EU Declaration of Conformity

We Thurlby Thandar Instruments Ltd
Glebe Road
Huntingdon
Cambridgeshire PE29 7DR
England

declare that the product

CPX400D or CPX400DP 60V 20A Bench Power Supply

is in conformity with the relevant Union harmonisation legislation; in particular, it meets the intent of the EMC Directive 2014/30/EU and the Low Voltage Directive 2014/35/EU. Compliance was demonstrated by conformance to the following harmonised standards which have been listed in the Official Journal of the European Communities.

EMC

Emissions:

a) EN61326-1 (2013) Radiated, Class B
b) EN61326-1 (2013) Conducted, Class A
c) EN61326-1 (2013) Harmonics, referring to EN61000-3-2 (2006)

Immunity: EN61326-1 (2013) Immunity Table 1, referring to:

a) EN61000-4-2 (2009) Electrostatic Discharge
b) EN61000-4-3 (2006) Electromagnetic Field
c) EN61000-4-11 (2004) Voltage Interrupt
d) EN61000-4-4 (2012) Fast Transient
e) EN61000-4-5 (2006) Surge
f) EN61000-4-6 (2009) Conducted RF

Safety

EN61010-1 Installation Category II, Pollution Degree 2.

This declaration of conformity is issued under the sole responsibility of the manufacturer.
Signed for and on behalf of Thurlby Thandar Instruments Ltd.

IAN HARMAN
TECHNICAL DIRECTOR

TTi Ltd, Huntingdon, UK
20 April 2016

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EMC

This instrument has been designed to meet the requirements of the EMC Directive 2004/108/EC.

Compliance was demonstrated by meeting the test limits of the following standards:

Emissions

EN61326-1 (2013) EMC product standard for Electrical Equipment for Measurement, Control and Laboratory Use. Test limits used were:

a) Radiated: Class B

b) Conducted: Class A

c) Harmonics: EN61000-3-2 (2006) Class A; the instrument is Class A by product category.

Immunity

EN61326-1 (2013) EMC product standard for Electrical Equipment for Measurement, Control and Laboratory Use.

Test methods, limits and performance achieved are shown below (requirement shown in brackets):

a) EN61000-4-2 (2009) Electrostatic Discharge: 8kV air, 4kV contact, Performance A (B).

b) EN61000-4-3 (2006) Electromagnetic Field:
3V/m, 80% AM at 1kHz, 80MHz – 1GHz: Performance A (A) and
1.4GHz to 2GHz: Performance A (A); 1V/m, 2.0GHz to 2.7GHz: Performance A (A).

c) EN61000-4-11 (2004) Voltage Interrupt:
½-cycle, 0%: Peformance A (B); 1 cycle, 0%: Performance A (B);
25 cycles, 70%: Performance A (C); 250 cycles, 0%: Performance B* (C).
* Output status at power-up must be set to be same as at last power-down.

d) EN61000-4-4 (2012) Fast Transient, 1kV peak (AC line only; DC Output connections <3m, therefore not tested†), Performance A (B).

e) EN61000-4-5 (2006) Surge, 0·5kV (line to line), 1kV (line to ground), Performance A (B).

f) EN61000-4-6 (2009) Conducted RF, 3V, 80% AM at 1kHz (AC line only; DC Output connections <3m, therefore not tested†), Performance A (A).

† Signal lines were not tested on the basis that typical use will be with connections <3m, for which there is no test requirement. Immunity performance with connections >3m is not guaranteed.

According to EN61326-1 the definitions of performance criteria are:

Performance criterion A: 'During test normal performance within the specification limits.'

Performance criterion B: 'During test, temporary degradation, or loss of function or performance which is self-recovering'.

Performance criterion C: 'During test, temporary degradation, or loss of function or performance which requires operator intervention or system reset occurs.'

Where Performance B is stated it is because DC Output regulation, or V & I measurement accuracy, may deviate beyond Specification limits under the test conditions. However, the possible deviations are still small and unlikely to be a problem in practice.

Note that if operation in a high RF field is unavoidable it is good practice to connect the PSU to the target system using screened leads which have been passed (together) through an absorbing ferrite sleeve fitted close to the PSU terminals.

Cautions

To ensure continued compliance with the EMC directive observe the following precautions:

a) after opening the case for any reason ensure that all signal and ground connections are remade correctly and that case screws are correctly refitted and tightened.

b) In the event of part replacement becoming necessary, only use components of an identical type, see the Service Manual.