MELCO GREEN HVAC - FEATURES

**High Reliability**

**Fully Hermetic Cycle**
- MTBF: 40,000 hours/car
- MDBF: 1,000,000 km/car

**Simple Cycle**
- No gasket seal
- No thread connection
- Reduce mechanical devices

**High Efficiency**

**Heat Pump Operation**

Reduce power consumption with high efficient refrigerant cycle
- 50% reduced compared to electric heater

**Energy Recovery Ventilation with Lossnay**

Reduced heat load
- Reduced power consumption

**High Air Quality**

**Fuzzy Control**
- Quick stabilization at temperature setting
- Temperature difference and change rate

- Low Cool
- Mid Cool
- High Cool

Conventional
- Temperature Control

Fuzzy Temperature Control

- Cool
- Warm
- Ventilation

**Fully Hermetic Cycle Diagram**

- Condenser
- Filter Dryer
- Capillary Tube
- Evaporator
- Fully-Hermetic Compressor
- Accumulator

**Heat Pump Operation Diagram**

- Four-way valve
- Outdoor coil
- Indoor coil
- Compressor

- Cooling
- Heating

- EA: Stale dirty indoor air (Exhausted Air)
- OA: Fresh air induction (Outdoor Air)
- SA: Fresh air into saloon (Supply Air)
- RA: Stale air removed from saloon (Return Air)

**Energy Recovery Ventilation with Lossnay Diagram**

- Fresh air into saloon
- Stale air removed from saloon
- Fresh air induction
- Exhausted air