

# RAPIDUS 110R

**Klemsan**

606071

Power Factor Controller

Category: Energy Management Products

Type: Reactive Power Management

Group: Electronics Products

## Commercial Information

Package Unit	1 pcs.
Customs Tariff Number	903289000000
Weight Per Unit Including Packaging	0,94

## Technical Information

GENERAL	
Measurement System	1Ø
LCD Screen	+
Language Support	Turkish, English
Password Protection	+
Voltage Transformer Ratio (VTR)	1 - 999.9
Current Transformer Ratio (CTR)	1 - 5.000

Number of Measurements in One Period	512
LCD/Screen Refresh Rate	<0.5 sec.
Networks	TT, TN,
Signal Waveforms	-
Connection Type	L-L/L-N
<b>COMPENSATION MODES</b>	
Rapidus (Smart Control Mode)	+
Manual	+
<b>STEP CONFIGURATIONS</b>	
Manual Definition	+
Predefined	1-1-1-1, 1-2-2-2, 1-2-4-4
Power (kVAr)	0.00-1000 adjustable
Type	3Ø capacitor, 1Ø capacitor
<b>POWER FACTOR SETTINGS</b>	
Target 1 cosØ	0.8 cap. to 0.8 ind. adjustable
Target 2 cosØ	0.8 cap. to 0.8 ind. adjustable
Dual cosØ Target	+
4 Quadrant Operation for Generators	+
<b>ENERGY MEASUREMENT</b>	
Multiple Sub Tariffs (Peak, On-Peak and Off-Peak)	-
1Ø Phase Energy Measurement	-
3Ø Phase Energy Measurement	-

CURRENT MEASUREMENT INPUT	
Measuring Range	10mA-6A AC
Overvoltage Category	300 V Cat III
Voltage Fluctuation Measurement	-
Power Consumption	<0.2 VA
Intermittent Overload	100A for 1 sec.
Sampling Frequency Between 45-65 Hz	25.6 kHz
VOLTAGE MEASUREMENT INPUT	
Overvoltage Category	300 V Cat III
Measuring Range L-N	120...510V AC $\pm 10\%$
Measuring Range L-L	120...510V AC $\pm 10\%$
Frequency Measuring Range	45-65 Hz
Power Consumption	<0.2 VA
Sampling Frequency Between 45-65 Hz	25.6 kHz
POWER QUALITY MEASUREMENTS	
THD - Voltage (as %)	+
THD - Current (as %)	+
MEASURING ACCURACY - IEC 61557-12	
Total Active Power	Class 0.5
Total Reactive Power	Class 1
Total Reactive Energy	Class 2
Frequency	Class 0.1
Current	Class 0.5

Neutral Current	Class 0.5
Voltage	Class 0.2
Power Factor	Class 0.5
THDV, THDI	Class 1
Total Apparent Power	Class 0.5
Total Active Energy	Class 0.5
<b>MEASURING ACCURACY - IEC 62053-22</b>	
Total Active Energy	Class 0.5S
<b>MEASURING ACCURACY - IEC 62053-23</b>	
Total Reactive Energy	Class 2
<b>COMPENSATION RELAY OUTPUTS</b>	
Number of Outputs	10
Type	NO (SPST)
Max. Switching Current	2A
Max. Switching Voltage	250VAC
Max. Switching Power	1250VA
Mechanical Operating Life	= 10.0000000 operations
Electrical Operating Life (NO side)	5×10 <sup>4</sup> (5A@250VAC) 1×10 <sup>5</sup> (5A@30VDC)
<b>ALARM RELAY OUTPUTS</b>	
Number of Outputs	2
Type	NO (SPST)
Max. Switching Current	4A
Max. Switching Voltage	250 VAC

Max. Switching Power	1250 VA
Mechanical Operating Life	= 10.0000000 operations
Electrical Operating Life (NO side)	5×104(5A@250VAC) 1×105(5A@30VDC)
<b>GENERATOR / DAY-NIGHT INPUT</b>	
Number of Inputs	1
Frequency	45-65Hz
Input	95-240VAC
<b>INPUTS AND OUTPUTS</b>	
Digital Outputs	--
Analog Outputs	--
<b>POWER SUPPLY</b>	
Backup Supply Input	--
Voltage	La-Lb den 120...510V AC ±10%
Frequency	45-65Hz
Consumption	< 10VA
<b>MECHANICAL PROPERTIES</b>	
Weight (g)	940
Protection Class	Front IP40 / Rear IP20
Mounting Type	Panel Mount
Packaging Quantity	1
<b>CABLE CROSS-SECTIONS</b>	
Voltage, Current, All Relay Outputs, Generator Input	Yüksüklü 2.5mm <sup>2</sup> - 14AWG - Yüksüksüz 4mm <sup>2</sup> - 12AWG,

RS485	1.5mm <sup>2</sup> - 16AWG with ferrule - 1.5mm <sup>2</sup> - 16AWG without ferrule, 2x0.75mm <sup>2</sup> - 2x18AWG
<b>ENVIRONMENTAL CONDITIONS</b>	
Operating Temperature	-20°C +55°C
Storage Temperature	-30°C +80°C
Relative Humidity (Non-condensing)	Max. 95%
<b>EMC-EMI</b>	
EN 61000-6-1:2011	+
<b>DIAGRAMS</b>	
Mains Connection	+
Step Output Connections	+
<b>COMMUNICATION</b>	
Protocol	Modbus RTU
Baud Rate	1200-38400 bps adjustable
Parity	---
Stop Bit	1
Slave ID	1-247
Isolation	2000V RMS