SERAD
FRANCE

# Motion control

# Intelligent Brushless Drive
## IMDC compact & low voltage

3 in 1
Motion controller
PLC
Drive


## Advanced Motion functions

- Positioning
- Gearbox
- CAM profiles
- Registration
- CAM boxes
- PLC

## Applications

Automatic storage & retrieve system
Medical
Low voltage machine
Embedded system

## 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



*The solution for your motion control applications*

# Technical Features

## Compact size


## Integrated communication

CANopen

Modbus

| | | |
|---|---|---|
| **Power supply** | 24 to 48 V DC ±10% | |
| **Auxiliary supply** | 24 V DC ±10%, 0.5A typical (0.7A max if all options) | |
| **EMC Filter** | Integrated | |
| **Nominal current** | IMDC/10 : 10 Arms | IMDC/20 : 20 Arms |
| **Peak current (2s)** | IMDC/10 : 20 Arms | IMDC/20 : 40 Arms |
| **Nominal power** | IMDC/10 : 480 VA | IMDC/20 : 960VA |
| **External brake resistor** | Mini value : 4.7 Ω<br>Max continue power 400W<br>Braking threshold : 58 V DC | |
| **Architecture** | 32 bit Processor :150 MHz DSP and 100 000 gate FPGA<br>memory: FLASH, FRAM, RAM and Memory Stick*<br>Real-time multi-tasking kernel | |
| **Control loops** | Current loop : 75 µs - Speed loop : 150 µs - Position loop : 150µs | |
| **Motor feedback** | Resolver | |
| **Master encoder** | Incremental, Absolute SSI, Virtual | |
| **Communication** | MODBUS RTU, CANopen | |
| **Inputs / Outputs** | 4 digital inputs (with 2 fast 1µs) / 2 digital outputs<br>Additional module 12 digital inputs / 8 digital outputs 500mA* | |
| **Diagnostic** | Status display | |
| **Operating modes** | Torque, speed or position mode<br>Stepper Mode (pulse input, direction)<br>Motion functions (positioning, S profile, gearbox, CAM profiles, synchronization, CAMBOX functions, triggered movement) | |
| **Dimensions W x H x D** | 53 x 190 x 160.5 | |

* Options

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