www.mbsm.pro , when capacitor explodes , Pictures

Category: Pictures,Technologie,Tester ok
written by www.mbsm.pro | 11 April 2019
A capacitor is a device used to store an electric charge, consisting of one or more pairs of conductors separated by an insulator.
Unexpectedly the electrolytic capacitors explodes with huge sound and sometime it smoke.
Get started , how to explode a capacitor ???
All capacitors have a maximum voltage and their destruction depends upon the internal construction. Explosions are understood only by delving into the internal construction of electrolytic capacitors – the primary culprit.
Most small value capacitors are simple sandwiches of conductor and insulator and when the voltage exceeds the dielectric strength of the insulation, they short out and burn, crack, pop, open, or smoke. Explosions are rare for these. Popping open is more likely. Their failure is self evident either visually or by failure to function in the circuit.
Most large value capacitors in order to be as small in physical size as possible, have to get the conductive plates of the capacitor as close together as possible and at the same time not so small that the voltage rating is impractical.
It is for this reason that the family of electrolytic capacitors was developed. The trick they use to get high capacity with small separations and reasonable voltage is that they use the “anodizing” of chemical electrolysis on one surface and a water based electrolyte for the other surface. Take one apart and see. Notice that when a conductive metal is “anodized” by electrochemical process it turns into a dull film that is rather tough and is an insulator. This means that the actual conductive plate of the capacitor has this film entirely between itself and the other plate.
Then the other plate uses a trick too. There’s a water base solution soaked into a paper separator. Now if there was no water, the paper would be the dielectric of a normal capacitor separating the plates. But not here. Here the water has an alkali added to become a fair conductor. And as a liquid it soaks right into the surface structures of the capacitor. So it’s not the paper thickness at all – and not even the insulating surface on the other plate, but the inner recesses of the anodized surface that determine the dielectric distances.
So the operating voltage that a capacitor can tolerate depends upon how thick this anodized film is. And that is a function of it’s manufacture. Now there is a most useful characteristic that tells us we are nearing the max voltage, called leakage.
Here is a way you can check this out. Put in series, a test electrolytic capacitor (polarize it correctly), a variable power supply, a microammeter, and a 1 meg resistor (to limit and protect the meter). From zero as you increase the voltage there will be no current initially, then as you approach the spec op voltage, there will start a small leakage current. Since you have a limiting resistor here, you can increase the voltage without damage. continuing to increase the voltage discovers an increasing leakage current. It is a matter of

practice how much safety you apply between the rating and the actual voltage of the circuit.
You can now see how it is that an electrolytic capacitor fails, it is not a voltage breakdown of the dielectric material, but the increase of leakage current that is troublesome. A rising leakage means heat which will boil the water and make steam – that's the explosion process.
This is explosion as occasional failure of the few. But there is a more spectacular explosion process – it's explosion by mistake – namely being installed backward. In such a case, the anodizing chemistry is reversed and rather rapidly, the anodized film starts to reverse, and quickly thins out at a weak spot in the rather large effective film area of the capacitor. Then we have short circuit currents and steam generation rather quickly. This sort of explosion usually fills the space (the casing or the whole room if exposed) with little shreads of aluminum foil and alkali soaked paper.
This insightful solution is most successful to achieve capacitors with large values in small spaces, but has a lot of lesser characteristics as the price to pay.
The worst limit, is storage. Electrolytic capacitors store very poorly, and the voltage rating can reduce substantially as the internal chemistry deteriorates. Some equipment manufacturers recommend that capacitors stored for a few years have their inner anodizing conditions restored by simply putting them to the spec voltage for a day to restore full spec.
At the least, if you replace capacitors with old stock, and it didn't explode when power was restored, be aware that it may not reach it's spec capacity value for a few hours. A capacitor in use will always be maintained by the voltage in the circuit you use it in.
When electrolytics are used without the circuit supplying a maintenance voltage to keep the anodized film that all depends upon, such as in speaker cross over applications that have no sustaining DC, then the values of the capacitor will deteriorate at least at storage rates, and if AC currents are substantial, even faster.
mbsm-dot-pro-capacitor-explodes- Pictures-A.jpg (4 MB)
mbsm-dot-pro-capacitor-explodes- Pictures-A.jpg (1 MB)
mbsm-dot-pro-capacitor-explodes- Pictures-B.jpg (3 MB)
mbsm-dot-pro-capacitor-explodes- Pictures-B.jpg (1 MB)
mbsm-dot-pro-capacitor-explodes- Pictures-C.jpg (3 MB)
mbsm-dot-pro-capacitor-explodes- Pictures-C.jpg (1 MB)
mbsm-dot-pro-capacitor-explodes- Pictures-D.jpg (3 MB)
mbsm-dot-pro-capacitor-explodes- Pictures-D.jpg (1 MB)
mbsm-dot-pro-capacitor-explodes- Pictures-F.jpg (2 MB)

mbsm-dot-pro-capacitor-explodes- Pictures-F.jpg (748 KB)

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mbsm-dot-pro-capacitor-explodes- Pictures-I.jpg (1 MB)

mbsm-dot-pro-capacitor-explodes- Pictures-J.jpg (2 MB)

mbsm-dot-pro-capacitor-explodes- Pictures-J.jpg (739 KB)

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www.mbsm.pro , Original New, ASD53K, Original New 1/6HP, R134a, LBP, Wanbao, Refrigerator, compressor, China, R134A, 220V/50Hz, 1PH, 144W, Huaguang, Refrigerator Reciprocating

Category: Solutions,Technologie,Tester ok
written by Jamila | 11 April 2019
www.mbsm.pro , Original New, ASD53K, Original New 1/6HP, R134a, LBP, Wanbao, Refrigerator, compressor,China, R134A, 220V/50Hz, 1PH, 144W, Huaguang, Refrigerator Reciprocating

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Resin Pack ,Brushless ,Dc motor , Gangdomg ,Welling Motor Manufacturing

,CO.,LTD. ,DC280v ,20w , 0.10a ECL ,8P 1300r/min

Category: Solutions,Technologie,Tester ok
written by www.mbsm.pro | 11 April 2019
Resin Pack ,Brushless ,Dc motor , Gangdomg ,Welling Motor Manufacturing ,CO.,LTD. ,DC280v ,20w , 0.10a ECL ,8P 1300r/min

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www.mbsm.pro , ASD65 , R134A ,220V/50Hz ,1/5HP 173W ,Huaguang ,Refrigerator, Compressor ,LBP

Category: Solutions,Tester ok
written by www.mbsm.pro | 11 April 2019
www.mbsm.pro , ASD65 , R134A ,220V/50Hz ,1/5HP 173W ,Huaguang ,Refrigerator, Compressor ,LBP

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www.mbsm.pro , Cold ,refrigeration ,compressor 1/4 hp, QD76HG ,HM Series , R134a ,HBP

Category: Solutions,Tester ok
written by www.mbsm.pro | 11 April 2019
www.mbsm.pro , Cold ,refrigeration ,compressor 1/4 hp, QD76HG ,HM Series , R134a

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www.mbsm.pro ,ZEL ,COMPRESSEUR ,R134a ,1/4 HP ,GVY75AA

Category: Solutions,Tester ok
written by www.mbsm.pro | 11 April 2019
Compresseur frigorifique
Puissance en cheval 1/4 CV
Alimentation 220-240 V 50 Hz
Gaz R134a

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www.mbsm.pro , Liste des codes secrets sur Android

Category: Non classé,Technologie
written by mahdi miled | 11 April 2019
*#06# – IMEI du téléphone
#0# – Menu d'informations (ne fonctionne pas sur tous les téléphones)
##4636#*#* – Menu d'informations
##34971539#*#* – Menu d'informations sur l'appareil photo
##1111#*#* – Version software FTA
*#12580*369# – Infos sur le logiciel et sur le hardware
*#7465625# – Statut de verrouillage de l'appareil
##232338#*#* – Montre l'adresse MAC de l'appareil

Mbsm.pro , Compressor ESC 8.5, R134a, Necchi (530591) , 1/5 Hp ,159 w

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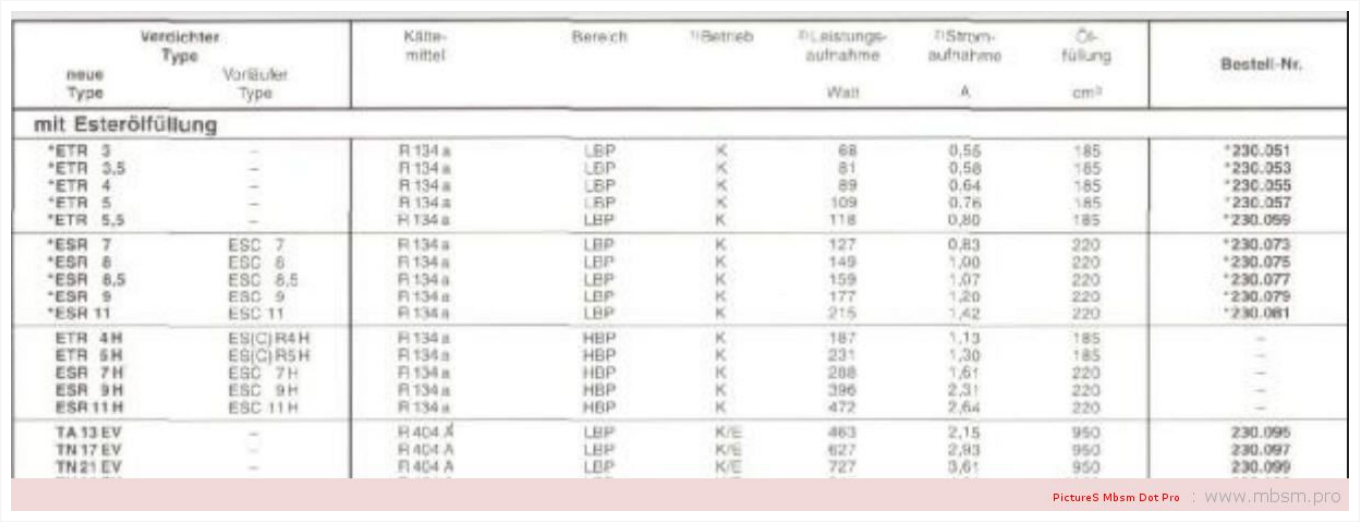
Mbsm.pro , Compressor ESC 8.5, R134a, Necchi (530591) , 1/5 Hp ,159 w

	Motore	cm³	Volt	Watt –10°C	Watt –30°C	
RIB5150	A9EV – R22 – 3/8 – LBP	CSR	9,29	220	642	
RIB5160	A11EV – R22 – 1/2 Hp – LBP	CSR	11,11	220	781	
RIB5350	A13EV – R22 – 5/8 Hp – LBP	CSR	13,35	220	967	
RIB5450	N17EV – R22 – 3/4 Hp – LBP	CSR	17,52	220	1221	
RIB5550	N21EV – R22 -1- Hp LBP	CSR	20,68	220	1464	
RIB5650	N23EV – R22 – 1,2 Hp – LBP	CSR	23,18	230	1616	
RIB7104	NB4 COMPRESS. R12 24V. FRAMEC 1/8 =					
RIB7108	NB8 COMPRESS. R12 24V.FRAMEC 175W.=					
RIB7113	NB13HP COMPRESS.R12 24V.FRAMEC 1/3=					
RIBB010	ETR 3 – R134A – 1/12 Hp – LBP	RSIR	3,00	220	127	
RIBB020	ETR 3,5 HP 1/10 R134A – LBP	RSIR	3,50	220	156	
RIBB030	ETR 4 HP 1/8 R134A – LBP	RSIR	4,10	220	179	
RIBB040	ETR 5 – R134a – HP 1/6 – LBP	RSIR	5,12	220	231	
RIBB050	ETR5,5 – R134a – 1/6 Hp – LBP	RSIR	5,55	220	257	
RIBB080	ESC5 – R134a – 1/6 Hp – LBP	RSIR	5,12	220	222	
RIBB100	ESC7 – R134a – 1/5 Hp – LBP	RSIR	7,00	220	307	
RIBB110	ESC8 – R134a – 1/5 Hp – LBP	RSIR	7,75	220	358	
RIBB130	ESC9 – R134a – 1/4 Hp – LBP	RSIR	9,07	220	424	
RIBB140	ESC11 – R134a – 1/3 Hp – LBP	RSIR	10,63	220	501	
RIBB200	ESC4H – R134a – 1/8 Hp – LBP	RSIR	4,10	220	177	
RIBB400	ESR 7 – R134a – 1/5 Hp – LBP	RSIR	7,00	220	307	
RIBB410	ESR 8 – R134a – 1/5 Hp – LBP	RSIR	7,75	220	358	
RIBB430	ESR 9 – R134a – 1/4 Hp – LBP	RSIR	9,07	220	424	

RIBB440	ESR11 – R134a – 1/3 Hp – LBP	RSIR	10,63	220	501	
RIBE040	TN17EV – R404 – 3/4 Hp – LBP	CSR	17,52	220		565
RIBE050	TN21EV – R404 – 1 Hp – LBP	CSR	20,68	220		644
RIBE060	TN23EV – R404 – 1,2 Hp – LBP	CSR	23,18	220		726
RIBT999	COMPRESSORE ELECTROLUX DESCR.BOLLA					



Verdichter Type neue Type	Verdichter Type Vorläufer Type	Kälte-mittel	Bereich	Betrieb	Leistungs-aufnahme Watt	Strom-aufnahme A	Öl-füllung cm³	Bestell-Nr.
mit Esterölfüllung								
*ETR 3	–	R 134 a	LBP	K	68	0,55	185	*230.051
*ETR 3,5	–	R 134 a	LBP	K	81	0,58	185	*230.053
*ETR 4	–	R 134 a	LBP	K	89	0,64	185	*230.055
*ETR 5	–	R 134 a	LBP	K	109	0,76	185	*230.057
*ETR 5,5	–	R 134 a	LBP	K	118	0,80	185	*230.059
*ESR 7	ESC 7	R 134 a	LBP	K	127	0,83	220	*230.073
*ESR 8	ESC 8	R 134 a	LBP	K	149	1,00	220	*230.075
*ESR 8,5	ESC 8,5	R 134 a	LBP	K	159	1,07	220	*230.077
*ESR 9	ESC 9	R 134 a	LBP	K	177	1,20	220	*230.079
*ESR 11	ESC 11	R 134 a	LBP	K	215	1,42	220	*230.081
ETR 4H	ES(C)R4H	R 134 a	HBP	K	187	1,13	185	–
ETR 5H	ES(C)R5H	R 134 a	HBP	K	231	1,30	185	–
ESR 7H	ESC 7H	R 134 a	HBP	K	288	1,61	220	–
ESR 9H	ESC 9H	R 134 a	HBP	K	396	2,31	220	–
ESR 11H	ESC 11H	R 134 a	HBP	K	472	2,64	220	–
TA 13 EV	–	R 404 A	LBP	K/E	463	2,15	950	230.095
TN 17 EV	–	R 404 A	LBP	K/E	627	2,93	950	230.097
TN 21 EV	–	R 404 A	LBP	K/E	727	3,61	950	230.099

Mbsm.pro , Compresseur Aspera , Embraco NT6220Z , R134a ,power 3/4 Hp, displacement 22.40 cc , gas R134a HMBP , 220/240V

Category: Solutions,Tester ok
written by www.mbsm.pro | 11 April 2019
Mbsm.pro , Compresseur Aspera , Embraco NT6220Z , R134a ,power 3/4 Hp, displacement 22.40 cc , gas R134a HMBP , 220/240V
Compresseur hermetique de Aspera – Embraco NT6220Z – R134a
3/4 HP
220V 50Hz 1~
Cylindrée = 22.37 CM3
APPLICATIONS = HBP
Moteur type: CSIR

EMBRACO Asprea Compressor NT6220Z

Technical Details

- 220/240V
- 50Hz
- power 3/4 Hp, displacement 22.40 cc
- gas R134a HMBP
- ASPERA

SKU: 3070180

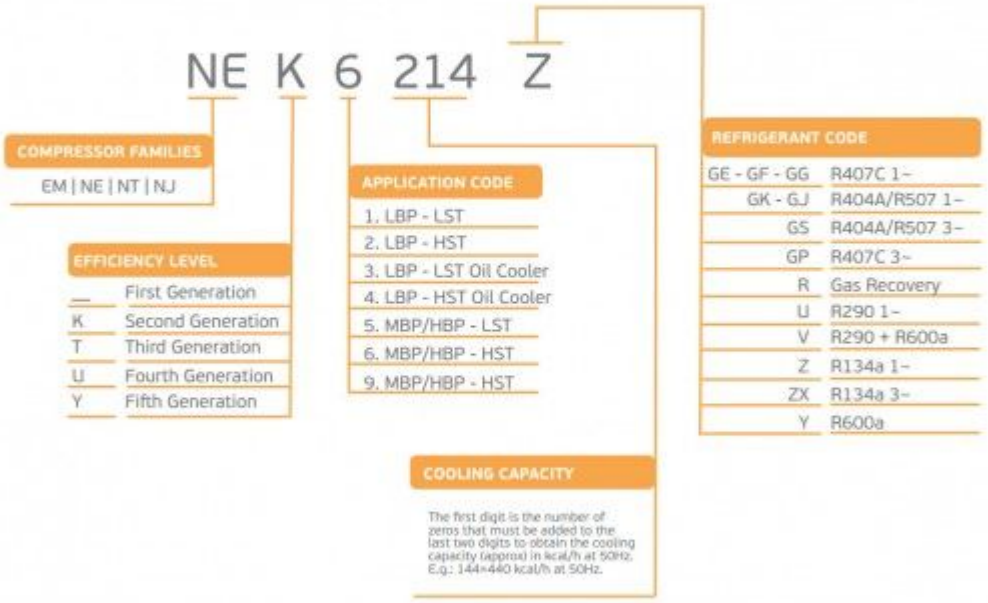
Suitable For/Compatible With

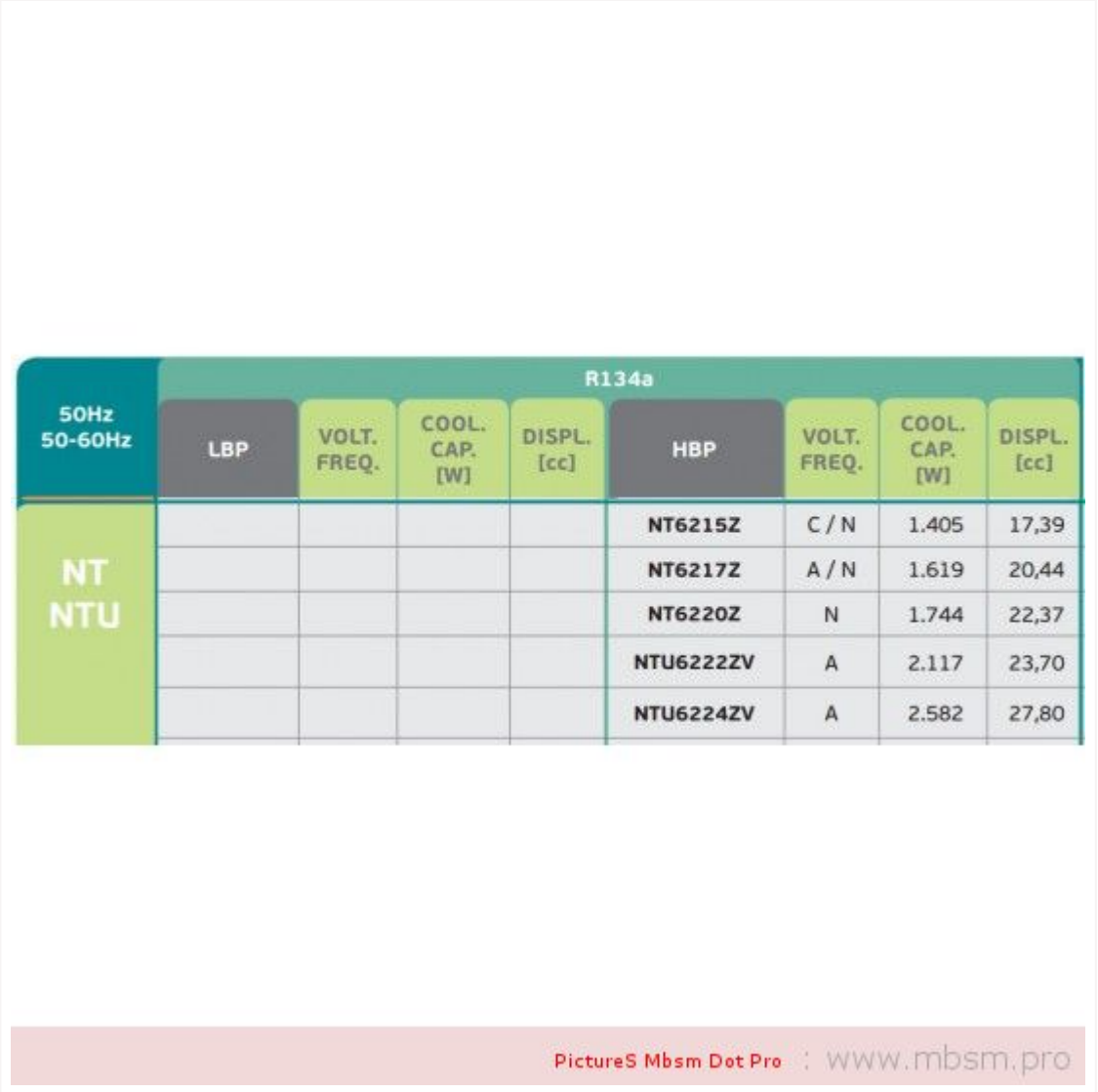
- NT6220Z ASPERA
- NT6220Z-CSIR ASPERA
- NT6220Z EMBRACO
- NT6220Z-CSIR EMBRACO

embraco NT

R134a HBP

EM/NE/NT/NJ





50Hz 50-60Hz	R134a							
	LBP	VOLT. FREQ.	COOL. CAP. [W]	DISPL. [cc]	HBP	VOLT. FREQ.	COOL. CAP. [W]	DISPL. [cc]
NT NTU					NT6215Z	C / N	1.405	17,39
					NT6217Z	A / N	1.619	20,44
					NT6220Z	N	1.744	22,37
					NTU6222ZV	A	2.117	23,70
					NTU6224ZV	A	2.582	27,80

Mbsm.Pro , Tecumseh Refrigeration Compressor, CAE9460Z ,R404A refrigerant ,3/8 hp, mhbp, 1/2HP ,1PH(phase) , 220V to 240V

Category: Solutions,Tester ok
written by Jamila | 11 April 2019
Mbsm.Pro , Tecumseh Refrigeration Compressor ,R404A refrigerant ,1/2HP ,1PH(phase) , 220V to 240V

- Brand Name:Tecumseh
- Certification:RoHS
- Application:Refrigeration Parts
- Type:Refrigeration Compressor

LOW BACK PRESSURE COMPRESSORS

Type	COMPRESSOR MODELS	Nominal Power (H.P.)	Refrigerant	Displacement (cm^3)	Oil charge (cm3)	REFRIGERATION CAPACITY AT 50HZ Rafed @54.5℃ Cond Temp (Watts) Evaporating Temperature -45℃	-40℃	-35℃	-30℃	-23.3℃	-20℃	-10℃	VOLTAGE
PISTON	AEZ2415Z	7/16	R404A	8.1	350			160	231	355	429	703	220-240V/1/50Hz
	CAE2417Z	7/16	R404A	11.3	350	37.8	62	161	280	460	557	891	220-240V/1/50Hz
	CAE2420Z	1/2	R404A	12.6	350	194	179	232	357	547	654	1047	220-240V/1/50Hz
	CAE2424Z	5/8	R404A	15.1	350	228	180	291	442	664	783	1199	220-240V/1/50Hz
	CAJ2428 TAJ2428Z	3/4	R404A	15.2	887			306	434	628	773	1246	220-240V/1/50Hz 400V/3/50Hz
	CAJ2432Z TAJ2432Z	3/4	R404A	18.3	887	331	265	318	510	792	950	1560	220-240V/1/50Hz 400V/3/50Hz
	CAJ2440Z	1	R404A	21	887	532	394	452	647	975	1166	1876	220-240V/1/50Hz
	CAJ2446Z TAJ2446Z	1	R404A	26.15	887	702	575	549	797	1194	1423	2290	220-240V/1/50Hz 400V/3/50Hz
	CAJ2464Z TAJ2464Z	1-1/2	R404A	34.45	887	805	626	723	1076	1605	1902	3012	220-240V/1/50Hz 400V/1/3/50Hz
	FH2480Z TFH2480Z	2	R404A	53.2	1625	292	420	738	1319	2183	2662	4419	220-240V/1/50Hz 400V/3/50Hz
	FH2511Z TFH2511Z	3	R404A	74.25	1625	1561	1203	1380	2016	3135	3796	6222	220-240V/1/50Hz 400V/3/50Hz
	TAG2516Z TAGP2516Z	4	R404A	112.5	1960	1696	1407	1743	2704	4356	5335	9038	400V/3/50Hz
	TAG2522Z TAGP2522Z	6	R404A	134.8	1960	2541	2012	2378	3542	5522	6688	11062	400V/3/50Hz
	TAGD2532Z	8	R404A	225	3020	3392	2814	3486	5400	8712	10671	18078	400V/3/50Hz

THENEWTWOGENERATIONBRAZILCOMPRESSORS

TYPE	COMPRESSOR MODELS	Nominal Power (H.P.)	Refrigerant	Displacement (cm^3)	REFRIGERATION CAPACITY AT 50HZ Rafed 54.5℃ Cond Temp (Watts) Evaporating Temperature -20℃	-15℃	-10℃	-5℃	0℃	+5℃	+10℃	+15℃	VOLTAGE
PISTON	AE4425Z-FZ1A	1/5	R404A	4.24	222	228	290	362	446	545	659	792	220-240V/1/50HZ
	AE4430Z-FZ1A	1/4	R404A	5.16	216	293	375	466	568	685	821	977	220-240V/1/50HZ
	AE4440Z-FZ1A	1/3	R404A	6.69	278	377	482	599	730	881	1055	1257	220-240V/1/50HZ
	AE4450Z-FZ1A	7/16	R404A	8.85	369	500	640	795	970	1170	1401	1668	220-240V/1/50HZ
	AE4460Z-FZ1C	1/2	R404A	10.33		636	784	959	1160	1380	1630	1920	220-240V/1/50HZ

Tecumseh Compressor

LOW BACK PRESSURE COMPRESSORS

TYPE	COMPRESSOR MODELS	Nominal Power (H.P.)	Refrigerant	Displacement (cm^3)	Oil charge (cm3)	REFRIGERATION CAPACITY AT 50HZ Rafed @54.5℃ Cond Temp (Watts) Evaporating Temperature -35℃	-30℃	-25℃	-20℃	-15℃	-10℃	VOLTAGE
ROTARY	RGA/HGA2426Z	2/3	R404A	9.50	290	375	474	590	726	888	1080	220-240V/1/50HZ
	RGA/HGA2432Z	4/5	R404A	11.50	290	451	587	707	872	1065	1290	220-240V/1/50HZ
	RGA/HGA2436Z	1	R404A	12.70	290	508	643	804	994	1219	1483	220-240V/1/50HZ

Tecumseh Compressor

MEDIUM/HIGH BACK PRESSURE COMPRESSORS

TYPE	COMPRESSOR MODELS	Nominal Power (H.P.)	Refrigerant	Displacement (cm^3)	Oil charge, (cm3)	REFRIGERATION CAPACITY AT 50HZ Rafed @54.5℃ Cond Temp (Watts) Evaporating Temperature -15℃	-10℃	-5℃	0℃	+5℃	+10℃	+15℃	VOLTAGE
ROTARY	RGA/HGA4467Z	1/2	R404A	9.50	290	679	847	1047	1283	1557	1872	2231	220-240V/1/50Hz
	BGA/HGA4480Z	2/3	R404A	11.50	290	825	1017	1252	1530	1851	2212	2613	220-240V/1/50Hz
	RGA/HGA4492Z	3/4	R404A	12.50	290	905	1133	1398	1706	2060	2468	2932	220-240V/1/50Hz
	RGA/HGA4512Z	1	R404A	16.10	290	1163	1438	1770	2160	2609	3118	3689	220-240V/1/50Hz
	RGA/HGA4445Y	1/3	R134a	9.50	290	392	493	618	770	954	1173	1430	220-240V/1/50Hz
	RGA/HGA4450Y	2/5	R134a	11.50	290	501	625	778	963	1184	1445	1749	220-240V/1/50Hz
	RGA/HGA4460Y	1/2	R134a	12.70	290	537	677	844	1045	1287	1576	1920	220-240V/1/50Hz