

- ▶ PMD-01
- ▶ PMD-02
- ▶ PMD-02R
- ▶ PMD-03
- ▶ PMD-03R
- ▶ PMD-04



Our PMD Series Multimeters are able to calculate Current, Voltage, Frequency,  $\text{Cos}\phi$ , Active Power, Apparent Power, Reactive Power, Minimum and Maximum Voltage, Current Demand, Maximum Current Demand values of 3-phase electrical systems, with the hard work of our expert R&D team in the field of Power Quality and Energy solutions. It is designed and manufactured to measure and protect the system with alarm options.

It offers design and efficiency together with its 45-265V AC/DC wide supply range, ergonomic design in 96x96x51 mm dimensions and product range with advanced features.

- **128x64 Wide Graphic LCD Display**
- **Easy to Use with Turkish and English Menu Options**
- **Voltage, Current and Frequency Protection**
- **Phase-Phase or Phase-Neutral Protection**
- **Phase Sequence Error Information and Protection**
- **Event Logs**
- **Three-phase L-N and L-L Voltage Information**
- **Three-phase Current and Frequency Information**
- **Adjustable Relay Outputs**
- **V, A, P, Q, S,  $\text{Cos}\phi$ ,  $\Sigma P$ ,  $\Sigma Q$ ,  $\Sigma S$  (Monitoring Parameters)**
- **RS-485 Communication (Modbus RTU)**
- **Min, Max and Demands**
- **Connection Type ( $\Delta$ ,  $\Delta$ )**

Product Code	Product Description	Dimensions(mm)	Basic Parameters (Current-Voltage-Frequency)	Graphic LCD Display (128*64)	$\text{Cos}\phi$	Active Power (P1,P2,P3, $\Sigma P$ )	Reactive Power (Q1,Q2,Q3, $\Sigma Q$ )	Apparent Power (S1,S2,S3, $\Sigma S$ )	Demand - Max. Demand	Max-Min Values	Current-Voltage Unbalance	Over-Under Voltage Protection	Over-Under Current Protection	Over-Under Frequency Protection	Phase Seq. / Absence Protection	Inrush Current Protection	X/5	RS-485 Communication	Total Hours of Operation	Output Relay X2	Alarm State Modes	45-265 V AC/DC Supply
PMD-01	Multimeter	96x96	•	•				•	•	•							•					•
PMD-02	Adj. Multimeter	96x96	•	•				•	•	•	•	•	•	•	•	•	•			•	•	•
PMD-03	Adj. Multimeter with Communication	96x96	•	•				•	•	•	•	•	•	•	•	•	•	•		•	•	•
PMD-04	Adj. Multimeter with Communication	96x96	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

### General Specifications Table

Product Code	PMD-01	PMD-02	PMD-02R	PMD-03	PMD-03R	PMD-04
Operating Voltage	45-265 V AC/DC	45-265 V AC/DC	45-265 V AC/DC	45-265 V AC/DC	45-265 V AC/DC	45-265 V AC/DC
Operating Frequency	45 - 65 Hz	45 - 65 Hz	45 - 65 Hz	45 - 65 Hz	45 - 65 Hz	45 - 65 Hz
Current Transformer Ratio Range	1 ... 2000	1 ... 2000	1 ... 2000	1 ... 2000	1 ... 2000	1 ... 2000
Voltage Transformer Ratio Range	0,1 ... 4000,0	0,1 ... 4000,0	0,1 ... 4000,0	0,1 ... 4000,0	0,1 ... 4000,0	0,1 ... 4000,0
Current Measurement Range	0,05 - 5,5 AAC	0,05 - 5,5 AAC	0,05 - 5,5 AAC	0,05 - 5,5 AAC	0,05 - 5,5 AAC	0,05 - 5,5 AAC
Voltage Measurement Range	10 - 300 Vac (L-N) 20 - 520 Vac (L-L)	10 - 300 Vac (L-N) 20 - 520 Vac (L-L)	10 - 300 Vac (L-N) 20 - 520 Vac (L-L)	10 - 300 Vac (L-N) 20 - 520 Vac (L-L)	10 - 300 Vac (L-N) 20 - 520 Vac (L-L)	10 - 300 Vac (L-N) 20 - 520 Vac (L-L)
Frequency	√	√	√	√	√	√
Cosφ	-	-	-	-	-	√
Neutral Current	-	-	-	-	-	√
Max-Min Voltage	√	√	√	√	√	√
Demand-Max Demand	√	√	√	√	√	√
Active Power	-	-	-	-	-	P1, P2, P3, ΣP
Reactive Power	-	-	-	-	-	Q1, Q2, Q3, ΣQ
Apparent Power	S1, S2, S3, ΣS	S1, S2, S3, ΣS	S1, S2, S3, ΣS	S1, S2, S3, ΣS	S1, S2, S3, ΣS	S1, S2, S3, ΣS
Event Log	-	-	√	-	√	√
Over / Under Voltage Protection	-	√	√	√	√	√
Over / Under Current Protection	-	√	√	√	√	√
Over / Under Frequency Protection	-	√	√	√	√	√
Over Neutral Current Protection	-	-	-	-	-	√
Voltage Unbalance Protection	-	√	√	√	√	√
Current Unbalance Protection	-	√	√	√	√	√
Phase Seq. / Absence Protection	-	√	√	√	√	√
Sudden Tripping (Current / Voltage)	-	-	-	-	-	√
Inrush Current Protection	-	-	√	-	√	√
Resetable Total Hours of Operation	-	-	-	-	-	√
RS-485 Communication	-	-	-	√	√	√
Protection Class	IP54 (Front Panel) IP20 (Body)	IP54 (Front Panel) IP20 (Body)	IP54 (Front Panel) IP20 (Body)	IP54 (Front Panel) IP20 (Body)	IP54 (Front Panel) IP20 (Body)	IP54 (Front Panel) IP20 (Body)
Output Relay X2	-	Max 5A 250 Vac Cosφ=1	Max 5A 250 Vac Cosφ=1	Max 5A 250 Vac Cosφ=1	Max 5A 250 Vac Cosφ=1	Max 5A 250 Vac Cosφ=1
Indicator	LCD (128x64)	LCD (128x64)	LCD (128x64)	LCD (128x64)	LCD (128x64)	LCD (128x64)
Operating Temperature	-25°C.....70°C	-25°C.....70°C	-25°C.....70°C	-25°C.....70°C	-25°C.....70°C	-25°C.....70°C
Dimensions (mm)	96x96	96x96	96x96	96x96	96x96	96x96

### Technical Specifications Table

<b>Operating Voltage</b>	45 – 265 VAC / DC %10
<b>Operating Range</b>	Un x (0,9 – 1,1)
<b>Operating Frequency</b>	45 – 65 Hz.
<b>Power Consumption</b>	3 – 6 VA
<b>Measuring Inputs Power Consumption</b>	< 0,5 VA
<b>Current Measurement Range</b>	50 mA AC – 5,5 A AC
<b>Voltage Measurement Range</b>	10 – 300 V AC (L-N) 20 – 520 V AC (L-L)
<b>Current Transformer Ratio</b>	1 – 2000 (10000/5)
<b>Voltage Transformer Ratio</b>	1.0 – 4000.0
<b>Measurement Accuracy</b>	
<b>Voltage</b>	1%
<b>Current</b>	1%
<b>Frequency</b>	1%
<b>Active Power</b>	1%
<b>Reactive Power</b>	1%
<b>Apparent Power</b>	1%
<b>Relay Output</b>	2 SPDT Relay NO Max 5A AC 250 VAC Cosφ=1
<b>Protection Class</b>	IP54 (Front Panel) IP20 (Body)
<b>Device Protection Class</b>	Double Insulated
<b>Operating Temperature Range</b>	-25 °C .....+70 °C
<b>Humidity</b>	Maximum %90
<b>Operating Altitude</b>	<2000 m
<b>Panel Connection Type</b>	Front
<b>Connection Type</b>	3P3W (Δ), 3P4W (▲)
<b>IK Code</b>	IK06
<b>Supply Terminal Cable Cross Section</b>	Max 2,5 mm
<b>Voltage Terminal Cable Cross Section</b>	Max 2,5 mm
<b>Current Terminal Cable Cross Section</b>	Max 2,5 mm
<b>Weight</b>	238 gr