

# 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®, EnDat 2.2®, 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 <sup>3</sup> |       |       |
|----------------------|---|------|------|---|------|----------------------|-------|-------|-------------------|-----------------------|-------|-------|
|                      | / 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 <sup>1</sup> / 320 VDC <sup>2</sup> |      |      | 3x480 VAC <sup>1</sup> / 680 VDC <sup>2</sup> |      | 680 VDC <sup>2</sup> |       |       |                   |                       |       |       |

<sup>1</sup>Integrated power supply <sup>2</sup>External power supply

<sup>3</sup>Integrated 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 μs
- Speed and position loop 500 μs
- 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), EnDat 2.2®, 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

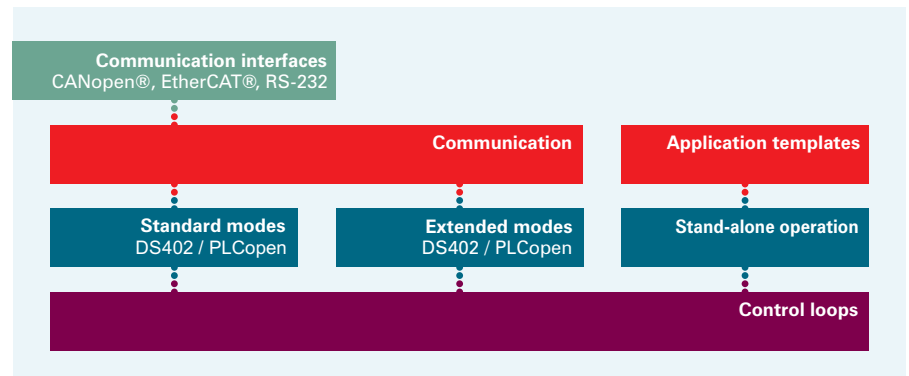
## I/O interfaces

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

## Certifications



## 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

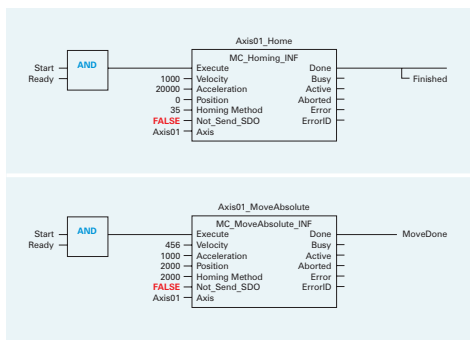
### Diagnostic tools

- 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.

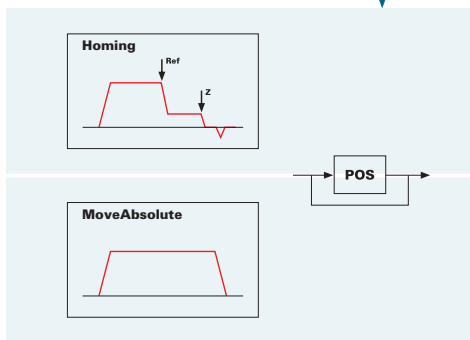
### DS402 / PLCopen example

PLC



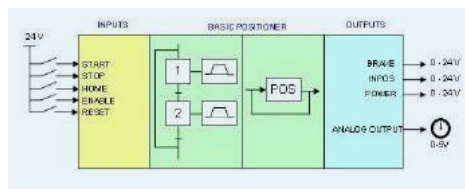
Drive

CANopen® ↔ EtherCAT®

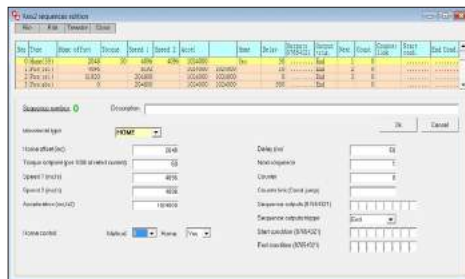


### Stand-alone positioner example

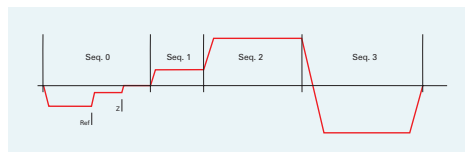
Step 1: Select template



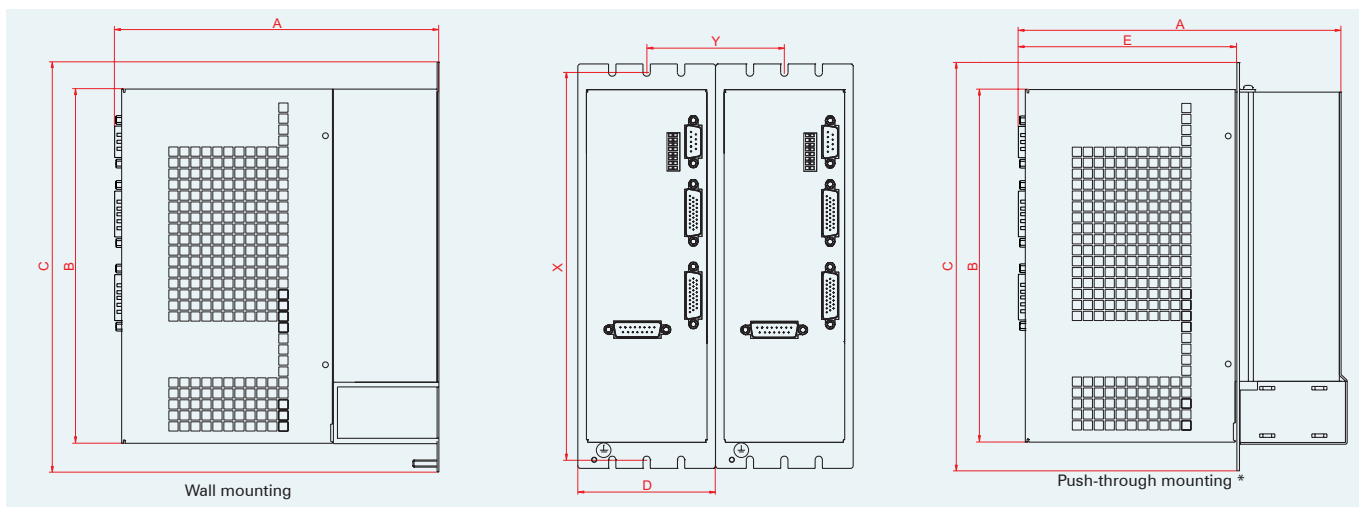
Step 2: Parametrize sequences



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

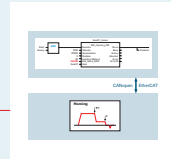


## Services

### Standard services



### User-specific services



### Global solutions

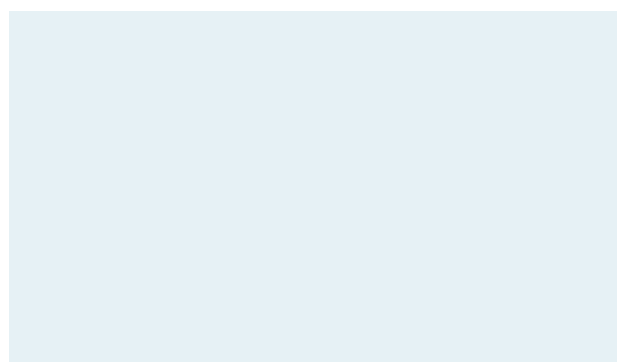


## Infranor Group

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.

## Contact



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Austria, Denmark, India, Israel,  
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