

# TOSVERT VF-AS3

## Limitation of use for PG feedback built-in function




### Safety precaution

There is important information on the inverter and in its instruction manual for proper use of the device to prevent injury to users or damage to property. Read the instruction manual attached to the inverter to understand the safety precautions, the symbols and indications completely. Please observe the contents of these manuals at all times.

For detail of this function, please refer to VF-AS3 PG feedback built-in function manual (E6582183) and VF-AS3 instruction manual (E6582062).

#### ■ Limitation of use

This function is applicable with CPU version 122 or successor and some limitation shown in this manual.

 <b>WARNING</b>	
 Prohibited	<ul style="list-style-type: none"> <li>Do not use PG feedback built-in function with CPU version 120 or predecessor's. This will result in accident.</li> </ul>
 Mandatory	<ul style="list-style-type: none"> <li>Applicable encoder is limited for PG feedback built-in function, use this function with the applicable encoder shown in this manual (refer to next page). Inapplicable encoder use will result in the accident.</li> <li>Use PG feedback built-in function with the pulse frequency up to 30kpps. Use this function with pulse frequency over 30kpps will result in the accident.</li> </ul>

Following function is NOT applicable with PG feedback built-in function

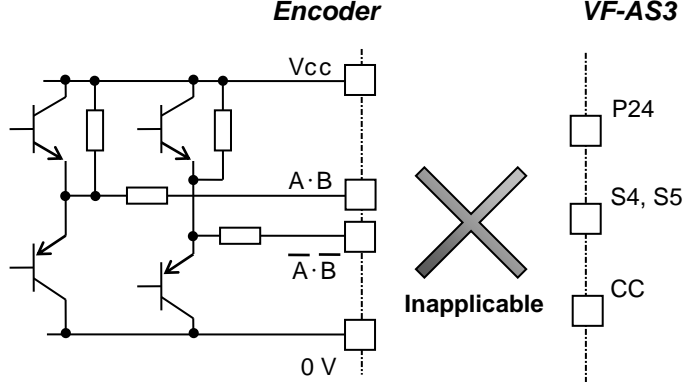
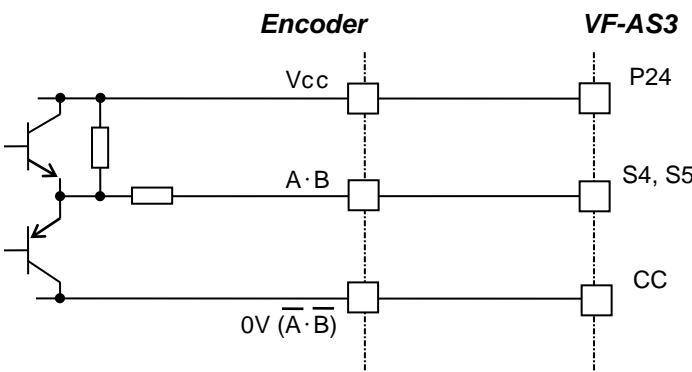
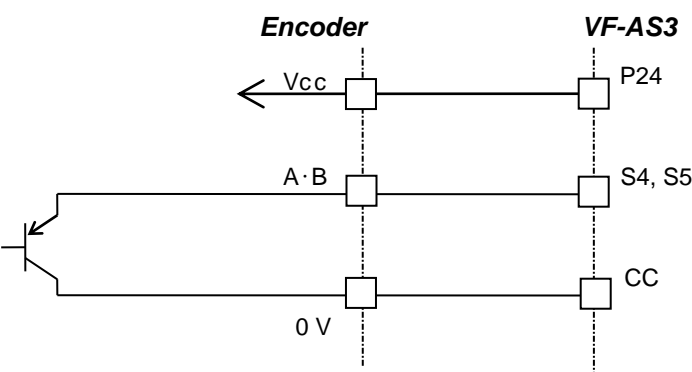
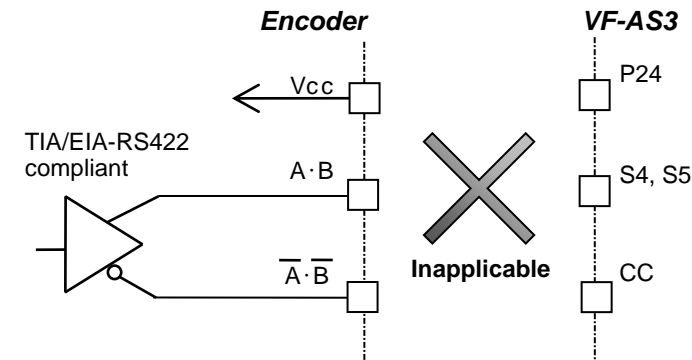
- Encoder disconnection (wire break) detection
- Position control function
- Servo lock function

#### ■ Example of the maximum motor speed

In case of using 1000pulse/round encoder with 4-pole motor, the maximum motor speed for this function is  

$$30000\text{pps} / \{1000\text{ppr} / (4\text{p} / 2)\} = 60\text{Hz}$$

■ Applicable encoder output type and [S4], [S5] terminal connection

Recommended connection with Encoder		Encoder power supply	Note
Complementary			Inapplicable
		24V	<ul style="list-style-type: none"> <li>- Input pulse frequency is limited to 30kpps</li> <li>- The maximum current of P24 terminal is 200mA</li> <li>- Recommended cable length is 100m or less</li> </ul>
Open collector		24V 15V 5V	<ul style="list-style-type: none"> <li>- Input pulse frequency is limited to 30kpps</li> <li>- The maximum current of P24 terminal is 200mA</li> <li>- Prepare a power supply unit separately when using the encoder supplied by 5V or 15V.</li> <li>- Set [SW1] to "Sink".</li> <li>- Recommended cable length is 10m or less</li> </ul>
Line driver (RS422)			<p>Inapplicable</p> <p>Use Digital encoder option VEC008Z. Refer to E6582148 for details.</p>

\* Refer to encoder manual for the schematic inside.