

Amp draw at startup on a 4 ton / 2 stage unit?

See attached compressor data summary for an Emerson Copeland 4-Ton Scroll Compressor. I got the data on this web link:

<https://opi.emersonclimate.com/was.extension.opi.web/OPIServlet?action=compsearch>

I was only able to find the compressor data summary for the 67% capacity (1st stage). However, the starting current is the same because there is no built up pressure at start up. The peak start current is the current that flows into the compressor motor when it is stopped or turning very slowly. The key parameter is LRA (or locked rotor amperes) and LRA for this compressor is 153A. The startup current will hit this peak current and drop to the running current over about 300 milli-seconds.

The initial running current is about 30A in 1st stage (RLA at 67%) and probably about 45A for 2nd stage (50% higher). After a minute or two, the current will drop to a value that is dependent on the actual system loading – probably 20A for 1st stage and 30A for 2nd stage.