Superheat and subcooling troubleshooting chart

Probem	Possible causes	How to fix
High Superheat and Low Subcooling	Low refrigerant charge on liquid and suction line	Find leaks, seal and recharge
Low Superheat and Low Subcooling	Orifice too big, TXV opened too much	Adjust TXV
Low Superheat and High Subcooling	Overcharged system on both liquid and suction line	Remove and and recharge to the appropriate level
High Superheat and High Subcooling	Restricted TV or drier valve, blocked blocked/restricted coil	Check TXV tightness and the insulation
Low superheat	Low indoor air flow, overcharged system.	Remove some refrigerant, recharge to appropriate level
High superheat	Low charge, low outdoor airflow	Add refrigerant. Clean condenser unit
Low subcooling	Low outdoor air flow, low charge	Add refrigerant to the system, Clean condenser unit
High subcooling	Weak compressor valves, overcharged systems	Discharge some refrigerant, replace compressor
Low suction pressure	Low charge, low indoor air flow	Replace air filters
Low head pressure	Low charge, weak compressor valves	Recharge with more refrigerant replace compressor
High suction pressure	Weak compressor valves, low outdoor airflow, overcharge	Removed excess charge, clean condenser, replace compressor
Low indoor TD	Weak compressor valve, low outdoor airflow	Clean condenser or replace defective compressor
High indow TD	Low indoor air flow	Ensure coil and air filters are clean