Declaration on environmental compatibility in the fields of EMC[1)], climate and mechanical stress

RE 30131-U/10.07 1/4
Replaces: 03.00

Typ VT-HNC100, series 2X

Digital axis control

Product types

– VT-HNC100, series 2X, according to data sheet RE 30131

Description of the product family

The digital axis control HNC100 is a programmable NC control for closed-loop controlled axes. It meets the specific requirements for controlling hydraulic axes.

[1)] in the sense of the EMC law dated 30th August 1995 and Directive 89/336/EEC

The above products comply with the following standards:

1. EMC (electromagnetic compatibility)

prEN50082-2:1996	**(VDE 0839 part 82-2)**		**Interference immunity**
EN 61000-4-2:1995 IEC 1000-4-2	VDE 0847-4-2	ESD (electrostatic discharge)	Air discharge: Severity 4 / assessment criterion A Contact discharge: Severity 4 / assessment criterion A
EN 61000-43:1996 +A1:1998 IEC 1000-4-3	VDE 0847-4-3	RF fields	Severity 3/10 V/m assessment criterion A Severity X/12 V/m assessment criterion A
EN 61000-4-4:1995 IEC 1000-4-4	VDE 0847-4-4	BURST (transient discharge)	Supply voltage: Severity 4 / assessment criterion A Data cable up to: Severity 4 / assessment criterion A Severity X/3.0kV / assessment criterion A
EN 61000-4-5:1995 IEC 1000-4-5	VDE 0847-4-5	SURGE (surge voltages)	Supply voltage: Severity 1 / assessment criterion A Data cable: asymmetrical, severity 2 / assessment crit. C* symmetrical, severity 3 / assessment crit. C*
EN 61000-4-6:1996 IEC 1000-4-6	VDE 0847-4-6	RF fields, conducted interference	Severity 3/10 V/m / assessment criterion A

Test setup to prEN 61000-4-2, prEN 61000-4-3, EN 61000-4-4, EN 61000-4-5 and EN 61000-4-6

EN50081-1:1992	**(VDE 0839 part 81-1)**		**Emitted interference**
EN55022:1994 +A1:1995 +A1:1997	VDE 0878 part 22	**Emission**	
		Interference voltage	Limit value complies with class B with NE32 power supply unit
		Electromagnetic interference-field strength	Limit value complies with class B

When the unit is properly installed in a control cabinet and the amplifier cards were wired in accordance with the data sheet, the arrangement (amplifier card and control cabinet) satisfies the preconditions for meeting the requirements laid down in EMC standards EN50081-1 and prEN50082-2. The required control cabinet version depends on the amount of external emitted interference and may require specific RF measures under extreme loads (interference).

* UDN element switches off, after power OFF/ON again ok

The above products comply with the following standards (continued):

2. climate

EN 60068-2			**Environmental test**
EN 60068-2-1:1994		Cold test	2 cycles –0 °C Dwell time 2 hours
EN 60068-2-2:1993		Dry heat test	2 cycles +50 °C Dwell time 2 hours
EN 60068-2-1:1994EN 60068-2-2:1993		Storage temperature	–20 °C, dwell time 16 hours +80 °C, dwell time 16 hours
	IEC 68-2-14:1986	Temperature cycle	2 cycles 0 °C to +50 °C Dwell time 3 hours each at min. / max.temperature
	IEC 68-2-30:1985	Damp heat,cyclical	Variant 2 +25 °C to +40 °C 95 % to 97 % relative humidity 2 cycles, 24 hours each

3. Mechanical stress

			Vibration test in three perpendicular axes
prEN 60068-2-6:1994		Sine test	10 cycles, 5 to 500 to 5 Hz at a logarithmic frequency change rate of 1 oct./min. 5 to 57 Hz, amplitude 0.3 mm (p-p) 57 to 500 Hz, amplitude 2 g 30 min. dwell time at resonance frequency
	IEC 68-2-36:1973	Random test	20 to 500 Hz, amplitude 0.01 g2 / Hz (2.2 g RMS), testing time 30 min per axis
EN 60068-2-27:1993		Shock test	Half sine 15 g / 11 ms, 3 x in positive / 3 x in negative direction per axis; in total, 18 individual shocks