SDRM201
Static and dynamic resistance measurement

Megger®

- **Accessory for EGIL, EGIL200, TM1700 and TM1800**
- **Enables resistance measurement on circuit breakers**
- **Small and light weight**
- **Time saving quick connectors for current cables**
- **Hook up close to the test object to maximise test current and minimise cable weight**
- **Flexible current cables even at low temperatures**
- **Up to 200 A initial test current**

DESCRIPTION

The SDRM201 is an accessory for the circuit breaker analysers TM1800, TM1700, EGIL200 and EGIL.
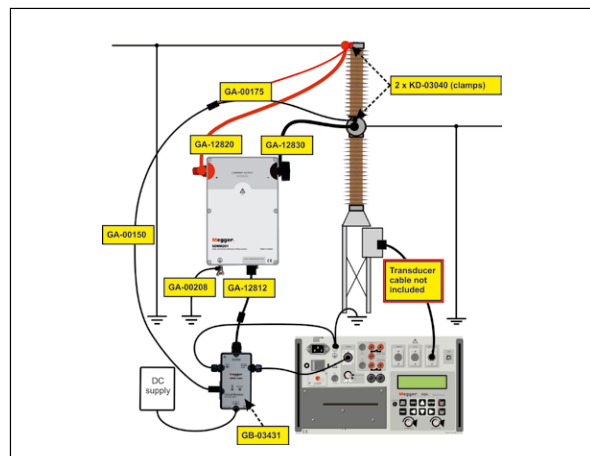
- The EGIL must be equipped with the SDRM option, and the required PC software CABA Win need to have version R03A or higher
- EGIL200 must have the SDRM or Plus software license to be able to run SRM and DRM
- EGIL213 manages simultaneous three-phase measurement on one break per phase or phase wise measurement on up to three breaks per phase
- EGIL211, EGIL223 and EGIL243 manages measurement on one break at a time

The SDRM201 is intended to use for both static and dynamic resistance measurements (SRM and DRM) on high voltage circuit breakers or other low resistive devices. Used together with TM1800, TM1700, EGIL200 or EGIL the current through, and the voltage drop across the circuit breaker contacts, are measured. The measuring unit can thus calculate the resistance as a function of time.
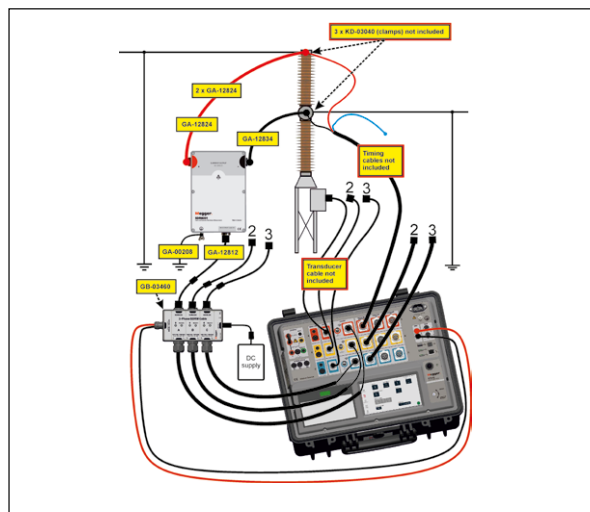
A system consists of an SDRM201 unit with current cables and an SDRM cable which comes in two versions, for TM1800/TM1700/EGIL200 and EGIL respectively. The SDRM Cable is a small box with integrated cables for connection to the SDRM201 and to TM1800, TM1700, EGIL200 or EGIL.

The SDRM201 has one current source which allows resistance measurement on one break provided that the connected breaker analyser has the number of channels required.

CONNECTING DIAGRAM

Connecting diagram with EGIL

Three-phase connecting diagram with EGIL200

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INCLUDED ACCESSORIES

- **Included accesories only when applicable**

- **For part number, see ordering information**

SDRM Cable for EGIL

Red current cable 3.0 m (9.8 ft)
Black current cable 0.5 m (1.6 ft)

SDRM Cable for TM1700/TM1800/EGIL200

3-phase SDRM Cable for TM1700/TM1800/EGIL200

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SPECIFICATIONS SDRM201

Inaccuracy is specified for 1 year after calibration at 22 °C to 28 °C, relative humidity 90%. Specifications are valid, after 30 minutes warm up time. Specifications are subject to change without notice.

Environment

Application field	The instrument is intended for use in high-voltage substations and industrial environments.
Installation category	CAT I
Pollution degree	2
Temperature	
Operating	-20°C to +50°C (-4°F to +122°F)
Storage & transport	-40°C to +70°C (-40°F to +158°F)
Humidity	5% – 95% RH, non-condensing

CE-marking

LVD	2014/35/EU
EMC	2014/30/EU
RoHS	2011/65/EU

Classifications and standards

Vibration	IEC 60068-2-6 2 g for 5-500 Hz
Shock (non-operating)	IEC 60068-2-27 30 g, half-sine, 11 ms
Degree of protection	
SDRM201 (Box) and SDRM Cable interconnected	IP 43
SDRM Cable	IP 41

General

Power inlet	24 V / 2.5 A
Voltage	24 V DC (max) 21 V DC (min)
Current	2.5 A (max 50% intermittence)
Dimensions	160 x 240 x 90 mm (6.3"x 9.4"x 3.5") excl. binding posts
Weight	
SDRM201	1.3 kg (2.9 lbs) 2.5 kg (5.5 lbs) incl. current cables
Total incl. transport case with accessories	9.4 kg (20.7 lbs)

SDRM201 – Terminals

CURRENT OUTPUT terminals – and +

Open circuit	2.5 V DC (max)
Short circuit current (max)	
Instantaneous	500 A DC
After 2 seconds	150 A ±10%
Minimum current with cables	
Instantaneous	200 A DC
After 1 second	140 A DC
Overvoltage protection	45 V between terminals and between terminals and ground

NOTE: Not to be connected to circuits generating peak power pulse above 1500 W (10/1000 μs).

SDRM Cable – Terminals

TM1700 / TM1800
ANALOG INPUT terminals I₁

Voltage (max)	12 V DC
Voltage	10 V / 250 A
Short circuit current (max)	100 mA
SRM inaccuracy	
TM1800, TM1700, EGIL200	1% ±1μΩ
SRM measurement range	
TM1800, TM1700	0 - 6 mΩ
EGIL200	0 - 32 mΩ
DRM measurement range	
TM1800, TM1700, EGIL200	0 - 32 mΩ

TM1700 / TM1800
DRM OUTPUT terminal / TRIG terminal

Voltage (max)	60 V DC
Trig threshold (max)	9 V (min) 10 V
Trig current at trig threshold (max)	40 mA

EGIL SDRM Cable – Terminals

Circuit Breaker
VOLTAGE SENSE terminal

Pin	Signal	Maximum rating
1	Voltage sense positive input	6.8 V, 25 mA
2,4	Shield protective earth	N/A
3	Voltage sense negative input	0 V
5	Not connected	N/A

Measurement ranges

DRM / MOTION mode	0 – 32 mΩ
SRM mode	0 – 2 mΩ
DRM mode	0 – 32 mΩ
SRM inaccuracy	2% ±2 μΩ

ORDERING INFORMATION

Item	Part.No
SDRM201 for EGIL (1 pc)	CG-90250
Included accessories	

SDRM cable EGIL (1 pc)	GB-03431
SDRM multi cable extension (1 pc)	GA-12812
DC supply (1 pc)	HC-04211
Voltage sense (1 pc)	GA-00175
Voltage sense extension cable (1 pc)	GA-00150
Current cable, red (1 pc)	GA-12824
Current cable, black (1 pc)	GA-12834
Clamps (2 pcs)	KD-03040
Ground cable (1 pc)	GA-00208

Item	Part.No
SDRM201 for TM1800/TM1700/EGIL200 (1 pc)	CG-90260
Included accessories	

SDRM cable TM1700/TM1800/ EGIL200 (1 pc)	GB-03412
SDRM multi cable extension (1 pc)	GA-12812
DC supply (1 pc)	HC-04211
Current cable, red (1 pc)	GA-12824
Current cable, black (1 pc)	GA-12834
Ground cable (1 pc)	GA-00208

Item	Part.No
SDRM201 for TM1800/TM1700/EGIL200 (3 pcs)	CG-90263
Included accessories	

3-phase SDRM cable TM1700/ TM1800/EGIL200 (1 pc)	GB-03460
SDRM multi cable extension (3 pcs)	GA-12812
DC supply (1 pc)	HC-04212
Current cable, red (3 pcs)	GA-12824
Current cable, black (3 pcs)	GA-12834
Ground cable (3 pcs)	GA-00208

Optional accessories

SDRM multi cable extension
10 m (33 ft) — GA-12812

3-phase SDRM cable
For TM1700/TM1800/EGIL200. Includes DC supply HC-04212. — CG-90235

Separate SDRM Cables

For TM1800/TM1700/EGIL200 — CG-90205

For EGIL — CG-90225

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