



*Tecumseh*

# **CRIOS™**

## **LOW-PROFILE UNIT COOLERS** /

PRODUCT CATALOG





## TABLE OF CONTENTS

FEATURES & BENEFITS	3
ARGUS & CRIOS – QUICK SELECT GUIDE	4
MODEL SELECTION GUIDE	5
PHYSICAL SPECIFICATIONS	6
PERFORMANCE DATA & AWEF RATING	8
ELECTRICAL SPECIFICATIONS	9
SERVICE REPLACEMENT PARTS	10

# Tecumseh CRIOS™

Introducing Tecumseh CRIOS, a low-profile unit cooler/walk-in evaporator line designed to meet diverse refrigeration needs. Crafted for efficiency, it comes in medium temp air defrost and low temp electric defrost models, with customizable one to six fan configurations. Engineered to seamlessly pair with ARGUS ½-6 horsepower condensing units, **CRIOS is UL certified and DOE AWEF compliant**, ensuring optimal performance and reliability for a range of applications. Elevate your refrigeration system with Tecumseh CRIOS, where innovation meets versatility.



## QUALIFIED REFRIGERANTS





KE2 Therm Controller and Display Features

### SMART PACKAGE BENEFITS:

- Simplified installation with KE2 Therm reduces wiring and setup time
- Integrated KE2 Therm controls eliminate extra wiring and defrost clocks
- KE2 Therm supports remote monitoring via Ethernet and cloud access

### SUSTAINABILITY:

- UL, NSF, DOE Compliance – AWEF & NRCAN Compatible
- Built for today [R-404A, R-448/R-449A] and READY FOR TOMORROW [R-455A, R-454A, R-454C]

### SERVICEABILITY:

- Quick Service Panels for ease of maintenance
- This design includes a hinged and heated drain pan for easy service

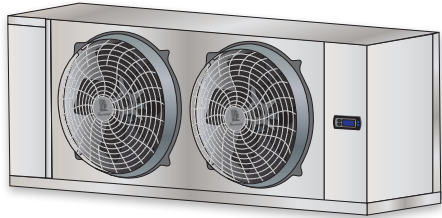
### FLEXIBILITY:

- Comes in 3 packages:
  - ESSENTIAL: Base Unit Features
  - PRO: TXV and LLSV
  - SMART: KE2 Therm EEV
- Versatile: CRIOS unit cooler offers both air and electric defrost options

PACKAGE	ESSENTIAL	PRO	SMART
Standard Features: – Defrost Termination & Fan Delay – Fan Relay – Heater Limit Safety	●	●	●
Mounted TXV and Liquid Line Solenoid Valve		●	
KE2Therm Electronic Expansion Valve			●

# ARGUS™ & CRIOS™

## QUICK SELECT GUIDE



(RATED AT @ 25°F SST / 10 TD)			
ARGUS		CRIOS	
MEDIUM TEMP MODELS	COOLING CAPACITY (BTU/H)	AIR DEFROST MODELS	COOLING CAPACITY (BTU/H)
ASHR9460Z	5,668	ECRA0041S	4,800
ASHR9460Z	5,668	ECRA0051S	6,000
ASHR9480Z	7,151	ECRA0062S	7,200
ASHR9510Z	10,282	ECRA0082S	9,600
ASHR9510Z	10,282	ECRA0102S	12,000
ASHR9512Z	14,539	ECRA0122S	14,400
ASHS9516Z	16,897	ECRA0153S	18,000
ASHS9522Z	21,800	ECRA0184S	21,600
ASHS9522Z	21,800	ECRA0204S	24,000
ASHS9524Z	29,580	ECRA0245S	28,800
ASHS9532Z	34,751	ECRA0306S	36,000
ASHS9548Z	48,207	ECRA0376S	43,200

Btu/h based on R-448A rating point

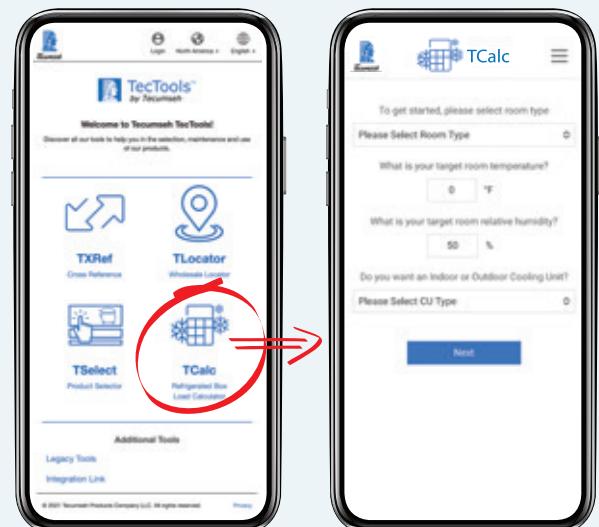
(RATED AT @ -20°F SST / 10 TD)			
ARGUS		CRIOS	
MEDIUM TEMP MODELS	COOLING CAPACITY (BTU/H)	AIR DEFROST MODELS	COOLING CAPACITY (BTU/H)
ASHR2460Z	3,252	ECRE0034S	3,800
ASHR2480Z	5,406	ECRE0040S	4,500
ASHR2480Z	5,406	ECRE0048S	5,400
ASHS2510Z	7,797	ECRE0067S	7,600
ASHS2512Z	8,804	ECRE0079S	9,000
ASHS2514Z	10,668	ECRE0095S	10,800
ASHS2520Z	15,032	ECRE0119S	13,500
ASHS2524Z	17,110	ECRE0143S	16,200
ASHS2524Z	17,110	ECRE0158S	18,000
ASHS2527Z	21,148	ECRE0190S	21,600
ASHS2531Z	24,535	ECRE0238S	27,000
ASHS2542Z	32,142	ECRE0285S	32,400

Btu/h based on R-448A rating point

## TCalc: TECUMSEH HEATLOAD CALCULATOR

Use our free heatload calculator to determine the cooling capacity needed for your walk in coolers and freezers

SCAN NOW TO DOWNLOAD!



# MODEL SELECTION GUIDE

1

DETERMINE  
CAPACITY  
REQUIREMENTS

2

SELECT YOUR  
REFRIGERANT

- “S” refrigerant code for R404A, R448A & R449A
- “L” refrigerant code for A2L: R455A, R454A, R454C (coming soon)

3

SELECT DEFROST  
& VOLTAGE TYPE

- Electric Defrost (only 208-230V)
- Air Defrost (115V or 208-230V)

4

SELECT YOUR PACKAGE

## ESSENTIAL

Standard Features:

- Defrost Termination & Fan Delay
- Fan Relay
- Heater Limit Safety

## PRO

Standard Features:

- Defrost Termination & Fan Delay
- Fan Relay
- Heater Limit Safety

Mounted TXV and Liquid Line Solenoid Valve

## SMART

Standard Features:

- Defrost Termination & Fan Delay
- Fan Relay
- Heater Limit Safety

KE2Therm Electronic Expansion Valve

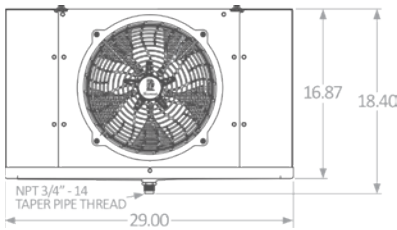
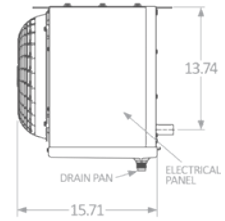
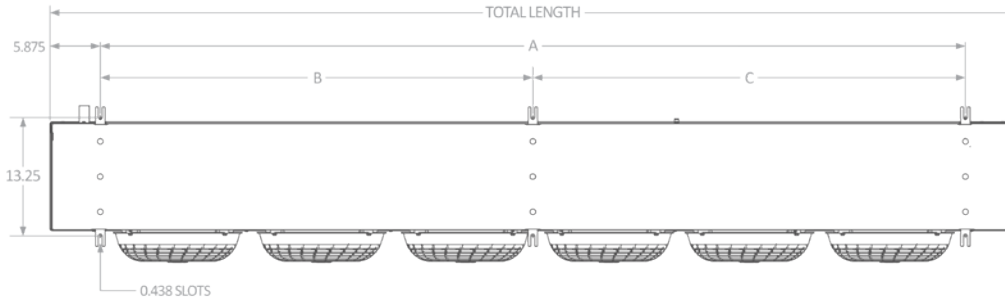
## NOMENCLATURE

E	CR	E	0034	S	NA	6	A	X
PRODUCT CATEGORY	BRAND FAMILY	DEFROST TYPE	RATED CAPACITY X 100	REFRIGERANT CODE	FAN VOLTAGE CODE	NUMBER OF FINS PER INCH (FPI)	RELEASE VARIANT	FEATURE
E = Low Profile Unit Cooler	CR = CRIOS	A = Air E = Electric	BTU/H rating multiply by 100 34 x 100 = 3,400 BTU/h	S = A1 Refrigerants (R-404A, R-448A, R-449A) L = A2L Refrigerants (R-455A, R-454C, R-454A)	AA = 115v/60Hz/1 phase NA = 208-230v/60Hz/1 phase	6 = 6FPI	W = Base Y = TXV + LLSV (R-404A) X = TXV + LLSV (R-448/R-449A)	Version Model: Launch models (A)

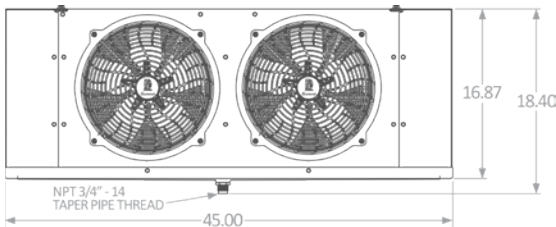
# PHYSICAL SPECIFICATIONS

CRIOS comes in 6 different sizes, with single to 6 fan unit sizes.

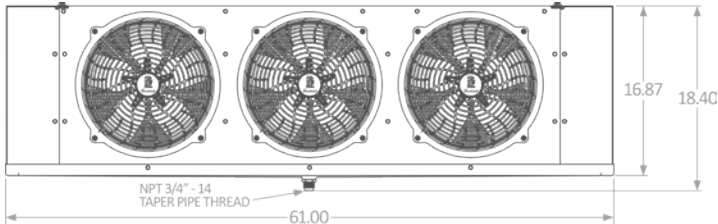
- Overall depth and height is standardize across all models
- Only length varies across different unit coolers depending on their number of fans
- All evaporators are 6 fins per inch (FPI)



1 FAN MODELS		NUMBER OF FANS	UNIT DIMENSIONS (INCHES)		PIPE CONNECTIONS (INCHES)					WEIGHT (LBS)	
AIR DEFROST	ELECTRIC DEFROST		A	OVERALL LENGTH	LIQUID LINE	DISTRIBUTOR INLET	VAPOR LINE	EQUALIZER	DRAIN	AIR DEFROST	ELECTRIC DEFROST
ECRA0041S-****	ECRE0034S-NA6A	1	17.3	29.0	3/8"	1/2"	5/8"	1/4"	3/4"	25	30
ECRA0051S-****	ECRE0040S-NA6A	1	17.3	29.0	3/8"	1/2"	5/8"	1/4"	3/4"	25	30
ECRA0062S-****	ECRE0048S-NA6A	1	17.3	29.0	3/8"	1/2"	5/8"	1/4"	3/4"	25	30

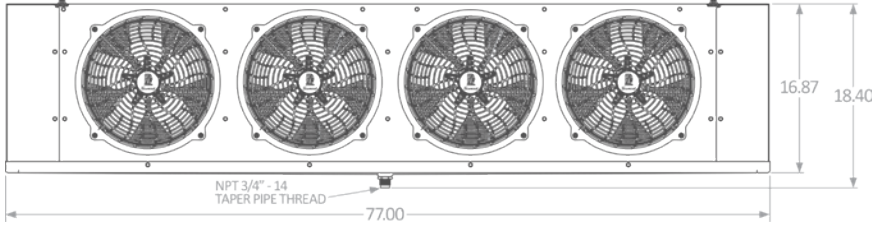


2 FAN MODELS		NUMBER OF FANS	UNIT DIMENSIONS (INCHES)		PIPE CONNECTIONS (INCHES)					WEIGHT (LBS)	
AIR DEFROST	ELECTRIC DEFROST		A	OVERALL LENGTH	LIQUID LINE	DISTRIBUTOR INLET	VAPOR LINE	EQUALIZER	DRAIN	AIR DEFROST	ELECTRIC DEFROST
ECRA0082S-****	ECRE0067S-NA6A	2	33.3	45.0	3/8"	1/2"	7/8"	1/4"	3/4"	45	49
ECRA0102S-****	ECRE0079S-NA6A	2	33.3	45.0	3/8"	1/2"	7/8"	1/4"	3/4"	45	49
ECRA0122S-****	ECRE0095S-NA6A	2	33.3	45.0	3/8"	1/2"	7/8"	1/4"	3/4"	45	49

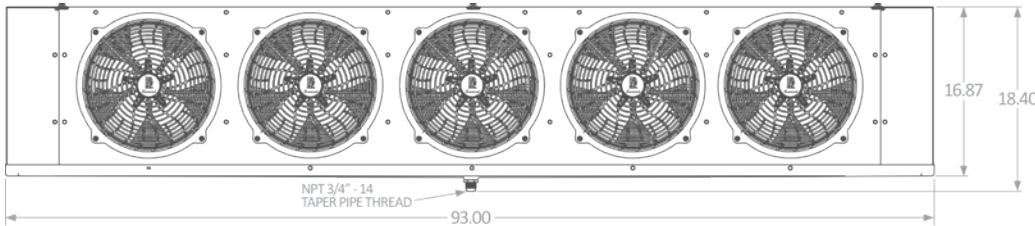


3 FAN MODELS		NUMBER OF FANS	UNIT DIMENSIONS (INCHES)		PIPE CONNECTIONS (INCHES)					WEIGHT (LBS)	
AIR DEFROST	ELECTRIC DEFROST		A	OVERALL LENGTH	LIQUID LINE	DISTRIBUTOR INLET	VAPOR LINE	EQUALIZER	DRAIN	AIR DEFROST	ELECTRIC DEFROST
ECRA0153S-****	ECRE0119S-NA6A	3	49.3	61.0	3/8"	1/2"	7/8"	1/4"	3/4"	60	68
ECRA0184S-****	ECRE0143S-NA6A	3	49.3	61.0	3/8"	1/2"	7/8"	1/4"	3/4"	60	68

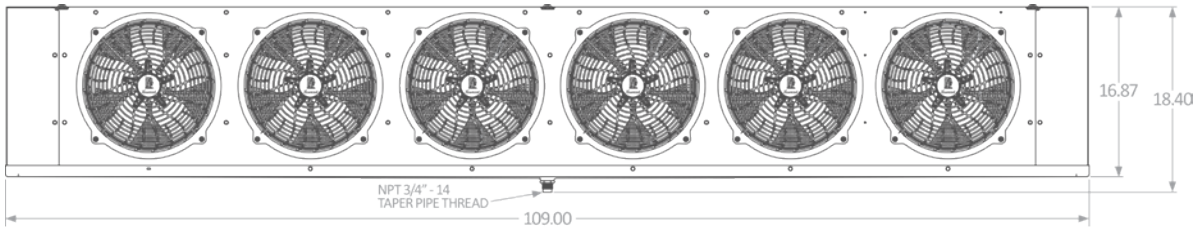
# PHYSICAL SPECIFICATIONS



4 FAN MODELS		NUMBER OF FANS	UNIT DIMENSIONS (INCHES)		PIPE CONNECTIONS (INCHES)					WEIGHT (LBS)	
AIR DEFROST	ELECTRIC DEFROST		A	OVERALL LENGTH	LIQUID LINE	DISTRIBUTOR INLET	VAPOR LINE	EQUALIZER	DRAIN	AIR DEFROST	ELECTRIC DEFROST
ECRA0204S-****	ECRE0158S-NA6A	4	65.3	77.0	3/8"	1/2"	7/8"	1/4"	3/4"	80	87
ECRA0245S-****	ECRE0190S-NA6A	4	65.3	77.0	3/8"	1/2"	1-1/8"	1/4"	3/4"	80	87

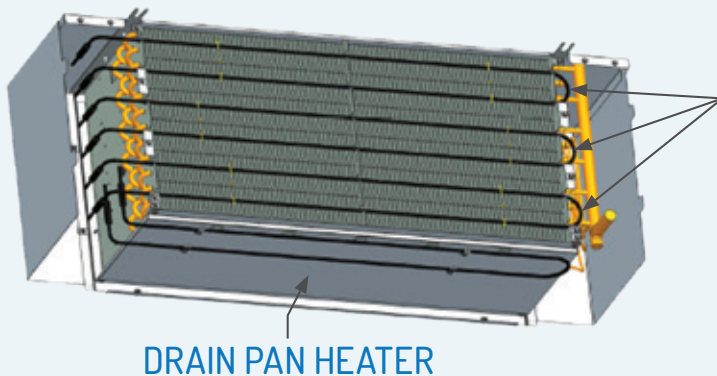


5 FAN MODELS		NUMBER OF FANS	UNIT DIMENSIONS (INCHES)				PIPE CONNECTIONS (INCHES)					WEIGHT (LBS)	
AIR DEFROST	ELECTRIC DEFROST		A	B	C	OVERALL LENGTH	LIQUID LINE	DISTRIBUTOR INLET	VAPOR LINE	EQUALIZER	DRAIN	AIR DEFROST	ELECTRIC DEFROST
ECRA0306S-****	ECRE0238S-NA6A	5	81.3	48.6	32.6	93.0	3/8"	1/2"	1-1/8"	1/4"	3/4"	95	106



6 FAN MODELS		NUMBER OF FANS	UNIT DIMENSIONS (INCHES)				PIPE CONNECTIONS (INCHES)						WEIGHT (LBS)	
AIR DEFROST	ELECTRIC DEFROST		A	B	C	OVERALL LENGTH	LIQUID LINE (R-404A)	LIQUID LINE (R-448A/R-449A)	DISTRIBUTOR INLET	VAPOR LINE	EQUALIZER	DRAIN	AIR DEFROST	ELECTRIC DEFROST
ECRA0376S-****	ECRE0285S-NA6A	6	97.3	48.6	48.6	109.0	1/2"	3/8"	1/2"	1-1/8"	1/4"	3/4"	110	124

## HEATER ELEMENTS POSITIONING



### 3 X FIN HEATER

- CRIOS Unit Coolers comes with standard 3 fin heaters and 1 drain pan heaters across model ranges.
- Please refer to service replacement list for individualized parts.

# PERFORMANCE DATA & AWEF RATING

## NOMENCLATURE

E	CR	E	0034	S	NA	6	A	X
PRODUCT CATEGORY	BRAND FAMILY	DEFROST TYPE	RATED CAPACITY X 100	REFRIGERANT CODE	FAN VOLTAGE CODE	NUMBER OF FINS PER INCH (FPI)	RELEASE VARIANT	FEATURE
E = Low Profile Unit Cooler	CR = CRIOS	A = Air E = Electric	BTU/H rating multiply by 100 34 x 100 = 3,400 BTU/h	S = A1 Refrigerants (R-404A, R-448A, R-449A) L = A2L Refrigerants (R-455A, R-454C, R-454A)	AA = 115v/60Hz/1 phase NA = 208-230v/60Hz/1 phase	6 = 6FPI	W = Base Y = TXV + LLSV (R-404A) X = TXV + LLSV (R-448/R-449A)	Version Model: Launch models (A)

## AIR DEFROST MODELS (RATED AT @ 25°F SST / 10 TD)

MODEL NUMBER	COOLING CAPACITY BTU/H		QTY	FAN DATA		AWEF RATING (R404A, R448A, R449A)
	R-404A	R-448A / R-449A		BLADE DIAMETER (MM)	AIRFLOW (CFM)	
ECRA0041S	4,100	4,800	1	300	750	9.0
ECRA0051S	5,100	6,000	1	300	750	9.0
ECRA0062S	6,200	7,200	1	300	750	9.0
ECRA0082S	8,200	9,600	2	300	1,500	9.0
ECRA0102S	10,200	12,000	2	300	1,500	9.0
ECRA0122S	12,200	14,400	2	300	1,500	9.0
ECRA0153S	15,300	18,000	3	300	2,250	9.0
ECRA0184S	18,400	21,600	3	300	2,250	9.0
ECRA0204S	20,400	24,000	4	300	3,000	9.0
ECRA0245S	24,500	28,800	4	300	3,000	9.0
ECRA0306S	30,600	36,000	5	300	3,750	9.0
ECRA0376S	37,600	43,200	6	300	4,500	9.0

## ELECTRIC DEFROST MODELS (RATED AT @ -20°F SST / 10 TD)

MODEL NUMBER	COOLING CAPACITY BTU/H		QTY	FAN DATA		AWEF RATING	
	R-404A	R-448A / R-449A		BLADE DIAMETER (MM)	AIRFLOW (CFM)	R404A	R448A / R449A
ECRE0034S	3,400	3,800	1	300	750	3.97	3.97
ECRE0040S	4,000	4,500	1	300	750	3.99	3.99
ECRE0048S	4,800	5,400	1	300	750	4.00	4.00
ECRE0067S	6,700	7,600	2	300	1,500	4.04	4.04
ECRE0079S	7,900	9,000	2	300	1,500	4.06	4.06
ECRE0095S	9,500	10,800	2	300	1,500	4.08	4.08
ECRE0119S	11,900	13,500	3	300	2,250	4.12	4.12
ECRE0143S	14,300	16,200	3	300	2,250	4.15	4.15
ECRE0158S	15,800	18,000	4	300	3,000	4.15	4.15
ECRE0190S	19,000	21,600	4	300	3,000	4.15	4.15
ECRE0238S	23,800	27,000	5	300	3,750	4.15	4.15
ECRE0285S	28,500	32,400	6	300	4,500	4.15	4.15

Rating point tested with dew point.

Performance data is subject to change. For the most up to date information, contact your sales representative or visit our website at [www.tecumseh.com](http://www.tecumseh.com)

# ELECTRICAL SPECIFICATIONS

## AIR DEFROST MODELS

115V/60Hz/1 PHASE					
MODEL NUMBER	NUMBER OF FANS	FAN MOTOR RATINGS		ELECTRICAL RATINGS	
		AMPS	WATTS	MCA	MOP
ECRA0041S-AA6A	1	0.5	60.0	0.7	15.0
ECRA0051S-AA6A	1	0.5	60.0	0.7	15.0
ECRA0062S-AA6A	1	0.5	60.0	0.7	15.0
ECRA0082S-AA6A	2	1.0	120.0	1.3	15.0
ECRA0102S-AA6A	2	1.0	120.0	1.3	15.0
ECRA0122S-AA6A	2	1.0	120.0	1.3	15.0
ECRA0153S-AA6A	3	1.6	180.0	2.0	15.0
ECRA0184S-AA6A	3	1.6	180.0	2.0	15.0
ECRA0204S-AA6A	4	2.1	240.0	2.6	15.0
ECRA0245S-AA6A	4	2.1	240.0	2.6	15.0
ECRA0306S-AA6A	5	2.6	300.0	3.3	15.0
ECRA0376S-AA6A	6	3.1	360.0	3.9	15.0

208-230V/60Hz/1 PHASE					
MODEL NUMBER	NUMBER OF FANS	FAN MOTOR RATINGS		ELECTRICAL RATINGS	
		AMPS	WATTS	MCA	MOP
ECRA0041S-NA6A	1	0.3	60.0	0.3	15.0
ECRA0051S-NA6A	1	0.3	60.0	0.3	15.0
ECRA0062S-NA6A	1	0.3	60.0	0.3	15.0
ECRA0082S-NA6A	2	0.5	120.0	0.7	15.0
ECRA0102S-NA6A	2	0.5	120.0	0.7	15.0
ECRA0122S-NA6A	2	0.5	120.0	0.7	15.0
ECRA0153S-NA6A	3	0.8	180.0	1.0	15.0
ECRA0184S-NA6A	3	0.8	180.0	1.0	15.0
ECRA0204S-NA6A	4	1.0	240.0	1.3	15.0
ECRA0245S-NA6A	4	1.0	240.0	1.3	15.0
ECRA0306S-NA6A	5	1.3	300.0	1.6	15.0
ECRA0376S-NA6A	6	1.6	360.0	2.0	15.0

## ELECTRIC DEFROST MODELS

MODEL NUMBER	NUMBER OF FANS	DEFROST HEATERS (208-230/1/60)		FAN MOTOR RATINGS		ELECTRICAL RATINGS	
		AMPS	WATTS	AMPS	WATTS	MCA	MOP
ECRE0034S-NA6A	1	4.8	1100	0.3	60.0	5.1	15.0
ECRE0040S-NA6A	1	4.8	1100	0.3	60.0	5.1	15.0
ECRE0048S-NA6A	1	4.8	1100	0.3	60.0	5.1	15.0
ECRE0067S-NA6A	2	9.6	2200	0.5	120.0	10.2	15.0
ECRE0079S-NA6A	2	9.6	2200	0.5	120.0	10.2	15.0
ECRE0095S-NA6A	2	9.6	2200	0.5	120.0	10.2	15.0
ECRE0119S-NA6A	3	14.3	3300	0.8	180.0	15.3	20.0
ECRE0143S-NA6A	3	14.3	3300	0.8	180.0	15.3	20.0
ECRE0158S-NA6A	4	19.1	4400	1.0	240.0	20.4	25.0
ECRE0190S-NA6A	4	19.1	4400	1.0	240.0	20.4	25.0
ECRE0238S-NA6A	5	23.9	5500	1.3	300.0	25.5	30.0
ECRE0285S-NA6A	6	28.7	6600	1.6	360.0	30.7	35.0

Amps and Watts at 1550 RPM rating

# SERVICE REPLACEMENT PARTS

ITEM CODE	DESCRIPTION
92147-5	DRAIN TRAY HEATER, 1000W, 230V, 5 FANS
92147-6	DRAIN TRAY HEATER, 1200W, 230V, 6 FANS
92147-1	DRAIN TRAY HEATER, 200W, 230V, 1 FAN
92147-2	DRAIN TRAY HEATER, 400W, 230V, 2 FANS
92147-3	DRAIN TRAY HEATER, 600W, 230V, 3 FANS
92147-4	DRAIN TRAY HEATER, 800W, 230V, 4 FANS
90777	EVAP TERMINAL BOARD
515-10034	FAN BLADE, 12", 25° PITCH
285-10196	FAN BRACKET, 4 LEGS
116-10019	FAN GUARD, 12", PLASTIC
900-13597	FAN, DEFROST TERMINATION AND DELAY
810-10190	FAN, MOTOR, 115-230V, ECM, DUAL SPEED
900-13599	FAN, RELAY, 240VAC, 12AMP, SPDT
92146-4	FIN HEATER, 1200W, 230V, 4 FANS
92146-5	FIN HEATER, 1500W, 230V, 5 FANS
92146-6	FIN HEATER, 1800W, 230V, 6 FANS
92146-1	FIN HEATER, 300W, 230V, 1 FAN
92146-2	FIN HEATER, 600W, 230V, 2 FANS
92146-3	FIN HEATER, 900W, 230V, 3 FANS
FMH-01	HARNESS, FAN MOTOR 1 FAN
FMH-02	HARNESS, FAN MOTOR 2 FANS
FMH-03	HARNESS, FAN MOTOR 3 FANS
FMH-04	HARNESS, FAN MOTOR 4 FANS
FMH-05	HARNESS, FAN MOTOR 5 FANS
FMH-06	HARNESS, FAN MOTOR 6 FANS
900-13598	HEATER, SAFETY / LIMIT SWITCH

ITEM CODE	DESCRIPTION
57698	SOLENOID VALVE, EVR 3; 3/8" ODF - 032F1204
57700	SOLENOID VALVE, EVR 4; 1/2" ODF - 032L7111
57699	SOLENOID VALVE, EVR 4; 3/8" ODF - 032L7110
57701	SOLENOID VALVE COIL, BT240CS 110-240v - 018F4180
56680-13	TXV, EBSSE-6-C
56680-18	TXV, EBSSE-6-ZP
56680-01	TXV, SBFDE-AA-C, 3VX4 ODF 30"
56680-05	TXV, SBFDE-AA-ZP, 3VX4 ODF 30"
56680-02	TXV, SBFDE-A-C, 3VX4 ODF 30"
56680-06	TXV, SBFDE-A-ZP, 3VX4 ODF 30"
56680-03	TXV, SBFDE-B-C, 3VX4 ODF 30"
56680-07	TXV, SBFDE-B-ZP, 3VX4 ODF 30"
56680-04	TXV, SBFDE-C-C, 3VX4 ODF 30"
56680-08	TXV, SBFDE-C-ZP, 3VX4 ODF 30"
56680-09	TXV, SBFSE-AA-C, 3VX4 ODF 30"
56680-14	TXV, SBFSE-AA-ZP, 3VX4 ODF 30"
56680-10	TXV, SBFSE-A-C, 3VX4 ODF 30"
56680-15	TXV, SBFSE-A-ZP, 3VX4 ODF 30"
56680-11	TXV, SBFSE-B-C, 3VX4 ODF 30"
56680-16	TXV, SBFSE-B-ZP, 3VX4 ODF 30"
56680-12	TXV, SBFSE-C-C, 3VX4 ODF 30"
56680-17	TXV, SBFSE-C-ZP, 3VX4 ODF 30"





# Tecumseh

## TECUMSEH COMPRESSOR COMPANY LLC

Subsidiary of Tecumseh Products Company LLC

5683 Hines Drive | Ann Arbor, MI 48108

734.585.9500 | [www.tecumseh.com](http://www.tecumseh.com)

## REACH OUT TO US!



Customer Service: **1.888.254.1033**

Technical Service: **1.800.211.3427**



[customer.service@tecumseh.com](mailto:customer.service@tecumseh.com)

[Technical.Service@tecumseh.com](mailto:Technical.Service@tecumseh.com)

©2025 Tecumseh Products Company.  
All Rights Reserved. 03/2025



DISCOVER  
THE TECUMSEH  
PRODUCT RANGE  
[TECUMSEH.COM](http://TECUMSEH.COM)

