Pure dynamics
from linear to rotative
CDD3000

LUST | LTi

CDD3000 _ The all-rounder
for "almost" limitless project planning freedom

You can only meet your extreme dynamic and precision requirements with linear
or rotative direct drives?
No problem.

You also use conventional synchronous servomotors in the same machine for less
demanding tasks?
Why not.

And while we're on the subject, there's also the asynchronous geared motor
in the material infeed, not forgetting the drive which must rotate really quickly
at 60,000 min^{-1} and of course you want to drive all that with the same servo
controller type?
Now, just don't lose heart!

Just take a look at our CDD3000. This is as good as made for users who want
to cover a very wide range of applications with only one type of device to avoid
the problems raised by different operating philosophies or incompatibilities in the
interconnection protocols.
So that you can always reach your project aims with the available power variants,
the CDD3000 from 2 A to 32 A is available in 5 sizes.

CDD3000 _ Pure dynamics!

Selecting the motor is not the only area where flexibility is important to us. Integration of the motor into the automation world is equally flexible, whether a field bus system is used or not. A "Default solution" is available in the servo controller at the click of the button for every typical drive task. This makes commissioning very easy and very quick. However, if the standard functions ever should reach their limits, the freely programmable iMOTION offers additional options.

It goes without saying that you can expect a well-established, tailor-designed consultancy service, competent support during commissioning, sophisticated ordering and delivery logistics to meet your every need, an outstanding service and diagnostic ability and last but not least, high-quality products from us. But this will surely not come as any surprise to you as the CDD3000 is, after all, a member of the successful c-line DRIVES family from LTi.

Torque motors
for dynamic and precise positioning, rotative

Linear motors
for dynamic and precise positioning, linear

Sin/Cos encoder
for high precision and maximum dynamics

Resolver
as a robust encoder in expensive applications

Evaluation of two encoders
for positioning non-ideal mechanics accurately to the µ

CANopen, PROFIBUS-DP
a modular extension to be connected to your control unit

Cam controller
for generating position-dependent control signals to control the connected machine peripheral devices

Encoder simulation
for conventional positioning using ±10 V-interface

iMOTION
for programming movement processes and sub-processes close to the process

The servo controllers CDD3000
are available in power classes
2 A to 32 A. In addition, there
is a wide range of synchronous,
asynchronous and direct drive
motors available. Optimize your
drive solution with the options
made possible by the c-line DRIVES.

Direct is simply more dynamic

Positioning tasks increasingly require extremely short positioning cycles and high precision.

The CDD3000 for direct drives can be used here:
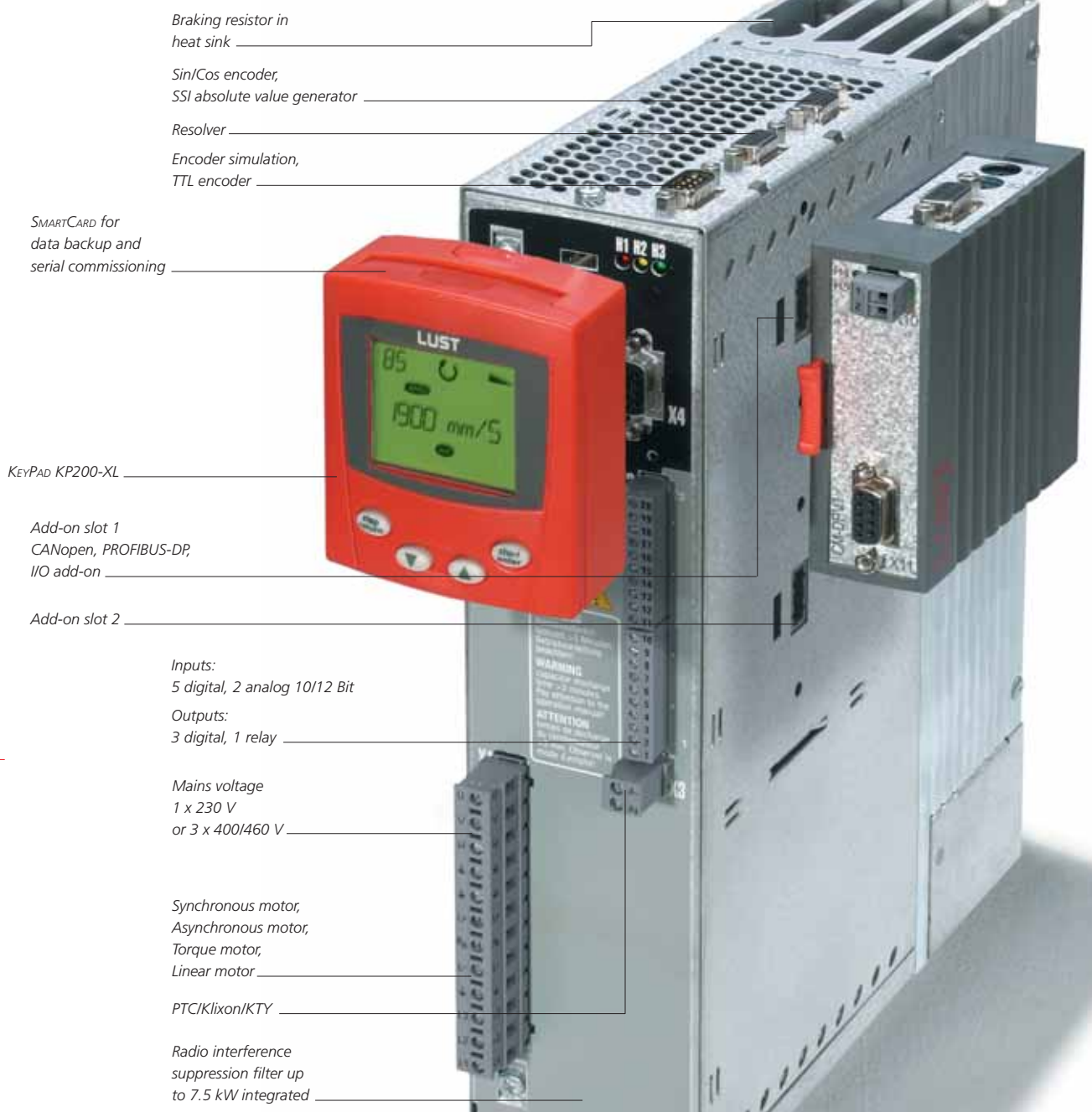
Application areas for direct drives

- Highly dynamic positioning of low grounds with iron-less linear motors
- Powerful movement with iron-tainted linear motors
- High torque of 10 Nm in productronics or up to 10,000 Nm in elevator engineering

Special functions for direct drive technology

- Commutation detection, incl. standstill braking
- Compensation of detent and friction torques
- Suppression of mechanical natural frequencies through use of notch filter
- Pre-controls up to current controller
- GPOC – to compensate for encoder inaccuracies
- Special software for directly driven elevators

The all rounder _ rotative, linear, high torque

*Braking resistor in
heat sink*

*Sin/Cos encoder,
SSI absolute value generator*

Resolver

*Encoder simulation,
TTL encoder*

*SMARTCARD for
data backup and
serial commissioning*

KEYPAD KP200-XL

*Add-on slot 1
CANopen, PROFIBUS-DP,
I/O add-on*

Add-on slot 2

*Inputs:
5 digital, 2 analog 10/12 Bit*

*Outputs:
3 digital, 1 relay*

*Mains voltage
1 x 230 V
or 3 x 400/460 V*

*Synchronous motor,
Asynchronous motor,
Torque motor,
Linear motor*

PTC/Klixon/KTY

*Radio interference
suppression filter up
to 7.5 kW integrated*

	BG1	BG2	BG3	BG4	BG5

| BG1 | BG2 | BG3 | BG4 | BG5 |

Positioning controllers _ CDD3000
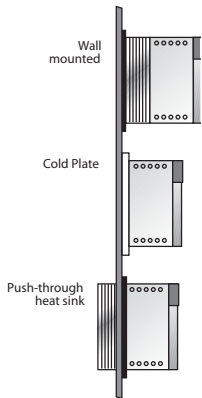
Size	BG1	BG2	BG3	BG4	BG5
Rated current [A] (1 x 230 V mains)		2.4/4	5.5/7.1	–	–
(3 x 400/460 V mains)		2.2/4.1/5.7	7.8/10	14/17	24/32
Motor power [kW]$_{1.)}$	0.375/0.75	1.1/1.5/2.2	3/4	5.5/7.5	11/15
Peak current [A]	1.8 times rated current for 30 s				
Wall mounting		x	x	x	x
Cold plate	x	x	x	x	x
Push-through heat sink			x	x	x
Certification			CE, cUL		
Dimensions (W x H x D) in mm	70 x 223 x 152	70 x 248 x 177	70 x 300 x 250	120 x 300 x 250	170 x 300 x 250

The braking chopper electronics is integrated in all controllers. A network filter is integrated in all controllers up to 17 A in compliance with EN61800-3.
1.) referred to 4-pin asynchronous motors

Wall mounted

Cold Plate

Push-through heat sink

| LST-037 | LSH-050 LST-050 | LSH-074 LST-074 | LSH-097 LST-097 | LSH-127 LST-127 | LST-158 | LST-190 |

Servomotoren _LSH / LST

	LSH-050	LSH-074	LSH-097	LSH-127	LST-037	LST-050	LST-074	LST-097	LST
Standstill torque [Nm]	0,26-0,95	0,95-4,2	4,1-8,6	11,6-27,0	0,1-0,3	0,20-0,95	0,65-3,0	2,6-9,5	6,6
Rated torque [Nm]	0,24-0,84	0,86-3,1	3,2-6,1	8,4-21	0,09-0,27	0,19-0,85	0,6-2,5	2,3-8,5	5,7
Rated speed [min^{-1}]	4500	3000	3000	3000	6000	4500	3000	3000	30
Installation window [mm]	55	86	98	142	37	55	86	98	14
Design length [mm] [1]	67-112	96-186	129-189	172-290	81-111	98-158	109-181	146-236	185
Moment of inertia [kgcm^2] [1]	0,06-0,12	0,5-1,5	1,7-3,5	6,8-15,3	0,06-0,08	0,6-0,18	0,5-1,5	1,9-6,1	5,9

[1] *with resolver, without brake*

Complete system

Direct drives TorqueChampion

Direct drives _ linear

Motor type	synchronous
Types	ironless, ironcore
Rated force [N]	30 - 5850
Max. speed [m/s]	10

Different measure length systems admit an optimal adjustment to the demands of movement.

Direct drives _ rotating

Impulse torque [Nm]	20 – 70
Standstill torque [Nm]	10 – 35 (50)*
Max. speed [rpm]	250 – 500
Hollow shaft [mm]	56
Outside diameter [mm]	145 – 200

*( ) Data for motors with water cooling

Technical changes reserved.
Information and specifications are subject to change at any time.
For more information please visit us at www.lt-i.com.

LST-220

LST-127	LST-158	LST-190	LST-220
6,6-22,0	13,5-35,0	27,0-40,0	40,0-115,0
5,7-17,0	13,0-26,0	21,0-26,0	30,0-50,0
3000	3000	3000	3000
142	190	190	240
185-304	201-395	242-287	310-514
5,9-11,7	13,1-46,0	36,0-46,0	76,0-190,0

Technical changes reserved.
Information and specifications are subject to change at any time.
For more information please visit us at www.lt-i.com.

PC _ "DRIVEMANAGER" user software

Software power	rapid commissioning in three steps
	easy-to-use graphic setting masks
	4-channel digital scope
	actual and target value status display
	direct control of the drive controller by PC
Software requirements	Microsoft Windows$^®$, 95/98/ME
	Windows$^®$, NT, 2000, XP

Accessories

Hand-held control unit, memory card	KEYPAD KP200-XL, KP300, SMARTCARD SC-XL
Communication modules	CANopen, PROFIBUS-DP
I/O add-on	for additional digital and analog I/Os

Everything for your success

Drive technology for automation

LUST | **LTi** | DRiVES
www.lt-i.com
Servo and inverter drive
systems for automation

LEV**i**TEC
www.levitec.de
Motor and magnetic bearing
components for high-speed
drives

DRiSSEL
www.dressel.de
Electrical equipment for
plant and machinery

Systems/components in the area of renewable energies

LUST | **LTi** | REENERGY
www.lt-i.com
Complete systems in the
area of renewable energies

LUST | **LTi** | ADATURB
www.adaturb.de
ORC systems of generating
power from heat

Micro-system technology/sensor systems

SENS**i**TEC
www.sensitec.com
Magneto-resistive sensor chips and
microsystems for measurement of
physical variables

LUST
HYBRID-TECHNIK
www.lust-hybrid.de
Assembly and interconnection
technology for microsystems

LTi DRiVES GmbH
Heinrich-Hertz-Straße 18
59423 Unna
GERMANY
Fon   +49 (0) 2303/ 77 9-0
Fax   +49 (0) 2303/ 77 9-397
Mail info@lt-i.com
www.lt-i.com

LTi DRiVES GmbH
Gewerbestraße 5-9
35633 Lahnau
GERMANY
Fon   +49 (0) 6441/ 96 6-0
Fax   +49 (0) 6441/ 96 6-177
Mail info@lt-i.com
www.lt-i.com