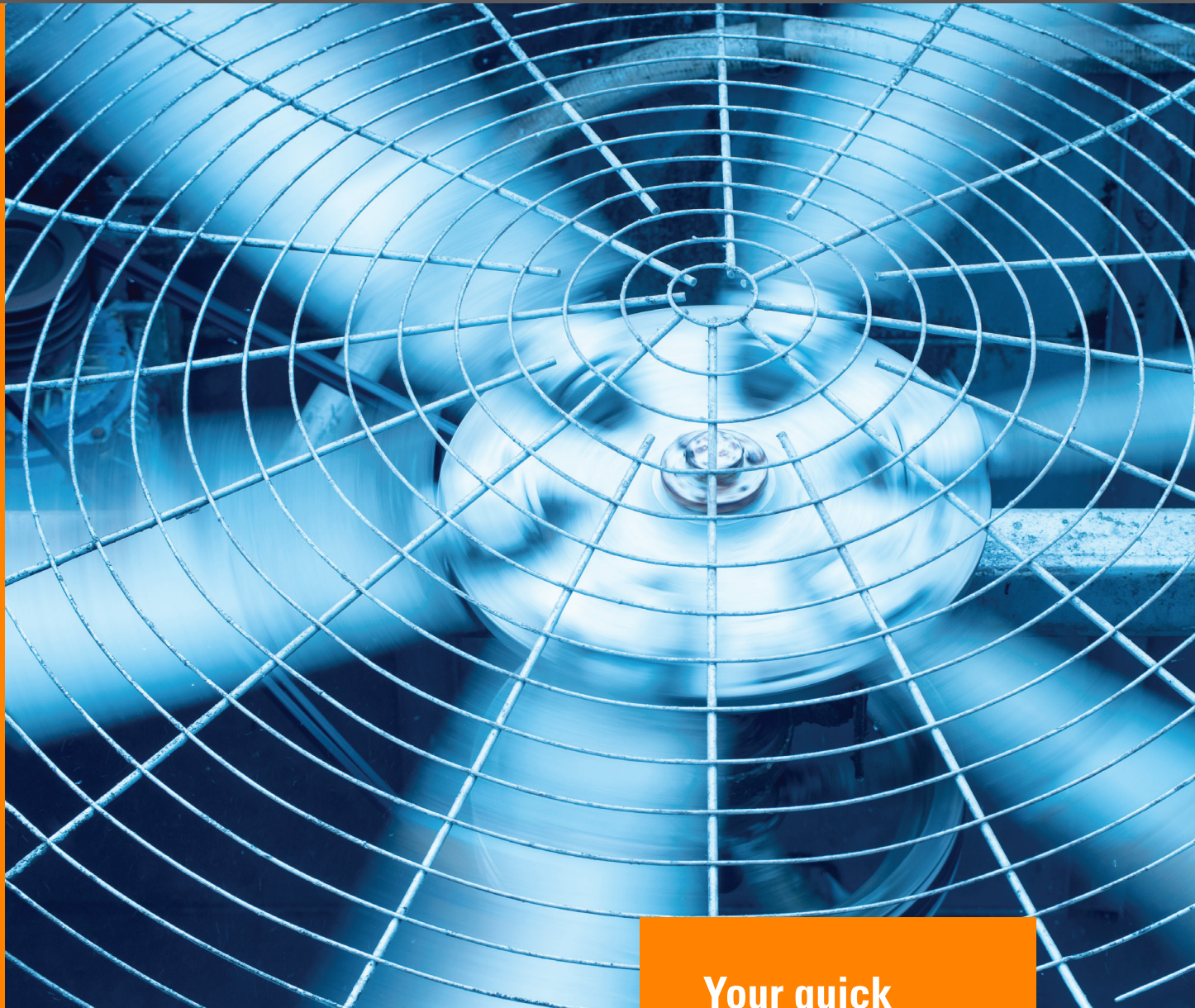


# V-Belts Selection Guide for HVAC Applications


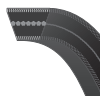


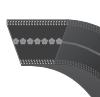


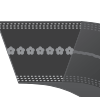



**HVAC**

Your quick  
reference tool  
for selecting the  
right Timken®  
HVAC v-belt

# Classical V-Belts


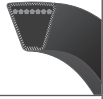


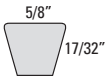

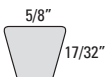

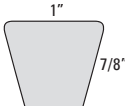

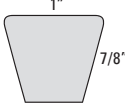

Super Blue Ribbon® (A, B, C) | Super II® (A-R, B-R, C-R) | Gold-Ribbon® Cog-Belt® (AX, BX, CX)

Cross Section	Timken Cross Section	Cross Section Dimensions	Belt Cutaway	Market Position	Energy Efficiency	Belt Type	Timken Brand (PN Example)	Timken Belt Description
<b>A</b>	<b>A</b>	1/2" 11/32"		★ Good	93%	Wrapped Molded	Super Blue Ribbon® <b>(A85)</b>	Premium wrapped molded v-belt built to the highest standards in the industry. Ideal for drives with shock loads.
	<b>A-R</b>	1/2" 11/32"		★★ Better	94%	Raw Edge Laminated	Super II® <b>(A85R)</b>	The problem solver! Raw edge EPDM <sup>1</sup> construction with our special CNA cord placement creates a flexible, stable and efficient v-belt.
	<b>AX</b>	1/2" 11/32"		★★★ Best	95%	Raw Edge Cogged	Gold-Ribbon® Cog-Belt® <b>(AX85)</b>	Raw edge cogged v-belt made of EPDM provides longer belt life, higher efficiency and greater horsepower ratings than wrapped v-belts.
<b>B</b>	<b>B</b>	21/32" 7/16"		★ Good	93%	Wrapped Molded	Super Blue Ribbon® <b>(B85)</b>	Premium wrapped molded v-belt built to the highest standards in the industry. Ideal for drives with shock loads.
	<b>B-R</b>	21/32" 7/16"		★★ Better	94%	Raw Edge Laminated	Super II® <b>(B85R)</b>	The problem solver! Raw edge EPDM construction with our special CNA cord placement creates a flexible, stable and efficient v-belt.
	<b>BX</b>	21/32" 7/16"		★★★ Best	95%	Raw Edge Cogged	Gold-Ribbon® Cog-Belt® <b>(BX85)</b>	Raw edge cogged v-belt made of EPDM provides longer belt life, higher efficiency and greater horsepower ratings than wrapped v-belts.
<b>C</b>	<b>C</b>	7/8" 9/16"		★ Good	93%	Wrapped Molded	Super Blue Ribbon® <b>(C85)</b>	Premium wrapped molded v-belt built to the highest standards in the industry. Ideal for drives with shock loads.
	<b>C-R</b>	7/8" 9/16"		★★ Better	94%	Raw Edge Laminated	Super II® <b>(C85R)</b>	The problem solver! Raw edge EPDM construction with our special CNA cord placement creates a flexible, stable and efficient v-belt.
	<b>CX</b>	7/8" 9/16"		★★★ Best	95%	Raw Edge Cogged	Gold-Ribbon® Cog-Belt® <b>(CX85)</b>	Raw edge cogged v-belt made of EPDM provides longer belt life, higher efficiency and greater horsepower ratings than wrapped v-belts.

<sup>1</sup> Ethylene propylene diene monomer


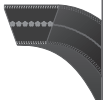
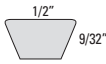
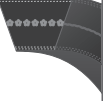
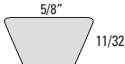

## Wedge (Narrow) V-Belts

Super Power-Wedge® (3V, 5V, 8V) | Power-Wedge® Cog-Belt® (3VX, 5VX, 8VX)

Cross Section	Timken Cross Section	Cross Section Dimensions	Belt Cutaway	Market Position	Energy Efficiency	Belt Type	Timken Brand (PN Example)	Timken Belt Description
3V	3V	 3/8" 5/16"		★ Good	93%	Wrapped Molded	Super Power-Wedge® (3V850)	Our wrapped cover provides superior wear resistance. The narrow cross section enables the design of a more compact drive.
	3VX	 3/8" 5/16"		★★★ Best	95%	Raw Edge Cogged	Power-Wedge® Cog-Belt® (3VX850)	Combines the advantages of the narrow cross section with EPDM and raw edge performance for operating efficiency in a compact drive package.
5V	5V	 5/8" 17/32"		★ Good	93%	Wrapped Molded	Super Power-Wedge® (5V850)	Our wrapped cover provides superior wear resistance. The narrow cross section enables the design of a more compact drive.
	5VX	 5/8" 17/32"		★★★ Best	95%	Raw Edge Cogged	Power-Wedge® Cog-Belt® (5VX850)	Combines the advantages of the narrow cross section with EPDM and raw edge performance for operating efficiency in a compact drive package.
8V	8V	 1" 7/8"		★ Good	93%	Wrapped Molded	Super Power-Wedge® (8V1000)	Our wrapped cover provides superior wear resistance. The narrow cross section enables the design of a more compact drive.
	8VX	 1" 7/8"		★★★ Best	95%	Raw Edge Cogged	Power-Wedge® Cog-Belt® (8VX1000)	Combines the advantages of the narrow cross section with EPDM and raw edge performance for operating efficiency in a compact drive package.

## Fractional Horsepower (FHP) V-Belts

Durapower® II (3L-R, 4L-R, 5L-R)

Cross Section	Timken Cross Section	Cross Section Dimensions	Belt Cutaway	Market Position	Energy Efficiency	Belt Type	Timken Brand (PN Example)	Timken Belt Description
3L	3L-R	 3/8" 7/32"		★★★ Best	94%	Raw Edge Laminated	Durapower® II (3L400R)	Raw edge, EPDM and central neutral axis (CNA) construction provide a durable, flexible and efficient FHP v-belt.
4L	4L-R	 1/2" 9/32"		★★★ Best	94%	Raw Edge Laminated	Durapower® II (4L400R)	Raw edge, EPDM and CNA construction provide a durable, flexible and efficient FHP v-belt.
5L	5L-R	 5/8" 11/32"		★★★ Best	94%	Raw Edge Laminated	Durapower® II (5L400R)	Raw edge, EPDM and CNA construction provide a durable, flexible and efficient FHP v-belt.



# Timken Belts Nomenclature

Cross Section	Timken Brand	Part # Example	Timken Part Number Explanation
Heavy Duty Belts			
A-R, B-R, C-R	<b>Super II® V-Belt</b>	B85R	B = cross section, 85 = inside circumference in inches, R = raw edge construction
A, B, C	<b>Super Blue Ribbon® V-Belt</b>	B85	B = cross section, 85 = inside circumference in inches
AX, BX, CX	<b>Gold-Ribbon® Cog-Belt® V-Belt</b>	BX85	B = cross section, X = cogged construction, 85 = inside circumference in inches
3V, 5V, 8V	<b>Super Power-Wedge® V-Belt</b>	5V850	5V = cross section, 850 = effective length in tenths of an inch
3VX, 5VX, 8VX	<b>Power Wedge® Cog-Belt® V-Belt</b>	5VX850	5V = cross section, X = cogged construction, 850 = effective length in tenths of an inch
Light Duty Belts			
2L-R, 3L-R, 4L-R, 5L-R	<b>Durapower® II FHP V-Belt</b>	4L400R	4L = cross section, 400 = outside length in tenths of inch, R = raw edge construction
Specialty Belts			
3L, A, B, C	<b>POWERTWIST® DRIVE Belt</b>	BTwist	B = cross section, Twist = POWERTWIST DRIVE link belting

## Tools and Terminology

### Belt-Finder

A belt measuring device that helps easily find the correct replacement belt. Part #93859



### CNA

Unique central neutral axis (CNA) cord placement positions the strength of the belt lower on the sheaves to maintain stability and flexibility.



### Cog-Belt

Referred to as cogged or notched belts. Precision molded cogs improve belt flex and reduce bending stress.



### Chek Mate® Tolerances

Manufacturing process to meet or exceed the Association for Rubber Products Manufacturers (ARPM) tolerances for a matched set. Super Blue Ribbon, Super II, Super Power-Wedge, Power-Wedge Cog-Belt and Gold Ribbon Cog-Belt all carry the distinctive Chek Mate logo or icon.



### Drive Engineer™

The Drive Engineer™ free mobile web app delivers robust belt drive design and analysis to your desktop or mobile device.



### EPDM

Ethylene Propylene Diene Monomer (EPDM) is a synthetic rubber that is durable and resistant to oil, heat, hardening and glazing. EPDM has superior flex and load carrying capacity with a broad operating temperature range of -50°F to +250°F.



### Frequency-Finder

Belt tensioning tool. The Frequency-Finder is an electronic instrument that precisely measures the frequency used to calculate the static tension in belts. Part #109061



### Laser-Align

Laser-Align is a tool for fast and accurate alignment of belt drive pulleys. Part #109083, Extra Targets Part #109083T



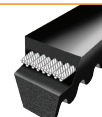
### PowerMiser™

PowerMiser™ is a free mobile web app that calculates estimated annual energy savings that can be realized by upgrading to energy efficient Timken belts.



### Raw Edge

Raw edge belts are cured and then cut into a “V” shape. The gripping power of raw edge sidewalls provides high energy efficiency and reduces vibration for extended component life.



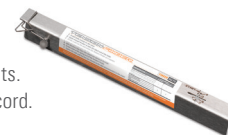
### Sheave Gauges

Gauges to check sheave wear. Sheave condition and alignment are vital to v-belt life and performance. Part #102495 Imperial, #102496 Metric



### Tension-Finder®

A quick, easy and accurate tool for tensioning v-belts. The Tension-Finder is designed for use with Timken belts. Do not use on belts with aramid, glass or carbon fiber cord. Part #108039-A



### Tensiometer

Single stem spring loaded tensioning device. The force required to deflect a span length by a given amount is related to the tension in the belt. The tensiometer measures that deflection. Part #102761



### POWERTWIST® DRIVE Belting

POWERTWIST DRIVE belting is a perfect candidate for drives that have no take-up adjustment capability or for use as an emergency replacement belt. POWERTWIST DRIVE can be made to the required length by hand and rolled onto the drive just like a bicycle chain. Part # 3LTWist, ATWist, BTWist, CTWist



### Wrapped Molded

Wrapped molded belts have a fabric cover. During manufacturing the belt is molded into a “V” shape.



## TIMKEN BELTS

Timken® belts are part of The Timken Company's growing portfolio of engineered bearings and power transmission products. Timken Belts manufactures premium-performance power transmission belts that help keep industry in motion and the world more productive.

Performance Driven. **Performance Proven.**

[www.timkenbelts.com](http://www.timkenbelts.com)