

GFUVE | BEIJING GFUVE ELECTRONICS CO.,LTD. Address:01117-8 Fortune Street No.67 Chaoyang Road,Chaoyang District,Beijing,China.

# **FU2200A WEB PAGE MANUAL**

### CONTENT

1.	WEB PAGE ACCESS	. 2
2.	DATA READING	. 5
	2.1 REAL TIME METERING	5
	2.2 ENERGY MEASURMENT	5
	2.3 HARMONIC MEASUREMENT	6
	2.4 MAX/MIN VALUE MEASUREMENT	7
	2.5 METER INFORMATION READING	8



## FU2200A WEB PAGE MANUAL

## 1. WEB PAGE ACCESS

When browse through web page, please guarantee the meter is in same network segment with computer. Meanwhile, need to check the meter's IP address. IP address can access through two methods. Method A is recommended.

#### Method A:



to access PC software main interface. See figure 1-1 below, after

the connection through RS485 or network (see Connections in FU2200A Software Manual). Click **Tools** in toolbar.

#### Click Find Device.

Appear window as figure 1-2, click **Scan** can check present IP address in figure 1-2, so the IP address is 192.168.1.17 for this testing meter

GFUVE Powerleter Han	agement Syst	em - IVer3.	1.232]	Ę			
_ Operation Setting Tools	Yindow Help						- 8 ×
Eind	Device			ľ		Parameters	
General Parameter DataLog Parameter DataLog Block1 DataLog Block2 DataLog Block3	DataLog Bloc Record Mask	kl Parameter	TH FT U	11	L 1	⊏ P	
DataLog Block4 TOU Parameter Season Schedule	۵ ت		r s	•	☐ Pf	Freq	
— 1st Day'Schedule — 2nd Day'Schedule — 3rd Day'Schedule	[ unba	lance		emand	EP EP	☐ EQ	
4th Day'Schedule 5th Day'Schedule 6th Day'Schedule Clock Net Parameter	☐ ES	te	F A	ngle	<b>∏</b> EPrate	☐ EQrate	
	🔽 interval	1	min	₩ Stamp Start	00-00-00 00	₩ Stamp End 00-00-00	00
Upload	₩ Record Size	16	Bytes	₽ Address Start	00000000 н	Address 0007FFFF	н
FormatLog	₩ Actual Size	14	Bytes				
No DataLog		Tx:FF FF 00	00 00 04	4 EE 14 Rx:	FF FF 00 00 00 03	EE 83 TCP 2014-10-0	9 17:10:40

figure 1-1



🛢 Fi	nd Devic	;					×
No	NetID	mac address	ip address	mask address	gateway address	port	
1	0000008	51-0F-67-AE-61-1B	192.168.1.17	255.255.255.0	192.168.1.1	9999	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
	[ <del></del>				1		
	L	Scan	Stop	Clo	se		

figure 1-2

#### Method B:



to access PC software main interface. See figure 1-1 above, after

the connection through RS485 or network (see Connections in FU2200A Software Manual). Click **Parameters** in switch area on parameters data read and parameters set, appear window see figure 1-3.

#### Click Net Parameter.

Click **Upload** to check present IP address.

See figure 1-3, so the IP address is 192.168.1.17 for this testing meter



GFUVE Powerleter La	nagement System -	[Ver3.1.232]				
<u>Operation</u> Setting Tools	: <u>W</u> indow <u>H</u> elp					_ 8 ×
	Readings		Ĭ	Parame	ters	
General Parameter	Net Parameter					
DataLog Parameter	NET	Yes				
Season Schedule						
1st Day'Schedule	DHCP	No				_
3rd Day'Schedule						
	✓ ListenPort	9999				
6th Day'Schedule						
Net Parameter	☑ IPAddress	192.168.1.17				
						_
	MaskAddress	255.255.255.0				_
	E a l					_
	I♥ Gateway	192.168.1.1				_
Upload	_					_
Develord	I✓ NETID	0000008				_
DownToad						_
un/SelectAll	MACAddress	510F67AE611B				
Upload Net Parameter Suc	ccess Tx:FF	FF 00 00 00 06 EE	03 Rx:FF FF	00 00 00 33 EE 03	TCP 2014-10-0	9 17:11:48

figure 1-3

Make sure the IP address of the testing meter, double click computer IE browser Enter http://192.168.1.17/ in search bar and click Enter key to access the web page, see figure 1-4.

Now the measuring data of FU2200A can browse.

Web page only read, but cannot edit.

🖉 GFUVE WEB SERVER - Windows I	nternet Explorer		2 🔀
🔄 🕞 👻 🔊 http://192.168.1.17/		M G Ding	ρ.
······································			
	ooA Ethernet Module		
RealTime Metering Energy Harmonic Max & Min Devinfo	Welcome to MultiFunction The FU2200A series is a range of economical yet highly fu energy meters manufactured by GFUVE. These meters pro- energy management systems. The 2200A series may be use distribution or plant automation systems. All monitored da communication port running the Modbus RTU protocol. W 2200A series offers unparalleled value and functionality.	Power Meter FU2200A Inctional three-phase multifunction power an vide excellent value for monitoring power an ed as data gathering devices for intelligent po ta is available via a standard digital RS485 ith a wide range of models to choose from, th	nd d wwer ne
Beijing GFUVE Electronics Co.,Ltd.	- Teb+8610855835777+861085782698 Fax:+861085781298 <u>Website:www.gfuve.com</u>	Email-support/@gfuve.com	
📑 开始 🔰 🖥 🖉 🍋 61 Die	ithe 🖉 GTUT TI SIDTL 🔰 3 kep - 202	a (	1.11 6 <b>6</b> 9

figure 1-4



## 2. DATA READING

#### **2.1 REAL TIME METERING**

Click **RealTime Metering** in quick bar, appear window see figure 2-1.

The interface display real time measuring data including phase voltage, phase voltage average, line voltage, line voltage average, current, current average, active power, total active power, reactive power, total reactive power, apparent power, total apparent power, per power factor, frequency, nature of load, voltage unbalance, current unbalance, per phase voltage angle, per current angle, active demand, reactive demand, apparent demand etc.

Gurave FU220	ooA Ethernet Mit	Julie				
		RealTime	Metering			
	Ut 0.00V	Uiz	0.00V	11	0.0000A	
PealTime Metering	U2 0.00V	U23	0.00V	12	0.0000 A	
Real line metering	U3 0.00 V	U31	0.00 V	13	0.0000 A	
and a state of the	Ulnavg 0.00 V	Ullavg	0.00 V	lavg	0.0000 A	
nergy	P1 0.0000 kW	Qt	o.oooo kvar	51	o.coco kVA	
300.00	P2 0.0000 kW	Q2	o.oooo kvar	52	0.0000 kVA	
larmonic	P3 0.0000 kW	Q3	o.oooo kvar	53	0.0000 kVA	
id mone	Psum o.oooo kW	Qsum	o.oooo kvar	Ssum	0.0000 kVA	
	Pf1 1.0000	Frequency	50.006 Hz	LoadType	R	
lax & Min	Pf2 1.0000	In	0.0000 A			
	Pf3 1.0000	Uunbalance	0.00 %	tunbalance	0.00 %	
evinfo	Pfsum 1.0000					
	AngleU1 0.00*	AngleU2	0.00*	AngleU3	0.00*	
	Angleis 0.00*	Angleiz	0.00°	Anglei3	0.00*	
	DemandP 0.0000 kW	DemandQ	o.oooo kvar	DemandS	0.0000 kVA	

figure 2-1

#### **2.2 ENERGY MEASURMENT**

Click **Energy** in quick bar, appear window displaying real time energy values as figure 2-2. The real time data including

Forward active energy epimp Reverse active energy epexp Total active energy eptotal Net active energy epnet Forward reactive energy epimp Reverse reactive energy epexp Total reactive energy eptotal Net reactive energy epnet Forward apparent energy epimp Reverse apparent energy epexp Total apparent energy eptotal Net apparent energy epnet



**GEBUVE** | BEIJING GFUVE ELECTRONICS CO.,LTD. Address:01117-8 Fortune Street No.67 Chaoyang Road,Chaoyang District,Beijing,China.

And each energy value in TOU.

RealTime Metering Energy	Tariff EP EQ	import	export			
RealTime Metering Energy	EP EQ	o oashiwh		total	net	
Energy	EQ	0.0434444	o.oookWh	0.043kWh	0.043kWh	
Energy		o.o18kvarh	0.021kvarh	o.o39kvarh	-o.oo3kvarh	
Energy	6.5	o.o66kVAh	o.oookVAh	o.o66kVAh	o.o66kVAh	
	sharpEP	o.oookWh	o.oookWh	o.oookWh	o.oookWh	
	sharpEQ	o.oookvarh	o.oookvarh	o.oookvarh	o.oookvarh	
Harmonic	sharpES	o.oookVAh	o.oookVAh	o.oookVAh	o.oookVAh	
indifficience and indifficienc	peakEP	o.oookWh	o.oookWh	o.oookWh	o.oookWh	
	peakEQ	o.oookvarh	o.oookvarh	o.oookvarh	o.oookvarh	
Max & Min	peakES	o.oookVAh	o.oookVAh	o.oookVAh	o.oookVAh	
	flatEP	0.043kWh	o.oookWh	0.043kWh	0.043kWh	
Devinfo	flatEQ	o.o18kvarh	0.021kvarh	o.o39kvarh	-o.oo3kvarh	
	flatES	o.o66kVAh	o.oookVAh	o.o66kVAh	o.o66kVAh	
	valleyEP	o.oookWh	o.oookWh	o.oookWh	o.oookWh	
	valleyEQ	o.oookvarh	o.oookvarh	o.oookvarh	o.oookvarh	
	vallerES	o.oookVAh	o.oookVAh	o.oookVAh	o.oookVAh	

figure 2-2

#### **2.3 HARMONIC MEASUREMENT**

Click **Harmonic** in quick bar, appear window displaying THD as figure2-3. It can measure 49 harmonics for voltage and current, THD is total harmonic distortion. 1<sup>st</sup> harmonics is fundamental wave.

Gurave FU22	00A	Ethe	ernet	t Mo	dule										
							Harr	noni	c						
	No	U1	U2	U3	н	12	13	No	Ut	U2	U3	It	12	13	
Collins Matering	THD	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
earnine wetering	2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
nergy	6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
larmonic	10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
larmonic	12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	14	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	15	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
<u>Max &amp; Min</u>	16	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	17	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	18	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	19	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Pevinfo	20	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	22	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	23	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	24	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	26	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	27	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	28	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	29	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	30	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	31	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	32	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	33	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	34	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	35	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	36	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	37	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	38	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	39	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	40	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	41	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	42	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	43	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	44	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	45	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	46	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	47	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	48	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	49	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	

figure 2-3



#### 2.4 MAX/MIN VALUE MEASUREMENT

Click Max & Min in quick bar, appear window as figure 2-4. The interface read max/min in real time value and the corresponding date for each value, including Max per-phase voltage maxU1, maxU2, maxU3 and dates Min per-phase voltage minU1, minU2, minU3 and dates Max per-line voltage maxU12, maxU23, maxU31 and dates Min per-line voltage minU12, minU23, minU31 and dates Max per current maxI1, maxI2, maxI3 and dates Max per current minI1, minI2, minI3 and dates Max active power maxP and dates Max reactive power maxQ and dates Max apparent power maxS and dates Min active power minP and dates Min reactive power minQ and dates Min apparent power minS and dates Max power factor maxPf and dates Min power factor minPf and dates Max frequency maxFreq and dates Min frequency minFreq and dates Max active power demand maxDemandP and dates Max reactive power demand maxDemandQ and dates Max apparent power demand maxDemandS and dates Min active power demand minDemandP and dates Min reactive power demand minDemandQ and dates Min apparent power demand minDemandS and dates

:57 220.01V :01 0.00V :57 220.01V
1:01 0.00V 1:57 220.01V
:57 220.01V
V00.0 10:00
:08 5.9998A
101 0.0000A
56 0.4168kVA
:01 0.0000kVA
01 0.1670kVA
:01 0.0000kVA
10 0.09%
54 0.90%
101 0.00%
101 0.00%

figure 2-4



#### **2.5 METER INFORMATION READING**

Click DeviceInfo in quick bar, appear window as figure2-5. Interface can read basic info of this meter including

Meter hardware version	Meter software version
Ethernet hardware version	Ethernet software version
Meter address (IP address)	Subnet mask
Gateway address	MAC address
Net ID	Listening port (Listen port)

• E http://192.168.1.17/					Y Y X P Bing	
· 收藏夫 爱 GFUVE WEB SERVER						
GEUVE FU220	ooA Ethernet M	odule				
		Devin	fo			
PostTime Matering	Meter Hardware Version	21	Meter Software Version	32		
Rearrine Metering	Ethernet Hardware Version	23	Ethernet Software Version	22		
<u>Energy</u>	IP Address	192.168.1.17	Subnet Mask	255.255.255.0		
Harmonic	Gateway Address	192.168.1.1	MAC Address	51-0F-67-AE-61-1B		
Max & Min	Net ID	0000008	Listen Port	9999		
<u>Devinfo</u>						
Beijing GFUVE Electronics Co.,Ltd.	Tel:+861085583577;+861085782698	Fax:+861085781298	Website:www.gfuve.com	Emailtsuppo	t@gfuve.com	
1114A		max	- K			

figure 2-5