM	-	-	-	-	-	-
		PSI	-	-	-	-	-	-
ZWN030L6	ZF09K4E	BTUH	5,140	6,710	7,730	8,880	11,480	14,340
		GPM	2.3	3.0	3.5	4.0	6.9	14
		PSI	0.9	1.3	1.8	2.3	5.2	12.3
ZWN035L6	ZF11K4E	BTUH	6,450	8,260	9,540	11,000	14,320	17,850
		GPM	2.6	3.5	4.1	5.0	7.5	12
		PSI	1.2	1.9	2.5	3.4	7.1	15.9
ZWN045L6	ZF13K4E	BTUH	7,300	9,200	10,590	12,230	16,110	20,570
		GPM	3.3	4.3	5.2	6.3	10.6	19
		PSI	1.7	2.7	3.6	5.1	13	30.6
ZWN055L6	ZF15K4E	BTUH	9,260	11,550	13,210	15,170	19,820	25,230
		GPM	3.9	5.5	6.8	8.5	12.5	17
		PSI	2.2	3.8	5.3	7.8	15.8	28.6
ZWN060L6	ZF18K4E	BTUH	11,180	14,020	16,020	18,360	23,880	-
		GPM	3.2	4.7	6.0	7.7	16.3	-
		PSI	1.2	2.0	3.0	4.6	15.7	-

Capacity ratings conditions: 85°F entering water, 105°F condensing, 20°F ITD, 0°F subcooling.

### Low Temperature Models - R-448A/R-449A

Model	Compressor		Suction Temperature °F					
			-40°F	-30°F	-25°F	-20°F	-10°F	0°F
ZWN020L6	ZF06K4E	BTUH	3,950	5,340	6,120	6,970	8,900	11,210
		GPM	1.6	2.1	2.4	2.8	4.1	5.9
		PSI	1.7	2.6	3.2	4.1	7.8	13.2
ZWN025L6	ZF08K4E	BTUH	5,130	6,790	7,760	8,830	11,300	14,280
		GPM	2.3	3.2	3.9	4.7	6.6	8.9
		PSI	3.1	5.1	7.1	9.5	15.2	22.0
ZWN030L6	ZF09K4E	BTUH	5,760	7,610	8,670	9,840	12,540	15,790
		GPM	2.6	3.5	4.0	4.7	7.4	10.5
		PSI	1.1	1.8	2.3	3.0	5.7	8.8
ZWN035L6	ZF11K4E	BTUH	7,180	9,450	10,770	12,240	15,650	19,740
		GPM	3.0	4.1	4.8	5.8	8.6	12.6
		PSI	1.5	2.5	3.2	4.3	9.2	16.4
ZWN045L6	ZF13K4E	BTUH	8,230	10,840	12,440	14,250	18,460	23,460
		GPM	5.2	6.6	7.9	9.5	13.2	17.8
		PSI	3.7	5.6	7.8	10.6	17.3	25.6
ZWN055L6	ZF15K4E	BTUH	10,440	13,610	15,520	17,680	22,720	28,790
		GPM	6.6	8.9	10.4	12.0	16.0	20.8
		PSI	5.1	8.4	10.8	13.4	19.7	27.5
ZWN060L6	ZF18K4E	BTUH	12,610	16,500	18,810	21,380	27,360	34,530
		GPM	6.0	8.3	9.8	13.1	21.4	31.5
		PSI	3.0	5.2	6.8	11.2	21.9	35.1

Capacity ratings conditions: 85°F entering water, 105°F condensing, 20°F ITD, 0°F subcooling.



## UNIT SPECIFICATIONS - ZWN MODELS

Model	Compressor	Connections (in.)				Receiver 90% Full Lbs.	Dimensions (in.)			Net Wt. (lbs.)
		Suction (ODS)	Liquid (ODS)	Water In (FPT)	Water Out (MPT)		D	W	H	
<i>Low Temperature Models</i>										
ZWN020L6	ZF06K4E	7/8	1/2	1/2	1/2	20.0	27	22	28	157
ZWN025L6	ZF08K4E	7/8	1/2	1/2	1/2	20.0	27	22	28	157
ZWN030L6	ZF09K4E	7/8	1/2	1/2	1/2	20.0	27	22	28	159
ZWN035L6	ZF11K4E	7/8	1/2	1/2	1/2	20.0	27	22	28	165
ZWN045L6	ZF13K4E	7/8	1/2	1/2	1/2	20.0	27	22	28	185
ZWN055L6	ZF15K4E	7/8	1/2	1/2	1/2	20.0	27	22	28	201
ZWN060L6	ZF18K4E	7/8	1/2	1/2	1/2	20.0	29	25	28	207
<i>Extended Temperature Models</i>										
ZWN010X6	ZS09KAE	7/8	1/2	1/2	1/2	20.0	29	25	28	151
ZWN015X6	ZS13KAE	7/8	1/2	1/2	1/2	20.0	29	25	28	149
ZWN020X6	ZS15KAE	7/8	1/2	1/2	1/2	20.0	29	25	28	151
ZWN025X6	ZS19KAE	7/8	1/2	1/2	1/2	20.0	29	25	28	153
ZWN030X6	ZS21KAE	7/8	1/2	1/2	1/2	20.0	29	25	28	171
ZWN035X6	ZS26KAE	7/8	1/2	1/2	1/2	20.0	29	25	28	186
ZWN045X6	ZS29KAE	7/8	1/2	1/2	1/2	20.0	29	25	28	207
ZWN055X6	ZS38K4E	7/8	1/2	3/4	3/4	20.0	29	25	28	226
ZWN060X6	ZS45K4E	7/8	1/2	3/4	3/4	20.0	29	25	28	241

## ELECTRICAL DATA - ZWN MODELS

Model Number	Compressor	Power Supply			Compressor		Beacon II™ or Air Defrost		Electric Defrost		Def. Htr.	Evap. Fan
		Volts	Ph	Hz <sup>+</sup>	RLA	LRA	MCA	MOPD	MCA	MOPD	Amps	Amps
Low Temperature Models												
ZWN020L6B	ZF06K4E-PFV	208-230	1	60	12.2	61.0	20.0	25	38	40	30	12.0
ZWN020L6C	ZF06K4E-TF5	208-230	3	60	8.3	55.0	15.0	15	24	25	19	6.0
ZWN020L6D	ZF06K4E-TFD	460	3	60	3.8	27.0	15.0	15	24	25	19	10.0
ZWN025L6B	ZF08K4E-PFV	208-230	1	60	14.7	73.0	20.0	30	38	45	30	12.0
ZWN025L6C	ZF08K4E-TF5	208-230	3	60	8.7	63.0	15.0	15	24	25	19	6.0
ZWN025L6D	ZF08K4E-TFD	460	3	60	4.5	31.0	15.0	15	24	25	19	10.0
ZWN030L6B	ZF09K4E-PFV	208-230	1	60	14.7	88.0	18.0	30	38	45	30	12.0
ZWN030L6C	ZF09K4E-TF5	208-230	3	60	9.9	77.0	15.0	20	24	25	19	6.0
ZWN030L6D	ZF09K4E-TFD	460	3	60	5.1	39.0	15.0	15	24	25	19	10.0
ZWN035L6B	ZF11K4E-PFV	208-230	1	60	18.6	109.0	23.0	40	38	50	30	12.0
ZWN035L6C	ZF11K4E-TF5	208-230	3	60	12.2	88.0	15.0	25	29	30	23	6.0
ZWN035L6D	ZF11K4E-TFD	460	3	60	6.4	44.0	15.0	15	24	25	19	10.0
ZWN045L6B	ZF13K4E-PFV	208-230	1	60	24.0	129.0	30.0	50	41	60	30	11.0
ZWN045L6C	ZF13K4E-TF5	208-230	3	60	13.5	99.0	17.0	30	38	40	30	11.0
ZWN045L6D	ZF13K4E-TFD	460	3	60	7.4	49.5	15.0	15	24	25	19	9.0
ZWN055L6B	ZF15K4E-PFV	208-230	1	60	28.8	169.0	36.0	60	38	60	30	10.0
ZWN055L6C	ZF15K4E-TF5	208-230	3	60	19.2	123.0	24.0	40	38	50	30	10.0
ZWN055L6D	ZF15K4E-TFD	460	3	60	8.7	62.0	15.0	15	25	25	19	8.0
ZWN060L6C	ZF18K4E-TF5	208-230	3	60	21.5	156.0	27.0	45	44	60	35	12.0
ZWN060L6D	ZF18K4E-TFD	460	3	60	8.3	70.0	15.0	15	29	30	23	11.0
Extended Temperature Models												
ZWN010X6B	ZS09KAE-PFV	208-230	1	60	9	40.3	15.0	20	38	40	30	12.0
ZWN010X6C	ZS09KAE-TF5	208-230	3	60	7.2	55.4	15.0	15	38	40	30	12.0
ZWN010X6D	ZS09KAE-TFD	460	3	60	3.4	28.0	15.0	15	24	25	19	10.0
ZWN015X6B	ZS13KAE-PFV	208-230	1	60	10.8	56.0	15.0	20	38	40	30	12.0
ZWN015X6C	ZS13KAE-TF5	208-230	3	60	8.7	58.0	15.0	15	38	40	30	12.0
ZWN015X6D	ZS13KAE-TFD	460	3	60	4.3	29.0	15.0	15	24	25	19	10.0
ZWN020X6B	ZS15KAE-PFV	208-230	1	60	14.1	68.0	20.0	30	38	40	30	12.0
ZWN020X6C	ZS15KAE-TF5	208-230	3	60	9.6	58.0	15.0	20	38	40	30	12.0
ZWN020X6D	ZS15KAE-TFD	460	3	60	4.8	29.0	15.0	15	24	25	19	10.0
ZWN025X6B	ZS19KAE-PFV	208-230	1	60	16.2	75.0	20.0	35	38	45	30	12.0
ZWN025X6C	ZS19KAE-TF5	208-230	3	60	12.3	73.0	20.0	25	38	40	30	12.0
ZWN025X6D	ZS19KAE-TFD	460	3	60	5.8	38.0	15.0	15	24	25	19	10.0
ZWN030X6B	ZS21KAE-PFV	208-230	1	60	20.8	112.0	26.0	45	38	50	30	12.0
ZWN030X6C	ZS21KAE-TF5	208-230	3	60	13.7	93.0	20.0	30	38	40	30	12.0
ZWN030X6D	ZS21KAE-TFD	460	3	60	6.2	48.0	15.0	15	24	25	19	10.0
ZWN035X6B	ZS26KAE-PFV	208-230	1	60	21.2	104.0	26.5	45	38	50	30	12.0
ZWN035X6C	ZS26KAE-TF5	208-230	3	60	13.9	93.0	20.0	30	38	40	30	12.0
ZWN035X6D	ZS26KAE-TFD	460	3	60	6.2	48.0	15.0	15	24	25	19	9.0
ZWN045X6B	ZS29KAE-PFV	208-230	1	60	23.4	137.0	29.3	50	59	60	47	11.0
ZWN045X6C	ZS29KAE-TF5	208-230	3	60	18.4	114.0	23.0	40	44	50	35	12.0
ZWN045X6D	ZS29KAE-TFD	460	3	60	8.4	58.0	15.0	15	29	30	23	11.0
ZWN055X6B	ZS38K4E-PFV	208-230	1	60	28.8	169.0	36.0	60	59	60	47	12.0
ZWN055X6C	ZS38K4E-TF5	208-230	3	60	19.2	123.0	24.0	40	44	50	35	12.0
ZWN055X6D	ZS38K4E-TFD	460	3	60	8.7	62.0	15.0	15	29	30	23	10.0
ZWN060X6C	ZS45K4E-TF5	208-230	3	60	21.5	156.0	27.0	45	38	60	30	12.0
ZWN060X6D	ZS45K4E-TFD	460	3	60	8.3	70.0	15.0	15	29	30	23	10.6

<sup>+</sup> Consult Factory for 50 hz applications

RLA values have been calculated by dividing the maximum continuous current (MCC) by 1.56, per UL and National Electrical Code Standard.

RLA = Rated Load Amps

MCA = Minimum Circuit Ampacity

LRA = Locked Rotor Amps

MOPD = Maximum Overload Protection Device

## FEATURES & BENEFITS - SWN MODELS

The indoor SWN water-cooled condensing unit is specifically designed for use in supermarket, restaurant, warehouse and other commercial and industrial applications. The design focuses on ease of installation and maintenance along with the flexibility to fit most application requirements.

### Construction

- Spacious, pre-painted electrical box
- Fixed low pressure switch (adjustable on low temp models)
- Fixed high pressure switch
- Pump down switch
- 230V control circuit transformer on 460V units
- Standard 16-3/4" tall box - (large 29 - 1/4" tall box is standard when defrost components are selected)
- Sealed liquid line filter drier and sight glass

### Serviceability

- Easy access refrigerant piping
- Captive door fasteners
- Single electrical connection location
- Removable electrical box provides convenient front access to the oil pump and compressor
- Shell and tube cleanable condenser with outlet shut-off valve, charging port and pressure relief device

### Quality

- Pre-bent tubing reduces the possibility of leaks
- Shipped with dry nitrogen charge
- Heavy duty base plate
- Non-metallic conduit on all wiring runs

### Components

- Semi-hermetic reciprocating compressors
- Compressor contactor and control circuit fusing
- Oil pressure switch (when required)
- Rigid mounted compressors (models 0075-0400)
- Spring mounted compressors with suction and discharge vibration eliminators (models 0499 and above)
- Compressor head cooling fan or water jacket (when required)
- Compressor solid state protection model (on units with 4D compressors)



**NOTE:** SWN pictured with optional replaceable core liquid filter, oil separator, replaceable core suction filter and liquid solenoid valve

**Factory-Installed Options**

Dual pressure switch

Oil separator with discharge check valve and oil return hand valve

Compressor and control circuit breaker

Two tier rack

Suction accumulator

Sealed suction filter

Replaceable core suction filter (0300-2200)

Replaceable core liquid filter (0300-2200)

Liquid line solenoid valve

Spring mounted compressors with suction and discharge vibration eliminators (models 0075 to 0400)

Water regulating valve (shipped loose)

Crankcase heater

Air defrost timer

Electric defrost kit. Kit includes timer, evaporator fan contactor, defrost heater contactor(s), lockout relay and terminal block

Remote load fusing for electric defrost kit. Includes evaporator fan motor and defrost heater fuses

Beacon II™ compatible (contact factory)

## PERFORMANCE DATA - SWN MODELS

### Medium Temperature Models- R-404A/R-507

Model	Compressor		Suction Temperature °F					
			15°F	20°F	25°F	30°F	35°F	40°F
SWN0090M6	KARA-010E	BTUH	8,140	9,140	10,340	-	-	-
		GPM	1.8	2.1	2.4	-	-	-
		PSIG	1.0	1.3	1.6	-	-	-
SWN0199M6	KAKA-020E	BTUH	13,490	15,120	16,750	-	-	-
		GPM	3.5	4.2	4.8	-	-	-
		PSIG	3.7	5.0	6.7	-	-	-
SWN0200M6	ERCA-021E	BTUH	17,220	19,430	21,790	-	-	-
		GPM	4.8	5.6	6.5	-	-	-
		PSIG	0.8	1.1	1.4	-	-	-
SWN0310M6	ERF1-031E	BTUH	24,990	28,090	31,450	-	-	-
		GPM	6.2	7.3	8.5	-	-	-
		PSIG	1.4	1.8	2.5	-	-	-
SWN0500M6	2DC3R53KE	BTUH	38,480	43,470	48,930	54,810	61,160	68,040
		GPM	9.7	11.5	13.7	16.5	20.0	24.6
		PSIG	2.4	3.4	4.8	6.8	9.9	14.9

85°F Entering Water, 105°F Condensing Temperature, 5°F Subcooling

### Medium Temperature Models - R-407A

Model	Compressor		Suction Temperature °F					
			15°F	20°F	25°F	30°F	35°F	40°F
SWN0090M6	KARA-010E	BTUH	7,610	8,640	9,780	-	-	-
		GPM	1.6	1.9	2.2	-	-	-
		PSI	0.8	1.0	0.5	-	-	-
SWN0199M6	KAKA-020E	BTUH	12,730	14,440	16,370	-	-	-
		GPM	5.4	6.7	8.1	-	-	-
		PSI	8.5	12.9	18.9	-	-	-
SWN0500M6	2DC3R53KE	BTUH	35,920	41,000	46,640	-	-	-
		GPM	14.1	17.5	22.3	-	-	-
		PSI	5.1	7.7	12.3	-	-	-

85°F Entering Water, 105°F Condensing Temperature, 5°F Subcooling

## PERFORMANCE DATA - SWN MODELS

### Medium Temperature Models - R-407C

Model	Compressor		Suction Temperature °F					
			15°F	20°F	25°F	30°F	35°F	40°F
SWN0090M6	KARA-010E	BTUH	7,150	8,130	9,200	-	-	-
		GPM	1.5	1.7	2	-	-	-
		PSI	0.7	0.9	1.2	-	-	-
SWN0199M6	KAKA-020E	BTUH	12,010	13,630	15,450	-	-	-
		GPM	4.8	5.9	7.2	-	-	-
		PSI	6.6	10.1	15	-	-	-
SWN0500M6	2DC3R53KE	BTUH	33,990	38,960	44,540	50,730	-	-
		GPM	12.7	15.7	20.0	26.1	-	-
		PSI	4.1	6.3	9.9	16.7	-	-

85°F Entering Water, 105°F Condensing Temperature, 5°F Subcooling

### Medium Temperature Models - R-448A/R-449A

Model	Compressor		Suction Temperature °F					
			15°F	20°F	25°F	30°F	35°F	40°F
SWN0090M6	KARA-010E	BTUH	7,670	8,710	9,820	-	-	-
		GPM	1.7	1.9	2.2	-	-	-
		PSI	0.8	1.1	1.4	-	-	-
SWN0199M6	KAKA-020E	BTUH	12,940	14,680	16,300	-	-	-
		GPM	5.6	7.0	8.2	-	-	-
		PSI	9.2	14.0	19.5	-	-	-
SWN0200M6	ERCA-021E	BTUH	14,960	17,130	19,380	-	-	-
		GPM	3.9	4.6	5.3	-	-	-
		PSI	0.5	0.7	1.0	-	-	-
SWN0310M6	ERFA-031E	BTUH	22,120	25,290	28,530	-	-	-
		GPM	8.3	10.1	12.0	-	-	-
		PSI	2.4	3.4	4.7	-	-	-
SWN0500M6	2DC3R53KE	BTUH	36,980	42,080	47,710	53,880	60,580	-
		GPM	14.6	18.1	22.9	29.7	38.9	-
		PSI	5.4	8.2	13.0	21.4	34.7	-

85°F Entering Water, 105°F Condensing Temperature, 5°F Subcooling

## PERFORMANCE DATA - SWN MODELS

### Low Temperature Models - R-404A/R-507

R-404A/R-507 Model	Compressor		Suction Temperature °F					
			-40°F	-30°F	-25°F	-20°F	-10°F	0°F
SWN0150L6	KALA-016E	BTUH	3,160	4,940	5,880	6,830	9,030	11,550
		GPM	0.8	1.3	1.5	1.7	2.3	3.1
		PSIG	0.2	0.5	0.7	0.9	1.6	2.9
SWN0200L6	EADA-020E	BTUH	3,590	5,570	6,620	7,770	10,500	13,970
		GPM	1.1	1.5	1.7	2.0	2.7	3.8
		PSIG	0.2	0.1	0.1	0.2	0.3	0.5
SWN0210L6	EAVA-021E	BTUH	3,980	5,990	7,350	8,820	12,290	16,280
		GPM	1.2	1.6	1.9	2.3	3.3	4.7
		PSIG	0.2	0.1	0.2	0.2	0.4	0.8
SWN0310L6	LAHA-032E	BTUH	5,940	9,560	11,760	14,180	19,850	26,360
		GPM	1.5	2.3	2.8	3.4	5.0	7.3
		PSIG	0.1	0.2	0.3	0.4	0.9	1.9
SWN0310E6	LACA-032E	BTUH	8,540	12,810	15,330	18,060	-	-
		GPM	2.1	3.2	3.9	4.7	-	-
		PSIG	0.2	0.4	0.6	0.8	-	-
SWN0311L6	2DF3F16KE	BTUH	10,050	14,600	17,120	19,950	26,570	34,440
		GPM	2.4	3.5	4.1	4.8	6.6	9.1
		PSIG	0.2	0.5	0.6	0.9	1.6	2.8
SWN0400L6	2DL3F20KE	BTUH	12,480	17,850	20,900	24,260	31,920	41,160
		GPM	3.0	4.4	5.2	6.1	8.5	12.0
		PSIG	0.3	0.7	1.0	1.3	2.5	4.7
SWN0599L6	2DA3F23KE	BTUH	14,790	20,900	24,260	27,930	36,440	46,520
		GPM	3.4	4.9	5.7	6.7	9.0	12.2
		PSIG	0.3	0.7	0.9	1.2	2.1	3.8
SWN0600L6	2DB3F25KE	BTUH	15,460	22,050	25,830	29,930	39,170	50,190
		GPM	3.6	5.2	6.2	7.3	9.9	13.7
		PSIG	0.4	0.7	1.0	1.4	2.6	4.8
SWN0601L6	3DA3F28KE	BTUH	18,260	25,200	29,190	33,600	43,680	55,760
		GPM	4.5	6.3	7.4	8.6	11.8	16.5
		PSIG	0.5	1.0	1.4	2.0	3.6	6.8
SWN0750L6	3DB3F33KE	BTUH	21,670	30,030	34,760	39,800	51,560	65,840
		GPM	4.3	5.9	6.8	7.7	10.1	13.1
		PSIG	0.4	0.7	0.9	1.1	1.9	3.1
SWN0900L6	3DF3F40KE	BTUH	26,440	36,440	42,210	48,620	63,210	80,750
		GPM	6.1	8.4	9.8	11.3	15.1	20.1
		PSIG	0.1	0.2	0.2	0.3	0.6	1.0
SWN1000L6	3DS3F46KE	BTUH	30,140	41,480	47,990	55,020	70,880	89,460
		GPM	7.1	9.8	11.5	13.3	17.7	23.5
		PSIG	0.1	0.3	0.3	0.4	0.8	1.3
SWN1500L6	4DHNF63KE	BTUH	41,760	57,960	66,360	75,390	95,660	120,650
		GPM	9.5	13.2	15.2	17.3	22.5	29.5
		PSIG	0.1	0.2	0.3	0.4	0.6	1.1
SWN2200L6	4DJNF76KE	BTUH	48,600	68,670	79,380	90,720	115,710	144,900
		GPM	11.3	16.2	18.9	22.0	29.3	39.1
		PSIG	0.2	0.3	0.5	0.6	1.0	1.8

85°F Entering Water, 105°F Condensing Temperature, 5°F Subcooling

## PERFORMANCE DATA - SWN MODELS

### Low Temperature Models- R-407A

Model	Compressor		Suction Temperature °F					
			-40°F	-30°F	-25°F	-20°F	-10°F	0°F
SWN0311L6	2DF3F16KE	BTUH	6,900	11,120	13,430	15,980	22,180	30,400
		GPM	2.4	3.9	4.8	6.0	9.3	15.6
		PSI	0.2	0.6	0.9	1.3	2.9	7.7
SWN0400L6	2DL3F20KE	BTUH	8,330	13,210	16,120	19,350	26,800	-
		GPM	3.1	5.0	6.3	8.0	13.2	-
		PSI	0.4	0.9	1.4	2.2	5.7	-
SWN0599L6	2DA3F23KE	BTUH	9,790	15,490	18,840	22,560	31,150	41,450
		GPM	3.5	5.6	6.9	8.6	13.4	21.5
		PSI	0.3	0.8	1.3	2.0	4.6	11.5
SWN0600L6	2DB3F25KE	BTUH	11,100	17,090	20,480	24,210	32,940	43,780
		GPM	3.9	6.1	7.6	9.4	14.8	24.4
		PSI	0.4	1.0	1.5	2.3	5.6	14.6
SWN0601L6	3DA3F28KE	BTUH	11,990	19,370	23,400	27,780	37,990	-
		GPM	4.4	7.5	9.5	12.0	20.0	-
		PSI	0.5	1.5	2.3	3.7	10.0	-
SWN0750L6	3DB3F33KE	BTUH	15,400	24,540	29,340	34,470	46,230	60,860
		GPM	4.5	6.9	8.3	10.0	14.3	21.2
		PSI	0.4	0.9	1.3	1.8	3.7	7.8
SWN0900L6	3DF3F40KE	BTUH	-	28,730	34,770	41,340	56,250	73,890
		GPM	-	9.8	12.1	14.8	22.2	33.6
		PSI	-	0.3	0.4	0.5	1.2	2.6
SWN1000L6	3DS3F46KE	BTUH	19,560	31,450	37,890	44,830	60,680	79,970
		GPM	7.1	11.2	13.8	16.8	25.4	39.9
		PSI	0.1	0.3	0.5	0.7	1.5	3.6
SWN1500L6	4DHNF63KE	BTUH	30,480	45,330	53,890	63,250	84,460	109,180
		GPM	10.6	15.6	18.9	22.9	33.7	50.0
		PSI	0.2	0.3	0.5	0.7	1.4	2.9
SWN2200L6	4DJNF76KE	BTUH	41,900	56,260	66,140	77,750	105,910	-
		GPM	14.6	20.9	25.5	31.7	50.7	-
		PSI	0.3	0.6	0.8	1.2	3.0	-

85°F Entering Water, 105°F Condensing Temperature, 5°F Subcooling

Demand Cooling is REQUIRED



## PERFORMANCE DATA - SWN MODELS

### Low Temperature Models- R-407C

Model	Compressor		Suction Temperature °F					
			-40°F	-30°F	-25°F	-20°F	-10°F	0°F
SWN0311L6	2DF3F16KE	BTUH	6,340	10,370	12,530	14,900	20,530	27,880
		GPM	2.2	3.6	4.5	5.5	8.3	12.9
		PSI	0.2	0.5	0.8	1.1	2.4	5.4
SWN0400L6	2DL3F20KE	BTUH	7,640	12,310	15,040	18,040	24,830	32,650
		GPM	2.8	4.6	5.8	7.3	11.5	18.3
		PSI	0.3	0.8	1.2	1.9	4.4	10.3
SWN0599L6	2DA3F23KE	BTUH	8,970	14,430	17,580	21,030	28,860	38,010
		GPM	3.3	5.1	6.4	7.9	11.9	17.8
		PSI	0.3	0.7	1.1	1.6	3.6	7.9
SWN0600L6	2DB3F25KE	BTUH	10,160	15,890	19,090	22,570	30,530	40,130
		GPM	3.6	5.6	7.0	8.6	13.1	19.9
		PSI	0.3	0.9	1.3	2.0	4.4	9.9
SWN0601L6	3DA3F28KE	BTUH	10,600	17,240	21,110	25,400	35,330	-
		GPM	3.8	6.4	8.2	10.5	17.3	-
		PSI	0.4	1.1	1.8	2.9	7.6	-
SWN0750L6	3DB3F33KE	BTUH	13,690	21,810	26,420	31,460	42,960	56,640
		GPM	3.9	6.1	7.4	8.9	12.9	18.7
		PSI	0.3	0.7	1.0	1.5	3.0	6.2
SWN0900L6	3DF3F40KE	BTUH	-	25,550	31,370	37,800	52,330	68,750
		GPM	-	8.6	10.7	13.2	19.9	29.4
		PSI	-	0.2	0.3	0.4	1.0	2.0
SWN1000L6	3DS3F46KE	BTUH	-	27,980	34,190	41,000	56,450	74,420
		GPM	-	9.8	12.2	15.0	22.8	34.6
		PSI	-	0.3	0.4	0.5	1.2	2.8
SWN1500L6	4DHN63KE	BTUH	26,290	40,030	47,990	56,800	77,340	102,370
		GPM	9.0	13.5	16.3	19.9	29.4	44.5
		PSI	0.1	0.2	0.3	0.5	1.1	2.3
SWN2200L6	4DJNF76KE	BTUH	32,460	48,710	57,400	66,930	89,830	120,150
		GPM	11.5	17.4	21.1	25.4	38.1	62.2
		PSI	0.2	0.4	0.6	0.8	1.7	4.4

85°F Entering Water, 105°F Condensing Temperature, 5°F Subcooling

Demand Cooling is REQUIRED

## PERFORMANCE DATA - SWN MODELS

### Low Temperature Models- R-407F

Model	Compressor		Suction Temperature °F					
			-40°F	-30°F	-25°F	-20°F	-10°F	0°F
SWN0311L6	2DF3F16KE	BTUH	6,900	11,120	13,430	15,980	22,180	30,400
		GPM	2.4	3.9	4.8	6.0	9.3	15.6
		PSI	0.2	0.6	0.9	1.3	2.9	7.7
SWN0400L6	2DL3F20KE	BTUH	8,330	13,210	16,120	19,350	26,800	-
		GPM	3.1	5.0	6.3	8.0	13.2	-
		PSI	0.4	0.9	1.4	2.2	5.7	-
SWN0599L6	2DA3F23KE	BTUH	9,790	15,490	18,840	22,560	31,150	41,450
		GPM	3.5	5.6	6.9	8.6	13.4	21.5
		PSI	0.3	0.8	1.3	2.0	4.6	11.5
SWN0600L6	2DB3F25KE	BTUH	11,100	17,090	20,480	24,210	32,940	43,780
		GPM	3.9	6.1	7.6	9.4	14.8	24.4
		PSI	0.4	1.0	1.5	2.3	5.6	14.6
SWN0601L6	3DA3F28KE	BTUH	11,990	19,370	23,400	27,780	37,990	-
		GPM	4.4	7.5	9.5	12.0	20.0	-
		PSI	0.5	1.5	2.3	3.7	10.0	-
SWN0750L6	3DB3F33KE	BTUH	15,400	24,540	29,340	34,470	46,230	60,860
		GPM	4.5	6.9	8.3	10.0	14.3	21.2
		PSI	0.4	0.9	1.3	1.8	3.7	7.8
SWN0900L6	3DF3F40KE	BTUH	-	28,730	34,770	41,340	56,250	73,890
		GPM	-	9.8	12.1	14.8	22.2	33.6
		PSI	-	0.3	0.4	0.5	1.2	2.6
SWN1000L6	3DS3F46KE	BTUH	19,560	31,450	37,890	44,830	60,680	79,970
		GPM	7.1	11.2	13.8	16.8	25.4	39.9
		PSI	0.1	0.3	0.5	0.7	1.5	3.6
SWN1500L6	4DHNF63KE	BTUH	30,480	45,330	53,890	63,250	84,460	109,180
		GPM	10.6	15.6	18.9	22.9	33.7	50.0
		PSI	0.2	0.3	0.5	0.7	1.4	2.9
SWN2200L6	4DJNF76KE	BTUH	41,900	56,260	66,140	77,750	105,910	-
		GPM	14.6	20.9	25.5	31.7	50.7	-
		PSI	0.3	0.6	0.8	1.2	3.0	-

85°F Entering Water, 105°F Condensing Temperature, 5°F Subcooling

Demand Cooling is REQUIRED

## PERFORMANCE DATA - SWN MODELS

### Low Temperature Models- R-448A/R-449A

Model	Compressor		Suction Temperature °F					
			-40°F	-30°F	-25°F	-20°F	-10°F	0°F
SWN0150L6	KALA-016E	BTUH	1,580	2,660	3,390	4,260	6,420	9,210
		GPM	0.7	1.1	1.3	1.6	2.4	3.7
		PSI	0.1	0.3	0.5	0.7	1.7	3.9
SWN0200L6	EADA-020E	BTUH	2,420	4,070	5,100	6,260	8,960	12,140
		GPM	1.1	1.5	1.8	2.3	3.3	4.8
		PSI	0.1	0.1	0.1	0.2	0.4	0.8
SWN0210L6	EAVA-021E	BTUH	3,980	6,010	7,320	8,800	12,260	16,300
		GPM	1.5	2.3	2.8	3.4	5.1	7.7
		PSI	0.1	0.2	0.3	0.4	0.9	1.9
SWN0310L6	LAHA-032E	BTUH	3,690	7,340	9,480	11,850	17,360	24,020
		GPM	1.3	2.4	3.2	4.0	6.5	10.7
		PSI	0.1	0.2	0.4	0.6	1.5	3.8
SWN0311L6	2DF3F16KE	BTUH	7,610	11,700	14,020	16,620	23,010	31,490
		GPM	2.6	4.1	5.1	6.2	9.7	16.3
		PSI	0.3	0.6	1.0	1.4	3.2	8.4
SWN0400L6	2DL3F20KE	BTUH	9,230	13,910	16,830	20,130	27,810	36,920
		GPM	3.4	5.3	6.7	8.4	13.8	24.3
		PSI	0.4	1.0	1.6	2.4	6.1	17.0
SWN0599L6	2DA3F23KE	BTUH	10,230	16,240	19,700	23,500	32,290	42,870
		GPM	3.8	5.9	7.3	9.0	13.9	22.6
		PSI	0.4	0.9	1.4	2.1	5.0	12.7
SWN0600L6	2DB3F25KE	BTUH	11,130	17,860	21,430	25,260	34,100	45,190
		GPM	3.7	6.5	8.1	10.0	15.5	26.0
		PSI	0.4	1.1	1.7	2.6	6.1	16.6
SWN0601L6	3DA3F28KE	BTUH	14,140	20,480	24,380	28,820	39,470	52,750
		GPM	5.7	8.2	10.1	12.7	21.5	40.9
		PSI	0.9	1.8	2.6	4.1	11.5	37.7
SWN0750L6	3DB3F33KE	BTUH	16,990	25,830	30,640	35,850	47,940	63,010
		GPM	5.0	7.4	8.9	10.6	15.1	22.4
		PSI	0.5	1.0	1.5	2.1	4.1	8.7
SWN0900L6	3DF3F40KE	BTUH	19,630	30,270	36,280	42,900	58,520	78,100
		GPM	6.8	10.5	12.8	15.5	23.3	36.3
		PSI	0.1	0.3	0.4	0.6	1.3	3.0
SWN1000L6	3DS3F46KE	BTUH	21,530	33,210	39,800	47,070	64,190	85,680
		GPM	7.7	12.0	14.7	18.0	27.5	44.4
		PSI	0.2	0.4	0.5	0.8	1.8	4.5
SWN1500L6	4DHNF63KE	BTUH	25,100	39,450	47,020	55,020	72,790	93,730
		GPM	7.9	12.9	15.6	18.6	26.1	36.8
		PSI	0.1	0.2	0.3	0.4	0.8	1.6
SWN2200L6	4DJNF76KE	BTUH	36,620	58,210	69,500	81,550	109,220	143,820
		GPM	13.1	22.1	27.6	34.2	53.7	92.0
		PSI	0.2	0.6	0.9	1.4	3.3	9.1

85°F Entering Water, 105°F Condensing Temperature, 5°F Subcooling  
Demand Cooling is REQUIRED

## UNIT SPECIFICATIONS - SWN MODELS

Model	Compressor Model	Connections (in.)				90% Cond. Holding Capacity (Lbs.)	Dimensions (in.)			Approx. Net Wt. (Lbs.)
		Suction	Liquid Line	Water Inlet	Water Outlet		H	W	D	
Medium Temperature										
SWN0090M6	KARA-010E	7/8	3/8	1/2	1/2	18	37-3/8	23-3/4	35	180
SWN0199M6	KAKA-020E	7/8	3/8	1/2	1/2	18	37-3/8	23-3/4	35	210
SWN0200M6	ERCA-021E	7/8	3/8	1/2	1/2	15	37-3/8	23-3/4	38-3/8	260
SWN0310M6	ERFA-031E	1-1/8	1/2	3/4	3/4	17	36-3/8	26-3/4	38-3/8	325
SWN0500M6	2DC3R53KE	1-3/8	5/8	1-1/4	1-1/4	34	39-1/4	30-3/8	42-1/2	400
Low Temperature										
SWN0150L6	KALA-016E	7/8	3/8	1/2	1/2	18	37-3/8	23-3/4	35	195
SWN0200L6	EADA-020E	7/8	3/8	1/2	1/2	15	37-3/8	23-3/4	35	325
SWN0210L6	EAVA-021E	7/8	3/8	1/2	1/2	15	37-3/8	23-3/4	35	325
SWN0310L6	LAHA-032E	1-1/8	1/2	3/4	3/4	17	36-3/8	26-3/4	38-3/8	325
SWN0310E6	LACA-032E	1-1/8	1/2	3/4	3/4	17	36-3/8	26-3/4	38-3/8	325
SWN0311L6	2DF3F16KE	1-3/8	1/2	3/4	3/4	17	36-3/8	26-3/4	38-3/8	340
SWN0400L6	2DL3F20KE	1-3/8	1/2	3/4	3/4	17	36-3/8	26-3/4	38-3/8	385
SWN0599L6	2DA3F23KE	1-3/8	5/8	1-1/4	1-1/4	34	39-1/4	30-3/8	42-1/2	415
SWN0600L6	2DB3F25KE	1-3/8	5/8	1-1/4	1-1/4	34	39-1/4	30-3/8	42-1/2	415
SWN0601L6	3DA3F28KE	1-3/8	5/8	1-1/4	1-1/4	34	39-1/4	30-3/8	42-1/2	430
SWN0750L6	3DB3F33KE	1-5/8	5/8	1-1/4	1-1/4	52	41-1/2	35-3/8	55-1/2	465
SWN0900L6	3DF3F40KE	1-5/8	5/8	1-1/4	1-1/4	57	41-1/2	35-3/8	55-1/2	560
SWN1000L6	3DS3F46KE	1-5/8	7/8	1-1/4	1-1/4	57	41-1/2	35-3/8	55-1/2	715
SWN1500L6	4DHNF63KE	2-1/8	7/8	1-1/2	1-1/2	109	41-1/2	35-3/8	55-1/2	780
SWN2200L6	4DJNF76KE	2-1/8	7/8	1-1/2	1-1/2	109	41-1/2	35-3/8	55-1/2	865

**NOTE:** Condenser refrigerant holding capacity refers to the weight of the type of refrigerant indicated by the model number (i.e. M6, L6, E6 = R-404A/R-507)  
Dimensions are maximum dimensions with options. Please refer to submittal drawings for specific model dimensions

## ELECTRICAL DATA - SWN MODELS

### Medium Temperature Models

Model Number	Compressor Model	Low Amps											High Amps			
		Power Supply			Compressor		Beacon II™ or Air Defrost		Electric Defrost		Def. Htr.*	Evap. Fan	Electric Defrost		Def. Htr.*	Evap. Fan
		Volts	Ph	Hz	RLA	LRA	MCA	MOPD	MCA	MOPD	Amps	Amps	MCA	MOPD	Amps	Amps
SWN0090M6B	KARB-010E	208-230	1	60	6.4	40.0	15.0	15	15.0	15	10 (1)	3	-	-	-	-
SWN0090M6C	KARA-010E	208-230	3	60	3.8	27.0	15.0	15	15.0	15	10 (1)	3	-	-	-	-
SWN0199M6B	KAKB-021E	208-230	1	60	9.1	55.0	15.0	20	25.0	25	20 (1)	6	50.0	50	40 (1)	12
SWN0199M6C	KAKA-020E	208-230	3	60	5.8	50.0	15.0	15	25.0	25	20 (1)	6	-	-	-	-
SWN0200M6C	ERCA-021E	208-230	3	60	7.9	46.0	15.0	15	25.0	25	20 (1)	6	-	-	-	-
SWN0310M6G	ERFB-031E	230	1	60	15.3	86.0	20.0	30	25.1	40	20 (1)	6	50.0	50	40 (1)	12
SWN0310M6C	ERFA-031E	208-230	3	60	11.2	82.0	15.0	25	25.0	30	20 (1)	6	50.0	50	40 (1)	12
SWN0310M6D	ERFA-031E	460	3	60	5.2	41.0	15.0	15	15.0	15	10 (1)	3	25.0	25	20 (1)	6
SWN0310M6E	ERFA-031E	575	3	60	4.5	30.0	15.0	15	15.0	15	8 (1)	3	20.0	20	16 (1)	5
SWN0500M6C	2DC3R53KE	208-230	3	60	20.0	120.0	25.0	45	31.0	50	20 (1)	6	50.0	50	40 (1)	12
SWN0500M6D	2DC3R53KE	460	3	60	9.4	60.0	15.0	20	15.0	20	10 (1)	3	25.0	25	20 (1)	6
SWN0500M6E	2DC3R53KE	575	3	60	6.9	49.0	15.0	15	15.0	15	8 (1)	3	20.0	20	16 (1)	5

\*Number of defrost heater contactors in parentheses

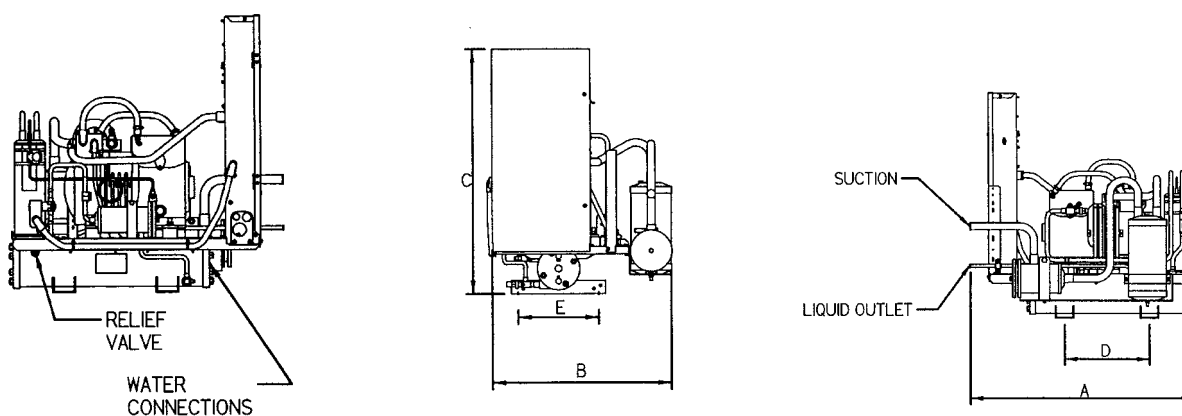
RLA = Rated Load Amps

MCA = Minimum Circuit Ampacity

LRA = Locked Rotor Amps

MOPD = Maximum Overload Protection Device

## DIMENSIONAL DATA - SWN MODELS



### Maximum Dimensions with Options

Horsepower	A	B (std*)	B (max**)	C (std*)	C (max**)	D	E
3/4 thru 2	33	19.375	23.75	29	37.375	10.625	12
3 thru 4	38.375	21.375	26.75	29	36.375	13.5	12
5 thru 6	42.5	23.375	30.375	36.375	39.25	14	12
7-1/2 thru 22	55.5	27.5	35.375	39.25	41.5	36	12

\*Standard dimensions are for base model.

\*\*Maximum dimensions are possible depending on selected options.

Exact dimensions can vary based on the chosen options.

# ELECTRICAL DATA - SWN MODELS

## Low Temperature Models

Model Number	Compressor Model	Power Supply			Compressor		Beacon II™ or Air Defrost		Low Amps				High Amps			
		Volts	Ph	Hz	RLA	LRA	MCA	MOPD	Electric Defrost		Def. Htr.* Amps	Evap. Fan Amps	Electric Defrost		Def. Htr.* Amps	Evap. Fan Amps
									MCA	MOPD			MCA	MOPD		
SWN0150L6B	KALB-015E	208-230	1	60	8.9	55.0	15.0	20	25.0	25	20 (1)	6	-	-	-	-
SWN0150L6C	KALA-016E	208-230	3	60	5.0	50.0	15.0	15	25.0	25	20 (1)	6	-	-	-	-
SWN0150L6D	KALA-016E	460	3	60	3.1	25.0	15.0	15	15.0	15	10 (1)	3	-	-	-	-
SWN0200L6G	EADB-021E	230	1	60	9.0	58.0	15.0	20	25.0	25	20 (1)	6	-	-	-	-
SWN0200L6C	EADA-020E	208-230	3	60	6.1	46.0	15.0	15	25.0	25	20 (1)	6	-	-	-	-
SWN0210L6B	EAVB-021E	208-230	1	60	13.2	102.0	20.0	25	25.0	35	20 (1)	6	-	-	-	-
SWN0210L6C	EAVA-021E	208-230	3	60	6.6	50.0	15.0	15	25.0	25	20 (1)	6	-	-	-	-
SWN0210L6D	EAVA-021E	460	3	60	2.9	26.6	15.0	15	15.0	15	10 (1)	3	-	-	-	-
SWN0210L6E	EAVA-021E	575	3	60	2.8	20.0	15.0	15	15.0	15	8 (1)	3	-	-	-	-
SWN0310L6G	LAHB-032E	230	1	60	15.0	105.0	20.0	30	25.0	35	20 (1)	6	50.0	50	40 (1)	12
SWN0310L6C	LAHA-032E	208-230	3	60	11.5	112.0	15.0	25	25.0	30	20 (1)	6	50.0	50	40 (1)	12
SWN0310L6D	LAHA-032E	460	3	60	5.4	56.0	15.0	15	15.0	15	10 (1)	3	25.0	25	20 (1)	6
SWN0310L6E	LAHA-032E	575	3	60	3.7	30.0	15.0	15	15.0	15	8 (1)	3	20.0	20	16 (1)	5
SWN0310E6G	LACB-032E	230	1	60	13.9	105.0	20.0	30	25.0	35	20 (1)	6	50.0	50	40 (1)	12
SWN0310E6C	LACA-032E	208-230	3	60	11.5	112.0	15.0	25	25.0	30	20 (1)	6	50.0	50	40 (1)	12
SWN0310E6D	LACA-032E	460	3	60	5.4	56.0	15.0	15	15.0	15	10 (1)	3	25.0	25	20 (1)	6
SWN0311L6G	2DF3F16KE	230	1	60	22.9	125.0	28.7	50	34.7	50	20 (1)	6	50.0	60	40 (1)	12
SWN0311L6C	2DF3F16KE	208-230	3	60	14.4	102.0	20.0	30	25.0	35	20 (1)	6	50.0	50	40 (1)	12
SWN0311L6D	2DF3F16KE	460	3	60	7.1	52.0	15.0	15	15.0	15	10 (1)	3	25.0	25	20 (1)	6
SWN0311L6E	2DF3F16KE	575	3	60	6.0	41.0	15.0	15	15.0	15	8 (1)	3	20.0	20	16 (1)	5
SWN0400L6C	2DL3F20KE	208-230	3	60	23.6	161.0	29.5	50	35.5	50	20 (1)	6	50.0	60	40 (1)	12
SWN0400L6D	2DL3F20KE	460	3	60	9.2	60.0	15.0	20	15.0	20	10 (1)	3	25.0	25	20 (1)	6
SWN0400L6E	2DL3F20KE	575	3	60	6.9	49.0	15.0	15	15.0	15	8 (1)	3	20.0	20	16 (1)	5
SWN0599L6C	2DA3F23KE	208-230	3	60	25.8	161.0	32.3	50	38.3	60	20 (1)	6	50.0	70	40 (1)	12
SWN0599L6D	2DA3F23KE	460	3	60	9.2	60.0	15.0	20	15.0	20	10 (1)	3	25.0	25	20 (1)	6
SWN0599L6E	2DA3F23KE	575	3	60	8.1	49.0	15.0	15	15.0	20	8 (1)	3	20.0	20	16 (1)	5
SWN0600L6C	2DB3F25KE	208-230	3	60	25.3	161.0	31.7	50	37.7	60	20 (1)	6	50.0	60	40 (1)	12
SWN0600L6D	2DB3F25KE	460	3	60	11.9	80.0	15.0	25	20.0	25	10 (1)	3	25.0	30	20 (1)	6
SWN0600L6E	2DB3F25KE	575	3	60	8.6	63.0	15.0	15	15.0	20	8 (1)	3	20.0	20	16 (1)	5
SWN0601L6C	3DA3F28KE	208-230	3	60	24.0	150.0	30.1	50	36.1	60	20 (1)	6	50.0	60	40 (1)	12
SWN0601L6D	3DA3F28KE	460	3	60	10.8	77.0	15.0	20	20.0	25	10 (1)	3	25.0	30	20 (1)	6
SWN0601L6E	3DA3F28KE	575	3	60	9.4	62.0	15.0	20	15.0	20	8 (1)	3	20.0	25	16 (1)	5
SWN0750L6C	3DB3F33KE	208-230	3	60	27.6	161.0	34.5	60	50.0	70	40 (1)	12	87.5	90	70 (2)	16
SWN0750L6D	3DB3F33KE	460	3	60	14.1	83.0	20.0	30	25.0	35	20 (1)	6	50.0	50	40 (1)	12
SWN0750L6E	3DB3F33KE	575	3	60	9.9	67.0	15.0	20	20.0	25	16 (1)	5	40.0	40	32 (1)	10
SWN0900L6C	3DF3F40KE	208-230	3	60	33.2	215.0	41.5	70	53.5	80	40 (1)	12	87.5	90	70 (2)	16
SWN0900L6D	3DF3F40KE	460	3	60	15.0	106.0	20.0	30	25.0	35	20 (1)	6	50.0	50	40 (1)	12
SWN0900L6E	3DF3F40KE	575	3	60	14.1	84.0	20.0	30	22.6	35	16 (1)	5	40.0	40	32 (1)	10
SWN1000L6C	3DS3F46KE	208-230	3	60	37.2	215.0	46.5	80	58.5	90	40 (1)	12	87.5	90	70 (2)	16
SWN1000L6D	3DS3F46KE	460	3	60	16.7	106.0	20.8	35	26.8	40	20 (1)	6	50.0	50	40 (1)	12
SWN1000L6E	3DS3F46KE	575	3	60	14.6	84.0	20.0	30	23.2	35	16 (1)	5	40.0	40	32 (1)	10
SWN1500L6C	4DHNf63KE	208-230	3	60	47.2	278.0	59.0	100	87.5	110	70 (2)	16	120.0	125	96 (2)	25
SWN1500L6D	4DHNf63KE	460	3	60	23.6	139.0	29.5	50	50.0	60	40 (1)	12	87.5	90	70 (2)	16
SWN1500L6E	4DHNf63KE	575	3	60	18.8	113.0	23.5	40	40.0	50	32 (1)	10	70.0	70	56 (2)	12
SWN2200L6C	4DJNf76KE	208-230	3	60	59.2	374.0	74.0	125	90.0	125	70 (2)	16	120.0	150	96 (2)	25
SWN2200L6D	4DJNf76KE	460	3	60	29.6	187.0	37.0	60	50.0	70	40 (1)	12	87.5	90	70 (2)	16
SWN2200L6E	4DJNf76KE	575	3	60	21.7	135.0	27.1	45	40.0	50	32 (1)	10	70.0	70	56 (2)	12

\*Number of defrost heater contactors in parentheses

RLA = Rated Load Amps      MCA = Minimum Circuit Ampacity  
LRA = Locked Rotor Amps      MOPD = Maximum Overload Protection Device

Notes



For more information on Bohn refrigeration products, contact your sales representative or visit us at [heatcraftprd.com](http://heatcraftprd.com).

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