

The Positioning Experts  
in the Economy Class  
CDE/CDB3000



 C-line \_ positioning system

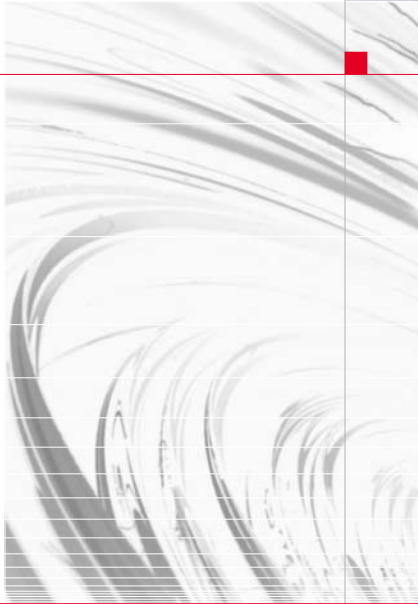
## CDE/CDB3000 \_ Your search is over!

The control performance of an advanced PLC, complex state regulating structures, numerous simultaneous position measurement systems at very high resolution, clock synchronism for up to 256 axes accurate to the microsecond – fantastic features of today's high-performance drive controllers.

But – do you really need all that? If you do, then our new CDE/CDB3000 positioning system probably won't be able to help you.

But if progress for you primarily means improving cost-effectiveness while retaining current levels of performance and functionality, then LTI has just the right solution for you. Our CDE and CDB position controllers offer you identical functionality in two design variants for your positioning applications. The CDE is optimized for interaction with synchronous servomotors. The CDB is best suited to the control of asynchronous gear motors. And we have fitted both units with exactly the features you need for your applications. CDE and CDB – two positioning experts to aid cost-cutting on your machine or line.







## CDE/CDB3000 \_ A wealth of top-class functionality

If you're worried that cost consciousness in system design leads to penny-pinching functionality, we can assure you it doesn't. This document demonstrates the surprising breadth of functionality we are able to offer based on state-of-the-art component and manufacturing technology, without stretching those tight cost limits.

It would not have been enough simply to concentrate on the componentry in our efforts to optimize costs. You can of course also expect to receive our usual standards of sound, targeted advice, expert support in commissioning, an advanced, needs-oriented order and delivery logistics system, outstanding service and diagnostic capability and, not least, top product quality. But that is doubtless no surprise to you. After all, CDE and CDB are members of the successful c-line DRIVES series from LTI.



**Safe stopping to category 3 EN 954-1**  
to save on external safety components



**CANopen inside**  
with DSP402 Position, Interpolated Position, Velocity and Homing modes and scaling of units by Factor Group



**Evaluation of two encoders**  
for precision positioning operations with backlash mechanism



**Evaluation of multi-turn encoders**  
for positioning operations without referencing



**Sequenced driving set positioning**  
with sequential job logic, graphically operated



**PLCmotion**  
for process-oriented additional tasks and coordination of movement sequences



**Cam-contactor group**  
for generation of position-dependent control signals to control connected machine peripherals



**Online position profile generator**  
for real-time position profile generation with 250 µs fine interpolation



**Cam profile function**  
for flying knife/flying saw

The CDE/CDB drive controllers are available in power classes from 375 W/2 A up to 110 kW/210 A. You can also select from a wide range of innovative synchronous and asynchronous gear motors. So cut your costs further by employing a complete system solution from LTI.



## The new LSH servomotor \_ the compact power pack

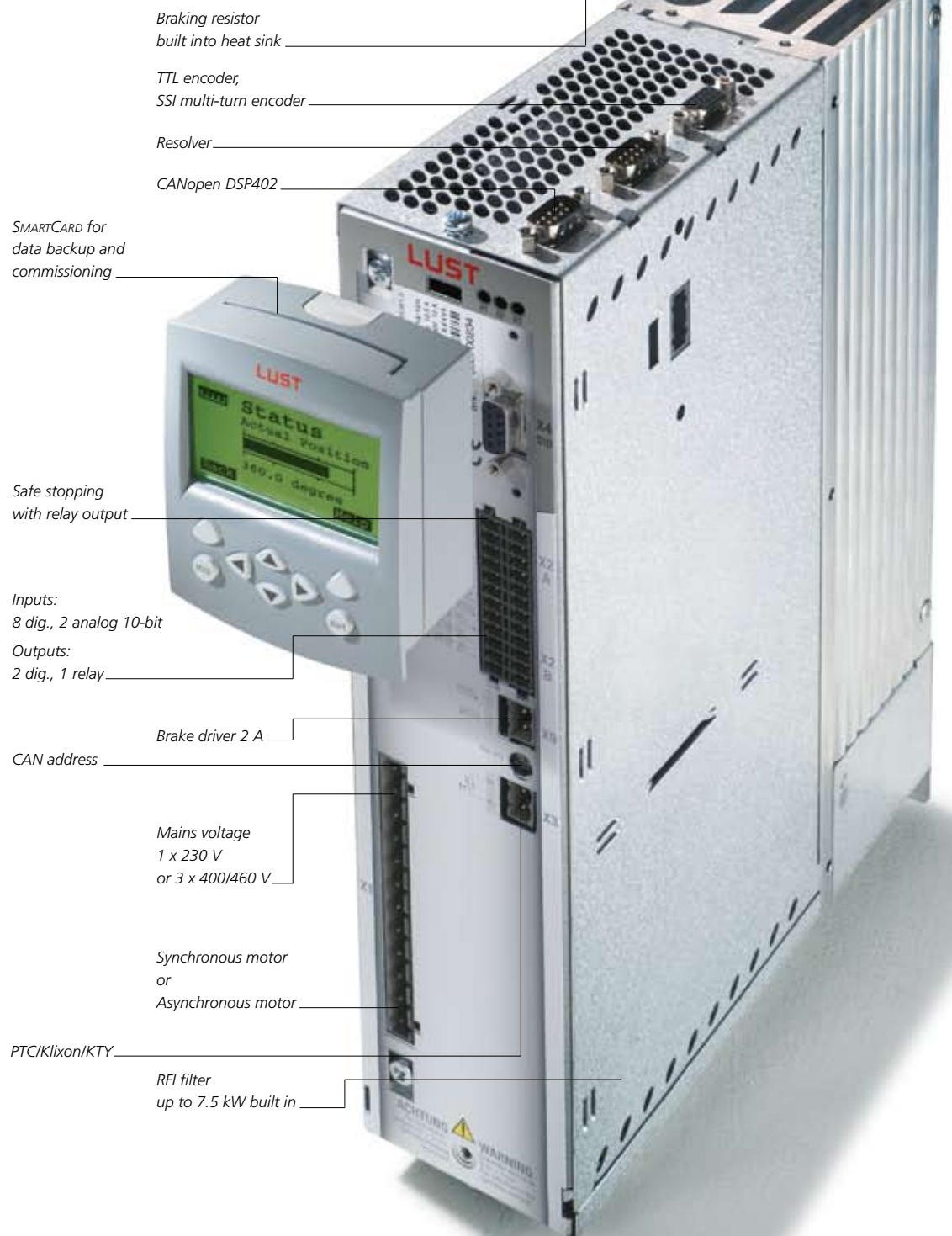
We have become accustomed to regular innovations in drive controllers in recent years. But what about servomotors? The answer is surprising!

Would you have thought that the power density of good servomotors with NdFeB magnets could have been substantially enhanced any more? The latest winding technologies have made it possible: 30 to 70 % more power density, at a much lower price, and with an up to 100 % improvement in dynamics.

Moreover, the soundly-based design and manufacturing technology underlying the new LSH generation of servomotors ensures maximum operational reliability.

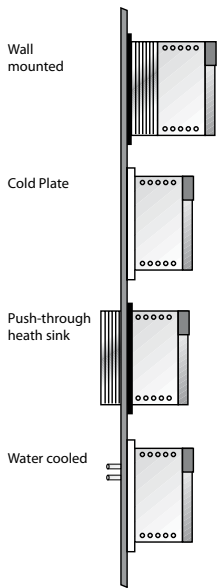
## CDE3000

So similar and yet so different





## Position controllers \_ CDE/CDB3000



	BG1	BG2	BG3	BG4	BG5
Rated current [A] (1 x 230 V mains) (3 x 400/460 V mains)	2.4/4	7.1 2.2/4.1/5.7	– 7.8/10	– 14/17	– 24/32
Motor power [kW] <sub>1,2</sub>	0.375/0.75	0.75/1.5/2.2	3/4	5.5/7.5	11/15
Peak current [A]	1.8 times rated current for 30 s				
Wall mounted	x	x	x	x	x
Cold Plate	x	x	x	x	x
Push-through heat sink	–	–	x	x	x
Liquid cooled heat sink	–	–	–	–	–
Certification	CE, cUL				
Dimensions (W x H x D) in mm	70 x 193 x 120	70 x 218 x 145	70 x 300 x 218	120 x 300 x 218	170 x 300 x 218

The braking chopper electronics are built into all controllers. A mains filter to comply with EN 61800-3 is built into all controllers of sizes 1, 2, 3, 4 and 6. 1.) referred to 4-pole asym



## Synchronous servomotors \_ LSH/LST

	LSH-050	LSH-074	LSH-097	LSH-127	LST-037	LST-050	LST-074
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
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
Rated speed [min <sup>-1</sup> ]	4500	3000	3000	3000	6000	4500	3000
Installation window [mm]	55	86	98	142	37	55	86
Design length [mm]	67-112	96-186	129-189	172-290	81-111	98-158	109-181
Moment of inertia [kgcm <sup>2</sup> ] <sup>1)</sup>	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

<sup>1)</sup> with resolver, without brake



BG7



## Accessories

BG6	BG7 / (BG7a)
-	-
45/60/72	90/110 / (143/170/210)
22/30/37	45/55 / (75/90/110)
times $I_N$ (30 s/10 s CDE)	2.0 times $I_N$ (30 s/10 s)
times $I_N$ (30 s CDB)	
x	x
x	
x	
x	x
190 x 348 x 230	280 x 540 x 240 / (280 x 540 x 320)

asynchronous motors

DRIVEMANAGER PC operator control software	For user-friendly commissioning, diagnosis and operation
Control unit, memory card	KEYPAD KP300, SMARTCARD SC-XL
Line chokes, mains filters	4 A – 210 A
Braking resistors	35 W – 8 kW
Cables	Motor and encoder cables for all preferred motors



LST-190



LST-220



## PC \_ user software „DRIVEMANAGER“

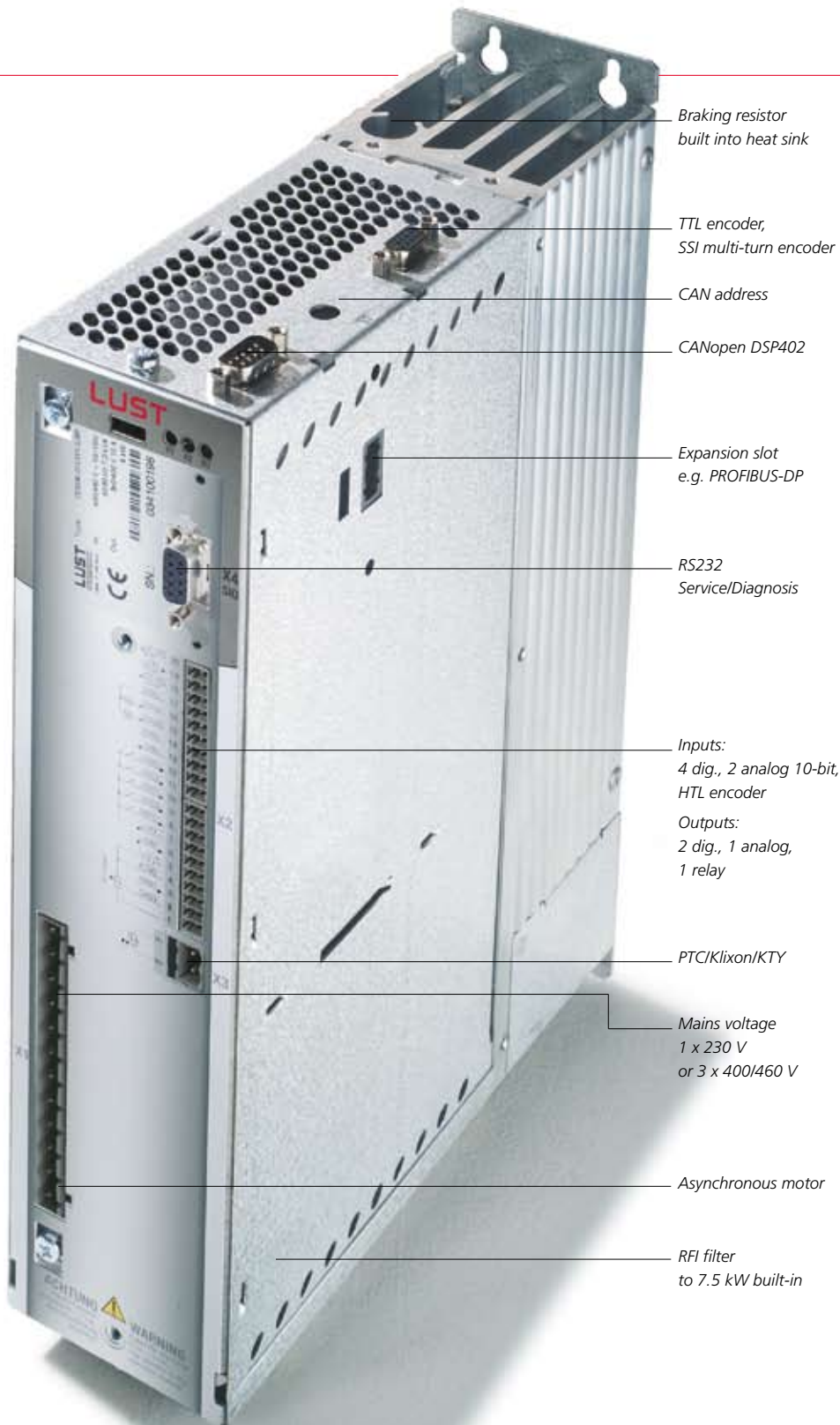
	LST-097	LST-127	LST-158	LST-190	LST-220
0.74	2.6-9.5	6.6-22.0	13.5-35.0	27.0-40.0	40.0-115.0
1.3-3.0	2.3-8.5	5.7-17.0	13.0-26.0	21.0-26.0	30.0-50.0
2.5	3000	3000	3000	3000	3000
4.0	98	142	190	190	240
8.1	146-236	185-304	201-395	242-287	310-514
15	1.9-6.1	5.9-11.7	13.1-46.0	36.0-46.0	76.0-190.0

Software performance	Comfortable windows for commissioning 4-channel digital scope Status display for actual value and reference Direct controlling of drive controller via PC
Software condition	Microsoft Windows <sup>®</sup> , 95/98/ME Windows <sup>®</sup> , NT, 2000, XP

Information and specifications are subject to change at any time. For more information please visit us at [www.lt-i.com](http://www.lt-i.com).



# CDB3000



Braking resistor  
built into heat sink

TTL encoder,  
SSI multi-turn encoder

CAN address

CANopen DSP402

Expansion slot  
e.g. PROFIBUS-DP

RS232  
Service/Diagnosis

Inputs:  
4 dig., 2 analog 10-bit,  
HTL encoder  
Outputs:  
2 dig., 1 analog,  
1 relay

PTC/Klixon/KTY

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

Asynchronous motor

RFI filter  
to 7.5 kW built-in



## Everything for your success

### Drive technology for automation

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Servo and inverter drive  
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Electrical equipment for  
plant and machinery

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ORC systems of generating  
power from heat

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Magneto-resistive sensor chips and  
microsystems for measurement of  
physical variables

**LUST**  
HYBRID-TECHNIK

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Assembly and interconnection  
technology for microsystems

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