



CIS CURRENT INTEGRATED SOURCE

- Broad range of output currents and allowable loads
- High stability and low harmonic distortion
- Multilevel protection system
- Harmonics generation capability up to the 41st

INTRODUCTION

The CIS integrated current source was designed to provide a stable alternating current source for the electricity meter test equipment, and in laboratories. The output current is isolated and independent from the mains voltage. Different CIS versions are available depending upon the values of output power and output current required.

OPERATIONAL HIGHLIGHTS

The power stage of the source utilizes Power Width Modulation (PWM) technology, which ensures high efficiency and thus results in very small thermal losses. The stage is driven by an onboard Digital Signal Generator (DSP). The control signal can create harmonics with independently defined amplitudes and phases. The internal feedback loop utilizes DSP technology, while advanced algorithms ensure high stability of amplitude and phase angle, as well as low distortion of the output current over a full range of allowable loads of various characters.

A multilevel protection system protects the source from overload, open circuit, overheating and makes operation of the device reliable and safe.

The CIS is equipped with an isolated serial interface and can be operated from a PC or other controlling device (host). A variety of sources can be synchronized and operated together to form a poly-phase system. The communication protocol is provided to control output settings as well as to access all internal registers.

The CIS current integrated source is housed in a 19 inch plug-in case.

HARMONICS ABILITY

Standard version of the CIS current integrated source is able to generate harmonics up to the 21st order. The enhanced harmonics version of the CIS source, marked with H, can generate harmonics up to the 41st.

TECHNICAL DATA

CIS model	CIS-600 CIS-600H	CIS-1600 CIS-1600H	CIS-3000 CIS-3000H	CIS-3600	CIS-4000	CIS-4050	CIS-6000	CIS-2400
Output power for linear loads	600VA	1600VA	3000VA	3600VA	4000VA	4050VA	6000VA	2400VA
Output current range	1mA ... 120A ⁽¹⁾							1mA ... 200A ⁽¹⁾
Technology of the power stage	PWM with digital feedback loop							
Output current stability	≤ 0.005% (time base: 150 s)							
Total Harmonic Distortion (THD)	< 0.3% (typical <0.1%)							
Output power stage efficiency	> 85%							
Frequency	40 ... 70Hz							
Phase angle	0° ... 360°							
Harmonics	Standard version up to the 21 st , user programmable							
	H version up to the 41 st , user programmable ⁽²⁾							
Communication	Isolated RS-422/RS-232							

(1) Other values are available upon request.

(2) Fulfills Chinese standard JJG 597-2005.

For additional technical details, please contact our sales department (sales@metertest.eu)

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introduce possible modifications in the