Contractor Service Tips

TXV Selection

Q: How do I select a TXV for a particular application?

In order to make an accurate TXV selection it is necessary to match the flow rate (in tons) of the TXV to the tonnage rating of the evaporator coil. The following procedure is recommended:

- Determine system refrigerant
- Determine tonnage rating of the evaporator coil at the operating temperature
- Determine liquid refrigerant temperature at the TXV inlet
- Calculate the pressure drop across the TXV by subtracting suction (low side) pressure from condensing (high side) pressure. Also subtract pressure drop from a distributor, if one is used. The difference is pressure drop across the TXV.
- Find the proper extended capacity table in the catalog for the correct refrigerant at the proper evaporator temperature. Then locate the closest pressure drop column and find the nearest flow rate in tons (to the evaporator tonnage). Go to the left to select the nominal tonnage rated valve. You will have to recalculate the flow rate in tons using the Liquid Correction Factor Table if the actual liquid temperature is different from 100F used as the standard rating point.



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