

The standard for the two-stage dry air compressor that generates highly pressurized air efficiently.

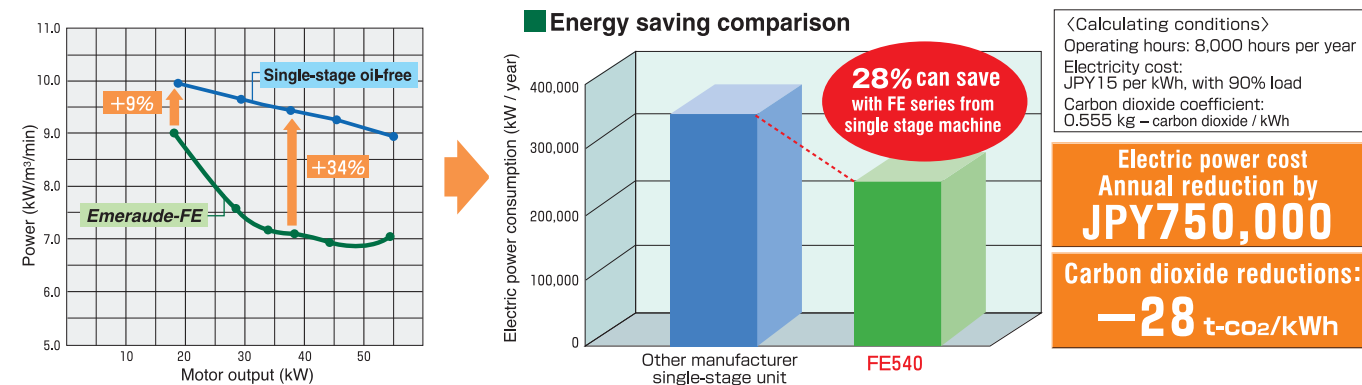


Output	22~55kW
Discharge air volume (0.69MPa specification)	2.05~7.7 m <sup>3</sup> /min

## Energy Saving

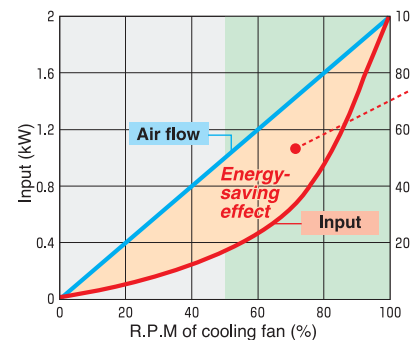
Extremely high energy saving feature realized by the two-stage compression design.

Two-stage compressor is equipped for energy saving, reducing life-cycle cost and improving reliability. It can achieve 9~34% higher efficiency compared with single-stage oil-free screw compressor.



## Inverter Cooling Fan (FE200~790)

In the Emerald-FE series, the cooling fan is also controlled by the inverter to further save energy.



**This is where energy is saved!** Up to **80% of energy saved with cooling unit (fan operated)**

- The Rpm of the inverter fan is proportional to ambient temperature and load ratio. So that power saving can be achieved with low ambient temperature and low load operation.
- Temperature inside the compressor unit can be so stable that the durability is improved.

## Low noise

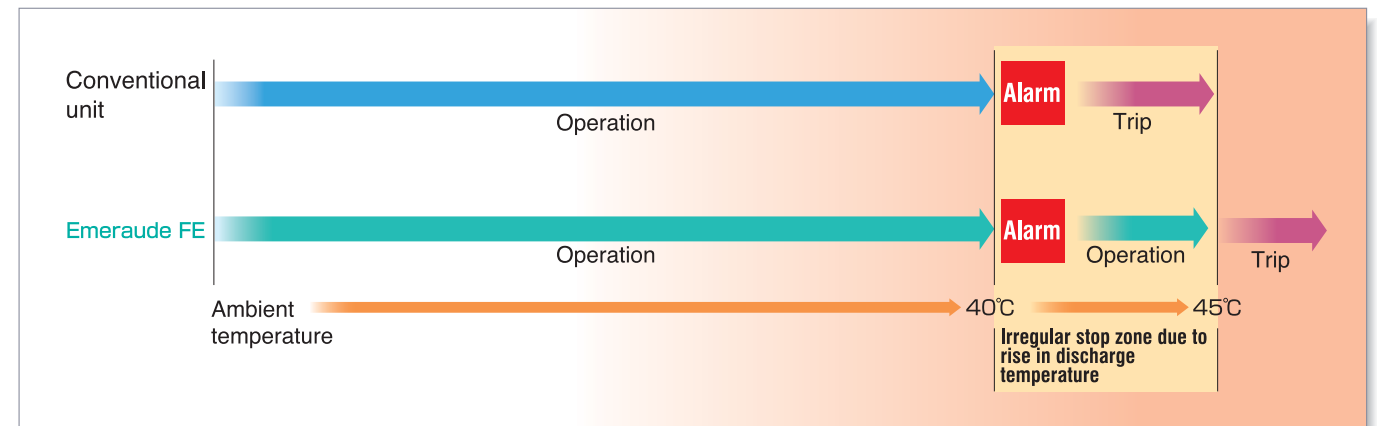
The noise of exhaust hot air have been reduced by using inverter sirocco fan. At unload or low ambient temperature operation, the inverter sirocco fan operate at lower Rpm and reduced the noise level. The improved design suction duct also help to achieve lower suction noise.



## High Performance ... High performance & sophisticated functions

### Improvement on durability for ambient

Reviewing the total cooling system including design of coolers and cooling fan with safety margin, the compressor can operate even under ambient temperature of 45°C.



※Long-time continuous operation at ambient temperatures of 40°C or higher may shorten lifetime of components such as electric equipment and O-rings comparing with normal operation.

### Improved maintainability

#### Extended overhaul schedules

Recommended overhaul schedule of Air End (for both 1st and 2nd stage) was extended to 6 years. As for water cooled machine, maintainability of coolers also improved with easy cleaning construction.

#### High-performance intake filter

A two-stage separation system (centrifugal separation and filtering separation with high dust collection efficiency) is adopted as a counter measure against dusty environments.



## Ecology ... Environmental considerations

### Using new type of refrigerant

R407C of no ozone destruction coefficient is used for all dryers.

### Using new intake valves

To prevent oil contamination, air pressure is used for capacity control, instead of oil pressure.

### Noise insulation material that is easily sorted for disposal

Materials are easily sorted for disposal, when disposing of the compressor unit (treated as industrial waste).

### Reduction of pulse noise

A perforated panel silencer is adopted to reduce high-frequency noise (more than 1KHz,) and uncomfortable noise.

#### Principle of perforated panel silencer

