

METRACLIP[®] 50 and 51

Clip-On Ammeter with Analog Indicator

3-349-049-03
2/4.06

- **Alternating current measurement**
METRACLIP[®]50: 1.5 A ... 300 A
METRACLIP[®]51: 15 A ... 3000 A
Current to 1200 A continuous
Current to 4000 A intermittent
- **Clip opening**
METRACLIP[®]50: to 28 mm diameter
METRACLIP[®]51: to 60 mm diameter
- **Alternating voltage measurement:** 150 V ... 600 V
- **Measurement value memory**
METRACLIP[®]50: mechanical pointer locking device
METRACLIP[®]51: electrical pointer locking device
- **Electrical safety** in accordance with IEC 61010



Characteristic Values

Alternating Current, A AC

Meas. Range in A	CLIP 50	CLIP 51	Nominal Frequency in Hz	Input Current		Max. External Magnetic Field in A/m
				Max. in A	Max. Duration	
1.5	•		48 ... 52	1.5	continuous *	80
3	•			3		160
6	•			6		320
15	•	•	40 ... 100	15	continuous *	400
30	•	•		30		
60	•	•		60		
150	•	•		150		
300	•	•		300		
600		•		600		
1000		•	40 ... 60	1500	20 min.	
1500					10 min.	
2000		•		3000	5 min.	
2500					3 min.	
3000						

* METRACLIP[®]50: Measuring range 300 A: 3 minutes

METRACLIP[®]50: max. input voltage: 600 V AC
max. allowable overload: 1000 A intermittent

METRACLIP[®]51: max. input voltage: 1000 V AC
max. allowable overload: 4000 A intermittent

Alternating Voltage, V AC

Measuring Range in V	Line Frequency in Hz	Input Voltage	
		Max. in V	Duration
150	40 ... 400	150	continuous
300		300	
600		600	

Maximum allowable overload: 720 A continuous
1000 V intermittent

Internal Resistance in Voltage Measuring Range

METRACLIP[®]50: 5 k Ω /V
METRACLIP[®]51: 500 k Ω \pm 1%

Display

Accuracy Class 2.5
Zero Drift max. 50% of accuracy class
Scale Length METRACLIP[®]50: 55 mm
METRACLIP[®]51: 64 mm

Power Supply

METRACLIP[®]50 No power supply required, neither internal nor external
METRACLIP[®]51 2 lithium batteries for measurement value memory, anticipated service life: 3 years

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Reference Conditions

Ambient Temperature	+23° C ±5° C
Relative Humidity	40 ... 60%
Atmospheric Pressure	80 ... 106 kPa
Periodic Quantity	
Peak Factor	1.414 ± 0.5%, sine
Periodic Quantity	
Frequency	50 Hz ±1 Hz
External Magnetic Field	max. 40 A/m (DC to 65 Hz) in any direction
External Electrical Field	max. 1 kV/m (DC to 65 Hz) in any direction, any working position

Electromagnetic Compatibility (EMC)

Interference Emission/	
Interference Immunity	EN 61326-1

Electrical Safety

Safety Class	II per IEC 61010-1/EN 61010-1/ VDE 0411-1
Fouling Factor	2
Measuring Category	METRACLIP [®] 50: III for 600 V operating voltage or IV for 300 V operating voltage METRACLIP [®] 51: III for 1000 V operating voltage or IV for 600 V operating voltage
Withstand Voltage	METRACLIP [®] 50: 5.55 kV AC METRACLIP [®] 51: 7.4 kV AC

Ambient Conditions

Operating Temp.	+5° C ... +40° C
Storage Temperature	-25° C ... +55° C (without batteries)
Relative Humidity	max. 85%, no condensation allowed
Elevation	to 2000 m

Mechanical Design

Protection	IP40
Clip Opening	METRACLIP [®] 50: 28 mm dia., or 30 mm x 20 mm METRACLIP [®] 51: 60 mm dia., or 70 mm x 30 mm
Dimensions	METRACLIP [®] 50: W x H x D: 88+ mm x 220 mm x 40+ mm METRACLIP [®] 51: W x H x D: 112 mm x 313 mm x 60 mm
Weight	METRACLIP [®] 50: approx. 0.5 kg METRACLIP [®] 51: approx. 0.9 kg

Applicable Regulations and Standards

IEC 61010-1/EN 61010-1/ VDE 0411-1	Safety requirements for electrical equipment for measurement, control and laboratory use – general requirements
IEC 61010-2-032/ EN 61010-2-032/ VDE 0411-2-032	Special requirements for clip-on ammeters
EN 60529 VDE 0470 Part 1	Degrees of protection provided by enclosures (IP code)
DIN EN 61326 VDE 0843 Part 20	Electrical equipment for measurement, control and laboratory use – EMC requirements

Standard Equipment

- 1 clip-on ammeter with carrying strap
- 2 lithium batteries, installed, METRACLIP[®]51 only
- 2 measurement cable for voltage measurements
- 1 hard case
- 1 operating instructions

Order Information

Description	Type	Article Number
Clip-On Ammeter	METRACLIP [®] 50	M300A
Clip-On Ammeter	METRACLIP [®] 51	M300B

For additional information concerning accessories please refer to

- *the product datasheet or the catalog „Measuring Instruments and Testers“*
- *our website www.gossenmetrawatt.com*