

Demonstration Board MI 2891 Power Simulator



The MI 2891 Power Simulator is a multi-purpose three phase power simulator for simulating typical situations in low voltage power supply systems. It is an excellent tool for training, demonstration purposes, or as an electrical didactic tool. The simulator has some pre-programmed scenarios, and also the option of a complete manual mode. The user can decide between different Load character adjustments, adjustable current and voltage level with a simulation of various different faulty conditions.

MEASURING FUNCTIONS

- Voltage
- Current
- Frequency
- Harmonics (U,I)
- Phase angle (U,I)
- Flicker
- Phase sequence (U,I)

KEY FEATURES

- Simple and powerful waveform generator with various settings,
- 4 voltage channels with wide simulation range: up to 350 Vrms,
- 4 current channels with current clamps simulation up to 2kA,
- Simultaneous voltage and current (8 channels) simulation, 16 bit DA conversion for accurate signal generation,
- Dip, swell, interrupt, signalling, transient and inrush events simulation,
- Voltage and current harmonics waveform simulation.
- Unbalanced voltage and current waveform simulation.
- Square flicker simulation.
- Various character load/character type combination simulation.
- Thorough signal parameters settings.
- Saving current system settings on power off.
- 4.3" TFT colour display.

APPLICATION

- Training purposes
- Demonstration of PQA testing equipment by sales personnel
- Education of students of electro technical specialities

STANDARDS

Safety:

- EN 61010-1: 2010

Electromagnetic compatibility (EMC):

- EN 61326-2-2: 2013

TECHNICAL SPECIFICATION

Fundamental RMS voltage output				
Output voltage AC	Resolution	Accuracy		
50 ... 300 V	10V	± 0.1 %		
Event RMS voltage output				
Output voltage AC	Resolution	Accuracy		
0 ... 350 V	10V	± 0.1 %		
Fundamental RMS current				
Range	Output voltage	Overall current accuracy		
A 1033 (100 A ... 2000 A)	100 mV ... 1 V	± 0.1 %		
Inrush RMS current output				
Inrush current	Accuracy	Crest factor		
Range 1: 2.0 mVRMS ... 200.0 mVRMS	± 0.5 % · URMS	1.5		
Range 2: 20.0 mVRMS ... 2.0000 VRMS	± 0.5 % · URMS	1.5		
Frequency				
Output range	Resolution	Accuracy		
45 Hz ... 70 Hz	1 Hz	± 10 mHz		
Flickers				
Flicker type	Measuring range	Resolution	Accuracy*	
Pst	0.5 ... 5.0	0.1	± 1 %	
Voltage harmonics				
Measuring range	Resolution	Accuracy		
UhN 1 % ... 100 % of fundamental output voltage	1%	± 5 % of UhN		
UhN:	generated harmonic voltage			
N:	harmonic component 2nd ... 50th			
Current harmonics and THD				
Measuring range	Resolution	Accuracy		
IhN 1 % ... 100 % of fundamental current	1%	± 5 % of IhN		
IhN:	measured harmonic current			
N:	harmonic component 2th ... 50th			
Unbalance				
	Unbalance range	Resolution	Accuracy	
u-	0.5 % ... 5.0 %	0.1 %	± 0.15 %	
u0				
i-	0.0 % ... 20 %	0.1 %	± 1 %	
i0				
Overdeviation and Underdeviation				
	Measuring range	Resolution	Accuracy	
UOver	0 ... 50 % UNom	0.001 %	± 0.15 %	
UUnder	0 ... 90 % UNom	0.001 %	± 0.15 %	
Event duration and recorder time-stamp and uncertainty				
	Measuring Range	Resolution	Error	
Event Duration	10 ms ... 7 days	1 ms	± 1 cycle	
Record and Event Time stamp	N/A	1 ms	± 1 cycle	
General				
Measuring category	CAT I / 300 V			
Dimensions	23 cm x 14cm x 8 cm			
Weight (with batteries)	1,34 kg			
Display	Colour 4.3 TFT liquid crystal display (LCD) with backlight, 480 x 272 dots.			
Batteries	6 x 1.2 V NiMH rechargeable batteries type HR 6 (AA)			
Working temperature range	-20 °C ... +40 °C			

ORDERING INFORMATION



MI 2891

- Instrument Power Simulator
- Voltage measurement lead, (brown, black, grey, green, blue), 5 pcs
- Current measurement leads, 4pcs
- Labels for color coding
- Power supply adapter
- 1.2 V NiMH rechargeable battery, 6 pcs
- Soft carrying bag
- USB cable
- Instruction manual

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