

R100

Electronic Voltage Regulator



Electronic Voltage Regulator R100 is designed for generating and regulating a sinusoidal test voltage at frequencies equal or different from the frequency of the industrial network as a part of test sets and measuring systems

FEATURES AND BENEFITS

- Variable output frequency
- Automatic or manual setting of the required voltage value
- High accuracy of setting voltage
- Control of voltage setting/relieving time
- Possibility to use with capacitive, inductive and active loads
- Enhanced security through ability to set threshold of voltage and current values
- Overheat and short circuit protection
- External limit switches monitoring
- Consideration of cable resistance (by material, length and cross section of conductors) when setting the required voltage directly at the burden terminals
- Several Power Units can be connected to increase output power
- Possibility to control via RS-232

APPLICATIONS

Electronic Voltage Regulator **R100** is used by:

- Current and Voltage Transformers manufacturers
- Stationary and mobile calibration and reference laboratories



TECHNICAL SPECIFICATION

Specification	Value
Output voltage regulation range	1...220 V
Output voltage frequency range	45...65 Hz
Maximum current	25 A (25–145 A)*
Maximum load apparent power	5 kVA (5–30 kVA)*
Maximum load active power	2,5 kW (2,5–15 kW)*
Total harmonic distortion (THD) of Regulator output voltage	< 5 %
Relative error limits of voltage setting at Regulator output in automatic mode	±1 %
Absolute error limits of voltage frequency setting at Regulator output	0,05 Hz

* The system can include from 1 to 6 R100PU units, depending on the required output power and the requirements of a specific application.

Operating time	
At load up to 100% for each sub-range	(5 min ON, 20 min OFF) – 6 cycles, followed by 4 hours OFF
At load up to 50% for each sub-range	(20 min ON, 20 min OFF) – 6 cycles, followed by 4 hours OFF
At load up to 20% for each sub-range	8 hours ON, 4 hours OFF

Power mains

Rated voltage	180...250 V
Rated frequency	50/60 Hz
Power consumption at the maximum load	5,6 kVA
Operating temperature	0...40 °C
Relative humidity	up to 80 % non-condensing

Size (W × H × D), less than:

Control Unit	485 × 140 × 300 mm
Power Unit	485 × 190 × 545 mm
Switching Unit	485 × 275 × 510 mm

Weight, less than:

Control Unit	5 kg
Power Unit	18 kg
Switching Unit	15 kg

Standards

Safety	EN 61010-1:2010
EMC	EN 61326-1:2013

ORDERING INFORMATION*

Scope of supply

The following items are supplied with the **standard R100 modification**:

No	Item	Part no.	
1	R100 Control Unit (CU)	R100.300	
2	R100 Power Unit (PU)	R100.200	
3	R100 Switching Unit (SU)	R100.400	
4	Mains cable PC(PU)	R100.500	
5	Mains cable 10 A EU (CEE 7/XVII - C13)	—	
6	Power cable	R100.510	
7	Remote control	R100.611	
8	Interface cable (CU-PU)	R100.530	
9	Safety Light	425132.004	
10	Cable for connecting a closed door sensor LS(PU)	R100.540	
11	Closed-door sensor simulator	R100.541	
12	Electronic voltage regulator R100. Operating Manual	R100 OM	
13	Electronic voltage regulator R100. Passport	R100 P	
Additional order			
14	Emergency shutdown cable ES(CU-PU)	R100.520	
15	Installation Rack 19"	R100.000.100	

* The configuration option depends on the technical specifications of the R100 agreed upon with the customer.

OLTEST LLC (UKRAINE)

Development and production
of measurement devices

POSTAL ADDRESS

OLTEST LLC, PO box 33,
Kyiv, 04128, Ukraine

CONTACTS

+38 044 537-08-01
market@oltest.ua