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## KLEA 324P-D

**Stock Keeping Unit (SKU):** 606133

*Energy Analyzer*

### Commercial Information

Product Sales Code	<b>606133</b>
Package Unit	<b>1 pcs.</b>
Customs Tariff Number	<b>903032009011</b>
Weight Per Unit Including Packaging	<b>0.428 kg.</b>

### Technical Information

General	
Language Support	<b>Turkish, English, Russian</b>
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>512</b>
Lcdscreen Refresh Rate	<b>1 sn.</b>
Networks	<b>TT, TN, IT</b>
Signal Waveforms	<b>+</b>
Connection Type	<b>3F4T, 3F3T, Aron</b>
Real Time Clock	
Four Quadrant Measurement	<b>+</b>
Demand Period	<b>1-60 min. adjustable</b>
Phase Diagram	<b>+</b>

Minmaxdemand Values	+
Protection Class	<b>Front IP40 / Rear IP20</b>
Weight G	<b>428</b>
Packaging Quantity	
Mounting Type	<b>Panel Mount</b>
Seven Segment Display	

### Energy Measurement

Multiple Sub Tariffs Peak On Peak And Off Peak	+
1 Phase Energy Measurement	
3 Phase Energy Measurement	+
Number Of Tariffs	<b>2</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>25.6 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>25.6 kHz</b>

### Power Quality Measurements

Thd Voltage As	+
Thd Current As	+
Harmonics For Current And Voltage Phases	<b>Up to 51st</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 0.05</b>
Current	<b>Class 0.02</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 0.2</b>
Total Active Energy	<b>Class 0.5</b>

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Total Active Energy	<b>Class 0.2S</b>
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### Measuring Accuracy Iec 62053 23

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

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

### Power Supply

Voltage	<b>85-300V AC / 85-300V DC</b>
Frequency	<b>45-65Hz</b>
Consumption	<b>&lt;3VA AC / &lt;2.5W DC</b>

### Environmental Conditions

Operating Temperature	<b>-20°C +70°C</b>
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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	

## Communication

Protocol	<b>Modbus RTU</b>
Baud Rate	<b>2400-115200 bps adjustable</b>
Parity	<b>None</b>
Stop Bit	<b>1</b>
Slave Id	<b>1-247</b>
Isolation	<b>2750V RMS</b>

## Time Recorded Data Storage

Hourly Records	<b>1920 Hours x 68 Different Parameters</b>
Daily Records	<b>240 Days x 68 Different Parameters</b>
Monthly Records	<b>36 Months x 68 Different Parameters</b>

Demand	<b>4 Months x 16 Different Parameters</b>
Alarm Records	<b>50</b>

### Digital Output

Isolation Level	<b>5000 Vrms</b>
Number Of Outputs	<b>2</b>
Type	<b>Transistör</b>
Voltage Switching Range	<b>5-30 VDC</b>
Minimum Switching Frequency	<b>20 Hz, 50 ms</b>

### Digital Input

Number Of Inputs	<b>2</b>
Isolation Level	<b>5000 Vrms</b>
Minimum Counting Frequency	<b>100 Hz, 10 ms</b>
Input Type	<b>Dry Contact</b>

### Analog Output

Number Of Outputs	<b>2</b>
Output Ranges 0 5 V 0 10 V 5 5 V 10 10V 0 20 Ma 4 20 Ma	<b>Var</b>
Isolation	<b>Isolated</b>

### 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>

### Cable Cross Sections Digital Io Rs485 Analog Outputs

Loaded	<b>1.5mm<sup>2</sup> - 16AWG</b>
Unloaded	<b>1.5mm<sup>2</sup> - 16AWG, 2x0.75mm<sup>2</sup> - 2x18AWG</b>

### Other Measurements

Operating Hours Operating Time Under Load	
Open Time Open Time Without Load	
Interruption Counter Number Of Power Interruptions	