

ISD720/860 INTELLIGENT SERVO DRIVES

720/860W

DIGITAL MOTOR CONTROL FOR BRUSHLESS, DC BRUSH AND LINEAR MOTORS

The ISD720 and ISD860 are new members of the fully digital servo drive family from Technosoft with embedded intelligence based on the latest DSP controller technology.

These high-performance intelligent servo drives, combine motion controller, drive and PLC functionality in a single compact unit. The drives are programmable with the high level Technosoft motion language (TML), used 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.

Distributed motion control functionality is ensured by the embedded CAN controller or by the RS-232 interface.

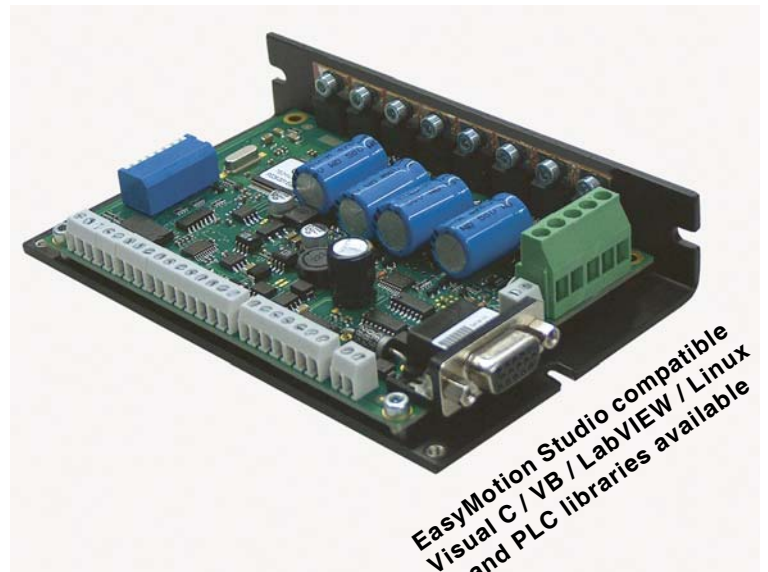
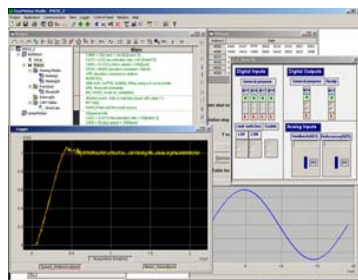
Compatible with Technosoft EasyMotion Studio for quick configuration, tuning and motion programming, the ISD drives offer a flexible and easy to implement solution for a wide range of applications.

GO FOR REAL INTELLIGENT MOTION "MOTION CONTROL AT THE CLICK OF A MOUSE"

The configuration, tuning and programming of the ISD intelligent servo drives is easy using the powerful graphical Technosoft EasyMotion 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 the **second step**, the EasyMotion 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.



EasyMotion Studio compatible
Visual C / VB / LabVIEW / Linux
and PLC libraries available

FEATURES

- Fully digital servo drive with embedded intelligence and PLC functionality
- Suitable for brushless DC, brushless AC (vector control), linear and DC brush motors
- Programmable with high level Technosoft EasyMotion Studio software for quick axis configuration and tuning
- Various control modes as:
 - Torque, speed or position control
 - Electronic gearing, contouring, profiling
 - Step motor emulation in BL mode (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
- CAN-Bus 2.0B up to 1 Mbit/s
- Accepts external digital or analogue reference inputs
 - Programmable I/O (4 outputs / 7 inputs)
 - 2 analogue inputs 0/+5V reference and tacho (+/-10V opt.)
 - Differential quadrature encoder (RS422), digital Halls
- Power supply for logic: 12-36V
- Motor power supply: 12-36V (ISD720) and 12-72V (ISD860)
- Continuous output current: 20A (ISD720) and 12A (ISD860)
- Peak output current: 49.5A (ISD720) and 31A (ISD860)
- Protection for over current, short circuit, earth fault, over temperature, over- and under-voltage, I²t, control error
- Compact open-frame design: 136 x 84 x 26 mm

The **third step** may already be the use of the axis on your machine. Using high level TML commands, you can define and start on-line motion sequences via serial communication port from your host, PC, or an optional hand-held terminal. In the stand-alone mode, pre-stored motion sequences can be executed, which can be activated through programmable I/O lines.

Application notes with ready to run Motion Language program examples are available at www.technosoftmotion.com

TYPICAL APPLICATIONS

- Systems with distributed motor control intelligence
- Packaging
- Printing
- Textile
- Medical
- Optics
- Automotive
- Environment
- Pick and place
- R&D / Laboratory
- Factory Automation

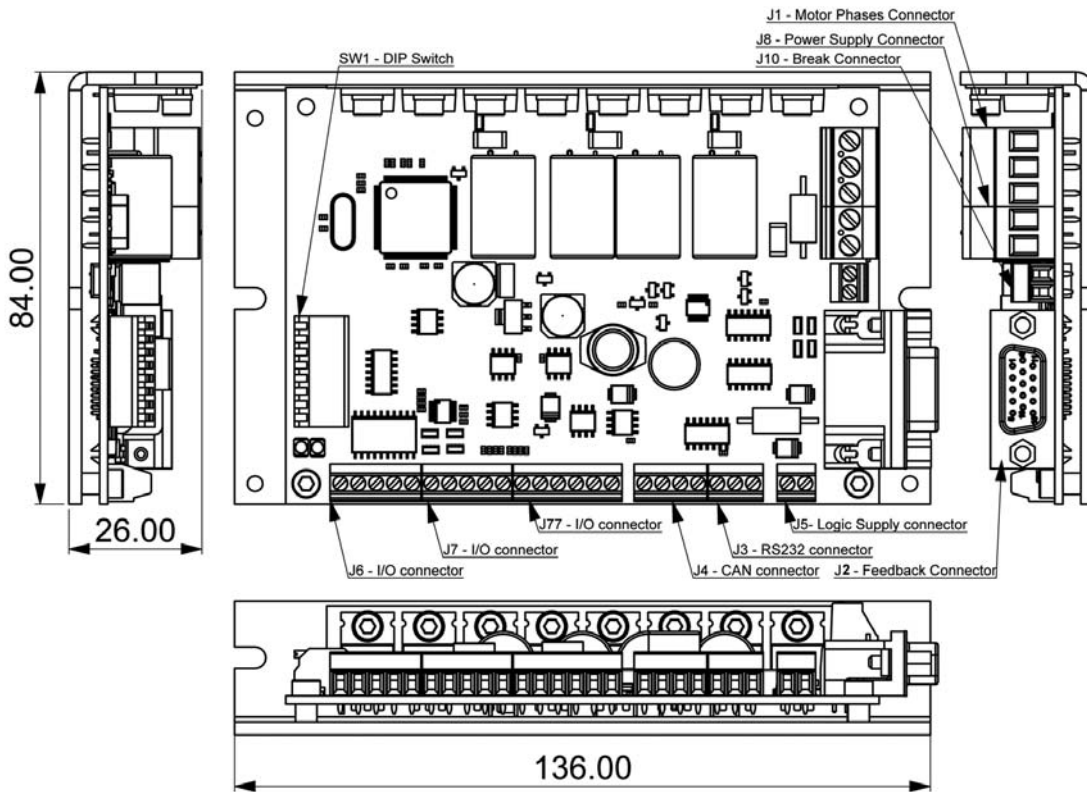
Your
Next
Intelligent
Move



TECHNOSOFT
MOTION TECHNOLOGY

DIMENSIONS, SPECIFICATION, ORDERING INFORMATION

ISD720 / ISD860



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
- 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, B&R and Omron PLCs.

ISD720/860 STARTER KITS

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

P091.029.ISD.LFT.0310

ISD720 / ISD860 INTELLIGENT SERVO DRIVES

Electrical Specifications	ISD720	ISD860
DC supply voltage: logic	24V	24V
DC supply voltage: motor	36V	72V
Maximum continuous current	20A	12A
Peak current (xx sec. max.)*	49.5A	31A
Minimal load inductance (microHenry)**	50	150
Nominal switching frequency	20kHz	20kHz
Operating ambient temperature	0°C-40°C	0°C-40°C

* 2.5 sec. max. for ISD720 and 6.3 sec. max. for ISD860

**at 36V (ISD720) / 72V (ISD860) and 20kHz switching frequency

Ordering Information

P029.001.E001	ISD720 Servo Drive 36V, 20A, RS232
P029.001.E002	ISD720 Servo Drive 36V, 20A, RS232 & CAN
P029.001.E012	ISD720 Servo Drive 36V, 20A, RS232 & CANopen
P029.001.E101	ISD860 Servo Drive 72V, 12A, RS232
P029.001.E102	ISD860 Servo Drive 72V, 12A, RS232 & CAN
P029.001.E112	ISD860 Servo Drive 72V, 12A, RS232 & CANopen
P029.001.E084	ISDxx0 Starter Kit for Brushless Motor
P034.001.E002	EasyMotion Studio software
P040.001.Exxx	TML_LIB Motion Libraries***

FLEXIBILITY

Standard control schemes supported by the ISD Drives

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

***ask for existing libraries types

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