

Contractor Service Tips

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Single Phase Motor Terminal ID

Many air conditioning systems incorporate a hermetic (welded body) compressor as the standard. It is extremely important for the HVAC technician to identify the correct electrical terminals. If the electrical terminals are not wired correctly, severe compressor or system damage will result.

A standard has been developed for single phase welded compressors. The standard terminal designation is read like a book, from left to right and from top to bottom. The order of these terminals is Common (C) - Start (S) - Run (R).

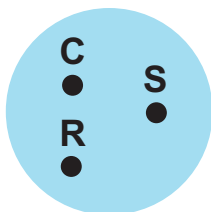
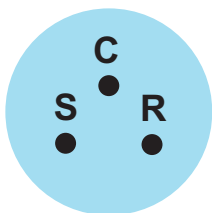
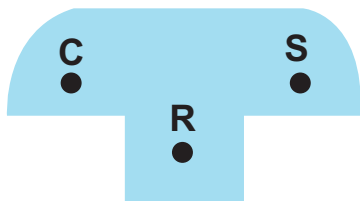
While protectors are very reliable and do a good job of protecting a compressor motor against normal overload situations, they cannot protect motors against miswiring and defective external components. Miswiring a compressor can cause a motor to burn in as little as 25 seconds. Any motor miswired or used with defective components will ultimately fail.

Be sure to check or replace any electrical components including but not limited to the contactor, run capacitor, relay, and start capacitor. Any of these components could also cause compressor failure.



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Motor Terminal Identification



On single phase hermetic compressors, the order of these terminals is C - S - R. This is read like a book, from left to right and from top to bottom. The “Common” terminal is always first, followed by “Start” and then “Run”.