

When Speaking of AC/HP's, Is Close Good Enough

I found recently when trying to obtain additional spare parts for my Coleman Polar Mach Heat Pumps, some parts were not so easily found. When I did find the parts I was looking for they were not the correct ones for my units. Even though the parts were not the correct ones for my unit, that did not stop the RV parts people from still trying to sell them to me with "well this is what everyone uses". I have spent the better part of my life studying and working around electrical and electronic devices. I have found "Close Is Not Always Good Enough" when you are dealing with electronic devices.

I have found many RV parts people have ABSOLUTELY NO IDEA WHEN DEALING WITH ELECTRONIC PARTS, NONE". And most will still make an attempt to convince you to buy what they have on the shelf.

This most recent episode and some recent threads on the forum got me to looking around, researching and comparing the various Coleman AC/HP units and their parts. This paper is about my Coleman Polar Mach AC/HP units. Tiffin installed two of these units on my 2007 Phaeton. Both units are model # **9024879**. Tiffin at least on my unit pasted a sheet of paper with the various installed components, models and serial numbers on the wall in the closet. Below is the breakdown of the model number for my Coleman AC/HP's.

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Model Series	Revision Letter	Compressor Manufacturer	Start Kit	Shroud Color			
				6 Panasonic			
				7 Sanyo			
				8 Tecumseh			

That means my model # **9024879** Coleman AC/HP unit code breaks down to the following. The **9024** means the unit is a Coleman Polar Mach 15. I do not see a revision letter as it was left blank. The next number is an **8** that means my unit has a Tecumseh compressor. The next number is a **7** that denotes the Start Kit, and the last number is a **9** which denotes the shroud color, in this case the color is Black.

In recent years Tiffin has been installing the Coleman brand of AC or AC/HP units. Depending on the coach model and length the installed unit(s) may be a Coleman Polar Mach 13.5 or 15. The 13.5 and 15 mean the unit is rated at a capacity of 13,500 or 15,000 BTU (British Thermal Units).

So where am I going with this? It seems the parts people are limited in their money and or shelf space there for they do not stock the necessary parts in order to take care of the usual spare parts which are most often needed. The most common units installed by Tiffin are as I stated the 13.5 and 15 Polar Mach units some parts are interchangeable but not all of the parts. While developing my electronic spare parts list, this is what I found while I was researching.

9023779 unit a Coleman Polar Mach HP and rated at 13,500 BTU.

Below are the part numbers for the various capacitors needed for this unit.

Part Name	Compressor Type	Part Number	Part Value
Hard Start Kit		9333-9021	88-108 Mfd/250V
Run Capacitor	7 Sanyo	1499-5731	45 Mfd/370V
Fan Capacitor		1499-5461	7.5 Mfd/370V

9023879 unit a Coleman Polar Mach HP and rated at 13,500 BTU.

Below are the part numbers for the various capacitors needed for this unit.

Part Name	Compressor Type	Part Number	Part Value
Hard Start Kit		9333-9021	88-108 Mfd/250V
Run Capacitor	8 Tecumseh	1499-5721	40 Mfd/370V
Fan Capacitor		1499-5461	7.5 Mfd/370V

In the above two units is close good enough in this case? You may never have a problem by installing a 40 Mfd capacitor in a Sanyo compressor unit, but then again you may, the unit was designed for a 45 Mfd capacitor!

So that brings me to the units installed on my coach, the Coleman Polar Mach 15,000 BTU unit. The AC/HP unit Tiffin installed on my 2007 Phaeton and most models at are above this trim level.

9024879 unit a Coleman Polar Mach HP and rated at 15,000 BTU.

Below are the part numbers for the various capacitors needed for this unit.

Part Name	Compressor Type	Part Number	Part Value
Hard Start Kit		9333-9021	88-108 Mfd/250V
Run Capacitor	8 Tecumseh	1499-57 31	45 Mfd/370V
Fan Capacitor		1499-5461	7.5 Mfd/370V

Are you confused yet? If you do not know what Coleman unit **by model number** was installed on your coach **BEFORE** you walk up to that parts counter, I can almost guarantee, you will not purchase what you need. What you purchase may work for a while they do design into these units a margin of forgiveness. However in this case some of that margin of forgiveness has been used by installing an under valued capacitor which is going to struggle to maintain the temperature in your coach. At some point the capacitor is going to quit, the first though you will have is that is the same capacitor I just replaced. Do yourself a favor, if in an emergency you just have got to purchase an undervalued capacitor, relay or what ever part to get you unit operating. Just as soon as possible purchase the correct replacement part and install it. Put the undervalued part in your spare parts supply ready for the next emergency.