Power Quality Analyzer

Measuring Center
Optional Module
Functional Relay
Event Recorder
USB Port

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W106/W108 یک مرکز اندازه گیری و مانیتورینگ پرقدرت است که با استفاده از پردازنده DSP، قابلیت محاسبه پارامترهای کیفی توان را دارد.

علاوه بر اندازه گیری پارامترهای اصلی، هارمونیک های ۲ تا ۳۱ام ولتاژها و جریان ها و جریان نول، THD ولتاژها و جریان ها، TDD جریان ها، Crest Factor ولتاژها و جریان ها، K Factor جریان ها، TPF، DPF، DhPF و Sag و Swell ولتاژها محاسبه می گردد. همچنین اندازه گیری جریان نول از طریق ورودی چهارم جریان به صورت مستقیم انجام می شود.

ثبت پارامترها با نرخ ۱۰۰ میلی ثانیه از ۵ ثانیه پیش تا ۲۵ ثانیه بعد از وقوع Event از امکانات دیگر دستگاه می باشد.

با استفاده از پارامترهای کیفی توان اندازه گیری شده، امکان مانیتورینگ و بررسی کامل سیستم های قدرت برای بهبود عملکرد مهیا خواهد شد.

Features

Measure, display and store	
Voltage	Line
	Phase
	Average
	Unbalance
Current	Line
	Average
	Neutral
	Unbalance
Active Power	Phase
	Total
Reactive Power	Phase
	Total
Apparent Power	Phase
	Total
Power Factor	APF (Apparent PF)
	TPF (True PF)
	DPF (Displacement PF)
	DhPF (Distortion PF)
Harmonic Even , Odd	2 to 31nd Line Voltage
	2 to 31nd Line Current
	2 to 31nd Neutral current
Total Harmonic Distortion	Line Voltage
	Line Current
Total Demand Distortion	Line Current
Crest Factor	Line Voltage
	Line Current
K Factor	Line Current
Voltage Sag	
Voltage Swell	
Demand	$\sum P$
	$P_{1,2,3}$
	$\sum Q$
	$Q_{1,2,3}$
Frequency	
Temperature	
Energy metering	Active
	Reactive
	4 tariffs
	7 schedules
Maximeter Minimeter	Instantaneous
	Average
	Daily
	Absolute

Event Recorder
Power Outage/ Restore
Input voltage Outage/ Restore
more than 10% fluctuations in voltage or current in the last 3 sec,
From 5 sec before to 25 sec after, with 100 ms resolution

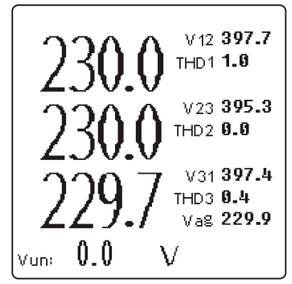
Supported Networks
up to 400 KV
CT up to 5000 A

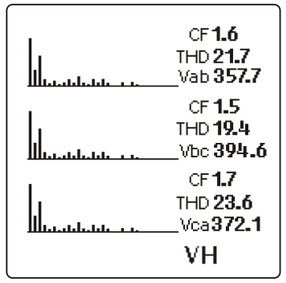
Electrical Wiring
2 or 3 PTs
2 or 3 CTs

Data Logging	
Records	1 min to 1 hour period
Maximeter	1 min to 1 hour period

Communication
Offload stored data on USB flash disk
RS485 communication port supporting MODBUS protocol

Relay Functions
Over Voltage
Under Voltage
Over Current
Over Active Power
Under Active Power
Over Reactive Power
Over Voltage THD
Over Current THD





Features (Continued)

Power Supply	
Wide	80-500 VAC / 100-500VDC
Standard	80-280 VAC / 100-300VDC

Other Features
Fault CT Polarity Correction
Memory 4 GB
160x160 pixel graphic LCD / 32x32 pixel LED
1000 Impulse/kwh Energy Pulse
Daylight saving option
Software calibration
Graphical windows based software for power consumption management

Standards
IEC61000-4-7, IEC62053-21, IEC62053-22, IEC62053-23, EN50470-1, EN50470-3, ANSI C12.20 AND IEEE1459

Mechanical Parameters	
Dimensions	103 x 103 x 70 mm
Mounting	Panel mounting
Weight	≃ 400 gr

Environment Conditions	
Operating Temperature	-20 to +70 °C
Storage Temperature	-30 to +80 °C

LED 32x32

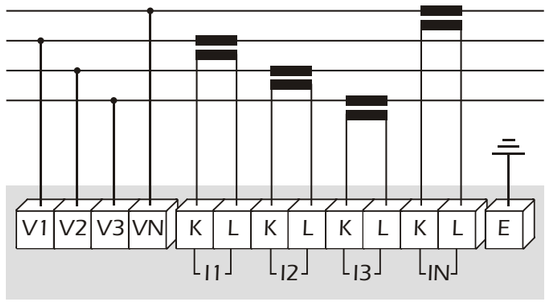
4GB Memory

LCD 160x160

USB OTG

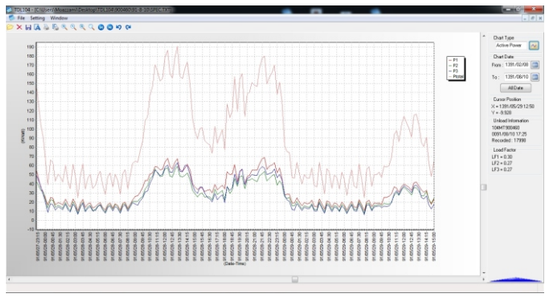
Wide Range Supply

Neutral Input Current



Electrical Characteristics

Parameters	Accuracy	Resolution	Measuring	Display
Voltage (P-N)	0.1%	0.1	0-300 V	0-250 kV
Current	0.1%	0.1	0-6 A	0-6000 A
Active Power	0.2%	0.1	0-5400 W	0-10 MW
Reactive Power	0.2%	0.1	0-5400 VAR	0-10 MVAR
Apparent Power	0.2%	0.1	0-5400 VA	0-10 MVA
Power Factor	0.2%	0.1		
Frequency	0.1 Hz	0.1	45.0-55.0 Hz	45.0-55.0 Hz



Models

	W106e	W106s	W108e	W108s
V_L	●	●	●	●
V_{Ph}	●	●	●	●
V_{avg}	●	●	●	●
V_{UN}	●	●	●	●
I_L	●	●	●	●
I_N	●	●	●	●
I_{avg}	●	●	●	●
I_{UN}	●	●	●	●
P_{ph}	●	●	●	●
P_T	●	●	●	●
Q_{ph}	●	●	●	●
Q_T	●	●	●	●
S_{ph}	●	●	●	●
S_T	●	●	●	●
APF	●	●	●	●
TPF	●		●	
DPF	●		●	
DhPF	●		●	
31st Harmonic	●		●	
15th Harmonic		●		●
THD V	●	●	●	●
THD I	●	●	●	●
TDD I	●		●	
CF V	●		●	
CF I	●		●	
KF I	●		●	
Sag Swell	●		●	
Demand $P_{1,2,3}$	●		●	
Demand $\sum P$	●	●	●	●
Demand $Q_{1,2,3}$	●		●	
Demand $\sum Q$	●	●	●	●
Frequency	●	●	●	●
Temperature	●	●	●	●
Event Recorder	●		●	
Energy Metering	●	●	●	●
Daily Maximeter	●	●	●	●
Absolute Maximeter	●	●	●	●
Relay	●		●	
Wide Supply Range	●		●	
LCD Display	●	●		
LED Display			●	●
1A CT Input	●	●	●	●
5A CT Input *	●	●	●	●
USB	●	●	●	●

* Request by order