

iPOS8010 BX-CAT INTELLIGENT SERVO DRIVE 10 A, 80 V_{DC}

FOR BRUSHLESS, BRUSHED LINEAR OR STEP MOTORS

DESCRIPTION

The iPOS8010 BX-CAT is a new member of the iPOS family of Technosoft intelligent drives. It is based on a new design concept for panel-mounted drives, offering a very compact and cost effective solution for the control of rotary or linear brushless, DC brush, and step motors of powers up to 800 W with EtherCAT communication.

Designed to cover low to medium volume applications, the iPOS8010 BX-CAT embeds motion controller, drive, and PLC functionalities into a single unit. It can be used as an intelligent drive, or as a standard drive accepting CAN application protocol over EtherCAT (CoE).

When used as an intelligent drive - like all other members of the iPOS family - the iPOS8010 BX-CAT is empowered by the extreme flexibility offered by the TML (Technosoft Motion Language).

ETHERCAT NETWORKING

The iPOS8010 BX-CAT drive supports CAN application protocol over EtherCAT® (CoE) in conformance with CiA 402 device profile. Advanced features are covered, as cyclic synchronous position, up to 35 customizable homing modes (including all CiA 402 standard homing modes), PVT third order interpolation polynomial motion profiles, etc.

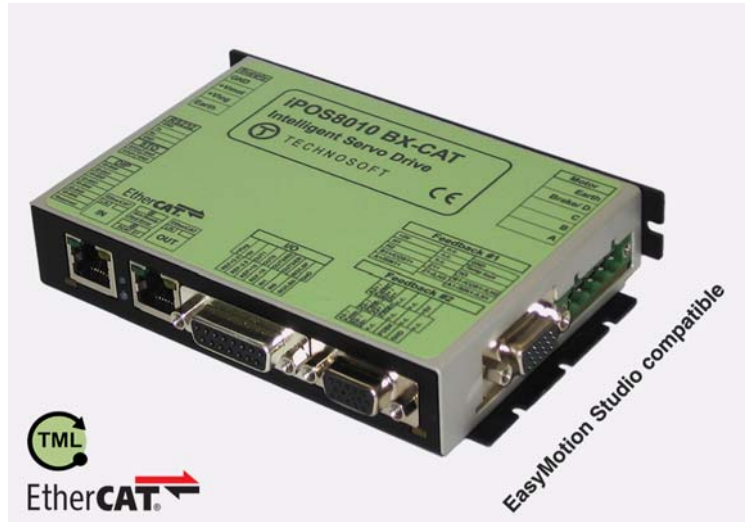
Initial drive commissioning is performed via the Technosoft EasySetup or EasyMotion Studio software platforms; checking and updating of setup data can also be done from the EtherCAT master.

Motion programming can be done via an EtherCAT® master, or using the drive built-in motion controller executing a TML program. A distributed control approach which combines the above options, like for example a master calling motion functions programmed on the drives in TML is also possible.

DUAL LOOP

Equipped with 2 feedback connectors, the iPOS8010 BX-CAT provides advanced dual-loop control schemes that minimize the transmission backlash negative effects, and increases system damping and stability.

P091.027.iPOS8010 BX-CAT.LFT.0615



FEATURES :

- Motion controller and drive in a single compact unit
- Universal drive solution for brushless, brushed, linear or step (true closed loop) motors
- Advanced motion control capabilities (PVT, S-curve, electronic cam)
- Motion programming via TML (Technosoft Motion Language)
- Standalone operation with stored motion sequences
- Drive enable circuit
- Communication
 - RS-232 serial
 - EtherCAT : CoE protocol
- Digital and analogue I/Os:
 - 4 PNP/NPN digital programmable inputs, 24 V
 - 4 NPN digital outputs, 5-36 V, 0.5 A
 - 2 analogue inputs: 12 bit resolution, 0-5 V
- Feedback devices (dual-loop supported)
 - 1st Feedback :
 - Incremental quad encoder (differential)
 - Analogue sine/cosine encoder (differential 1Vpp)
 - Digital Hall sensors
 - 2nd Feedback :
 - Incremental quad encoder (differential)
- Protections:
 - Over-current, over-temperature, short-circuit
 - Over and undervoltage, i2t, control error

ELECTRICAL SPECIFICATIONS :

Motor power supply:	12 - 80V _{DC}
Logic supply :	12 - 36V _{DC}
Maximum continuous phase current	10 A
Peak current (10 sec. max.)	20 A
PWM switching frequency	20 - 60 kHz
Ambient operating temperature	0 °C - 40 °C

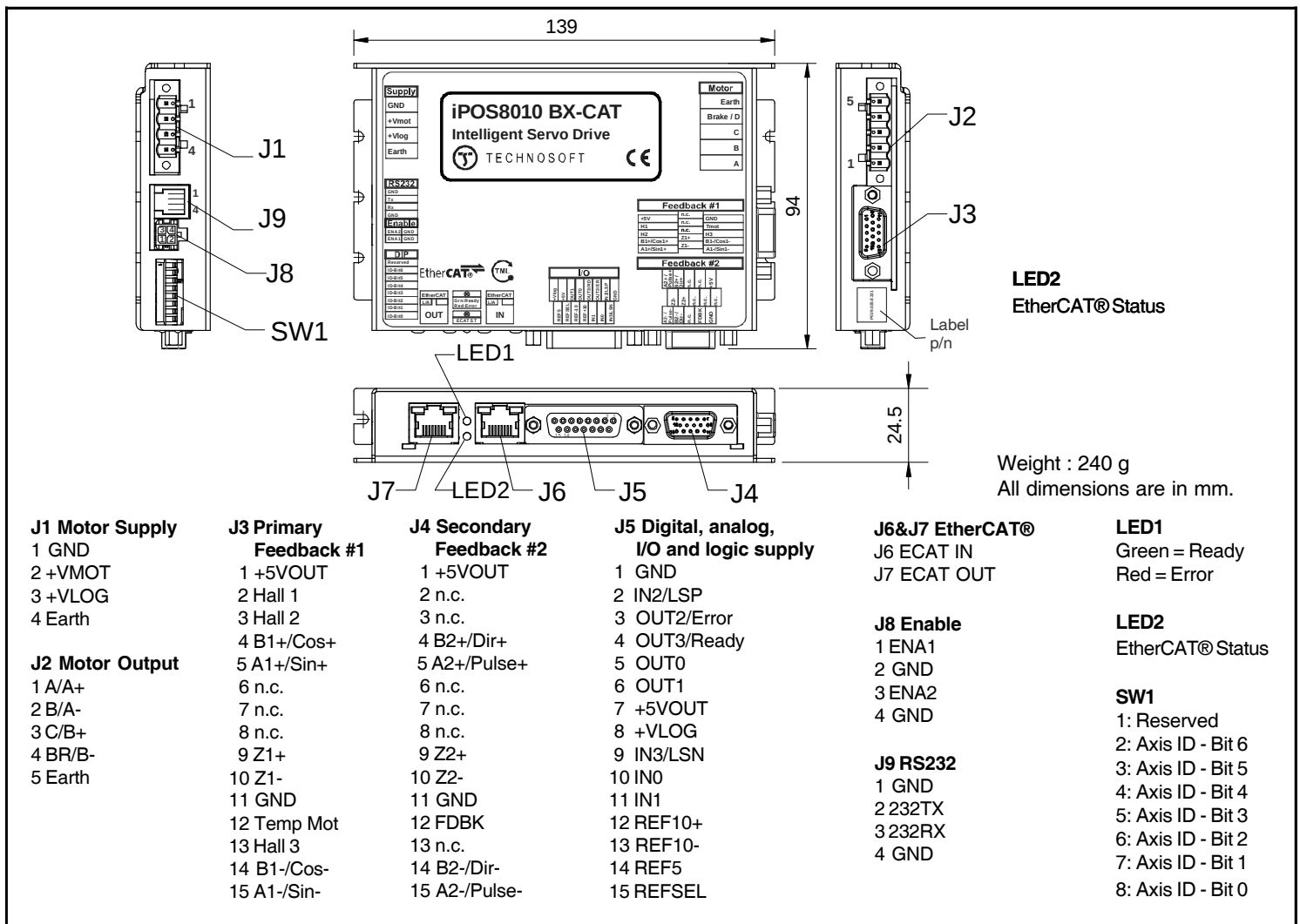
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Next
Intelligent
Move



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MOTION TECHNOLOGY

TECHNICAL AND ORDERING INFORMATION

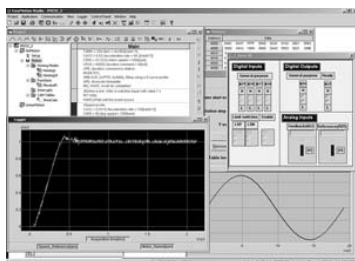


EASYMOTION STUDIO

The configuration, tuning and programming of the iPOS4808 BX-CAT drive is easy with Technosoft's powerful graphical platform, EasyMotion Studio.

The high level graphical development environment EasyMotion Studio, supports the configuration, parameterization and programming of the drive, through:

- Motion system set-up wizard
- Tuning assistance with capture functions
- Definition, programming and testing of motion sequences



Application notes with TML program examples at : www.technosoftmotion.com

ORDERING INFORMATION :

P029.025.E221 iPOS8010 BX-CAT 80V, 10A, cl. frame, enc.EtherCAT

P034.001.E002 EasyMotion Studio Software

FLEXIBILITY :

Control schemes supported by the iPOS8010 BX-CAT Drive

Motor types	Torque Control	Speed Control	Position Control*
Brushless	✓	✓	✓
Brushed	✓	✓	✓
Step	✓	✓	✓
Linear	✓	✓	✓

*Dual-loop control supported

CONNECTORS TYPE AND MATING CONNECTORS :

Connector	Mating connectors
J1	CTBA9208/4FL CAMDEN-Boss
J2	CTBA9208/5FL CAMDEN-Boss
J3, J4	High Density D-Sub male, 15 pins
J5	D-Sub male, 15 pins
J6, J7	RJ-45 plug
J8	Molex 43045-0400
J9	RJ-10 plug

SALES OFFICES

HEADQUARTERS

SWITZERLAND

Tel.: +41 32 732 55 00

Fax: +41 32 732 55 04

sales@technosoftmotion.com

GERMANY (Postcode: 2, 3, 4, 5, 6, 7)

Cell: +49 (0)173 77 200 03

Tel.: +49 (0)7156 3088018

Fax: +41 (0)32 732 55 04

sales.de@technosoftmotion.com

GERMANY (Postcode: 0, 1, 8, 9) /AUSTRIA

Cell: +49 (0)170 521 0007

Tel.: +49 (0)83319247293

Fax: +41 (0)32 732 55 04

sales.de@technosoftmotion.com

BENELUX

Tel.: +32 (0)14 21 13 21

Fax: +32 (0)14 21 13 23

sales.be@technosoftmotion.com

EASTERN EUROPE

Tel.: +40 (0)21 425 90 95

Fax: +40 (0)21 425 90 97

sales.ro@technosoftmotion.com

UNITED STATES

Tel.: +1 734 667 52 75

Fax: +1 734 667 52 76

sales.us@technosoftmotion.com

www.technosoftmotion.com