Declaration on the environmental compatibility for EMC [1], climate and mechanical load

RE 30162-U/04.11 1/4
Replaces: 09.10

Type SYHNC100-SEK-...-3X

Digital controller assembly
for secondary control of axial piston units

Product types

– SYHNC100-SEK-...-3X according to data sheet 30162 and operating instructions 30162-B

Description of the product family

The SYHNC100-SEK-...-3X digital controller assembly is suitable for the closed-loop speed control, the closed-loop torque control as well as the open-loop torque control of axial piston units type A4VS..DS1(E) with secondary control.

[1] In the sense of the EMC directive 2004/108/EC and the EMVG (act on the electromagnetic compatibility of operating media) dated 02/26/2008

The products comply with the following standards:

1. EMC (electromagnetic compatibility)

Test according to generic standard **EN 61000-6-2: 2005**

			Interference resistance
EN 61000-4-2: 2009	VDE 0847-4-2	ESD (electrostatic discharge)	Air discharge: Severity level 3 / evaluation criterion A Contact discharge: Severity level 4 / evaluation criterion A
EN 61000-4-4:2005 +A1: 2009	VDE 0847-4-4	BURST (transient interference)	Repetition rate 5 kHz Supply voltage: Severity level 3 / evaluation criterion A Supply voltage with data line: Severity level 4 / evaluation criterion A Repetition rate 100 kHz Supply voltage: Severity level 3 / evaluation criterion A Supply voltage with data line: Severity level 4 / evaluation criterion A
EN 61000-4-5: 2007	VDE 0847-4-5	SURGE (surge voltage)	Supply voltage: Severity level 1 / evaluation criterion A
EN 61000-4-6: 2009	VDE 0847-4-6	HF fields, conducted	Supply voltage: Severity level 3 / evaluation criterion A Supply voltage with data line: Severity level 3 / evaluation criterion A 0.15…80…230 MHz

EMC tests in the sense of the EMC directive 2004/108/EC and EMVG dated February 26, 2008 were carried out.

Notes:
We recommend only using unshielded individual wires up to a maximum length of 30 m per wire. For lines which are longer than 30 m, a shielded cable must be used. The cable shield must be connected with a low impedance. The corresponding regulations for installation apply.

The products comply with the following standards (continued):

2. Climate

Test according to EN 60068-2 / IEC 68-2 (environmental test)

EN 60068-2-1:1994		Cold test	2 cycles –5 °C Duration 2 hours
EN 60068-2-2:1993		Dry heating test	2 cycles +55 °C Duration 2 hours
EN 60068-2-1:1994 EN 60068-2-2:1993		Storage temperature	–25 °C, duration 16 hours +85 °C, duration 16 hours
	IEC 68-2-14:1986	Temperature change	2 cycles –5 °C to +55 °C Duration 3 hours each at min. / max. temperature
EN 60068-2-30:1999		Humid heat, cyclic	Variant 2 +25 °C to +40 °C 93 % to 97 % relative humidity 2 cycles 24 hours each

3. Mechanical load

Vibration and shock test according to EN 60068-2 / IEC 68-2 / DIN 40046 (environmental test)
Tested on three axes (X/Y/Z)

EN 60068-2-6:1996			Vibrations, sinusoidal	20 cycles, 5...500 Hz with logarithmic frequency changing speed of 1 oct./min. 5 to 57 Hz, amplitude 0.3 mm (p-p) 57 to 500 Hz, amplitude 2 g
EN 60068-2-64:1995	IEC 68-2-36:1973	DIN 40046-24:1977	Vibrations (random) Broadband noise	20 to 500 Hz, amplitude 0.01 g^2 / Hz (2.2 g RMS) testing time 30 min
EN 60068-2-27:1993			Shock test	Half sine 15g / 11 ms, 3 x in positive/ 3 x in negative direction per axis, total of 18 individual shocks