

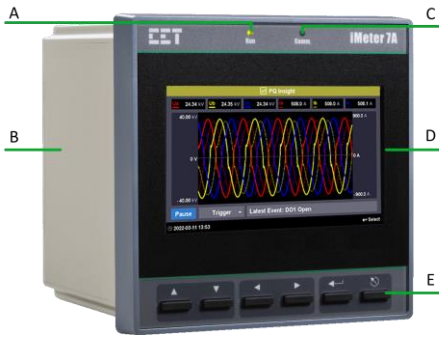
# iMeter 7A Quick Start Guide

## Version 1.0

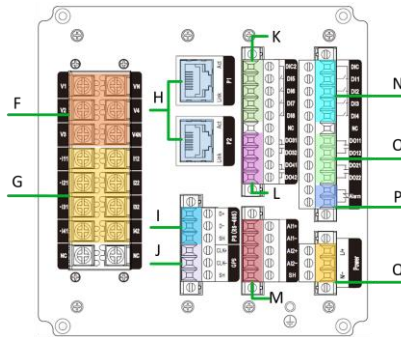
### Package Contents

- a. iMeter 7A with all mounting brackets and plug-in connectors installed
- b. Factory Test Report
- c. CD with iMeter 7A User Manual
- d. Quick Start Guide (this document)

### Meter Overview



Front View



Rear View – 8xDI, 4xDO, 1xAlarm, 2xAI, I4, RS-485 and Dual 10/100BaseT Ports

**iMeter 7A**

Model: iMeter 7A-A5925AAE  
 Power Supply: 95-250V $\bar{a}$ , 47-440Hz, 10W, OVC III  
 Voltage Inputs: 400V 3~L-N, 690V 3~L-L, CAT III  
 Current Inputs: 5A  
 Frequency: 50Hz  
 MAC Address 1: 00-00-00-00-00-00  
 MAC Address 2: 00-00-00-00-00-00

1801103096

ROHS CE

**Warnings:**  
 Installation and maintenance should only be performed by qualified and competent personnel who have been properly trained to handle high voltage and current devices in accordance with local and national electrical codes.  
 Hazardous voltage can cause electric shock, burn or explosion. Disconnect and lockout power source, open all PT secondaries and short all CT secondaries before servicing. Failure to observe proper precaution may result in serious injury or death.

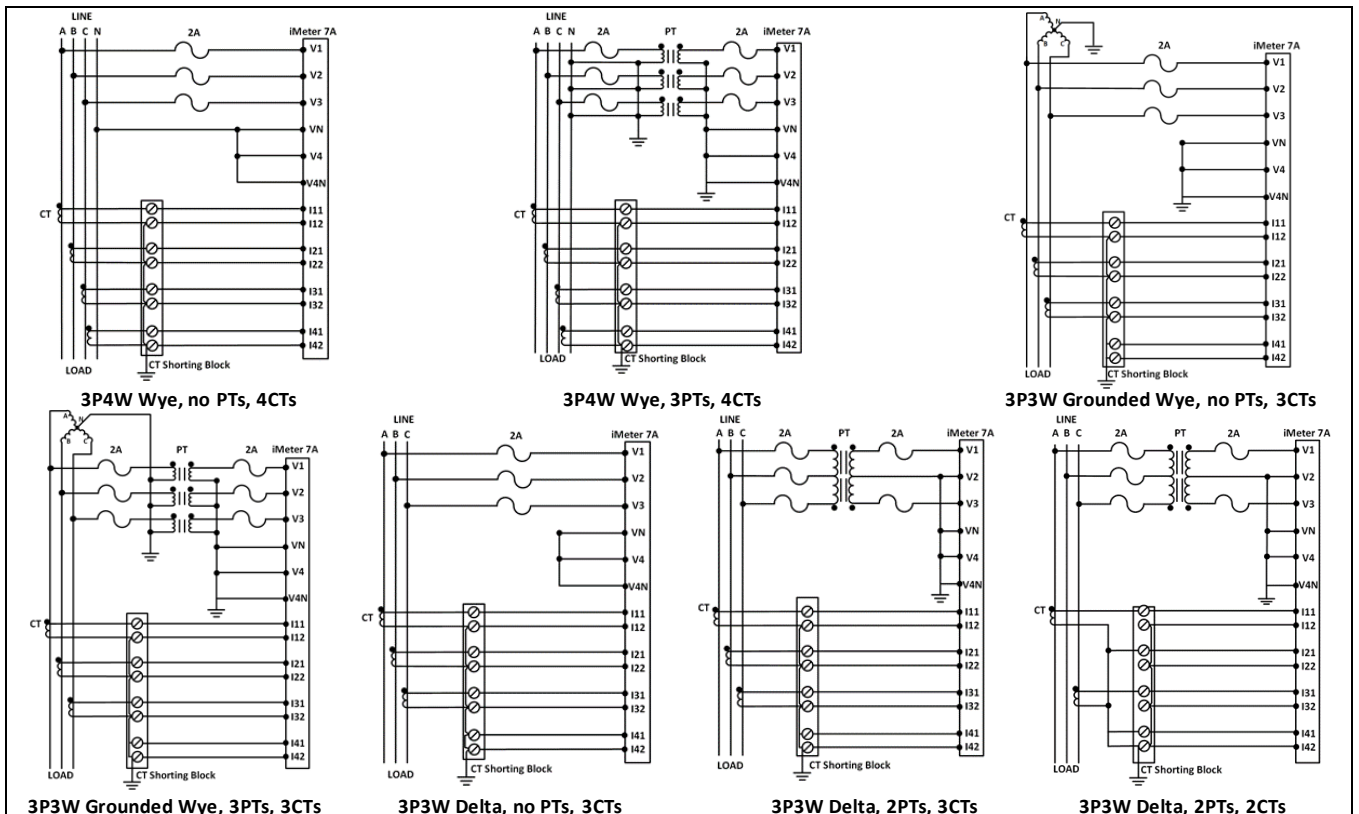
Serial Number and Warning Label

<b>A</b>	Running Indicator	<b>G</b>	Current Inputs	<b>M#</b>	Analog Inputs*/RTD Inputs*
<b>B</b>	Enclosure	<b>H</b>	10/100BaseT Ethernet Ports	<b>N</b>	Digital Inputs
<b>C</b>	Communication Indicator	<b>I</b>	RS-485 Port	<b>O#</b>	Digital Outputs / SS Pulse Outputs*
<b>D</b>	TFT Color LCD Display	<b>J</b>	GPS Input	<b>P</b>	Alarm Output
<b>E</b>	Navigation Buttons	<b>K</b>	Digital Inputs*	<b>Q</b>	Power Supply
<b>F</b>	Voltage Inputs	<b>L</b>	Digital Outputs*		

\* Optional.

# The Analog Inputs may be optionally replaced by RTD Inputs. Two standard Digital Outputs may be optionally replaced by SS Pulse Outputs.

### Wiring Diagrams

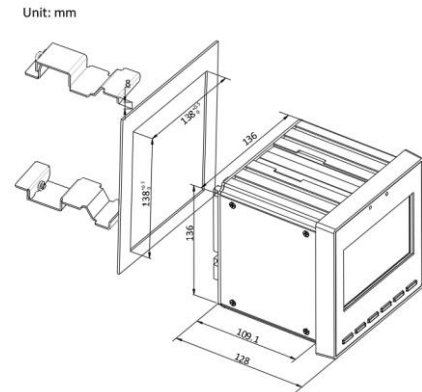


## Mounting the Meter

The iMeter 7A should be installed in a dry environment with no dust and kept away from heat, radiation and electrical noise sources.

Installation steps:

- Remove the mounting brackets from the meter
- Fit the meter through a 138mm x 138mm cutout
- Re-install the mounting brackets and tighten the screws against the panel to secure the meter



## Using the Front Panel Buttons

The Front Panel Display allows users to access different measurements and perform basic configuration. There are five menus in the Home Page, <Metering>, <Power Quality>, <PQ Insight>, <Events> and <Setup>. Each menu includes multiple sub-menus for measurements, events or setup parameters. The following table provides an overview of the Front Panel buttons.

Buttons	Metering / Power Quality / PQ Insight / Event Menu	Setup Menu
<ul style="list-style-type: none"> <li>&lt;▲&gt;</li> <li>&lt;▼&gt;</li> <li>&lt;◀&gt;</li> <li>&lt;▶&gt;</li> </ul>	<p>The four arrow buttons are used for navigation between different menus in the Home Page. The current cursor location is indicated by a larger icon where its available sub-menus are listed at the bottom of the screen for reference.</p> <p>Before a sub-menu is selected,</p> <ul style="list-style-type: none"> <li>Press &lt;▲&gt; or &lt;▼&gt; to navigate the sub-menu list.</li> </ul> <p>After a sub-menu is selected,</p> <ul style="list-style-type: none"> <li>Press &lt;◀&gt; or &lt;▶&gt; to display different pages of parameters.</li> <li>Use &lt;▲&gt; or &lt;▼&gt; to scroll to different pages of <b>Individual Harmonic</b> or <b>Interharmonics</b> measurements from 1st to 63rd in the <b>Harmonics</b> or <b>Interharmonics</b> sub-menu.</li> <li>In the WFR and DWR page, press &lt;◀&gt; or &lt;▶&gt; to scroll backward or forward through the waveform and &lt;▲&gt; or &lt;▼&gt; to zoom in/out of the waveform.</li> </ul>	<p>Before a parameter is selected,</p> <ul style="list-style-type: none"> <li>Use &lt;◀&gt;, &lt;▶&gt;, &lt;▲&gt; and &lt;▼&gt; buttons to navigate around.</li> </ul> <p>If a parameter is selected,</p> <ul style="list-style-type: none"> <li>For a numeric parameter, press &lt;▲&gt; or &lt;▼&gt; to increment or decrement a numeric value.</li> <li>For an enumerated parameter, press &lt;▲&gt; or &lt;▼&gt; to scroll through the selection list.</li> </ul>
<↵>	<ul style="list-style-type: none"> <li>Press &lt;↵&gt; to enter the selected <b>Menu/Sub-menu</b></li> <li>In <b>TOU</b>, press &lt;↵&gt; to toggle between <b>Energy</b> and <b>Max. Demand</b>.</li> <li>In <b>Max.</b>, <b>Min.</b>, and <b>2-150kHz C.E.</b>, press &lt;↵&gt; to scroll through different pages of measurements.</li> <li>In <b>Harmonics / Interharmonics</b>, press &lt;↵&gt; to view the Individual Harmonics or Interharmonics details.</li> <li>In <b>PQ Insight</b>, press &lt;↵&gt; to Pause/Refresh the WF Capture, toggle the signal selection for WF display, manually trigger WFR/DWR or view the latest event details.</li> </ul>	<p>Before a parameter is selected,</p> <ul style="list-style-type: none"> <li>pressing &lt;↵&gt; selects a parameter for modification.</li> </ul> <p>After a parameter is selected,</p> <ul style="list-style-type: none"> <li>pressing &lt;↵&gt; saves the present value of the selected parameter into memory.</li> </ul>
<⏏>	<ul style="list-style-type: none"> <li>Press &lt;⏏&gt; to exit the current display.</li> </ul>	Press <⏏> to cancel the change.
<▼>+ <⏏>	Press this key combination to toggle between the <b>Summary</b> and <b>Large Font</b> display in <b>RMS</b> , <b>Energy (RMS only)</b> , <b>Demand</b> , <b>TOU</b> , <b>Harmonics</b> and <b>Interharmonics</b> .	

## Basic Setup Parameters

A valid Front Panel Password is required for making changes. The default Front Panel Password is 000001.

Menu in <Setup>	Parameters	Description	Options/Range	Default
Password	Password	Enter Password	The password digits cannot be identical or sequential.	"000001"
Basic > Wiring	Mode	The Wiring Connection of the meter	DEMO/3P4W/3P3W	3P4W
Basic > PT/CT	Ull Nominal	Ull Nominal Voltage on the Secondary Side	1 to 1500V	415V
	I Nominal	Nominal Current	1 to 10,000A	5A
	PT Primary	PT Nominal Primary Voltage	1 to 1,000,000V	100V
	PT Secondary	PT Nominal Secondary Voltage	1 to 1500V	100V
	CT Primary	CT Nominal Primary Current	1 to 30,000A	5A
Comm. > Ethernet (P1/P2)	CT Secondary	CT Nominal Secondary Current	1 to 50A	5A
	Enable P1	Enable/Disable P1 and select IP Addressing Mode	DHCP/Static/No	Static
	IP Addr. P1	Ethernet Port 1 IP Address	-	192.168.0.100
	Sub. Mask P1	Ethernet Port 1 Subnet Mask	-	255.255.255.0
	Gateway	Ethernet Port Gateway Address	-	192.168.0.1
	Enable P2	Enable/Disable P2 and select IP Addressing Mode	DHCP/Static/No	Static
Comm. > RS-485 (P3)	IP Addr. P2	Ethernet Port 2 IP Address	-	192.168.1.100
	Sub. Mask P2	Ethernet Port 2 Subnet Mask	-	255.255.255.0
	Protocol	RS-485 Port Protocol	Modbus, EtherGate, Disable	Modbus
	Baud Rate	Data rate in bits per second	1200/2400/4800/9600/19200/38400bps	9600
	Parity	RS-485 Port Parity	None, Odd, Even	Even
Stop Bit	RS-485 Port Stop Bit	1, 2	1	
Unit ID	RS-485 Port Unit ID	1-247	100	