**GOLD SYSTEM APPLICATION VRF**

**SUMMER**

- **Outdoor Air**
  - 90˚F db (32.2˚C db)
  - 75˚F wb (23.9˚C wb)
  - 106.6 gr/lb (15.2 g/kg)

- **Exhaust Air**
  - 57.8˚F db (14.3˚C db)
  - 14.8% RH (14.8% RH)
  - 10.4 gr/lb (1.49 g/kg)

**Return Air**
- 55˚F db (12.8˚C db)
- 54.5˚F wb (12.5˚C wb)
- 5.7 gr/lb (0.81 g/kg)

**Supply Air**
- 55˚F db (12.8˚C db)
- 54.5˚F wb (12.5˚C wb)
- 57.8˚F db (14.3˚C db)
- 14.8% RH (14.8% RH)
- 10.4 gr/lb (1.49 g/kg)

**Energy Recovery**
- V/ø/HZ
  - 220/1/60
  - 460/3/60
  - 575/3/60

**Swegon IQLogic Controller**
- GOLD units include factory mounted and tested IQLogic controller to operate fans, energy recovery and integrate with VRF system. IQLogic offers BTL, certified BACnet as well as LonWorks, Johnson N2 and Modbus communications.

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

**Optional Preheat**
- Optional preheat for very cold climates. Preheat outdoor air to avoid Hoarfrosting 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.

**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.

**Heatpump Heating**
- For improved energy savings, a heatpump condensing unit can be utilized to reduce the cost of heat. For typical applications the Samsung VRF 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.

**Optimal Heating Coil**
- Optional passive reheat is available using a VRF reheat coil after 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**

- **Outdoor Air**
  - 0˚F db (-17.8C db)
  - 90% RH (90% RH)
  - 4.6 gr/lb (0.65 g/kg)

- **Return Air**
  - 55˚F db (12.8˚C db)
  - 54.5˚F wb (12.5˚C wb)
  - 57.8˚F db (14.3˚C db)
  - 14.8% RH (14.8% RH)
  - 10.4 gr/lb (1.49 g/kg)

**Filters**
- MERV 8 prefilter with MERV 13 main filter.

**Condensing Unit**
- Universal Communication Kit
  - The Universal Communication Kit is included with GOLD Unit and integrated with GOLD IQ Logic controller. The Universal Communication Kit communicates with condensing unit and controller for seamless system integration.

**Universal Communication Kit**
- The Universal Communication Kit is included with GOLD Unit and integrated with GOLD IQ Logic controller. The Universal Communication Kit communicates with condensing unit and controller for seamless system integration.

**Swegon IQLogic Controller**
- GOLD units include factory mounted and tested IQLogic controller to operate fans, energy recovery and integrate with VRF system. IQLogic offers BTL, certified BACnet as well as LonWorks, Johnson N2 and Modbus communications.

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

**Optional Preheat**
- Optional preheat for very cold climates. Preheat outdoor air to avoid Hoarfrosting 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.

**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.

**Heatpump Heating**
- For improved energy savings, a heatpump condensing unit can be utilized to reduce the cost of heat. For typical applications the Samsung VRF 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.

**Optimal Heating Coil**
- Optional passive reheat is available using a VRF reheat coil after 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.**