INVERTER
FR-A800 Plus
The optimum functions for roll to roll applications are added.
Release of the new roll to roll dedicated inverter, FR-A800-R2R

The FR-A800-R2R inverter has various dedicated functions such as winding diameter calculation, providing stable winding/unwinding control independently.

A variety of roll to roll dedicated functions are supporting various systems.

- Winding diameter calculation
  - The present winding diameter for the winding/unwinding shaft is calculated from the actual line speed or the actual motor speed.

- Winding diameter calculation function selection
  - The winding diameter calculation method can be selected in order to improve the tension control performance.

- Speed control proportional gain compensation
  - By adjusting the speed control proportional gain, response improvement is achievable according to the winding/diameter.

- Tension PI gain tuning
  - By automatically adjusting the tension PI gain, time required for adjustment is significantly cut down. Anyone can start the system easily.

- Mechanical loss compensation function
  - The tension applied to the material is maintained constant by raising a commanded torque to compensate for the mechanical loss caused by factors such as friction on the dancer roll or winding/unwinding shaft.

- Inertia compensation function
  - During acceleration/deceleration, the tension applied to the material is maintained constant by adjusting the variable tension on the winding and unwinding sides.

- Taper function
  - By adjusting the taper, it is possible to avoid imperfections such as wrinkles or deformation caused by the increase in diameter.

A new lineup of dedicated inverters for specialized fields are born! The optimum functions for each dedicated field are added to the already high performance and high functionality FR-A800 series inverter.

- Relevant functions
  - Dancer feedback speed control
  - Winding diameter calculation function
  - Tension PI gain tuning
LINEUP

• Standard model

FR-A820 0.4K -1 - R2R

Symbol | Voltage class | Symbol | Structure/function | Capacity*1 | Description |
-------|---------------|--------|-------------------|------------|-------------|
2      | 200 V class   | 0      | Standard model    | 0.0023 to 0.0680 | Inverter SLD rated current (A) |
4      | 400 V class   | 0      | Standard model    | 0.0077 to 0.2800 | Inverter N.D. rated capacity (kW) |

*1 Models can be alternatively indicated with the inverter rated current (SLD rating).

*2 Specification differs by the type as follows.

*3 Available for the 5.5K or higher.

*4 For the 75K or higher inverter, or whenever a 75 kW or higher motor is used, always connect a DC reactor (FR-HEL), which is available as an option.

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• Separated converter type

FR-A842 315K -1 - R2R

Symbol | Voltage class | Symbol | Structure/function | Capacity*1 | Description |
-------|---------------|--------|-------------------|------------|-------------|
2      | 200 V class   | 2      | Separated converter type | 0.0770 to 1.2120 | Inverter SLD rated current (A) |
4      | 400 V class   | 2      | Separated converter type | 0.315K to 5.000K | Inverter N.D. rated capacity (kW) |

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Release schedule

Now available

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