

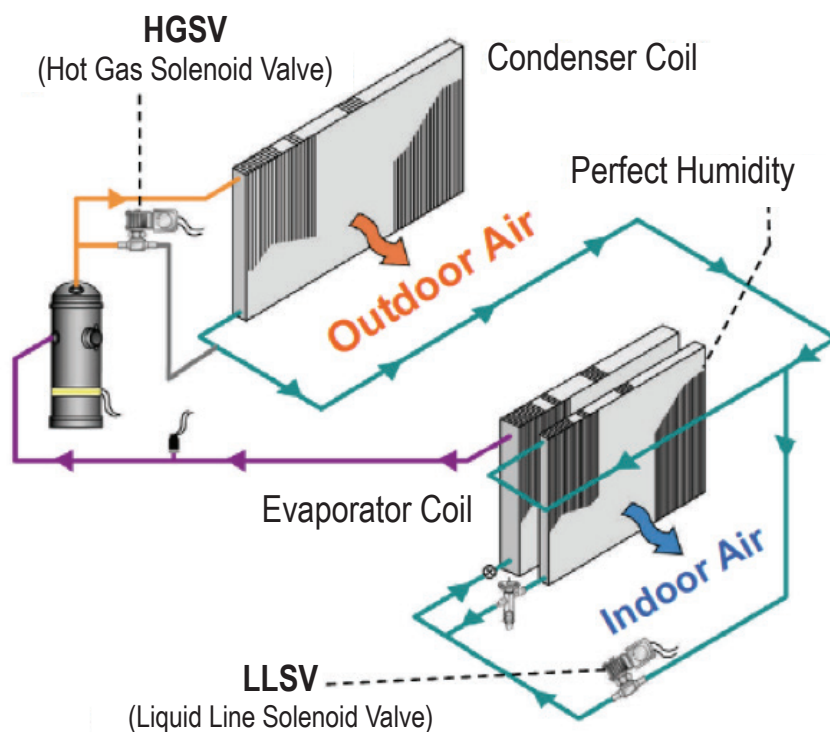
Packaged Rooftop Units

PERFECT HUMIDITY® ADAPTIVE DEHUMIDIFICATION SYSTEM

Maintaining indoor space humidity levels can be increasingly difficult depending on the time of year, location of the installation, and the ability of the equipment to provide reliable, flexible operation to meet indoor part load sensible and latent load requirements. Standard rooftop performance often cannot meet these variable requirements. The Perfect Humidity® Adaptive Dehumidification System could be the solution to your problem!

HOW IT WORKS:

Using a simple space thermostat and humidistat input, the The Perfect Humidity Adaptive Dehumidification system changes the refrigerant flow by adjusting the position of the refrigerant solenoid valves. There are three modes of operation: Normal, Sub-Cooling and Hot Gas ReHeat.



ARENAS



EDUCATION



HEALTH CLUBS



HUMID CLIMATES



INDUSTRY



RESTAURANTS



RETAIL



NORMAL MODE

(HGSV closed, LLSV open)

When there is a call for cooling only, the dehumidification system is inactive and the refrigerant circulates per a typical packaged system.

SUB-COOLING MODE

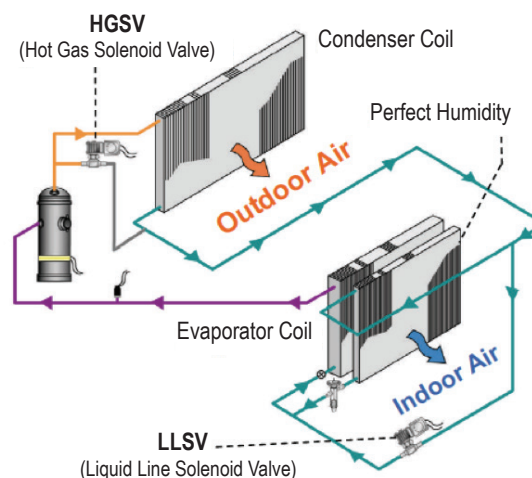
(HGSV closed, LLSV closed)

During part load conditions when the room temperature and humidity are above the setpoint, the unit will initiate the sub-cooling mode of operation; a call for cooling and dehumidification. The end result is a conditioned space that is cooled and significantly more dehumidified, but not over-cooled. This also helps eliminate short cycling of the rooftop unit and improves space temperature and humidity control.

HOT GAS REHEAT MODE

(HGSV open, LLSV closed)

When there is a call for dehumidification without a call for cooling, a portion of the hot gas from the compressor bypasses the condenser coil and is fed into the liquid line. The air is cooled and dehumidified as it flows across the evaporator and is then reheated to neutral conditions by the Perfect Humidity coil. When used on an Applied Rooftop unit the Perfect Humidity® System becomes modulating.



Perfect Humidity® is available as a factory option on the following Bryant® Packaged Rooftop Units



582L / 559L / 547L



581L / 551L / 549L



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