



# DIGITAL PANEL METER

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# **METERING**

#### **Range Presentation**

- HP606 is Himel range of new Digital Meters:
- Applied to power monitoring and panel builder cabinet
- Product types: current, voltage, combination, and multifunction
- Dimension types: 3 types (96, 72, 48)

#### **Features**

- New design and elegant appearance: material of high permeability plexiglass, LED or LCD display; and wide visual range
- Accurate metering and reliable performance: high accuracy and resolution ratio; high ability of overloading
- Four-remote control: teleindication, telecontrol, Telemetering, and remote regulating
- $\sqrt{1}$  Teleindication: build communication with data collector, network module, and workstation via Rs485  $\sqrt{1}$  Telecontrol: operation on local or remote workstation (off-site), e.g. remote tripping and closing
- $\sqrt{}$  Telemetering: remote parameters adjustment
- $\sqrt{}$  Remote regulating: remote parameters metering

#### **Range Presentation**

HDDS606 and HDT(S)S606 series are Himel range of Electronic Watt-hour Meter, which provide: • Measuring the active energy in the single-phase or three-phase AC power network at frequency

of 50Hz or 60Hz

• Measuring the active energy of enterprises, transformer sub-station or power stations, and be used as automatic meters of power transmission and distribution network

#### **Features**

- Smaller and Elegant:
  - 50% smaller in size to save installation space
  - Upgraded appearance design
- Accurate Measurement & Safe and Reliable:
  - Automatic calibration for inspection
  - Three lead sealings: factory, verification and installation; more secure for electricity anti-stealing.
- Well Designed & Intelligent and Convenient:
  - Wider current range, and easier for model selection
  - First limit design of bump on the tail cover in our industry, and flip angle of the tail cover can be more than135°
  - More convenient and firming on wiring.
- Qualified Materials & Excellent Performance:
  - Temperature rise is only 15K, which is far less than national standard 25K.
  - Power loss is less than 0.5W.
  - Heat deformation temperature reaches to 200°C

#### **Range Presentation**

HLMK Series is Himel range of Current Transformer, to measure and transform high current to low current

#### **Features**

- 100% pure copper varnished wire
- Optimized electric conductivity, less power loss and better stability
- Shell is made of flame retardant PC material
- Maximum rated voltage is 0.66kV







## **HP606 Digital Panel Meters**

Standard: IEC60051

#### **Product Overview**

- New design, and it's applied to power monitoring and panel builder cabinet
- Product types: current, voltage, combination, and multifunction
- Dimension types: 3 types (96, 72, 48)

#### **Model Selection**

- The HP606 Series includes the following models:
- HPZ single/three-phase voltmeter
- HPA single/three-phase amperemeter
- HPD combination meter

**Selection Code** 

HPDM multifunction meter

#### **Features**

- New design and elegant appearance: material of high permeability plexiglass, LED or LCD display; and wide visual range
- Accurate metering and reliable performance: high accuracy and resolution ratio; high ability of overloading
- Four-remote control: teleindication, telecontrol, Telemetering, and remote regulating
  - $\sqrt{1}$  Teleindication: build communication with data collector, network module, and workstation via Rs485
  - √ Telecontrol: operation on local or remote workstation (off-site), e.g. remote tripping and closing
  - √ Telemetering: remote parameters adjustment
  - √ Remote regulating: remote parameters metering

Model Input mode		Panel dimension	Meter structure	Display mode	Range							
HP*606	L	72	Р	1	Υ	<b>5A</b>						
HPA606: HPA606 Amperemeter	L: AC	<b>48:</b> 96×48 mm (only for single-phase meter)	P: Programmable Display Instrument	1: One-row LED display	NA	5A: Secondary 1A: Secondary						
		<b>72:</b> 72×72 mm	<b>S:</b> DO+RS485	1: One-row LED display 4: Three-row LED display								
		<b>96:</b> 96×96 mm	P: Programmable Display Instrument	1: One-row LED display 4: Three-row LED display								
			<b>S:</b> DO+RS485	4: Three-row LED display								
HPZ606: HPZ606 Voltemeter	L: AC	<b>48:</b> 96×48 mm (only for single-phase meter)	P: Programmable Display Instrument S: DO+RS485	1: One-row LED display	Y: 100V NA O: 600V	NA						
		<b>72:</b> 72×72 mm	P: Programmable Display Instrument S: D0+RS485	1: One-row LED display 4: Three-row LED display								
			<b>96:</b> 96×96 mm	P: Programmable Display Instrument	1: One-row LED display 4: Three-row LED display							
												<b>S:</b> DO+RS485
HPD606: HPD606 Combination meter	L: AC	<b>72:</b> 72×72 mm	P: Programmable Display Instrument	4: Three-row LED display	<b>Y:</b> 100V <b>O:</b> 600V	5A: Secondar y 1A: Secondary						
		<b>96:</b> 96×96 mm	<b>T</b> : RS485									
HPDM606: HPDM606 Multifunction meter	L: AC	<b>72:</b> 72×72 mm	<b>P:</b> Programmable Display Instrument <b>T:</b> RS485	<b>3Y:</b> Three-phase LCD display (only for multifunction meter)	<b>Y</b> : 100V <b>O</b> : 600V	5A: Secondary 1A: Secondary						
		<b>96:</b> 96×96 mm	<b>P:</b> Programmable Display Instrument	4: Three-row LED display	<b>Y:</b> 100V <b>O:</b> 600V	5A: Secondary 1A: Secondary						

Note: Normally the combination meter is composed of voltage, current, and frequency. If customer needs more functions, then a multi-function meter is required.

T: RS485

#### **Online Content**





HP606

#### **METERING**

## **HP606 Digital Panel Meters**

Standard: IEC60051

RangeTable						
	Direct connection AC: 0.1~5A DC: 0~5A					
Current range	AC: external current transformer 5A/5A 10kA/5A					
	DC: current shunt 75mV 10kA/75mV					
	Direct connection AC: 3~600V; DC: 0~600V					
Voltage range	AC: external voltage transformer 380V/100V~ 380kV/100V; DC: external resistor of 750V~ 1.5kV					
Frequency range	45Hz~65Hz					
Power factor	0.5 (lead) ~1 ~0.5 (lag)					

Technical Parameters	i				
	Network system		Single-phase & Three-phase		
Input	Voltage	Overload	Continuous: 1.2×Un; Instantaneous: 2×Un for lasting 1s		
	Current	Overload	Continuous: 1.2×In; Instantaneous: 10×In for lasting 5s		
	Frequency		45~65Hz		
	Switch input (DI)	)	Photocoupler Isolation of passive dry contact		
	Switch output (DO)		Output of two-loop passive relay, contact capacity: 3A/30VDC,3A/250VAC, Values of upper and lower limit alarm, hysteresis can be set as what you wa		
			Output method: remote control (used as switch output) or off-limit alarm		
	Electrical energy	/ pulse	Two-loop electrical pulse output		
Function module	Electrical energy	v pulse constant	Active power: 8000imp/kwh Reactive power: 8000imp/kvarh		
	Communication	Method	RS485		
		Protocol	MODBUS-RTU		
		Baud rate	1200, 2400, 4800, 9600 bps		
		Parity bit	Odd parity, even parity, no parity		
Display	Display mode		(1) Long lifecycle and highlighted LED display; (2) Wide viewing LCD display		
Accuracy Class	Voltage, current power,power fac	, frequency, active ctor	Class 0.5		
,	active energy		Class 1		
IP Protection			IP54		
A	Range		AC220V		
Auxiliary power supply	Power consump	tion	< 5VA		
Standard			IEC 60068-2, IEC 61010-1, IEC 60529, IEC 61000-4, IEC 61557-1		

Working Environment and Condition						
Ambient temperature	Allowed ambient temperature: -10°C~+45°C; limited operating temperature: -25°C~+55°C					
Environmental humidity	≤ 85%RH					
Working environment	No mold and insect, no salt spray, no dewing, light dust and sand are allowed, withstand mechanical force of instruments is the basic type,altitude $\leq$ 2000m.					

#### **METERING**

## **HP606 Digital Panel Meters**

Standard: IEC60051

#### **Communication Application**



HP\*606 Series Digital Meter

Data Collector

Network Module

Remote workstation

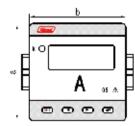
#### **METERS**

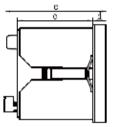
## **HP606 Digital Panel Meters**

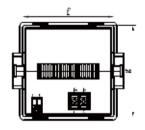
Standard: IEC60051

#### **Product Dimension**

·Single-phase Amperemeter / Voltmeter Dimension



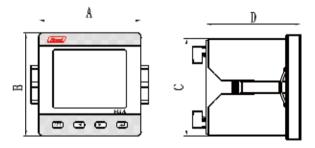




Unit: mm

Model	Dimension								Mounting	
	а	b	с	d	е	f	g	hole size		
72	72	72	100.5	13.5	74.5	66	66	67	67	
96	96	96	100.5	13.5	74.5	90.5	90.5	92	92	
48	48	96	100.5	13.5	74.5	90.5	43.5	45	92	

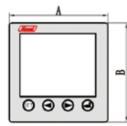
Three-phase Amperemeter / Voltmeter Dimension

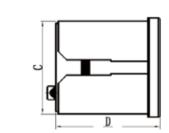


Unit: mm

Model		Mounting hole size			
	А	В	С	D	
72	72	72	66	88	67*67
96	96	96	90.5	88	92*92

·Three-phase Combination / Multifunction Meter Dimension





Unit: mm

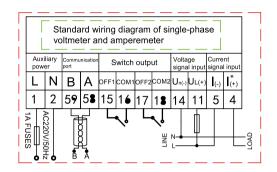
Model		Mounting hole size					
woder	А	В	С	D	Mounting hole size		
72	72	72	66	88	67*67		
96	96	96	90.5	88	92*92		

### **HP606 Digital Panel Meters**

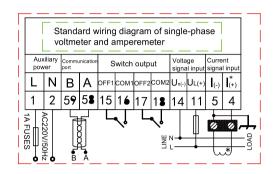
Standard: IEC60051

#### Wiring Diagram for Terminal Block

·Single-phase Amperemeter / Voltmeter

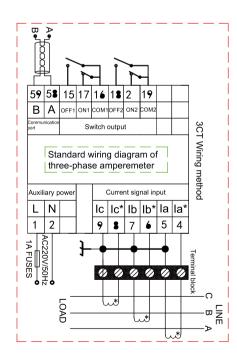


Direct Connection

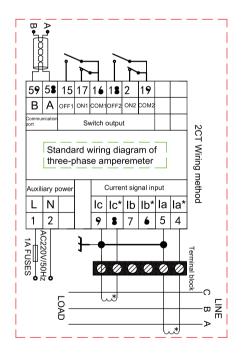


External transformer connection

#### **Three-phase Amperemeter**



Three-phase three-wire



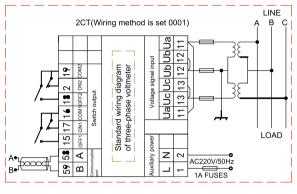
Three-phase four-wire

### **HP606 Digital Panel Meters**

Standard: IEC60051

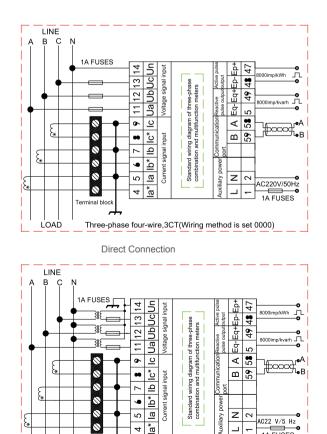
#### Wiring Diagram for Terminal Block

#### Three-phase Voltmeter



Three-phase three-wire





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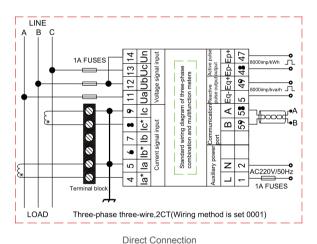
External voltage

transformer connection Three-phase three-wire

Three-phase four-wire, 3PT、3CT(Wiring method is set 0000)

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1A FUSES



3CT(Wiring method is set 0000)

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A• B•

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output

Switch OFF1 ON1 C

Standard wiring diagram of three-phase voltmeter

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Voltage signal input

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Three-phase four-wire

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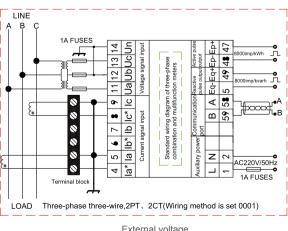
LINE

в С

38

AC220V/50Hz

1A FUSES



External voltage transformer connection Three-phase four-wire





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