

## Intelligent Brushless Drive IMDL series

**3 in 1**  
Motion controller  
PLC  
Drive



### Advanced Motion functions

Positioning



Gearbox



CAM profiles



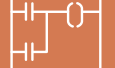
Registration



CAM boxes



PLC



### Applications

Multi-axis manipulators  
Packaging machines  
Label printing  
Winding  
Flying shears  
Dosing

### Security

Setup & program on  
Memory Stick

### Performances

#### Setup tools

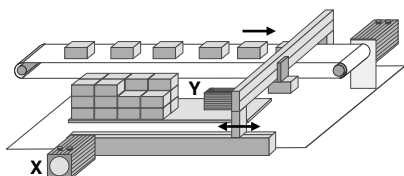
Trajectory generator  
Instrument panel  
Hyper terminal  
Oscilloscope

#### Software workshop

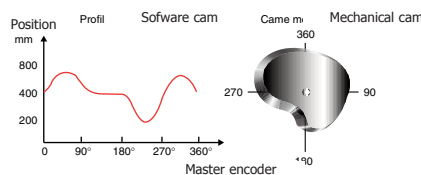
Basic Motion Tasks  
Trajectory array  
CAM profiles



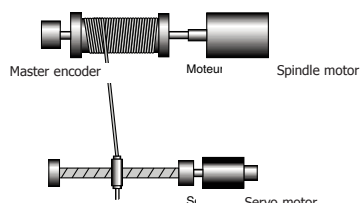
Palletisation



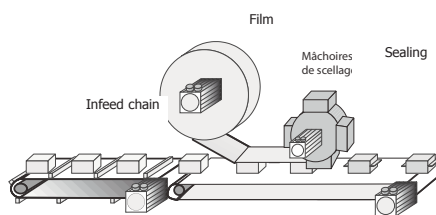
Electronic cams



Winding



Flow-Pack



**Power supply**

230V AC  $\pm 10\%$  single-phase for IMDL 230 series

400V AC  $\pm 10\%$  three-phase for IMDL 400 series

**Auxiliary supply**

24 V DC  $\pm 10\%$ , 0.4A typical (0.7A max if all options)

**EMC Filter**

Integrated

**Brake resistor**

Integrated (30W)

Provision for an external resistor

**Architecture**

32 bit Processor :150 MHz DSP and 100 000 gate FPGA

memory: FLASH, FRAM, RAM and Memory Stick\*

Real-time multi-tasking kernel

**Control loops**

Current loop : 75  $\mu$ s - Speed loop : 150  $\mu$ s - Position loop : 150 $\mu$ s

**Motor feedback**

Resolver, Incremental encoder\*, SinCos encoder HIPERFACE\*

**Master encoder**

Incremental, Absolute SSI, Virtual

SinCos HIPERFACE\* (only if Motor feedback does not use it)

**Encoder emulation**

Setup from 1 to 100 000 pulses per revolution

**Communication**

Modbus RTU, CANopen\*, Ethernet Modbus TCP\*, EtherCAT\*

**Inputs / Outputs**

4 digital inputs (with 2 fast 1 $\mu$ s) / 2 digital outputs

2 analogue inputs / 1 analogue output

1 safety input SIL2\*

Additional module 12 digital inputs / 8 digital outputs 500mA\*

**Diagnostic**

Status display

**Operating modes**

Torque, speed or position mode

Stepper Mode (pulse input, direction)

Motion functions (positioning, S profile, gearbox, CAM profiles, synchronization, CAMBOX functions, triggered movement)

IMDL range	IMDL230/2/S	IMDL230/5/S	IMDL400/1/S	IMDL400/4/S
Power supply	230 V AC single	230 V AC single	400 V AC three	400 V AC three
Nominal current	2.5 Arms	5 Arms	1.25 Arms	4 Arms
Peak current (2s)	5 Arms	10 Arms	2.5 Arms	8 Arms
Nominal power	0.7 kVA	1.5 kVA	0.7 kVA	2.2 kVA
Dimensions W x H x D	64 x 293 x 201	64 x 293 x 201	64 x 293 x 201	64 x 293 x 201

\* options