INFRANOR®

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.
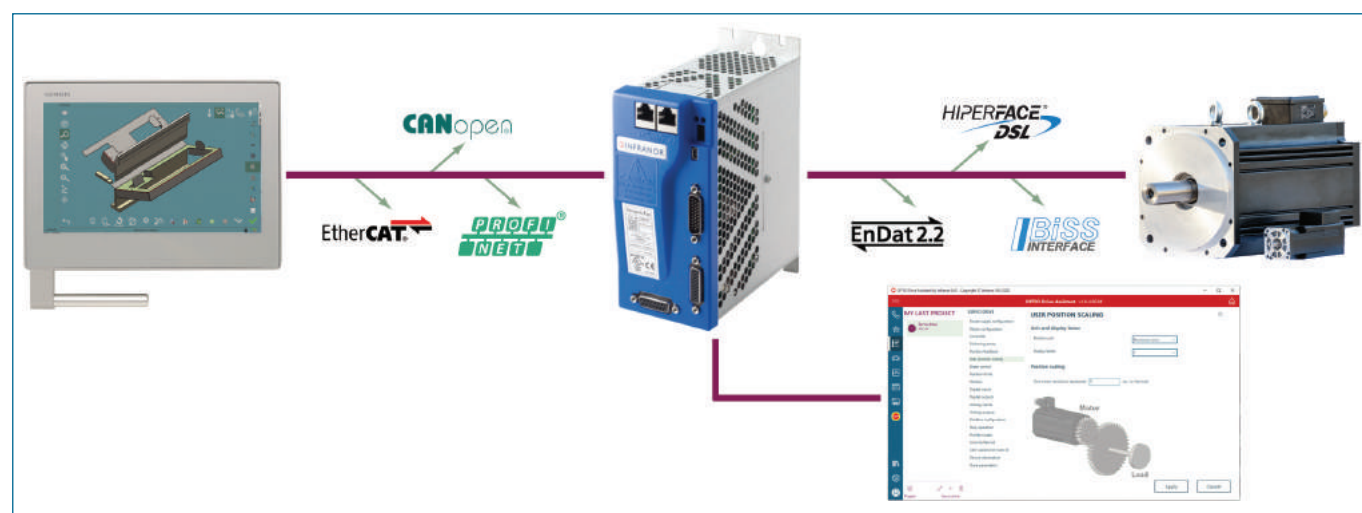
Electrical specifications

Drive type	PacHP-230			PacHP-400		PacHP-400			Power supply type	GDPS-400[4]		
	/ 05	/ 11	/ 17	/ 08	/ 20	/ 45[3]	/ 100[3]	/ 200[3]		/ 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	3x230VAC / 3x480VAC		
Voltage	1x230VAC[1] / 320VDC[2]			3x480VAC[1] / 680VDC[2]		680VDC[2]						

[1] Integrated power supply   [2] External power supply

[3] Pending versions

[4] 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
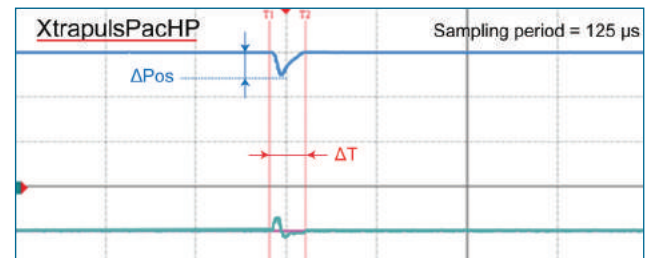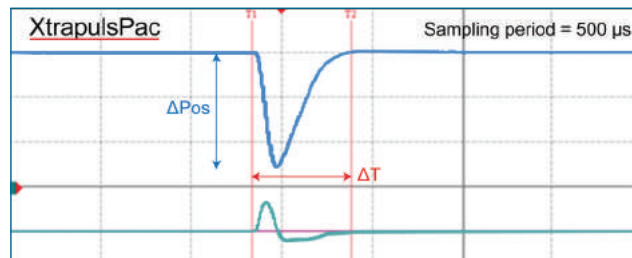

Made in France

*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.
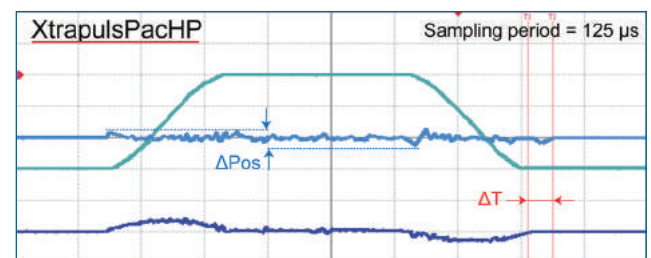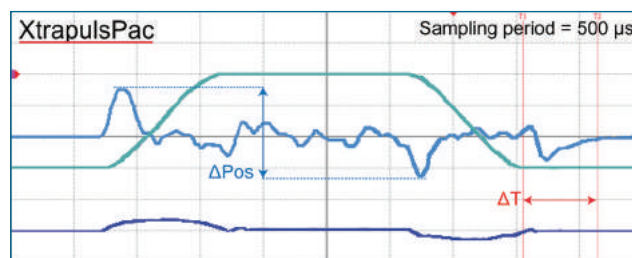
Dynamic servo performances

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).
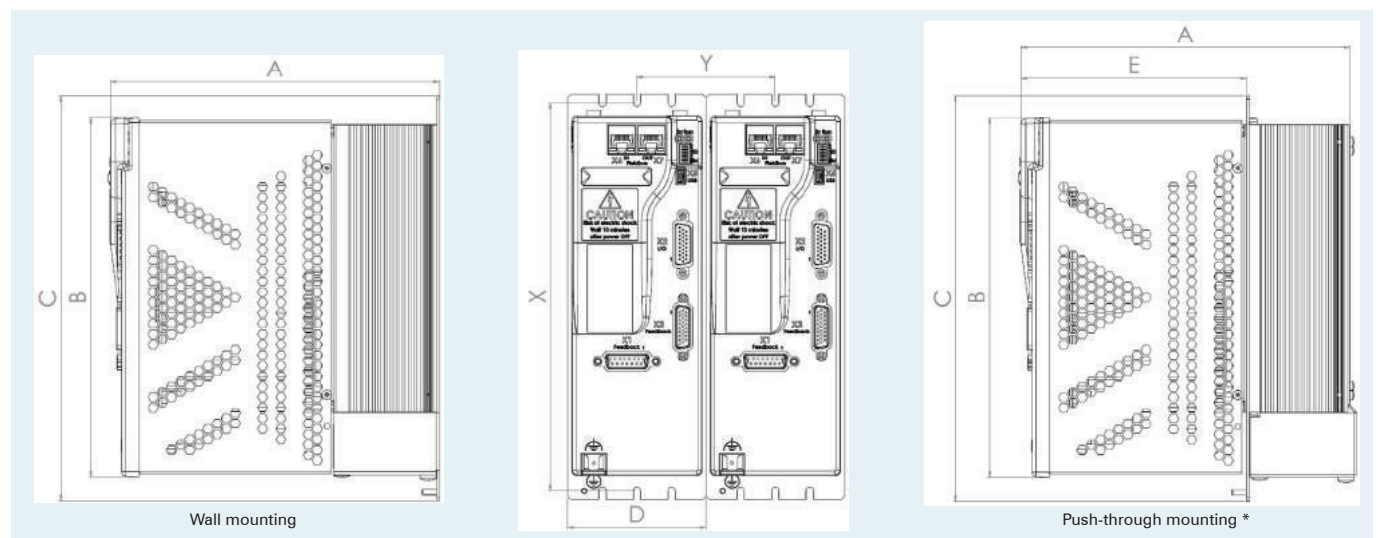

The position following error in profile position mode with an S-curve trajectory shape is evaluated (accuracy test).

——— Position   ——— Speed   ——— Current

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

Mechanical dimensions [mm]

Wall mounting   Push-through mounting *

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
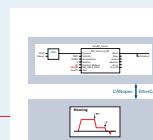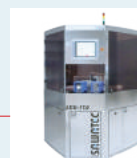
Services

Standard services

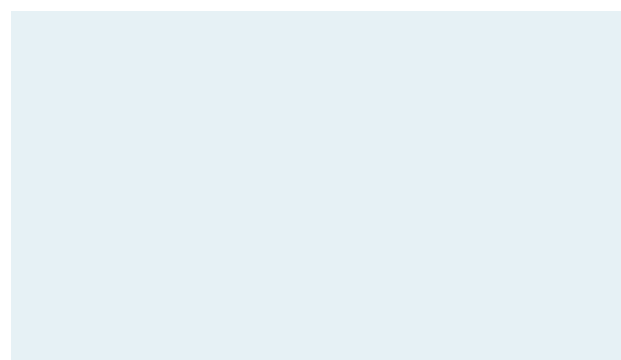### User-specific services

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.

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