

IPM240 / IPM640 INTELLIGENT SERVO DRIVES, 240 / 640 W

DIGITAL MOTOR CONTROL FOR BRUSHLESS DC, BRUSHLESS AC AND DC BRUSH MOTORS

The IPM240 and IPM640 are new members of the fully digital servo drive family from Technosoft with embedded intelligence based on the latest DSP controller technology.

The embedded high level Technosoft Motion Language performs single-, multi-axis and stand-alone operating modes. It includes a powerful and high level motion language instruction set for the definition and the execution of speed or position commands from a master or of pre-stored motion sequences triggered by I/O signals.

Communication is provided by a serial protocol using an RS232 or RS-485 serial interface.

Combined with the Technosoft IPM Motion Studio, a set of graphical tools for quick configuration, tuning and motion programming, the IPM240 and IPM640 offer a flexible and easy to implement solution for a wide range of applications.

EASY SET-UP AND PROGRAMMING

"MOTION CONTROL AT THE CLICK OF A MOUSE"

The configuration, tuning and programming of the IPM240 intelligent servo drive is easy using the powerful graphical Technosoft IPM Motion Studio.

The **first step**, consists of the system **configuration** by the selection and definition of system structure, motor type, feedback types and control mode. Test procedures help you to test and verify the hardware structure.

As **second step**, the IPM Motion Studio supports the **parameterisation** and the **tuning** of the digital control loops of the selected motor control scheme. Data logging and scope facilities will capture variables during test movements for analysis and fine-tuning.

The **third step** may already be the use of the axis on your machine. Using high level TML



FEATURES

- Fully digital servo amplifier with Embedded intelligence
- Suitable for brushless DC, brushless AC (vector control) and DC brush motors
- Programmable with High level Technosoft IPM Motion Studio software for quick axis configuration and tuning
- 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, RS-485 serial communication
- Accepts external digital or analogue reference inputs (optional opto-isolated I/O available)
 - up to 5 programmable output / 8 programmable inputs
 - 2 differential analog inputs (reference and tachometer)
 - Digital quadrature encoder interface or optional resolver interface
- Single (IPM240) or double (IPM640) power supply
- 5A (IPM240), 8A (IPM640) continuous, 16A peak current rating
- Protection for over current, short circuit, earth fault, over temperature, over- and under-voltage, I²t, control error

commands, you can define and start motion sequences via serial communication port from your host, PC, or an optional hand-held terminal or execute pre-stored motion sequences, which can be activated through programmable I/O lines.

Pre-defined high-level motion control function libraries can be used to build your application at a PC computer level, in C, Basic or Pascal languages, and to control the drive in a straightforward manner.

Application notes with implementation examples and ready to run motion Language programs are available under www.technosoftmotion.com



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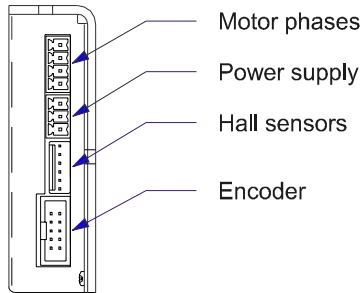
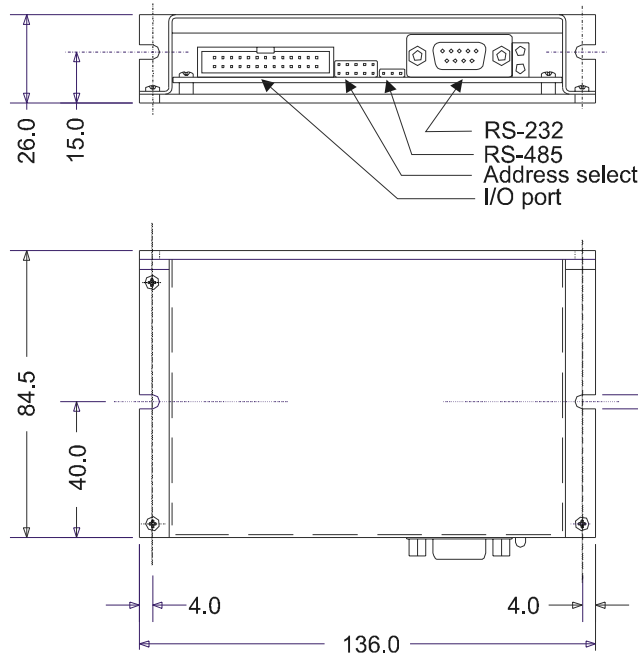
New
DSP solutions
for digital
motor control



TECHNO SOFT
MOTION DESK

DIMENSIONS, SPECIFICATION, ORDERING INFORMATION

IPM240 AND IPM640



TECHNOFT MOTION STUDIO

The Technosoft IPM Motion Studio is a high level graphical development environment for digital motion control applications.

It allows the configuration, parameterization and programming of the Technosoft drives and the optimal use of the Technosoft Motion Language embedded in these products, through

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

IPM240 STARTER KIT

Complete evaluation package for the IPM240 drive, containing the servodrive, motor, I/O board, IPM Motion Studio software and a collection of application notes and complete documentation.

The ideal environment needed to evaluate IPM drives and to build and test your motion application. All in a ready-to-run, plug-and-play configuration.

MODULARITY

Standard control schemes supported by the IPM240 and IPM640 Intelligent Servo Drives

Motor Types	Torque control	Speed control	Position control
Brushless DC	✓	✓	✓
Brushless AC	✓	✓	✓
DC Brush	✓	✓	✓

IPM240 AND IPM640 INTELLIGENT SERVO DRIVES

Electrical Specifications	IPM 240	IPM640
DC supply voltage	12-48V logic and motor	24V logic 12-72 V motor
Maximum continuous current	5 A (8A)	8A
Peak current (1 sec. max.)	16 A	
Minimal load inductance	200 µHenry	
Nominal switching frequency	20 kHz	
Operating ambient temperature	0°C-50°C	

Ordering Information

P088.001	IPM Motion Studio software
P075.003.E001	IPM240-5E; 48V, 5A, Encoder
P075.003.E002	IPM240-5EI; 48V, 5A, Encoder, Opto-isol. I/O
P075.003.E101	IPM240-8E; 48V, 8A, Encoder
P075.003.E102	IPM240-8EI; 48V, 8A, Encoder, Opto-isol. I/O
P075.003.E201	IPM640-8E-2V; 24/72V, 8A, Encoder
P075.003.E202	IPM640-8EI-2V; 24/72V, 8A, Encoder, Opto-isol. I/O
P075.003.E084	IPM240 Starter kit
P075.003.E184	IPM240 I/O board

OTHER PRODUCTS

Available in the same intelligent driver family (Technosoft Motion Language compatible):

- IPM100, 12-36V, 3A brushless intelligent driver
- IDM240, 48V, 5A brushless intelligent driver, CAN
- IDM640, 80V, 8A brushless intelligent driver, CAN
- IPS150, 12-48V, 3A step motor driver
- IPS110, 12-45V, 0.5A step motor driver, CAN
- IDS240, 48V, 5A, step motor driver, CAN
- IDS640, 80V, 8A, step motor driver, CAN
- ISCM4805, 48V, 5A, intelligent servo module, CAN
- ISCM8005, 80V, 5A, intelligent servo module, CAN

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