INFRANOR

Xtrapuls CD1
AC servo-drives

Functions

- Multi-purpose AC servo-drives
- Configurable standard modes of operation
- Resolver and encoder feedback

Power stage

- AC or DC supply
- IGBT power stage
- Dynamic braking
- Integrated EMC filters
- Nominal current 1.1 A / 230 VAC ... 35 A / 480 VAC

Interfaces

- RS-232
- Various fieldbusses
- Digital and analog I/Os

Safety

- Function Safe Torque Off SIL 2 in option

XtrapulsCD1, AC servo-drives

XtrapulsCD1 is a family of configurable multi-purpose AC servo-drives for the solution of very dynamic and accurate regulation tasks. The wide power range and the numerous interfaces make them well suited for the use in various types of machines and installations.

Electrical data[1]

Type		CD1-n 230					CD1-n 400								
		/ 2.25	/ 4.5	/ 7.5	/ 10.5	/ 16.5	/ 1.8	/ 2.7	/ 5.1	/ 7.2	/ 14	/ 30	/ 45	/ 70	/ 90
Peak current 1s	[Arms]	2.25	4.5	7.5	10.5	16.5	1.8	2.7	5.1	7.2	14	30	45	70	90
Nominal current	[Arms]	1.1	2.25	3.75	5.25	8.25	0.9	1.35	2.55	3.6	7	15	20	35	35
Voltage		1..3 x 230 VAC, 50..60 Hz					3 x 480 VAC, 50..60 Hz								

[1] The EMC filters (up to CD1-n 400/45) and the braking system are integrated (external braking resistor)
The DC bus can be linked in order to distribute braking energy

Control loops

- Digital drive for AC synchronous motors
- Current loop 62.5 µs
- Speed and position loop 500 µs
- Closed-loop position, speed or torque-control
- Cogging torque compensation
- Maximum speed up to 25´000 rpm

Feedbacks

- 16 bit resolver interface
- Incremental encoder interface
- Hall sensor interface
- Interface for SinCos encoders with absolute commutation track, Endat® or Hiperface®

Communication interfaces

- RS-232 up to 19.2 kbit/s baud rate
- CANopen up to 1 Mbit/s baud rate
- PROFIBUS DP up to 12 Mbit/s baud rate
- Switches for node address

I/O interfaces

- Dedicated digital I/Os (Enable, limits-witch, homing, etc.)
- All digital I/Os opto-isolated
- Analog inputs ±10 V / 14 bit resolution
- Analog output ±10 V / 8 bit resolution
- Relay output "Amp OK"
- Motor brake control output 24 V / 1.5 A
- Encoder simulation from 64 to 16384 ppr

Standards

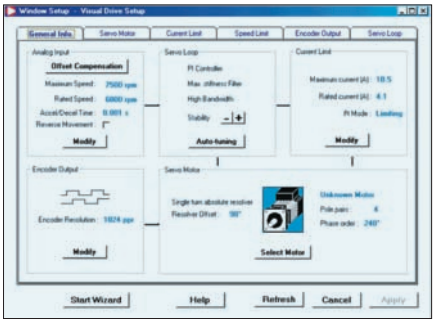
- CE
- UL listed

Proposed motors

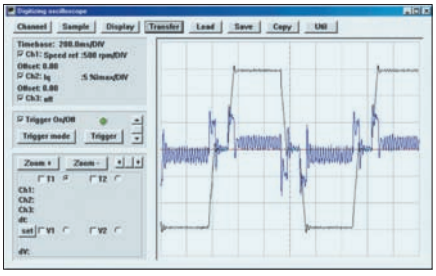
- Brushless motors series Xtrafors
- Compact motors series HDD / ICM
- Hollow shaft motors series HSM
- All AC synchronous motors
- Linear motors
- Torque motors

Tools

- Setup assistant for motor and drive
- Motor library
- Auto-tuning function for control loops
- Auto-phasing function for motor adjustment
- Test functions such as direct motion commands and digital oscilloscope



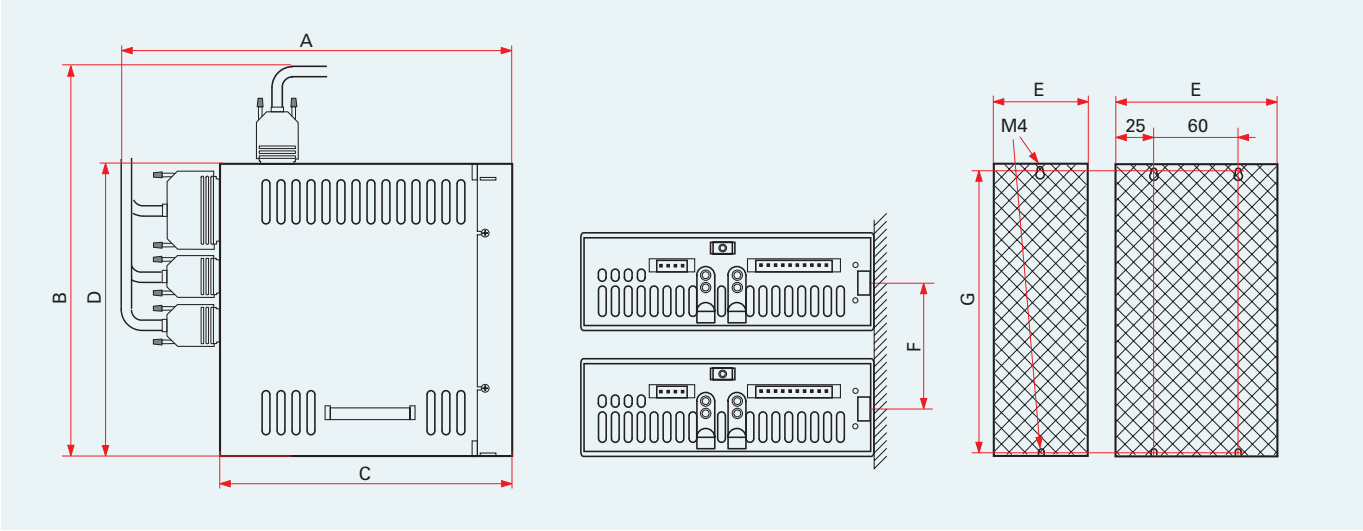
Setup Window



Oscilloscope

The described CD1 versions are optimized for applications in the particular automation environment. The compliance with the various fieldbus standards allows an easy connection of the drive to the hardware and software of the chosen control system.

Mechanical dimensions



Dimensions [mm]	A	B	C	D	E	F	G
CD1-n 230 / ≤16.5	260	250	199	200	65	80	192
CD1-n 400 / ≤7.2	293	278	230	228	65	80	220
CD1-n 400 / 14	293	308	234	258	83	100	250
CD1-n 400 / ≤90	293	336	234	288	110	127	277

Speed Servo CD1-a

- Speed or torque controller, slave axis with electronic gearing or positioner with stepper motor emulation
- ±10 V inputs for current or speed command and for external current limitation
- Programmable speed limitation and acceleration ramp
- Motor brake control via 24 V output
- Double feedback system (motor and load) via resolver and encoder
- RS-232 addressing for multi drop applications

Positioner CD1-pm

- Up to 128 user defined sequences (Home, Position, Speed, Torque, gearing)
- Trapezoidal or S-curve profile generator
- Dedicated I/Os (Home-Index, Start, Stop, Pos, Speed and Sequence)
- User definable I/Os
- Motor brake control via 24 V output
- Slave axis with electronic gearing
- Double feedback system (motor and load) via resolver and encoder
- Choice of stand-alone operation and control via PROFIBUS or RS-232
- PROFIBUS DP with PPO1 .. PPO4 messages, SYNC and FREEZE functions

CANopen drive CD1-k

- Various operation modes (Homing, Interpolated Position, Position Profile, Velocity Profile, Torque Profile, Gearing)
- Trapezoidal or S-curve profile generator
- Dedicated I/Os (Home-Index, Capture, Low Speed)
- User definable I/Os
- Motor brake control via 24 V output
- Slave axis with electronic gearing
- Double feedback system (motor and load) via resolver and encoder
- Capture function
- Digital cam function
- CANopen interface according to DS-301
- CANopen Drive Profile according to DSP-402

Infranor product range

Drives

Standard drives

Customized drives

Drive applications

Motors

Standard motors

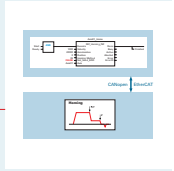
Customized motors

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

Infranor worldwide

Switzerland
Germany
France
Italy
Benelux
UK
Spain
USA
China

Other representations:
Denmark, Poland, Slovenia, Israel, India.

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