



M₁₃₃C Series

Electrical Power / Energy Calibrators





Main features

- ✓ All-in-one solution for calibration of voltage, current, power and energy meters or power quality analysers
- ✓ Three phases in a single instrument
- ✓ Floating current outputs for meters with joint terminals
- ✓ Built-in process multimeter
- ✓ High accuracy (power from 0.044%) and flexibility
- ✓ IEEE488 / RS232 / Ethernet remote control



Application

Energy meter calibration

Automatic deviation calculation using energy meter pulse output



Power quality analyser calibration

Functions: Power, voltage, current, phase, frequency, harmonic, interharmonic, modulation, flicker, dip/swell



Transducer calibration

Power[©] SW for fully automatic transducer calibration with certificate printout



M₁₃₃C Series Electrical Power / Energy Calibrators



Application

- Source of AC voltage and current up to 1 kHz
- Meters with joint voltage and current terminals via floating current outputs.
- Clamp meters up to 2250 A using current coils



M133C Electrical Power / Energy Calibrator

Three or Single phase version



Voltage (3x) 1 - 600 Vac / 280 Vdc 150 ppm

Current (3x) 8 mA – 30 A ac/dc 250 ppm

Power & Energy (3x) 8 mW – 8.4 kWdc / 18kWac 440 ppm

Functions
harmonic, interharmonic,
modulation, flicker,
dip/swell, energy functions



Other versions

Single phase version

- + Same features
- + Lower price
- Single phase output

Economic i-version

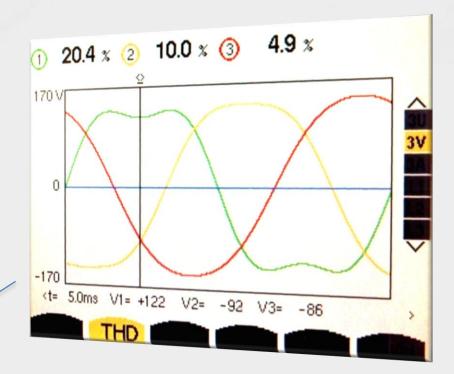
- + Same specification
- + Lower price
- No power quality features



Power Quality

- All six channels have shift setable in o 360° range
- Fundamental frequency 15 Hz 1 Khz
- PQ modes:
 - Harmonic (up to 50th)
 - Interharmonic (up to 5 kHz)
 - Modulation, Flicker
 - Dip / Swell

Three phase harmonics and, 5th, 10th, various percentages





M₁₃₃C High Current Option

Single phase 90 A adapter (with 151-25 current coil)





Overview

	Version	Range	Power Quality	Interfaces
M133C	Three phase	3 x (8 mW – 18 kW)	✓	RS232, GPIB, Ethernet
	Single phase	8 mW – 18 kW		
M133Ci	Three phase	3 x (8 mW – 18 kW)		
	Single phase	8 mW – 18 kW	_	