

XtrapulsPac AC servo-drive



Functions

DS402 standard modes
Electronic gearing, camming, stepper emulation
Analog speed drive, stand-alone positioner

Power range

230 VAC : 5 ... 17 Arms max.
480 VAC : 8 ... 200 Arms max.

Interfaces

RS-232, CANopen®, EtherCAT®
Digital and analog I/Os

Sensors

Resolver
Encoders: incremental, absolute, HES
Digital encoders: Hiperface DSL®, Tamagawa®

Safety

Integrated Safe Torque Off SIL 2 function

Tools

Project manager
Setup wizard
Multi-axis configuration and diagnostic
Application templates for quick configuration

XtrapulsPac, AC servo-drive

The XtrapulsPac Drive is a compact and flexible 230 and 480V AC servo-drive with outstanding capabilities. It provides functions and interfaces to cover a wide range of single- and multi-axis applications. This drive is available for push-through, coldplate and wall mounting.

Electrical specifications

| Drive type | PAC-230 | | | PAC-400 | | PAC-400 | | | Power supply type | GDPS-400 ³ | | |
|----------------------|---|------|------|---|------|----------------------|-------|-------|-------------------|-----------------------|-------|-------|
| | / 05 | / 11 | / 17 | / 08 | / 20 | / 45 | / 100 | / 200 | | / 16 | / 32 | / 64 |
| Peak current [Arms] | 5 | 11 | 17 | 8 | 20 | 45 | 100 | 200 | Nominal power | 16 kW | 32 kW | 64 kW |
| Cont. current [Arms] | 2.5 | 5.5 | 8.5 | 4 | 10 | 22.5 | 35 | 75 | Voltage | 3x230 VAC / 3x480 VAC | | |
| Voltage | 1x230 VAC ¹ / 320 VDC ² | | | 3x480 VAC ¹ / 680 VDC ² | | 680 VDC ² | | | | | | |

¹Integrated power supply ²External power supply

³Integrated mains filter, DC bus output for parallel connection of several drives, external braking resistor

Control loops

- Digital drive for AC synchronous motors
- Current loop 62.5 μ s
- Speed and position loop 500 μ s
- Closed loop control of position, speed or torque
- Max. speed up to 25'000 rpm

Feedbacks

- Resolver
- Incremental encoder
- Hall effect sensor
- SinCos encoder
- Single and multi-turn Hiperface® encoder
- Digital encoders: Hiperface DSL® (one single motor cable), Tamagawa®

Communication interfaces

- RS-232 up to 115.2 kbit/s baud rate
- CANopen® or EtherCAT® fieldbus
- DIP switches for node addressing

Safety features

- Safe Torque Off SIL 2

I/O interfaces

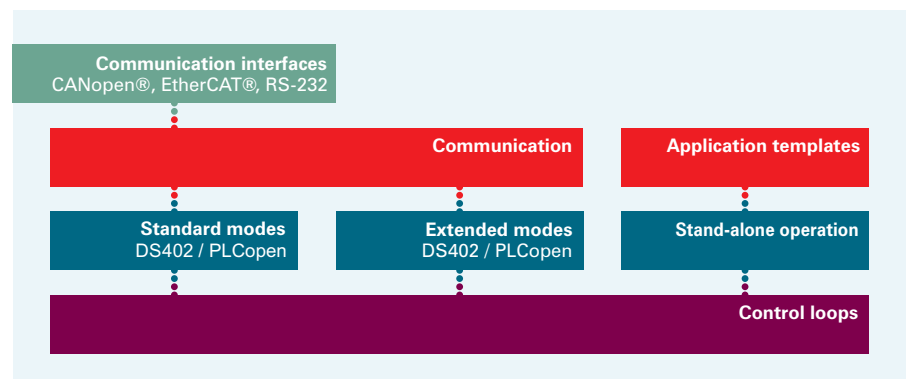
- User configurable digital I/Os
- All-digital opto-isolated inputs
- Analog inputs \pm 10 V / 12 bit
- Analog output 0 - 5 V / 8 bit
- "AOK" output
- Motor brake control
- Two channel STO function

Standards

- CE
- UL listed



Functional architecture



Operation modes

DS402 standard modes

- Cyclic synchronous position
- Cyclic synchronous velocity
- Cyclic synchronous torque
- Interpolated position
- Profile position
- Profile velocity
- Profile torque
- Homing

DS402 extended modes

- Analog speed
- Stepper emulation
- Sequences
- Master-slave gearing
- Master-slave camming

Stand-alone operation

- Analog speed drive
- Positioner
- Stepper emulation
- Electronic gearing

Multi-axis toolbox

Configuration tools

- Motor and drive configuration
- Application configuration
- Interface configuration
- Auto-tuning, auto-phasing
- Sequencer programming

Project tools

- Project creation
- Project management
- File handling services
- Motor libraries
- Multilingual software

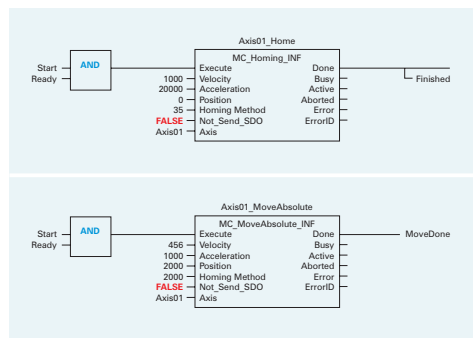
Diagnostic tools

- Device control
- Device monitoring
- Object dialog window
- Multi-axis oscilloscope

XtrapulsPac can easily be configured as a stand-alone drive in various operation modes. It can also be integrated into an automation system with PLC, CNC or motion controller via the fieldbus and uses well-known standard functions available in libraries. This flexibility makes it suitable for use in a wide field of machines and applications.

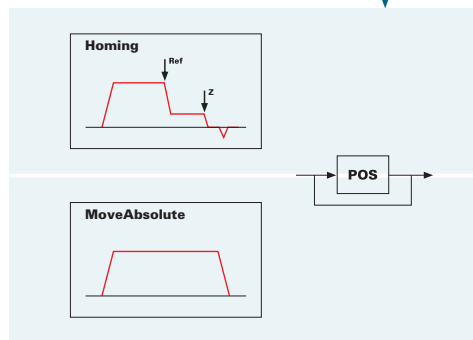
DS402 / PLCopen example

PLC



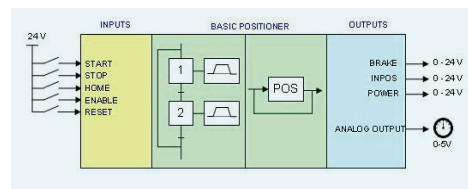
Drive

CANopen® EtherCAT®

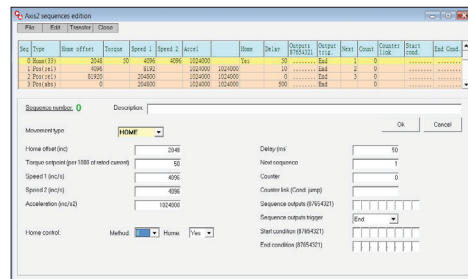


Stand-alone positioner example

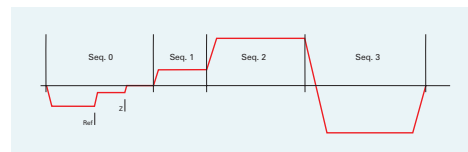
Step 1: Select template



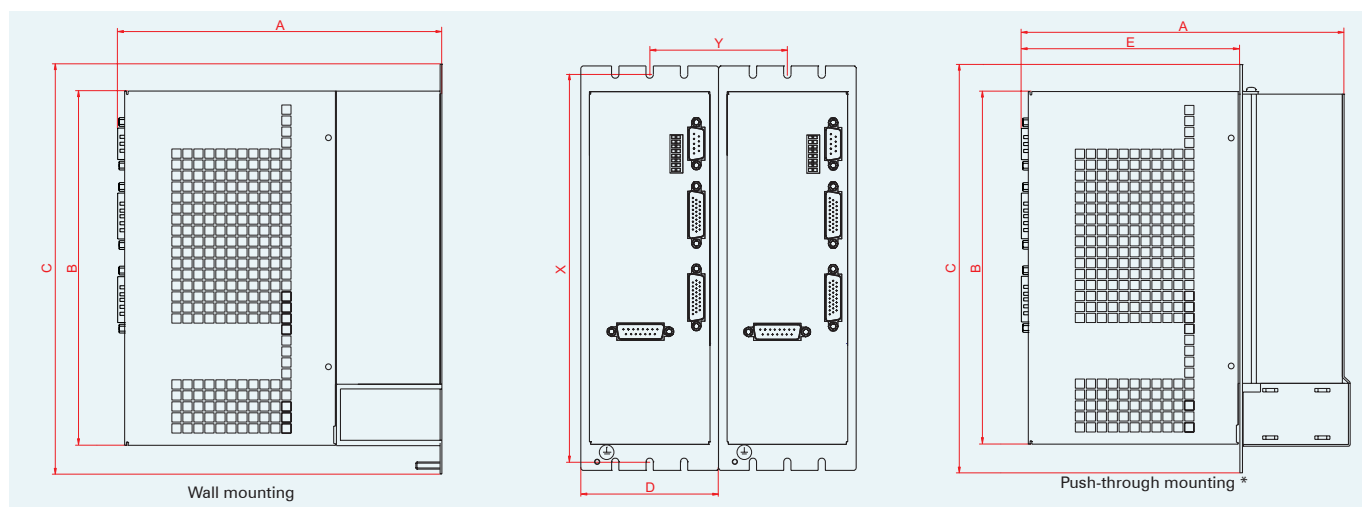
Step 2: Parametrize sequences



Step 3: Start execution



Mechanical dimensions [mm]



| Dimensions [mm] | A | B | C | D | E* | X | Y |
|-----------------------|-----|-------|-----|----------|-----|-----|-----|
| Pac-230 V / 5 - 17 A | 143 | 148 | 178 | 70 | - | 169 | 80 |
| Pac-400 V / 8 - 45 A | 186 | 203 | 235 | 70 (80*) | 125 | 225 | 80 |
| Pac-400 V / 100 A | 210 | 203 | 235 | 80 (80*) | 125 | 225 | 80 |
| Pac-400 V / 200 A | 215 | 265 | 295 | 166.6 | - | 285 | 100 |
| GDPS-400 V / 16/32 kW | 158 | 203 | 235 | 70 | - | 225 | 80 |
| GDPS-400 V / 64 kW | 207 | 262.5 | 295 | 71.5 | - | 285 | 80 |

Infranor product range

Drives

Standard drives



Customized drives

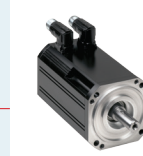


Drive applications



Motors

Standard motors



Customized motors



Motor applications

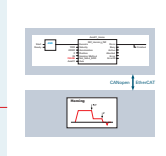


Services

Standard services



User-specific services



Global solutions

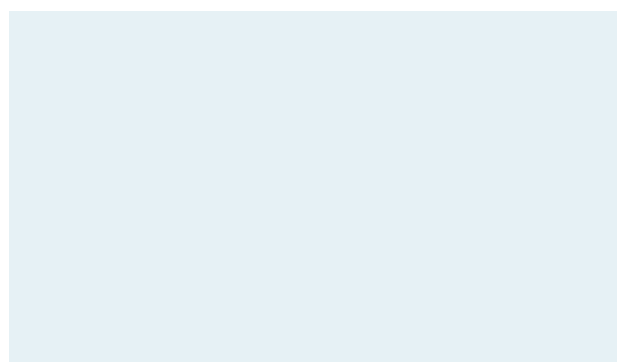


Infranor Group

Infranor creates added value for its customers by providing tailor-made motion solutions.

Based on strong working relationships, Infranor offers extensive market know-how, comprehensive engineering skills and a wide range of high-quality products leading to productivity gains and therefore to comparative advantages for its customers in their respective markets.

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