

iMOT17xB TM-CAT INTELLIGENT SERVO MOTOR SIZE 17

BRUSHLESS MOTORS WITH INTEGRATED DRIVE AND MOTION CONTROLLER FOR OEM APPLICATIONS

DESCRIPTION

The iMOT17xB TM-CAT represents the newest family of the Technosoft intelligent brushless servo motors that combine motion controller, drive, encoder and motor into a single compact package with EtherCAT communication.

In an extremely flat package (20mm) the iMOT17xB TM-CAT embeds a programmable motion controller with EtherCAT interface and absolute encoder.



EtherCAT

iMOT17xB TM-CAT FEATURES :



iMOT3B TM-CAT



iMOT2B TM-CAT



iMOT1B TM-CAT

ETHERCAT NETWORKING

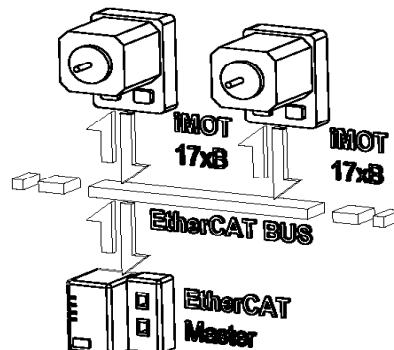
The iMOT17xB TM-CAT supports CAN application protocol over EtherCAT® (CoE) in conformance with CiA 402 device profile. Advanced features as cyclic synchronous position, up to 35 customizable homing modes (including all CiA 402 standard homing modes), PVT third order interpolation motion profiles, etc. are covered.

Motion programming can be done via an EtherCAT® master, or using the built-in motion controller executing a TML program. The distributed control approach is empowered by combining the above options, like for example a master calling motion functions programmed on the units in TML (Technosoft Motion Language).

- Fully digital intelligent brushless servo motor with embedded motion controller, drive and absolute position sensor
- Cost effective positioning system, due to compactness and elimination of motor wiring
- Available in 3 motor lengths, offering 100, 200 and 300 mNm of continuous torque
- Separate or combined logic and power supply for safety or reduced wiring requirements
- Advanced motion control capabilities (PVT, S-curve, electronic cam)
- Motion programming via TML (Technosoft Motion Language) or motion libraries for Visual C / VB / LabVIEW / Linux and PLC
- Standalone operation with stored motion sequences
- Communication:
 - EtherCAT: CoE protocol
- Digital and analogue I/Os:
 - 4 digital programmable inputs, 5-24V
 - 2 digital outputs, 0 - 5V, 0.5A
 - 1 analogue input: 12 bits resolution, 0-5 V
- Feedback devices:
 - Absolute single-turn position sensor offering a resolution of 4096 counts / revolution
- Programmable protections:
 - Over-current, over-temperature, short circuit
 - Over and undervoltage, i2t, control error

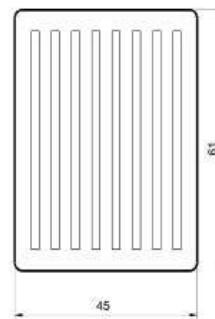
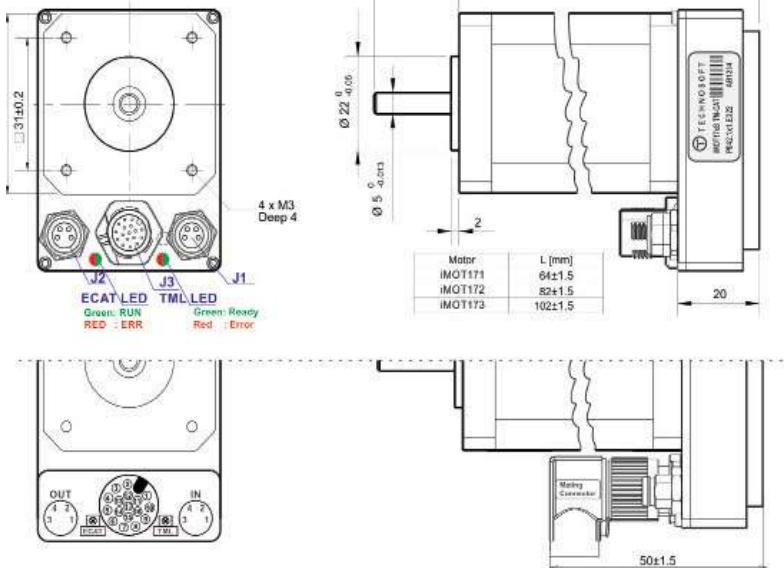
TYPICAL APPLICATIONS

- Systems with distributed motor control intelligence
- Packaging
- Printing
- Textile
- Medical
- Pick and place
- Factory automation

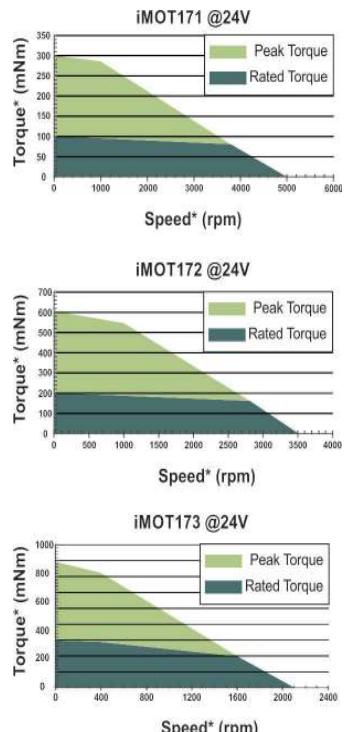


TECHNOSOFT
MOTION TECHNOLOGY

DIMENSIONS, SPECIFICATION, ORDERING INFORMATION



Torque – Speed characteristic



Please consult the iMOT17xB user manuals for details

*All values are ±10%

EASY MOTION STUDIO

The configuration, tuning and programming of the iMOT17xB TM-CAT motor 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



ORDERING INFORMATIONS * :

P042.111.E322	iMOT171B TM-CAT Intelligent Brushless Motor, EtherCAT
P042.121.E322	iMOT172B TM-CAT Intelligent Brushless Motor, EtherCAT
P042.131.E322	iMOT173B TM-CAT Intelligent Brushless Motor, EtherCAT
P034.001.E002	EasyMotion Studio Software
P038.040.C299	Complete cable set 150 cm for iMOT17xB TM-CAT

*Other communication buses available upon request

iMOT17xB INTELLIGENT SERVO MOTOR FAMILY SPECIFICATIONS :

ELECTRICAL SPECIFICATIONS	Units	iMOT171B	iMOT172B	iMOT173B
Rated torque	mNm	100	200	300
Peak torque	mNm	300	600	900
Rotor Inertia	g.cm ²	29	59	89
Speed Range (@ 24Vdc)	rpm	0 - 5000	0 - 3500	0 - 2300
Encoder resolution	counts/rev	4096		
Logic Power Supply input	V	12 - 36		
Motor Power Supply input	V	12 - 48		
Ambient operating temperature	°C	0-40		
Isolation rating		IP50		

MECHANICAL SPECIFICATIONS * Units

Flange and Shaft	NEMA17 compatible, front 42 x 42mm, 5mm shaft
Frame size	mm 42 x 42; 60 in connectors area
Length	mm +/-1.5 64 82 102
Weight	kg 0.40 0.52 0.73

*Other mechanical configurations, with adapted gearboxes are available upon request

CONNECTORS ON MOTOR :

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

J1, J2	EtherCAT, M8 socket 4 pin
J3	Supply, I/O, M12 plug 17 pin

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