



ELECTRONICS PRODUCTS > ENERGY MANAGEMENT PRODUCTS > ELECTRONIC MULTIMETERS

## ECRAS 120

**Stock Keeping Unit (SKU):** 606211

Multimeter

### Commercial Information

Product Sales Code	<b>606211</b>
Package Unit	<b>1 pcs.</b>
Customs Tariff Number	<b>903032009011</b>
Weight Per Unit Including Packaging	<b>0.29 kg.</b>

### Technical Information

General	
Password Protection	<b>+</b>
Voltage Transformer Ratio Vtr	<b>1 - 5000</b>
Current Transformer Ratio Ctr	<b>1 - 5000</b>
Number Of Measurements In One Period	<b>256</b>
Lcdscreen Refresh Rate	<b>1 sn.</b>
Networks	<b>TT, TN, IT</b>
Connection Type	<b>3F4T, 3F3T</b>
Four Quadrant Measurement	<b>4</b>
Demand Period	<b>1-60 min. adjustable</b>
Minmaxdemand Values	<b>+</b>
Protection Class	<b>Front IP40 / Rear IP20</b>
Weight G	<b>290</b>
Packaging Quantity	<b>1</b>

Mounting Type	<b>Panel Mount</b>
Seven Segment Display	<b>+</b>

### Energy Measurement

1 Phase Energy Measurement	<b>+</b>
3 Phase Energy Measurement	<b>+</b>
Number Of Tariffs	<b>1</b>

### Current Measurement Input

Measuring Range	<b>10mA - 6A AC</b>
Overvoltage Category	<b>300 V Cat II</b>
Voltage Fluctuation Measurement	<b>2 kV</b>
Power Consumption	<b>&lt;0.2 VA</b>
Intermittent Overload	<b>100 A for 1 sec</b>
Sampling Frequency Between 45 65 Hz	<b>12.8 kHz</b>

### Voltage Measurement Input

Overvoltage Category	<b>300 V Cat III</b>
Measuring Range L N	<b>1-300 Vrms</b>
Measuring Range L L	<b>2-500 Vrms</b>
Frequency Measuring Range	<b>45-65 Hz</b>
Power Consumption	<b>&lt;0.1 VA</b>
Sampling Frequency Between 45 65 Hz	<b>12.8 kHz</b>

### Power Quality Measurements

Thd Voltage As	<b>+</b>
Thd Current As	<b>+</b>
Harmonics For Current And Voltage Phases	<b>Up to 31st</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>

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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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### Power Supply

Voltage	<b>85-300V AC / 85-300V DC</b>
Frequency	<b>45-65Hz</b>
Consumption	<b>&lt;6VA AC / &lt;3W DC</b>

### Environmental Conditions

Operating Temperature	<b>-20°C +70°C</b>
Storage Temperature	<b>-30°C +80°C</b>
Relative Humidity Non Condensing	<b>Maks. 95%</b>

### Emc Emi

300 Vac Cat II According To Iec 61010 1	<b>+</b>
En 55011A1	<b>2010, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN61000-4-11</b>

### Diagrams

Mains Connection	
Digital I O And Alarm Output Connections	
3 Wires With 3Ct	

4 Wires With 3Ct	
3 Wires With 2Ct Note	<b>CTs can be connected to any phase. In the figure, they are connected to Phase-1 and Phase-3.</b>
Single Phase With 1Ct Note	<b>CT and VT can be connected to any phase. In the figure, they are connected to Phase-1.</b>
Digital Output Connection	
Digital Input Connection	
Alarm Output Connection	
Analog Output Connection	

### Time Recorded Data Storage

Hourly Records	
Daily Records	
Monthly Records	
Demand	--
Alarm Records	--

### Cable Cross Sections Power Supply Voltage Current Relay Outputs

Loaded	<b>2.5mm<sup>2</sup> - 14AWG</b>
Unloaded	<b>4mm<sup>2</sup> - 12AWG, 2x1.5mm<sup>2</sup> - 2x16AWG</b>

### Other Measurements

Operating Hours Operating Time Under Load	<b>+</b>
Open Time Open Time Without Load	<b>+</b>
Interruption Counter Number Of Power Interruptions	<b>+</b>