Topic: Test of the safety function STO of KEB COMBIVERT F5

This information describes the test of the safety function STO.

Problem, reason

A new test of the safety functions must be carried out again for units with functional safety when exchanging or retrofitting of encoder interfaces.

Measures

A test can be carried out in the application or separated of it. Separated can mean the following:

- ► Mechanically removed, test stand-alone.
- ► Remain installed, but electrically dismantled (except supply, water cooling etc.).

General setting

- ► The unit must be voltage-supplied.
- ► The inverter must be preset with a direction of rotation and setpoint speed.
- ► The control release ST X2A.6 must be set.

Measurement of the output voltage

Step 1	
Setting:	24 V at X2B.1 (STO1+)
	0 V at X2B.3 (STO1-)
	< 5V at X2B.5 (STO2+)
	0 V at X2B.7 (STO2-)
Result:	Motor supplies no torque (output voltage UVW = 0V)
	Output X2B.9 < 5V
	Status = nop

Step 2	
Setting:	24 V at X2B.1 (STO1+)
	0 V at X2B.3 (STO1-)
	24 V at X2B.5 (STO2+)
	0 V at X2B.7 (STO2-)
Result:	Motor supplies torque (output voltage UVW ≠ 0V)
	Output X2B.9 = 24 V
	Status ≠ nop (Fconst)
	continued on the next page
Step 3	

Setting:	< 5 V at X2B.1 (STO1+)
	0 V at X2B.3 (STO1-)
	24 V at X2B.5 (STO2+)
	0 V at X2B.7 (STO2-)
Result:	Motor supplies no torque (output voltage UVW = 0V)
	Output X2B.9 < 5V
	Status = nop

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