

MES amplifier

LOW POWER CURRENT AMPLIFIER SET



Low power current amplifier MES 100/0.7

The relating applications:

*Testing residual current
devices (RCD)*

*Continuous current testing
etc.*

- ✓ Two current ranges: 70 mA, 700 mA
- ✓ Amplifier rack with up to 6 single units
- ✓ Output power 10 W per unit
- ✓ Low harmonic distortion – typical < 0.3 % (700 mA range)
- ✓ Frequency range 45 Hz ... 500 Hz
- ✓ RS 485 interface
- ✓ Amplifier control via interface commands

CURRENT SOURCE FOR RCD TESTING

TECHNICAL DATA

		MES 100/0.7			
Amplifier units		up to 6 units			
Range		voltage	current	power (per single unit)	default trip level detection (adjustable)
Low current		15 V	70 mA	1 W	2 V
High current		15 V	700 mA	10 W	15 V
Load regulation (short circuit to nominal load)		< 1 %			
Frequency range		45 Hz ... 500 Hz			
Frequency resolution		0.1 Hz, adjustable phase angle			
THD		typical		maximum	
Low current range		< 0.5 %		< 1 %	
High current range		< 0.3 %		< 1 %	
Accuracy					
Output current		< 2 % of adjusted value + 0.025 % of range			
Current measurement		< 0.5 % + 0.035 % of range			
Voltage measurement		< 1 % of range (30 V)			
Time measurement		±1 ms for sine wave +20 ms / -1 ms with phase angle			
Protection circuits		overtemperature			
Peak withstand voltage (max. 10 s, output to earth)		> 2000 V			
Interface		RS 485			
Internal control unit					
Digital I/O		4 digital DC inputs: +5 V ... +24 V 4 digital DC outputs: +5 V (internal U _{CC}), I _L = 40 mA (external DC input U _{CC} : +5 V ... +24 V, I _L = 250 mA)			
Insulation resistance		> 1 MΩ			
Cooling		forced air cooling			
Ambient temperature		+10 °C up to +40 °C			
Storage temperature		-25 °C up to +60 °C			
Relative humidity		non condensing, max. 80 % for temperature < 31 °C, decreasing linearly to 50 % at 40 °C			
Ingress protection		IP20			
Power supply (±10 %, 50/60 Hz)		230 V			
Line protection		2.5 A, Schuko			
Housing		plug-in unit, light grey (RAL 7035)			
	Amplifier approx. dimensions (H x W x D)	19", 5 U 222 x 483 x 320 mm			
Weight	Amplifier, 6 units (approx.)	12 kg			