

COMMERCIAL
REFRIGERATION

AJ²
Series compressor

REFERENCE GUIDE

Customer use

IMPROVED EFFICIENCY

QUIET OPERATION

ECO-FRIENDLY

41 24

2 10

41

41 24

2 10

41

38:4

12:RE

W

**OPTIMIZED FOR
HFO & HC REFRIGERANTS**



Built for Today. Ready for Tomorrow.

Cooling for a Better Tomorrow™

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Introduction

Why a new AJ²?

The AJ is essential to commercial refrigeration business. Therefore, Tecumseh has invested in the next generation AJ, the AJ².

The main features of the AJ² include:

- Compactness with reduced housing height and acoustic level
- Highest Reliability
- New Refrigerant Compliance
- Tubing and Valve Connection Versatility
- Easy and Safe Electrical Connection

Current situation:

Various market drivers:

- Refrigerant legislation
- Energy requirements

Physical size of the compressor, mechanical reliability and robustness are key attributes of the current AJ and are highly desired by commercial refrigeration and service technicians. These attributes have been retained within the new AJ² platform.

What is the same?

- Tecumseh is a recognized leader in commercial refrigeration
- Tecumseh has a large OEM installed product base, for replacement opportunity.
- The AJ² is compatible (designed as a replacement for the AJ) with the AJ in terms of mounting footprint, tube position, physical size, electrical ratings and cooling capacity.
- Tecumseh AJ² predecessor, the AJ is known worldwide as an industry leader in product reliability
- Condensing Units and Replacement compressors facilitating ease of change out on new applications.
- There are no changes to the Wholesale Warranty and/or Return Process for AJ²
- Our plan is to return our existing certifications
- Compressor model number will not change except for AJ4517E, it will become AJ4517T.

What is different?

In order to improve our competitive position, the following elements have been addressed with the AJ²:

- New valve plate, suction and discharge muffler added to allow for the use of Low GWP refrigerant R290 today and in the future the HC blends
- The AJ² R404A HBP range is able to be used with R407A/F refrigerants but without any warranty*
- The AJ² R134a HBP range is able to be used with R1234yf refrigerant
- Redesigned housing results in reduced compressor height and lower sound level
- Moulded electrical plug, reduces assembly time and potential wiring errors
- Internal overload protector incorporated into the motor assembly, improves the overall motor protection for three-phase compressors
- Addition of a Brazed Oil Tube Equalization for Tandem or Rack (Multiple) applications

*Please consult our Retrofit for Positive and Medium Refrigerating Systems available on Tecumseh Europe Website Library: <http://www.tecumseh.com/~media/Europe/Files/Guidelines-and-Recommendations>)



Value Proposition

WHICH VALUE	Which Way
COMPACTNESS	Horizontal suction tubing instead of vertical
	Height – 12 mm on existing and 24 mm for R290
INTERCHANGEABILITY	Same footprint
	Same electric components
	Same certification approvals
	Same cooling capacity for the operating envelope
	Same efficiency
	Equivalent or even less acoustic level
	Same standard oil
ACOUSTIC IMPROVEMENT	Thanks to new housing
	Thanks to new suction muffler for R290
	New valve plate for R290
	New discharge muffler for R290
REFRIGERANT VERSABILITY	Expanded range of refrigerants R290, R1234yf, R407A/F
Te-Connect moulded electrical plug	Reduced installation time
	Tecumseh patented
	Unique on the market
	Minimize wiring errors
IMPROVED QUALITY	Ensured with the same proven electrical and mechanical parts
	Internal overload for the 3-phase compressor
	Te-Connect minimizes wiring errors
	Increased automation process (automatic brazing, welding)
	New shell PED approved
HIGHEST RELIABILITY	Proven AJ reliability experience
	New internal suspension leads to vibration reduction
	New internal suspension leads to increased life time for more than 5 times
SAFER 3-PHASE	Already connected inside compressor
	Safety improved due to no external connection
ENHANCED EFFICIENCY	The same efficiency (for existing models)
	Improved efficiency with new refrigerants by new valve plate and refrigerant gas handling

Features and Benefits

SAFE AND EASY ELECTRICAL CONNECTION

Patented moulded plug virtually eliminates wiring errors, reduces installation time and improves enclosure rating.

COMPACTNESS

Redesigned housing lowers height for most of the range. Maximum housing height for models available with new refrigerants will be 268 mm.

ECO-FRIENDLY

Designed for optimum performance with "green" HC (Hydrocarbon) refrigerant R290 (propane) and HFO (R1234yf).

PERFORMANCE

Re-designed valve plate and refrigerant gas handling result in improved compressor efficiency.

LOW NOISE

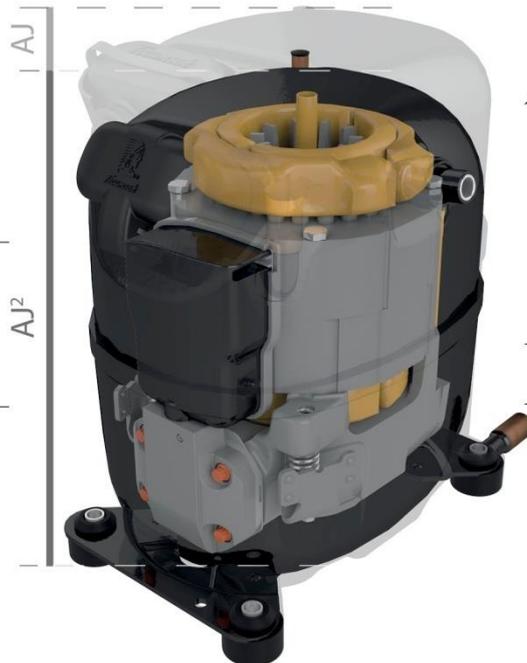
Redesigned housing and suction/discharge muffler system lowers the overall sound level.

VERSATILE

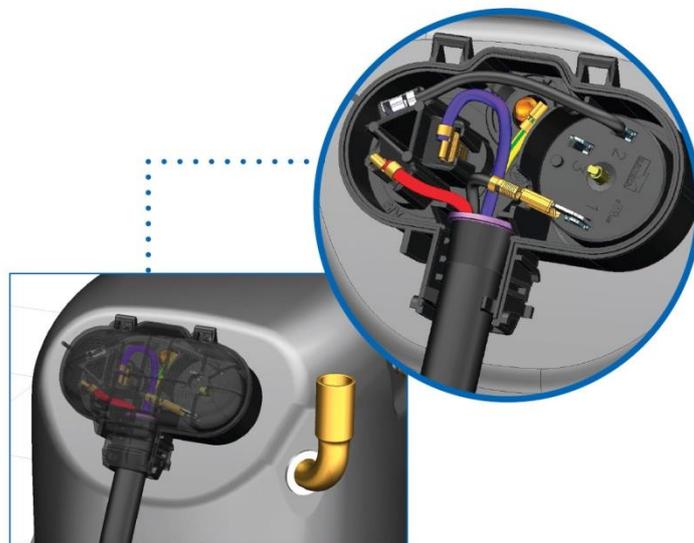
A variety of suction and discharge connection diameters and types (valve or tube) are offered to facilitate easy installation and serviceability.

PROVEN RELIABILITY

Over 20 million AJ compressors currently in operation in normal to severe duty applications.



Te-Connect



▶ **Safe and Secure Connection**

- Virtually eliminates wiring errors
- Electrical insulation required for HC refrigerants
- Earth ground integrated

▶ **Time is Money**

- Connect compressor wiring in less than 2 seconds
- A real Plug-&-Play function
- Requires fewer components to inventory

▶ **Added Value**

- Tecumseh knowledge
- Unique and powerful connection
- Also useful for OEM and contractors

Market Environment

Legislation

In Europe, the **F-Gas initiative** has accelerated the phase-out of high GWP refrigerants R404A and R134a, the two common refrigerants currently in use for commercial refrigeration applications.

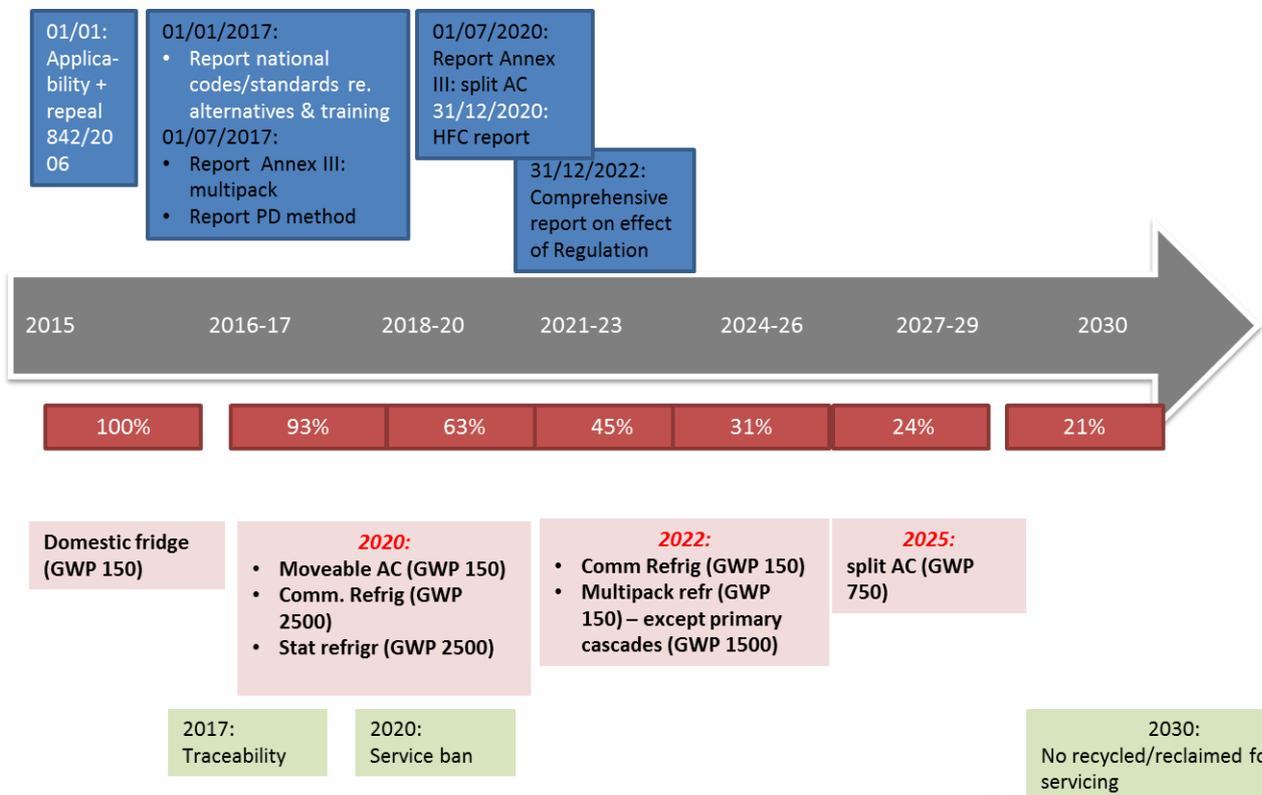
The most concern refrigerant will be the R404A as the GWP is above 2500.

Even if the F-Gas is present only for European Countries it will provide the impetus for other developed countries including the United States.

Other regions like Australia already implemented a tax policy on R404A refrigerant.

The USA are already testing a AHRI low GWP program, which is cooperative research effort to identify suitable alternatives to high GWP refrigerants and will create a good database for gas refrigerants selection.

Key time frame from European Parliament: Institutional next step



The PED (Pressure Equipment Directive)

The Pressure Equipment Directive (97/23/EC) was adopted by the European Parliament and the European Council in May 1997.

From 30 May 2002 the pressure equipment directive is obligatory throughout the EU. The directive provides, together with the directives related to simple pressure vessels (2009/105/EC), transportable pressure equipment (99/36/EC) and Aerosol Dispensers (75/324/EEC), for an adequate legislative framework on European level for equipment subject to a pressure hazard.

All the refrigerants are classified into 2 different groups:

- Group 1: explosive and flammable refrigerants like R290 and R600a
- Group 2: other refrigerants like R134a, R404A....

According to PED all compressors are classified into 2 different categories depending on internal free volume and the refrigerant pressure (inside the housing when the compressor is off with ambient temperature 46°C):

- Category 1: without any specific test
- Category 2: with specific test on housing resistance: static and alternative pressure

The AJ² range working with R290, is classified in Category 2 of Pressure Directive Equipment.

To be compliant with, Tecumseh made significant process investment with re-designed housing and improved steel quality, in addition with an improved welding process.

AJ² Compressor Range and Performances

R404A COMMERCIAL POSITIVE REFRIGERATION

COMMERCIAL POSITIVE REFRIGERATION																
Model Number	Displacement cm ³	Motor Type	Cooling Capacity (Watt)*							EN 12900 Evap Temp -10 °C		Tube Connections			Weight kg	Height mm
			Evaporating Temperature (°C)							P input (Watt)	COP (W/W)	Suction (mm/ inches)	Discharge (mm/ inches)	Process (mm/ inches)		
			-15	-10	-5	0	+5	+10	+15							

R404A HBP	CAJ/TAJ9480Z	15,2	CSR/TRI	920	1159	1434	1752	2117	2535	3013	692	1,67	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	20	268
	CAJ/TAJ9510Z	18,3	CSR/TRI	1158	1453	1794	2187	2639	3157	3749	844	1,72	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	21	280
	CAJ/TAJ9513Z	24,2	CSR/TRI	1423	1827	2290	2819	3422	4106	4879	990	1,85	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	22	280
	CAJ/TAJ4517Z	25,95	CSR/TRI	1648	2070	2552	3104	3736	4459	5283	1122	1,84	15,9 - 5/8"	9,5 - 3/8"	6,35 - 1/4"	22	280
	CAJ/TAJ4519Z	34,45	CSR/TRI	2129	2699	3342	4069	4896	5833	6896	1595	1,69	15,9 - 5/8"	9,5 - 3/8"	6,35 - 1/4"	22	280**

* Cooling capacity (Watt) at EN12900 Rating Conditions (+45 °C Condensing Temperature, 0K Sub-cooling, +20 °C Return Gas) - ** Excepted KZ voltage: 292 mm /11,5 inches

R-404A COMMERCIAL NEGATIVE REFRIGERATION

COMMERCIAL NEGATIVE REFRIGERATION																
Model Number	Displacement cm ³	Motor Type	Cooling Capacity (Watt)*							EN 12900 Evap Temp -35 °C		Tube Connections			Weight kg	Height mm
			Evaporating Temperature (°C)							P abs (Watt)	COP (W/W)	Suction (mm/ inches)	Discharge (mm/ inches)	Process (mm/ inches)		
			-35	-30	-25	-20	-15	-10								

R404A LBP	CAJ/TAJ2428Z	15,2	CSIR/TRI	306	434	589	773	991	1246	368	0,83	12,7 - 1/2"	6,35 - 1/4"	6,35 - 1/4"	19	268
	CAJ/TAJ2432Z	18,3	CSR/TRI	381	542	738	971	1247	1567	417	0,91	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	20	268
	CAJ2440Z	21	CSR/TRI	463	647	870	1135	1446	1807	499	0,93	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	21	280
	CAJ/TAJ2446Z	26,2	CSR/TRI	627	859	1133	1451	1819	2241	604	1,04	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	21	280
	CAJ/TAJ2464Z	34,5	CSR/TRI	828	1116	1459	1864	2336	2882	845	0,98	15,9 - 5/8"	9,5 - 3/8"	6,35 - 1/4"	22	280**

* Cooling capacity (Watt) at EN12900 Rating Conditions (+40 °C Condensing Temperature, 0K Sub-cooling, +20 °C Return Gas) - ** Excepted KZ voltage: 292 mm/11,5 inches



R134a COMMERCIAL POSITIVE REFRIGERATION

COMMERCIAL POSITIVE REFRIGERATION																
Model Number	Displacement cm ³	Motor Type	Cooling Capacity (Watt)*							EN 12900 Evap Temp -10 °C		Tube Connections			Weight kg	Height mm
			Evaporating Temperature (°C)							P input (Watt)	COP (W/W)	Suction (mm/ inches)	Discharge (mm/ inches)	Process (mm/ inches)		
			-15	-10	-5	0	+5	+10	+15							

R134a HBP	CAJ/TAJ 4452Y	15,2	CSIR/TRI	443	607	799	1026	1293	1606	1972	399	1,52	12,7 - 1/2"	6,35 - 1/4"	6,35 - 1/4"	18	268
	CAJ/TAJ 4461Y	18,3	CSIR/TRI	574	756	977	1243	1560	1934	2372	472	1,60	12,7 - 1/2"	6,35 - 1/4"	6,35 - 1/4"	18	268
	CAJ/TAJ 4476Y	22,8	CSIR/TRI	652	888	1163	1484	1856	2287	2781	557	1,59	12,7 - 1/2"	6,35 - 1/4"	6,35 - 1/4"	18	268
	CAJ/TAJ 4492N	25,9	CSIR/TRI	825	1115	1452	1847	2307	2841	3457	649	1,72	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	20	280
	CAJ/TAJ 4511N	32,7	CS R/TRI	1135	1496	1913	2397	2956	3599	4335	766	1,95	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	21	280
	CAJ/TAJ 4513N	34,45	CSR/TRI	1214	1591	2028	2533	3118	3791	4562	844	1,89	15,9 - 5/8"	7,9 - 5/16"	6,35 - 1/4"	21	280

R1234yf COMMERCIAL POSITIVE REFRIGERATION

COMMERCIAL POSITIVE REFRIGERATION																
Model Number	Displacement cm ³	Motor Type	Cooling Capacity (Watt)*							EN 12900 Evap Temp -10 °C		Tube Connections			Weight kg	Height mm
			Evaporating Temperature (°C)							P input (Watt)	COP (W/W)	Suction (mm/ inches)	Discharge (mm/ inches)	Process (mm/ inches)		
			-15	-10	-5	0	+5	+10	+15							

R1234yf HBP	CAJ/TAJ 4492N	25,9	CSIR/TRI	881	1162	1478	1834	2239	2698	3219	701	1,66	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	20	280
	CAJ/TAJ 4511N	32,7	CSR/TRI	1157	1489	1866	2293	2776	3318	3926	798	1,87	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	21	280
	CAJ/TAJ4513N	34,45	CSR/TRI	1207	1543	1926	2365	2866	3436	4084	857	1,80	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	21	280

R290 COMMERCIAL NEGATIVE REFRIGERATION

COMMERCIAL NEGATIVE REFRIGERATION																
Model Number	Displacement cm ³	Motor Type	Cooling Capacity (Watt)*							EN 12900 Evap Temp -35 °C		Tube Connections			Weight kg	Height mm
			Evaporating Temperature (°C)							P abs (Watt)	COP (W/W)	Suction (mm/ inches)	Discharge (mm/ inches)	Process (mm/ inches)		
			-35	-30	-25	-20	-15	-10								

R290 LBP	CAJ2446U	26,2	CSR	628	852	1083	1322	1612	1973	538	1,17	12,7 - 1/2"	7,9 - 5/16"	6,35 - 1/4"	22	268
	CAJ2446U	34,5	CSR	827	1122	1427	1742	2124	2599	709	1,17	12,7 - 1/2"	9,5 - 3/8"	6,35 - 1/4"	23	268

AJ² Compressor Model Nomenclature

C	AJ	4	4	92	- Y	FZ
Stator Definition	Compressor Family (First Two Digits)	Application	Digit Number	Cooling Capacity	Refrigerant	Voltage

No letter = single-phase low starting torque

C = single-phase high starting torque

T = three-phase

Number of digits composing the cooling capacity

Corresponding to the two first figures of the cooling capacity expressed in BTU/h

In this example total digits 4, with cooling capacity 92 means 9200 BTU/h at 60 Hz

Primary Refrigerants

A = R12
B = R410A
C = R407C
E/T = R22
H = R1234yf
N = R134a/R1234yf
U = R290
Y = R134a
Z = R404A/R507

Primary Application Parameters		
Evap Temperature	Rating Point	Motor Starting Torque
1. Low	-23,3 °C / -10 °F	Normal
2. Low	-23,3 °C / -10 °F	High
3. High	+7,2 °C / +45 °F	Normal
4. High	+7,2 °C / +45 °F	High
5. Air Cond	+7,2 °C / +45 °F	Normal
6. Medium	-6,6 °C / +20 °F	Normal
7. Medium	-6,6 °C / +20 °F	High
8. Air Cond	+9,4 °C / +49 °F	Normal
9. Commercial	-6,6 °C / +20 °F	High
0. Commercial	-6,6 °C / +20 °F	Normal

Approved Voltage	
CZ = 208/50/1 - 230/60/1	
FZ = 220-240/50/1	
GZ = 208-220/50/1	
HZ = 208-220/60/1	
KZ = 220/50/3 - 220/60/3	
TZ = 400/50/3 - 440/60/3	
XA = 100/50/1 - 115/60/1	
XD = 200/50/1 - 208-230/60/1	
XV = 265/60/1	
WZ = 208/230/50/1 - 220-230/60/1	

AJ² SERIAL LABEL

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

1 Bill of Material Number	5 Maximum Allowable Pressure
2 Model Number	6 Minimum and Maximum Temperature
3 Appropriate Refrigerant	7 Test Pressure (1,1 x PS)
4 Serial Number	8 Test Date

AJ² Technical Data

For existing refrigerants R404A, R134a, R22 technical data remain the same.

For new refrigerants R290 and R1234yf please see below:

Compresseur / Compressor
Code tension / Voltage code : FZ

CAJ4492N-FZ

Froid commercial et industriel positif (HP)
Commercial & industrial application (HBP)

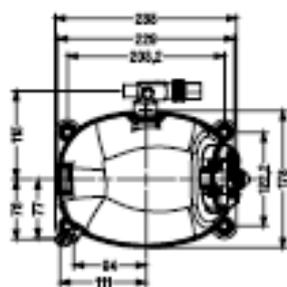
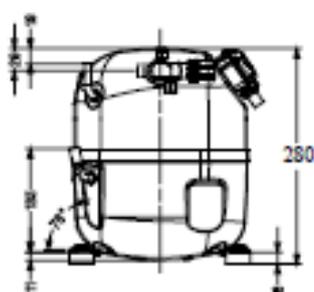
220-240V / 50Hz - 1-

R1234yf / R134a

N° 214LS-FZ - ind a

Conditions	Fluide/fréquence fluid / frequency	Prod frigorifique nominale / nominal refrigerating capacity			Puis. sonore Sound level
		Watts	Kcal/h	BTU/h	
EN12900*	R1234yf 50 Hz	2036	1751	6947	190 3145 / 190 3143-1
EN12900*	R134a 50 Hz	2108	1813	7188	

57 dBA



Cylindree / Displacement : 25.95 cm³
Poids net / Net weight : 19.9 Kg
Charge en huile / Oil charge : 475 cm³
Type d'huile / Oil type : P.O.E /
Détente / Expansion device : Capillaire/Détendeur
Capillary/Exp. valve
Refroidissement / Cooling : Ventilé / Forced
Résistance à 20° C / Windings resistances at 20° C
Phase princ. / Main Winding : 2.9 Ohms
sec. / Auxiliary Winding : 12.8 Ohms
Intensité / Current :
nom. / Rated current I.R.A. : 5.7 A
max. / Max current : 8.9 A
dem. / Start current I.R.M. : 28 A
Eq. électrique / Electrical equipment : CSIR
Protecteur / Overload : MST18AIN
Temporisation / Time Check : 7.5s - 14s / 20.7 A
T° ouverture / Opening temp. : 120° C
fermeture / Closing temp. : 69° C
Option / optional : T0750
Relais Intensité / Current relay : MTRPH0033
enclenchement / Pick up : 15,2A
déclenchement / Drop out : 12,9A
Option / optional : 3ARR18A98B
Condensateur dem. / Start capacitor : 64 µF / 330 V

* EN 12900: T°cond.+50°C / T°évap. +5°C / T°gas aspirés. -20°C /
Sous refroidissement. OK
* EN 12900: Cond. T° +50°C / Evap. T° +5°C / Return gas T° +20°C /
Subcooling. OK

Pour conduites Ø ext / For tubing O.D.

Aspiration Suction	Refoisement Discharge	Charge Process
12.7 (1/2")	7.9 (5/16")	6.35 (1/4")

Les caractéristiques données dans cette fiche technique peuvent varier sans avis préalable, sans les modifications que "TECUMSEK ELECTRIC" entend toujours apporter à sa production.
"TECUMSEK ELECTRIC" se réserve le droit de modifier sans préavis les données techniques contenues dans les bulletins sans préavis.



Tecumseh



CAJ4492N-FZ	Tension FZ : 220 - 240V 1- 50 Hz	R1234yf	N°214LS-FZ	Ind a
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Les performances sont données dans les conditions EN 12900 :
Elles sont certifiées uniquement en 50 Hz

The performance data are in EN 12900 conditions :
They are only certified in 50 Hz

Gez aspirés : 20°C
Sous refroidissement : 0°C

Refrigerant : 20°C
Subcooling : 0°C

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50 Hz R1234yf											
4 T _c condensation	5 T _e évaporation (°C)		-25	-20	-15	-10	-5	0	5	10	15
30	1 P frigorifique (W)	650	911	1197	1572	1986	2323	2611	3368	3999	
	2 P absorbée (W)	461	526	581	628	673	717	764	818	881	
	3 I absorbée (A)	4.01	4.2	4.37	4.62	4.87	4.8	4.92	5.02	5.12	
40	1 P frigorifique (W)	483	734	989	1297	1623	2004	2437	2938	3489	
	2 P absorbée (W)	438	533	613	682	744	802	859	919	985	
	3 I absorbée (A)	3.68	4.38	4.92	5.66	6.32	6.15	6.36	6.57	6.76	
50	1 P frigorifique (W)	539	829	1117	1458	1830	2261	2736	3261	3843	
	2 P absorbée (W)	505	618	714	794	861	911	956	1030	1108	
	3 I absorbée (A)	4.25	4.42	4.77	5.11	5.43	5.74	6.04	6.33		
60	1 P frigorifique (W)	580	901	1215	1585	2034	2511	3022	3571	4168	
	2 P absorbée (W)	560	680	785	868	945	1045	1141	1238		
	3 I absorbée (A)	4.74	4.79	5.25	5.85	6.08	6.46	6.84			

1 - refrigerating capacity 2 - watt input 3 - current 4 - condensing temperature 5 - evaporating temperature

Lorsque le système frigorifique est chargé avec le fluide R1234yf, une étiquette conforme à la norme ISO7010 devra être apposée sur le compresseur. Elle sera toujours visible et signalera la nature inflammable du fluide.

If the refrigerating system should run with refrigerant R1234yf, a label in accordance with ISO7010 would be stuck on the compressor. It would always be visible and it would have a sign for "flammable fluid".

Note : Les caractéristiques données dans cette fiche technique peuvent évoluer sans avis préalable, avec les améliorations que "TECUMSEH EUROPE" entend toujours apporter à sa production.

Note : "TECUMSEH EUROPE", in a constant endeavour to improve its products reserves the right to change any information contained in this leaflet without prior warning.

CAJ4492N-FZ	Tension FZ : 220 - 240V 1- 50 Hz	R134a	N°214LS-FZ.	Ind a
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Les performances sont données dans les conditions EN 12900 : Elles sont certifiées uniquement en 50 Hz	Gez aspirés : 20°C Sous refroidissement : 0°K
The performance data are in EN 12900 conditions : They are only certified in 50 Hz	Return gas : 20°C Subcooling : 0°K

Tecumseh Europe

		50 Hz R134a									
4 (T condensation)	5 (T évaporation) (°C)		-25	-20	-15	-10	-5	0	5	10	15
30	1) P frigorifique (W)		592	828	1113	1465	1824	2298	2845	3514	4334
	2) P absorbée (W)		415	479	538	594	638	680	723	764	804
	3) I absorbée (A)		4.32	4.39	4.47	4.58	4.7	4.85	5.01	5.2	5.4
40	1) P frigorifique (W)		664	925	1230	1584	1954	2315	2667	3081	3444
	2) P absorbée (W)		483	562	634	701	763	823	880	935	995
	3) I absorbée (A)		4.37	4.53	4.71	4.81	4.93	5.07	5.21	5.32	5.5
50	1) P frigorifique (W)				722	968	1313	1681	2108	2603	3174
	2) P absorbée (W)				569	667	769	834	915	993	1068
	3) I absorbée (A)				4.55	4.81	5.08	5.37	5.69	6.02	6.37
60	1) P frigorifique (W)					748	1028	1348	1711	2133	2619
	2) P absorbée (W)					652	772	886	994	1098	1198
	3) I absorbée (A)					4.87	5.22	5.56	5.97	6.38	6.81

1 - refrigerating capacity 2 - watt input 3 - current 4 - condensing temperature 5 - evaporating temperature

Nota : Les caractéristiques données dans cette fiche technique peuvent évoluer sans avis préalable, avec les améliorations que "TECUMSEH EUROPE" entend toujours apporter à sa production.

Note : "TECUMSEH EUROPE", in a constant endeavor to improve its products reserves the right to change any information contained in this leaflet without prior warning.



Compresseur / Compressor
Code tension / Voltage code : FZ

CAJ4511N-FZ

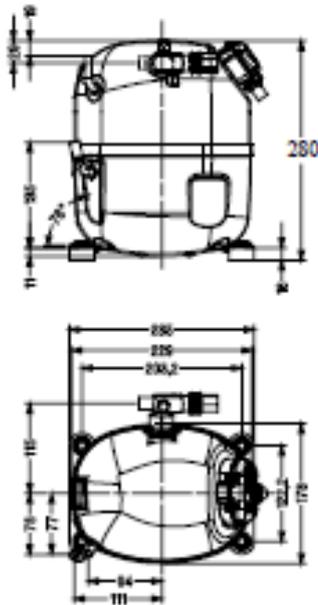
Froid commercial et industriel positif (HP)
Commercial & industrial application (HBP)

220-240V / 50Hz - 1-

R1234yf / R134a

N° 214QT-FZ - ind a

Conditions Conditions	Fluide/fréquence Fluid/frequency	Prod frigorifique nominale / nominal refrigerating capacity			Puis. sonore Sound level
		Watts	Kcal/h	BTU/h	
EN12900*	R1234yf / 50 Hz	2529	2175	8629	180 3145 / 180 3145-1 60 dBA
EN12900*	R134a / 50 Hz	2714	2334	9255	



Cylindree / Displacement :	32.7 cm ³
Poids net / Net weight :	20.8 Kg
Charge en huile / Oil charge :	278 cm ³
Type d'huile / Oil type :	P.O.E /
Detente / Expansion device :	Capillaire / Détendeur Capillary / Exp. valve
Refroidissement / Cooling :	Ventile / Forcé Fan / Forced
Résistance à 20° C / Windings resistances at 20° C	
Phase princ. / Main Winding :	2.9 Ohms
Sec. / Auxiliary Winding :	8.8 Ohms
Intensité / Current	
nom. / Rated current I.R.A.	5.1 A
max. / Max current	8.6 A
dém. / Start current I.R.A.	30 A
Eq. Electrique / Electrical equipment :	CSR
Protecteur / Overload :	MRA38088
Temporisation / Time check :	2.8s - 5.2s / 27.5 A
T° ouverture / Opening temp. :	105° C
fermeture / Closing temp. :	57° C
Option / optional :	T0419
Relais potentiel / Potential relay :	RVA6M**
enclenchement / Pick up :	239/268V
déclenchement / Drop out :	60/135V
Optico / optional :	3ARR3*4AA*
Condensateur dém. / Start capacitor :	88 µF / 330 V
Condensateur Perm. / Run capacitor :	15 µF / 400 V

* EN12900: T° cond. +50°C / T° évap. +5°C / T° gas aspirés. +20°C /
Sous refroidissement. OK
* EN 12900: Cond. T° +50°C / Evap. T° +5°C / Return gas T° +20°C /
Subcooling. OK

Aspiration Suction	Recharge Discharge	Charge Process
15.9 (5/8")	7.9 (5/8")	6.35 (1/4")

Les caractéristiques données dans cette notice technique peuvent varier sans avis préalable, avec les modifications que "TECUMSEH" entend toujours apporter à sa production.
"TECUMSEH" se réserve le droit de changer les informations contenues dans cette notice sans avis préalable.



CAJ4511N-FZ	Tension FZ : 220 - 240V 1- 50 Hz	R1234yf	N°214QT-FZ	Ind a
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Les performances sont données dans les conditions EN 12900 : Elles sont certifiées uniquement en 50 Hz	Gez aspirés : 20°C Sous refroidissement : 0°C
The performance data are in EN 12900 conditions : They are only certified in 50 Hz	Return gas : 20°C Subcooling : 0°C

50 Hz R1234yf											
4) T° condensation	5) T° évaporation (°C)		-25	-20	-15	-10	5	0	5	10	15
30	1) P frigorifique (W)	(W)	863	1183	1528	1932	2407	2958	3553	4148	5023
	2) P absorbée (W)	(W)	528	595	668	721	775	829	883	974	879
	3) I absorbée (A)	(A)	2,73	3	3,28	3,40	3,71	3,91	4,08	4,35	4,39
40	1) P frigorifique (W)	(W)	708	974	1261	1635	2041	2504	3025	3618	4261
	2) P absorbée (W)	(W)	527	612	698	779	858	935	968	1054	1088
	3) I absorbée (A)	(A)	2,54	2,95	3,34	3,71	4,07	4,4	4,71	5,07	5,28
50	1) P frigorifique (W)	(W)		752	1030	1341	1692	2088	2529	3025	3561
	2) P absorbée (W)	(W)		606	708	812	915	1015	1101	1201	1282
	3) I absorbée (A)	(A)		2,8	3,32	3,83	4,36	4,79	5,24	5,67	6,08
60	1) P frigorifique (W)	(W)			758	993	1307	1674	2044	2454	2911
	2) P absorbée (W)	(W)			704	823	947	1073	1198	1319	1438
	3) I absorbée (A)	(A)			3,21	3,85	4,47	5,07	5,68	6,22	6,77

1 - refrigerating capacity 2 - watt input 3 - current 4 - condensing temperature 5 - evaporating temperature

Lorsque le système frigorifique est chargé avec le fluide R1234yf, une étiquette conforme à la norme ISO7010 devra être apposée sur le compresseur. Elle sera toujours visible et signalera la nature inflammable du fluide.
If the refrigerating system should run with refrigerant R1234yf, a label in accordance with ISO7010 would be stuck on the compressor. It would always be visible and it would have a sign for "Flammable fluid".

Nota : Les caractéristiques données dans cette fiche technique peuvent évoluer sans avis préalable, avec les améliorations que "TECUMSEH EUROPE" entend toujours apporter à sa production.

Note : "TECUMSEH EUROPE", in a constant endeavour to improve its products, reserves the right to change any information contained in this leaflet without prior warning.



CAJ4511N-FZ	Tension FZ : 220 - 240V 1- 50 Hz	R134a	N°214QT-FZ	Ind a
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Les performances sont données dans les conditions EN 12900 :
Elles sont certifiées uniquement en 50 Hz

The performance data are in EN 12900 conditions :
They are only certified in 50 Hz

Gaz aspirés : 20°C
 Sous refroidissement : 0°C

Return gas : 20°C
 Subcooling : 0°C

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50 Hz R134a											
4 T _{condensation}	5 T _{évaporation} (°C)		-25	-20	-15	-10	-5	0	5	10	15
30	1 P frigorifique (W)		815	1116	1414	1800	2260	2685	3094	4448	5343
	2 P absorbée (W)		401	565	632	694	750	828	901	987	1087
	3 I absorbée (A)		2.33	2.84	2.94	3.24	3.55	3.85	4.15	4.42	4.71
40	1 P frigorifique (W)			934	1252	1554	1954	2361	2761	3885	4674
	2 P absorbée (W)			575	684	748	825	904	959	1078	1177
	3 I absorbée (A)			2.84	3.03	3.42	3.81	4.2	4.58	4.97	5.35
50	1 P frigorifique (W)				1014	1354	1744	2105	2714	3310	3884
	2 P absorbée (W)				672	781	883	992	1081	1164	1284
	3 I absorbée (A)				3.85	3.94	4.02	4.5	4.97	5.45	5.92
60	1 P frigorifique (W)					1063	1464	1784	2223	2729	3308
	2 P absorbée (W)					714	828	1055	1178	1302	1430
	3 I absorbée (A)					3.8	4.17	4.74	5.3	5.87	6.43

1 - refrigerating capacity 2 - watt input 3 - current 4 - condensing temperature 5 - evaporating temperature

Nota : Les caractéristiques données dans cette fiche technique peuvent évoluer sans avis préalable, avec les améliorations que "TECUMSEH EUROPE" entend toujours apporter à sa production.

Note: "TECUMSEH EUROPE", in a constant endeavor to improve its products reserves the right to change any information contained in this leaflet without prior warning.

Compresseur / Compressor
Code tension / Voltage code : FZ

CAJ4513N-FZ

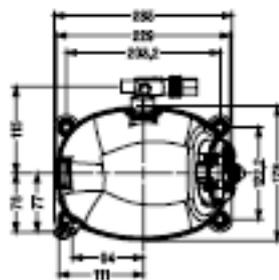
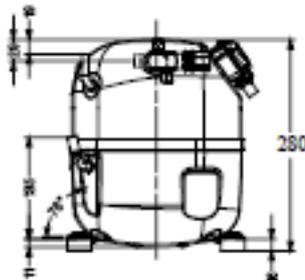
Froid commercial et industriel positif (HP)
Commercial & industrial application (HBP)

220-240V / 50Hz - 1-

R1234yf / R134a

N° 214ST-FZ - ind a

Conditions Conditions	Fluide/fréquence Fluid/frequency	Prod frigorifique nominale / nominal refrigerating capacity			Puis. sonore Sound level
		Watts	Kcal/h	BTU/h	
EN12900*	R1234yf / 50 Hz	2618	2251	8919	ISO 3145 / ISO 3143-1 60 dBA
EN12900*	R134a / 50 Hz	2878	2475	9814	



Cylindrée / Displacement :	34,45 cm ³
Poids net / Net weight :	21,4 Kg
Charge en huile / Oil charge :	478 cm ³
Type d'huile / Oil type :	P.O.E /
Détente / Expansion device :	Capillaire / Détendeur
Refroidissement / Cooling :	Capillaire / Exp. valve
	Vanne / Forced
Résistance à 20° C / Windings resistances at 20° C	
Phase / pins / Main Winding :	2 Ohms
aux. / Auxiliary Winding :	8.8 Ohms
Intensité / Current	
nom. / Rated current / RLA :	5.8 A
max. / Max current :	9.9 A
dém. / Start current / LRA :	36 A
Eq. électrique / Electrical equipment :	CSR
Protecteur / Overload	MST18AW
Temporisation / Time check :	2.8s - 5.2s / 29 A
T° ouverture / Opening temp. :	135° C
fermeture / Closing temp. :	61° C
Option / optional :	T0610
Relais potentiel / Potential relay :	RVA4AP*
enclenchement / Pick up :	300/328V
déclenchement / Drop out :	60/121V
Option / optional :	3ARR3*60*
Condensateur dém. / Start capacitor :	88 µF / 330 V
Condensateur Perm. / Run capacitor :	15 µF / 400 V

* EN12900: T°cond.+50°C / T°évap. +5°C / T°gas aspirés. +20°C /
Sous refroidissement. OK

* EN12900: Cond. T° +50°C / Evap. T° +5°C / Return gas T° +20°C /
Subcooling OK

Pour conduites Ø ext. / For tubing O.D.

Aspiration Suction	Recharge Discharge	Charge Process
15.9 (5/8")	7.9 (5/8")	6.35 (1/4")

Les caractéristiques données dans cette fiche technique peuvent varier sans avis préalable, sans les notifications que "TECUMSEK ELECTRIC" envoie toujours apposer à sa production.
"TECUMSEK ELECTRIC", is a constant endeavor to improve its products, reserves the right to change any information contained in this leaflet without prior warning.



Tecumseh



CAJ4513N-FZ	Tension FZ : 220 - 240V 1- 50 Hz	R1234yf	N°214ST-FZ	Ind a
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Les performances sont données dans les conditions EN 12900 :
Elles sont certifiées uniquement en 50 Hz

Gez aspirés : 20°C
Sous refroidissement : 0°C

The performance data are in EN 12900 conditions :
They are only certified in 50 Hz

Return gas : 20°C
Subcooling : 0°C

50 Hz R1234yf											
4) T condensation	5) T évaporation (°C)		-25	-20	-15	-10	-5	0	5	10	15
30	1) P frigorifique (W)	917	1212	1580	1969	2445	2987	3632	4357	5178	
	2) P absorbée (W)	954	827	695	591	527	494	468	447	430	4158
	3) I absorbée (A)	2.37	3.28	3.55	3.84	4.12	4.41	4.69	4.97	5.25	
40	1) P frigorifique (W)	742	1014	1325	1664	2088	2573	3111	3738	4442	
	2) P absorbée (W)	562	657	745	825	900	969	1032	1090	1158	1252
	3) I absorbée (A)	2.37	3.35	3.74	4.12	4.5	4.88	5.26	5.63	6.01	
50	1) P frigorifique (W)		606	1098	1406	1745	2158	2618	3118	3738	4371
	2) P absorbée (W)		663	774	862	933	1002	1069	1130	1188	1284
	3) I absorbée (A)		3.39	3.87	4.35	4.83	5.3	5.77	6.24	6.71	
60	1) P frigorifique (W)			831	1414	1813	2196	2628	3128	3656	4040
	2) P absorbée (W)			781	825	863	903	945	984	1023	1023
	3) I absorbée (A)			3.84	4.51	5.08	5.65	6.22	6.79	7.35	

1 - refrigerating capacity 2 - watt input 3 - current 4 - condensing temperature 5 - evaporating temperature

Lorsque le système frigorifique est chargé avec le fluide R1234yf, une étiquette, conforme à la norme ISO7010 devra être apposée sur le compresseur. Elle sera toujours visible et signalera la nature inflammable du fluide.

If the refrigerating system should run with refrigerant R1234yf, a label in accordance with ISO7010 would be stuck on the compressor. It would always be visible and it would have a sign for "flammable fluid".

Nota : Les caractéristiques données dans cette fiche technique peuvent évoluer sans avis préalable, avec les améliorations que "TECUMSEH EUROPE" entend toujours apporter à sa production.

Note : "TECUMSEH EUROPE", in a constant endeavour to improve its products, reserves the right to change any information contained in this leaflet without prior warning.

CAJ4513N-FZ	Tension FZ : 220 - 240V 1- 50 Hz	R134a	N°214ST-FZ.	Ind a
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Les performances sont données dans les conditions EN 12900 :
Elles sont certifiées uniquement en 50 Hz

The performance data are in EN 12900 conditions :
They are only certified in 50 Hz

Gez aspirés : 20°C
Sous refroidissement : 0°C

Return gas : 20°C
Subcooling : 0°C

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50 Hz R134a											
4 T condensation	5 T evaporation (°C)		-25	-20	-15	-10	-5	0	5	10	15
30	1 P frigorifique (W)	866	1178	1552	1895	2518	3431	3890	4682	5600	
	2 P absorbée (W)	544	618	687	753	822	895	977	1072	1182	
	3 I absorbée (A)	3.31	3.58	3.8	4.05	4.26	4.53	4.77	5.01	5.24	
40	1 P frigorifique (W)	988	1329	1727	2192	2931	3991	4680	5680	6808	
	2 P absorbée (W)	644	733	817	898	981	1069	1168	1275		
	3 I absorbée (A)	3.85	4.81	4.38	4.72	5.01	5.42	5.78	6.11		
50	1 P frigorifique (W)	1096	1453	1962	2634	3564	4878	5604	6822	8222	
	2 P absorbée (W)	758	867	970	1070	1172	1278	1383			
	3 I absorbée (A)	4.65	4.92	4.98	5.45	5.91	6.37	6.82			
60	1 P frigorifique (W)	1210	1594	2195	2975	4075	5401	6201	7547	9047	
	2 P absorbée (W)	805	926	1026	1152	1275	1399	1527			
	3 I absorbée (A)	4.53	5.11	5.88	6.25	6.82	7.38				

1 - refrigerating capacity 2 - watt input 3 - current 4 - condensing temperature 5 - evaporating temperature

Note : Les caractéristiques données dans cette fiche technique peuvent évoluer sans avis préalable, avec les améliorations que "TECUMSEH EUROPE" entend toujours apporter à sa production.

Note : "TECUMSEH EUROPE", in a constant endeavour to improve its products reserves the right to change any information contained in this leaflet without prior warning.



CAJ2446U-FZ	Tension FZ : 220 - 240V 1- 50 Hz	R290	N°174NT-FZ	Ind a
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Les performances sont données dans les conditions EN 12900 :

Gas aspirés : 20°C
Sous-refroidissement : 0°K

The performance data are in EN 12900 conditions :

Return gas : 20°C
Subcooling : 0°K

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50 Hz R290

4 T _{condensation}	5 T _{évaporation} (°C)		-40	-35	-30	-25	-20	-15	-10
30	1 P frigorifique (W)	562	777	1044	1262	1550	1848	2213	
	2 P absorbée (W)	464	532	601	667	728	783	828	
	3 I absorbée (A)	2.47	2.75	3.04	3.33	3.58	3.85	4.10	
40	1 P frigorifique (W)	412	628	855	1081	1338	1621	1947	
	2 P absorbée (W)	468	544	624	708	791	871	944	
	3 I absorbée (A)	2.48	2.85	3.18	3.54	3.91	4.29	4.67	
50	1 P frigorifique (W)		479	685	905	1152	1383	1668	
	2 P absorbée (W)		553	645	743	845	947	1048	
	3 I absorbée (A)		2.67	3.23	3.71	4.17	4.66	5.18	
60	1 P frigorifique (W)				732	932	1148	1384	
	2 P absorbée (W)				781	898	1020	1143	
	3 I absorbée (A)				3.90	4.43	5.02	5.66	

1 - refrigerating capacity 2 - watt input 3 - current 4 - condensing temperature 5 - evaporating temperature

Nota : Les caractéristiques données dans cette fiche technique peuvent évoluer sans avis préalable, avec les améliorations que "TECUMSEH EUROPE" entend toujours apporter à sa production.

Note: "TECUMSEH EUROPE", in a constant endeavour to improve its products reserves the right to change any information contained in this leaflet without prior warning.



Compresseur / Compressor
Code tension / Voltage code : FZ

CAJ2464U-FZ

Froid commercial négatif (BP)
Low back pressure commercial application

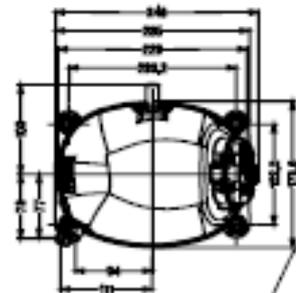
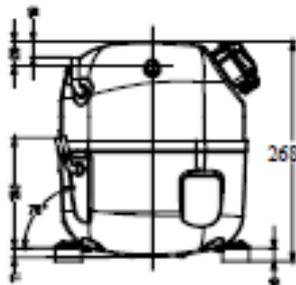
220-240V / 50Hz - 1-

R290

N° 174ST-FZ - ind a

Conditions Conditions	fréquence frequency	Prod frigorifique nominale / nominal refrigerating capacity			Plus sonore /Sound level
		Watts	Kcal/h	BTHM	
EN12900*	50 Hz	827	711	2882	190 3145 / 190 3143-1

53 dBA



Cylindrée / Displacement : 34.5 cm³
Poids net / Net weight : 22.2 Kg
Charge en huile / Oil charge : 475 cm³
Type d'huile / Oil type : P.O.E /
Détente / Expansion device : Capillaire / Détendeur
Ventile / Forced

Refroidissement / Cooling :
Résistances à 20°C / Windings resistances at 20°C
Phase princ. / Main Winding : 2.05 Ohms
sec. / Auxiliary Winding : 6.95 Ohms

Intensité / Current
nom. / Rated current RLA : 3.8
max. / Max current : 8.4
dém. / Start current LRA : NA

Eq. Electrique / Electrical equipment : CSR

Protecteur / Overload :
Tempsession / Time check : NA
T° ouverture / Opening temp. : NA
fermeture / Closing temp. : NA
Option / optional :

Bolts potentiel / Potential relay :
endechement / Pick up : NA
dédéchement / Drop out : NA
Option / optional :

Condensateur dém. / Start capacitor : 88 µF / 330 V
Condensateur Perm. / Run capacitor : 15 µF / 400 V

* EN12900: T° cond. +40°C / T° évap. -35°C / T° gas. aspirés. +20°C /
Sous refroidissement. OK
* EN 12900: Cond. T° +40°C / Evap. T° -35°C / Return gas T° +20°C /
Subcooling. OK

Pour conduites Ø ext / For tubing O.D.

Aspiration Suction	Refoulement Discharge	Charge Process
12.7 (1/2")	9.5 (3/8")	6.35 (1/4")

Les caractéristiques données dans cette fiche technique peuvent évoluer sans avis préalable, avec les autorisations que TECUMSEH ELECTRIC s'est réservées.
*TECUMSEH ELECTRIC, in a constant endeavor to improve its products reserves the right to change any information contained in this leaflet without prior warning.



Tecumseh

CAJ2464U-FZ	Tension FZ : 220 - 240V 1- 50 Hz	R290	N°174ST-FZ	Ind a
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Les performances sont données dans les conditions EN 12900 :
 The performance data are in EN 12900 conditions :

Gaz aspirés : 20°C
 Sous refroidissement : 0°K
 Return gas : 20°C
 Subcooling : 0°K

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50 Hz R290									
4 T condensation	5 T évaporation (°C)		-40	-35	-30	-25	-20	-15	-10
30	1 P frigorifique (W)	740	1023	1322	1686	2015	2433	2914	
	2 P absorbée (W)	611	701	791	879	966	1032	1091	
	3 I absorbée (A)	3.25	3.64	4.05	4.39	4.74	5.08	5.4	
40	1 P frigorifique (W)	543	827	1117	1484	1959	2435	2964	
	2 P absorbée (W)	614	716	823	925	1042	1147	1244	
	3 I absorbée (A)	3.14	3.61	4.15	4.67	5.15	5.61	6.05	
50	1 P frigorifique (W)		657	907	1189	1490	1821	2194	
	2 P absorbée (W)		724	850	975	1113	1247	1378	
	3 I absorbée (A)		3.65	4.25	4.94	5.51	6.1	6.67	
60	1 P frigorifique (W)				984	1227	1506	1822	
	2 P absorbée (W)				1029	1183	1343	1505	
	3 I absorbée (A)				5.19	5.84	6.55	7.25	

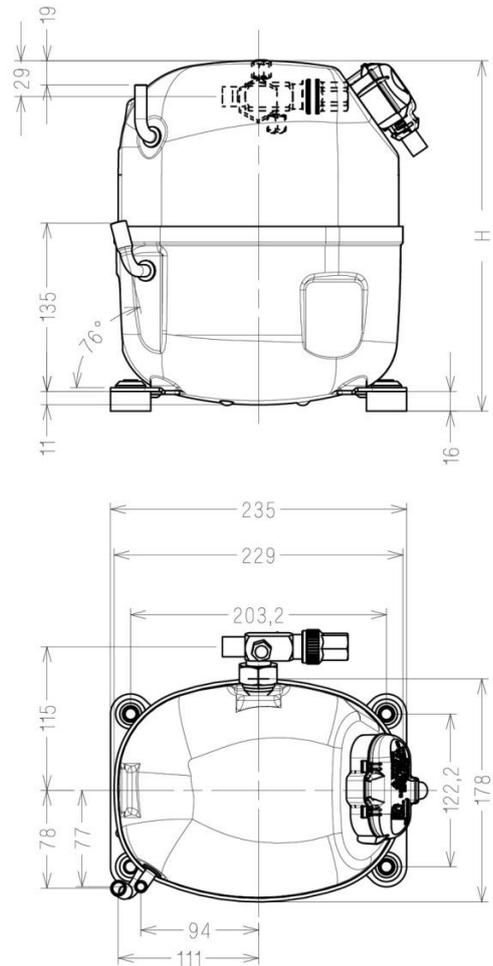
1 - refrigerating capacity 2 - watt input 3 - current 4 - condensing temperature 5 - evaporating temperature

Nota : Les caractéristiques données dans cette fiche technique peuvent évoluer sans avis préalable, avec les améliorations que "TECUMSEH EUROPE" entend toujours apporter à sa production.
 Note : "TECUMSEH EUROPE", in a constant endeavour to improve its products reserves the right to change any information contained in this leaflet without prior warning.

AJ² Compressor Size

Models	Refrigerants	Range	Height (mm / Inches)	
			AJ	AJ ²
AJ5510C	R407C	A/C	268 / 10,6	268 / 10,6
AJ5510F	R22	A/C	268 / 10,6	268 / 10,6
AJ5512C	R407C	A/C	268 / 10,6	268 / 10,6
AJ5512E	R22	A/C	268 / 10,6	268 / 10,6
AJ5513C	R407C	A/C	281 / 11,06	268 / 10,6
AJ5513E	R22	A/C	281 / 11,06	268 / 10,6
AJ5515C	R407C	A/C	281 / 11,06	268 / 10,6
AJ5515E	R22	A/C	281 / 11,06	268 / 10,6
AJ5518C	R407C	A/C	292 / 11,5	280 / 11
AJ5518E	R22	A/C	292 / 11,5	280 / 11
AJ5519C	R407C	A/C	292 / 11,5	280 / 11
AJ5519E	R22	A/C	292 / 11,5	280 / 11
TAJ5515C	R407C	A/C	292 / 11,5	268 / 10,6
TAJ5515E	R22	A/C	292 / 11,5	268 / 10,6
TAJ5519C	R407C	A/C	292 / 11,5	280 / 11
TAJ5519E	R22	A/C	292 / 11,5	280 / 11
CAJ2428Z	R404A	LBP	281 / 11,06	268 / 10,6
CAJ2432Z	R404A	LBP	281 / 11,06	268 / 10,6
CAJ2440Z	R404A	LBP	281 / 11,06	280 / 11
CAJ2446Z	R404A	LBP	292 / 11,5	280 / 11
CAJ2464Z	R404A	LBP	292 / 11,5	280 / 11
TAJ2428Z	R404A	LBP	281 / 11,06	268 / 10,6
TAJ2432Z	R404A	LBP	281 / 11,06	268 / 10,6
TAJ2446Z	R404A	LBP	292 / 11,5	280 / 11
TAJ2464Z	R404A	LBP	292 / 11,5	280 / 11
TAJ2464Z (KZ)	R404A	LBP	292 / 11,5	292 / 11,5
CAJ9480T	R22	MHBP	281 / 11,06	268 / 10,6
CAJ9480Z	R404A	MHBP	281 / 11,06	268 / 10,6
CAJ9510T	R22	MHBP	292 / 11,5	280 / 11
CAJ9510Z	R404A	MHBP	292 / 11,5	280 / 11
CAJ9513T	R22	MHBP	292 / 11,5	280 / 11
CAJ9513Z	R404A	MHBP	292 / 11,5	280 / 11
TAJ9480T	R22	MHBP	281 / 11,06	268 / 10,6
TAJ9480Z	R404A	MHBP	281 / 11,06	268 / 10,6
TAJ9510T	R22	MHBP	292 / 11,5	280 / 11
TAJ9510Z	R404A	MHBP	292 / 11,5	280 / 11
TAJ9513T	R22	MHBP	292 / 11,5	280 / 11
TAJ9513Z	R404A	MHBP	292 / 11,5	280 / 11
CAJ4517E	R22	HBP	292 / 11,5	280 / 11
CAJ4517Z	R404A	HBP	292 / 11,5	280 / 11
CAJ4519T	R22	HBP	292 / 11,5	280 / 11
CAJ4519Z	R404A	HBP	292 / 11,5	280 / 11
TAJ4517T	R22	HBP	292 / 11,5	280 / 11
TAJ4517Z	R404A	HBP	292 / 11,5	280 / 11
TAJ4519T	R22	HBP	292 / 11,5	280 / 11
TAJ4519T (KZ)	R22	HBP	292 / 11,5	292 / 11,5
TAJ4519Z	R404A	HBP	292 / 11,5	280 / 11
TAJ4519Z (KZ)	R404A	HBP	292 / 11,5	292 / 11,5
CAJ4452Y	R134a	HBP	268 / 10,6	268 / 10,6
CAJ4461Y	R134a	HBP	268 / 10,6	268 / 10,6
CAJ4476Y (WZ)	R134a	HBP	268 / 10,6	268 / 10,6
CAJ4492Y	R134a	HBP	281 / 11,06	280 / 11
CAJ4511Y	R134a	HBP	292 / 11,5	280 / 11
CAJ4513Y	R134a	HBP	292 / 11,5	280 / 11
TAJ4452Y	R134a	HBP	268 / 10,6	268 / 10,6
TAJ4461Y	R134a	HBP	268 / 10,6	268 / 10,6
TAJ4476Y (KZ)	R134a	HBP	268 / 10,6	268 / 10,6
TAJ4492Y	R134a	HBP	281 / 11,06	280 / 11
TAJ4511Y	R134a	HBP	292 / 11,5	280 / 11

Compressor Dimensions



H = 268 mm H = 10.6 inches	H = 280 mm H = 11 inches	H = 292 mm H = 11.5 inches
CAJ/TAJ 4452Y	CAJ/TAJ 4492N	TAJ4519Z-KZ
CAJ/TAJ 4461Y	CAJ/TAJ 4511N	TAJ2464Z-KZ
CAJ/TAJ 4476Y	CAJ/TAJ 4513N	-
CAJ/TAJ9480Z	CAJ/TAJ9510Z	-
CAJ/TAJ2428Z	CAJ/TAJ9513Z	-
CAJ/TAJ2432Z	CAJ/TAJ4517Z	-
CAJ2446U	CAJ/TAJ4519Z	-
CAJ2464U	CAJ2440Z	-
-	CAJ/TAJ2446Z	-
-	CAJ/TAJ2464Z	-

AJ² Tube connections



Additional Information

AJ² Multiple and Unitary Packaging

What's in a Single Pack?

CHECKLIST	
✓	Compressor
✓	Installation Instructions
✓	Junior Box
✓	Te-Connect
✓	Silent-Block
✓	Relay
✓	Potential Relay
✓	Terminal Block
✓	Run Capacitor
✓	Start Capacitor

Overload included on single phase only

Te-Connect

Silent-Block

Installation Instructions

Junior Box

INCLUDED

Example shown not representative of all applications

Start Capacitor

Run Capacitor

Terminal Block

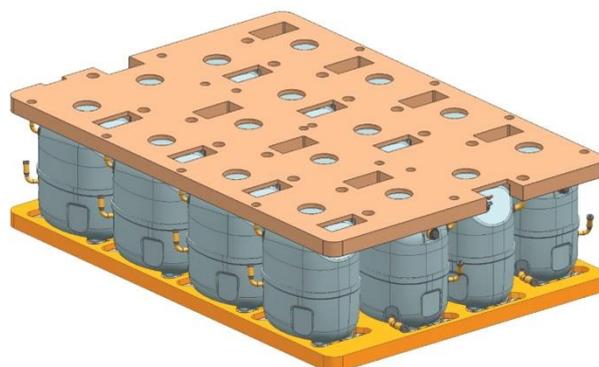
Potential Relay

Relay

What's in a Multiple Pack?

Possible Configurations

- 1 Compressors with electrical box
12 per layer
2 layers per pallet
- 2 PSC or CSR Compressors without electrical box
14 per layer
2 layers per pallet
- 3 Bare Compressors without electrical box
16 per layer
2 layers per pallet



Installation Instructions



COMPRESSEURS - COMPRESSORS - KOMPRESSOREN - COMPRESORES - КОМПРЕССОР

Schéma de câblage	Wiring diagram	Schaltplan	Espanol	Russe
<p>1-Ph.</p> <p>CSIR</p>	<p>1-Ph.</p> <p>CSR</p>	<p>1-Ph.</p> <p>PSC</p>	<p>3-Ph.</p>	<p>Junior/Senior Box</p>

Recommandation

Marquage des compresseurs:



Ref: Désignation

- a: Tension
- b: Fréquence
- c: Nombre de phases
- d: Intensité nominale
- e: Nomenclature
- f: Fluide frigorigène
- g: Désignation du compresseur
- h: Numéro de série

Informations pour compresseur DESP catégorie II

- j: Pression Maximale admissible
- k: Temp mini / maxi
- l: 1.1 * PS
- m: N° d'enregistrement de l'organisme notifié
- n: Date de fabrication et d'essais

Français

Spécifications: Les produits CAJ ou TAJ suivis d'un 'P', sont destinés à des montages en parallèle, et ceux suivis d'un D, sont montés en duo.

➤ **Montage en vue de la première mise en service:** La responsabilité de TECUMSEH EUROPE ne pourra être retenue si le montage, la mise en service et la maintenance ne sont pas conformes aux indications fournies dans cette notice.

➤ **Brasage du tube d'égalisation d'huile pour les compresseurs montés en parallèle:** Lors du brasage/débrasage du tube d'égalisation d'huile, incliner le compresseur de 10° dans le sens opposé du tube.

➤ **Raccordements électriques:** Pour assurer la sécurité de l'installation et son bon fonctionnement, il est impératif de :

- relier le compresseur à la terre,
- toujours câbler le compresseur hors tension,
- et protéger la ligne d'alimentation électrique.

➤ **Charge en fluide frigorigène:** S'assurer de la bonne ventilation du local. Dans le cas d'une charge en fluide inflammable, nous préconisons l'utilisation d'un détecteur en accord avec la norme EN 378-4.



R290

R1234yf

Les **normes d'application de la série EN 60335-2** ne s'appliquent que pour les charges < 150g de fluides inflammables. **Pour une charge >150g:**

Appliquer les normes ISO5149/EN378. Nous conseillons de réaliser une analyse de risque (se référer à la norme EN1127-1) et aussi d'éviter l'accumulation de réfrigérant en cas de fuite dans des zones potentiellement sources d'inflammation.

Par construction du système frigorifique, l'environnement du couvercle ne devra en aucun cas se situer dans une atmosphère explosive.

>**Avertissement important pour compresseur R134a/R1234yf:** Lorsque le système frigorifique est chargé avec le fluide R1234yf, le symbole d'inflammabilité W021 (voir logo ci-dessus) conforme à la norme ISO7010 devra être apposé sur le compresseur. Il sera toujours visible et signalera la nature inflammable du fluide.

>**Déclarations de conformité et d'incorporation:** Ces compresseurs frigorifiques sont conçus pour être incorporés dans des machines conformément à la Directive machine 2006/42/CE. Ils sont conformes à la Directive Basse Tension 2006/95/CE et à la directive DESP 97/23/CE. La mise en service est autorisée seulement si le montage a été effectué en accord avec cette notice et si les machines répondent aux réglementations en vigueur.

> **En accord avec la DESP,** tous les compresseurs de catégorie II sont testés sous une pression pneumatique supérieure ou égale à l'exigence 1,1*PS selon l'annexe C 1.3.2 de la norme NF EN 14276-1.

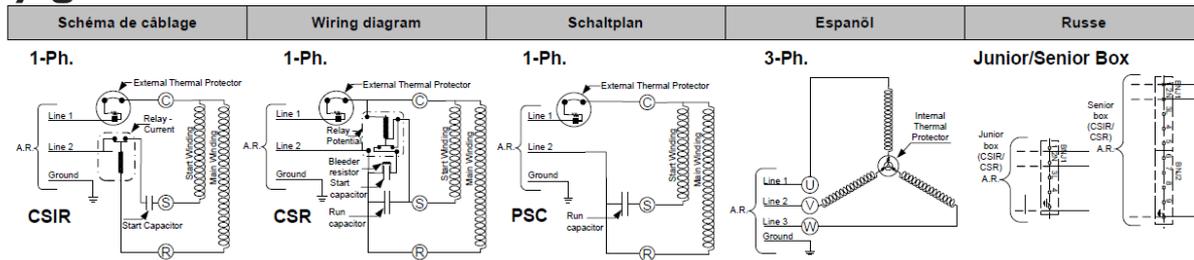
Le volume interne libre du compresseur est de 4,5 l. Pour information : 1,1*PS = 17,2 bar pour le R290.

> **La pression maximum admissible:** la pression de saturation correspond à la température maxi d'utilisation soit + 46 °C. Limiter la charge en réfrigérant afin de ne pas dépasser la pression maximale admissible (lire la plaque signalétique).

> **La signalisation de l'application:** le fluide utilisé et sa masse doivent être renseignés. Dans le cas d'un fluide classé A2L, A2 ou A3, le logo d'inflammabilité sera visible et lisible.

> **Précaution « effet vapeur » :** il peut se produire lorsque de l'eau pénètre dans le circuit frigorifique. Le compresseur va se comporter comme un générateur de vapeur et l'échauffement du moteur va faire augmenter la pression au-delà de la pression maximum de service. L'emploi d'un pressostat de sécurité est un moyen de limiter la hausse de pression dans la cuve du compresseur.

Afin de pouvoir améliorer en permanence ces produits, TECUMSEH EUROPE S.A. se réserve le droit de modifier cette notice sans préavis.



Recommendation

Compressors labelling:



Ref: Designation

- a: Voltage
- b: Frequency
- c: Phase number
- d: Nominal current
- e: Bill of material number
- f: Refrigerant
- g: Model number
- h: Serial number

DESP Category II compressor informations:

- j: Maximum allowable pressure
- k: Minimum and maximum temperature
- l: Test pressure 1.1 * PS
- m: Registration number of the notified body
- n: Test date

English

- **Specifications:** CAJP and TAJP are intended to parallel mounting, CAJD and TAJD for dual operation.
- **Installation for the commissioning:** TECUMSEH EUROPE Responsibility will not be held if the installation, commissioning and maintenance are not in accordance with the instructions given in this manual.
- **Oil equalization tube brazing for parallel mounting:** During oil equalizing tube brazing/unbrazing, tilt compressor until 10 ° in the opposite direction tube.
- **Electrical connections:** To ensure the safety installation and its correct operation, it is essential to:
 - connect the compressor to the ground,
 - Always wire the compressor off,
 - And protect the power supply line.
- **Charge refrigerant:** Ensure the correct ventilation. In case of a load of flammable fluid case, we recommend to use a detector in agreement with EN 378-4.



R290
R1234yf

Standards series EN 60335-2 apply only for loads <150g of flammable fluids.

For a load > 150g:

Apply the ISO 5149 / EN 378. We recommend to make a risk analysis (refer to EN1127-1 standard) and also avoid the refrigerant accumulation in case of leakage in potentially ignition sources zones.

By the refrigeration system design, the protective cover environment must not be in an explosive atmosphere.

Important warning for R134a/R1234yf compressors:

When the refrigeration system is loaded with R1234yf, the flammability symbol W021 (see logo above) according to ISO7010 standard must be affixed to the compressor. It will always be visible and will signal the inflammable fluid nature.

Compliance Statements and incorporation: Those compressors are designed for installation in machines in accordance with the Machinery Directive 2006/42 / EC. They comply with the Low Voltage Directive 2006/95 / EC and Directive PED 97/23 / EC. Commissioning is only permitted if the assembly was performed in accordance with these instructions and if the machines meet the regulations.

Consistent with the PED, all Class II compressors are tested under a higher air pressure or equal to the required 1.1 * PS according to Annex C 1.3.2 of EN 14276-1 standard.

The compressor free internal volume is 4.5 l. For information: 1.1 * PS = 17.2 bar for R290.

Maximum allowable pressure: the saturation pressure corresponding to the maximum working temperature, + 46 ° C. Limit the refrigerant charge in order not to exceed the maximum allowable pressure (read the label).

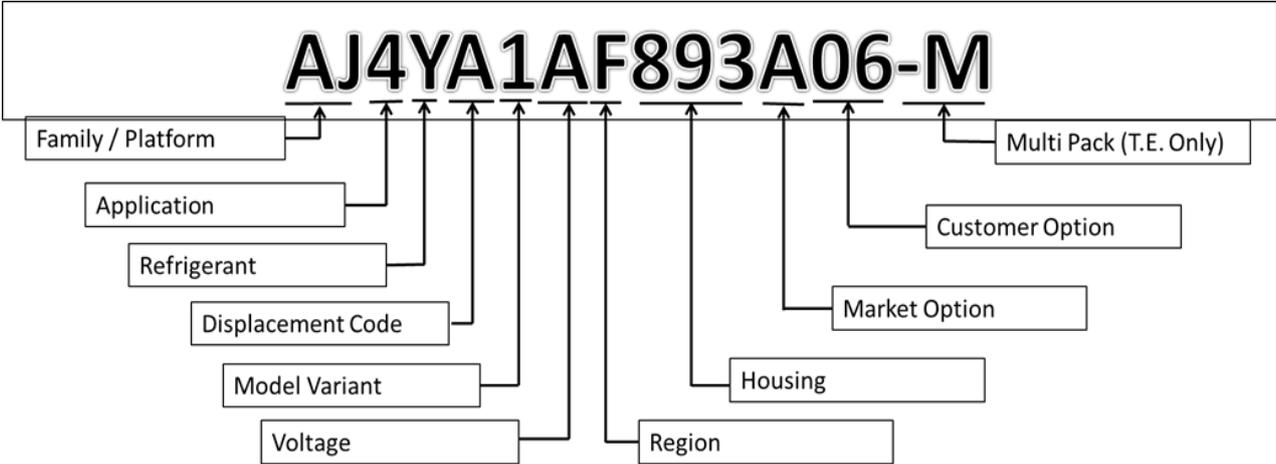
Application signage: refrigerant used and its mass must be completed. In case of A2, A2L or A3 refrigerant, the flammability logo will be visible and legible.

“Steam effect” caution: can occur when water enters into the refrigerant circuit. The compressor will behave as a steam generator and motor temperature will increase pressure beyond the maximum operating pressure. The use of a safety pressure switch is a way to limit the pressure rise in the compressor shell.

In order to continually improve its products, TECUMSEH EUROPE SA reserves the right to modify this manual without notification.



BOM Bill of Material



AJ-AJ² Cross Reference

Models	Config	Voltage	Refrigerant	AJ ² BOM	AJ BOM
AJ5510C	Tube	FZ	R407C	AJ5CC1JF600A04	2252830104
AJ5512C	Tube	FZ	R407C	AJ5CG1JF600A04	2252930104
AJ5512C	Tube	FZ	R407C	AJ5CG1JF600A03	2252930103
CAJ2428Z	Tube	FZ	R404A	AJ2ZA1JF600A06	2258430102
CAJ2428Z	Valve	FZ	R404A	AJ2ZA1JF700A06	2278430102
CAJ2428Z	Valve	GZ	R404A	AJ2ZA1GF700A06	2278490102
CAJ2428Z	Tube	GZ	R404A	AJ2ZA1GF600A06	2258490102
CAJ2432Z	Tube	FZ	R404A	AJ2ZB1JF602A06	2258530106
CAJ2432Z	Valve	FZ	R404A	AJ2ZB1JF703A06	2278530106
CAJ2432Z	Tube	GZ	R404A	AJ2ZB1GF602A06	2258590106
CAJ2432Z	Valve	GZ	R404A	AJ2ZB1GF703A06	2278590106
CAJ2440Z	Tube	FZ	R404A	AJ2ZF1JF603A06	2258630106
CAJ2440Z	Valve	FZ	R404A	AJ2ZF1JF704A06	2268630106
CAJ2446U	Tube	FZ	R290	AJ2UM1JF602A**	New
CAJ2446Z	Tube	FZ	R404A	AJ2ZM1JF603A06	2258730106
CAJ2446Z	Tube	HZ	R404A	AJ2ZM1HF603A06	2258700106
CAJ2446Z	Valve	FZ	R404A	AJ2ZM1JF704A06	2268730106
CAJ2446Z	Valve	HZ	R404A	AJ2ZM1HF704A06	2268700106
CAJ2446Z	Valve	GZ	R404A	AJ2ZM1GF704A06	2268790106
CAJ2446Z	Tube	GZ	R404A	AJ2ZM1GF603A06	2258790106
CAJ2464U	Tube	FZ	R290	AJ2UR1JF605A**	New
CAJ2464Z	Tube	FZ	R404A	AJ2ZR1JF606A06	2258831106
CAJ2464Z	Tube	FZ	R404A	AJ2ZR1JF606A41	2258831141
CAJ2464Z	Tube	GZ	R404A	AJ2ZR1GF606A06	2258890106
CAJ2464Z	Tube	HZ	R404A	AJ2ZR1HF606A06	2258800106
CAJ2464Z	Valve	FZ	R404A	AJ2ZR1JF707A06	2268831106
CAJ2464Z	Valve	HZ	R404A	AJ2ZR1HF707A06	2268800106
CAJ2464Z	Valve	GZ	R404A	AJ2ZR1GF707A06	2268890106
CAJ2464Z	Tube	HZ	R404A	AJ2ZR1HF606A01	2258800101
CAJ4452Y	Tube	FZ	R134a	AJ4YA1JF600A06	2258130102
CAJ4452Y	Valve	FZ	R134a	AJ4YA1JF700A06	2268130102
CAJ4461Y	Tube	FZ	R134a	AJ4YB1JF600A06	2257130102
CAJ4461Y	Valve	FZ	R134a	AJ4YB1JF700A06	2267130102
CAJ4461Y	Tube	FZ	R134a	AJ4YB1JF800A06	2257130102
CAJ4461Y	Tube	WZ	R134a	AJ4YB1FF600A06	2257170102
CAJ4461Y	Valve	WZ	R134a	AJ4YB1FF700A06	2267170102
CAJ4461Y	Tube	XA	R134a	AJ4YB1AF600A06	2257110102
CAJ4461Y	Valve	XA	R134a	AJ4YB1AF700A06	2267170102
CAJ4461Y	Valve	GZ	R134a	AJ4YB1GF700A06	2267190102
CAJ4461Y	Tube	GZ	R134a	AJ4YB1GF600A06	2257190102
CAJ4461Y	Tube	CZ	R134a	AJ4YB1EF600A06	2257180102
CAJ4461Y	Valve	CZ	R134a	AJ4YB1EF700A06	2267180102
CAJ4461Y	Tube	HZ	R134a	AJ4YB1HF600A06	2257100102
CAJ4461Y	Valve	HZ	R134a	AJ4YB1HF700A06	2267100102
CAJ4476Y	Tube	FZ	R134a	AJ4YG1JF600A06	2257230102
CAJ4476Y	Valve	FZ	R134a	AJ4YG1JF700A06	2267230102
CAJ4492Y	Tube	FZ	R134a	AJ4YL1JF603A06	2257330102
CAJ4492Y	Valve	FZ	R134a	AJ4YL1JF704A06	2267330102
CAJ4492Y	Horizontal tube	FZ	R134a	AJ4YL1JF803A06	new
CAJ4492Y	Valve US type	FZ	R134a	AJ4YL1JF904A06	new
CAJ4492Y	Valve	GZ	R134a	AJ4YL1GF704A06	2267390102
CAJ4492Y	Tube	GZ	R134a	AJ4YL1GF603A06	2257390102
CAJ4511Y	Tube	FZ	R134a	AJ4YP1JF603A06	2257530106
CAJ4511Y	Valve	FZ	R134a	AJ4YP1JF704A06	2267530106
CAJ4511Y	Tube	HZ	R134a	AJ4YP1HF603A06	2257500106



Models	Config	Voltage	Refrigerant	AJ ² BOM	AJ BOM
CAJ4511Y	Tube	HZ	R134a	AJ4YP1HF603A49	2257500149
CAJ4511Y	Valve	HZ	R134a	AJ4YP1HF704A06	2267500106
CAJ4511Y	Tube	HZ	R134a	AJ4YP1JF603A50	2257530150
CAJ4511Y	Tube	GZ	R134a	AJ4YP1GF603A06	2257591106
CAJ4511Y	Valve	GZ	R134a	AJ4YP1GF704A06	2267591106
CAJ4513N	Valve	FZ	R1234yf	AJ4NR1JF704A06	New
CAJ4513N	Tube	FZ	R1234yf	AJ4NR1JF603A06	New
CAJ4513Y	Tube	FZ	R134a	AJ4YR1JF603A06	2258930106
CAJ4513Y	Valve	FZ	R134a	AJ4YR1JF704A06	2268930106
CAJ4517Z	Tube	FZ	R404A	AJ4ZL1JF606A06	2256831106
CAJ4517Z	Tube	FZ	R404A	AJ4ZL1JF606A41	2256831141
CAJ4517Z	Tube	GZ	R404A	AJ4ZL1GF606A06	2256890106
CAJ4517Z	Valve	FZ	R404A	AJ4ZL1JF707A06	2266831106
CAJ4517Z	Valve	GZ	R404A	AJ4ZL1GF707A06	2266890106
CAJ4517Z	Tube	FZ	R404A	AJ4ZL1JF606A49	2256831149
CAJ4519T	Tube	GZ	R22	AJ4TR1GF606A06	2254090106
CAJ4519T	Valve	GZ	R22	AJ4TR1GF707A06	2264090106
CAJ4519Z	Tube	FZ	R404A	AJ4ZR1JF606A06	2256930106
CAJ4519Z	Valve	FZ	R404A	AJ4ZR1JF707A06	2266930106
CAJ4519Z	Tube	GZ	R404A	AJ4ZR1GF606A06	2256990106
CAJ4519Z	Valve	GZ	R404A	AJ4ZR1GF707A06	2266990106
CAJ9480T	Tube	FZ	R22	AJKTA1JF602A06	2250730106
CAJ9480T	Valve	FZ	R22	AJKTA1JF703A06	2260730106
CAJ9480Z	Tube	FZ	R404A	AJKZA1JF603A06	2256231106
CAJ9480Z	Valve	FZ	R404A	AJKZA1JF703A06	2266231106
CAJ9480Z	Valve	GZ	R404A	AJKZA1GF703A06	2266290106
CAJ9480Z	Tube	GZ	R404A	AJKZA1GF603A06	2256290106
CAJ9510T	Tube	FZ	R22	AJKTB1HF603A06	2254530106
CAJ9510T	Valve	FZ	R22	AJKTB1HF704A06	2264530106
CAJ9510Z	Tube	FZ	R404A	AJKZB1JF603A06	2256330106
CAJ9510Z	Valve	FZ	R404A	AJKZB1JF704A06	2266330106
CAJ9510Z	Tube	GZ	R404A	AJKZB1GF603A06	2256391106
CAJ9510Z	Tube	HZ	R404A	AJKZB1HF603A06	2256300106
CAJ9510Z	Tube	FZ	R404A	AJKZB1JF603A49	2256330149
CAJ9510Z	Valve	GZ	R404A	AJKZB1GF704A06	2266391106
CAJ9510Z	Valve	HZ	R404A	AJKZB1HF704A06	2266300106
CAJ9513T	Tube	FZ	R22	AJKTK1GF603A06	2255231106
CAJ9513T	Valve	FZ	R22	AJKTK1GF704A06	2265231106
CAJ9513Z	Tube	FZ	R404A	AJKZK1JF603A06	2256431106
CAJ9513Z	Valve	FZ	R404A	AJKZK1JF704A06	2266431106
CAJ9513Z	Tube	HZ	R404A	AJKZK1HF603A06	2256401106
CAJ9513Z	Tube	FZ	R404A	AJKZK1JF603A49	2256431149
CAJ9513Z	Valve	HZ	R404A	AJKZK1HF704A06	2266401106
CAJ9513Z	Tube	GZ	R404A	AJKZK1GF603A06	2256491106
CAJ9513Z	Valve	GZ	R404A	AJKZK1GF704A06	2266491106
CAJP2464Z	Valve	FZ	R404A	AJ2ZR1JF727A08	2D68831128
CAJP4519Z	Valve	FZ	R404A	AJ4ZR1JF727A06	2D66930128
TAJ4461Y	Tube	TZ	R134a	AJ4YB1TF600A06	2416230105
TAJ4461Y	Valve	TZ	R134a	AJ4YB1TF700A10	2446230105
TAJ4511Y	Tube	TZ	R134a	AJ4YP1TF603A10	2416530110
TAJ4511Y	Valve	TZ	R134a	AJ4YP1TF704A10	2446530105
TAJ4517Z	Tube	TZ	R404A	AJ4ZL1TF606A10	2416130105
TAJ4517Z	Valve	TZ	R404A	AJ4ZL1TF707A10	2445230105
TAJ4519Z	Tube	TZ	R404A	AJ4ZR1TF606A10	2416130105
TAJ4519Z	Valve	TZ	R404A	AJ4ZR1TF707A10	2446130105
TAJ4519Z	Tube	TZ	R404A	AJ4ZR1TF607	2416130105
TAJ4519Z	Valve	TZ	R404A	AJ4ZR1TF708	2446130105
TAJ5515C	Tube	TZ	R407C	AJ5CL1TF602A10	2413130105
TAJ5519C	Tube	TZ	R407C	AJ5CR1TF603A10	2413330105

FAQs – TOP questions

1. When will the entire AJ² compressor range be available?

AJ² compressor range will be available on Q2 2015.

2. When will the entire voltage range be available?

The AJ² compressor range including all voltages will be available on Q2 2015.

3. Are the electrical components interchangeable between the AJ and AJ²?

Yes, however it will be difficult (but possible) to use an actual external overload in a new Te-Connect. The cable has been elongated by 5mm to improve the assembly.

New AJ² overloads will be compatible for both AJ and AJ² compressors.

For 3-phase, actual AJ electrical components will be obsolete for AJ², as external overload is replaced by internal one.

4. Are we going to produce R407C, R12 and R22 models?

All the AJ existing models will be continued with AJ² and includes the same refrigerants. Only models available with 3 mounting brackets will no longer be produced.

5. Is the Te-Connect unique to Tecumseh and do we plan to patent it?

Yes the Te-Connect is unique and patent pending.

6. Considering that there will be dual refrigerants R134a/R1234yf models (N), will we continue to produce models running with R134a only (Y)?



Yes, we will continue to produce both versions (Y and N), but for the dual refrigerant models, only N version will be able to be used.

Timing:

