

# XtrapulsPacHP™ AC servo drive



**Really outstanding  
servo performances!**

## Power range

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

## Interfaces

Fieldbuses: CANopen®, EtherCAT®, PROFINET®  
RS-232 USB port  
Digital and analog Inputs/Outputs

## Sensors

Resolver  
Encoders: incremental, absolute, Hall effect sensor  
Digital encoders: Hiperface DSL®, EnDat 2.2®, BiSS C

## Safety

Integrated Safe Torque Off function STO SIL 3 (standard)  
Motion safety functions (optional)

## Functions

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

# XtrapulsPacHP™, servo drive for brushless AC motors

The XtrapulsPacHP™ servo drive is a particularly compact and flexible device with outstanding capabilities. It provides many 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. It is fully compatible with the former XtrapulsPac™ version.

## Electrical specifications

Drive type	PacHP-230			PacHP-400		PacHP-400			Power supply type	GDPS-400 <sup>4</sup>		
	/ 05	/ 11	/ 17	/ 08	/ 20	/ 45 <sup>3</sup>	/ 100 <sup>3</sup>	/ 200 <sup>3</sup>		/ 16	/ 32	/ 64
Peak current [Arms]	5	11	17	8	20	45	100	200	Rated power	16kW	32kW	64kW
Cont. current [Arms]	2.5	5.5	8.5	4	10	22.5	35	75	Voltage	3x 230VAC / 3x 480VAC		
Voltage	1x 230VAC <sup>1</sup> / 320VDC <sup>2</sup>			3x 480VAC <sup>1</sup> / 680VDC <sup>2</sup>		680VDC <sup>2</sup>						

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

<sup>3</sup>Pending versions

<sup>4</sup>Integrated mains filter, DC bus output for parallel connection of several drives, external braking resistor



## Control loops

- Digital drive for synchronous AC motors
- Current loop sampling: 31,25µs (PWM 16kHz), 62,5µs (PWM 8kHz)
- Speed and position loop sampling: 125µs, 250µs, 500µs (selectable)
- Max. speed up to 25'000rpm
- Cogging torque compensation

## 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®, BiSS C

## Communication interfaces

- USB service port or RS-232
- CANopen®, EtherCAT® or PROFINET® fieldbuses
- DIP switches for node addressing

## I/O interfaces

- User configurable digital I/Os
- Analog inputs ± 10V / 16 bit
- Analog output 0 - 5V / 12 bit
- "AOK" relay output
- Motor brake control

## Operation modes

### DS402 standard modes

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

### Extended modes

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

## Safety features

- STO SIL 3
- SS1 / SS2 / SOS / SLS / SDI / SBC

## Multi-axis toolbox

### Configuration tools

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

### Diagnostic tools

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

## Certifications



\*UL listing pending

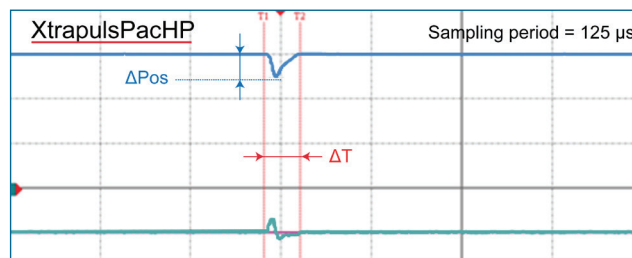
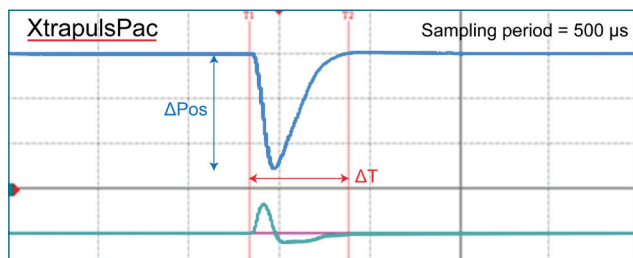


XtrapulsPacHP™ can easily be configured as a stand-alone drive in various operation modes. It can also be integrated into an automation system with PLC, CNC or motion controller via the fieldbus and uses well-known standard functions available in libraries. This flexibility makes it suitable for use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

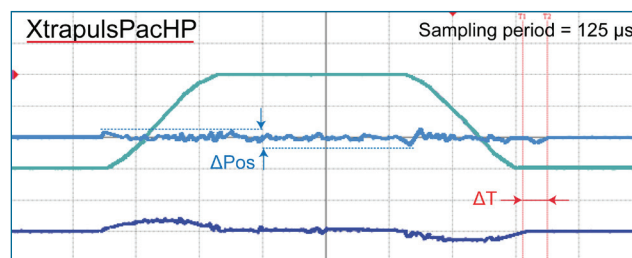
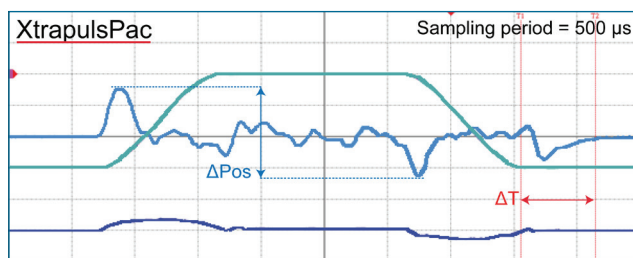
## Dynamic servo performances

With regard to the former version XtrapulsPac™, dynamic servo performances are increased by a factor of 3. The position error as well as the response time are divided by 3.

The position deviation for a step-like torque disturbance applied to the motor shaft is evaluated (stiffness test).



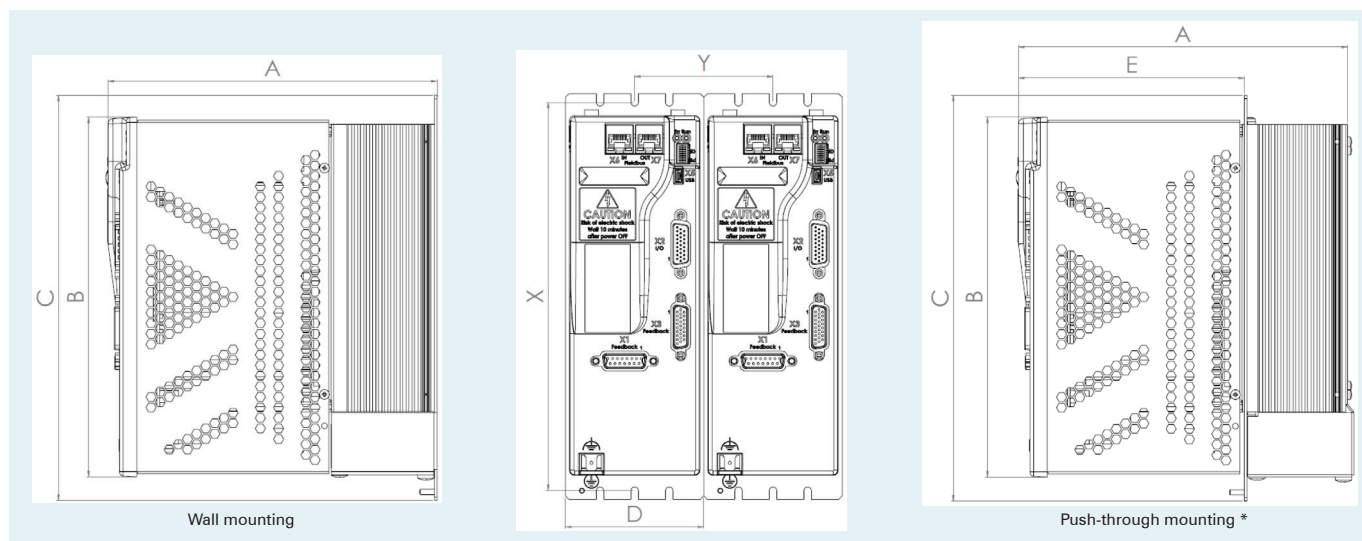
The position following error in profile position mode with an S-curve trajectory shape is evaluated (accuracy test).



— Position — Speed — Current

Tests were made with BLS 72A servo motor and 230V / 17A servo drives.

## Mechanical dimensions [mm]



Dimensions [mm]	A	B	C	D	E*	X	Y
PacHP-230 V / 5 - 17 A	148	153	178	70	-	169	80
PacHP-400 V / 8 - 45 A	191	208	235	70 (80*)	131	225	80
PacHP-400 V / 100 A	214	208	235	80 (80*)	128	225	80
PacHP-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

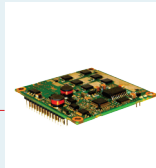
# Infranor® product range

## Drives

### Standard drives



### Customized drives



### Drive applications



## Motors

### Standard motors



### Customized motors



### Motor applications

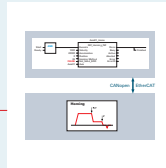


## Services

### Standard services



### User-specific services



### Global solutions

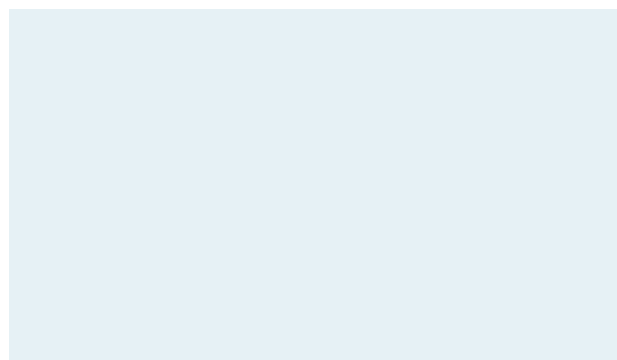


## Infranor Group

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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