

ELECTRONICS PRODUCTS > ENERGY MANAGEMENT PRODUCTS > REACTIVE  
POWER MANAGEMENT



## RAPIDUS 111R

**Stock Keeping Unit (SKU):** 606073

*Power Factor Controller*

### Commercial Information

Product Sales Code	<b>606073</b>
Package Unit	<b>1 pcs.</b>
Customs Tariff Number	<b>903289000000</b>
Weight Per Unit Including Packaging	<b>0.94 kg.</b>

### Technical Information

#### CONNECTION DATA

Connection Type	<b>L-L L-N</b>
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#### General

Measurement System	<b>1Ø</b>
Lcd Screen	<b>+</b>
Language Support	<b>Turkish, English</b>
Password Protection	<b>+</b>
Voltage Transformer Ratio Vtr	<b>1 - 999.9</b>
Current Transformer Ratio Ctr	<b>1 - 5.000</b>
Number Of Measurements In One Period	<b>512</b>
Lcdscreen Refresh Rate	<b>&lt;0.5 sec. sn.</b>
Networks	<b>TT, TN,</b>
Signal Waveforms	

#### Compensation Modes

Rapidus Smart Control Mode	+
Manual	+

### Step Configurations

Manual Definition	+
Predefined	<b>1-1-1-1, 1-2-2-2, 1-2-4-4</b>
Power Kvar	<b>0.00-1000 adjustable</b>
Type	<b>3Ø capacitor, 1Ø capacitor</b>

### Power Factor Settings

Target 1 Cos	<b>0.8 cap. to 0.8 ind. adjustable</b>
Target 2 Cos	<b>0.8 cap. to 0.8 ind. adjustable</b>
Dual Cos Target	+
4 Quadrant Operation For Generators	+

### Energy Measurement

Multiple Sub Tariffs Peak On Peak And Off Peak	
1 Phase Energy Measurement	
3 Phase Energy Measurement	

### Current Measurement Input

Measuring Range	<b>10mA-6A AC</b>
Overvoltage Category	<b>300 V Cat III</b>
Voltage Fluctuation Measurement	
Power Consumption	<b>&lt;0.2 VA</b>
Intermittent Overload	<b>100A for 1 sec.</b>
Sampling Frequency Between 45 65 Hz	<b>25.6 kHz</b>

### Voltage Measurement Input

Overvoltage Category	<b>300 V Cat III</b>
Measuring Range L N	<b>120...510V AC ±10%</b>
Measuring Range L L	<b>120...510V AC ±10%</b>
Frequency Measuring Range	<b>45-65 Hz</b>

Power Consumption	<b>&lt;0.2 VA</b>
Sampling Frequency Between 45 65 Hz	<b>25.6 kHz</b>

### Power Quality Measurements

Thd Voltage As	<b>+</b>
Thd Current As	<b>+</b>

### Measuring Accuracy Iec 61557 12

Total Active Power	<b>Class 0.5</b>
Total Reactive Power	<b>Class 1</b>
Total Reactive Energy	<b>Class 2</b>
Frequency	<b>Class 0.1</b>
Current	<b>Class 0.5</b>
Neutral Current	<b>Class 0.5</b>
Voltage	<b>Class 0.2</b>
Power Factor	<b>Class 0.5</b>
Thdv Thdi	<b>Class 1</b>
Total Apparent Power	<b>Class 0.5</b>
Total Active Energy	<b>Class 0.5</b>

### Measuring Accuracy Iec 62053 22

Total Active Energy	<b>Class 0.5S</b>
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### Measuring Accuracy Iec 62053 23

Total Reactive Energy	<b>Class 2</b>
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### Compensation Relay Outputs

Number Of Outputs	<b>10</b>
Type	<b>NO (SPST)</b>
Max Switching Current	<b>2A</b>
Max Switching Voltage	<b>250VAC</b>
Max Switching Power	<b>1250VA</b>
Mechanical Operating Life	<b>= 10.0000000 operations</b>

Electrical Operating Life No Side

**5×104(5A@250VAC) 1×105(5A@30VDC)**

### Alarm Relay Outputs

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)**

### Generator Day Night Input

Number Of Inputs

**1**

Frequency

**45-65Hz**

Input

**95-240VAC**

### Inputs And Outputs

Digital Outputs

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Analog Outputs

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### Power Supply

Backup Supply Input

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Voltage

**La-Lb den 120...510V AC ±10%**

Frequency

**45-65Hz**

Consumption

**< 10VA**

### Mechanical Properties

Weight G

**0,94**

Protection Class

**Front IP40 / Rear IP20**

Mounting Type

**Panel Mount**

Packaging Quantity

**1**

### Cable Cross Sections

Voltage Current All Relay Outputs Generator Input	<b>2.5mm<sup>2</sup> - 14AWG with ferrule - 4mm<sup>2</sup> - 12AWG without ferrule, 2x1.5mm<sup>2</sup> - 2x16AWG</b>
Rs485	<b>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

Operating Temperature	<b>-20°C +55°C</b>
Storage Temperature	<b>-30°C +80°C</b>
Relative Humidity Non Condensing	<b>Max. 95%</b>

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## Diagrams

Mains Connection	<b>+</b>
Step Output Connections	<b>+</b>

## Communication

Protocol	<b>Modbus RTU</b>
Baud Rate	<b>1200-38400 bps adjustable</b>
Parity	<b>---</b>
Stop Bit	<b>1</b>
Slave Id	<b>1-247</b>
Isolation	<b>2000V RMS</b>