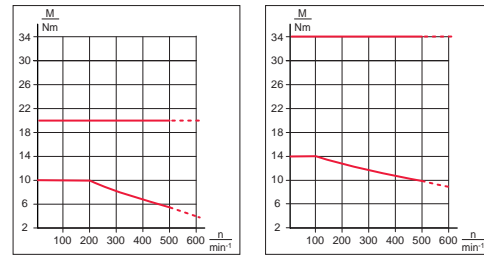


LUST
ANTRIEBSTECHNIK



Technical Data Direct-Drive Motors		Motor MTC1-145-2	Motor MTC1-145-3
Peak torque		20 Nm	34 Nm
Peak current		9 A _{eff}	12 A _{eff}
Stall torque		10 Nm	14 Nm
Current at stall torque		3,8 A _{eff}	4,0 A _{eff}
Maximum rotary speed with	Controller 1	400 RPM	400 RPM
	Controller 2	500 RPM	500 RPM
Rotor inertia		0,0148 kgm ²	0,0173 kgm ²
Maximum axial load, compression/tension		20.000/20.000 N	
Maximum radial load		200 Nm	
encoder resolution		8.388.608 Increments	
Positioning accuracy absolute/repeatability		80/3 arc sec	
Winding protection		PTC	
Protection class		IP44	
Ambient temperature		0 ... 40° C	
Storage temperature		-20 ... 80° C	
Relative humidity		20 ... 85 %	
Installation height		1000 above sea level	
Diameter outer (a)/ inner(i)		145/56 mm	
Diameter of bore rings b/c		130/72 mm	
Overall length (l)		123 mm	151 mm
Weight		7,3 kg	9 kg

Technical Data Servo Controller		Servocontroller 1 CTC32.008	Servocontroller 2 CTC34.008
Nominal current		7,1 A	7,8 A
Peak current (for 30 s)		12,8 A	14 A
Mains voltage		1 x 230 V -20 % +15 %	3 x 460 V -25 % +10 %
Mains frequency		50/60 Hz ±10 %	
Protection class		IP20	
Ambient temperature		-10 ... 45° C	
Storage temperature		-25 ... 75° C	
Relative humidity		15 ... 85 %	
Dimensions (L x H x D)		70 x 218 x 145 mm	70 x 300 x 218 mm
Weight		2,3 kg	4,4 kg

For more communication

Please ask for additional descriptions and technical details by e-mail, phone or fax. It is a pleasure to keep you informed about the latest developments in TORQUECHAMPION® systems.

LUST sales: Fon +49 (0) 64 41/9 66-180 * Fax +49 (0) 64 41/9 66-177

Address: Lust Antriebstechnik GmbH * Gewerbestr. 5-9 * D-35633 Lahnau

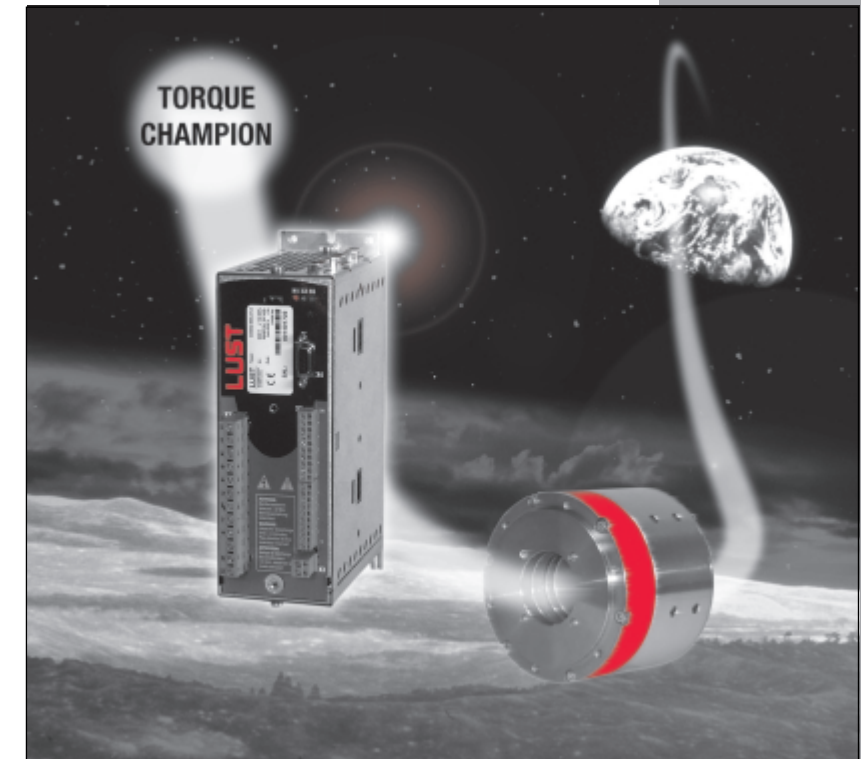
Internet: <http://www.lust-tec.de> * **e-mail:** lust@lust-tec.de

DRIVES FOR AUTOMATION

TORQUECHAMPION®

Presentation

The direct-drive solution with hollow shaft from 20 to 34 Nm



The new direct-drive solution for applications in productronics

LUST

The direct-drive system TORQUECHAMPION®

Is the new high-dynamic direct-drive system of LUST Antriebstechnik for precise, fast and maintenance-free positioning.

The direct-drive motor MTC

- The hollow shaft allows easy passing of cables, hoses and laser beams through the motor.

- Reference run is not necessary, due to the integrated measuring system with 8388.608 increments per revolution and single-turn absolute information.

- The MTC motor is an external rotor motor. Without gear the motor can be coupled torsion-proofed to mechanical systems, with the following advantages:
 - no backlash and hysteresis
 - wear resisting
 - maintenance-free
 - extremely high-dynamic drive

- Minimum space required, due to the small overall length and design without gear.

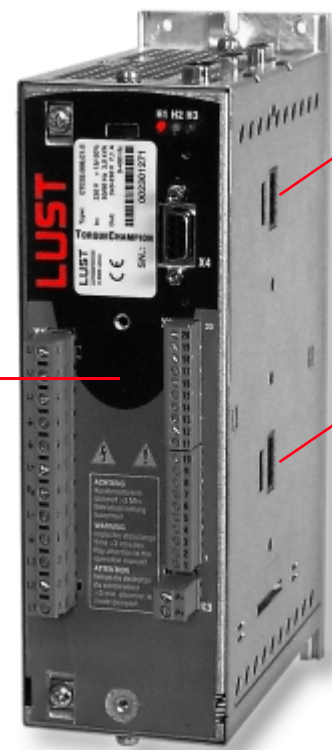


- Peak torque of MTC-motor available up to maximum speed, guarantees shorter positioning times.

The CTC3000 direct-drive controller

The CTC allows high-dynamic and precise positioning.

- Up to 32 positioning data sets with target position, maximum speed and acceleration can be stored via digital inputs or by means of field bus.



- Additional functions:
 - speed control
 - electronic gear
 - electronic cam
 - free-programmable single-axis positioning and sequence control

Inclusive: The free-programmable single-axis positioning and sequence control.

Sequence control

- processing of inputs and outputs
- logical links
- basic arithmetic operations
- variables, marker, counter and timer
- max. 700 program sets

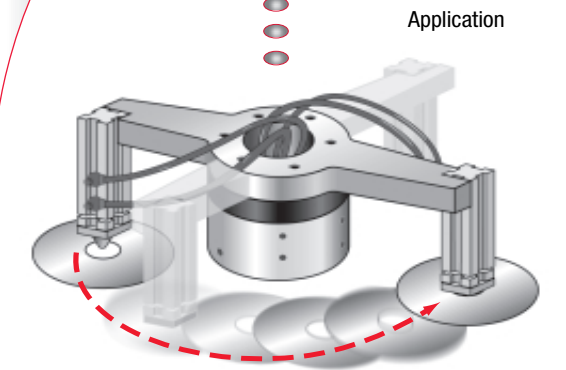
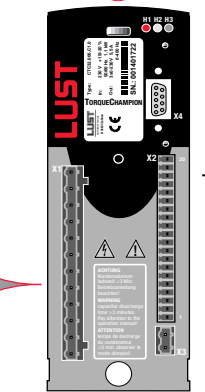
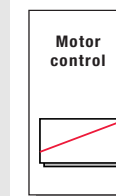
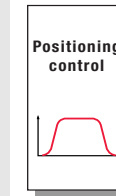
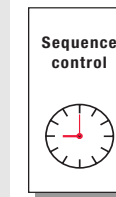
Positioning control

- point-to-point positioning, absolute and relative
- path-optimised positioning
- set changes on the fly without stop
- linear and jerk limited ramps
- synchronous functions
- two touch-probe inputs

Motor control

- position, speed and torque controller
- position controller with 0.25 ms cycle time
- smooth rotation even at low speed and very fast settling time

Thus, the TorqueChampion® direct-drive system can easily be adapted to your particular application.



Talk to me ...

Equipped with one of three field bus modules, the CTC3000 direct-drive controller can communicate as an intelligent sub-system with a PLC or an industrial PC via CAN_{LUST}, CAN_{OPEN} or PROFIBUS-DP.

- Easy transfer of set points, actual values and parameters as well as controlling and monitoring the device
- Easy integration in automatization systems of different manufacturers
- Save wiring expenditure and commissioning time



CM-CAN1 CM-CAN2 CM-DPV1

Fast and easy commissioning

The complex and sophisticated technology of the TORQUECHAMPION® direct-drive system can easily and intuitively be operated with the PC user software, DRIVEMANAGER¹. The following functions are at your disposal:

- Easy handling at operating mode and functional levels complete with graphics support
- Status display for the monitoring of I/Os and operational data
- Convenient four-channel digital scope for the real-time recording of actual values
- Comparison function to make trouble shooting easier.



¹⁾ can be used in conjunction with Microsoft Windows® 95/98 or NT/2000