

# COUNTERPERSON TRAINING



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# COURSE DESCRIPTION



Training includes a review of Tecumseh literature that is primarily used to facilitate product selection. Attendees will learn how to decipher Tecumseh compressor and condensing unit model numbers and item numbers (Bill of Materials). Warranty policies and claims processing for North American based Authorized Wholesalers and Original Equipment Manufacturers (OEM) are also discussed.

#### ABOUT US

Tecumseh's Global
Headquarters in Ann Arbor,
Michigan serves as the
regional management center
for North America. Other
North American facilities
include a manufacturing
facility and distribution
center in Tupelo, Mississippi; a
distribution center and offices
near London, Ontario, Canada;
and Monterrey, Mexico





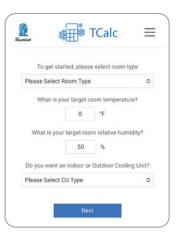
#### **Tecumseh**

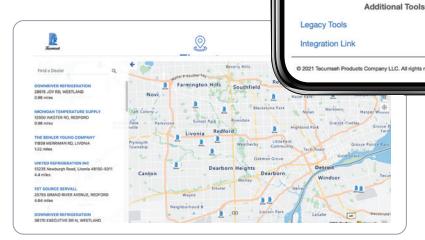
# INTRODUCING TecTools

TecTools is our bundle of comprehensive customer tools packed in one easy to use app. TecTools makes it easy for you to find the right product in your region with just a few clicks.

From our spare parts finder and product selector, to our cross-reference tool and box load calculator, we have the tools that will make it easier than ever to quickly find what you need.

- Compressor Cross Reference Quickly find current Tecumseh products to replace competitor models as well as obsolete Tecumseh models.
- Wholesale Locator Locate authorized Tecumseh wholesalers near you!
- Product Selector Find Tecumseh products that match your exact specifications.
   Currently only available for compressors and condensing units.
- Refrigerated Box Load Calculator Quickly determine the cooling capacity
  needed for chiller and freezer applications, taking out the guesswork when finding
  the perfect solution for your application.





SCAN NOW TO DOWNLOAD!





3

**TLocator** 

Refrigerated Box

TecTools'

Welcome to Tecumseh TecTools!

Discover all our tools to help you in the selection, maintenance and use

**TXRef** 

**TSelect** 



Need technical or product support? Have a questions regarding your order status? Our customer support and technical service team members are available to assist and address your product and order related needs quickly and professionally.

Our skilled team members can be contacted by phone or e-mail and are able to provide expert support across the full range of Tecumseh products and solutions. You can rely on our customer support and technical service teams to help you find the best Tecumseh solution.

#### REACH OUT TO US!

Cusi

Customer Service: **1.888.254.1033** 

Technical Service: **1.800.211.3427** 

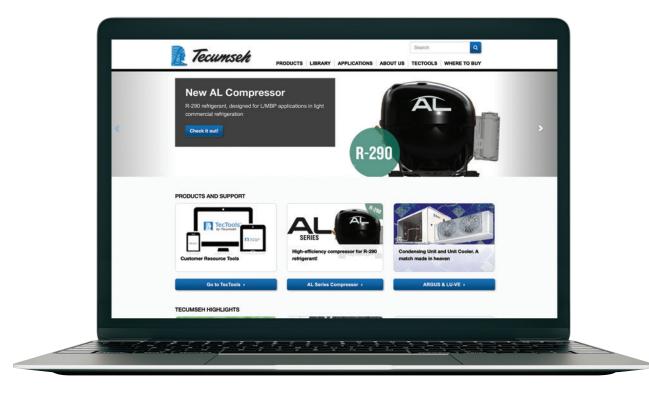


 ${\bf customer service} @ {\bf tecum seh.com} \\$ 

technicalservice@tecumseh.com

# **WEBSITE RESOURCES**

WWW.TECUMSEH.COM



#### HOME PAGE

This site is the central information hub for Tecumseh. A brief explanation is provided below.

A link to the "Product Search" tool can be found in the "Reference Tools" call-out box located on the left-hand side of the home page (under the rotating banner).

The "Product Search" tool can also be accessed under the "About Us" and "Products" sections of Tecumseh's website.

"Parts Look-Up" can be found in the "Reference Tools" call out box.

"Advanced Products
Search" and "Replacement
Parts" look-up tools are
located in the "Library"
section of the website.

Compressor product specifications, technical data sheets and performance data sheets are also available through the Product Search tool.

A link to the web applications page is also provided.

The Home Page is also where you will find "What's New" at Tecumseh.

The home page sliding images and highlighted boxes show the latest from Tecumseh.

#### **ABOUT US**

General information is provided regarding the company's history, global manufacturing operations, product offering and, commitment to innovation and product quality.

#### **PRODUCTS**

Hermetic compressors and condensing units offered by Tecumseh are outlined in this section. Ideal applications, and inherent advantages of reciprocating, rotary and scroll compressors are provided. Use the Product Search tool to select products based on a combination of their application, refrigerant type, cooling capacity and voltage requirements.

#### **APPLICATIONS**

Requirements for commercial refrigeration, residential air conditioning, specialty air conditioning and household refrigerator and freezer applications are described.

#### **LIBRARY**

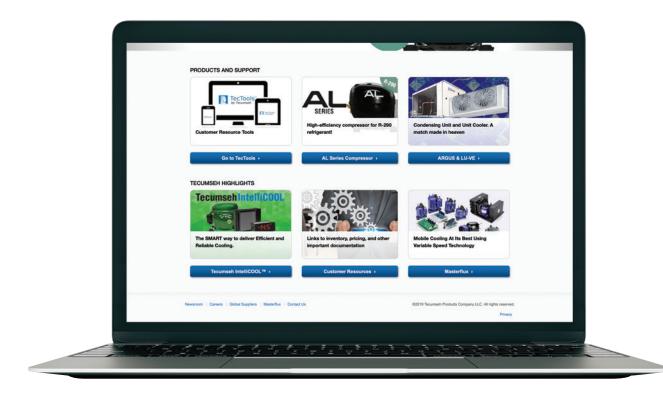
A one-stop shop for product literature, quick select guides, sales flyers and a variety of technical information (application and refrigerant guidelines, installation instructions, replacement parts lists, etc.). Tecumseh's global brand guidelines, sales terms and conditions, and quality certifications (ISO 9001 and ISO 14001) can be found here as well.

Many documents are available as downloadable PDF files that can be stored in digital form and/or printed.

A direct link is also provided to find Tecumseh Authorized Wholesalers by Country, Province/State and City.

#### **CONTACT US**

Phone, fax and e-mail addresses are available for contacting Tecumseh's corporate office as well as customer support, technical services and sales/marketing teams in various regions across the globe.



# TECHNICAL LITERATURE REVIEW

A library of technical references is available for use by OEM's, Wholesalers, Contractors and Service Technicians. These references are designed to assist you in selecting products for specific applications. Please visit www.tecumseh.com to learn more. Select "Library" for the latest available technical documents which can be downloaded for free. Printed literature may be purchased through Tecumseh's "On-Line" store at www.thetecumsehstore.com.

#### **COMPRESSOR RESOURCES**



## AFTERMARKET LINECARD

This document provides a quick summary on compressors, condensing units and unit coolers available to the wholesale market. This is the perfect document to familiarize yourself with the different product ranges across Tecumseh's wide product offering.



## COMPRESSOR QUICK SELECT GUIDE

This guide is designed to help customers quickly select the appropriate Tecumseh compressor for the most common applications. Choose the appropriate Wholesale compressor for your application based upon criteria such as refrigerant, application type, cooling capacity and physical product dimensions.



## CROSS REFERENCE GUIDE

This guide allows the user to quickly identify and replace competitor models for a smooth and easy transition.



#### REFRIGERATION SYSTEMS RESOURCES



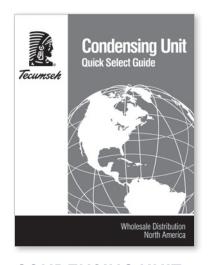
## **CELSEON R-290 IDCU BROCHURE**

This product brief showcase the range of Tecumseh's latest indoor condensing units, now optimized for R-290 refrigerants. Users can this guide to size up their equipment selection requirements.



#### TECUMSEH ARGUS TECHNICAL GUIDE

This tech guide showcases
Tecumseh's premium range of
outdoor condensing units. This
guide comes with the product's
AWEF ratings, performance
data, technical details, and
feature set selections.



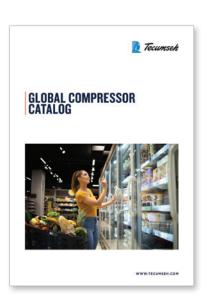
## CONDENSING UNIT QUICK SELECT GUIDE

This document is a comprehensive guide for Tecumseh's Condensing Unit models which include performance data and technical specification.

#### **Tecumseh**

# CUSTOMER RESOURCE TOOLS

For complete North American customer resource tools, you may contact your local Tecumseh sales representative, or you can contact us at **tecumsehmarketing@tecumseh.com** for new and updated content.



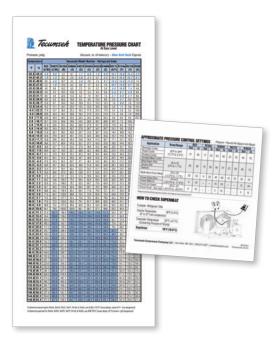
#### GLOBAL COMPRESSOR CATALOG

This comprehensive guidebook showcases the full range of Tecumseh compressors globally. Please contact your regional Tecumseh sales rep to inquire for model availability.



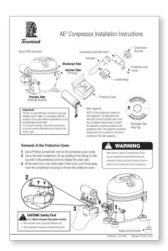
## IN-STOCK & QUICK SHIP PROGRAMS

Lookout for the latest list of quick ship and in-stock ARGUS units that are prioritized to meet tight schedule orders.
Kindly contact your Tecumseh sales rep for the latest stocked and quick ship model list.



## PT TEMPERATURE CHARTS

This handy tool card provides a comprehensive temperature chart for contractors in the field. It also comes with a pressure control settings guide.



#### **INSTALLATION GUIDES**

Contractors can refer to the installation guides to install and service Tecumseh compressors and equipment accordingly. More manuals can be found at:

https://production.tecumseh.com/en/ na/library/installation-instructions/

# WARRANTY INFORMATION

For complete North American Warranty information, please contact your Company's Warranty Administrator, and refer to document number TW-NA-102 (latest revision level).

#### FREQUENTLY ASKED QUESTIONS (FAQs)

- 1. How is written notice to be given?
  - a. Via e-mail or written correspondence. However, e-mail is preferred.
- 2. Is it acceptable to return the product with written notice included with the shipment?
  - a. No, please provide written notice prior to returning the goods.
- 3. Where should I send the written notice?
  - a. For US based Authorized Wholesalers, written notice should be sent to:

#### US.Warranty@tecumseh.com

For Canada based Authorized Wholesalers, written notice should be sent to:

#### CAN.Warranty@tecumseh.com

For Mexico based Authorized Wholesalers, written notice should be sent to:

#### MX.Warranty@tecumseh.com

- 4. What information should be included in the written notice?
  - a. The following information should be included:
    - i. Tecumseh Model Number(s)
    - ii. Respective Quantities
    - iii. Respective Manufacturing Date Code(s)
    - iv. Basic description of the issue
- 5. Will a receipt be provided when written notice is received?
  - a. Yes, we will send a return reply e-mail acknowledging the receipt of written notification.
- 6. Do I need to include the electrical components with returned compressor?
  - a. Yes, please refer to page 2 of the new Warranty Policy and follow the process listed under "Field Failure Returns & Credit Guidelines."
- 7. What happens if I return a compressor that is outside the Warranty Period?
  - a. As stated on page 3 of the new Warranty Policy, a fifty dollar (\$50) disposal fee will be charged for compressors that are returned which are outside the Warranty Period.
- 8. How should the compressor(s) be prepared for return?
  - a. Any open compressor tubes should be sealed sufficiently to prevent leakage during transit with the compressor's oil charge intact.

#### **Tecumseh**

# COMPRESSOR MODEL NOMENCLATURE









AE	4	440	Y	AA	1A
AEA	4	440	Y	XA	
COMPRESSOR FAMILY (FIRST TWO DIGITS)		FIRST DIGIT IS THE NUMBER OF DIGITS IN BTU/H CAPACITY			
RELEASE VARIANT (THE THIRD DIGIT)	APPLICATION	LAST TWO DIGITS ARE THE FIRST TWO DIGITS IN RATED BTU/H CAPACITY	REFRIGERANT	VOLTAGE	RELEASE VARIANT

AE	<b>A</b> = 1st
AG	$\mathbf{B} = 2$ nd
AJ	C = 3rd
AK	etc

AL

**AW** 

AZ

FH

HG

RG

RK

TA

TC

TH

TY

VS

VTC

In this example (4) total digits, with the first two (40), or 4,000 BTU capacity

Primary	Refrigerants <sup>†</sup>

Λ		D 13	/D	11	Λ Λ
A	=	R-12	:/K-	4 I	UA

#### $\mathbf{B} = R-410A$

#### C = R-407C

$$E = R-22$$

#### N = R-1234yf/R-134a

#### P = R-454C/R-455A

#### U = R-290

#### W = R-22/R-407C

#### X = (CBP Models Only) R-404A/R507 R-134a/R-22 R-407A/R-407F

#### Y = R134a

#### Z = R404A/R507

†Refrigerant by item numbers as shown.

### Voltage Codes

#### AA = 115/60/1

#### AB = 115/60/1; 90/50/1

#### CZ = 230/60/1; 208/50/1

#### DS = 115-127/60/1

#### FA = 208-230/60/3

#### **FZ** = 220-240/50/1

#### **KZ** = 220/60/3; 220/50/3

#### NA = 208-230/60/1

#### TZ = 440/60/3; 400/50/3

#### VA = 265/60/1; 220-240/50/1

$$XA = 115/60/1; 100/50/1$$

#### XB = 230/60/1; 200/50/1

#### XC = 220 - 240/50/1

#### XD = 208-230/60/1; 200/50/1

#### XF = 208-230/60/3; 200-240/50/3

#### XG = 460/60/3; 380-420/50/3

#### XH = 575/60/3; 480-520/50/3

#### XN = 208-230/60/1; 200-220/50/1

#### XP = 220/60/1; 200/50/1

#### XT = 200-230/60/3; 200-220/50/3

Primary Application Parameters								
Evap Temperature	Rating Point	Motor Starting Torque						
1. Low	-10°F	Normal						
2. Low	-10°F	High						
3. High	+45°F	Normal						
4. High	+45°F	High						
5. A/C & H/P	+45°F	Normal						
9. Commercial	+20°F	High						
0. Commercial	+20°F	Normal						
W. L/MBP	-10°F/+20°F	Normal						
X. L/MBP	-10°F / +20°F	High						

NOTE: For explanation of compressor families and codes, contact Tecumseh Products Company.

**XU** = 100/60/1; 100/50/1

XV = 265/60/1

# **Tecumseh ARGUS**NOMENCLATURE



AS	Н	R	9	9 440 Z N		NA	M	P	1
CU FAMILY	PRODUCT TYPE	COMPRESSOR	SSOR APPLICATION RANGE NOMINAL CAPACITY REFRIGERANT SUPP		POWER SUPPLY	UNIT CONFIGURATION (APPLICATION)	FACTORY INSTALLED OPTIONS	GENERATION	
	Outdoor - Rei Indoor - Rem		9 = Medium 2 = Low  First number is digits. Remain capacity in Book This examp 4,000 Btu/	s total nder is tu/h. ole; /h	Primary Refrigerants R-404A R-448A R-449A R-452A  Voltage Codes A = 115V/60Hz/1 A = 208-230V/60	F N	= microchannel w PSC fan motor = tube and fin with PSC fan motor = microchannel w high efficiency, EC fan motor = tube and fin with high efficiency, EC fan motor	S = Z = P = T = G = G = G = G = G = G = G = G = G	1 = First  Silver Zinc Platinum Titanium Gold Custom
	0=0				<b>4</b> = 208-230V/60F			2	No.

# CELSEON MODEL NOMENCLATURE

**EXAMPLE: CLSAW413UDS7ES1** 

CL	S	A	W	413	U	DS	7	E	S	1	_	Р
CU Family	BASE Type	BASE Type	APPLICATION	NOMINAL CAPACITY	REFRIGERANT	POWER SUPPLY	CONDENSER COIL	FAN MOTOR	FACTORY INSTALLED OPTIONS	GENERATION	IF CUSTOM	OPTIONS
CL			= LBP LST = LBP HST		<b>U</b> = R-290		<b>7</b> = 7 mm <b>5</b> = 5 mm		Fan Motor aded Pole	<b>1</b> = First		ower Cord ter Drier
$\mathbf{S} = Sta$ $\mathbf{E} = Eva$	indard aporative		I = L/MBP L = L/MBP H			<b>L/LS</b> = 115V/60 = 115-127V/60			= Sweat Connection			
		Chassis Chassis	1	rst number total digits	NA	= 220 V/50-60 $= 208-230 V/6$		G :	Filter Drier = Sweat Connectic and Service Valv			
		Chassis Chassis	1.5 cap	demainder acity in Bto	u/h	= 115V/60Hz = 208-230V/60 = 200-220V/5		C	= Custom	Note	: Model is same	as item number

# SERIAL LABELS

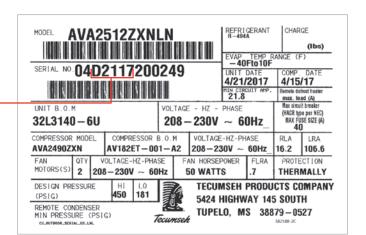




FIRST LETTER INDICATES MONTH (SEE TABLE 1), NEXT 2 DIGITS INDICATE DAY OF THE MONTH, FOLLOWING 2 DIGITS INDICATE YEAR.

#### TABLE 1: SERIAL LABEL MONTH IDENTIFIERS

A – January D – April G – July K – October
B – February E – May H – August L – November
C – March F – June J – September M – December



## IDENTIFICATION OF DATE OF MANUFACTURE (VSC SERIES SCROLL COMPRESSORS)

## COMMERCIAL BACK PRESSURE (CBP) & AIR CONDITIONING (HBP) MODELS

S	03	09	K	12345
Manufacturing Location	Production Week	Production Year		5 Digit Serial Number

All Tecumseh VSC Series scroll compressors with a "Code Date" of S1915 or later for CBP & HBP models or, with a "Code Date" of FE25 or later for LBP models, are subject to the new Warranty Policy.

## LOW BACK PRESSURE (LBP) MODELS

A	В	25	12345678
Year	Month	Plant Assembly	8 Digit
Code	Code	Line Code	Serial Number

#### SERIAL LABEL MONTH IDENTIFIERS

 A - 2010/January
 D - 2013/April
 G - 2016/July
 K - 2019/October

 B - 2011/February
 E - 2014/May
 H - 2017/August
 L - 2020/November

 C - 2012/March
 F - 2015/June
 J - 2018/September
 M - 2021/December

NOTES:	



#### **TECUMSEH COMPRESSOR COMPANY LLC**

Subsidiary of Tecumseh Products Company LLC 5683 Hines Drive | Ann Arbor, MI 48108 734.585.9500 | www.tecumseh.com

