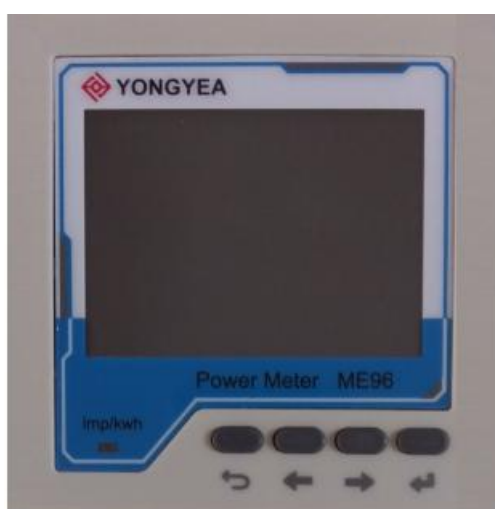


ME96 Rogowski Coil

Recordable Power Meter / Analyzer

DataSheet



1~4GB SD
Memory

3.5" TFT
Color Display

2~31th
Harmonics

1 x DO
85~265V

V,I,P:0.5%
Ep : 0.5s

Adjustable
for mV/kA

Connectivity advantages	
MODEL	ME96
Support Extra sensor	333mV CT Rogowski coil
Programmable digital output	Relay output for V high/low, I high/low
I/O function	1 kWH pulse output
Power	85~265V AC/DC
Storage Memory (Option)	SD card 1GB, Maximum 4GB (Save interval adjustable 1~99999 Sec) Date&Time, V ,I,P,Q,S,pf,F,kWH,KVARH,kVAH,VTHD,ITHD, etc

Feature

Specification	
Model	ME96
Product component type	Multifunction power meter
Poles description	3PH4W 3PH3W 1PH2W (L-N); 1PH2W(L-L);1PH3W(L-L-N)
Device application	Power analysis Energy meter
Current Input type	External CT(333mV only) Rogowski coil : 60 or 102 mV/kA@60Hz 50 or 85 mV/kA@50Hz Scale selectable: 100-600-1000-3000-6000A
Voltage Input type	Direct connect PT/VT input : Pri 0-999999. Sec 0-9999.999
Display	3.5 inch TFT color screen display
Sampling rate	8k samples per second
Mounting mode	Panel mounting
Harmonic	Up to 31th
Mechanical characteristics	
Weight	350g
Dimension	L*W*D:96*96*99mm,105mm with terminal

MODBUS RS485

Communication	
Transmission mode	RS485 port, Half duplex
RS485 link	3 wires(+ - G)
Communication protocol	MODBUS RTU
Settings	
Communication address	1 to 247
Baud rate(communication speed)	1200 to 57600 baud
Parity	Even, Old, None

Display

Maximum value measured		
Parameter	Range	Resolution
Voltage	0.001V 999.9V 999.9kV 999.9MV	0.1
Current	999.9A 999.9kA	0.1
Power	999.9kW 999.9MW	0.1
Power factor	0.999	0.001
THD	99.9%	0.1%
Energy	999,999,999,999.9WH 999.9KWH 999.9MWH 999.9GWH	0.1

Instantaneous rms Values	
Voltage	U (Per Phase,AVG) ,THD,UTH2~31, Peak &Time, Angle
Current	I, (Per Phase,AVG) , Demand , Peak & Time, ,Angle, THD, ITH2~31
Power	P,Q,S,Demand / Max Demand & Time PF(Per Phase,SUM)
Energy	EP,EQ,ES,Freq(Per Phase,SUM) over 999.9GWh value reset
UTHD(%)	UTHD,THD2,THD3,THD4(Per Phase,AVG)
ITHD(%)	ITHD,THD2,THD3,THD4(Per Phase,AVG)
Line voltage	Uab,Ubc,Uac
Voltage angle	Uab,Ubc,Uac
Current angle	Iab,Ibc,Iac
DPF	DPFa,DPFb,DPFc,AVG
Update rate	
Data acquisition rate	400ms
Display update rate	< 3.0s
Calibration	
Current	Per phase,all
Voltage	Per phase,all
Power factor	Per phase,all

Certificate

Environmental conditions	
Operating temperature	-25°C to +55°C
Storage temperature	-40°C to +85°C
Humidity rating	5 to 95% RH at 50°C(non-condensing)
Pollution degree	2
Overvoltage category	III,for distribution systems up to 277/480VAC
Dielectric withstand	As per IEC61010-1, Doubled insulated front panel display
Altitude	3000m Max
IP degree of protection	IP20 conforming to IEC 60629
Colour	White
Contractual warranty	12months
EMC	
Electrostatic discharge	Level IV(IEC61000-4-2)
Immunity to radiated fields	Level III (IEC61000-4-3)
Immunity to fast transients	Level IV (IEC61000-4-4)
Immunity to surge	Level IV (IEC61000-4-5)
Conducted immunity	Level III (IEC61000-4-6)
Immunity to power frequency magnetic fields	0.5mT (IEC61000-4-8)
Conducted and radiated emissions	Class B (EN55022)
Standard compliance	
EN 62052-11,EN61557-12,EN 62053-21,EN 62053-22,EN 62053-23, EN 50470-1,EN 50470-3,EN 61010-1,EN 61010-2,EN 61010-031	

Port definition

Port number	Port name	Port function	Remarks
1	A	RS485 A	RS485 communication
2	B	RS485 B	
3	GND	RS485 GND	
4	P+	Pulse output	Power Pulse
5	P-	Pulse output	
6	RO	Relay Output	Alarm Output
7	R1	Relay Output	
8	L	POWER(+)	Power 85~265V AC/DC
9	NC		
10	N	POWER(-)	
11	I11	A-phase current input positive	A-phase current
12	I12	A-phase current input negative	
13	I21	B-phase current input positive	B-phase current
14	I22	B-phase current input negative	
15	I31	C-phase current input positive	C-phase current
16	I32	C-phase current input negative	
17	Vn	N-phase voltage input	Voltage input
18	V3	C-phase voltage input	
19	V2	B-phase voltage input	
20	V1	A-phase voltage input	

Specifications

Measurement accuracy	
Current	0.5% from 10% to 120% of input current
Voltage	0.2% from 80V to 400V (Ph-N), from 80V to 400V (Ph-Ph)
Power factor	±0.005 from 10% to 120%
Active/Apparent Power	IEC62053-22 Class 0.5%
Reactive power	IEC62053-21 Class 2
Frequency	0.01% from 45 to 65Hz
Active energy	IEC62053-22 Class 0.5s
Reactive energy	IEC62053-21 Class 2
Measurement arrange	
Measured voltage	3P4W : 80 to 620V AC (direct L-L) 3P3W : 80 to 400V AC (direct L-L)
Frequency range	50/60Hz
Input-current characteristics	
Primary current range	from 1A to 9999A
Measurement input range	1/2 ²⁵ mV-333mV
Permissible overload	600mV for 10s/hours
Control Power	
AC/DC	85 to 265V AC/DC, 3.5W
Output (Option)	
Digital output	1 digital output(2 ports), Relay, rated 24V/800mA, 75m Ω max, 2.5kVrms insulation(controlled by Modbus) Maximum Switching Power : 0.5A, 125VAC 1A, 30VDC
Wire diameter for terminals	
Connections-terminals	Screw terminals 2.5mm ² ,interval 8.05mm
Alarm	
Setting	Over/Low Voltage, Over/Low Current.
Output form	Relay
Buzzer	On/Off

Other functions

N O T E:

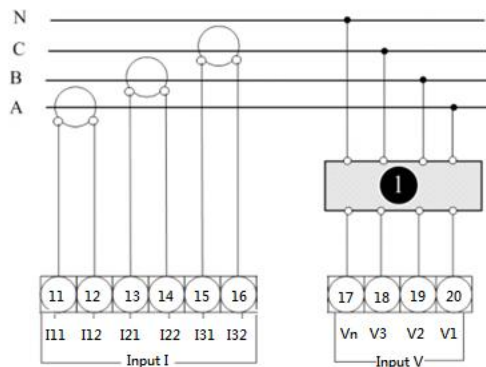
- Subject to change without notice

Wiring

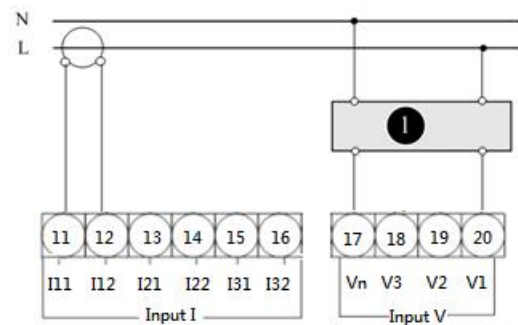
*: Rogowski coil secondary output voltage can not over 333mV rms.

^: CT must be voltage output. Secondary output can not over 333mV rms.

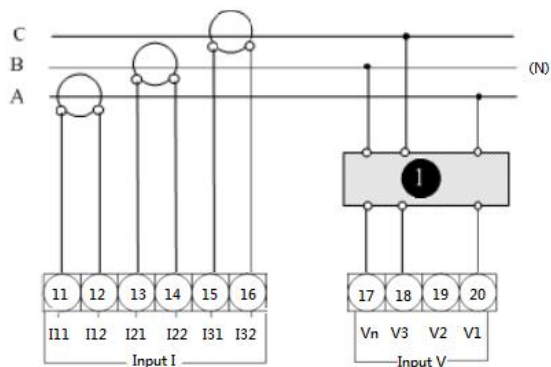
3PH4W no VT



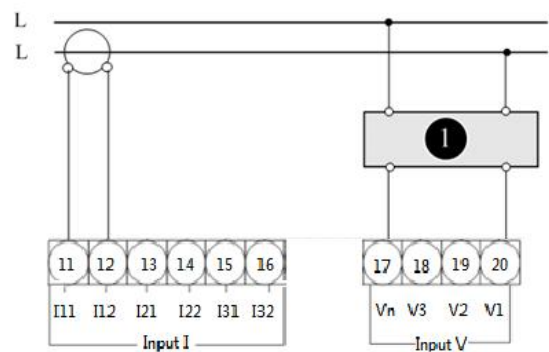
1PH2W L-N



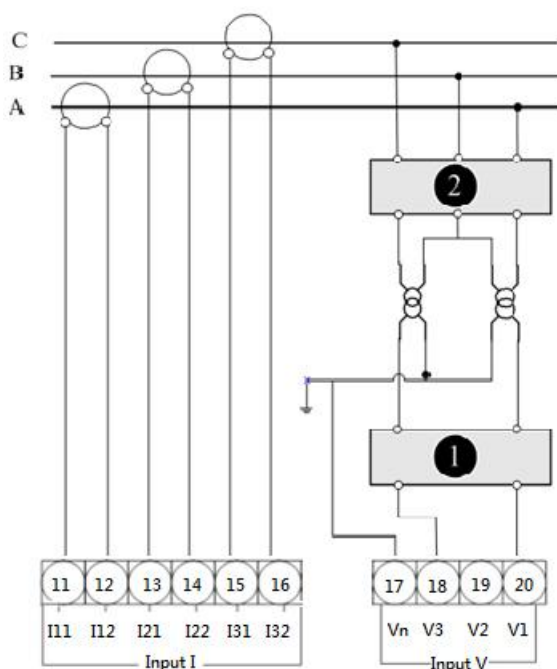
3PH3W no VT



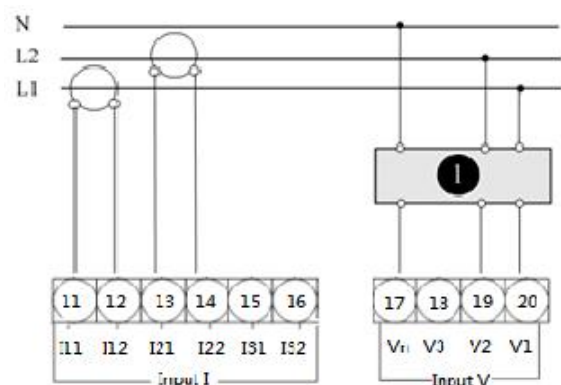
1PH2W L-L



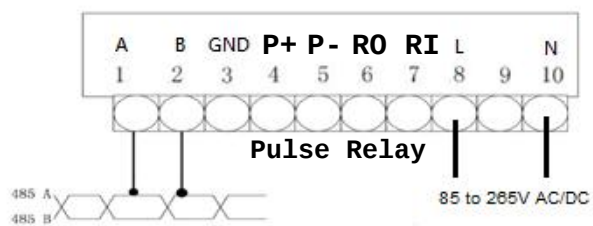
3PH3W with VT



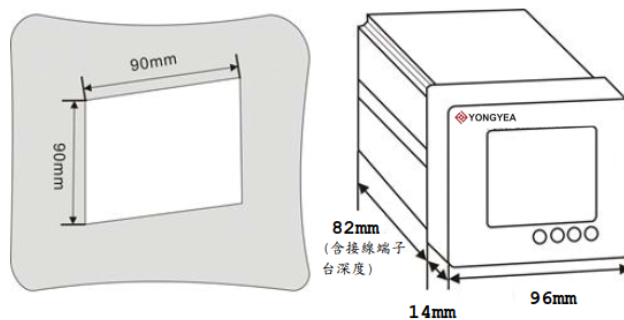
1PH3W L-L-N



Modbus communication & Power Wiring diagram



Installation



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