## 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)







### 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)







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

### **Digital Current Clamp Multimeter/Current Clamp Adapter** BENNING BENNING BENNING BENNING BENNING BENNING BENNING CM 1-1 CM 1-2 CC 1 CC 2 CM 1-3 CM 2 CM 3 indicating range 2000 2000 2000 4000 2000 1.9 % 1% basic accuracy 1 % - 3 % 2 % 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 V0.1 mV - 600 V0.1 A - 600 A AC current 1 A – 400 A 0.5 A - 200 A 10 mA - 400 A 0.1 A - 400 A 10 mA - 300 A 0.1 A - 200 A 10 mA – 300 A DC current 0.1 A - 600 A 0.1 Ω – 20 MΩ 0.1 Ω – 20 MΩ 0.1 Ω – 40 ΜΩ resistance continuity/diode \_/\_ \_/\_ \_/\_ yes/yes/yes yes/-\_/\_ frequency effective power power factor (cos q \_ \_ \_ \_ \_ temperature \_ \_ \_ \_ volt sensor \_ \_ \_ yes \_ HOLD, MAX HOLD HOLD HOLD, MAX HOLD memory 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 6, 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



### **BENNING CM 8**

### **Power Current-Clamp Multimeter** Power analysis for single-phase and three-phase mains

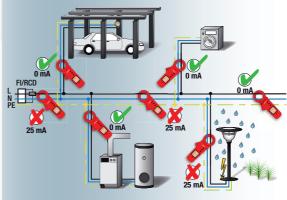
- TRUE-RMS measurements up to 1000 V, 600 A AC/DC
- effective power measurements up to 600 kW
- calculation of the power factor cos φ
- indication of the load type (inductive, capacitive)
- · bipolar phase sequence test in three-phase mains
- · measuring inputs for voltage, resistance, continuity, diode,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

### **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

### Differential current measurement method with BENNING CM 9



Leakage CM 9

### **Digital Current Clamp Multimeter**

**Digital Current-Clamp Multimeter** 

measuring range selection are excluded

· 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

short response time due to 5 scanning values per second

 voltage measurement with low input impedance (LoZ) to suppress capacitively/inductively induced voltages

**BENNING CM 5-1** 

	BENNING CM 4	BENNING CM 5-1	BENNING CM 6	BENNING CM 7	BENNING CM 8	BENNING CM 9
indicating range	4000	9999	4000	4000	6000	6000
basic accuracy	0.7 %	0.9 %	0.7 %	0.7 %	0.7 %	1 %
AC voltage	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	0.7 V – 1000 V	0.1 V – 1000 V	0.1 V – 1000 V	10 mV – 1000 V	-
AC current	0.1 A – 600 A	0.9 A – 600 A	0.1 A – 1000 A	0.1 A – 1000 A	0.1 A – 600 A	1 µA – 100 A
DC current	-	0.9 A – 600 A	-	0.1 A – 1000 A	0.1 A – 600 A	-
resistance	0.1 Ω – 400 Ω	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	_/_
frequency	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 ( $\cos \phi$ )	-	-	-	-	± 0.00 – 1.00	-
temperature	-	-	-	-	-50 °C up to +1000 °C	-
volt sensor	-	-	-	-	-	-
memory	HOLD, MAX/MIN	HOLD	HOLD, MAX/MIN	HOLD, MAX/MIN	HOLD, MAX/MIN	HOLD, PEAK
	PEAK		PEAK	PEAK, ZERO	PEAK, INRUSH	
measuring method	RMS	TRUE RMS	RMS	TRUE RMS	TRUE RMS	RMS
max. clamp opening	37 mm	35 mm	53 mm	53 mm	40 mm	40 mm
measuring category	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	044066	044058	044059	044064	044065

