

PIM3605 INTELLIGENT PLUG-IN CONTROL MODULE

180W

UNIVERSAL DRIVE FOR BRUSHLESS, DC BRUSH, LINEAR AND STEP MOTORS

The PIM3605 is a new Technosoft high-performance intelligent drive, combining motion controller, drive and PLC functionality in a single compact unit.

The PIM3605 drive is a flexible, cost effective and compact solution, particularly adapted for distributed and coordinated control of brushless, DC, linear or step motors of powers up to 180W with 36V nominal voltage.

Typical applications include distributed motor control with possibilities of gearing and electronic CAM functions in a CAN network operation (optional configuration).

The PIM3605 hardware structure is based on a cost optimised design integrating all the basic motor control functions and motion control functionality on a single module. A series of I/O signals, both digital and analogue, are available for easy interfacing with the application.

A complete set of high-level Technosoft Motion Language (TML) instructions permit to define and start complex motion sequences from your host, PC, or to execute pre-stored motion sequences selected from I/O lines, in a stand-alone mode.

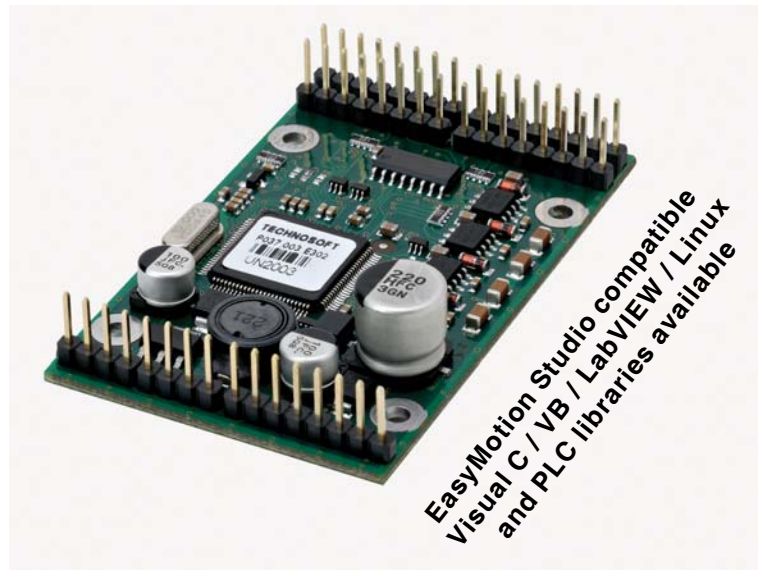
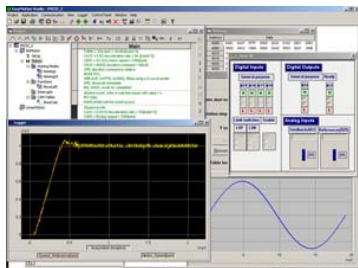
The embedded intelligence of the PIM3605 facilitates its configuration and programming through a high level graphical interface as the EasyMotion Studio.

YOUR NEXT INTELLIGENT MOVE

“MOTION CONTROL AT THE CLICK OF A MOUSE”

The configuration, tuning and programming of the PIM3605 intelligent drive is easy using the powerful graphical Technosoft EasyMotion Studio.

System **configuration** and **parameterization** are performed by the selection and test of system structure, motor and sensors type and control mode.



FEATURES

- Fully digital servo drive with embedded intelligence and PLC functionality
- Suitable for brushless (sinusoidal or trapezoidal commutation), DC brush, linear and two-phase step motors
- Compact design (67x43x20 mm)
- Various control modes as:
 - Torque, speed or position control
 - Electronic gearing, contouring, profiling
 - Step motor emulation (step and direction input)
 - External variables control capabilities (pressure, flow, temperature etc.)
- Powerful Technosoft Motion Language (TML) instruction set for definition and execution of motion sequences in:
 - Single or multi axis control (master or slave mode)
 - Standalone operation with Stored Motion sequences
- RS-232 serial communication
- Optional CAN-Bus 2.0B up to 1 Mbit/s / CANopen
- Programmable digital input / outputs and analog inputs
 - 5 inputs, 5 or 24V compatible (Enable, Pulse and Direction, Limit Switches)
 - 2 outputs (open-collector), 5 or 24V compatible (Ready, GPO)
 - Differential quadrature encoder and digital Hall interface
 - Linear Hall sensors interface
 - 2 analog inputs, 0/+5V range (+/- 10V optional)
- Single power supply: 12 - 42V
- High current capability (5A continuous, 16A peak current)
- Protection for over current, short circuit, earth fault, over- and under-voltage, I²t, control error
- 2.54 mm pitch header pins

TYPICAL APPLICATIONS

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

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



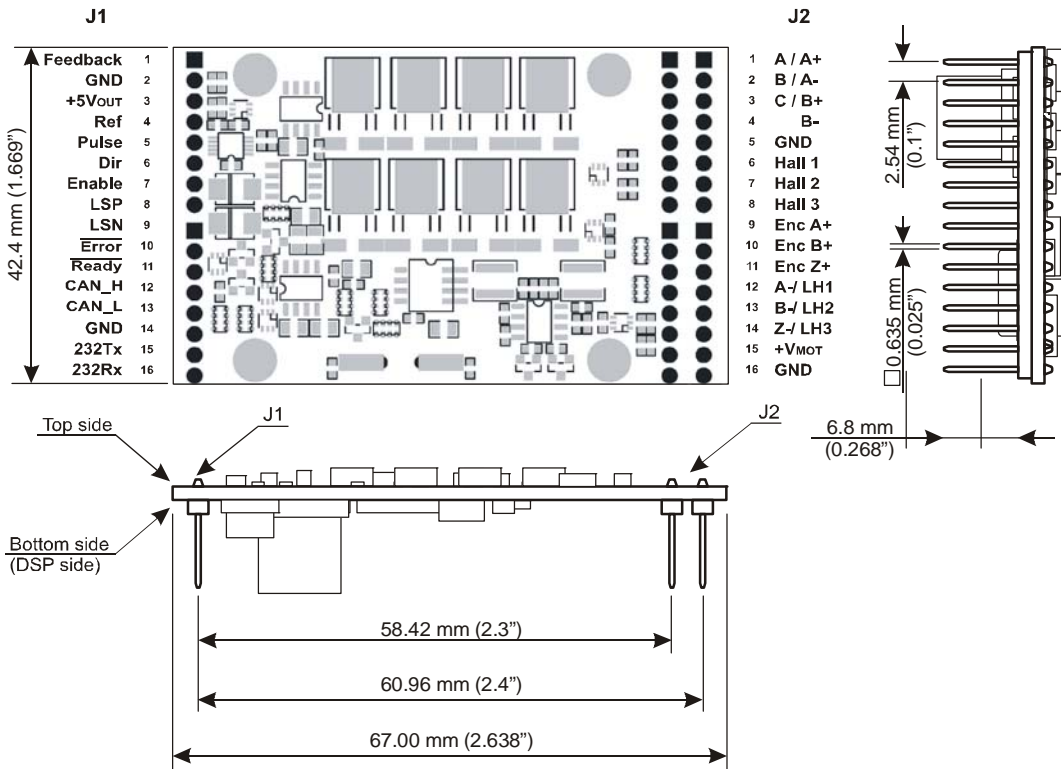
Your
Next
Intelligent
Move



TECHNO SOFT
MOTION TECHNOLOGY

DIMENSIONS, SPECIFICATION, ORDERING INFORMATION

PIM3605



Dimensions in mm. Drawings not to scale

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

MOTION CONTROL LIBRARIES

The TML_LIB Motion Control Libraries can be used to implement a motion control application on a PC from Visual C / C++, C#, Visual Basic, Delphi or LabVIEW under Windows or Linux operating systems. If a PLC is used as host, implementations of the TML_LIB observing the IEC-61131 standard are available for Siemens and Omron PLCs.

PIM3605 STARTER KIT

Complete evaluation packages for the PIM3605 drives, containing the servodrive, motor, I/O board, EasyMotion Studio software that are supported by a collection of application notes and documentation.

P091.037.PIM3605.LFT.0310

PIM3605 INTELLIGENT SERVO DRIVE

Electrical Specifications

DC supply voltage: motor and logic	36V
Maximum continuous current	5A
Peak current (2.4 sec. max.)	16A
Minimal load inductance	150 microHenry*
Nominal switching frequency	20kHz
Operating ambient temperature	0°C-40°C

*at 36V and 20kHz switching frequency

Ordering Information

P037.003.E302	PIM3605 Plug-in Control Module, 36V, 5A, RS232 / CAN
P037.003.E312	PIM3605 Plug-in Control Module, 36V, 5A, CANopen for Brushless / DC
P037.003.E313	PIM3605 Plug-in Control Module, 36V, 5A, CANopen for Stepper
P037.003.E314	PIM3605 Plug-in Control Module, 36V, 5A, CANopen for Linear Hall
P037.003.E380	PIM3605 Starter Kit W/O Motor
P037.003.E384	PIM3605 Starter Kit Brushless Motor
P037.003.E390	PIM3605 Starter Kit W/O Motor, CANopen
P037.003.E184	PIM3605 I/O Board
P034.001.E002	EasyMotion Studio Software
P040.001.Exxx	TML_LIB Motion Library**

**ask for existing libraries types

FLEXIBILITY

Control schemes supported by the PIM3605 Drive

Motor Types	Torque control	Speed control	Position control
Brushless DC / AC	✓	✓	✓
DC Brush	✓	✓	✓
Linear	✓	✓	✓
Step	✓	✓	✓

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