

SDRM202

Static / Dynamic Resistance Measurement

Accessory for TM1800 / TM1700 / TM1600 / EGIL



- Enables resistance measurement on circuit breakers
- Small and light weight
- A number of operations can be run with short waiting intervals

Description

The SDRM202 is an accessory for TM1800, TM1700, TM1600 and EGIL. EGIL must be equipped with the SDRM option and CABA Win version R03A or higher is needed.

The SDRM202 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, TM1600/MA61 or EGIL the current and also 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 SDRM202 unit with current cables and an SDRM Cable which comes in three versions, for TM1800/1700, TM1600 and EGIL respectively. The SDRM Cable is a small box with integrated cables for connection to the SDRM202 and to TM1800, TM1600 or EGIL.

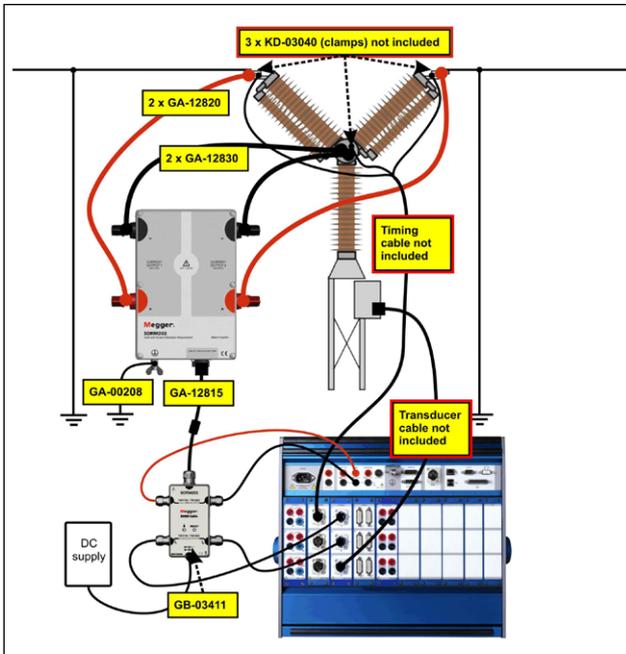


The red current cables are 3.0 m (9.8 ft) and the black ones are 0.5 m (1.6 ft).

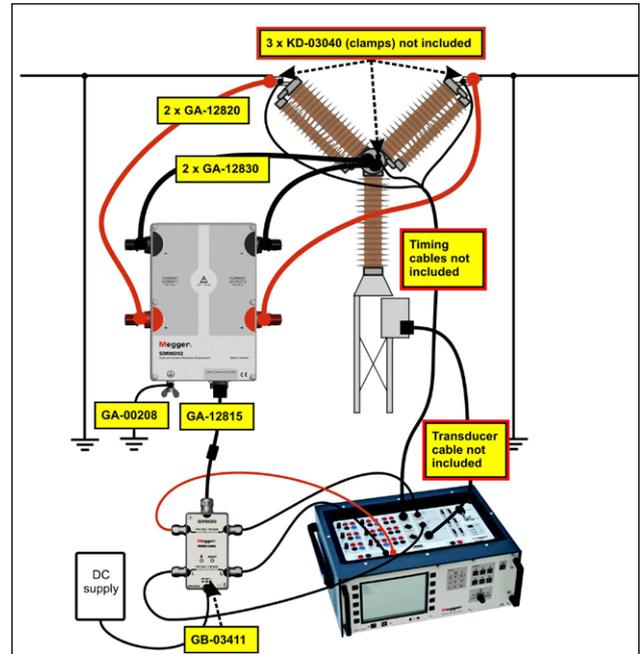


The SDRM Cable is in three versions; for TM1800/1700, TM1600 and EGIL. This picture shows the version for TM1800/1700.

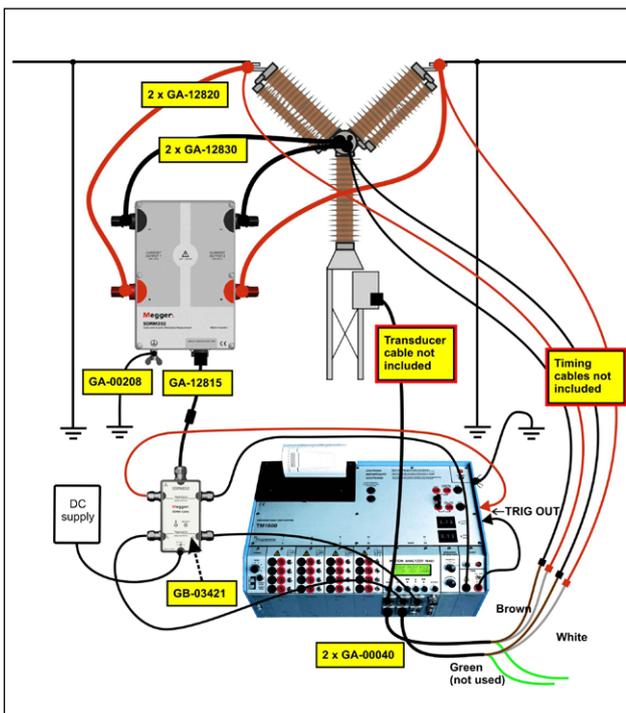
Hook-up examples and cable designations



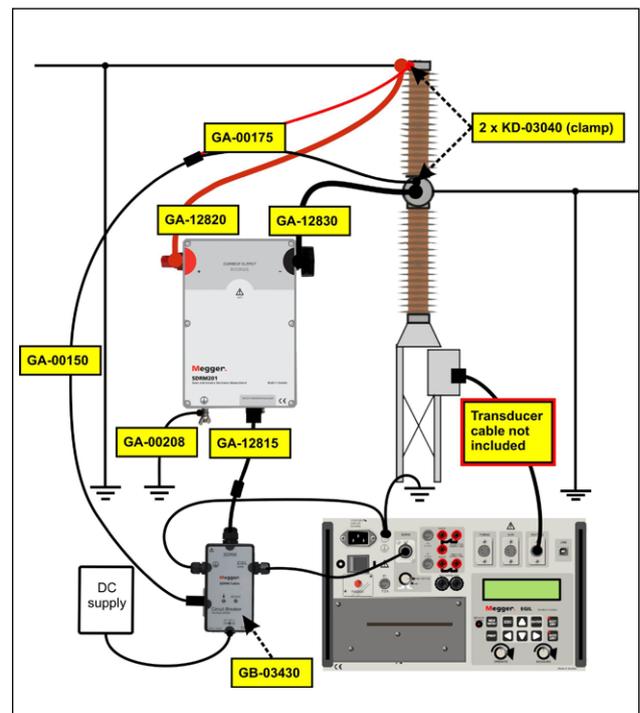
Timing cable is included with the TM1800 timing module. Transducer cable is selected together with the the type of transducer used.



Timing cable is included with the TM1700. Transducer cable is selected together with the the type of transducer used.



Timing cable is an optional accessory to TM1600. Transducer cable is selected together with the the type of transducer used.



Transducer cable is selected together with the the type of transducer used.

Specifications SDRM202

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

<i>Application field</i>	The instrument is intended for use in high-voltage substations and industrial environments.
<i>Installation category</i>	CAT I
<i>Pollution degree</i>	2
<i>Temperature</i>	
<i>Operating</i>	-20°C to +50°C (-4°F to +122°F)
<i>Storage & transport</i>	-40°C to +70°C (-40°F to +158°F)
<i>Vibration</i>	IEC 60068-2-6 2 g for 5-500 Hz
<i>Shock (non-operating)</i>	IEC 60068-2-27 30 g, half-sine, 11 ms
<i>Degree of protection</i>	
<i>SDRM202 (Box) and SDRM Cable interconnected</i>	IP 43
<i>Humidity</i>	5% – 95% RH, non-condensing

CE-marking

<i>LVD</i>	2006/95/EC
<i>EMC</i>	2004/108/EC

General

<i>Power inlet</i>	24 V / 2.5 A 
<i>Voltage</i>	24 V DC (max) 21 V DC (min)
<i>Current</i>	2.5 A (max 50% intermittence)
<i>Dimensions</i>	160 x 240 x 90 mm (6.3" x 9.4" x 3.5") excl. binding posts
<i>Weight</i>	1.8 kg (4 lbs) 4.3 kg (9.5 lbs) incl. current cables
<i>Total incl. transport case with accessories</i>	11 kg (24 lbs)
<i>SDRM Cable</i>	0.2m (0.7 ft), 0.7 kg (1.5 lbs)
<i>Extension cable</i>	7.5 m (24.5 ft), 0.7 kg (1.5 lbs)

SDRM202 – Terminals

CURRENT OUTPUT terminals 1 and 2

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

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

SDRM Cable – Terminals

TM1800/TM1600/EGIL

ANALOG INPUT terminals I₁ and I₂

<i>Voltage (max)</i>	12 V DC
<i>Voltage</i>	10 V / 250 A (TM1800, EGIL) 1 V / 250 A (TM1600)
<i>Short circuit current (max)</i>	100 mA

SRM inaccuracy

<i>TM1800/TM1600</i>	1% ±1μΩ
<i>EGIL</i>	(2% ±2μΩ)

TM1800/TM1600

DRM OUTPUT terminal / TRIG terminal

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

Ordering information

Item	Art. No.
SDRM202 for TM1800/1700	CG-90200
SDRM202 for TM1800/1700 Pack of 3 units (CG-90200) for circuit breaker with 2 Breaks/Phase	CG-90230
SDRM202 for TM1600	CG-90210
SDRM202 for EGIL	CG-90220
Included accessories	
SDRM Cable (for TM1800 and TM1700)	GB-03411
SDRM Cable (for TM1600)	GB-03421
SDRM Cable (for EGIL)	GB-03430
SDRM multi cable extension	GA-12815
Voltage sense (for EGIL)	GA-00175
Voltage sense extension cable (for EGIL)	GA-00150
Current cable, red (1 for EGIL, 2 for TM1600/1700/1800)	GA-12820
Current cable, black (1 for EGIL, 2 for TM1600/1700/1800)	GA-12830
Clamps (2 pcs)	KD-03040
Ground cable	GA-00208
Optional accessories	
Extension cable for CG-90200 and CG-90210	
10 m (33 ft) extension	GA-12810
7.5 m (24.6 ft) extension	GA-12815
Separate SDRM Cables	
for TM1800	CG-90205
for TM1600	CG-90215
for EGIL	CG-90225

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