



*Tecumseh*

# AJ<sup>2</sup> compressor

## HP - R455A / R454C

Qualified for A2L fluids.

### KEY FEATURES AND BENEFITS

- ▶ Solution long-term
- ▶ Low GWP (146)
- ▶ Low Flammability

▶ **Eco-friendly**

Optimised for operation with A2L-rated R455A and R454C refrigerants.

▶ **Low TEWI (Total Equivalent Warming Impact)**

Lower energy consumption with these new refrigerants.

▶ **Proven reliability**

- Robust design fruit of decades of commercial refrigeration expertise.
- Life and performance tests carried out in our laboratory.



▶ **Large operating window**

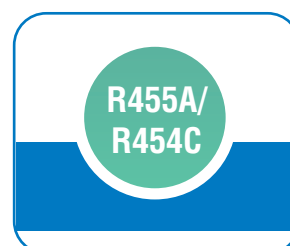
- Same as the one obtained with transition fluids.
- Covers all applications positive cold.

### APPLICATIONS

Cold rooms, refrigerated cabinets and display cases, beverage dispensers, ice machines, fermentation chambers, etc.



### REFRIGERANTS





# AJ<sup>2</sup> compressor

## HP - R455A / R454C

Qualified for A2L fluids.

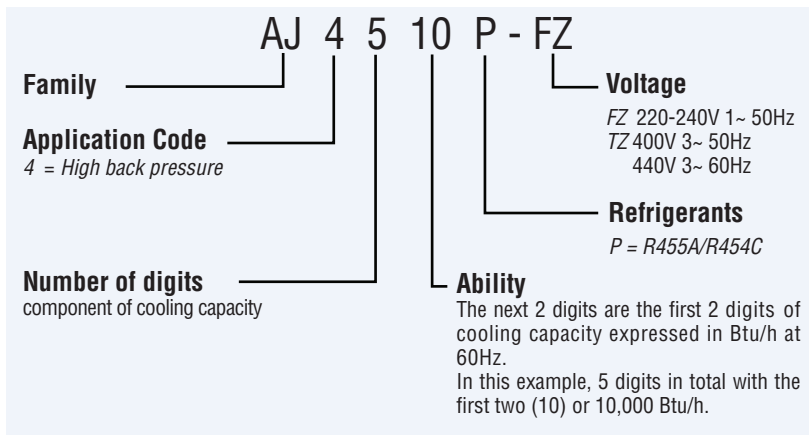
### NOMENCLATURE

#### Power range:

► from 1094 to 2390 Watts

#### Application(s) :

► From -15°C to +15°C.



### SPECIFICATIONS

MODEL NUMBER	CYL. cm <sup>3</sup>	MO-TOR	RE-FRIG.	COOLING CAPACITY (W) 45°C cond., 10K superheat, SC 3K, Mid/Mid							PERF.: EN12900 (5°C / 50°C / RG 20°C / SC OK)		Diam. tubes O.D. (mm/inches)			Vol-tage	Weight (kg)	H (mm)
				Evaporation temperature (°C):							QPF (W)	COP (W/W)	Suction	Re- pression	of load			
				-15	-10	-5	0	5	10	15								
AJ4480P	15,2	CSR/ TRI	R455A	826	1094	1415	1797	2250	2784	3409	1948	2,35	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	FZ/ TZ	20,8	268
			R454C	670	890	1154	1470	1845	2290	2812	1614	2,15						
AJ4510P	18,3	CSR/ TRI	R455A	980	1303	1692	2160	2719	3381	4163	2343	2,39	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/ TZ	21,5	280
			R454C	806	1083	1417	1820	2303	2877	3556	2003	2,25						
AJ4513P	24,2	CSR/ TRI	R455A	1273	1701	2221	2852	3611	4519	5597	3094	2,45	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/ TZ	22,0	280
			R454C	1066	1450	1919	2488	3174	3996	4972	2743	2,39						
AJ4517P	25,95	CSR/ TRI	R455A	1408	1883	2449	3124	3926	4875	5991	3387	2,44	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/ TZ	23,0	280
			R454C	1249	1675	2182	2785	3500	4345	5340	3062	2,43						
AJ4519P	34,45	CSR/ TRI	R455A	1820	2390	3077	3903	4892	6070	7463	4225	2,35	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/ TZ	23,0	280
			R454C	1643	2162	2779	3513	4387	5420	6638	3845	2,30						

### LABEL

**Tecumseh** (P) **AJ4PK1JF603** (D)

**AJ4513P-FZ** (F)

220-240V ~ 50Hz (A) (C) (B)

LRA: 33

(G) (T) 52 F 1020 50 154109 A

COUNTRY OF ORIGIN : FRANCE-CESSIEU

THERMALLY PROTECTED

DATE 10jun20 (L)

TS(°C) -35/+46 (I)

PT(bar) 23.7 (J)

PS(bar) 21.5 (H)

Volume(l) 4.7 (M)

CE (K) 0060

52998C

REFERENCE	DESIGNATION
A	Voltage
B	Frequency
C	Number of phases
D	BOM
E	Refrigerant
F	Designation of the model
G	Serial number
H	Maximum allowable pressure
I	Minimum and maximum temperature
J	Pressure test 1.1* Ps
K	EC registration number
L	Test date
M	Free Volume



NWD0343



*Tecumseh*

# Compressor AK2

Best in Class Efficiency.

- ▶ Energy Efficient
- ▶ R290
- ▶ Highly reliable

## KEY FEATURES AND BENEFITS

### ▶ Eco-friendly

AK2 is optimized for use with eco-friendly refrigerant R290 (Propane)

### ▶ Proven reliability

Leverages robust design attributes developed from decades of commercial refrigeration experience

### ▶ Performance

New valve plate, suction muffler and motor specific R290 designs result in improved compressor efficiency



### ▶ Optimized noise level

New suction muffler and internal suspension system as well as new rounded housing combine to deliver significant improvements in sound quality

## APPLICATIONS

Reach-in, display cases, bottle coolers, beer coolers, ice machines, fermentation chambers...



## REFRIGERANT





# Compressor AK2

Best in Class Efficiency.

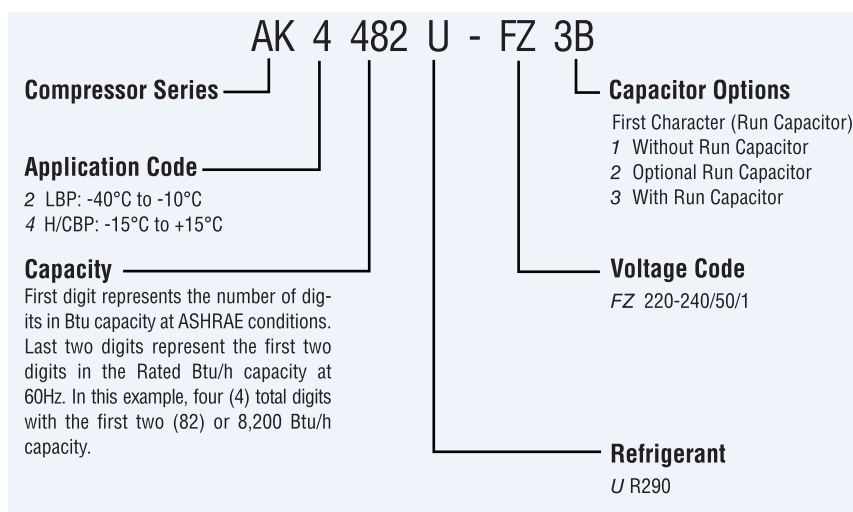
## COMPRESSOR INFORMATION

### Capacity range:

- ▶ LBP Capacity range:  
from 357 to 526 Watts
- ▶ HBP Capacity range:  
from 1100 to 1800 Watts

### Application:

- ▶ LBP temperature:  
-40°C to -10°C
- ▶ HBP temperature:  
-15°C to +15°C



## SPECIFICATIONS

LBP APPLICATION										
MODEL NUMBER	DIS-PLACE-MENT (cm <sup>3</sup> )	MOTOR TYPE	COOLING CAPACITY W&COP W/W		EVAPORATING TEMP RANGE	TUBE CONNECTIONS			WEIGHT (kg)	HEIGHT (mm)
			-35°C/40°C (SH=10K / SC=3K)			Suction (mm/inches)	Discharge (mm/inches)	Process (mm/inches)		
AK2424U-FZ	17,45	CSR	357	0,91	-40°C --> -10°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	16	220
AK2431U-FZ	20,4	CSR	418	0,90	-40°C --> -10°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	16	234
AK2447U-FZ	25,7	CSR	526	0,95	-40°C --> -10°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	16	234

HBP APPLICATION										
MODEL NUMBER	DIS-PLACE-MENT (cm <sup>3</sup> )	MOTOR TYPE	COOLING CAPACITY W&COP W/W		EVAPORATING TEMP RANGE	TUBE CONNECTIONS			WEIGHT (kg)	HEIGHT (mm)
			-10°C/45°C (SH=10K / SC=3K)			Suction (mm/inches)	Discharge (mm/inches)	Process (mm/inches)		
AK4482U-FZ	15,6	CSR	1093	2,10	-15°C --> +15°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	16	234
AK4492U-FZ	17,45	CSR	1222	2,08	-15°C --> +15°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	16	234
AK4511U-FZ	20,4	CSR	1428	2,02	-15°C --> +15°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	16	234
AK4514U-FZ	25,7	CSR	1799	2,04	-15°C --> +15°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	16	234



NWD0197



Tecumseh

# Compressor FH<sup>2</sup>

Efficient, compact, quiet.



## KEY FEATURES AND BENEFITS

- ▶ Energy Efficient
- ▶ Compact Solution
- ▶ Highly Reliable

### ▶ Performance

5 to 20% more energy efficiency, and better acoustics (1 - 3 dBA) quieter.

### ▶ Compact

One size for entire cooling capacity, up to 36 mm shorter compared to FH.

### ▶ Product offering

Models cover a wide cooling capacity in the same mounting footprint, and new FH4544Z.

### ▶ Robust & Reliable

Designed to meet the rigorous demands of commercial refrigeration applications where reliability is a must.



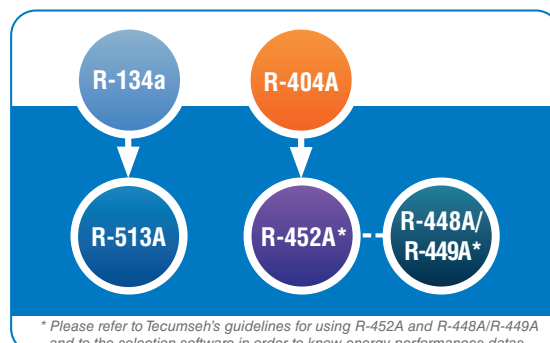
Available in tube & threaded connection

## APPLICATIONS

Walk-in cold rooms, refrigerated display cases, milk tanks and ice machines



## REFRIGERANTS



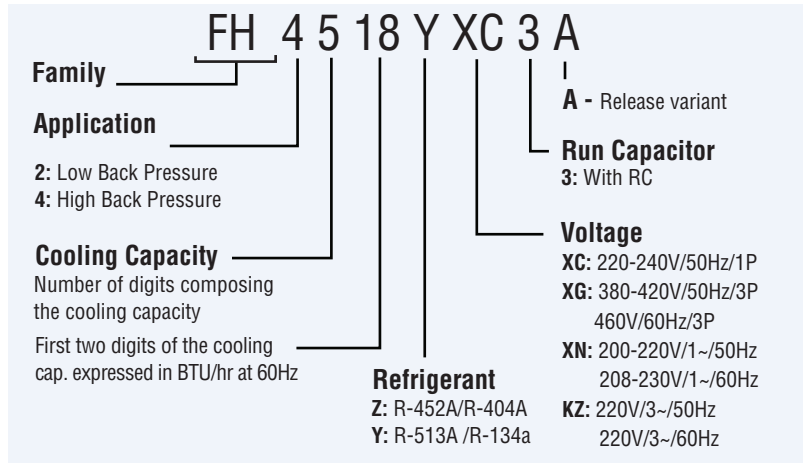


# Compressor FH<sup>2</sup>

Efficient, compact, quiet.



## COMPRESSOR MODEL NOMENCLATURE

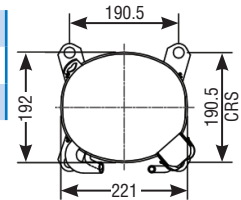


FH<sup>2</sup> 3 phase models will use new designation like FH2511Z-XG1A instead of TFH2511Z.  
 FH<sup>2</sup> compressors are available in XN, KZ voltage codes.

## SPECIFICATIONS

EVAP. RANGE	High Back / Low Back
REFRIGERANTS	R-404A, R-452A, R-448A*, R-449A*, R-513A, R-134a
COOLING CAP.	1000-6560 Watts
CONNECTIONS	Tubes / valves
OIL	Polyolester (POE)
FOOTPRINT	190.5 x 190.5mm
MOTOR TYPE	CSR / TRI

HEIGHT (mm)	
without grommets:	323
with grommets:	354



CRS: distance between centers of mountingholes

## RANGE

LBP APPLICATION			
EN12900 Evap. T. -35°C, Cond. T. 40°C, Subcooling 0°C, return gas 20°C, Mid/Mid			
REFRIG.	MODEL	COOL. CAP. (W)	EFFICIENCY (W/W)
XC - 220-240V/1P/50Hz			
R-452A	FH2480Z-XC3A	1169	1.05
	FH2511Z-XC3A	1672	1.13
R-448A/ R-449A*	FH2480Z-XC3C	1085	1.02
	FH2511Z-XC3A	1552	1.10
XG - 380-420V/50Hz/3 / 460/60Hz/3			
R-452A	FH2480Z-XG1A	1086	1.13
	FH2480Z-XG1A (60Hz)	1161	1.09
	FH2511Z-XG1A	1525	1.10
	FH2511Z-XG1A (60Hz)	1686	1.12
R-448A/ R-449A*	FH2480Z-XG1A	1008	1.11
	FH2480Z-XG1A (60Hz)	1078	1.06
	FH2511Z-XG1A (60Hz)	1416	1.07
FH2511Z-XG1A (60Hz)	1565	1.09	

HBP APPLICATION			
EN12900 Evap. T. -10°C, Cond. T. 45°C, Subcooling 0°C, return gas 20°C, Mid/Mid			
REFRIG.	MODEL	COOL. CAP. (W)	EFFICIENCY (W/W)
XC - 220-240V/1P/50Hz			
R-513A	FH4518Y-XC3A	2183	2.10
	FH4525Y-XC3A	2962	2.12
R-452A	FH4522Z-XC3A	2759	1.92
	FH4524Z-XC3A	2979	1.95
	FH4532Z-XC3A	3710	1.96
	FH4538Z-XC3A	4846	2.03
R-448A/ R-449A*	FH4522-XC3A	2762	1.94
	FH4524Z-XC3A	2972	1.95
	FH4532Z-XC3A	3710	1.98
FH4538Z-XC3A	4839	2.04	

HBP APPLICATION			
EN12900 Evap. T. -10°C, Cond. T. 45°C, Subcooling 0°C, return gas 20°C, Mid/Mid			
REFRIG.	MODEL	COOL. CAP. (W)	EFFICIENCY (W/W)
XG - 380-420V/50Hz/3 / 460/60Hz/3			
R-513A	FH4518Y-XG1A	2127	2.14
	FH4518Y-XG1A (60Hz)	2585	2.15
	FH4525Y-XG1A	2876	2.13
R-452A	FH4525Y-XG1A (60Hz)	3402	2.08
	FH4522Z-XG1A	2678	1.95
	FH4522Z-XG1A (60Hz)	3122	1.92
	FH4524Z-XG1A	2900	1.96
	FH4524Z-XG1A (60Hz)	3548	1.97
	FH4532Z-XG1A	3692	2.02
	FH4532Z-XG1A(60Hz)	4502	2.07
	FH4538Z-XG1A	4872	2.05
	FH4538Z-XG1A (60Hz)	5832	2.03
	FH4544Z-XG1A <b>NEW!</b>	5460	1.94
FH4544Z-XG1A (60Hz)	6465	1.95	
R-448A/ R-449A*	FH4522Z-XG1A	2633	1.99
	FH4522Z-XG1A (60Hz)	3074	1.97
	FH4524Z-XG1A	2851	2.00
	FH4524Z-XG1A (60Hz)	3489	2.01
	FH4532Z-XG1A	3624	2.07
	FH4532Z-XG1A(60Hz)	4420	2.12
	FH4538Z-XG1A	4782	2.09
	FH4538Z-XG1A (60Hz)	5721	2.07
	FH4544Z-XG1A <b>NEW!</b>	5356	1.98
	FH4544Z-XG1A (60Hz)	6341	1.99

⚠ **\* Please refer to Tecumseh's guidelines for using R-452A and R-448A/R-449A, and to the selection software in order to know energy performances datas.**





# FLEXY

Multi-refrigerant range. AJ, AG Compressors.  
One range designed for use with several refrigerants.  
HBP applications: R-452A, R-404A, R-448A/R-449A, R-134a, R-513A.  
LBP applications: R-452A, R-404A and R-448A/R-449A.

- ▶ Less models in stock
- ▶ Improved availability
- ▶ F-Gas compliance
- ▶ Multiple applications

## FEATURES

Nearly two years of testing has been devoted to the new refrigerants, insuring that product reliability and performance are in strict accordance with our standards.

This range, designed for use with several refrigerants, offers simplicity to both wholesalers and installers.

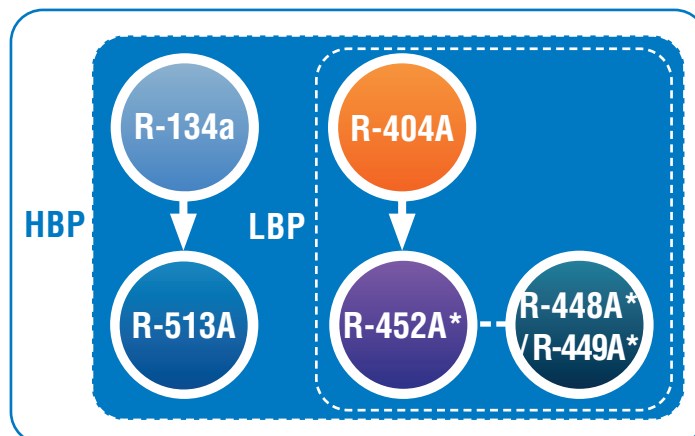


## APPLICATIONS

Primary applications: walk-in cold rooms and refrigerated display cases.  
Secondary applications: reach-in, ice machines, industrial process cooling.



## AUTHORISED REFRIGERANTS



\* Please refer to Tecumseh's guidelines for using R-452A and R-448A/R-449A and to the selection software in order to know energy performances datas.





# FLEXY

Multi-refrigerant range. AJ, AG Compressors.  
One range designed for use with several refrigerants.

## COMPRESSOR CROSS REFERENCE

Multi-refrigerant range and R-134a /R-404A equivalents

MULTI-REFRIGERANT RANGE	APPLI-CATION	VOL-TAGE	R-404A EQUIVALENT	R-134a EQUIVALENT
C/TAJ9480X	MHP	FZ / TZ	C/TAJ9480Z	C/TAJ4452Y
C/TAJ9510X	MHP	FZ / TZ	C/TAJ9510Z	C/TAJ4461Y
C/TAJ9513X	MHP	FZ / TZ	C/TAJ9513Z	C/TAJ4476Y
C/TAJ4517X	HBP	FZ / TZ	C/TAJ4517Z	C/TAJ4492Y
C/TAJ4519X	HBP	FZ / TZ	C/TAJ4519Z	C/TAJ4513Y
TAG4546X	HBP	TZ	TAG4546Z	TAG4528Y
TAG4553X	HBP	TZ	TAG4553Z	TAG4534Y
TAG4561X	HBP	TZ	TAG4561Z	TAG4537Y
TAG4568X	HBP	TZ	TAG4568Z	TAG4543Y
TAG4573X	HBP	TZ	TAG4573Z	TAG4547Y
TAG4581X	HBP	TZ	TAG4581Z	/

## + HBP RANGE AND PERFORMANCE

HBP MODEL	VOL-TAGE	Cooling Capacity Watt				
		R-404A	R-452A	R-448A/ R-449A	R-134a	R-513A
CAJ/TAJ9480X	FZ, TZ	1080	1052	1022	580	615
CAJ/TAJ9510X	FZ, TZ	1354	1318	1282	723	766
CAJ/TAJ9513X	FZ, TZ	1702	1657	1611	943	1000
CAJ/TAJ4517X	FZ, TZ	1929	1878	1826	1065	1129
CAJ/TAJ4519X	FZ, TZ	2515	2450	2381	1520	1612
TAG4546X	TZ	5086	4952	4811	3154	3344
TAG4553X	TZ	5796	5645	5485	3521	3733
TAG4561X	TZ	6623	6449	6269	3934	4171
TAG4568X	TZ	7899	7692	7474	4350	4612
TAG4573X	TZ	8532	8309	8073	4720	5005
TAG4581X	TZ	9435	9188	8930	5070	5376

Evaporating T° -10°C, condensing T° +45°C, sub cooling 3K, SH 10K.

## COMPRESSOR CROSS REFERENCE

Multi-refrigerant range and R-404A equivalents

MULTI-REFRIGERANT RANGE	APPLI-CATION	VOLTAGE	R-404A EQUIVALENT
CAJ2428X	LBP	FZ	CAJ2428Z
CAJ2432X	LBP	FZ	CAJ2432Z
CAJ2440X	LBP	FZ / TZ	C/TAJ2440Z
C/TAJ2446X	LBP	FZ / TZ	C/TAJ2446Z
C/TAJ2464X	LBP	FZ / TZ	C/TAJ2464Z
TAG2513X	LBP	TZ	TAG2513Z
TAG2516X	LBP	TZ	TAG2516Z
TAG2519X	LBP	TZ	TAG2519Z
TAG2522X	LBP	TZ	TAG2522Z
TAG2525X	LBP	TZ	TAG2525Z

## - LBP RANGE AND PERFORMANCE

LBP MODEL	VOLTAGE	Cooling Capacity Watt		
		R-404A	R-452A	R-448A/ R-449A
CAJ/TAJ2428X	FZ, TZ	252	233	214
CAJ/TAJ2432X	FZ, TZ	313	289	265
CAJ2440X	FZ	380	351	323
CAJ/TAJ2446X	FZ, TZ	515	475	437
CAJ/TAJ2464X	FZ, TZ	681	629	577
TAG2513X	TZ	1260	1164	1071
TAG2516X	TZ	1575	1434	1300
TAG2519X	TZ	1922	1800	1712
TAG2522X	TZ	2206	2038	1874
TAG2525X	TZ	2475	2286	2100

Evaporating T° -35°C, condensing T° +40°C, sub cooling 3K, SH 10K.







*Tecumseh*

- ▶ Solution long-term
- ▶ Low PRG (146)
- ▶ Low Flammability

# AJ<sup>2</sup> compressor

## HP - R455A / R454C

Qualified for A2L fluids.

### KEY FEATURES AND BENEFITS

▶ **Eco-friendly**

Optimised for operation with A2L-rated R455A and R454C refrigerants.

▶ **Low TEWI (global Impact on global warming)**

Lower energy consumption with these new refrigerants.

▶ **Proven reliability**

- Robust design fruit of decades of commercial refrigeration expertise.
- Life and performance tests carried out in our COFRAC accredited laboratory.



▶ **Large operating window**

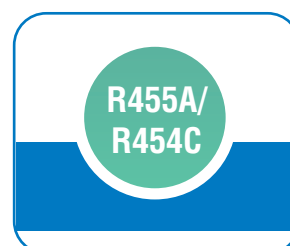
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### APPLICATIONS

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### REFRIGERANTS





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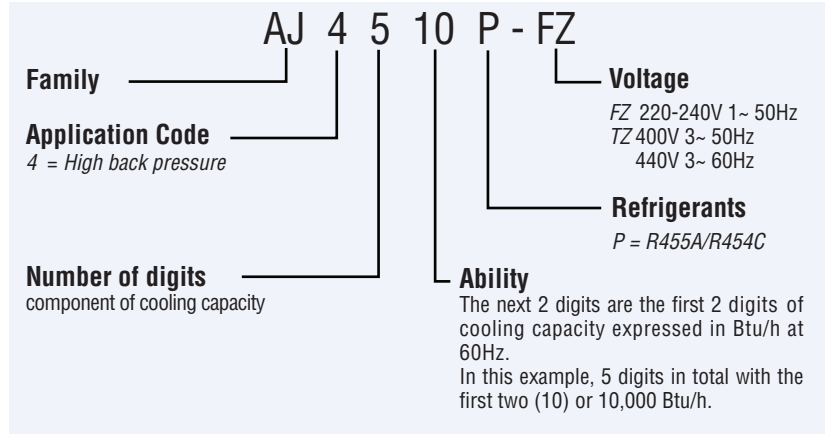
### NOMENCLATURE

#### Power range:

► from 1094 to 2390 Watts

#### Application(s) :

► from -15°C to 15°C



### SPECIFICATIONS

MODEL NUMBER	CYL. cm <sup>3</sup>	EN-GINE	RE-FRIG.	COOLING CAPACITY (W) 45° cond., 10K overheating, SR 3K, Mid/Mid							PERF.: EN12900 (-10°C / 50°C / RG 20°C / SC OK)		Diam. tubes O.D. (mm/inches)			Vol-tage	Weight (kg)	H (mm)
				Evaporation temperature (°C):							QPF (W)	COP (W/W)	Suction	Re-pression	of load			
				-15	-10	-5	0	5	10	15								
AJ4480P	15,2	CSR/ TRI	R455A	826	1094	1415	1797	2250	2784	3409	1948	2,35	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	FZ/ TZ	20,8	268
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AJ4519P	34,45	CSR/ TRI	R455A	1820	2390	3077	3903	4892	6070	7463	4225	2,35	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/ TZ	23,0	280
			R454C	1643	2162	2779	3513	4387	5420	6638	3845	2,30						

### LABEL



REFERENCE	DESIGNATION
A	Voltage
B	Frequency
C	Number of phases
D	BOM
E	Refrigerant
F	Designation of the model
G	Serial number
H	Maximum allowable pressure
I	Minimum and maximum temperature
J	Pressure test 1.1* Ps
K	EC registration number
L	Test date



NWD0343



Tecumseh

# Compresseur AJ<sup>2</sup>

## HP - R455A / R454C

Qualifié pour les fluides A2L.

### CARACTÉRISTIQUES ET BÉNÉFICES

- ▶ Solution à long terme
- ▶ Faible PRG (146)
- ▶ Faible inflammabilité

#### ▶ Eco-friendly

Optimisé pour un fonctionnement avec les réfrigérants R455A et R454C classés A2L.

#### ▶ Faible TEWI (Impact global sur le réchauffement climatique)

Consommation d'énergie plus faible avec ces nouveaux réfrigérants.

#### ▶ Fiabilité éprouvée

- Conception robuste fruit de dizaines d'années d'expertise en réfrigération commerciale.
- Tests de durée de vie et de performance réalisés dans notre laboratoire accrédité COFRAC.



#### ▶ Large fenêtre de fonctionnement

- Identique à celle obtenue avec les fluides de transition.
- Couvre l'ensemble des applications de froid positif.

### APPLICATIONS

Chambres froides, armoires et vitrines réfrigérées, distributeurs de boissons, machines à glaçons, chambres de fermentation...



### RÉFRIGÉRANTS



# Compresseur AJ<sup>2</sup> HBP - R455A / R454C

Qualifié pour les fluides A2L.

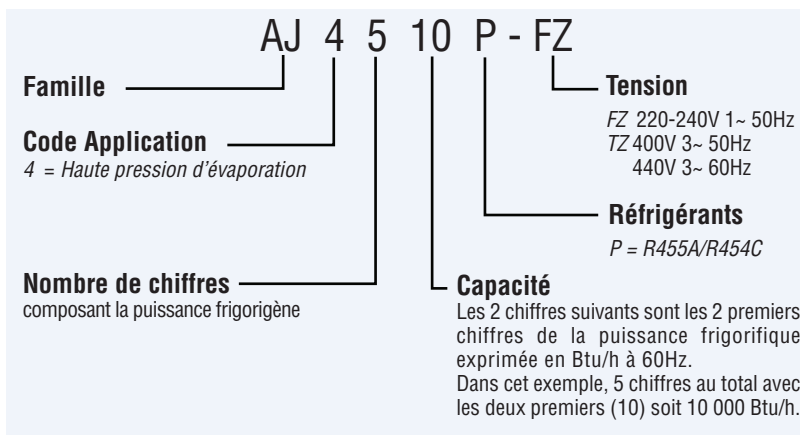
## NOMENCLATURE

### Plage de puissances :

► de 1094 à 2390 Watts

### Application(s) :

► de -15°C à +15°C



## SPÉCIFICATIONS

MODÈLE	CY-LIN-DRÉE cm <sup>3</sup>	MO-TEUR	RE-FRIG.	PUISANCE FRIGORIFIQUE (W) 45° cond., 10K surchauffe, SR 3K, Mid/Mid							PERFORMANCES: EN12900 (-10°C / 50°C / RG 20°C / SC OK)		Diam. tubes O.D. (mm/inches)			Ten-sion	Poids (kg)	H (mm)
				Température d'évaporation (°C) :							QPF (W)	COP (W/W)	Aspiration	Refou-lement	de charge			
				-15	-10	-5	0	5	10	15								
AJ4480P	15,2	CSR/ TRI	R455A	826	1094	1415	1797	2250	2784	3409	1948	2,35	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	FZ/TZ	20,8	268
			R454C	670	890	1154	1470	1845	2290	2812	1614	2,15						
AJ4510P	18,3	CSR/ TRI	R455A	980	1303	1692	2160	2719	3381	4163	2343	2,39	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/TZ	21,5	280
			R454C	806	1083	1417	1820	2303	2877	3556	2003	2,25						
AJ4513P	24,2	CSR/ TRI	R455A	1273	1701	2221	2852	3611	4519	5597	3094	2,45	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/TZ	22,0	280
			R454C	1066	1450	1919	2488	3174	3996	4972	2743	2,39						
AJ4517P	25,95	CSR/ TRI	R455A	1408	1883	2449	3124	3926	4875	5991	3387	2,44	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/TZ	23,0	280
			R454C	1249	1675	2182	2785	3500	4345	5340	3062	2,43						
AJ4519P	34,45	CSR/ TRI	R455A	1820	2390	3077	3903	4892	6070	7463	4225	2,35	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/TZ	23,0	280
			R454C	1643	2162	2779	3513	4387	5420	6638	3845	2,30						

## ETIQUETTE



RÉFÉRENCE	DÉSIGNATION
A	Tension
B	Fréquence
C	Nombre de phases
D	BOM
E	Réfrigérant
F	Désignation du modèle
G	Numéro de série
H	Pression maximale admissible
I	Température minimale et maximale
J	Test de pression 1.1* Ps
K	Numéro d'enregistrement CE
L	Date de test



NWD0342



*Tecumseh*

# AJ<sup>2</sup> compressor

## HP - R455A / R454C

Qualified for A2L fluids.

### KEY FEATURES AND BENEFITS

- ▶ Solution long-term
- ▶ Low GWP (146)
- ▶ Low Flammability

▶ **Eco-friendly**

Optimised for operation with A2L-rated R455A and R454C refrigerants.

▶ **Low TEWI (Total Equivalent Warning Impact)**

Lower energy consumption with these new refrigerants.

▶ **Proven reliability**

- Robust design fruit of decades of commercial refrigeration expertise.
- Life and performance tests carried out in our COFRAC accredited laboratory.



▶ **Large operating window**

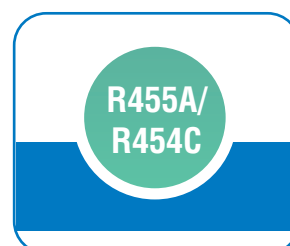
- Same as the one obtained with transition fluids.
- Covers all applications positive cold.

### APPLICATIONS

Cold rooms, refrigerated cabinets and display cases, beverage dispensers, ice machines, fermentation chambers, etc.



### REFRIGERANTS





# AJ<sup>2</sup> compressor

## HP - R455A / R454C

Qualified for A2L fluids.

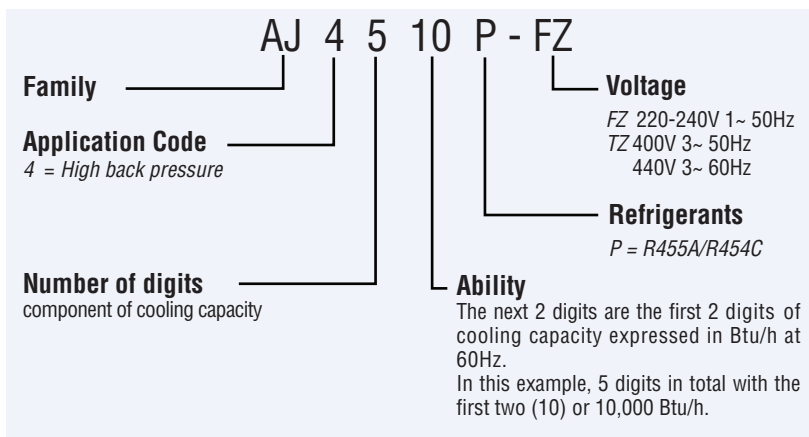
### NOMENCLATURE

#### Power range:

► from 1094 to 2390 Watts

#### Application(s) :

► Covers all applications positive cold. Unsure what this means as table shows operating range -15 to +15



### SPECIFICATIONS

MODEL NUMBER	CYL. cm <sup>3</sup>	EN-GINE	RE-FRIG.	COOLING CAPACITY (W) 45° cond., 10K overheating, SR 3K, Mid/Mid							PERF.: EN12900 (-10°C / 50°C / RG 20°C / SC OK)		Diam. tubes O.D. (mm/inches)			Vol-tage	Weight (kg)	H (mm)
				Evaporation temperature (°C):							QPF (W)	COP (W/W)	Suction	Re-pression	of load			
				-15	-10	-5	0	5	10	15								
AJ4480P	15,2	CSR/TRI	R455A	826	1094	1415	1797	2250	2784	3409	1948	2,35	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	FZ/TZ	20,8	268
			R454C	670	890	1154	1470	1845	2290	2812	1614	2,15						
AJ4510P	18,3	CSR/TRI	R455A	980	1303	1692	2160	2719	3381	4163	2343	2,39	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/TZ	21,5	280
			R454C	806	1083	1417	1820	2303	2877	3556	2003	2,25						
AJ4513P	24,2	CSR/TRI	R455A	1273	1701	2221	2852	3611	4519	5597	3094	2,45	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/TZ	22,0	280
			R454C	1066	1450	1919	2488	3174	3996	4972	2743	2,39						
AJ4517P	25,95	CSR/TRI	R455A	1408	1883	2449	3124	3926	4875	5991	3387	2,44	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/TZ	23,0	280
			R454C	1249	1675	2182	2785	3500	4345	5340	3062	2,43						
AJ4519P	34,45	CSR/TRI	R455A	1820	2390	3077	3903	4892	6070	7463	4225	2,35	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	FZ/TZ	23,0	280
			R454C	1643	2162	2779	3513	4387	5420	6638	3845	2,30						

### LABEL



REFERENCE	DESIGNATION
A	Voltage
B	Frequency
C	Number of phases
D	BOM
E	Refrigerant
F	Designation of the model
G	Serial number
H	Maximum allowable pressure
I	Minimum and maximum temperature
J	Pressure test 1.1* Ps
K	EC registration number
L	Test date



NWD0343



# Replacing FH compressor with new FH<sup>2</sup>



## KEY FEATURES AND BENEFITS

- ▶ Energy Efficient
- ▶ Compact Solution
- ▶ Highly Reliable

### ▶ Performance

5 to 20% more energy efficiency, and better acoustics (1 - 3 dBA) quieter.

### ▶ Unchanged footprint and lighter

- Same mounting footprint as current FH
- One size for entire cooling capacity up to 36mm shorter compared to FH

### ▶ Robust & Reliable

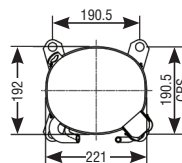
Designed to meet the rigorous demands of commercial refrigeration applications where reliability is a must.



## SPECIFICATIONS

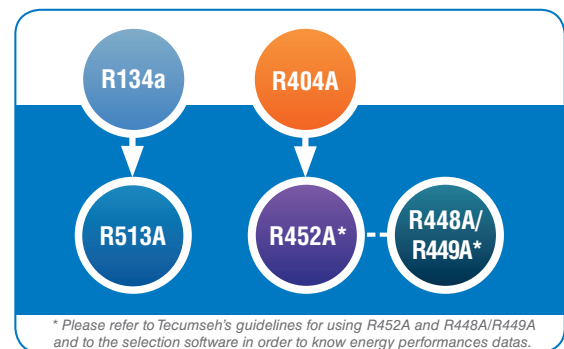
EVAP. RANGE	High Back / Low Back
MOUNTING FOOTPRINT	Same as previous FH's one
COOLING CAP.	1000-6560 Watts
CONNECTIONS	Tubes / valves
OIL	Polyolester (POE)
FOOTPRINT	190.5 x 190.5mm
MOTOR TYPE	CSR / TRI

HEIGHT (mm)	
without grommets:	323
with grommets:	354



CRS: distance between centers of mountingholes

## REFRIGERANTS

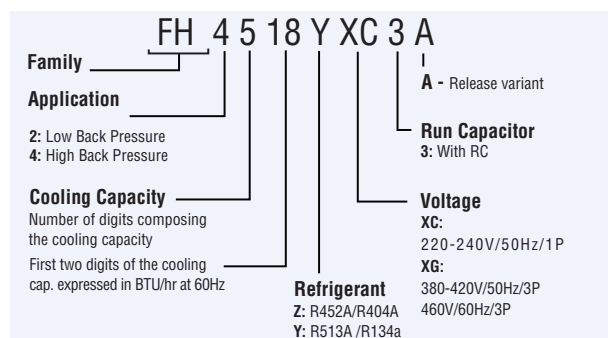


## COMPRESSOR MODEL NOMENCLATURE

▶ No more "T" to name the three-phase compressors.  
Ex: TFH2480Z-TZ -> FH2480Z-XG1A

▶ Voltage codes at the end of their designation differentiate 3 and 1 phase compressors

SINGLE PHASE	FH4538Z- <b>XC3A</b>
THREE PHASE	FH4538Z- <b>XG1A</b> FH4538Z- <b>KZ1A</b>



FH<sup>2</sup> 3 phase models will use new designation like FH2511Z-XG1A instead of TFH2511Z



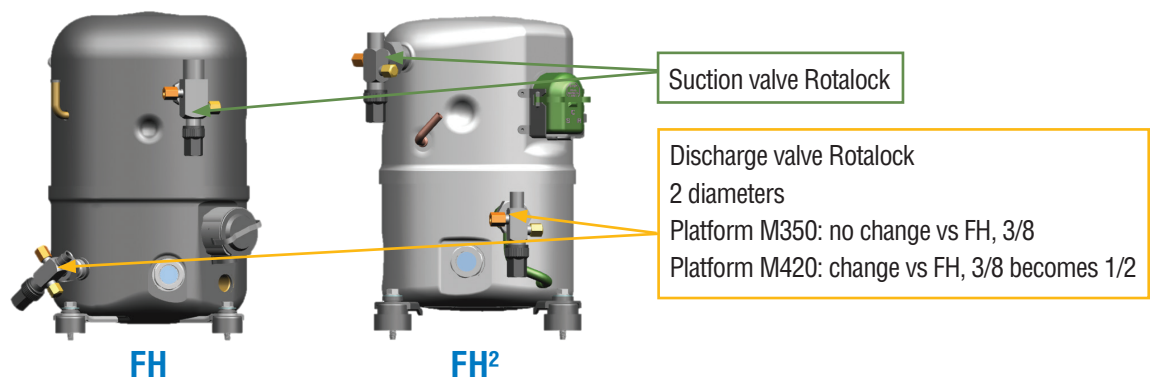
# Replacing FH compressor

What's different in new FH<sup>2</sup>

## EXPLANATIONS OF VOLTAGE RANGE AND CODE CHANGES

PHASE	1~		3~			
	FH	FH <sup>2</sup>	FH	FH <sup>2</sup>	FH	FH <sup>2</sup>
<b>Voltage code</b>	FZ	XC	TZ	XG	KZ	KZ
<b>Voltage</b>	220-240V ~50Hz	220-240V ~50Hz	400V ~50Hz	380-420V ~50Hz	220V ~50Hz/60Hz	220V ~50Hz/60Hz
<b>Frequency / Voltage range</b>	50Hz : 198 to 253V	50Hz : 198 to 254V	50Hz : 340 to 440V	50Hz : 342 to 462V	50Hz : 180 to 253V 60Hz : 187 to 264V	50Hz : 180 to 253V 60Hz : 187 to 264V

## VALVES CHANGES



Note: It's mandatory to replace the FH discharge Roto-Lock valve also while replacing FH compressor with new FH<sup>2</sup>.

## CROSS REFERENCE

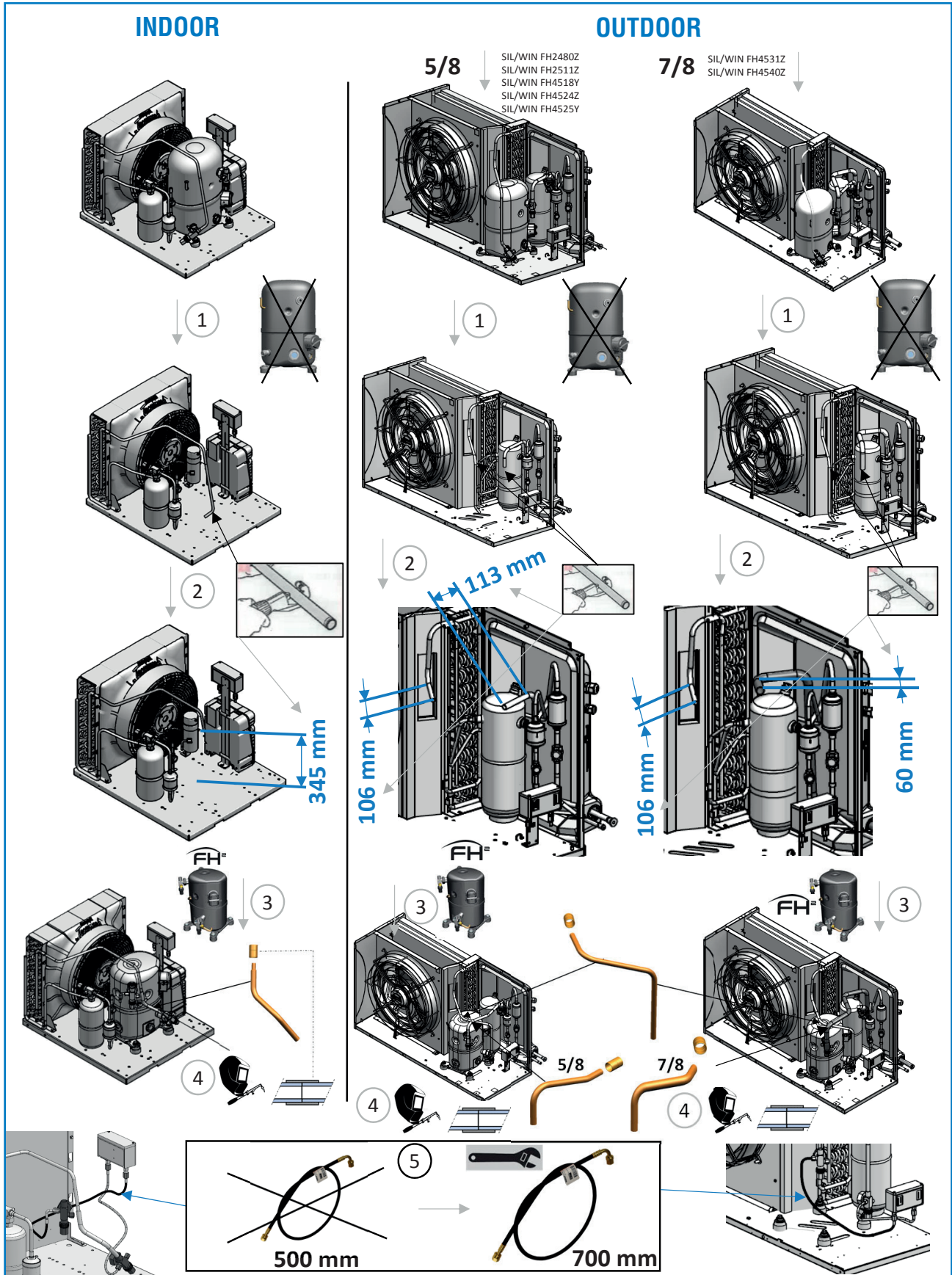
LBP R452A / R449A / R448A	
FH	FH <sup>2</sup>
TFH2480Z-KZ	FH2480Z-KZ1A
FH2480Z-FZ	FH2480Z-XC3A
TFH2480Z-TZ	FH2480Z-XG1A
TFH2511Z-KZ	FH2511Z-KZ1A
FH2511Z-FZ	FH2511Z-XC3A
TFH2511Z-TZ	FH2511Z-XG1A
HBP R134a / R513A	
TFH4518Y-TZ	FH4518Y- XG1A
FH4518Y-FZ	FH4518Y-XC3A
FH4525Y-FZ	FH4525Y-XC3A
TFH4525Y-TZ	FH4525Y-XG1A

HBP R452A / R449A / R448A	
FH	FH <sup>2</sup>
TFH4522Z-KZ	FH4522Z-KZ1A
FH4522Z-FZ	FH4522Z-XC3A
TFH4522Z-TZ	FH4522Z-XG1A
TFH4524Z-KZ	FH4524Z-KZ1A
FH4524Z-FZ	FH4524Z-XC3A
TFH4524Z-TZ	FH4524Z-XG1A
TFH4531Z-KZ	FH4532Z-KZ1A
FH4531Z-FZ	FH4532Z-XC3A
TFH4531Z-TZ	FH4532Z-XG1A
TFH4540Z-KZ	FH4538Z-KZ1A
FH4540Z-FZ	FH4538Z-XC3A
TFH4540Z-TZ	FH4538Z-XG1A



# with new FH<sup>2</sup>

## STEPS TO REPLACE FH COMPRESSOR WITH NEW FH<sup>2</sup> ON TECUMSEH CONDENSING UNIT



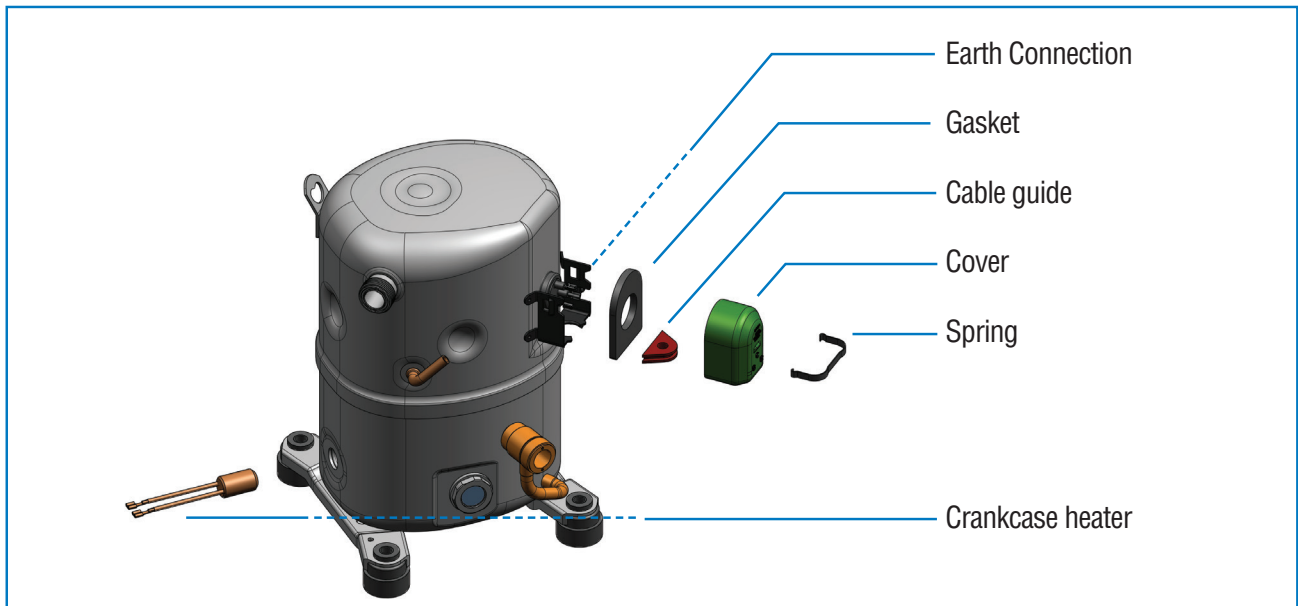
Note: Above pictorial explanation is not a detailed replacement guideline. Installer/technician replacing need to follow local regulations and good refrigeration installation practices.



# Replacing FH compressor with new FH<sup>2</sup>



## What's different in new FH<sup>2</sup>

### FH<sup>2</sup> COMPRESSOR



Note: The accessories silent block, gasket, cable guide, cover and spring are not assembled on compressor. They are supplied inside the single pack box of compressor.

### FH<sup>2</sup> CONVERSION KIT FOR FH CONDENSING UNITS

		DISCHARGE ADAPTOR		SUCTION ADAPTOR		BRAZE COPPER SLEEVE FF 3/8	BRAZE COPPER SLEEVE FF 1/2	BRAZE COPPER SLEEVE FF 5/8	BRAZE COPPER SLEEVE FF 7/8	FLEXIBLE PRESSO SWITCH BP	TECUMSEH PRODUCT CODE
		Ø 3/8	Ø 1/2	Ø 5/8	Ø 7/8	FF 3/8	FF 1/2	FF 5/8	FF 7/8	700MM	
INDOOR 	<b>TRADITIONAL KIT ALL SIZES</b>	x				x				x	8664150
	<b>WINTSYS/SILENSYS 5/8 KIT</b> FH2480Z FH2511Z FH4518Y FH4524Z FH4525Y		x	x			x	x		x	8664151
	<b>WINTSYS/SILENSYS 7/8 KIT</b> FH4531Z FH4540Z		x		x		x		x	x	8664152
OUTDOOR 	<b>WINTSYS/SILENSYS KIT</b> All sizes	x	x	x		x	x	x	x	x	8664153





Tecumseh

- ▶ High Efficiency
- ▶ Good Performances
- ▶ Long Term Solution

# Natural Refrigerant R290

Large Compressor range.

## KEY FEATURES AND BENEFITS

▶ **Eco-Friendly**

Optimized for use with eco-friendly refrigerant R290 (propane)

▶ **Good TEWI ( Total Equivalent Warming Impact)**

Natural refrigerant, less energy consumption than traditional refrigerant

▶ **Proven reliability**

Leverages robust design attributes developed from decades of commercial refrigeration experience

▶ **Performance**

Excellent thermal & physical characteristics, cooling capacity similar to current refrigerants

▶ **Easy to use**

No glide, low maximum pressure, refrigerant available and low cost



## APPLICATIONS

Reach-in, display cases, bottle coolers, beer coolers, ice machines, fermentation chambers...



## REFRIGERANT





# Natural Refrigerant R290

Large Compressor range.

## COMPRESSOR INFORMATION

### Capacity range:

- ▶ LBP Capacity range: from 46 to 720 Watts
- ▶ HBP Capacity range: from 370 to 2128 Watts

### Application(s):

- ▶ LBP temperature: -40°C to -10°C
- ▶ LMBP temperature: -35°C to -5°C
- ▶ HBP temperature: -15°C to +15°C

## SPECIFICATIONS

MODEL NUMBER	DIS-PLACEMENT (cm <sup>3</sup> )	MOTOR TYPE	COOLING CAP. W & COP W/W		COOLING CAP. W & COP W/W		EVAPORATING TEMP. RANGE	TUBE CONNECTIONS			WEIGHT (kg)	HEIGHT (mm)
			-35°C / 40°C (SH=10K/SC=3K)		-10°C / 45°C (SH=10K/SC=3K)			SUCTION (mm - inches)	DISCHARGE (mm - inches)	PROCESS (mm - inches)		
TCW330U	1,83	CSIR	46	0,82	135	1,98	-35°C --> -5°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	8,3	168
TCW350U	2,72	CSIR	68	0,83	210	2,02	-35°C --> -5°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	8,3	168
TCW360U	3,14	CSIR	78	0,85	230	1,94	-35°C --> -5°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	8,5	168
TCW380U	4,19	CSIR	105	0,83	328	1,87	-35°C --> -5°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	8,5	168
TCW390U	4,75	CSIR	126	1,00	376	2,14	-35°C --> -5°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	8,5	168
TC4425U	4,75	CSIR	/	/	370	1,80	-15°C --> +15°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	8,5	168
AE4425U	5,02	CSIR	/	/	331	1,62	-15°C --> +15°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	10	200
AE2410U	5,48	CSIR	99	0,70	399	1,7	-40°C --> -10°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	10,5	210
TCW410U	6,06	CSIR	145	0,98	444	2,28	-35°C --> -5°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	8,5	168
TC4430U	6,06	CSIR	/	/	473	2,02	-15°C --> +15°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	8,5	168
AE4430U	6,12	CSIR	/	/	397	1,66	-15°C --> +15°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	10,1	200
TCW413U	6,93	CSIR	177	1,03	493	2,18	-35°C --> -5°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	8,6	168
TC4440U	7,84	CSIR	/	/	542	1,63	-15°C --> +15°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	8,5	168
AE4440U	8,02	CSIR	/	/	525	1,71	-15°C --> +15°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	10,2	210
TCW415U	7,84	CSIR	197	0,95	572	1,95	-35°C --> -5°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	8,6	168
AE2415U	8,85	CSIR	160	0,81	588	1,71	-40°C --> -10°C	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	10,6	210
AE2420U	10,96	CSIR	238	0,90	752	1,63	-40°C --> -10°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	10,6	210
AE4450U	10,33	CSIR	/	/	709	1,75	-15°C --> +15°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	10,5	210
AE4460U	12,01	CSIR	/	/	765	1,63	-15°C --> +15°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	11,2	210
AEX424U	12,01	CSR	229	0,90	777	1,86	-35°C --> -5°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	11	208
AEX428U	13,24	CSR	244	0,89	828	1,85	-35°C --> -5°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	11	208
AEX433U	15,09	CSR	282	0,90	955	1,84	-35°C --> -5°C	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	11,3	208
CAJ2446U	26,2	CSR	510	0,97	1724	1,8	-40°C --> -10°C	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	22	268
CAJ4513U	25,95	CSR	/	/	1543	1,82	-15°C --> +15°C	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	21,9	280
CAJ4518U	34,45	CSR	/	/	2128	1,73	-15°C --> +15°C	12,7 - 1/2"	9,5 - 3/8"	6,35 - 1/4"	22,2	280
CAJ2464U	34,5	CSR	720	1,01	2265	1,75	-40°C --> -10°C	12,7 - 1/2"	9,5 - 3/8"	6,35 - 1/4"	23	268
HGA4467U	9,5	CSIR	/	/	728	2,11	-15°C --> +15°C	9,5 - 3/8"	7,9 - 5/16"	/	12	163
HGA4492U	12,75	CSIR	/	/	980	2,16	-15°C --> +15°C	12,7 - 1/2"	7,9 - 5/16"	/	12,5	163
HGA4512U	16,12	CSIR	/	/	1263	2,18	-15°C --> +15°C	12,7 - 1/2"	7,9 - 5/16"	/	13,2	163

