

Product Information

Torsion drives for table-top testing machines



Figure: Table-top testing machine with torsion drive



Figure: Table-top testing machine with torsion drive

Application range

Torsion drives are fitted to table-top testing machines, to perform uni and multiaxial load tests (tensile or compression combined with torsion) in material and component testing.

In applications with no safety device, rotational speed must be limited to 20 revolutions per minute.

Components

- Table-top testing machine Z005 to Z150
- Torsion drive mounted on the moving crosshead
- Measurement and control electronics *testControl*

Advantages and features

- Due to the modular design principle the torsion drives can be upgraded at anytime
- Operation with standard PC or laptop (no special interface card required) and *testXpert*® II application software
- High resolution of rotation angle and displacement measurement
- User friendly operation and ergonomics provides operators with maximum flexibility
- Synchronisation of both testing axis
- A CE-compliant safety device can optionally be used where hazardous specimens and/or higher rotational speeds are involved.

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Torsion drives

Mmax	Fmax (axial)	Rotational speed	Mounting stud Ø	Power input	Electrical Connections	Item no.
[Nm]	[kN]	[U/min]	[mm]	[kVA]	[V]	
Mounting on top or moving crosshead 010996 and 001556 (with central bore hole Ø 70mm)						
2	2.5	0.01 – 80 ¹ (0.01 – 20 ²)	20	0.44	230VAC 50/60Hz 1Ph/PE/N	• 646008 (BXC-TD0002.D14-001)
5	2.5	0.01 – 40 ¹ (0.01 – 20 ²)	20	0.44	230VAC 50/60Hz 1Ph/PE/N	• 642598 (BXC-TD0005.D14-001)
10	2.5	0.01 – 20 ^{1,2}	20	0.44	230VAC 50/60Hz 1Ph/PE/N	• 643934 (BXC-TD0010.D09-001)
Mounting on other moving crossheads						
20	5	0.01 – 20 ^{1,2}	20	0.8	230VAC 50/60Hz 1Ph/PE/N	• 053845 (BXC-TD0020.D30-001)
100	5	0.002 – 60 ¹ (0.01 – 20 ²)	20	2.2	230VAC 50/60Hz 1Ph/PE/N	• 636852 (BXC-TD0100.A1K-003)
200	5	0.002 – 20 ^{1,2}	20	2.2	230VAC 50/60Hz 1Ph/PE/N	• 648210 (BXC-TD0200.A1K-002)
Mounting on top crosshead (with central bore hole Ø 190 mm)						
100	20	0.002 – 10	36	2.2	230VAC 50/60Hz 1Ph/PE/N	• 631292 (BXC-TD0100.A1K-001)
100	250	0.002 – 10	60	2.2	230VAC 50/60Hz 1Ph/PE/N	• 636968 (BXC-TD0100.A1K-002)
200	250	0.01 – 5	60	2.2	230VAC 50/60Hz 1Ph/PE/N	• 631282 (BXC-TD0200.A1K-001)

¹ with safety shield

² without safety shield

Torque cells



Information:

The torque cells can be combined with a load cell. This load cell (tensile and compression) must allow the maximum torque.

Mmax	Fmax	Connection hole Ø	Mounting stud Ø	Accuracy grade 1 ¹	Item no.
[Nm]	[kN]	[mm]	[mm]	[Nm]	
2	± 5	20	20	≥ 0.04 ²	• 011012 (BXC-TC002NM.G01-007)
5	± 10	20	20	≥ 0.1	• 639753 (BXC-TC005NM.G01-002)
10	± 10	20	20	≥ 0.2	• 011015 (BXC-TC010NM.G01-001)
20	± 10	20	20	≥ 0.2	• 631313 (BXC-TC020NM.G01-004)
100	± 20	20	20	≥ 0,2	• 636912 (BXC-TC100NM.G01-005)
100	± 50	36	36	≥ 0,2	• 631030 (BXC-TC100NM.G01-001)
100	± 50	60	60	≥ 0,2	• 011008 (BXC-TC100NM.G01-007)
200	± 5	20	20	≥ 0,2	• 648211 (BXC-TC200NM.G02-003)
200	± 100	60	60	≥ 2	• 636324 (BXC-TC200NM.G02-001)

¹ according to ISO 7500-1

² also required: 1x ACSCC module