

TCX 200

TRAX Current Box 2000 A



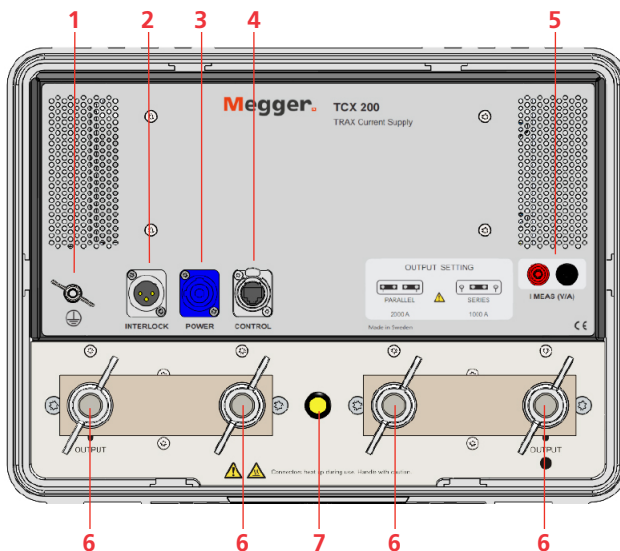
- **Designed to be placed close to the test object, thus reducing the need for long and heavy current cables**
- **2000 A up to two minutes**
- **Compact format**
- **Paralell or serial configuration**
- **Low weight, 21 kg**

DESCRIPTION

TRAX Transformer and Substation Test System is designed for primary injection testing of protective relay equipment and circuit breakers. It is also used to test the turns ratio of current transformers and for other applications that require high variable currents.

When the high-current output of TRAX 219/220 (max 200 A) or TRAX 279/280 (max 800 A) is not sufficient, the optional accessory TCX offers currents up to 2000 A.

Thanks to its dimensions and design, the TCX unit can be placed close to the test object, thus reducing the need for long heavy current cables. Shorter cables save time, weight and money. It also allows higher test currents.



1. **Ground** (earth) terminal
2. **INTERLOCK**
Used for high temperature protection
3. **POWER**
Power input from TRAX
4. **CONTROL**
Power over Ethernet for internal electronics, fan etc.
5. **I MEAS**
measurement output. Must be connected to TRAX Analog Ch4 voltage.
6. **Current outputs**
Terminals for parallel or serial configuration
7. **Configuration sensor**

SPECIFICATIONS

Specifications are valid at nominal input voltage and an ambient temperature of +23°C ± 5°, (77°F). Test frequency 45-70 Hz. Specifications are subject to change without notice.

Environment

Application field	For use in high-voltage substations and industrial environments
Temperature	
Operating	-20°C to +55°C (-4°F to +131°F)
Storage	-40°C to +70°C (-40°F to +158°F)
Humidity	
Operating	0-90% non-condensing
Storage	0-95% non-condensing


CE- marking

EMC	EN 61 326-1:1997 + A1:1998
LVD	EN 61 010-1:2010
Encapsulation class	IP 21
Vibration	IEC 60 068-2-6
Shock	IEC 60 068-2-27
Transport	ISTA 2A

General

Dimensions	410 x 340 x 205 mm (16.1" x 13.4" x 8")
Weight	21 kg (46 lbs)

Inputs / Outputs

	GROUND For connecting an additional ground between the main unit and accessories or to ground external objects e.g. optional trolley	
INTERLOCK	High temperature protection (connected to TRAX interlock 2)	
POWER	From TRAX (AUX Power)	0-240 V AC, 5-500 Hz ¹⁾
CONTROL	Power supply and communication	
I MEAS V/A	0-1 V for 0-1000 A (series) 0-1 V for 0-2000 A (parallel)	
OUTPUT	0-1000 A (series)	5.0 V AC, 50-60 Hz
	0-2000 A (parallel)	2.5 V AC, 50-60 Hz

Outputs in series

Current	Max power	Max time	Duty cycle
1000 A	5000 VA	2 min	5 s / 30 s
900 A	4750 VA	6 min	5 s / 20 s
800 A	4400 VA	8 min	5 s / 15 s
700 A	3920 VA	15 min	5 s / 5 s
600 A	3400 VA	30 min	5 s / 5s
500 A	3000 VA	> 2 hrs	continuous
300 A	1900 VA	> 2 hrs	continuous

Outputs in parallel

Current	Max power	Max time	Duty cycle
2000 A	5000 VA	2 min	5 s / 30 s
1800 A	4750 VA	6 min	5 s / 20 s
1600 A	4400 VA	8 min	5 s / 15 s
1400 A	3920 VA	15 min	5 s / 5 s
1200 A	3400 VA	30 min	5 s / 5 s
1000 A	3000 VA	> 2 hrs	continuous
600 A	1900 VA	> 2 hrs	continuous

Measurement output

0-1000A (series)	1000 A = 1.00 V
0-2000A (parallel)	2000 A = 1.00 V
Accuracy	0.2% +/- 0.2% of full scale, phase 0.2°

1) Signals below 50 Hz or above 60 Hz possible but with derating

INCLUDED CABLES



ORDERING INFORMATION

Item	Art. No.
TCX200	
Included accessories:	
Ethernet cable, 10 m (33 ft)	GA-00730
Extension cable, 10 m (33 ft)	GA-01005
AUX power cable, 10 m (33 ft) (L+N+Ground)	GC-31210
Ground interconnect cable, 10 m (33 ft)	GC-30090
Test cable, 10 m, (33 ft), black	04-35060
Test cable, 10 m, (33 ft), red	04-35062
	AJ-69290

Recommended optional cables:
2 sets of GA-12051, 2 x 2 m (6.6 ft)

Optional accessories

Cables

Cross section area: 120 mm²

Length	Impedance	Weight	
2 x 2 m (6.6 ft)	1.2 mΩ	6.4 kg (14.1 lbs)	GA-12051
2 x 5 m (16 ft)	2.2 mΩ	15.2 kg (33.5 lbs)	GA-12052

**Multi-cable high current cable sets
(Twisted-pair cables)**

Cross section area: 240 mm² (2x120)

Length	Impedance	
2 x 0.5 m (1.6 ft)	0.21 mΩ	GA-12205
2 x 1 m (3.3 ft)	0.32 mΩ	GA-12210
2 x 1.5 m (4.9 ft)	0.42 mΩ	GA-12215
2 x 2 m (6.6 ft)	0.53 mΩ	GA-12220

Cross section area: 360 mm² (3x120)

Length	Impedance	
2 x 0.5 m (1.6 ft)	0.18 mΩ	GA-12305
2 x 1 m (3.3 ft)	0.25 mΩ	GA-12310
2 x 1.5 m (4.9 ft)	0.32 mΩ	GA-12315
2 x 2 m (6.6 ft)	0.39 mΩ	GA-12320

Other lengths are available on request.