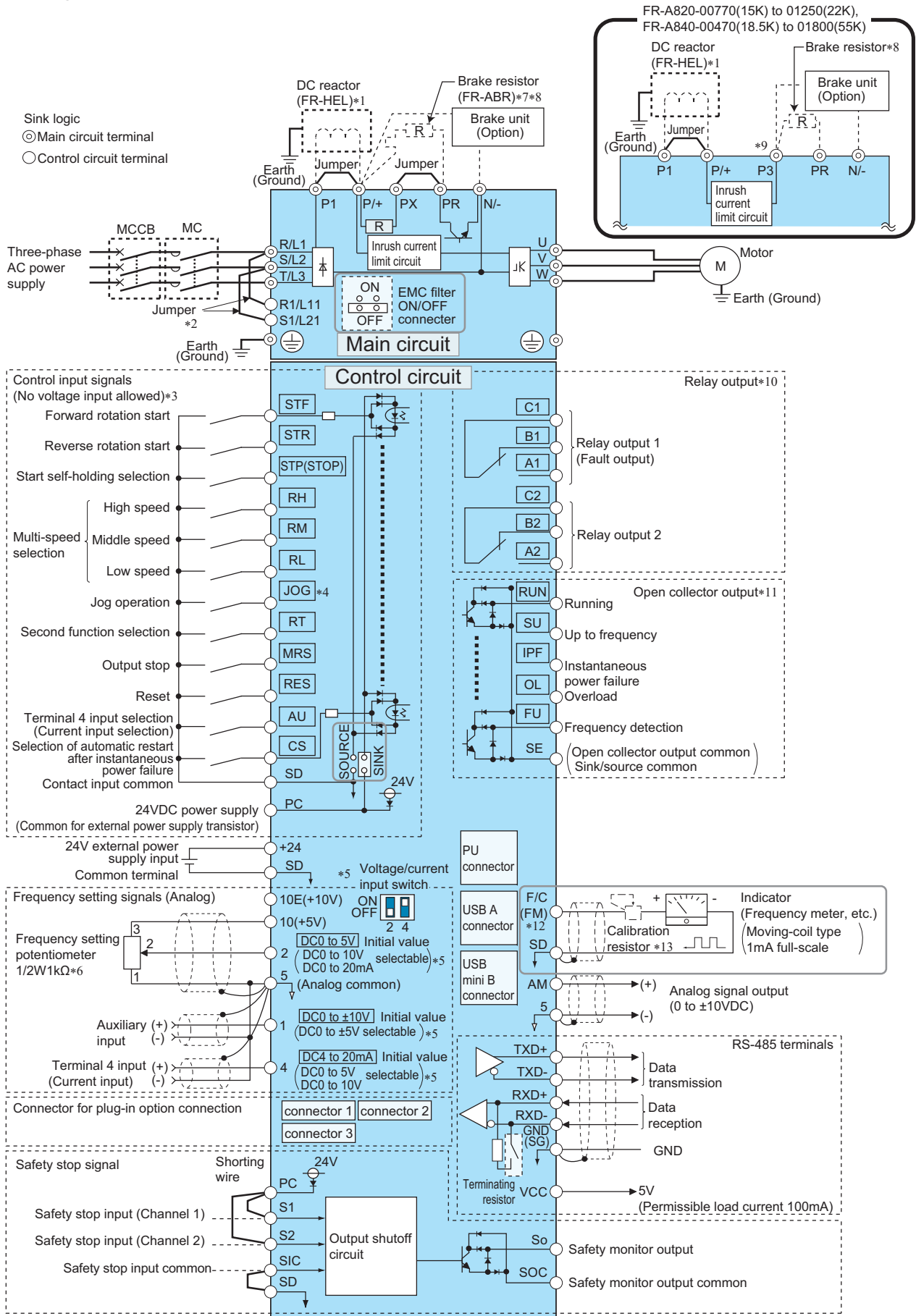


2.4 Terminal connection diagrams

◆FM type



2

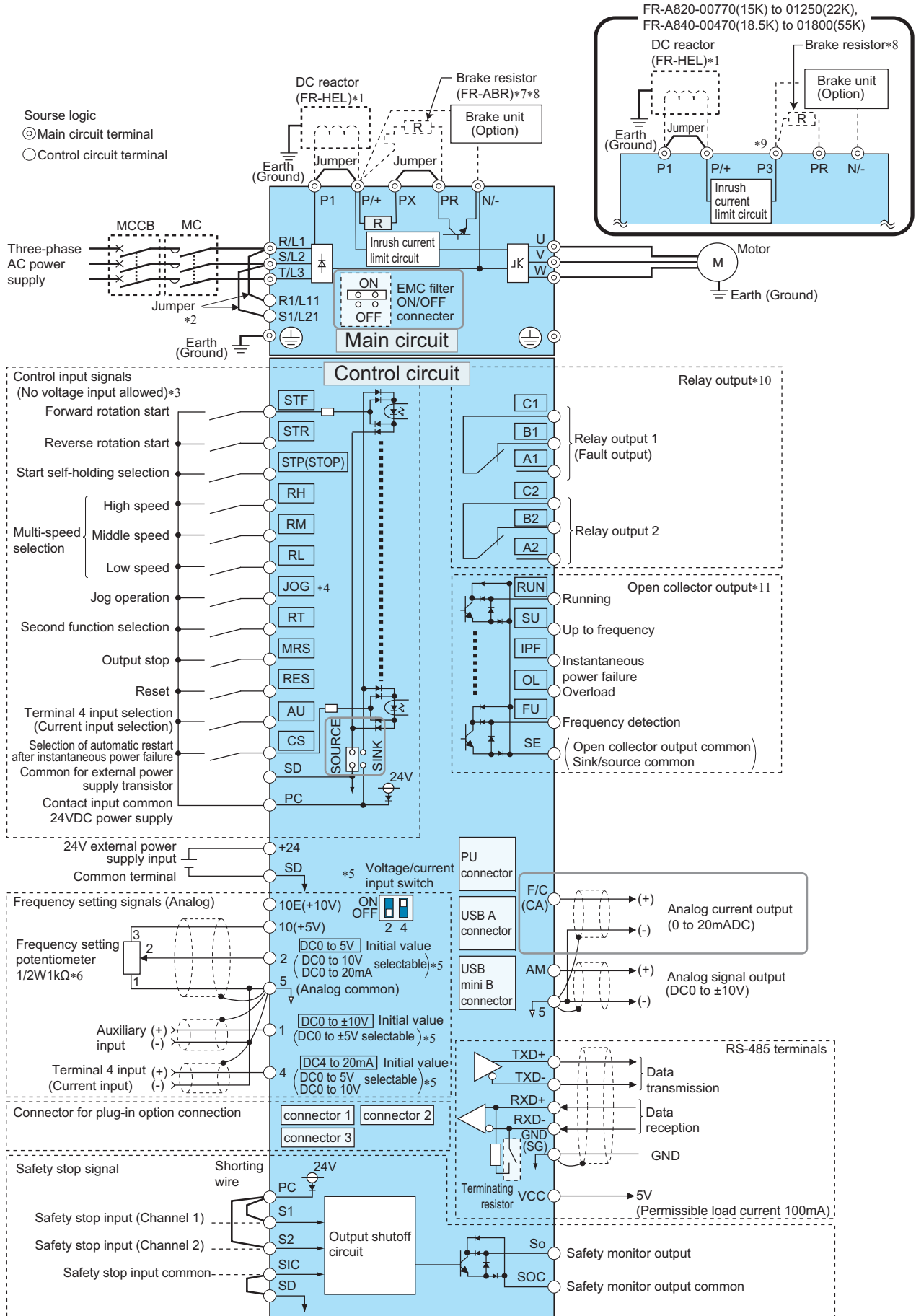
Terminal connection diagrams

- *1 For the FR-A820-03800(75K) or higher, the FR-A840-02160(75K) or higher, or whenever a 75 kW or higher motor is used, always connect a DC reactor (FR-HEL), which is available as an option. (To select a DC reactor, refer to [page 702](#), and select one according to the applicable motor capacity.)
When a DC reactor is connected to the FR-A820-03160(55K) or lower or the FR-A840-01800(55K) or lower, if a jumper is installed across the terminals P1 and P/+, remove the jumper before installing the DC reactor.
- *2 When using separate power supply for the control circuit, remove the jumper between R1/L11 and S1/L21.
- *3 The function of these terminals can be changed with the input terminal assignment (**Pr.178 to Pr.189**). (Refer to [page 438](#).)
- *4 Terminal JOG is also used as a pulse train input terminal. Use **Pr.291** to choose JOG or pulse.
- *5 Terminal input specifications can be changed by analog input specification switchover (**Pr.73, Pr.267**). To input a voltage, set the voltage/current input switch OFF. To input a current, set the voltage/current input switch ON. (Refer to [page 414](#).)
- *6 It is recommended to use 2 W 1 k Ω when the frequency setting signal is changed frequently.
- *7 Remove the jumper between PR and PX to connect the brake resistor. (FR-A820-00490(7.5K) or lower and FR-A840-00250(7.5K) or lower).
- *8 Connect a brake resistor across terminals P/+ (P3) and PR. (The terminal PR is equipped in the FR-A820-01250(22K) or lower and FR-A840-01800(55K) or lower.) Install a thermal relay to prevent overheating and damage of discharging resistors. (Refer to [page 71](#).)
- *9 Do not connect the DC power supply (under DC feeding mode) to terminal P3.
- *10 The function of these terminals can be changed with the output terminal assignment (**Pr.195, Pr.196**). (Refer to [page 391](#).)
- *11 The function of these terminals can be changed with the output terminal assignment (**Pr.190 to Pr.194**). (Refer to [page 391](#).)
- *12 The terminal FM can be used to output pulse trains as open collector output by setting **Pr.291**.
- *13 Not required when calibrating the scale with the operation panel.

NOTE

- To prevent a malfunction due to noise, keep the signal cables 10 cm (3.94 inches) or more away from the power cables. Also, separate the main circuit cables at the input side from the main circuit cables at the output side.
- After wiring, wire offcuts must not be left in the inverter.
Wire offcuts can cause an alarm, failure or malfunction. Always keep the inverter clean.
When drilling mounting holes in an enclosure etc., take caution not to allow chips and other foreign matter to enter the inverter.
- Set the voltage/current input switch correctly. Incorrect setting may cause a fault, failure or malfunction.

◆ CA type



2

Terminal connection diagrams

- *1 For the FR-A820-03800(75K) or higher, the FR-A840-02160(75K) or higher, or whenever a 75 kW or higher motor is used, always connect a DC reactor (FR-HEL), which is available as an option. (To select a DC reactor, refer to [page 702](#), and select one according to the applicable motor capacity.)
When a DC reactor is connected to the FR-A820-03160(55K) or lower or the FR-A840-01800(55K) or lower, if a jumper is installed across the terminals P1 and P/+, remove the jumper before installing the DC reactor.
- *2 When using separate power supply for the control circuit, remove the jumper between R1/L11 and S1/L21.
- *3 The function of these terminals can be changed with the input terminal assignment (**Pr.178 to Pr.189**). (Refer to [page 438](#).)
- *4 Terminal JOG is also used as a pulse train input terminal. Use **Pr.291** to choose JOG or pulse.
- *5 Terminal input specifications can be changed by analog input specification switchover (**Pr.73, Pr.267**). To input a voltage, set the voltage/current input switch OFF. To input a current, set the voltage/current input switch ON. (Refer to [page 414](#).)
- *6 It is recommended to use 2 W 1 k Ω when the frequency setting signal is changed frequently.
- *7 Remove the jumper between PR and PX to connect the brake resistor. (FR-A820-00490(7.5K) or lower and FR-A840-00250(7.5K) or lower).
- *8 Connect a brake resistor across terminals P/+ (P3) and PR. (The terminal PR is equipped in the FR-A820-01250(22K) or lower and FR-A840-01800(55K) or lower.) Install a thermal relay to prevent overheating and damage of discharging resistors. (Refer to [page 71](#).)
- *9 Do not connect the DC power supply (under DC feeding mode) to terminal P3.
- *10 The function of these terminals can be changed with the output terminal assignment (**Pr.195, Pr.196**). (Refer to [page 391](#).)
- *11 The function of these terminals can be changed with the output terminal assignment (**Pr.190 to Pr.194**). (Refer to [page 391](#).)

NOTE

- To prevent a malfunction due to noise, keep the signal cables 10 cm (3.94 inches) or more away from the power cables. Also, separate the main circuit cables at the input side from the main circuit cables at the output side.
- After wiring, wire offcuts must not be left in the inverter.
Wire offcuts can cause an alarm, failure or malfunction. Always keep the inverter clean.
When drilling mounting holes in an enclosure etc., take caution not to allow chips and other foreign matter to enter the inverter.
- Set the voltage/current input switch correctly. Incorrect setting may cause a fault, failure or malfunction.