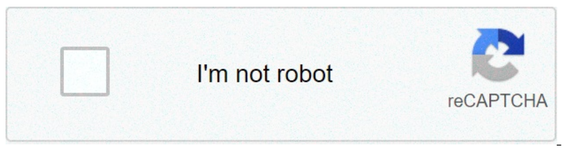


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# R134a suction and discharge pressure chart pdf

R 134a system pressure chart ac pro hot gas byp hgbp and the pressure refrigerants heat pumps refrigerant fluid an overview cfc 12 replacement refrigerant Uses Of Refrigeration Low Pressure ControlsWhat Is The Suction Pressure Of An R 134a In A Low Temperature Deep Zer Quora134a Pressure Chart Gallery Of 2019R 134a System Pressure Chart Ac ProRefrigerant Pressure Temperature Chart R407c R410a R134a R404a Freon R600Refrigerant Pressures States And ConditionsUses Of Refrigeration Low Pressure Controls2 Effect On Suction Discharge Temperature Of Pressor With And Scientific DiagramRefrigerant Pressures States And ConditionsWo2001023491a1 Cfc 12 Replacement Refrigerant Google Patents134a Pressure Chart Gallery Of 2019Convert Auto R12 System To R134a Ricks Repair Advice Automotive And HowWo2001023491a1 Cfc 12 Replacement Refrigerant Google PatentsUses Of Refrigeration Low Pressure ControlsR 134a System Pressure Chart Ac ProRefrigeration Energy ModelsR 12 To 134a Refrigerant RetrofitUses Of Refrigeration Low Pressure ControlsR12 Freon Ac Temp Pressure Performance Chart Corvetteforum Chevrolet Corvette Forum DiscussionConvert auto r12 system to r134a ricks repair advice automotive and how r 134a system pressure chart ac pro r12 freon ac temp pressure performance chart corvetteforum chevrolet corvette forum discussion jeep grand wagoneer r 12 to 134a conversion procedure  This chart details how ambient temperature correlates with the system refrigerant charge pressure, and how it affects high and low side psi readings. It can be used for recharging refrigerant, or to diagnose an a/c system based on pressure readings from your gauges. Ambient Temperature (°F)Low SideHigh Side 110°50-55 psi335-345 psi 105°50-55 psi325-335 psi 100°50-55 psi300-325 psi 95°50-55 psi275-300 psi 90°50-55 psi250-275 psi 85°50-55 psi220-250 psi 80°45-50 psi175-220 psi 75°40-45 psi150-175 psi 70°35-40 psi140-165 psi 65°25-35 psi135-155 psi  A/C System Pressure Troubleshooting  In conjunction with a set of high and low side gauges, this temperature and pressure relationship charge can be used to diagnose an a/c compressor that is not working. Low Side and High Side Pressures are Low • Refrigerant charge below manufacturer specification • A/C compressor not engaged / variable displacement inoperable • A/C compressor performance deteriorating If you are confident with your A-C compressor it means then it is operating at an optimal capacity. But of course, it operates as an element in refrigeration so it might develop some malfunction over time. If you are to deal with such an issue on your own and in a safe fashion then you need to understand how to interpret the reading provided by the A-C compressor unit. You can always hire an A-C pro help if you don’t know how to read it. But the serviceman you are hiring needs to have the expertise to identify the problem within the compressor unit. In this article, we are going to find everything about what an R134a chart is and how it works. What is the meaning of R134a? R134a is a type of refrigerant and it is quite commonly used in a range of different homes as well as industrial appliances. All these appliances come with a refrigeration unit fitted to them and it is called a compressor. Within the compressor, these appliances have R134a refrigerant or coolant. This refrigerant allows the compressor to effectively perform all its designated functions. Now, when you add a gauge or a meter to understand the current operational status of this compressor you will have to deal with different readings, and for that, you will need your R 134a chart. How Does the R134a Pressure Chart Help? The gauge displays different pressure readings during operation and to interpret those readings against temperature, you will need a pressure chart, or an R134 pressure chart to be precise. This pressure chart has three different columns within a table and it has all the readings on it. The three columns are titled high side pressure columns, low side pressure columns, and temperature columns. Usually, it is called an AC pressure chart but because we are talking about the 134a refrigerant, therefore, we will address it as an R134a pressures chart. This chart provides us with the relation between temperature and pressure of the 134a refrigerant. Different Components of R134a Pressure Charts Ambient Temperature Low Side Pressure High Side Pressure 110°F 50 → 55 PSI 335 → 345 PSI 105°F 50 → 55 PSI 325 → 335 PSI 100°F 50 → 55 PSI 300 → 325 PSI 95°F 50 → 55 PSI 275 → 300 PSI 90°F 50 → 55 PSI 250 → 275 PSI 85°F 50 → 55 PSI 220 → 250 PSI 80°F 45 → 50 PSI 175 → 220 PSI 75°F 40 → 45 PSI 150 → 175 PSI 70°F 35 → 40 PSI 140 → 165 PSI 65°F 25 → 35 PSI 135 → 155 PSI Primarily there are two components of the R 134a pressure temperature chart: one is temperature and the other is pressure. But there are two different columns of pressure readings. One of them is high side pressure and the other one is low side pressure. The gauge that is there on the refrigeration component also features two meters. One of the meters shows high-pressure readings while the other one shows low-pressure readings. This pressure chart for R 134a details the relationship between pressure and temperature. So is it really important? Yes, you can use this chart to find out whether your A-C compressor is in the need of a refrigerant recharge or not. These readings can also tell you whether the compressor is working at its best or not. But finding out these readings is a pretty hectic and time-consuming job and this is where the pressure chart comes in. but even using this chart is not a walk in the park and for the best results you have to measure it against the readings of pressure. In other words, you have to understand what each of these readings stands for. To properly interpret the reading you will have to read both sides of the gauges and the table. But to ease things down a bit, it is more important that you focus on the low-pressure gauge and compare it with temperature readings. Reading the low side of the pressure-temperature chart The rule of thumb is that a compressor that is performing well gives off low numbers on the low-pressure gauge. It means that the compressor doesn’t need any cleaning and it is also getting proper airflow. It will allow you to read and interpret the pressure-temperature chart more effectively. This is a no-brainer because only a good compressor can keep working at low pressure even in high temperatures. But it also indicated two other things. The A-C compressor unit is currently not engaged and hence there is altering displacement in the compressor’s operation. Or the operation of your compressor is failing and you have to replace it. On the other hand, if the low side pressure is high on the chart, it means, You need to look at the condenser fan and see that it is working properly or not. There might be some dirt that is clogging it which causes obstruction in the air. The flow of refrigerant might also obstruct the compressor. When the system pressure is low on the low side of the chart and the temperature is high, it means that the overall system is not functioning at an optimal level. Apart from that, when you see that the pressure-temperature chart is indicating almost equal system pressure on both sides then, The displacement function of the AC compressor might not be working and you have to check it. There is an expansion valve in the air conditioning and it may not be working. In simple words, your A-C compressor might be failing. Normal Operating Pressures For R 134a Refrigerant The pressure gauges for this refrigerant stays between 22 PSI and 57 PSI (pounds per square inch). But you have to keep in mind that there are two different sides to this chart. And you have to consider the low as well as the high side. Hence, the normal low-pressure side for R 134a needs to be less than 90 degrees. Plus, the PSI should be right around 30. Why is Low Side Pressure High? Going through the entire text above, you will come to know that low side high pressure on the chart is not a good sign. It is because the A-C compressor system of your car might be failing and you have to service it. When having a closer look, your technician might end up noting one or all of the following situations, The technician might determine that the condenser fan is not running because of the clogged dirt. It is causing an obstruction in the airflow. Or there is a chance that the technician might find out that the refrigerant is not flowing properly either. Final Word A pressure-temperature chart is a useful tool for every car A-C system or appliance technician. It is equally important for a home inspection and commercial interpretation. This table assists in scrutinizing, identifying, and resolving several problems that might arise due to refrigerants within different systems. Therefore, if you are a car or appliance technician you will need to have this chart in your kit at all times. You can also watch this video for further assistance. RefrigerantHQ's Pressure Charts R-134a is the most common refrigerant found in automobiles today. It has been in use since the early 1990’s and now, in 2019, we are beginning to see it’s popularity wane with the rise of the new HFO refrigerant known as R-1234yf. That being said, there are still millions of cars on the road that use R-134a and there will be continue to be for at least another decade or more. When something does go wrong with your car’s air conditioner  a lot of folks are not sure what to do or where to even start. One of the very first steps is to check the pressure of your system. Understanding the pressure that your system is at as well as knowing what the saturation point is of R-134a will allow you to properly diagnose what is wrong with your system. Remember, that air conditioning is basically changing the pressure on the refrigerant until a state change is reached. If your pressure is off then that could point you in the right direction. With the facts behind you can then begin to determine if your compressor is at fault, perhaps your condenser, or it could be something as simple as your blower motor needing replaced. Without knowing the pressure in your system and the corresponding saturation point then you are in essence going in blind when you attempt to troubleshoot your air conditioning system. I can assure you that when you take your vehicle into a dealership that the pressure and temperature are one of the first things they check when troubleshooting. For more information on R-134a click here to be taken to our official ‘R-134a Refrigerant Fact and Information Sheet.’ This fact sheet goes into anything and everything you’d ever want to know about R-134a. There’s quite a bit to read, but if it is definitely worth your while if you’re interesting learning more about this HFC refrigerant. Our R-134a pressure chart can be found below: °F°CPSIKPA -49-4518.4126.9 -48-44.418124.1 -47-43.917.6121.3 -46-43.317.3119.3 -45-42.816.9116.5 -44-42.216.5113.8 -43-41.716.1111 -42-41.115.7108.2 -41-40.615.2104.8 -40-4014.8102 -39-39.414.499.3 -38-38.913.995.8 -37-38.313.492.4 -36-37.81389.6 -35-37.212.586.2 -34-36.71282.7 -33-36.111.478.6 -32-35.610.975.2 -31-3510.471.7 -30-34.49.867.6 -29-33.99.364.1 -28-33.38.760 -27-32.88.155.8 -26-32.27.551.7 -25-31.76.947.6 -24-31.16.343.4 -23-30.65.739.3 -22-30534.5 -21-29.44.329.6 -20-28.93.725.5 -19-28.3320.7 -18-27.82.315.9 -17-27.21.510.3 -16-26.70.85.5 -15-26.10.10.7 -14-25.60.42.8 -13-250.74.8 -12-24.41.17.6 -11-23.91.510.3 -10-23.31.913.1 -9-22.82.416.5 -8-22.22.819.3 -7-21.73.222.1 -6-21.13.624.8 -5-20.64.128.3 -4-204.631.7 -3-19.4534.5 -2-18.95.537.9 -1-18.3641.4 0-17.86.544.8 1-17.2748.3 2-16.77.551.7 3-16.1855.2 4-15.68.558.6 5-159.162.7 6-14.49.666.2 7-13.910.270.3 8-13.310.874.5 9-12.811.377.9 10-12.211.982 11-11.712.586.2 12-11.113.190.3 13-10.613.895.1 14-1014.499.3 15-9.415103.4 16-8.915.7108.2 17-8.316.4113.1 18-7.817117.2 19-7.217.7122 20-6.718.4126.9 21-6.119.1131.7 22-5.619.9137.2 23-520.6142 24-4.421.3146.9 25-3.922.1152.4 26-3.322.9157.9 27-2.823.7163.4 28-2.224.5168.9 29-1.725.3174.4 30-1.126.1180 31-0.626.9185.5 32027.8191.7 330.628.6197.2 341.129.5203.4 351.730.4209.6 362.231.3215.8 372.832.2222 383.333.1228.2 393.934.1235.1 404.435241.3 41536248.2 425.637255.1 436.138262 446.739268.9 457.240.1276.5 467.841.1283.4 478.342.2291 488.943.2297.9 499.444.3305.4 501045.4313 5110.646.6321.3 5211.147.7328.9 5311.748.9337.2 5412.250344.7 5512.851.2353 5613.352.4361.3 5713.953.6369.6 5814.454.9378.5 591556.1386.8 6015.657.4395.8 6116.158.7404.7 6216.760413.7 6317.261.3422.6 6417.862.7432.3 6518.364441.3 6618.965.4450.9 6719.466.8460.6 682068.2470.2 6920.669.7480.6 7021.171.1490.2 7121.772.6500.6 7222.274.1510.9 7322.875.6521.2 7423.377.1531.6 7523.978.7542.6 7624.480.2553 772581.8564 7825.683.4575 7926.185586.1 8026.786.7597.8 8127.288.4609.5 8227.890620.5 8328.391.8632.9 8428.993.5644.7 8529.495.2656.4 863097668.8 8730.698.8681.2 8831.1100.6693.6 8931.7102.5706.7 9032.2104.3719.1 9132.8106.2732.2 9233.3108.1745.3 9333.9110758.4 9434.4112772.2 9535114786 9635.6115.9799.1 9736.1118813.6 9836.7120827.4 9937.2122.1841.9 10037.8124.2856.3 10138.3126.3870.8 10238.9128.4885.3 10339.4130.6900.5 10440132.8915.6 10540.6135930.8 10641.1137.2946 10741.7139.5961.8 10842.2141.7977 10942.8144992.8 11043.3146.41009.4 11143.9148.71025.3 11244.4151.11041.8 11345153.51058.3 11445.61561075.6 11546.1158.41092.1 11646.7160.91109.4 11747.2163.51127.3 11847.81661144.5 11948.3168.61162.5 12048.9171.21180.4 12149.4173.81198.3 12250176.51216.9 12350.6179.11234.9 12451.1181.81253.5 12551.7184.61272.8 12652.2187.41292.1 12752.8190.21311.4 12853.31931330.7 12953.9195.81350 13054.4198.71370 13155201.61390 13255.6204.61410.7 13356.1207.61431.4 13456.7210.61452 13557.2213.61472.7 13657.8216.71494.1 13758.3219.81515.5 13858.9222.91536.8 13959.42261558.2 14060229.21580.3 14160.6232.51603 14261.1235.71625.1 14361.72391647.8 14462.2242.31670.6 14562.8245.71694 14663.3249.11717.5 14763.9252.51740.9 14864.4255.91764.4 14965259.41788.5 15065.6262.91812.6 There you have it folks. I hope this article was helpful and if you find that something is inaccurate here in my chart please do not hesitate to reach out to me. I have sourced this the best I could but there is always going to be conflicting data.  I’ve seen it multiple times on various refrigerants. I’ll search for a refrigerant’s pressure chart and get various results all showing different pounds per square inch temperatures. The aim with this article is to give you accurate information so again, if you see anything incorrect please let me know by contacting me here. On top of this post we are also working on a comprehensive refrigerant pressure/temperature listing. The goal is to have every refrigerant out there listed with a pressure/temperature chart that is easily available.  Thanks for reading, Alec Johnson RefrigerantHQ Owner