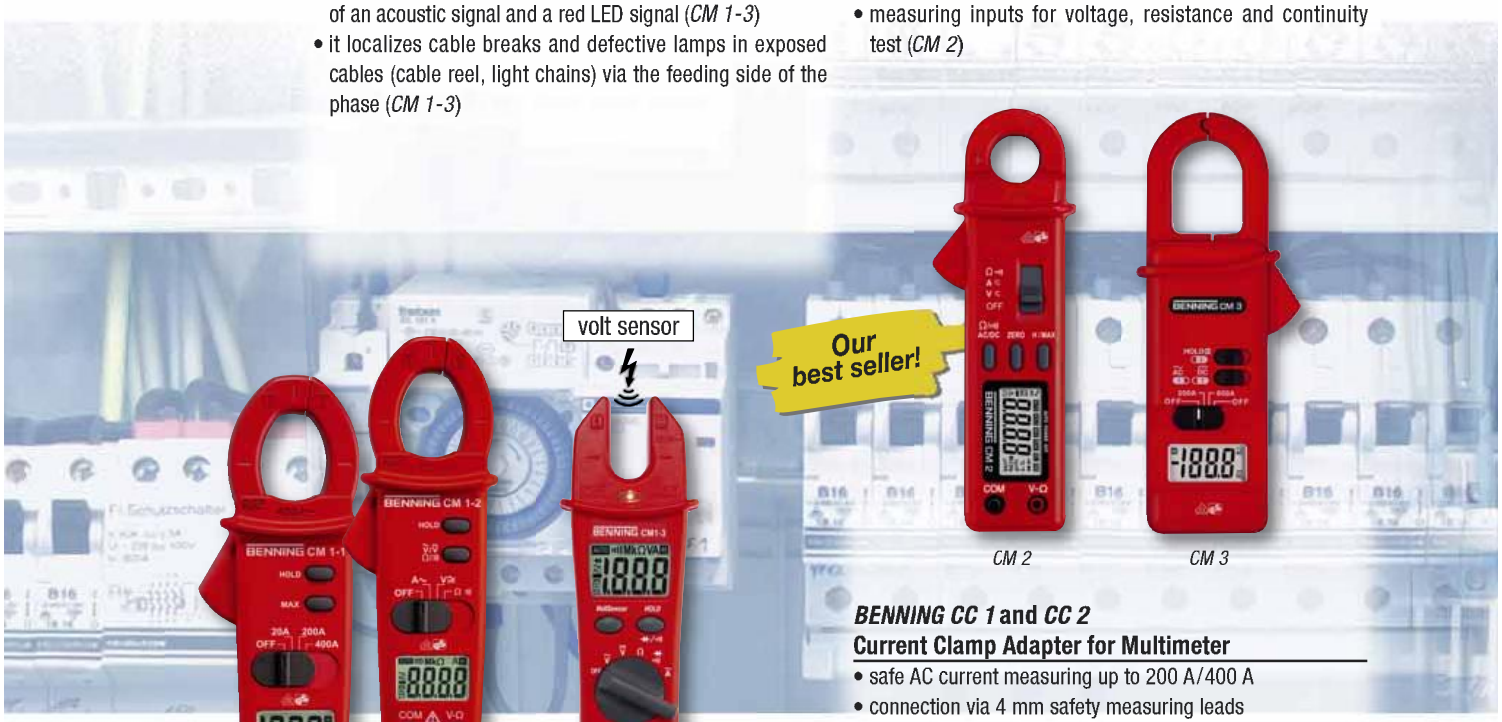
Digital Current Clamp Multimeter
BENNING CM 1-1 – CM 1-3, CM 2, CM 3, CC 1, CC 2

BENNING CM 1-1, CM 1-2 and *CM 1-3*
Digital Current Clamp Multimeter for AC current
Innovative technology, practical design

- safe current measuring up to 400 A AC
- measuring inputs for voltage, resistance, continuity and diode test
- integrated volt sensor signalises phase voltages by means of an acoustic signal and a red LED signal (*CM 1-3*)
- it localizes cable breaks and defective lamps in exposed cables (cable reel, light chains) via the feeding side of the phase (*CM 1-3*)

BENNING CM 2 and *CM 3*
Digital Current Clamp Multimeter for AC/DC current

- safe and non-contact measuring of high currents
- DC and AC current measuring up to 600 A AC/DC
- measurement of low currents (automotive, photovoltaics, industry) (*CM 2*)
- measuring inputs for voltage, resistance and continuity test (*CM 2*)



CM 1-1 *CM 1-2* *CM 1-3* *CM 2* *CM 3*

BENNING CC 1 and *CC 2*
Current Clamp Adapter for Multimeter

- safe AC current measuring up to 200 A/400 A
- connection via 4 mm safety measuring leads
- output: 1 mV AC/1 A AC (*CC 1*), 1 mA AC/1 A AC (*CC 2*)



CC 1 *CC 2*

tested and approved

IEC/EN 61010-1
(DIN VDE 0411-1)

Digital Current Clamp Multimeter/Current Clamp Adapter

	BENNING CC 1	*BENNING CC 2*	*BENNING CM 1-1*	*BENNING CM 1-2*	*BENNING CM 1-3*	*BENNING CM 2*	*BENNING CM 3*
indicating range	–	–	2000	2000	2000	4000	2000
basic accuracy	1.9 %	1 % - 3 %	2 %	1 %	1 %	0.5 %	1.9 %
AC voltage	–	–	–	0.1 V - 600 V	0.1 V - 750 V	0.1 mV - 600 V	–
DC voltage	–	–	–	0.1 V - 600 V	0.1 V - 1000 V	0.1 mV - 600 V	–
AC current	1 A - 400 A	0.5 A - 200 A	10 mA - 400 A	0.1 A - 400 A	0.1 A - 200 A	10 mA - 300 A	0.1 A - 600 A
DC current	–	–	–	–	–	10 mA - 300 A	0.1 A - 600 A
resistance	–	–	–	0.1 Ω - 20 MΩ	0.1 Ω - 20 MΩ	0.1 Ω - 40 MΩ	–
continuity/diode	–/–	–/–	–/–	yes/–	yes/yes	yes/–	–/–
frequency	–	–	–	–	–	–	–
effective power	–	–	–	–	–	–	–
power factor (cos φ)	–	–	–	–	–	–	–
temperature	–	–	–	–	–	–	
volt sensor	–	–	–	–	yes	–	–
memory	–	–	HOLD, MAX	HOLD	HOLD	HOLD, MAX	HOLD
measuring method	–	–	RMS	RMS	RMS	RMS	RMS
max. clamp opening	30 mm	21 mm	30 mm	30 mm	16 mm	25 mm	38 mm
measuring category	CAT III 300 V	CAT III 600 V	CAT III 600 V	CAT III 600 V	CAT IV 600 V	CAT III 300 V	CAT III 300 V
item no.	044037	044110	044061	044062	044063	044035	044031

Digital Current Clamp Multimeter

BENNING CM 4 – CM 9

BENNING CM 4 – CM 7
Digital Current Clamp Multimeter of the highest measuring category

- precise due to TRUE RMS measuring method
- safe current measuring up to 1000 A AC/DC
- highest measuring category CAT IV 600 V offering optimum safety



TRUE RMS
CM 5
(CM 4 fig. similar)

CAT IV 600 V
TRUE RMS
CM 7
(CM 6 fig. similar)

CAT IV 600 V
TRUE RMS
CM 5-1
(available as of 11/2006)

BENNING CM 8
Power Current-Clamp Multimeter
Power analysis for single-phase and three-phase mains

- TRUE-RMS measurements up to 1000 V, 600 A AC/DC
- effective power measurements up to 600 kW
- calculation of the power factor cos φ
- indication of the load type (inductive, capacitive)
- bipolar phase sequence test in three-phase mains
- measuring inputs for voltage, resistance, continuity, diode, frequency and temperature
- measurement of inrush currents (motors etc.)



TRUE RMS
CM 8

BENNING CM 9
Leakage Current Clamp with a Resolution of 1 µA
The alternative solution for insulation measurements

- measurement of leakage currents and differential currents in electrical systems (VDE 0100) and devices (VDE 0701-0702, BGV A3, BetrSichV (= German Health and Safety at Work Regulations))
- highest resolution of 1 µA in the 6 mA measuring range
- measurement without switch-off during normal operation of the system/device, the perfect solution for preventive maintenance
- precise and reproducible measuring results up to 100 A
- optimum screening against external magnetic fields



Leakage
CM 9

BENNING CM 5-1
Digital Current-Clamp Multimeter

- automatic selection of the correct measuring function for TRUE RMS voltage/current (AC/DC), resistance, continuity and diode test
- safe and easy operation – measuring errors due to incorrect measuring range selection are excluded
- short response time due to 5 scanning values per second
- voltage measurement with low input impedance (LoZ) to suppress capacitively/inductively induced voltages

Digital Current Clamp Multimeter

	BENNING CM 4	BENNING CM 5	BENNING CM 5-1	BENNING CM 6	BENNING CM 7	BENNING CM 8	BENNING CM 9
indicating range	4000	4000	9999	4000	4000	6000	6000
basic accuracy	0.7 %	0.7 %	0.9 %	0.7 %	0.7 %	0.7 %	1 %
AC voltage	0.1 V - 600 V	0.1 V - 600 V	1.3 V - 750 V	0.1 V - 750 V	0.1 V - 750 V	10 mV - 1000 V	–
DC voltage	0.1 V - 600 V	0.1 V - 600 V	0.7 V - 1000 V	0.1 V - 1000 V	0.1 V - 1000 V	10 mV - 1000 V	–
AC current	0.1 A - 600 A	0.1 A - 600 A	0.9 A - 600 A	0.1 A - 1000 A	0.1 A - 1000 A	0.1 A - 600 A	1 µA - 100 A
DC current	–	0.1 A - 600 A	0.9 A - 600 A	–	0.1 A - 1000 A	0.1 A - 600 A	–
resistance	0.1 Ω - 400 Ω	0.1 Ω - 400 Ω	0.1 Ω - 10 kΩ	0.1 Ω - 400 Ω	0.1 Ω - 400 Ω	0.1 Ω - 20 kΩ	–
continuity/diode	yes/–	yes/–	yes/yes	yes/–	yes/–	yes/yes	–/–
frequency	1 Hz - 400 Hz	1 Hz - 400 Hz	–	1 Hz - 400 Hz	1 Hz - 400 Hz	0.1 Hz - 4 kHz	–
effective power	–	–	–	–	–	1 W - 600 kW	–
power factor (cos φ)	–	–	–	–	–	± 0.00 - 1.00	–
temperature	–	–	–	–	–	-50 °C up to +1000 °C	–
volt sensor	–	–	–	–	–	–	–
memory	HOLD, MAX/MIN PEAK	HOLD, MAX/MIN PEAK, ZERO	HOLD	HOLD, MAX/MIN PEAK	HOLD, MAX/MIN PEAK, ZERO	HOLD, MAX/MIN PEAK, INRUSH	HOLD, PEAK
measuring method	RMS	TRUE RMS	TRUE RMS	RMS	TRUE RMS	TRUE RMS	RMS
max. clamp opening	37 mm	45 mm	35 mm	53 mm	53 mm	40 mm	40 mm
measuring category	CAT III 600 V	CAT III 600 V	CAT IV 600 V	CAT IV 600 V	CAT IV 600 V	CAT III 600 V	CAT III 300 V
item no.	044056	044057	044066	044058	044059	044064	044065

tested and approved

IEC/EN 61010-1
(DIN VDE 0411-1)



All Digital Current Clamps including protective case, Safety measuring leads and battery set.