GOLD SYSTEM APPLICATION MITSUBISHI ELECTRIC VRF

SUMMER

Swegon IQLogic Controller

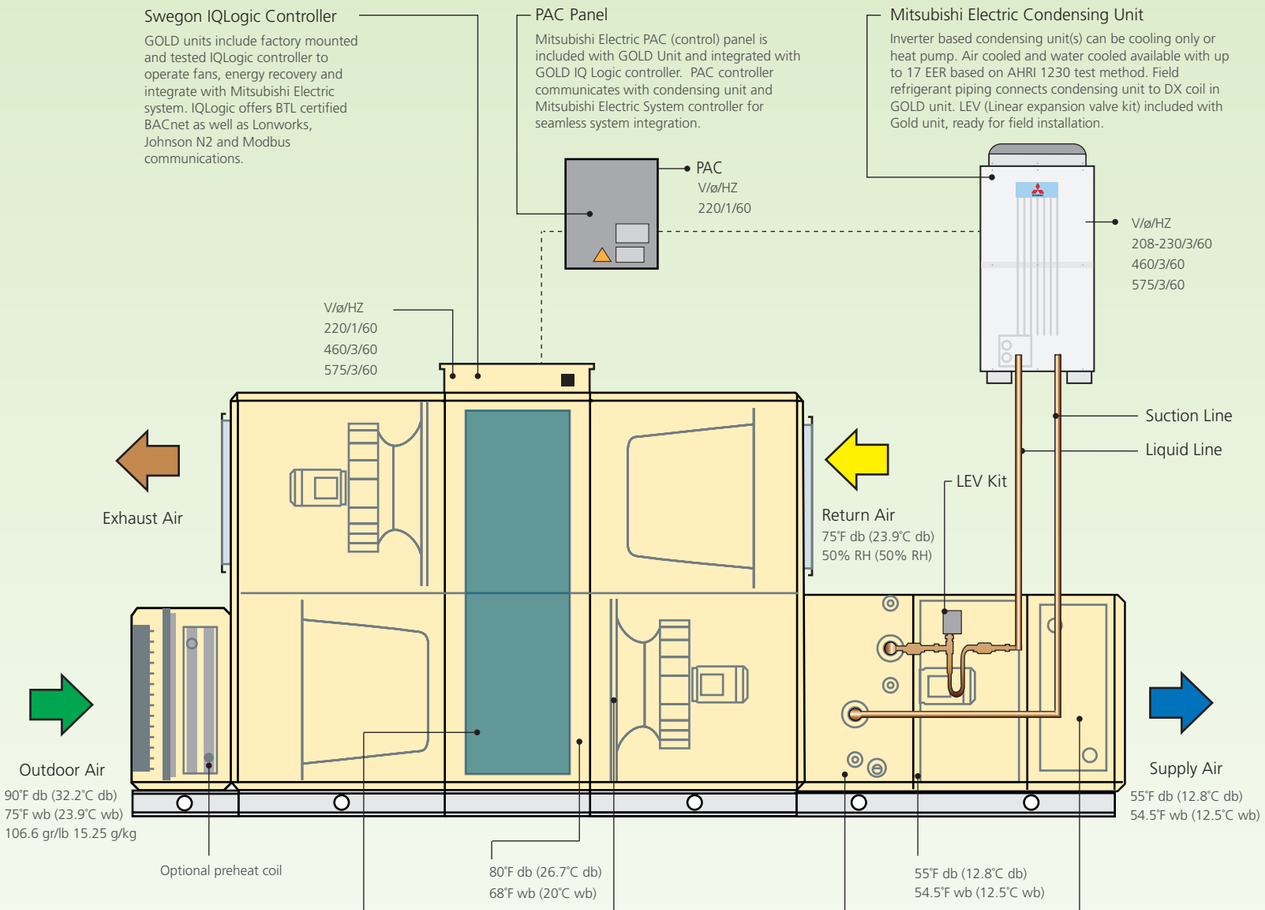
GOLD units include factory mounted and tested IQLogic controller to operate fans, energy recovery and integrate with Mitsubishi Electric system. IQLogic offers BTL certified BACnet as well as Lonworks, Johnson N2 and Modbus communications.

PAC Panel

Mitsubishi Electric PAC (control) panel is included with GOLD Unit and integrated with GOLD IQ Logic controller. PAC controller communicates with condensing unit and Mitsubishi Electric System controller for seamless system integration.

Mitsubishi Electric Condensing Unit

Inverter based condensing unit(s) can be cooling only or heat pump. Air cooled and water cooled available with up to 17 EER based on AHRI 1230 test method. Field refrigerant piping connects condensing unit to DX coil in GOLD unit. LEV (Linear expansion valve kit) included with Gold unit, ready for field installation.



Energy Recovery

Plates, runaround coils and enthalpy wheels available. Standard GOLD RX AHRI 1060 certified 3 ang. enthalpy wheel recovers 80% + of the total energy. Optional PassiveHouse certified GOLD RX models use special enthalpy wheel and recover 80% + of the total energy.

Fans

Special plenum fans design for high efficiency and low sound, direct driven by 220, 460 or 575 volt EC motors. Fans are variable flow and include airflow monitors. Variable airflow arrangements are limited to 50% turndown with DX cooling. Models are available from 500 to 16,000 cfm (0.24 to 7.55 m³s).

DX Coil

Mitsubishi Electric approved DX coil is factory mounted in GOLD unit, matched to Mitsubishi Electric condensing units. Actual capacity and leaving air conditions are customer selected based on project requirements. Coil includes stainless steel double sloped drain pan.

Optional Heating Coil

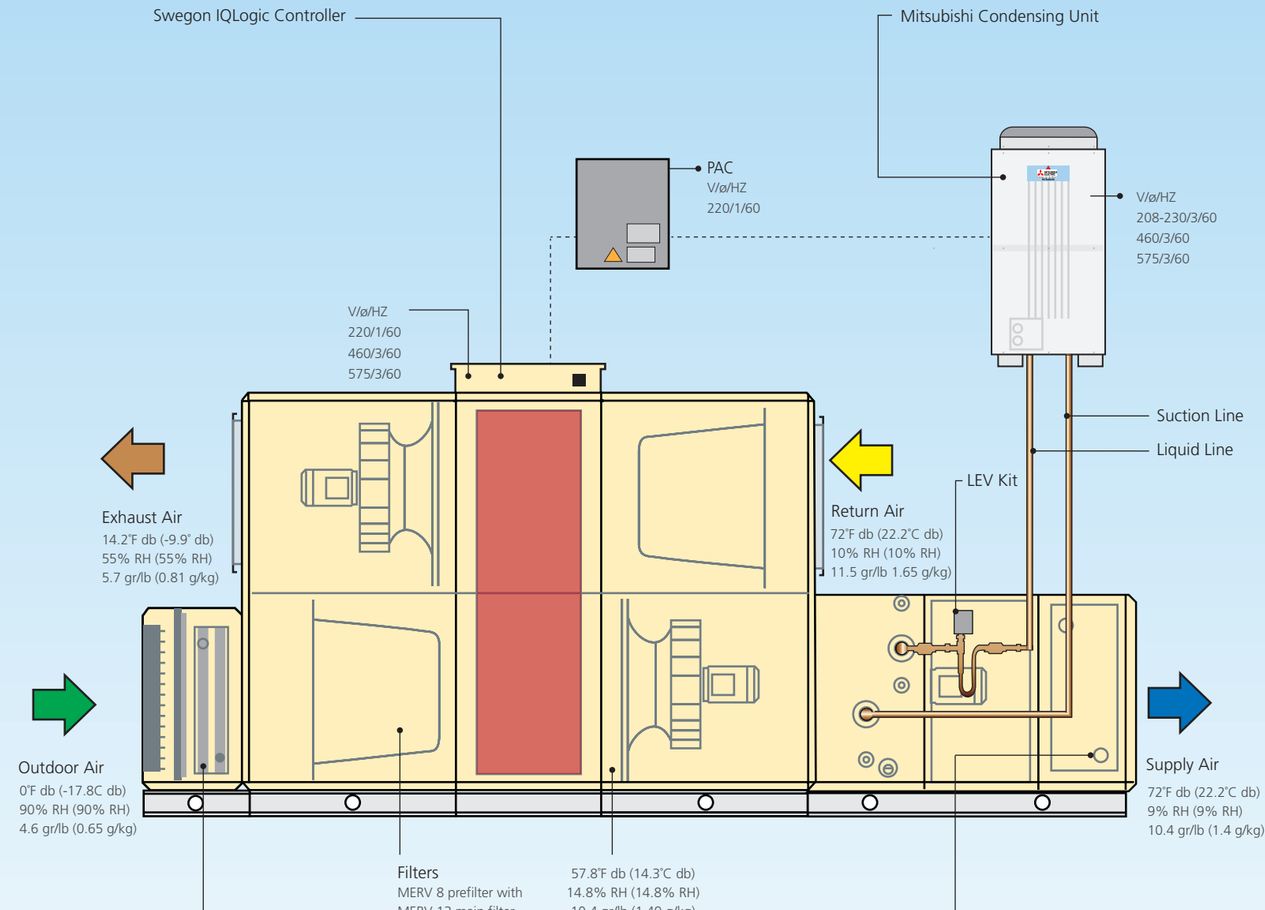
Optional passive reheat is available using a wraparound coil around the DX coil. Reheat allows dry air at neutral temperatures to be delivered to the space using recovered heat.

GOLD comes ETL certified from the factory which eliminates the risks and cost associated with in-field certification.

WINTER

Swegon IQLogic Controller

Mitsubishi Condensing Unit



Optional Preheat

Optional preheat for very cold climates. Preheat outdoor air to avoid Hoar frosting and improve energy recovery. Preheat can be water (glycol) or electric. Winter filters available.

TIP: If chilled water is being produced in winter, use chilled water to preheat outdoor air.

Heatpump Heating

For improved energy savings, a Mitsubishi Electric heatpump condensing unit can be utilized to reduce the cost of heat. For typical applications the Mitsubishi Electric heatpump can deliver enough heat at ambient temperatures above -13°F (-25˚C) at COPs above 3.6 to meet the required supply air temperature.

Air cooled heatpumps will require periodic defrost. During these periods a supplemental heat source will be required. This can be accomplished with hot water coil, electric heat or any other heat source that can accommodate a 0-10 vdc control signal.

Final Heating

Enthalpy wheel will recover most of the necessary heat to delivery neutral air. Using Swegon RecoFROST control, the supply air is typically 58 °F (14.4˚C) leaving the enthalpy wheel. Some defrost may occur lowering the supply air temperature to 30 °F (-1.1˚C) while defrosting.

Final heating can be accomplished with hot water coil, electric heat or any other heat source that can accommodate a 0-10 vdc control signal.