SDRM202

Static / Dynamic Resistance Measurement Accessory for TM1800 / TM1700 / EGIL

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

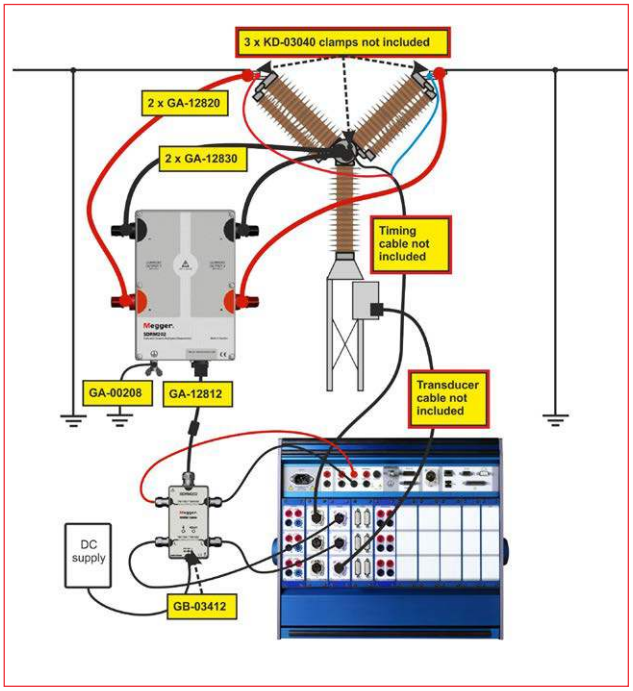
DESCRIPTION

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

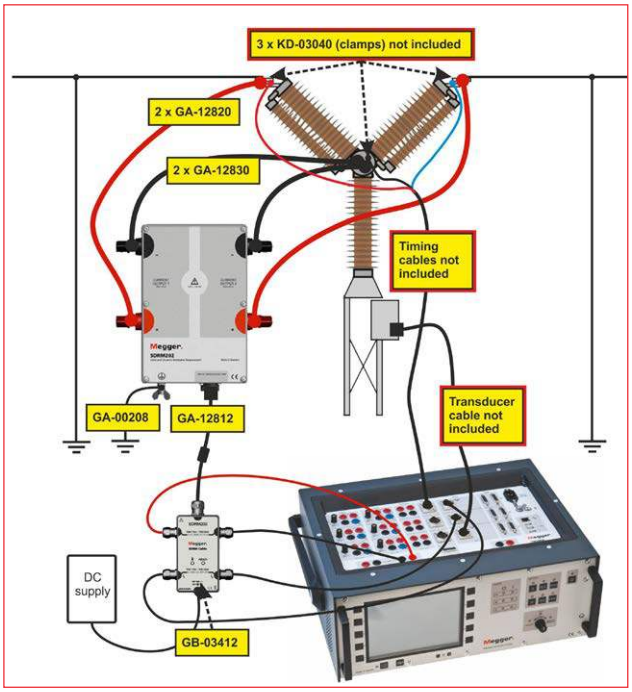
The SDRM202 is intended to use for both static and dynamic resistance measurements (SRM and DRM) on high voltage circuit breakers or other low resistive devices. Used together with TM1800, TM1700, or EGIL the current and also the voltage-drop across the circuit breaker contacts are measured. The measuring 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 and EGIL respectively. The SDRM Cable is a small box with integrated cables for connection to the SDRM202 and to TM1800, TM1700 or EGIL.

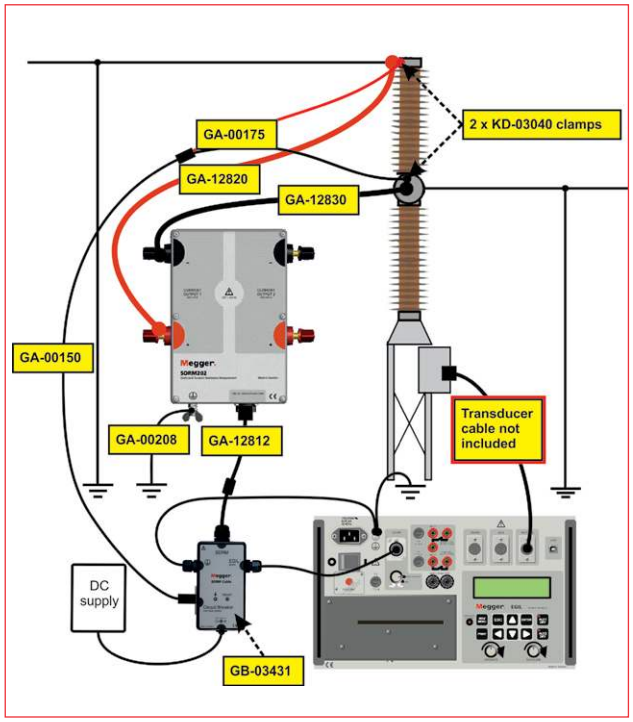
HOOK-UP EXAMPLES AND CABLE DESIGNATIONS



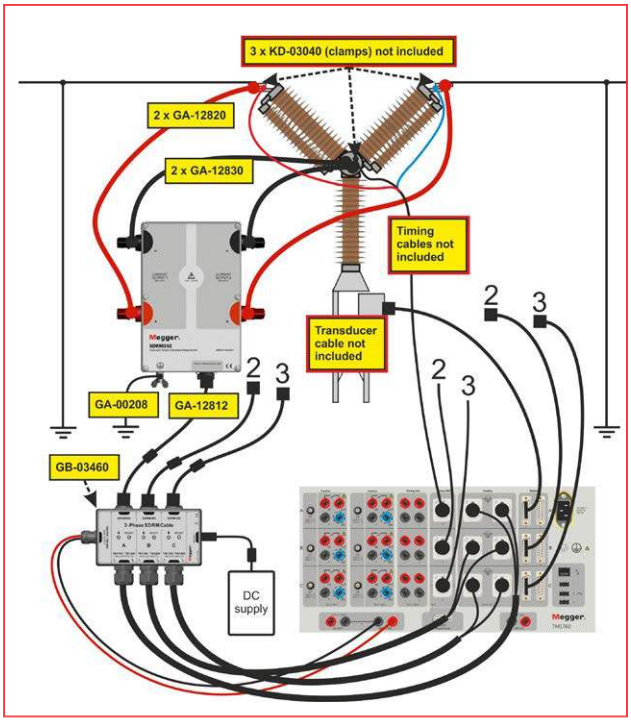
Timing cable is included with the TM1800 timing module. Transducer cable is selected together with the the type of transducer used.



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



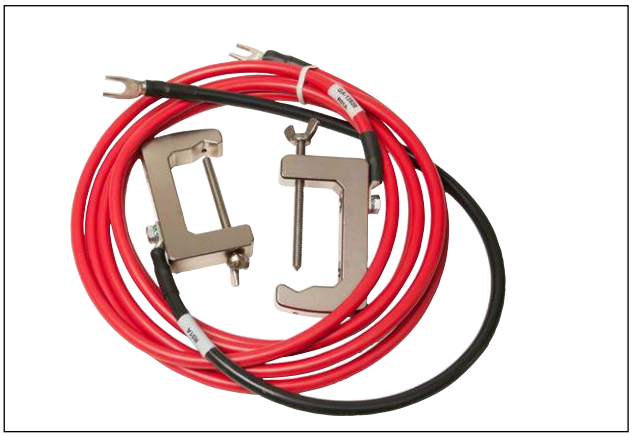
Transducer cable is selected together with the the type of transducer used.



The picture shows how a 3-phase SDRM Cable (GB-03460) is connected to one of the phases. Numbers “2” and “3” are correspondingly connected to phases 2 and 3.

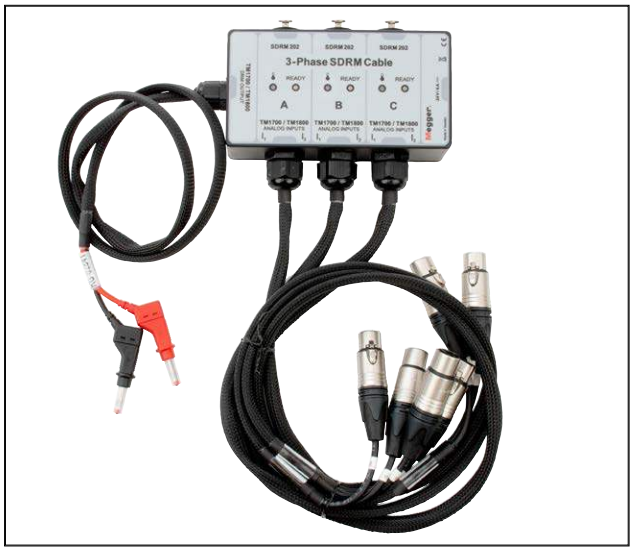
INCLUDED ACCESSORIES

SDRM Cable for EGIL, GB-03431



Red current cable 3.0 m (9.8 ft), black current cable 0.5 m (1.6 ft)

SDRM Cable for TM1700/1800, GB-03412



3-phase SDRM Cable for TM1700/1800, GB-03460

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

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	
SDRM201/202 (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	1.8 kg (4 lbs) 4.3 kg (9.5 lbs) incl. current cables
Total incl. transport case with accessories	11 kg (24 lbs)

SDRM202 – Terminals

CURRENT OUTPUT terminals 1 and 2

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

TM1800, TM1700, EGIL
ANALOG INPUT terminals I_1 and I_2

Voltage (max)	12 V DC
Voltage	10 V/250 A
Short circuit current (max)	100 mA
SRM inaccuracy	
TM1800, TM1700	1% ±1µΩ
EGIL	2% ±2µΩ

TM1800, TM1700, DRM OUTPUT terminal / TRIG terminal

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

ORDERING INFORMATION

Item	Cat. No.
SDRM202 for TM1800/1700 (1 pc)	CG-90200

Included accessories

SDRM cable TM1700/TM1800 (1 pc)	GB-03412
SDRM multi cable extension (1 pc)	GA-12812
DC supply (1 pc)	HC-04211
Current cable, red (2 pcs)	GA-12820
Current cable, black (2 pcs)	GA-12830
Ground cable (1 pc)	GA-00208

SDRM202 for TM1800/1700 (3 pcs) CG-90230

For 3-Phase measurement at two breaks/phase

Included accessories

3-phase SDRM cable TM1700/1800 (1 pc)	GB-03460
SDRM multi cable extension (3 pc)	GA-12812
DC supply (1 pc)	HC-04212
Current cable, red (3 pcs)	GA-12820
Current cable, black (3 pcs)	GA-12830
Ground cable (3 pcs)	GA-00208

SDRM202 for EGIL (1 pc) CG-90220

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 (2 pcs)	GA-12820
Current cable, black (2 pcs)	GA-12830
Clamps (2 pcs)	KD-03040
Ground cable (1 pc)	GA-00208

Optional accessories

Extension cable for CG-90200 and CG-90210 10 m (33 ft) extension	GA-12812
Separate SDRM Cables	
for TM1800	CG-90205
for EGIL	CG-90225

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